Appendix B: Flora Assessment Data Sheets

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Tertiary Site Vegetation Assessment Data Sheet Job Number: 86018 4001

Site Number: 1 KP: 1.3 Assessor: CL Date: 22/6/2007

Location: Alternate Residue pipeline

Pentax new card

Photo Number: 1300 UTM WGS84 Easting 313 117 Northing 736 1881

GPS 012

Width of RE: <35m wide ; 35-75m ; 75-150m ; 150-300m ; >300 ; not linear

Width of total remnant: <35m wide ; 35-75m ; 75-150m ; 150-300m ; >300 ; not linear

Total RE Area: Does not extend beyond site; <1ha ; 1-5ha; 5-20ha ; 20-50ha ; >50ha

Total remnant Area: Does not extend beyond site; <1ha ; 1-5ha; 5-20ha ; 20-50ha ; >50ha

	RE code	EPBC status	VMA status	EPA status
DNRW RE map	12.11.6	—	NOC	NC
Survey result	12.11.6	—	NOC	NC

Canopy stratum growth form: tree Canopy Crown Cover: 20 %

Canopy Median Height: 15 m. Structural Code: ....

All woody species present within 50m x 10m plot (plus dominant and EVR non-woody species)

	Name	Rel. Dom.	Height – Ocular estimate (m)							Abundance – B (Basal Area); C (Cover Estimate)						
			E	T1	T2	T3	S1	S2	G	E	T1	T2	T3	S1	S2	G
C	Eucalyptus exserta	C		15							5					
	Corymbia tessellaris	C		15							5					
	Co. citriodora	U		15							<5					
	Co. clarksoniana	U		15							<5					
	Euc. crebra	C		15							5					
	Lophostemon suaveolens	U			8							<5				
	Pogonolobus reticulatus	C					4							5		
	Acacia aulacocarpa	C					5							5		
	Sida subspicata	U					1		.5							
C	Arundinella nepalensis	C							1.5							25
	Grewia retusifolia	U							0.5							<5
	Stachytarpheta jamaicensis	U							0.5							<5
	Rock cover (%) —															
	Bare ground cover (%) 25															
	Litter cover (%) 25															
	Cryptogam cover (%) —															
	Average/Total															

*Species annotations: C Collected * Exotic Species ** Declared Species + Outside but adjoining 50m x 10m plot*
Rel. Dom. = Relative Dominance within stratum (D = dominant; C = Common; U = Uncommon; R = Rare)
Strata: E = Emergent; T1-3 = Tree strata 1-3; S1-2 = Shrub strata 1-2; G = Ground stratum
Basal Area = Basal area using Bitterlich technique (m^2/ha) Cover = Percentage Cover using ocular estimate

Scheduled flora possibilities: No / ~~Yes~~ (if so .....collected? Y / N
.....collected? Y / N

Additional notes on pest plants .....
.....
.....

Weed Cover (%): (<5) ; 5-25 ; 25-50 ; >50

Disturbance (% of site affected): 0, <1; 1-5; >5

Health: Pristine / Excellent / Very Good / (Good) / Average / Degraded / Completely Degraded (almost without natives)

Slope: Crest; Ridge; Hillock; (Simple slope); Upper slope; Mid slope; Lower slope; Flat; Open depression; Closed depression

Soils: Map; Cutting, Core; (Surface observation) **Reliability:** Low, (Medium), High

Soil Colour: whitish; grayish; mottled; yellow; orange; (brown); (red); black; dark; grey; pale

Soil Texture: clay; clay loam; silty loam; loam; sandy loam; sand; stony; silty clay; sandy clay; silty clay loam; sandy clay loam; (loam sand)

Table 24 CORVEG landform situation codes

Landform situation	Code	Landform situation	Code
PLAIN		HILLS, MOUNTAINS, TABLELANDS	
Not otherwise specified, flat gentle slopes, undulating terrain	A	Slope or hill not specified	F
Downs, open downs, rolling downs, ashy downs, pebbly downs	*	Cliff (steep rocky faces), rocky ledge, rocky outcrop, scarp, crack in rock, crevices	L
Alluvial plain or flat, alluvium, flood plain	B	Coastal rocky headland	N
Inland clay pan, salt flat or pan (inland)	U	Top, crest of mountain or ridge	K
Tidal flat, salt flat (coastal)	V	Jump-up, mesa, tableland, plateau	Q
STREAMS		DUNE	
Lakes, banks of lake, river, stream, water course, levees – permanent water	C	Fossil coastal dune, high dune	S
Gully, drainage line, ravine gorge, outwash— + intermittently wet	D	Unspecified coastal dune, beach dune, recent coastal dune, low dune, coastal sandhill	R
Bed of channel—distributaries of inland streams, beds – intermittently flooded	E	Inland dune, inland sandhill	T
		WATER	
		Freshwater lake, lagoon, spring, stream	X
		Freshwater swamp, marsh, soak, seepage area	W
		Gilgai, melon hole, sinkhole	Z
		Saltwater, sea, saltwater swamp	Y

Table 25 CORVEG types of erosional landform patterns by slope and relief class codes

Slope class							
Class	LE Level	VG Very gently inclined	GE Gently inclined	MO Moderately inclined	ST Steep	VS Very steep	PR Precipitous
Percentage	<1	1–3	3–10	10–32	32–56	56–100	100
Degrees (rounded to nearest whole number)	0	1–2	3–5	7–18	19–29	30–45	>45
Relief class			**Erosional landform pattern**				
M Very high >300 m (about 500 m)	–	–	–	RM Rolling mountains	SM Steep mountains	VM Very steep mountains	PM Precipitous
H High 90–300 m (about 150 m)	–	–	UH Undulating hills	RH Rolling hills	SH Steep hills	VH Very steep hills	PH Precipitous hills
L Low 30–90 m (about 50 m)	–	–	UL Undulating low hills	RL Rolling low hills	SL Steep low hills	VL Very steep low hills	B Badlands
R Very low 9–30 m (about 15 m)	–	GR Gently undulating rises	UR Undulating rises	RR Rolling rises	SR Steep rises	B Badlands	B Badlands
P Extremely low <9 m)	LP Level plain	GP Gently undulating plain	UP Undulating plain	RP Rolling plain	B badlands	B Badlands	B Badlands

Source: Speight (1990)

Particular sensitivities to proposed impacts (incl. fragmentation):.....
.....
.....

Special conservation significance:.....
cultural .....
commercial .....
recreational .....
observed or Horticultural Crops .....

Other notes:
– Berms running slightly down slope – constructed?
– Previously cleared? If so, a long time ago.
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.....

Tertiary Site Vegetation Assessment Data Sheet Job Number: B60184001

Site Number: 2 KP: 1.3 Assessor: CL Date: 22/6/2006 7

Location: Alt Residue (75 m south of alignment)

Photo Number: 1301 UTM WGS84 Easting 313164 Northing 7361809 GPS 013

Width of RE: <35m wide ; 35-75m ; 75-150m ; 150-300m ; >300 ; (not linear)

Width of total remnant: <35m wide ; 35-75m ; 75-150m ; 150-300m ; >300 ; (not linear)

Total RE Area: Does not extend beyond site; <1ha ; (1-5ha); 5-20ha ; 20-50ha ; >50ha

Total remnant Area: Does not extend beyond site; <1ha ; 1-5ha; (5-20ha) ; 20-50ha ; >50ha

	RE code	EPBC status	VMA status	EPA status
DNRW RE map	11.3.29 / 12.3.3	—	NOC / E	E
Survey result	12.3.3	—	E	E

Canopy stratum growth form: tree Canopy Crown Cover: 15 %

Canopy Median Height: 15 m. Structural Code:

All woody species present within 50m x 10m plot (plus dominant and EVR non-woody species)

Name	Rel. Dom.	Height (Ocular estimate (m))							Abundance (B (Basal Area); C (Cover Estimate))						
		E	T1	T2	T3	S1	S2	G	E	T1	T2	T3	S1	S2	G
Euc tereticornis	U		18												<5
Cor. dunksoniana	D		15												5
Euc. crebra	C			12											5
Lophostemon suaveolens	U			12											<5
Corymbia tessellaris	U		15												<5
Melaleuca nervosa	U					3									
Pogonolobus reticulatus	C					4									5
P. lanceolata crenata	U					4									5
Cheuria retusifolia	U							0.5							<5
Arundinella nepalensis	C							1.5							30
Rock cover (%) —															
Bare ground cover (%) 10															
Litter cover (%) 60															
Cryptogam cover (%) —															
Average/Total															

*Species annotations: C Collected * Exotic Species ** Declared Species + Outside but adjoining 50m x 10m plot*
Rel. Dom. = Relative Dominance within stratum (D = dominant; C = Common; U = Uncommon; R = Rare)
Strata: E = Emergent; T1-3 = Tree strata 1-3; S1-2 = Shrub strata 1-2; G = Ground stratum
Basal Area = Basal area using Bitterlich technique (m^2/ha) Cover = Percentage Cover using ocular estimate

Scheduled flora possibilities: No / ~~Yes~~ (if so ....collected? Y / N

....collected? Y / N

Additional notes on pest plants .... Hyparrhenia rufa ...., Stachytarpheta jamaicensis

....

....

Weed Cover (%): (<5) ; 5-25 ; 25-50 ; >50

Disturbance (% of site affected): 0, <1; 1-5; >5

Health: Pristine / Excellent / (Very Good) / Good / Average / Degraded / Completely Degraded (almost without natives)

Slope: Crest; Ridge; Hillock; Simple slope; Upper slope; Mid slope; Lower slope; (Flat;) Open depression; Closed depression

Soils: Map; Cutting, Core; Surface observation **Reliability:** Low, Medium, High

Soil Colour: whitish; grayish; mottled; yellow; orange; (brown;) red; (black;) dark; grey; pale

Soil Texture: clay; clay loam; silty loam; loam; sandy loam; sand; stony; silty clay; sandy clay; silty clay loam; (sandy clay loam;) loam sand

Table 24 CORVEG landform situation codes

Landform situation	Code	Landform situation	Code
PLAIN		HILLS, MOUNTAINS, TABLELANDS	
Not otherwise specified, flat gentle slopes, undulating terrain	(A)	Slope or hill not specified	F
Downs, open downs, rolling downs, ashy downs, pebbly downs	*	Cliff (steep rocky faces), rocky ledge, rocky outcrop, scarp, crack in rock, crevices	L
Alluvial plain or flat, alluvium, flood plain	B	Coastal rocky headland	N
Inland clay pan, salt flat or pan (inland)	U	Top, crest of mountain or ridge	K
Tidal flat, salt flat (coastal)	V	Jump-up, mesa, tableland, plateau	Q
STREAMS		DUNE	
Lakes, banks of lake, river, stream, water course, levees + permanent water	C	Fossil coastal dune, high dune	S
Gully, drainage line, ravine gorge, outwash— + intermittently wet	D	Unspecified coastal dune, beach dune, recent coastal dune, low dune, coastal sandhill	R
Bed of channel—distributaries of inland streams, beds + intermittently flooded	E	Inland dune, inland sandhill	T
		WATER	
		Freshwater lake, lagoon, spring, stream	X
		Freshwater swamp, marsh, soak, seepage area	W
		Gilgai, melon hole, sinkhole	Z
		Saltwater, sea, saltwater swamp	Y

Table 25 CORVEG types of erosional landform patterns by slope and relief class codes

Slope class							
Class	LE Level	VG Very gently inclined	GE Gently inclined	MO Moderately inclined	ST Steep	VS Very steep	PR Precipitous
Percentage	<1	(1–3)	3–10	10–32	32–56	56–100	100
Degrees (rounded to nearest whole number)	0	(1–2)	3–6	7–18	19–29	30–45	>45
Relief class			**Erosional landform pattern**				
M Very high >300 m (about 500 m)	–	–	–	RM Rolling mountains	SM Steep mountains	VM Very steep mountains	PM Precipitous
H High 90–300 m (about 150 m)	–	–	UH Undulating hills	RH Rolling hills	SH Steep hills	VH Very steep hills	PH Precipitous hills
L Low 30–90 m (about 50 m)	–	–	UL Undulating low hills	RL Rolling low hills	SL Steep low hills	VL Very steep low hills	B Badlands
R Very low 9–30 m (about 15 m)	–	GR Gently undulating rises	UR Undulating rises	RR Rolling rises	SR Steep rises	B Badlands	B Badlands
P Extremely low <9 m)	LP Level plain	(GP Gently undulating plain)	UP Undulating plain	RP Rolling plain	B badlands	B Badlands	B Badlands

Source: Speight (1990)

Particular sensitivities to proposed impacts (incl. fragmentation):..........................

....

....

Special conservation significance:..

cultural ....

commercial ....

recreational ....

observed or Horticultural Crops ....

Other notes:

This RE occurs to south of GPS point

(RE 12.11.6 to north)

This waypoint is 75 m S of alignment.

Tertiary Site Vegetation Assessment Data Sheet Job Number: 860184001

Site Number: 3 KP: 3 Assessor: CL Date: 23/6/2006

Location: Alt Residue

Photo Number: 1326 UTM WGS84 Easting 311 735 Northing 7 362 492

GPS 014

Width of RE: <35m wide ; 35-75m ; 75-150m ; 150-300m ; >300 ; not linear

Width of total remnant: <35m wide ; 35-75m ; 75-150m ; 150-300m ; >300 ; not linear

Total RE Area: Does not extend beyond site; <1ha ; 1-5ha; 5-20ha ; 20-50ha ; >50ha

Total remnant Area: Does not extend beyond site; <1ha ; 1-5ha; 5-20ha ; 20-50ha ; >50ha

	RE code	EPBC status	VMA status	EPA status
DNRW RE map	12.11.6 / 12.11.14	—	NOC / OC	NC / OC
Survey result	12.11.14	—	OC	OC

Canopy stratum growth form: tree Canopy Crown Cover: 10 %

Canopy Median Height: 15 m. Structural Code:

All woody species present within 50m x 10m plot (plus dominant and EVR non-woody species)

Name	Rel. Dom.	Height (Ocular estimate (m)) E	T1	T2	T3	S1	S2	G	Abundance (B (Basal Area); C (Cover Estimate)) E	T1	T2	T3	S1	S2	G
Corymbia tessellaris	C			15							<5				
Euc. crebra	C			15							5				
Euc. teret	U		18							<5					
Lophostemon confertus	U				8							<5			
Corymbia citriodora	U		18							<5					
Planchonia careya	U					4							<5		
Lantana camara **	U					2							<5		
Xanthorrhoea johnsonii	C					2							<5		
Cycas media	U					1.5							<5		
Euphorbia cyathophora *	U							0.5							<5
Heteropogon contortus	C							1							20
Pennisetum macrourum *	C							1							0-10
Hyparrhenia rufa *	C						r	1							0-25
Rock cover (%) 5															
Bare ground cover (%) 10															
Litter cover (%) 50															
Cryptogam cover (%) -															
Average/Total															

*Species annotations: C Collected * Exotic Species ** Declared Species + Outside but adjoining 50m x 10m plot*
Rel. Dom. = Relative Dominance within stratum (D = dominant; C = Common; U = Uncommon; R = Rare)
Strata: E = Emergent; T1-3 = Tree strata 1-3; S1-2 = Shrub strata 1-2; G = Ground stratum
Basal Area = Basal area using Bitterlich technique (m^2/ha) Cover = Percentage Cover using ocular estimate

Scheduled flora possibilities: No / ~~Yes~~ (if so .....collected? Y / N
.....collected? Y / N

Additional notes on pest plants .....
.....
.....

Weed Cover (%): <5 ; 5-25 ; 25-50 ; >50

Disturbance (% of site affected): 0, <1; 1-5; >5

Health: Pristine / Excellent / Very Good / Good / Average / Degraded / Completely Degraded (almost without natives)

Slope: Crest; Ridge; Hillock; Simple slope; Upper slope; Mid slope; Lower slope; Flat; Open depression; Closed depression

Soils: Map; Cutting, Core; Surface observation **Reliability:** Low, Medium, High

Soil Colour: whitish; grayish; mottled; yellow; orange; brown; red; black; dark; grey; pale

Soil Texture: clay; clay loam; silty loam; loam; sandy loam; sand; stony; silty clay; sandy clay; silty clay loam; sandy clay loam; loam sand

Table 24 CORVEG landform situation codes

Landform situation	Code	Landform situation	Code
PLAIN		HILLS, MOUNTAINS, TABLELANDS	
Not otherwise specified, flat gentle slopes, undulating terrain	A	Slope or hill not specified	F
Downs, open downs, rolling downs, ashy downs, pebbly downs	'	Cliff (steep rocky faces), rocky ledge, rocky outcrop, scarp, crack in rock, crevices	L
Alluvial plain or flat, alluvium, flood plain	B	Coastal rocky headland	N
Inland clay pan, salt flat or pan (inland)	U	Top, crest of mountain or ridge	K
Tidal flat, salt flat (coastal)	V	Jump-up, mesa, tableland, plateau	Q
STREAMS		DUNE	
Lakes, banks of lake, river, stream, water course, levees – permanent water	C	Fossil coastal dune, high dune	S
Gully, drainage line, ravine gorge, outwash – intermittently wet	D	Unspecified coastal dune, beach dune, recent coastal dune, low dune, coastal sandhill	R
Bed of channel—distributaries of inland streams, beds – intermittently flooded	E	Inland dune, inland sandhill	T
		WATER	
		Freshwater lake, lagoon, spring, stream	X
		Freshwater swamp, marsh, soak, seepage area	W
		Gilgai, melon hole, sinkhole	Z
		Saltwater, sea, saltwater swamp	Y

Table 25 CORVEG types of erosional landform patterns by slope and relief class codes

Slope class							
Class	LE Level	VG Very gently inclined	GE Gently inclined	MO Moderately inclined	ST Steep	VS Very steep	PR Precipitous
Percentage	<1	1–3	3–10	10–32	32–56	56–100	100
Degrees (rounded to nearest whole number)	0	1–2	3–6	7–16	19–29	30–45	>45
Relief class			**Erosional landform pattern**				
M Very high >300 m (about 500 m)	–	–	–	RM Rolling mountains	SM Steep mountains	VM Very steep mountains	PM Precipitous
H High 90–300 m (about 150 m)	–	–	UH Undulating hills	RH Rolling hills	SH Steep hills	VH Very steep hills	PH Precipitous hills
L Low 30–90 m (about 50 m)	–	–	UL Undulating low hills	RL Rolling low hills	SL Steep low hills	VL Very steep low hills	B Badlands
R Very low 9–30 m (about 15 m)	–	GR Gently undulating rises	UR Undulating rises	RR Rolling rises	SR Steep rises	B Badlands	B Badlands
P Extremely low <9 m)	LP Level plain	GP Gently undulating plain	UP Undulating plain	RP Rolling plain	B badlands	B Badlands	B Badlands

Source: Speight (1990)

Particular sensitivities to proposed impacts (incl. fragmentation):.....
.....
.....

Special conservation significance:.....
cultural .....
commercial .....
recreational .....
observed or Horticultural Crops .....

Other notes:
- Embankment (old railway?)
- Large stockpile adjacent to site (?- from railway construction?
- horse ~~skate~~ scats present

Photo P

Tertiary Site Vegetation Assessment Data Sheet Job Number: B60184001

Site Number: 4 KP: 12.3 Assessor: CL Date: 23/06/2006

Location: Alt Residue, Boyles Rd

Photo Number: Nikon 200-201 UTM WGS84 Easting 308962 Northing 7355792 GPS 17

Width of RE: <35m wide ; 35-75m ; 75-150m ; 150-300m ; >300 ; (not linear)

Width of total remnant: <35m wide ; 35-75m ; 75-150m ; 150-300m ; >300 ; (not linear)

Total RE Area: Does not extend beyond site; <1ha ; 1-5ha; 5-20ha ; 20-50ha ; (>50ha)

Total remnant Area: Does not extend beyond site; <1ha ; 1-5ha; 5-20ha ; 20-50ha ; (>50ha)

	RE code	EPBC status	VMA status	EPA status
DNRW RE map	11.11.14/11.11.18	-/E	NOC/E	NC/E
Survey result	11.11.14	-	NOC	NC

Canopy stratum growth form: tree Canopy Crown Cover: 25 %

Canopy Median Height: 18 m. Structural Code:

All woody species present within 50m x 10m plot (plus dominant and EVR non-woody species)

	Name	Rel. Dom.	Height (Ocular estimate (m)) E	T1	T2	T3	S1	S2	G	Abundance (B (Basal Area); C (Cover Estimate)) E	T1	T2	T3	S1	S2	G
	Corymbia citriodora	D		18							20					
	Euc. crebra	C		12							5					
	Carissa	C					1.5							5		
	Lantana montevidensis **	U							0-2							5
	Passiflora suberosa *	U					1							<5		
C	Bursaria spinosa	C					2							5		
	Cryptostegia grandiflora *	U					2							<5		
	Pogonolobus reticulatus	U					2							<5		
	Dianella sp	U														
C	Carthum sp A (yellow leaf)	U					3							<5		
C	Carthum sp B (large leaf)	U					4							<5		
C	Acacia decora	U					3							<5		
	Bernia oblongifolia	U					1									
C	Aristida sp	C					0-3									10
	Rock cover (%) -															
	Bare ground cover (%) 5															
	Litter cover (%) 75															
	Cryptogam cover (%)															
	Average/Total															

*Species annotations: C Collected * Exotic Species ** Declared Species + Outside but adjoining 50m x 10m plot*
Rel. Dom. = Relative Dominance within stratum (D = dominant; C = Common; U = Uncommon; R = Rare)
Strata: E = Emergent; T1-3 = Tree strata 1-3; S1-2 = Shrub strata 1-2; G = Ground stratum
Basal Area = Basal area using Bitterlich technique (m^2/ha) Cover = Percentage Cover using ocular estimate

Scheduled flora possibilities: No / ~~Yes~~ (if so .....collected? Y / N
.....collected? Y / N

Additional notes on pest plants .....
.....
.....

Weed Cover (%): <5 ; 5-25 ; 25-50 ; >50

Disturbance (% of site affected): 0, <1; 1-5; >5

Health: Pristine / Excellent / Very Good / Good / Average / Degraded / Completely Degraded (almost without natives)

Slope: Crest; Ridge; Hillock; Simple slope; Upper slope; Mid slope; Lower slope; Flat; Open depression; Closed depression

Soils: Map; Cutting, Core; Surface observation **Reliability:** Low, Medium, High

Soil Colour: whitish; grayish; mottled; yellow; orange; brown; red; black; dark; grey; pale

Soil Texture: clay; clay loam; silty loam; loam; sandy loam; sand; stony; silty clay; sandy clay; silty clay loam; sandy clay loam; loam sand

Table 24 CORVEG landform situation codes

Landform situation	Code	Landform situation	Code
PLAIN		HILLS, MOUNTAINS, TABLELANDS	
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Alluvial plain or flat, alluvium, flood plain	B	Coastal rocky headland	N
Inland clay pan, salt flat or pan (inland)	U	Top, crest of mountain or ridge	K
Tidal flat, salt flat (coastal)	V	Jump-up, mesa, tableland, plateau	Q
STREAMS		DUNE	
Lakes, banks of lake, river, stream, water course, levees – permanent water	C	Fossil coastal dune, high dune	S
Gully, drainage line, ravine gorge, outwash— + intermittently wet	D	Unspecified coastal dune, beach dune, recent coastal dune, low dune, coastal sandhill	R
Bed of channel—distributaries of inland streams, beds + intermittently flooded	E	Inland dune, inland sandhill	T
		WATER	
		Freshwater lake, lagoon, spring, stream	X
		Freshwater swamp, marsh, soak, seepage area	W
		Gilgai, melon hole, sinkhole	Z
		Saltwater, sea, saltwater swamp	Y

Table 25 CORVEG types of erosional landform patterns by slope and relief class codes

Slope class							
Class	LE Level	VG Very gently inclined	GE Gently inclined	MO Moderately inclined	ST Steep	VS Very steep	PR Precipitous
Percentage	<1	1–3	3–10	10–32	32–56	56–100	100
Degrees (rounded to nearest whole number)	0	1–2	3–5	7–18	19–29	30–45	>45
Relief class	**Erosional landform pattern**						
M Very high >300 m (about 500 m)	–	–	–	RM Rolling mountains	SM Steep mountains	VM Very steep mountains	PM Precipitous
H High 90–300 m (about 150 m)	–	–	UH Undulating hills	RH Rolling hills	SH Steep hills	VH Very steep hills	PH Precipitous hills
L Low 30–90 m (about 50 m)	–	–	UL Undulating low hills	RL Rolling low hills	SL Steep low hills	VL Very steep low hills	B Badlands
R Very low 9–30 m (about 15 m)	–	GR Gently undulating rises	UR Undulating rises	RR Rolling rises	SR Steep rises	B Badlands	B Badlands
P Extremely low <9 m)	LP Level plain	GP Gently undulating plain	UP Undulating plain	RP Rolling plain	B badlands	B Badlands	B Badlands

Source: Speight (1990)

Particular sensitivities to proposed impacts (incl. fragmentation):.....
.....
.....

Special conservation significance:.....
cultural .....
commercial .....
recreational .....
observed or Horticultural Crops .....

Other notes: Some vine thicket species in understorey but eucalypts are predominant stratum
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Tertiary Site Vegetation Assessment Data Sheet Job Number: .....

Site Number: 5 KP: ..... Assessor: CL Date : 23/6/2006

Location: Alt Residue / Boyles Rd

Photo Number: 303 UTM WGS84 Easting 310 011 Northing 7 356 521

GPS 20

Width of RE: <35m wide ; 35-75m ; 75-150m ; 150-300m ; >300 ; not linear
Width of total remnant: <35m wide ; 35-75m ; 75-150m ; 150-300m ; >300 ; not linear
Total RE Area: Does not extend beyond site; <1ha ; 1-5ha; 5-20ha ; 20-50ha ; >50ha
Total remnant Area: Does not extend beyond site; <1ha ; 1-5ha; 5-20ha ; 20-50ha ; >50ha

	RE code	EPBC status	VMA status	EPA status
DNRW RE map	11-3.26 / 11.3-4	—	NOC / OC	NC / OC
Survey result	11-3-4	—	OC	OC

Canopy stratum growth form: tree Canopy Crown Cover: 15 %
Canopy Median Height: 18 m. Structural Code: .....

All woody species present within 50m x 10m plot (plus dominant and EVR non-woody species)

Name	Rel. Dom.	Height (Ocular estimate (m))							Abundance (B (Basal Area); C (Cover Estimate))						
		E	T1	T2	T3	S1	S2	G	E	T1	T2	T3	S1	S2	G
Euc tereticornis	C		18							5					
Euc tessellaris	U		18							<5					
Euc nebra	U			12							<5				
Lophostemon suaveolens	U			10							<5				
Co. dallachyana	U			8							<5				
Casuarina cunninghamii	U			10							<5				
Alphitonia excelsa	U					3							<5		
Lantana camara **	U					1.5							<5		
Lantana montevidensis**	C							0.2							20
Bursaria spinosa	U					2							<5		
Acacia aulacocarpa	U					4							<5		
Sida subspicata *	U							1							<5
Breynia oblongifolia	U							1							<5
Mallotus philippensis	U			8							<5				
B. thriochloa bertusa *	C							0.2							5
Hyparrhenia rufa *	U							1							<5
Rock cover (%)															
Bare ground cover (%) 10															
Litter cover (%) 60															
Cryptogam cover (%)															
Average/Total															

*Species annotations: C Collected * Exotic Species ** Declared Species + Outside but adjoining 50m x 10m plot*
Rel. Dom. = Relative Dominance within stratum (D = dominant; C = Common; U = Uncommon; R = Rare)
Strata: E = Emergent; T1-3 = Tree strata 1-3; S1-2 = Shrub strata 1-2; G = Ground stratum
Basal Area = Basal area using Bitterlich technique (m^2/ha) Cover = Percentage Cover using ocular estimate

Scheduled flora possibilities: No / ~~Yes~~ (if so .....collected? Y / N
.....collected? Y / N

Additional notes on pest plants .....
.....
.....

Weed Cover (%): <5 ; 5-25 ; 25-50 ; >50

Disturbance (% of site affected): 0, <1; 1-5; >5

Health: Pristine / Excellent / Very Good / Good / (Average) / Degraded / Completely Degraded (almost without natives)

Slope: Crest; Ridge; Hillock; Simple slope; Upper slope; Mid slope; Lower slope; (Flat); Open depression; Closed depression

Soils: Map; Cutting, Core; (Surface observation) **Reliability:** (Low,) Medium, High

Soil Colour: whitish; grayish; mottled; yellow; orange; (brown); red; black; dark; grey; pale

Soil Texture: clay; clay loam; silty loam; loam; sandy loam; sand; stony; silty clay; (sandy clay); silty clay loam; sandy clay loam; loam sand

Table 24 CORVEG landform situation codes

Landform situation	Code	Landform situation	Code
PLAIN		HILLS, MOUNTAINS, TABLELANDS	
Not otherwise specified, flat gentle slopes, undulating terrain	A	Slope or hill not specified	F
Downs, open downs, rolling downs, ashy downs, pebbly downs	*	Cliff (steep rocky faces), rocky ledge, rocky outcrop, scarp, crack in rock, crevices	L
Alluvial plain or flat, alluvium, flood plain	B	Coastal rocky headland	N
Inland clay pan, salt flat or pan (inland)	U	Top, crest of mountain or ridge	K
Tidal flat, salt flat (coastal)	V	Jump-up, mesa, tableland, plateau	Q
STREAMS		DUNE	
Lakes, banks of lake, river, stream, water course, levees – permanent water	C	Fossil coastal dune, high dune	S
Gully, drainage line, ravine gorge, outwash – intermittently wet	D	Unspecified coastal dune, beach dune, recent coastal dune, low dune, coastal sandhill	R
Bed of channel—distributaries of inland streams, beds – intermittently flooded	E	Inland dune, inland sandhill	T
		WATER	
		Freshwater lake, lagoon, spring, stream	X
		Freshwater swamp, marsh, soak, seepage area	W
		Gilgai, melon hole, sinkhole	Z
		Saltwater, sea, saltwater swamp	Y

Table 25 CORVEG types of erosional landform patterns by slope and relief class codes

Slope class							
Class	LE Level	VG Very gently inclined	GE Gently inclined	MO Moderately inclined	ST Steep	VS Very steep	PR Precipitous
Percentage	<1	1–3	3–10	10–32	32–56	56–100	100
Degrees (rounded to nearest whole number)	0	1–2	3–6	7–18	19–29	30–45	>45
Relief class	**Erosional landform pattern**						
M Very high >300 m (about 500 m)	–	–	–	RM Rolling mountains	SM Steep mountains	VM Very steep mountains	PM Precipitous
H High 90–300 m (about 150 m)	–	–	UH Undulating hills	RH Rolling hills	SH Steep hills	VH Very steep hills	PH Precipitous hills
L Low 30–90 m (about 60 m)	–	–	UL Undulating low hills	RL Rolling low hills	SL Steep low hills	VL Very steep low hills	B Badlands
R Very low 9–30 m (about 15 m)	–	GR Gently undulating rises	UR Undulating rises	RR Rolling rises	SR Steep rises	B Badlands	B Badlands
P Extremely low <9 m)	LP Level plain	GP Gently undulating plain	UP Undulating plain	RP Rolling plain	B badlands	B Badlands	B Badlands

Source: Speight (1990)

Particular sensitivities to proposed impacts (incl. fragmentation):.....
.....
.....

Special conservation significance:.....
cultural .....
commercial .....
recreational .....
observed or Horticultural Crops .....

Other notes: – Associated with small creek (RE beside creek possibly 11.3.25)
– stream channel incised – up to 2m deep and 5m wide (photo 1304)
possibly partially cleared in past

Tertiary Site Vegetation Assessment Data Sheet Job Number: B60184001

Site Number: 6 KP: ..... Assessor: CL Date: 23/06/2006

Location: Alt Residue

Photo Number: Nikon 211-212 UTM WGS84 Easting 309934 Northing 7358192 GPS 025

Width of RE: <35m wide ; 35-75m ; 75-150m ; 150-300m ; >300 ; (not linear)

Width of total remnant: <35m wide ; 35-75m ; 75-150m ; 150-300m ; >300 ; (not linear)

Total RE Area: Does not extend beyond site; <1ha ; 1-5ha; 5-20ha ; (20-50ha) ; >50ha

Total remnant Area: Does not extend beyond site; <1ha ; 1-5ha; 5-20ha ; 20-50ha ; (>50ha)

	RE code	EPBC status	VMA status	EPA status
DNRW RE map	11.11.4/11.11.18	— / E	NOC / E	NC / E
Survey result	11.11.3	—	NOC	NC

Canopy stratum growth form: tree Canopy Crown Cover: 20 %

Canopy Median Height: 16 m. Structural Code: .....

All woody species present within 50m x 10m plot (plus dominant and EVR non-woody species)

Name	Rel. Dom.	Height (Ocular estimate (m))							Abundance (B (Basal Area); C (Cover Estimate))						
		E	T1	T2	T3	S1	S2	G	E	T1	T2	T3	S1	S2	G
Co. citriodora	D		16							10					
Euc. crebra	C		14							5					
Lophostemon suaveolens	U			10							<5				
Acacia aulacocarpa	U					6							<5		
Planchonia careya	U					4							<5		
Jasera pseudorhus	U					6							<5		
Bursaria spinosa	U					3							<5		
Breynia oblongifolia	U							1							<5
Stachytarpheta jamaicensis *	U							0.4							<5
Lantana camara *	U					2							<5		
Hyparrhenia rufa *	C							1.5							10
Petalostigma pubescens	C				6							10			
Pogaltera suberosa *	U				2							<5			
Alphitonia excelsa	U				4							<5			
Lantana montevidensis	U							0.2							<5
Diospyros sp					4							<5			
Panicum maximum *	U							1							<5
Grahsia sp	U							0.5							<5
Rock cover (%)															
Bare ground cover (%) 15															
Litter cover (%) 60															
Cryptogam cover (%)															
Average/Total															

*Species annotations: C Collected * Exotic Species ** Declared Species + Outside but adjoining 50m x 10m plot*
Rel. Dom. = Relative Dominance within stratum (D = dominant; C = Common; U = Uncommon; R = Rare)
Strata: E = Emergent; T1-3 = Tree strata 1-3; S1-2 = Shrub strata 1-2; G = Ground stratum
Basal Area = Basal area using Bitterlich technique (m^2/ha) Cover = Percentage Cover using ocular estimate

Scheduled flora possibilities: No / ~~Yes~~ (if so .....collected? Y / N
.....collected? Y / N

Additional notes on pest plants .....
.....
.....

Weed Cover (%): <5 ; 5-25 ; 25-50 ; >50

Disturbance (% of site affected): 0, <1; 1-5; >5

Health: Pristine / Excellent / Very Good / Good / Average / Degraded / Completely Degraded (almost without natives)

Slope: Crest; Ridge; Hillock; Simple slope; Upper slope; Mid slope; Lower slope; Flat; Open depression; Closed depression

Soils: Map; Cutting, Core; Surface observation **Reliability:** Low, Medium, High

Soil Colour: whitish; grayish; mottled; yellow; orange; brown; red; black; dark; grey; pale

Soil Texture: clay; clay loam; silty loam; loam; sandy loam; sand; stony; silty clay; sandy clay; silty clay loam; sandy clay loam; loam sand

Table 24 CORVEG landform situation codes

Landform situation	Code	Landform situation	Code
PLAIN		HILLS, MOUNTAINS, TABLELANDS	
Not otherwise specified, flat gentle slopes, undulating terrain	A	Slope or hill not specified	F
Downs, open downs, rolling downs, ashy downs, pebbly downs	*	Cliff (steep rocky faces), rocky ledge, rocky outcrop, scarp, crack in rock, crevices	L
Alluvial plain or flat, alluvium, flood plain	B	Coastal rocky headland	N
Inland clay pan, salt flat or pan (inland)	U	Top, crest of mountain or ridge	K
Tidal flat, salt flat (coastal)	V	Jump-up, mesa, tableland, plateau	Q
STREAMS		DUNE	
Lakes, banks of lake, river, stream, water course, levees – permanent water	C	Fossil coastal dune, high dune	S
Gully, drainage line, ravine gorge, outwash — + intermittently wet	D	Unspecified coastal dune, beach dune, recent coastal dune, low dune, coastal sandhill	R
Bed of channel—distributaries of inland streams, beds + intermittently flooded	E	Inland dune, inland sandhill	T
		WATER	
		Freshwater lake, lagoon, spring, stream	X
		Freshwater swamp, marsh, soak, seepage area	W
		Gilgai, melon hole, sinkhole	Z
		Saltwater, sea, saltwater swamp	Y

Table 25 CORVEG types of erosional landform patterns by slope and relief class codes

Slope class							
Class	LE Level	VG Very gently inclined	GE Gently inclined	MO Moderately inclined	ST Steep	VS Very steep	PR Precipitous
Percentage	<1	1–3	3–10	10–32	32–56	56–100	100
Degrees (rounded to nearest whole number)	0	1–2	3–5	7–18	19–29	30–45	>45
Relief class			**Erosional landform pattern**				
M Very high >300 m (about 500 m)	–	–	–	RM Rolling mountains	SM Steep mountains	VM Very steep mountains	PM Precipitous
H High 90–300 m (about 150 m)	–	–	UH Undulating hills	RH Rolling hills	SH Steep hills	VH Very steep hills	PH Precipitous hills
L Low 30–90 m (about 50 m)	–	–	UL Undulating low hills	RL Rolling low hills	SL Steep low hills	VL Very steep low hills	B Badlands
R Very low 9–30 m (about 15 m)	–	GR Gently undulating rises	UR Undulating rises	RR Rolling rises	SR Steep rises	B Badlands	B Badlands
P Extremely low <9 m)	LP Level plain	GP Gently undulating plain	UP Undulating plain	RP Rolling plain	B badlands	B Badlands	B Badlands

Source: Speight (1990)

Particular sensitivities to proposed impacts (incl. fragmentation):.....
.....
.....

Special conservation significance:.....
cultural .....
commercial .....
recreational .....
observed or Horticultural Crops .....

Other notes: – possibly some logging in past
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Tertiary Site Vegetation Assessment Data Sheet Job Number: B60184001

Site Number: 7 KP: ..... Assessor: CL Date: 23/6/2006 17

Location: Alternate Residue

Photo Number: 1305 UTM WGS84 Easting 309958 Northing 7358941

GPS 027

Width of RE: <35m wide ; 35-75m ; 75-150m ; 150-300m ; >300 ; not linear
Width of total remnant: <35m wide ; 35-75m ; 75-150m ; 150-300m ; >300 ; not linear
Total RE Area: Does not extend beyond site; <1ha ; 1-5ha; 5-20ha ; 20-50ha ; >50ha
Total remnant Area: Does not extend beyond site; <1ha ; 1-5ha; 5-20ha ; 20-50ha ; >50ha

	RE code	EPBC status	VMA status	EPA status
DNRW RE map	12.11.7/12.11.6/11.11.4a	—	OC/NOC/NOC	OC/NC/NC
Survey result	12.11.6	—	NOC	NC

Canopy stratum growth form: tree Canopy Crown Cover: 15 %
Canopy Median Height: 16 m. Structural Code: .....

All woody species present within 50m x 10m plot (plus dominant and EVR non-woody species)

Name	Rel. Dom.	Height (Ocular estimate (m))							Abundance (B (Basal Area); C (Cover Estimate))						
		E	T1	T2	T3	S1	S2	G	E	T1	T2	T3	S1	S2	G
Cor citriodora	D		16							10					
Euc crebra	C			12							5				
Lophostemon suaveolens	U				5										
Corymbia clarksoniana	U		15												
Alphitonia excelsa	U				4										
Canthium (yellow bud)	U				3										
Pogonolobus reticulatus	C					2									<5
Melia azadarach	U				4										
Lantana camara **						1.5									
Hyptis suaveolens *								1							30
Stachytarpheta jamaicensis *								0.5							
Hibiscus heterophyllus	U					2									
Sonchus sp	U							0.5							
Sida subspicata								0.5							
Bursaria spinosa	U					2									
Maytenus disperma	U					2									
Acacia bidwillii	U					2									
Grevillea latifolia	U							1							
C Hibiscus heterophyllus	U				2										
Acacia fasciculifera	U				3										
Alyxia ruscifolia	U							1							
Rock cover (%) 5															
Bare ground cover (%) 10															
Litter cover (%) 50															
Cryptogam cover (%)															
Average/Total															

*Species annotations: C Collected * Exotic Species ** Declared Species + Outside but adjoining 50m x 10m plot*
Rel. Dom. = Relative Dominance within stratum (D = dominant; C = Common; U = Uncommon; R = Rare)
Strata: E = Emergent; T1-3 = Tree strata 1-3; S1-2 = Shrub strata 1-2; G = Ground stratum
Basal Area = Basal area using Bitterlich technique (m^2/ha) Cover = Percentage Cover using ocular estimate

Scheduled flora possibilities: No / ~~Yes~~ (if so .....collected? Y / N
.....collected? Y / N

Additional notes on pest plants .....

.....

.....

Weed Cover (%): <5 ; (5-25) ; 25-50 ; >50

Disturbance (% of site affected): 0, <1; 1-5; >5

Health: Pristine / Excellent / Very Good / (Good) / Average / Degraded / Completely Degraded (almost without natives)

Slope: Crest; Ridge; Hillock; Simple slope; Upper slope; Mid slope; (Lower slope); Flat; Open depression; Closed depression

Soils: Map; Cutting, Core; Surface observation **Reliability:** (Low) Medium, High

Soil Colour: whitish; grayish; mottled; yellow; orange; (brown); red; black; dark; grey; pale

Soil Texture: clay; clay loam; silty loam; loam; sandy loam; sand; stony; (silty clay); sandy clay; silty clay loam; sandy clay loam; loam sand

Table 24 CORVEG landform situation codes

Landform situation	Code	Landform situation	Code
PLAIN		HILLS, MOUNTAINS, TABLELANDS	
Not otherwise specified, flat gentle slopes, undulating terrain	A	Slope or hill not specified	F
Downs, open downs, rolling downs, ashy downs, pebbly downs	*	Cliff (steep rocky faces), rocky ledge, rocky outcrop, scarp, crack in rock, crevices	L
Alluvial plain or flat, alluvium, flood plain	B	Coastal rocky headland	N
Inland clay pan, salt flat or pan (inland)	U	Top, crest of mountain or ridge	K
Tidal flat, salt flat (coastal)	V	Jump-up, mesa, tableland, plateau	Q
STREAMS		DUNE	
Lakes, banks of lake, river, stream, water course, levees + permanent water	C	Fossil coastal dune, high dune	S
Gully, drainage line, ravine gorge, outwash— + intermittently wet	D	Unspecified coastal dune, beach dune, recent coastal dune, low dune, coastal sandhill	R
Bed of channel—distributaries of inland streams, beds + intermittently flooded	E	Inland dune, inland sandhill	T
		WATER	
		Freshwater lake, lagoon, spring, stream	X
		Freshwater swamp, marsh, soak, seepage area	W
		Gilgai, melon hole, sinkhole	Z
		Saltwater, sea, saltwater swamp	Y

Table 25 CORVEG types of erosional landform patterns by slope and relief class codes

Slope class							
Class	LE Level	VG Very gently inclined	GE Gently inclined	MO Moderately inclined	ST Steep	VS Very steep	PR Precipitous
Percentage	<1	1–3	3–10	10–32	32–56	56–100	100
Degrees (rounded to nearest whole number)	0	1–2	3–6	7–18	19–29	30–45	>45
Relief class	**Erosional landform pattern**						
M Very high >300 m (about 500 m)	–	–	–	RM Rolling mountains	SM Steep mountains	VM Very steep mountains	PM Precipitous
H High 90–300 m (about 150 m)	–	–	UH Undulating hills	RH Rolling hills	SH Steep hills	VH Very steep hills	PH Precipitous hills
L Low 30–90 m (about 50 m)	–	–	UL Undulating low hills	RL Rolling low hills	SL Steep low hills	VL Very steep low hills	B Badlands
R Very low 9–30 m (about 15 m)	–	GR Gently undulating rises	UR Undulating rises	RR Rolling rises	SR Steep rises	B Badlands	B Badlands
P Extremely low <9 m)	LP Level plain	GP Gently undulating plain	UP Undulating plain	RP Rolling plain	B Badlands	B Badlands	B Badlands

Source: Speight (1990)

Particular sensitivities to proposed impacts (incl. fragmentation):.....
.....
.....

Special conservation significance:.....
cultural .....
commercial .....
recreational .....
observed or Horticultural Crops .....

Other notes: - Some previous logging
.....
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Tertiary Site Vegetation Assessment Data Sheet Job Number: B60184001

Site Number: 8 KP: ..... Assessor: CL Date: 23/6/2006

Location: Alt Residue - Corner Boyles Rd & Spring Valley Rd

Photo Number: 1306 – 1310 UTM WGS84 Easting 309983 Northing 7359193 GPS 028

Width of RE: <35m wide ; 35-75m ; 75-150m ; 150-300m ; >300 ; not linear
Width of total remnant: <35m wide ; 35-75m ; 75-150m ; 150-300m ; >300 ; not linear
Total RE Area: Does not extend beyond site; <1ha ; 1-5ha; 5-20ha ; 20-50ha ; >50ha
Total remnant Area: Does not extend beyond site; <1ha ; 1-5ha; 5-20ha ; 20-50ha ; >50ha

	RE code	EPBC status	VMA status	EPA status
DNRW RE map	11.3.4	–	OC	OC
Survey result	12.11.6 / 11.11.18	– / E	NOC / E	NC / E

Canopy stratum growth form: tree Canopy Crown Cover: 20 %
Canopy Median Height: 16 m. Structural Code: .....

All woody species present within 50m x 10m plot (plus dominant and EVR non-woody species)

	Name	Rel. Dom.	Height Ocular estimate (m) E	T1	T2	T3	S1	S2	G	Abundance B (Basal Area); C (Cover Estimate) E	T1	T2	T3	S1	S2	G
	Corymbia citriodora	D		16							10					
	Euc. crebra	C		15							5					
	Cor. tessellaris	U			10							<5				
	Euc. tereticornis	U		15							<5					
	Acacia farnesiana	U														
	Jasmira pseudorhus	U				7							<5			
	Bursaria spinosa	C				5							10			5
C	Diospyros sp	U				6							<5			
	Cassia oata	C					2							10		
	Stachytarpheta jamaicensis*	C							0.5							0-10
	Sida subspicata	U							1							<5
	Hibiscus heterophyllus	U							1.5							<5
	Pogonolobus reticulatus	C					2							5		<5
	Aristida sp	C							0.4							0-10
	Maytenus disperma	U				5							<5			
C	Cyclophyllum coprosmoides	U				4							<5			
	Acacia ruscifolia	U					2							<5		
	Hyparrhenia rufa *	U							1							<5
	Bremia oblongifolia	U					2							<5		
	Grevillea fordwillii	U				3							<5			
	Drypetes deplanchei	U				3							<5			
	Rock cover (%) –															
	Bare ground cover (%) 10															
	Litter cover (%) 60															
	Cryptogam cover (%) –															
	Average/Total										20		25	15		15

*Species annotations: C Collected * Exotic Species ** Declared Species + Outside but adjoining 50m x 10m plot*
Rel. Dom. = Relative Dominance within stratum (D = dominant; C = Common; U = Uncommon; R = Rare)
Strata: E = Emergent; T1-3 = Tree strata 1-3; S1-2 = Shrub strata 1-2; G = Ground stratum
Basal Area = Basal area using Bitterlich technique (m^2/ha) Cover = Percentage Cover using ocular estimate

C – Tree (alt bark zigzag stem) 5m – U

Scheduled flora possibilities: No / Yes (if so .....collected? Y / N
.....collected? Y / N

Additional notes on pest plants .....

.....

.....

Weed Cover (%): <5 ; 5-25 ; 25-50 ; >50

Disturbance (% of site affected): 0, <1; 1-5; >5

Health: Pristine / Excellent / Very Good / Good / Average / Degraded / Completely Degraded (almost without natives)

Slope: Crest; Ridge; Hillock; Simple slope; Upper slope; Mid slope; Lower slope; Flat; Open depression; Closed depression

Soils: Map; Cutting, Core; Surface observation **Reliability:** Low; Medium, High

Soil Colour: whitish; grayish; mottled; yellow; orange; brown; red; black; dark; grey; pale

Soil Texture: clay; clay loam; silty loam; loam; sandy loam; sand; stony; silty clay; sandy clay; silty clay loam; sandy clay loam; loam sand

Table 24 CORVEG landform situation codes

Landform situation	Code	Landform situation	Code
PLAIN		HILLS, MOUNTAINS, TABLELANDS	
Not otherwise specified, flat gentle slopes, undulating terrain	A	Slope or hill not specified	F
Downs, open downs, rolling downs, ashy downs, pebbly downs	*	Cliff (steep rocky faces), rocky ledge, rocky outcrop, scarp, crack in rock, crevices	L
Alluvial plain or flat, alluvium, flood plain	B	Coastal rocky headland	N
Inland clay pan, salt flat or pan (inland)	U	Top, crest of mountain or ridge	K
Tidal flat, salt flat (coastal)	V	Jump-up, mesa, tableland, plateau	Q
STREAMS		DUNE	
Lakes, banks of lake, river, stream, water course, levees – permanent water	C	Fossil coastal dune, high dune	S
Gully, drainage line, ravine gorge, outwash – intermittently wet	D	Unspecified coastal dune, beach dune, recent coastal dune, low dune, coastal sandhill	R
Bed of channel—distributaries of inland streams, beds – intermittently flooded	E	Inland dune, inland sandhill	T
		WATER	
		Freshwater lake, lagoon, spring, stream	X
		Freshwater swamp, marsh, soak, seepage area	W
		Gilgai, melon hole, sinkhole	Z
		Saltwater, sea, saltwater swamp	Y

Table 25 CORVEG types of erosional landform patterns by slope and relief class codes

Slope class							
Class	LE Level	VG Very gently inclined	GE Gently inclined	MO Moderately inclined	ST Steep	VS Very steep	PR Precipitous
Percentage	<1	1–3	3–10	10–32	32–56	56–100	100
Degrees (rounded to nearest whole number)	0	1–2	3–6	7–18	19–29	30–45	>45
Relief class	**Erosional landform pattern**						
M Very high >300 m (about 500 m)	–	–	–	RM Rolling mountains	SM Steep mountains	VM Very steep mountains	PM Precipitous
H High 90–300 m (about 150 m)	–	–	UH Undulating hills	RH Rolling hills	SH Steep hills	VH Very steep hills	PH Precipitous hills
L Low 30–90 m (about 50 m)	–	–	UL Undulating low hills	RL Rolling low hills	SL Steep low hills	VL Very steep low hills	B Badlands
R Very low 9–30 m (about 15 m)	–	GR Gently undulating rises	UR Undulating rises	RR Rolling rises	SR Steep rises	B Badlands	B Badlands
P Extremely low <9 m)	LP Level plain	GP Gently undulating plain	UP Undulating plain	RP Rolling plain	B badlands	B Badlands	B Badlands

Source: Speight (1990)

Particular sensitivities to proposed impacts (incl. fragmentation):.....

.....

.....

Special conservation significance:.....

cultural .....

commercial .....

recreational .....

observed or Horticultural Crops .....

Other notes:

– Partially cleared near road (very little mid storey, < 10%)

– Undisturbed midstorey mid-dense (25–50%) starts 30m to west of Boyle Road

– Dominant species and slightly sloping landform are characteristic of RE 11.11.4 / 11.11.18

– No landzone 3 RE is dominated by Eucalyptus citriodora

– Can avoid RE 11.11.18 vine thicket by constructing pipeline in 30m disturbed corridor adjacent to Boyles Rd.

Tertiary Site Vegetation Assessment Data Sheet Job Number: B60184001

Site Number: 9 KP: 6.8 Assessor: CL Date: 23/6/2006

Location: Alt Residue, crossing of Calliope River Rd

Photo Number: 1311-1312 UTM WGS84 Easting 309740 Northing 7360377 GPS 029

Width of RE: <35m wide ; 35-75m ; 75-150m ; 150-300m ; >300 ; not linear
Width of total remnant: <35m wide ; 35-75m ; 75-150m ; 150-300m ; >300 ; not linear
Total RE Area: Does not extend beyond site; <1ha ; 1-5ha; 5-20ha ; 20-50ha ; >50ha
Total remnant Area: Does not extend beyond site; <1ha ; 1-5ha; 5-20ha ; 20-50ha ; >50ha

	RE code	EPBC status	VMA status	EPA status
DNRW RE map	11.3.4	—	OC	OC
Survey result	11.3.4 / 11.3.25	—	NOC / OC	OC / OC

Canopy stratum growth form: Tree Canopy Crown Cover: 20 %
Canopy Median Height: 15 m. Structural Code:

All woody species present within 50m x 10m plot (plus dominant and EVR non-woody species)

Name	Rel. Dom.	Height (Ocular estimate (m)) E	T1	T2	T3	S1	S2	G	Abundance (B (Basal Area); C (Cover Estimate)) E	T1	T2	T3	S1	S2	G
Melaleuca dissitiflora	U			10							5				
Euc. tereticornis	C		15							5					
Euc. crebra	C			12							5				
Melaleuca quinquenervia	C			10							5				
Corymbia trachyphloia	U			10							<5				
Planchonia careya	U				5							<5			
Breynia oblongifolia	U					2							<5		
* Hyparrhenia rufa	C							1							10
Hibiscus heterophyllus	U					2							<5		
** Lantana montevidensis	C							0.2							5
Acacia aulacocarpa	C				5							5			
Grewia retusifolia	U							1							<5
Acacia flavescens	C				5							5			
Xanthorrhoea johnsonii	C					2									5
* Stachytarpheta jamaicensis	C							0.5							5
Timonius timon	U					3									
* Acacia farnesiana	U														
Livistona sp	C							0.5							
Arundinella nepalensis	C														5
Trichodesma zeylanicum	U														
Alphitonia excelsa	U														
Rock cover (%)															
Bare ground cover (%) 10															
Litter cover (%) 50															
Cryptogam cover (%)															
Average/Total															

*Species annotations: C Collected * Exotic Species ** Declared Species + Outside but adjoining 50m x 10m plot*
Rel. Dom. = Relative Dominance within stratum (D = dominant; C = Common; U = Uncommon; R = Rare)
Strata: E = Emergent; T1-3 = Tree strata 1-3; S1-2 = Shrub strata 1-2; G = Ground stratum
Basal Area = Basal area using Bitterlich technique (m^2/ha) Cover = Percentage Cover using ocular estimate

Scheduled flora possibilities: No / Yes (if so .....collected? Y / N
.....collected? Y / N

Additional notes on pest plants .....

.....

.....

Weed Cover (%): <5 ; (5-25) ; 25-50 ; >50

Disturbance (% of site affected): 0, <1; 1-5; >5

Health: Pristine / Excellent / Very Good / (Good) / Average / Degraded / Completely Degraded (almost without natives)

Slope: Crest; Ridge; Hillock; Simple slope; Upper slope; Mid slope; Lower slope; Flat; Open depression; Closed depression

Soils: Map; Cutting, Core; Surface observation **Reliability:** (Low,) Medium, High

Soil Colour: whitish; grayish; mottled; yellow; orange; (brown;) red; black; dark; grey; pale

Soil Texture: clay; clay loam; silty loam; loam; sandy loam; sand; stony; silty clay; (sandy clay;) silty clay loam; sandy clay loam; loam sand

Table 24 CORVEG landform situation codes

Landform situation	Code	Landform situation	Code
PLAIN		HILLS, MOUNTAINS, TABLELANDS	
Not otherwise specified, flat gentle slopes, undulating terrain	A	Slope or hill not specified	F
Downs, open downs, rolling downs, ashy downs, pebbly downs	*	Cliff (steep rocky faces), rocky ledge, rocky outcrop, scarp, crack in rock, crevices	L
Alluvial plain or flat, alluvium, flood plain	B	Coastal rocky headland	N
Inland clay pan, salt flat or pan (inland)	U	Top, crest of mountain or ridge	K
Tidal flat, salt flat (coastal)	V	Jump-up, mesa, tableland, plateau	Q
STREAMS		DUNE	
Lakes, banks of lake, river, stream, water course, levees + permanent water	C	Fossil coastal dune, high dune	S
Gully, drainage line, ravine gorge, outwash— + intermittently wet	D	Unspecified coastal dune, beach dune, recent coastal dune, low dune, coastal sandhill	R
Bed of channel—distributaries of inland streams, beds + intermittently flooded	E	Inland dune, inland sandhill	T
		WATER	
		Freshwater lake, lagoon, spring, stream	X
		Freshwater swamp, marsh, soak, seepage area	W
		Gilgai, melon hole, sinkhole	Z
		Saltwater, sea, saltwater swamp	Y

Table 25 CORVEG types of erosional landform patterns by slope and relief class codes

Slope class							
Class	LE Level	VG Very gently inclined	GE Gently inclined	MO Moderately inclined	ST Steep	VS Very steep	PR Precipitous
Percentage	<1	1–3	3–10	10–32	32–56	56–100	100
Degrees (rounded to nearest whole number)	0	1–2	3–6	7–16	19–29	30–45	>45
Relief class	**Erosional landform pattern**						
M Very high >300 m (about 500 m)	–	–	–	RM Rolling mountains	SM Steep mountains	VM Very steep mountains	PM Precipitous
H High 90–300 m (about 150 m)	–	–	UH Undulating hills	RH Rolling hills	SH Steep hills	VH Very steep hills	PH Precipitous hills
L Low 30–90 m (about 50 m)	–	–	UL Undulating low hills	RL Rolling low hills	SL Steep low hills	VL Very steep low hills	B Badlands
R Very low 9–30 m (about 15 m)	–	GR Gently undulating rises	UR Undulating rises	RR Rolling rises	SR Steep rises	B Badlands	B Badlands
P Extremely low <9 m)	LP Level plain	GP Gently undulating plain	UP Undulating plain	RP Rolling plain	B badlands	B Badlands	B Badlands

Source: Speight (1990)

Particular sensitivities to proposed impacts (incl. fragmentation):.....
.....
.....

Special conservation significance:.....
cultural .....
commercial .....
recreational .....
observed or Horticultural Crops .....

Other notes:
– beside powerline easement + mango orchid
– associated with small drainage line.
– purge along watercourse is probably RE11.3.25

Tertiary Site Vegetation Assessment Data Sheet Job Number: .....

Site Number: 10 KP: ..... Assessor: CL Date: 24/06/2006 17

Location: Alt Residue, beside Calliope River Rd

Photo Number: ..... UTM WGS84 Easting 309422 Northing 7361053

Nikon 232, 234, 235 GPS 032

Width of RE: <35m wide ; 35-75m ; 75-150m ; 150-300m ; >300 ; not linear

Width of total remnant: <35m wide ; 35-75m ; 75-150m ; 150-300m ; >300 ; not linear

Total RE Area: Does not extend beyond site; <1ha ; 1-5ha; 5-20ha ; 20-50ha ; >50ha

Total remnant Area: Does not extend beyond site; <1ha ; 1-5ha; 5-20ha ; 20-50ha ; >50ha

	RE code	EPBC status	VMA status	EPA status
DNRW RE map	11.3.4	–	OC	OC
Survey result	11.3.4/11.3.25	–	OC/NOC	OC/OC

Canopy stratum growth form: tree Canopy Crown Cover: 20 %

Canopy Median Height: 20 m. Structural Code: .....

All woody species present within 50m x 10m plot (plus dominant and EVR non-woody species)

Name	Rel. Dom.	Height (Ocular estimate (m)) E	T1	T2	T3	S1	S2	G	Abundance (B (Basal Area); C (Cover Estimate)) E	T1	T2	T3	S1	S2	G	
Euc. tereticornis	D		20												15	
Lophostemon suaveolens	C				10										<5	
Euc. crebra	C			15											5	
Co. tessellaris	U			15											<5	*
Bothriochloa pertusa *	C							0.3							5	on roadside
Acacia polystachya?	C				8										5	
Dryptes deplanchei	U					3										
Lantana camara **	U					2										
Melinis repens *	U							0.7								
Eustrephus latifolius	U							0.5								
Cassia retusifolia	U							0.5								
Hyparrhenia rufa *	U							1								
Panicum maximum *	U-C														25	on roadside
Urochloa mosambicensis *	U-C														25	" "
On creek:																
Melaleuca fluviatilis	C			15											10	
Euc tereticornis	C			20											5	
Co tessellaris	C			15											5	
Cryptostegia grandiflora **	U						2							<5		
Rock cover (%) –																
Bare ground cover (%) 60																
Litter cover (%) 20																
Cryptogam cover (%)																
Average/Total																

*Species annotations: C Collected * Exotic Species ** Declared Species + Outside but adjoining 50m x 10m plot*
Rel. Dom. = Relative Dominance within stratum (D = dominant; C = Common; U = Uncommon; R = Rare)
Strata: E = Emergent; T1-3 = Tree strata 1-3; S1-2 = Shrub strata 1-2; G = Ground stratum
Basal Area = Basal area using Bitterlich technique (m^2/ha) Cover = Percentage Cover using ocular estimate

* NB – not on alignment (≈ 350m E)

Scheduled flora possibilities: No / Yes (if so .....collected? Y / N
.....collected? Y / N

Additional notes on pest plants .....

.....

.....

Weed Cover (%): <5 ; (5-25); 25-50 ; >50

Disturbance (% of site affected): 0, <1; 1-5; >5

Health: Pristine / Excellent / Very Good / Good / (Average) / Degraded / Completely Degraded (almost without natives)

Slope: Crest; Ridge; Hillock; Simple slope; Upper slope; Mid slope; Lower slope; (Flat); Open depression; Closed depression

Soils: Map; Cutting, Core; (Surface observation) **Reliability:** (Low); Medium, High

Soil Colour: whitish; grayish; mottled; yellow; orange; (brown); red; black; dark; grey; pale

Soil Texture: clay; clay loam; silty loam; loam; sandy loam; sand; stony; silty clay; (sandy clay); silty clay loam; sandy clay loam; loam sand

Table 24 CORVEG landform situation codes

Landform situation	Code	Landform situation	Code
PLAIN		HILLS, MOUNTAINS, TABLELANDS	
Not otherwise specified, flat gentle slopes, undulating terrain	A	Slope or hill not specified	F
Downs, open downs, rolling downs, ashy downs, pebbly downs	*	Cliff (steep rocky faces), rocky ledge, rocky outcrop, scarp, crack in rock, crevices	L
Alluvial plain or flat, alluvium, flood plain	B	Coastal rocky headland	N
Inland clay pan, salt flat or pan (inland)	U	Top, crest of mountain or ridge	K
Tidal flat, salt flat (coastal)	V	Jump-up, mesa, tableland, plateau	Q
STREAMS		DUNE	
Lakes, banks of lake, river, stream, water course, levees + permanent water	C	Fossil coastal dune, high dune	S
Gully, drainage line, ravine gorge, outwash — + intermittently wet	D	Unspecified coastal dune, beach dune, recent coastal dune, low dune, coastal sandhill	R
Bed of channel—distributaries of inland streams, beds + intermittently flooded	E	Inland dune, inland sandhill	T
		WATER	
		Freshwater lake, lagoon, spring, stream	X
		Freshwater swamp, marsh, soak, seepage area	W
		Gilgai, melon hole, sinkhole	Z
		Saltwater, sea, saltwater swamp	Y

Table 25 CORVEG types of erosional landform patterns by slope and relief class codes

Slope class							
Class	LE Level	VG Very gently inclined	GE Gently inclined	MO Moderately inclined	ST Steep	VS Very steep	PR Precipitous
Percentage	<1	1–3	3–10	10–32	32–56	56–100	100
Degrees (rounded to nearest whole number)	0	1–2	3–6	7–18	19–29	30–45	>45
Relief class	**Erosional landform pattern**						
M Very high >300 m (about 500 m)	–	–	–	RM Rolling mountains	SM Steep mountains	VM Very steep mountains	PM Precipitous
H High 90–300 m (about 150 m)	–	–	UH Undulating hills	RH Rolling hills	SH Steep hills	VH Very steep hills	PH Precipitous hills
L Low 30–90 m (about 50 m).	–	–	UL Undulating low hills	RL Rolling low hills	SL Steep low hills	VL Very steep low hills	B Badlands
R Very low 9–30 m (about 15 m)	–	GR Gently undulating rises	UR Undulating rises	RR Rolling rises	SR Steep rises	B Badlands	B Badlands
P Extremely low <9 m)	LP Level plain	GP Gently undulating plain	UP Undulating plain	RP Rolling plain	B badlands	B Badlands	B Badlands

Source: Speight (1990)

Particular sensitivities to proposed impacts (incl. fragmentation):.....

.....

.....

Special conservation significance:.....

cultural .....

commercial .....

recreational .....

observed or Horticultural Crops .....Grazing.....

Other notes:

- Some logging + clearing of understorey
- Recent fire scars
- vegetation fringing watercourse is RE 11.3.25

Tertiary Site Vegetation Assessment Data Sheet Job Number: B60184001

Site Number: 11 KP: KP 3.8 Assessor: CL Date 24/6/2006

Location: Alt Residue

Photo Number: 1320 UTM WGS84 Easting 311000 Northing 7362542 Wpt 34

Width of RE: <35m wide ; 35-75m ; 75-150m ; 150-300m ; >300 ; (not linear)

Width of total remnant: <35m wide ; 35-75m ; 75-150m ; 150-300m ; >300 ; (not linear)

Total RE Area: Does not extend beyond site; <1ha ; 1-5ha; 5-20ha ; 20-50ha ; >50ha

Total remnant Area: Does not extend beyond site; <1ha ; 1-5ha; 5-20ha ; 20-50ha ; >50ha

	RE code	EPBC status	VMA status	EPA status
DNRW RE map	12·11·6/12·11·14	–	NOC/OC	NC/OC
Survey result	12·11·6	–	NOC	NC

Canopy stratum growth form: tree Canopy Crown Cover: 15 %

Canopy Median Height: 16 m. Structural Code:

All woody species present within 50m x 10m plot (plus dominant and EVR non-woody species)

Name	Rel. Dom.	Height (Ocular estimate (m)) E	T1	T2	T3	S1	S2	G	Abundance (B (Basal Area); C (Cover Estimate)) E	T1	T2	T3	S1	S2	G
Co citriodora	D		16							10					
Euc cebra	C		15							5					
Euc fibrosa	U			12							<5				
Cor erythrophloia	U			10							<5				
Lophostemon suaveolens	U			8							<5				
Xanthorrhoea johnsonii	U						2							<5	
Pogonolobus reticulatus	C						1.5							<5	
Acacia sp	C				4							5			10
Lomandra sp	U							0.5							<5
Themeda triandra	C							1							10
Hyparrhenia rufa *	U							1							<5 (C in cleared areas)
Aristida sp	C														5
Rock cover (%) 10															
Bare ground cover (%) 20															
Litter cover (%) 50															
Cryptogam cover (%)															
Average/Total															

*Species annotations: C Collected * Exotic Species ** Declared Species + Outside but adjoining 50m x 10m plot*
Rel. Dom. = Relative Dominance within stratum (D = dominant; C = Common; U = Uncommon; R = Rare)
Strata: E = Emergent; T1-3 = Tree strata 1-3; S1-2 = Shrub strata 1-2; G = Ground stratum
Basal Area = Basal area using Bitterlich technique (m^2/ha) Cover = Percentage Cover using ocular estimate

Scheduled flora possibilities: No / ~~Yes~~ (if so .....collected? Y / N
.....collected? Y / N

Additional notes on pest plants .....
.....
.....

Weed Cover (%): (<5) ; 5-25 ; 25-50 ; >50 higher in cleared areas

Disturbance (% of site affected): 0, <1; 1-5; >5

Health: Pristine / Excellent / Very Good / (Good) / Average / Degraded / Completely Degraded (almost without natives)

Slope: Crest; Ridge; Hillock; (Simple slope); Upper slope; Mid slope; Lower slope; Flat; Open depression; Closed depression

Soils: Map; Cutting, Core; (Surface observation) **Reliability:** (Low), Medium, High

Soil Colour: whitish; grayish; mottled; yellow; orange; (brown); (red); black; dark; grey; pale

Soil Texture: clay; clay loam; silty loam; loam; sandy loam; sand; stony; silty clay; (sandy clay); silty clay loam; sandy clay loam; loam sand gravelly

Table 24 CORVEG landform situation codes

Landform situation	Code	Landform situation	Code
PLAIN		HILLS, MOUNTAINS, TABLELANDS	
Not otherwise specified, flat gentle slopes, undulating terrain	A	Slope or hill not specified	F
Downs, open downs, rolling downs, ashy downs, pebbly downs	*	Cliff (steep rocky faces), rocky ledge, rocky outcrop, scarp, crack in rock, crevices	L
Alluvial plain or flat, alluvium, flood plain	B	Coastal rocky headland	N
Inland clay pan, salt flat or pan (inland)	U	Top, crest of mountain or ridge	K
Tidal flat, salt flat (coastal)	V	Jump-up, mesa, tableland, plateau	Q
STREAMS		DUNE	
Lakes, banks of lake, river, stream, water course, levees + permanent water	C	Fossil coastal dune, high dune	S
Gully, drainage line, ravine gorge, outwash— + intermittently wet	D	Unspecified coastal dune, beach dune, recent coastal dune, low dune, coastal sandhill	R
Bed of channel—distributaries of inland streams, beds + intermittently flooded	E	Inland dune, inland sandhill	T
		WATER	
		Freshwater lake, lagoon, spring, stream	X
		Freshwater swamp, marsh, soak, seepage area	W
		Karst, melon hole, sinkhole	Z
		Saltwater, sea, saltwater swamp	Y

Table 25 CORVEG types of erosional landform patterns by slope and relief class codes

Slope class							
Class	LE Level	VG Very gently inclined	GE Gently inclined	MO Moderately inclined	ST Steep	VS Very steep	PR Precipitous
Percentage	<1	1–3	3–10	10–32	32–56	56–100	100
Degrees (rounded to nearest whole number)	0	1–2	3–5	7–18	19–29	30–45	>45
Relief class	**Erosional landform pattern**						
M Very high >300 m (about 500 m)	–	–	–	RM Rolling mountains	SM Steep mountains	VM Very steep mountains	PM Precipitous
H High 90–300 m (about 150 m)	–	–	UH Undulating hills	RH Rolling hills	SH Steep hills	VH Very steep hills	PH Precipitous hills
L Low 30–90 m (about 50 m)	–	–	UL Undulating low hills	RL Rolling low hills	SL Steep low hills	VL Very steep low hills	B Badlands
R Very low 9–30 m (about 15 m)	–	GR Gently undulating rises	UR Undulating rises	RR Rolling rises	SR Steep rises	B Badlands	B Badlands
P Extremely low <9 m)	LP Level plain	GP Gently undulating plain	UP Undulating plain	RP Rolling plain	B badlands	B Badlands	B Badlands

Source: Speight (1990)

Particular sensitivities to proposed impacts (incl. fragmentation):.....
.....
.....

Special conservation significance:.....
cultural .....
commercial .....
recreational .....
observed or Horticultural Crops .....

Other notes:
– adjacent to high pressure gas pipeline and
old track (old railway line?)
– creekline about 100 m to North

Tertiary Site Vegetation Assessment Data Sheet Job Number: B60184001

Site Number: 1 KP: ..... Assessor: CL Date: 14/8/2007

Location: Gladstone Alt Residue

Photo Number: 1682 UTM WGS84 Easting 306 600 Northing 7 353 862 wpt 1

Width of RE: <35m wide ; 35-75m ; 75-150m ; 150-300m ; >300 ; (not linear)
Width of total remnant: <35m wide ; 35-75m ; 75-150m ; 150-300m ; >300 ; (not linear)
Total RE Area: Does not extend beyond site; <1ha ; 1-5ha; 5-20ha ; 20-50ha ; (>50ha)
Total remnant Area: Does not extend beyond site; <1ha ; 1-5ha; 5-20ha ; 20-50ha ; (>50ha)

	RE code	EPBC status	VMA status	EPA status
DNRW RE map	11.11.3 / 11.11.15 / 11.3.26	—	N/N/N	N/N/N
Survey result	11.11.3	—	N	N

Canopy stratum growth form: Tree Canopy Crown Cover: 30 %
Canopy Median Height: 15 m. Structural Code: .....

All woody species present within 50m x 10m plot (plus dominant and EVR non-woody species)

Name	Rel. Dom.	Height (Ocular estimate (m)) E	T1	T2	T3	S1	S2	G	Abundance (B (Basal Area); C (Cover Estimate)) E	T1	T2	T3	S1	S2	G
Euc crebra	D		15							15					
Cor citriodora	D		15							15					
Euc excerta	U		12							<5					
Lophostemon suaveolens	U			6							<5				
Alphitonia excelsa	C				3							<5			
Pterocaulon sphacelatum	U							0.75							
Sida subspicata	C							1							
Heteropogon contortus	D							0.75							
Aristida calycina?	C							0.5							
Chrysopogon fallax	C							0.5							
Melens repens *	U							0.5							
Passiflora suberosa *	U					2									
Dodonaea viscosa?	U							1							
Lantana camara **	U					2									
C - Asteraceae shrub - toothed leaf, aromatic	U							1.5							
Plants 50															
Rock cover (%) 15															
Bare ground cover (%) 10															
Litter cover (%) 25															
Cryptogam cover (%)															
Average/Total															

*Species annotations: C Collected * Exotic Species ** Declared Species + Outside but adjoining 50m x 10m plot*
Rel. Dom. = Relative Dominance within stratum (D = dominant; C = Common; U = Uncommon; R = Rare)
Strata: E = Emergent; T1-3 = Tree strata 1-3; S1-2 = Shrub strata 1-2; G = Ground stratum
Basal Area = Basal area using Bitterlich technique (m^2/ha) Cover = Percentage Cover using ocular estimate

Scheduled flora possibilities: No / ~~Yes~~ (if so .....collected? Y / N
.....collected? Y / N

Additional notes on pest plants .....

.....

.....

Weed Cover (%): (<5) ; 5-25 ; 25-50 ; >50

Disturbance (% of site affected): 0, <1; 1-5; >5

Health: Pristine / Excellent / (Very Good) / Good / Average / Degraded / Completely Degraded (almost without natives)

Slope: Crest; Ridge; Hillock; ~~Simple slope~~; Upper slope; Mid slope; (Lower slope); Flat; Open depression; Closed depression

Soils: Map; Cutting, Core; (Surface observation) **Reliability:** (Low), Medium, ~~High~~

Soil Colour: whitish; grayish; mottled; yellow; orange; (brown); red; black; dark; grey; pale

Soil Texture: clay; clay loam; silty loam; loam; sandy loam; sand; stony; silty clay; (sandy clay); silty clay loam; sandy clay loam; loam sand

Table 24 CORVEG landform situation codes

Landform situation	Code	Landform situation	Code
PLAIN		HILLS, MOUNTAINS, TABLELANDS	
Not otherwise specified, flat gentle slopes, undulating terrain	A	Slope or hill not specified	F
Downs, open downs, rolling downs, ashy downs, pebbly downs	*	Cliff (steep rocky faces), rocky ledge, rocky outcrop, scarp, crack in rock, crevices	L
Alluvial plain or flat, alluvium, flood plain	B	Coastal rocky headland	N
Inland clay pan, salt flat or pan (inland)	U	Top, crest of mountain or ridge	K
Tidal flat, salt flat (coastal)	V	Jump-up, mesa, tableland, plateau	Q
STREAMS		DUNE	
Lakes, banks of lake, river, stream, water course, levees + permanent water	C	Fossil coastal dune, high dune	S
Gully, drainage line, ravine gorge, outwash— + intermittently wet	D	Unspecified coastal dune, beach dune, recent coastal dune, low dune, coastal sandhill	R
Bed of channel—distributaries of inland streams, beds + intermittently flooded	E	Inland dune, inland sandhill	T
		WATER	
		Freshwater lake, lagoon, spring, stream	X
		Freshwater swamp, marsh, soak, seepage area	W
		Gilgai, melon hole, sinkhole	Z
		Saltwater, sea, saltwater swamp	Y

Table 25 CORVEG types of erosional landform patterns by slope and relief class codes

Slope class							
Class	LE Level	VG Very gently inclined	GE Gently inclined	MO Moderately inclined	ST Steep	VS Very steep	PR Precipitous
Percentage	<1	1–3	3–10	10–32	32–56	56–100	100
Degrees (rounded to nearest whole number)	0	1–2	3–5	7–18	18–29	30–45	>45
Relief class			**Erosional landform pattern**				
M Very high >300 m (about 500 m)	–	–	–	RM Rolling mountains	SM Steep mountains	VM Very steep mountains	PM Precipitous
H High 90–300 m (about 150 m)	–	–	UH Undulating hills	RH Rolling hills	SH Steep hills	VH Very steep hills	PH Precipitous hills
L Low 30–90 m (about 50 m)	–	–	UL Undulating low hills	RL Rolling low hills	SL Steep low hills	VL Very steep low hills	B Badlands
R Very low 9–30 m (about 15 m)	–	GR Gently undulating rises	UR Undulating rises	RR Rolling rises	SR Steep rises	B Badlands	B Badlands
P Extremely low <9 m)	LP Level plain	GP Gently undulating plain	UP Undulating plain	RP Rolling plain	B badlands	B Badlands	B Badlands

Source: Speight (1990)

Particular sensitivities to proposed impacts (incl. fragmentation):.....

.....

.....

Special conservation significance:.....

cultural .....

commercial .....

recreational .....

observed or Horticultural Crops .....

Other notes: Beside small gully – very little erosion
– ph 0 1683-5

Tertiary Site Vegetation Assessment Data Sheet Job Number: .....

Site Number: ..2.. KP: ..... Assessor: CL Date : 14 / 8 /2007

Location: Gladstone Alt Residue

Photo Number: 1687 UTM WGS84 Easting 307 379 Northing 7 354 234

wpt 005

Width of RE: <35m wide ; 35-75m ; (75-150m) ; 150-300m ; >300 ; not linear

Width of total remnant: <35m wide ; 35-75m ; (75-150m) ; 150-300m ; >300 ; not linear

Total RE Area: Does not extend beyond site; <1ha ; 1-5ha; 5-20ha ; 20-50ha ; >50ha

Total remnant Area: Does not extend beyond site; <1ha ; 1-5ha; 5-20ha ; 20-50ha ; >50ha

	RE code	EPBC status	VMA status	EPA status
DNRW RE map	11.11.3/11.11.15/11.3.26/11.11.18	-/-/-/E	N/N/N/E	N/N/N/E
Survey result	11.3.4	-	N	N

Canopy stratum growth form: tree Canopy Crown Cover: 30 %

Canopy Median Height: 18 m. Structural Code: .....

All woody species present within 50m x 10m plot (plus dominant and EVR non-woody species)

Name	Rel. Dom.	Height (Ocular estimate (m))							Abundance (B (Basal Area); C (Cover Estimate))						
		E	T1	T2	T3	S1	S2	G	E	T1	T2	T3	S1	S2	G
Euc tereticornis	C		18							5					
Cor citriodora	C		18							10					
Euc crebra	C		16							15					
Mallotus philippensis	U				2										
Petalostigma pubescens	U				3										
Geijera salicifolia?	U			5											
Pogonolobus reticulatus	U				2										
Carissa ovata	U					2									
Trophis scandens	U				3										
(red fruit with fleshy base)															
Eustrephus latifolius	U							1							
Lomandra sp	U							1							
Heteropogon contortus	C							1							10
Alphitonia excelsa	U				2										
Sida subspicata	C							1.5							10
Cryptostegia grandiflora **	U					1.5									
Lantana montevidensis *	C							0.2							15
" camara *	U					2									
Passiflora suberosa *	U					2									
Melinis repens *	U							0.75							
Diospyros geminata	U				1										
Rock cover (%) 5															
Bare ground cover (%) 10															
Litter cover (%) 50															
Cryptogam cover (%)															
Average/Total															

*Species annotations: C Collected * Exotic Species ** Declared Species + Outside but adjoining 50m x 10m plot*
Rel. Dom. = Relative Dominance within stratum (D = dominant; C = Common; U = Uncommon; R = Rare)
Strata: E = Emergent; T1-3 = Tree strata 1-3; S1-2 = Shrub strata 1-2; G = Ground stratum
Basal Area = Basal area using Bitterlich technique (m^2/ha) Cover = Percentage Cover using ocular estimate

Scheduled flora possibilities: No / Yes (if so .....collected? Y / N
.....collected? Y / N

Additional notes on pest plants .....

.....

.....

Weed Cover (%): <5 ; (5-25); 25-50 ; >50

Disturbance (% of site affected): 0, (<1); 1-5; >5

Health: Pristine / Excellent / Very Good / Good / (Average) Degraded / Completely Degraded (almost without natives)

Slope: Crest; Ridge; Hillock; Simple slope; Upper slope; Mid slope; (Lower slope); Flat; Open depression; Closed depression

Soils: Map; Cutting, Core; (Surface observation) **Reliability:** (Low), Medium, High

Soil Colour: whitish; grayish; mottled; yellow; orange; (brown); red; black; dark; grey; pale

Soil Texture: clay; clay loam; silty loam; loam; sandy loam; sand; stony; silty clay; (sandy clay); silty clay loam; sandy clay loam; loam sand

Table 24 CORVEG landform situation codes

Landform situation	Code	Landform situation	Code
PLAIN		HILLS, MOUNTAINS, TABLELANDS	
Not otherwise specified, flat gentle slopes, undulating terrain	A	Slope or hill not specified	F
Downs, open downs, rolling downs, ashy downs, pebbly downs	*	Cliff (steep rocky faces), rocky ledge, rocky outcrop, scarp, crack in rock, crevices	L
Alluvial plain or flat, alluvium, flood plain	B	Coastal rocky headland	N
Inland clay pan, salt flat or pan (inland)	U	Top, crest of mountain or ridge	K
Tidal flat, salt flat (coastal)	V	Jump-up, mesa, tableland, plateau	Q
STREAMS		DUNE	
Lakes, banks of lake, river, stream, water course, levees + permanent water	C	Fossil coastal dune, high dune	S
Gully, drainage line, ravine gorge, outwash — + intermittently wet	D	Unspecified coastal dune, beach dune, recent coastal dune, low dune, coastal sandhill	R
Bed of channel—distributaries of inland streams, beds + intermittently flooded	E	Inland dune, inland sandhill	T
		WATER	
		Freshwater lake, lagoon, spring, stream	K
		Freshwater swamp, marsh, soak, seepage area	W
		Gilgai, melon hole, sinkhole	Z
		Saltwater, sea, saltwater swamp	Y

Table 25 CORVEG types of erosional landform patterns by slope and relief class codes

Slope class							
Class	LE Level	VG Very gently inclined	GE Gently inclined	MO Moderately inclined	ST Steep	VS Very steep	PR Precipitous
Percentage	<1	1–3	3–10	10–32	32–56	56–100	100
Degrees (rounded to nearest whole number)	0	1–2	3–6	7–18	19–29	30–45	>45
Relief class	**Erosional landform pattern**						
M Very high >300 m (about 500 m)	–	–	–	RM Rolling mountains	SM Steep mountains	VM Very steep mountains	PM Precipitous
H High 90–300 m (about 150 m)	–	–	UH Undulating hills	RH Rolling hills	SH Steep hills	VH Very steep hills	PH Precipitous hills
L Low 30–90 m (about 50 m)	–	–	UL Undulating low hills	RL Rolling low hills	SL Steep low hills	VL Very steep low hills	B Badlands
R Very low 9–30 m (about 15 m)	–	GR Gently undulating rises	UR Undulating rises	RR Rolling rises	SR Steep rises	B Badlands	B Badlands
P Extremely low <9 m)	LP Level plain	GP Gently undulating plain	UP Undulating plain	RP Rolling plain	B badlands	B Badlands	B Badlands

Source: Speight (1990)

Particular sensitivities to proposed impacts (incl. fragmentation):.....

.....

.....

Special conservation significance:.....

cultural .....

commercial .....

recreational .....

observed or Horticultural Crops .....

Other notes: Gully – minor erosion

– incised bank ≤ 2m

ph. 1688-70

– surrounding area – Euc moluccana + Euc crebra/citriodora D

Tertiary Site Vegetation Assessment Data Sheet Job Number: .....

Site Number: 3 KP: ..... Assessor: CL Date: 14 / 8 /2007

Location: Gladstone - Alt Res

Photo Number: 1691 → S, 1692 → N UTM WGS84 Easting 307720 Northing 7354246 wpt 7

Width of RE: <35m wide ; 35-75m ; 75-150m ; 150-300m ; >300 ; not linear

Width of total remnant: <35m wide ; 35-75m ; 75-150m ; 150-300m ; >300 ; not linear

Total RE Area: Does not extend beyond site; <1ha ; 1-5ha; 5-20ha ; 20-50ha ; >50ha

Total remnant Area: Does not extend beyond site; <1ha ; 1-5ha; 5-20ha ; 20-50ha ; >50ha

	RE code	EPBC status	VMA status	EPA status
DNRW RE map	11.11.3/11.11.15/11.3.26/11.11.18	-/-/-/E	N/N/N/E	N/N/N/E
Survey result	11.3.4	—	0	0

Canopy stratum growth form: tree Canopy Crown Cover: 30 %

Canopy Median Height: 15 m. Structural Code: Mid cover - 20% → S, 5% → N

All woody species present within 50m x 10m plot (plus dominant and EVR non-woody species)

Name	Rel. Dom.	Height (Ocular estimate (m))							Abundance (B (Basal Area); C (Cover Estimate))						
		E	T1	T2	T3	S1	S2	G	E	T1	T2	T3	S1	S2	G
Melaleuca fluviatilis	U		·	8						<5					
Euc. tereticornis	U		16							<5					
Lophostemon suaveolens	C		15							15					
Euc crebra	C		15							15					
Pleurogynium timorense	U		·	12						<5					
Geijera salicifolia	C				5										5
Alphitonia excelsa	U				3										
Canthium sp	U				2										
Jagera pseudorhus	U				3										
Pogonolobus reticulatus	U					2									
Carissa ovata	U					1-5									
Acacia fasciculifera	U			8	·										
Lomandra sp	U							075							
Petalostigma pubescens	U				3										
Arundinella nepalensis	C							1							5
Heteropogon contortus	C														10
Aristida sp	C														15
Lantana montevidensis **	C														10
Asclepia curassavica *	U														
Opuntia stricta *	U														
Ageratum houstonianum *	U														
Lantana camara **	U														
Rock cover (%) 5															
Bare ground cover (%) 5															
Litter cover (%) 50															
Cryptogam cover (%)															
Average/Total															

*Species annotations: C Collected * Exotic Species ** Declared Species + Outside but adjoining 50m x 10m plot*

Rel. Dom. = Relative Dominance within stratum (D = dominant; C = Common; U = Uncommon; R = Rare)

Strata: E = Emergent; T1-3 = Tree strata 1-3; S1-2 = Shrub strata 1-2; G = Ground stratum

Basal Area = Basal area using Bitterlich technique (m^2/ha) Cover = Percentage Cover using ocular estimate

Scheduled flora possibilities: No / Yes (if so .....collected? Y / N
.....collected? Y / N

Additional notes on pest plants .....
.....
.....

Weed Cover (%): <5 ; 5-25 ; 25-50 ; >50

Disturbance (% of site affected): 0, <1; 1-5; >5

Health: Pristine / Excellent / Very Good / Good / Average / Degraded / Completely Degraded (almost without natives)

Slope: Crest; Ridge; Hillock; Simple slope; Upper slope; Mid slope; (Lower slope; Flat;) Open depression; Closed depression

Soils: Map; Cutting, Core; Surface observation **Reliability:** (Low,) Medium, High

Soil Colour: whitish; grayish; mottled; yellow; orange; (brown;) red; black; dark; grey; pale

Soil Texture: clay; clay loam; silty loam; loam; sandy loam; sand; stony; silty clay; (sandy clay;) silty clay loam; sandy clay loam; loam sand

Table 24 CORVEG landform situation codes

Landform situation	Code	Landform situation	Code
PLAIN		HILLS, MOUNTAINS, TABLELANDS	
Not otherwise specified, flat gentle slopes, undulating terrain	A	Slope or hill not specified	F
Downs, open downs, rolling downs, ashy downs, pebbly downs	*	Cliff (steep rocky faces), rocky ledge, rocky outcrop, scarp, crack in rock, crevices	L
Alluvial plain or flat, alluvium, flood plain	B	Coastal rocky headland	N
Inland clay pan, salt flat or pan (inland)	U	Top, crest of mountain or ridge	K
Tidal flat, salt flat (coastal)	V	Jump-up, mesa, tableland, plateau	Q
STREAMS		DUNE	
Lakes, banks of lake, river, stream, water course, levees = permanent water	C	Fossil coastal dune, high dune	S
Gully, drainage line, ravine gorge, outwash— = intermittently wet	D	Unspecified coastal dune, beach dune, recent coastal dune, low dune, coastal sandhill	R
Bed of channel—distributaries of inland streams, beds = intermittently flooded	E	Inland dune, inland sandhill	T
		WATER	
		Freshwater lake, lagoon, spring, stream	X
		Freshwater swamp, marsh, soak, seepage area	W
		Gilgai, melon hole, sinkhole	Z
		Saltwater, sea, saltwater swamp	Y

Table 25 CORVEG types of erosional landform patterns by slope and relief class codes

Slope class							
Class	LE Level	VG Very gently inclined	GE Gently inclined	MO Moderately inclined	ST Steep	VS Very steep	PR Precipitous
Percentage	<1	1–3	3–10	10–32	32–56	56–100	100
Degrees (rounded to nearest whole number)	0	1–2	3–6	7–18	18–29	30–45	>45
Relief class	**Erosional landform pattern**						
M Very high >300 m (about 500 m)	–	–	–	RM Rolling mountains	SM Steep mountains	VM Very steep mountains	PM Precipitous
H High 90–300 m (about 150 m)	–	–	UH Undulating hills	RH Rolling hills	SH Steep hills	VH Very steep hills	PH Precipitous hills
L Low 30–90 m (about 50 m)	–	–	UL Undulating low hills	RL Rolling low hills	SL Steep low hills	VL Very steep low hills	B Badlands
R Very low 9–30 m (about 15 m)	–	GR Gently undulating rises	UR Undulating rises	RR Rolling rises	SR Steep rises	B Badlands	B Badlands
P Extremely low <9 m)	LP Level plain	GP Gently undulating plain	UP Undulating plain	RP Rolling plain	B badlands	B Badlands	B Badlands

Source: Speight (1990)

Particular sensitivities to proposed impacts (incl. fragmentation):.....
.....
.....

Special conservation significance:.....
cultural .....
commercial .....
recreational .....
observed or Horticultural Crops .....

Other notes: Denser vegetation → S of track (still not vine thicket)
More open (~20% canopy) → N
hill → N of Road Reserve – Cor. citriodora D (11:11:3)
Gully – incised bank ≤ 3m ph 1694-5
– mins erosion

Tertiary Site Vegetation Assessment Data Sheet Job Number: B60184001

Site Number: 4 KP: ..... Assessor: CL Date: 14/8/2007

Location: Gladstone – Alt Residue – Vine thicket with eucalypt overstorey

Photo Number: 1707 to 1709 UTM WGS84 Easting 308 635 Northing 7 355 463 opt 14

Width of RE: <35m wide ; (35-75m) ; 75-150m ; 150-300m ; >300 ; not linear

Width of total remnant: <35m wide ; 35-75m ; 75-150m ; 150-300m ; >300 ; (not linear)

Total RE Area: Does not extend beyond site; <1ha ; 1-5ha; 5-20ha ; 20-50ha ; >50ha

Total remnant Area: Does not extend beyond site; <1ha ; 1-5ha; 5-20ha ; 20-50ha ; >50ha

	RE code	EPBC status	VMA status	EPA status
DNRW RE map	11.3.26	N	N	N
Survey result	11.3.11	E	E Mid	E cover 75%

Canopy stratum growth form: ..... Canopy Crown Cover: 25 %

Canopy Median Height: 16 m. Structural Code: .....

All woody species present within 50m x 10m plot (plus dominant and EVR non-woody species)

	Name	Rel. Dom.	Height Ocular estimate (m) E	T1	T2	T3	S1	S2	G	Abundance B (Basal Area); C (Cover Estimate) E	T1	T2	T3	S1	S2	G
	Drypetes deplanchei	U				4										
	Euc moluccana	D		16							10					
	Euc tereticornis	C		16							5					
	Melaleuca trichostachya	C			10						10					
C-	Croton insularis					2										
	Flueggea virosa/salicifolia	U			8											
C-	Acalypha eremorum	U					2									
	Carissa ovata	U					1.5									
C-	Terminalia (leaf 2-6cm)	U			8											
	Bursaria spinosa	D					2							20		
	Cryptostegia grandiflora	U					2									
C-	Atalaya (2ns leaflets)	U			7											
	pale trunk															
C-	Diospyros sp (leaf pale underside)	U			6											
	Panicum maximum *	U							1							
C-	Rivina humilis *	C							0.75							10
	Lantana camara * *	C					2							10		
C-	Elaeodendron melanocarpum	U			6											
	Abutilon microphetalum?	U					1.5									
	Mallotus discolor	U				4										
	Alstonia muelleri?	U				2										
	Rock cover (%) —															
	Bare ground cover (%) —															
	Litter cover (%) 60%															
	Cryptogam cover (%)															
	Average/Total															

*Species annotations: C Collected * Exotic Species ** Declared Species + Outside but adjoining 50m x 10m plot*
Rel. Dom. = Relative Dominance within stratum (D = dominant; C = Common; U = Uncommon; R = Rare)
Strata: E = Emergent; T1-3 = Tree strata 1-3; S1-2 = Shrub strata 1-2; G = Ground stratum
Basal Area = Basal area using Bitterlich technique (m^2/ha) Cover = Percentage Cover using ocular estimate

Breynia oblongifolia U 1.5

11.3.11 ?

Scheduled flora possibilities: No / Yes (if so ....collected? Y / N
....collected? Y / N

Additional notes on pest plants ......herb ?......
......Dense Lantana on edges ...... Solanum seaforthianum......

......

Weed Cover (%): <5 ; (5-25) ; 25-50 ; >50

Disturbance (% of site affected): 0, (<1;) 1-5; >5

Health: Pristine / Excellent / Very Good / (Good /) Average / Degraded / Completely Degraded (almost without natives)

Slope: Crest; Ridge; Hillock; ~~Simple slope~~; Upper slope; Mid slope; Lower slope; (Flat;) Open depression; Closed depression

Soils: Map; Cutting, Core; (Surface observation) **Reliability:** (Low,) Medium, High

Soil Colour: whitish; grayish; mottled; yellow; orange; brown; red; black; dark; (grey;) pale

Soil Texture: clay; clay loam; silty loam; loam; sandy loam; sand; stony; silty clay; (sandy clay;) silty clay loam; sandy clay loam; loam sand

Table 24 CORVEG landform situation codes

Landform situation	Code	Landform situation	Code
PLAIN		HILLS, MOUNTAINS, TABLELANDS	
Not otherwise specified, flat gentle slopes, undulating terrain	A	Slope or hill not specified	F
Downs, open downs, rolling downs, ashy downs, pebbly downs	*	Cliff (steep rocky faces), rocky ledge, rocky outcrop, scarp, crack in rock, crevices	L
Alluvial plain or flat, alluvium, flood plain	B	Coastal rocky headland	N
Inland clay pan, salt flat or pan (inland)	U	Top, crest of mountain or ridge	K
Tidal flat, salt flat (coastal)	V	Jump-up, mesa, tableland, plateau	Q
STREAMS		DUNE	
Lakes, banks of lake, river, stream, water course, levees + permanent water	C	Fossil coastal dune, high dune	S
Gully, drainage line, ravine gorge, outwash— + intermittently wet	(D)	Unspecified coastal dune, beach dune, recent coastal dune, low dune, coastal sandhill	R
Bed of channel—distributaries of inland streams, beds + intermittently flooded	E	Inland dune, inland sandhill	T
		WATER	
		Freshwater lake, lagoon, spring, stream	X
		Freshwater swamp, marsh, soak, seepage area	W
		Gilgai, melon hole, sinkhole	Z
		Saltwater, sea, saltwater swamp	Y

Table 25 CORVEG types of erosional landform patterns by slope and relief class codes

Slope class							
Class	(LE Level)	VG Very gently inclined	GE Gently inclined	MO Moderately inclined	ST Steep	VS Very steep	PR Precipitous
Percentage	<1	1–3	3–10	10–32	32–56	56–100	100
Degrees (rounded to nearest whole number)	0	1–2	3–6	7–18	19–29	30–45	>45
Relief class			**Erosional landform pattern**				
M Very high >300 m (about 500 m)	–	–	–	RM Rolling mountains	SM Steep mountains	VM Very steep mountains	PM Precipitous
H High 90–300 m (about 150 m)	–	–	UH Undulating hills	RH Rolling hills	SH Steep hills	VH Very steep hills	PH Precipitous hills
L Low 30–90 m (about 50 m)	–	–	UL Undulating low hills	RL Rolling low hills	SL Steep low hills	VL Very steep low hills	B Badlands
R Very low 9–30 m (about 15 m)	–	GR Gently undulating rises	UR Undulating rises	RR Rolling rises	SR Steep rises	B Badlands	B Badlands
P Extremely low <9 m)	(LP Level plain)	GP Gently undulating plain	UP Undulating plain	RP Rolling plain	B badlands	B Badlands	B Badlands

Source: Speight (1990)

Particular sensitivities to proposed impacts (incl. fragmentation):......

......

Special conservation significance:......

cultural ......

commercial ......

recreational ......

observed or Horticultural Crops ......

Other notes: Creek – wpt 1710-11

– probably provides some fire protection for VT

→ N – Euc moluccana dominated WL

NE end wpt 21

N side wpt 22, 23

Tertiary Site Vegetation Assessment Data Sheet Job Number: .....

Site Number: 5 KP: ..... Assessor: CL Date : 14/8/2007

Location: Gladstone – Alt Residue – Southern side of powerline

Photo Number: 1703 UTM WGS84 Easting 305855 Northing 7352305

Width of RE: <35m wide ; 35-75m ; 75-150m ; 150-300m ; >300 ; (not linear) 10ft 18

Width of total remnant: <35m wide ; 35-75m ; 75-150m ; 150-300m ; >300 ; (not linear)

Total RE Area: Does not extend beyond site; <1ha ; 1-5ha; 5-20ha ; 20-50ha ; >50ha

Total remnant Area: Does not extend beyond site; <1ha ; 1-5ha; 5-20ha ; 20-50ha ; >50ha

	RE code	EPBC status	VMA status	EPA status
DNRW RE map	11.11.4 / 11.11.15	–	N / N	N/N
Survey result	11.11.4	–	N	N

Canopy stratum growth form: tree Canopy Crown Cover: 20 %

Canopy Median Height: 12 m. Structural Code: .....

All woody species present within 50m x 10m plot (plus dominant and EVR non-woody species)

Name	Rel. Dom.	Height Ocular estimate (m)							Abundance B (Basal Area); C (Cover Estimate)						
		E	T1	T2	T3	S1	S2	G	E	T1	T2	T3	S1	S2	G
Euc crebra	C		12							10					
Cor citriodora	C		12							10					
Euc acmenoides	U		12							<5					
Lophostemon suaveolens	U			10							<5				
Euc moluccana	U			10							<5				
Acacia sp	U				5							<5			
Caparis canescens	U							1							<5
Sida subspicata	C							1							5
Heteropogon contortus	C							1							10
Chrysopogon fallax	C							1							5
Themeda triandra	C							0.75							5
Aristida sp	C							0.5							10
Helichrysum apiculatum	U							0.5							<5
Peripleura sp	U							0.3							<5
Rock cover (%) 10															
Bare ground cover (%) 20															
Litter cover (%) 40															
Cryptogam cover (%)															
Average/Total															

*Species annotations: C Collected * Exotic Species ** Declared Species + Outside but adjoining 50m x 10m plot*
Rel. Dom. = Relative Dominance within stratum (D = dominant; C = Common; U = Uncommon; R = Rare)
Strata: E = Emergent; T1-3 = Tree strata 1-3; S1-2 = Shrub strata 1-2; G = Ground stratum
Basal Area = Basal area using Bitterlich technique (m^2/ha) Cover = Percentage Cover using ocular estimate

Scheduled flora possibilities: No / Yes (if so .....collected? Y / N
.....collected? Y / N

Additional notes on pest plants .....

.....

.....

Weed Cover (%): (<5) ; 5-25 ; 25-50 ; >50

Disturbance (% of site affected): 0, (<1) 1-5; >5

Health: Pristine / Excellent / (Very Good) / Good / Average / Degraded / Completely Degraded (almost without natives)

Slope: Crest; Ridge; Hillock; (Simple slope); Upper slope; Mid slope; Lower slope; Flat; Open depression; Closed depression

Soils: Map; Cutting, Core; (Surface observation) **Reliability:** (Low,) Medium, High

Soil Colour: whitish; grayish; mottled; yellow; orange; brown; red; black; dark; (grey;) pale

Soil Texture: clay; clay loam; silty loam; loam; sandy loam; sand; stony; silty clay; (sandy clay;) silty clay loam; sandy clay loam; loam sand

Table 24 CORVEG landform situation codes

Landform situation	Code	Landform situation	Code
PLAIN		HILLS, MOUNTAINS, TABLELANDS	
Not otherwise specified, flat gentle slopes, undulating terrain	A	Slope or hill not specified	F
Downs, open downs, rolling downs, ashy downs, pebbly downs	*	Cliff (steep rocky faces), rocky ledge, rocky outcrop, scarp, crack in rock, crevices	L
Alluvial plain or flat, alluvium, flood plain	B	Coastal rocky headland	N
Inland clay pan, salt flat or pan (inland)	U	Top, crest of mountain or ridge	K
Tidal flat, soil flat (coastal)	V	Jump-up, mesa, tableland, plateau	Q
STREAMS		DUNE	
Lakes, banks of lake, river, stream, water course, levees + permanent water	C	Fossil coastal dune, high dune	S
Gully, drainage line, ravine gorge, outwash— + intermittently wet	D	Unspecified coastal dune, beach dune, recent coastal dune, low dune, coastal sandhill	R
Bed of channel—distributaries of inland streams, beds + intermittently flooded	E	Inland dune, inland sandhill	T
		WATER	
		Freshwater lake, lagoon, spring, stream	X
		Freshwater swamp, marsh, soak, seepage area	W
		Gilgai, melon hole, sinkhole	Z
		Saltwater, sea, saltwater swamp	Y

Table 25 CORVEG types of erosional landform patterns by slope and relief class codes

Slope class							
Class	LE Level	VG Very gently inclined	GE Gently inclined	MO Moderately inclined	ST Steep	VS Very steep	PR Precipitous
Percentage	<1	1–3	3–10	10–32	32–56	56–100	100
Degrees (rounded to nearest whole number)	0	1–2	3–6	7–18	19–29	30–45	>45
Relief class	**Erosional landform pattern**						
M Very high >300 m (about 500 m)	–	–	–	RM Rolling mountains	SM Steep mountains	VM Very steep mountains	PM Precipitous
H High 90–300 m (about 150 m)	–	–	UH Undulating hills	RH Rolling hills	SH Steep hills	VH Very steep hills	PH Precipitous hills
L Low 30–90 m (about 50 m)	–	–	UL Undulating low hills	RL Rolling low hills	SL Steep low hills	VL Very steep low hills	B Badlands
R Very low 9–30 m (about 15 m)	–	GR Gently undulating rises	UR Undulating rises	RR Rolling rises	SR Steep rises	B Badlands	B Badlands
P Extremely low <9 m)	LP Level plain	GP Gently undulating plain	UP Undulating plain	RP Rolling plain	B badlands	B Badlands	B Badlands

Source: Speight (1990)

Particular sensitivities to proposed impacts (incl. fragmentation):.....

.....

.....

Special conservation significance:.....

cultural .....

commercial .....

recreational .....

observed or Horticultural Crops .....

Other notes:

- Beside HV powerline

.....

- Euc. moluccana dominated woodland on alluvial flats to east

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.....

Tertiary Site Vegetation Assessment Data Sheet Job Number: .....

Site Number: 6 KP: ..... Assessor: ..... Date : 14/8/2007

Location: Gladstone, Alt Residue

Photo Number: 1704 UTM WGS84 Easting 306388 Northing 7352532 wpt 19

Width of RE: <35m wide ; (35-75m) ; 75-150m ; 150-300m ; >300 ; not linear

Width of total remnant: <35m wide ; 35-75m ; 75-150m ; 150-300m ; >300 ; (not linear)

Total RE Area: Does not extend beyond site; <1ha ; 1-5ha; 5-20ha ; 20-50ha ; >50ha

Total remnant Area: Does not extend beyond site; <1ha ; 1-5ha; 5-20ha ; 20-50ha ; >50ha

	RE code	EPBC status	VMA status	EPA status
DNRW RE map	11.3.26/11.11.15	—	N/N	N/N
Survey result	11.3.26		N	N

Canopy stratum growth form: tree Canopy Crown Cover: 40 %

Canopy Median Height: 18 m. Structural Code: .....

All woody species present within 50m x 10m plot (plus dominant and EVR non-woody species)

Name	Rel. Dom.	Height (Ocular estimate (m))							Abundance (B (Basal Area); C (Cover Estimate))						
		E	T1	T2	T3	S1	S2	G	E	T1	T2	T3	S1	S2	G
Euc moluccana	C		18							20					
Euc tereticornis	C		18							20					
Sophrostemon suaveolens	U			14											
Melaleuca trichostachya	C			5							10				
Banksia spinescens	C			2.5							10				
Alphitonia excelsa	U			1.5											
Drypetes lasiogyna	U			3											
Diospyros	U			3											
Arundinella nepalensis	C							1							20
Heteropogon contortus	C							1							10
Sida subspicata	C							1							5
Lantana camara **	C					2							10		
Aristida sp	U							0.5							5
Rock cover (%) —															
Bare ground cover (%) 5															
Litter cover (%) 50															
Cryptogam cover (%)															
Average/Total															

*Species annotations: C Collected * Exotic Species ** Declared Species + Outside but adjoining 50m x 10m plot*
Rel. Dom. = Relative Dominance within stratum (D = dominant; C = Common; U = Uncommon; R = Rare)
Strata: E = Emergent; T1-3 = Tree strata 1-3; S1-2 = Shrub strata 1-2; G = Ground stratum
Basal Area = Basal area using Bitterlich technique (m^2/ha) Cover = Percentage Cover using ocular estimate

Scheduled flora possibilities: No / Yes (if so .....collected? Y / N
.....collected? Y / N

Additional notes on pest plants .....

.....

.....

Weed Cover (%): <5 ; (5-25) ; 25-50 ; >50

Disturbance (% of site affected): 0, <1; (1-5;) >5

Health: Pristine / Excellent / Very Good / Good / (Average) / Degraded / Completely Degraded (almost without natives)

Slope: Crest; Ridge; Hillock; ~~Simple slope~~; Upper slope; Mid slope; Lower slope; (Flat; Open depression; Closed depression

Soils: Map; Cutting, Core; (Surface observation) **Reliability:** (Low,) Medium, High

Soil Colour: whitish; grayish; mottled; yellow; orange; brown; red; black; dark; (grey; pale)

Soil Texture: clay; clay loam; silty loam; loam; sandy loam; sand; stony; (silty clay) sandy clay; silty clay loam; sandy clay loam; loam sand

Table 24 CORVEG landform situation codes

Landform situation	Code	Landform situation	Code
PLAIN		HILLS, MOUNTAINS, TABLELANDS	
Not otherwise specified, flat gentle slopes, undulating terrain	A	Slope or hill not specified	F
Downs, open downs, rolling downs, ashy downs, pebbly downs	*	Cliff (steep rocky faces), rocky ledge, rocky outcrop, scarp, crack in rock, crevices	L
Alluvial plain or flat, alluvium, flood plain	B	Coastal rocky headland	N
Inland clay pan, salt flat or pan (inland)	U	Top, crest of mountain or ridge	K
Tidal flat, salt flat (coastal)	V	Jump-up, mesa, tableland, plateau	Q
STREAMS		DUNE	
Lakes, banks of lake, river, stream, water course, levees – permanent water	C	Fossil coastal dune, high dune	S
Gully, drainage line, ravine gorge, outwash— + intermittently wet	D	Unspecified coastal dune, beach dune, recent coastal dune, low dune, coastal sandhill	R
Bed of channel—distributaries of inland streams, beds + intermittently flooded	E	Inland dune, inland sandhill	T
		WATER	
		Freshwater lake, lagoon, spring, stream	X
		Freshwater swamp, marsh, soak, seepage area	W
		Gilgai, melon hole, sinkhole	Z
		Saltwater, sea, saltwater swamp	Y

Table 25 CORVEG types of erosional landform patterns by slope and relief class codes

Slope class							
Class	LE Level	VG Very gently inclined	GE Gently inclined	MO Moderately inclined	ST Steep	VS Very steep	PR Precipitous
Percentage	<1	1–3	3–10	10–32	32–56	56–100	100
Degrees (rounded to nearest whole number)	0	1–2	3–6	7–18	19–29	30–45	>45
Relief class	**Erosional landform pattern**						
M Very high >300 m (about 500 m)	–	–	–	RM Rolling mountains	SM Steep mountains	VM Very steep mountains	PM Precipitous
H High 90–300 m (about 150 m)	–	–	UH Undulating hills	RH Rolling hills	SH Steep hills	VH Very steep hills	PH Precipitous hills
L Low 30–90 m (about 50 m)	–	–	UL Undulating low hills	RL Rolling low hills	SL Steep low hills	VL Very steep low hills	B Badlands
R Very low 9–30 m (about 15 m)	–	GR Gently undulating rises	UR Undulating rises	RR Rolling rises	SR Steep rises	B Badlands	B Badlands
P Extremely low <9 m)	LP Level plain	GP Gently undulating plain	UP Undulating plain	RP Rolling plain	B badlands	B Badlands	B Badlands

Source: Speight (1990)

Particular sensitivities to proposed impacts (incl. fragmentation):.....
.....
.....

Special conservation significance:.....
cultural .....
commercial .....
recreational .....
observed or Horticultural Crops .....

Other notes: Creek - banks ≤ 2m - minor erosion
pk 1705
.....
.....
.....
- cleared powerline → south
- Euc. molucana dominated woodland → north (pk 1706)
.....
.....

Tertiary Site Vegetation Assessment Data Sheet Job Number: B60184001

Site Number: 7 KP: ..... Assessor: CL Date: 15/8/2007

Location: Gladstone Alt Residue

Photo Number: 1712 UTM WGS84 Easting 309283 Northing 7355978 wpt 46

Width of RE: <35m wide ; (35-75m); 75-150m ; 150-300m ; >300 ; not linear

Width of total remnant: <35m wide ; 35-75m ; 75-150m ; 150-300m ; >300 ; not linear

Total RE Area: Does not extend beyond site; <1ha ; 1-5ha; 5-20ha ; 20-50ha ; >50ha

Total remnant Area: Does not extend beyond site; <1ha ; 1-5ha; 5-20ha ; 20-50ha ; >50ha

	RE code	EPBC status	VMA status	EPA status
DNRW RE map	11.11.4 / 11.11.18	– / E	N / E	N / E
Survey result	11.11.4	–	N	N

Canopy stratum growth form: Tree Mid storey cover: 15 %

Canopy Crown Cover: 40 %

Canopy Median Height: 14 m. Structural Code: .....

All woody species present within 50m x 10m plot (plus dominant and EVR non-woody species)

Name	Rel. Dom.	Height (Ocular estimate (m))							Abundance (B (Basal Area); C (Cover Estimate))						
		E	T1	T2	T3	S1	S2	G	E	T1	T2	T3	S1	S2	G
Euc tereticornis	C		16												10
Euc crebra	C		14												16
Casuarina cunninghamiana	C			12											10
Melaleuca fluviatilis	C			12											10
Terminalia	U				4										
Bursaria spinosa	U				3										
Geijera	U				3										
Cupaniopsis anacardioides	U				3										
Bothriochloa pertusa	U							0.3							
Possillora suberosa	C							0.2							10
Arundinella nepalensis	C							1							10
Panicum maximum *	U														5
Lantana camara **	C					1.5							10		
" montevidensis **	C							0.3							15
Scoparia dulcis *	U							0.5							
Stachytarpheta jamaicensis *	U							0.5							
Cryptostegia grandiflora **	U					4									
Rock cover (%) 5															
Bare ground cover (%) 10															
Litter cover (%) 40															
Cryptogam cover (%)															
Average/Total															

*Species annotations: C Collected * Exotic Species ** Declared Species + Outside but adjoining 50m x 10m plot*

Rel. Dom. = Relative Dominance within stratum (D = dominant; C = Common; U = Uncommon; R = Rare)

Strata: E = Emergent; T1-3 = Tree strata 1-3; S1-2 = Shrub strata 1-2; G = Ground stratum

Basal Area = Basal area using Bitterlich technique (m^2/ha) Cover = Percentage Cover using ocular estimate

Scheduled flora possibilities: No / Yes (if so .....collected? Y / N
.....collected? Y / N

Additional notes on pest plants .....

.....

.....

Weed Cover (%): <5 ; 5-25 ; 25-50 ; >50

Disturbance (% of site affected): 0, <1; 1-5; >5

Health: Pristine / Excellent / Very Good / Good / Average / Degraded / Completely Degraded (almost without natives)

Slope: Crest; Ridge; Hillock; Simple slope; Upper slope; Mid-slope; Lower slope; Flat; Open depression; Closed depression

Soils: Map; Cutting, Core; Surface observation **Reliability:** Low, Medium, High

Soil Colour: whitish; grayish; mottled; yellow; orange; brown; red; black; dark; grey; pale

Soil Texture: clay; clay loam; silty loam; loam; sandy loam; sand; stony; silty clay; sandy clay; silty clay loam; sandy clay loam; loam sand

Table 24 CORVEG landform situation codes

Landform situation	Code	Landform situation	Code
PLAIN		HILLS, MOUNTAINS, TABLELANDS	
Not otherwise specified, flat gentle slopes, undulating terrain	A	Slope or hill not specified	F
Downs, open downs, rolling downs, ashy downs, pebbly downs	*	Cliff (steep rocky faces), rocky ledge, rocky outcrop, scarp, crack in rock, crevices	L
Alluvial plain or flat, alluvium, flood plain	B	Coastal rocky headland	N
Inland clay pan, salt flat or pan (inland)	U	Top, crest of mountain or ridge	K
Tidal flat, salt flat (coastal)	V	Jump-up, mesa, tableland, plateau	Q
STREAMS		DUNE	
Lakes, banks of lake, river, stream, water course, levees + permanent water	C	Fossil coastal dune, high dune	S
Gully, drainage line, ravine gorge, outwash— + intermittently wet	D	Unspecified coastal dune, beach dune, recent coastal dune, low dune, coastal sandhill	R
Bed of channel—distributaries of inland streams, beds + intermittently flooded	E	Inland dune, inland sandhill	T
		WATER	
		Freshwater lake, lagoon, spring, stream	X
		Freshwater swamp, marsh, soak, seepage area	W
		Gilgai, melon hole, sinkhole	Z
		Saltwater, sea, saltwater swamp	Y

Table 25 CORVEG types of erosional landform patterns by slope and relief class codes

Slope class							
Class	LE Level	VG Very gently inclined	GE Gently inclined	MO Moderately inclined	ST Steep	VS Very steep	PR Precipitous
Percentage	<1	1–3	3–10	10–32	32–56	56–100	100
Degrees (rounded to nearest whole number)	0	1–2	3–5	7–18	19–29	30–45	>45
Relief class	**Erosional landform pattern**						
M Very high >300 m (about 500 m)	–	–	–	RM Rolling mountains	SM Steep mountains	VM Very steep mountains	PM Precipitous
H High 90–300 m (about 150 m)	–	–	UH Undulating hills	RH Rolling hills	SH Steep hills	VH Very steep hills	PH Precipitous hills
L Low 30–90 m (about 50 m)	–	–	UL Undulating low hills	RL Rolling low hills	SL Steep low hills	VL Very steep low hills	B Badlands
R Very low 9–30 m (about 15 m)	–	GR Gently undulating rises	UR Undulating rises	RR Rolling rises	SR Steep rises	B Badlands	B Badlands
P Extremely low <9 m)	LP Level plain	GP Gently undulating plain	UP Undulating plain	RP Rolling plain	B badlands	B Badlands	B Badlands

Source: Speight (1990)

Particular sensitivities to proposed impacts (incl. fragmentation):.....

.....

.....

Special conservation significance:.....

cultural .....

commercial .....

recreational .....

observed or Horticultural Crops .....

Other notes: Creek – steep bank ≤ 3m ph 1713

– erosion gullies extending 5-20 m from bank

ph 1714-0 1716 – depth ≤ 1.7m

Tertiary Site Vegetation Assessment Data Sheet Job Number: .....

Site Number: 8 KP: ..... Assessor: AL Date : 15 / 8 /2007

Location: Gladstone, Alt Residue

Photo Number: 1719 UTM WGS84 Easting 309915 Northing 7358296 wpt50

Width of RE: <35m wide ; 35-75m ; 75-150m ; 150-300m ; >300 ; (not linear)

Width of total remnant: <35m wide ; 35-75m ; 75-150m ; 150-300m ; >300 ; not linear

Total RE Area: Does not extend beyond site; <1ha ; 1-5ha; 5-20ha ; 20-50ha ; >50ha

Total remnant Area: Does not extend beyond site; <1ha ; 1-5ha; 5-20ha ; 20-50ha ; >50ha

	RE code	EPBC status	VMA status	EPA status
DNRW RE map	11.11.4 / 11.11.18	– / E	N / E	N / E
Survey result	11.11.3	–	N	N

Canopy stratum growth form: Tree Canopy Crown Cover: 30 %

Canopy Median Height: 16 m. Structural Code: .....

All woody species present within 50m x 10m plot (plus dominant and EVR non-woody species)

Name	Rel. Dom.	Height (Ocular estimate (m))							Abundance (B (Basal Area); C (Cover Estimate))						
		E	T1	T2	T3	S1	S2	G	E	T1	T2	T3	S1	S2	G
Cor citridora	D		16							20					
Euc crebra	C		14							10					
Lophostemon suaveolens	U		'	10											
Chrysopogon fallax	C							0.3							20
Heteropogon contortus	C							0.75							20
Brassia oblongifolia	U				2										
Alphitonia excelsa	U				2										
Canthium	U				3										
Macrozamia miquellii	U					1									
Lantana camara **	U					1.5									
Petalostigma pubescens	U				3										
Planchonia careya	U				3										
Passiflora suberosa +	U							0.3							
Stachytarpheta jamaicensis +	U							0.5							
Rock cover (%) 15															
Bare ground cover (%) 10															
Litter cover (%) 40															
Cryptogam cover (%)															
Average/Total															

*Species annotations: C Collected * Exotic Species ** Declared Species + Outside but adjoining 50m x 10m plot*
Rel. Dom. = Relative Dominance within stratum (D = dominant; C = Common; U = Uncommon; R = Rare)
Strata: E = Emergent; T1-3 = Tree strata 1-3; S1-2 = Shrub strata 1-2; G = Ground stratum
Basal Area = Basal area using Bitterlich technique (m^2/ha) Cover = Percentage Cover using ocular estimate

Scheduled flora possibilities: No / Yes (if so .....collected? Y / N
.....collected? Y / N

Additional notes on pest plants .....

.....

.....

Weed Cover (%): (<5); 5-25 ; 25-50 ; >50

Disturbance (% of site affected): 0, (<1); 1-5; >5

Health: Pristine / Excellent / Very Good / (Good) / Average / Degraded / Completely Degraded (almost without natives)

Slope: Crest; Ridge; Hillock; ~~Simple slope~~; Upper slope; Mid slope; Lower slope; Flat; Open depression; Closed depression

Soils: Map; Cutting, Core; (Surface observation) **Reliability:** (Low), Medium, High

Soil Colour: whitish; grayish; mottled; yellow; orange; (brown); red; black; dark; grey; pale

Soil Texture: clay; clay loam; silty loam; loam; sandy loam; sand; stony; silty clay; (sandy clay); silty clay loam; sandy clay loam; loam sand

Table 24 CORVEG landform situation codes

Landform situation	Code	Landform situation	Code
PLAIN		HILLS, MOUNTAINS, TABLELANDS	
Not otherwise specified, flat gentle slopes, undulating terrain	A	Slope or hill not specified	F
Downs, open downs, rolling downs, achy downs, pebbly downs	*	Cliff (steep rocky faces), rocky ledge, rocky outcrop, scarp, crack in rock, crevices	L
Alluvial plain or flat, alluvium, flood plain	B	Coastal rocky headland	N
Inland clay pan, salt flat or pan (inland)	U	Top, crest of mountain or ridge	K
Tidal flat, salt flat (coastal)	V	Jump-up, mesa, tableland, plateau	Q
STREAMS		DUNE	
Lakes, banks of lake, river, stream, water course, levees + permanent water	C	Fossil coastal dune, high dune	S
Gully, drainage line, ravine gorge, outwash— + intermittently wet	D	Unspecified coastal dune, beach dune, recent coastal dune, low dune, coastal sandhill	R
Bed of channel—distributaries of inland streams, beds + intermittently flooded	E	Inland dune, inland sandhill	T
		WATER	
		Freshwater lake, lagoon, spring, stream	X
		Freshwater swamp, marsh, soak, seepage area	W
		Gilgai, melon hole, sinkhole	Z
		Saltwater, sea, saltwater swamp	Y

Table 25 CORVEG types of erosional landform patterns by slope and relief class codes

Slope class							
Class	LE Level	VG Very gently inclined	GE Gently inclined	MO Moderately inclined	ST Steep	VS Very steep	PR Precipitous
Percentage	<1	1–3	3–10	10–32	32–56	56–100	100
Degrees (rounded to nearest whole number)	0	1–2	3–5	7–18	19–29	30–45	>45
Relief class			**Erosional landform pattern**				
M Very high >300 m (about 500 m)	–	–	–	RM Rolling mountains	SM Steep mountains	VM Very steep mountains	PM Precipitous
H High 90–300 m (about 150 m)	–	–	UH Undulating hills	RH Rolling hills	SH Steep hills	VH Very steep hills	PH Precipitous hills
L Low 30–90 m (about 50 m)	–	–	UL Undulating low hills	RL Rolling low hills	SL Steep low hills	VL Very steep low hills	B Badlands
R Very low 9–30 m (about 15 m)	–	GR Gently undulating rises	UR Undulating rises	RR Rolling rises	SR Steep rises	B Badlands	B Badlands
P Extremely low <9 m)	LP Level plain	GP Gently undulating plain	UP Undulating plain	RP Rolling plain	B badlands	B Badlands	B Badlands

Source: Speight (1990)

Particular sensitivities to proposed impacts (incl. fragmentation):.....
.....
.....

Special conservation significance:.....
cultural .....
commercial .....
recreational .....
observed or Horticultural Crops .....

Other notes:
– previous clearing for fenceline
– some old rubbish
.....
.....
.....
.....
.....
.....
.....
.....

Tertiary Site Vegetation Assessment Data Sheet Job Number: .....

Site Number: 9 KP: ..... Assessor: CL Date: 15/8/2007

Location: Gladstone – HDD line

Photo Number: 1762 UTM WGS84 Easting 313190 Northing 7360699 wpt 65

Width of RE: <35m wide ; 35-75m ; 75-150m ; 150-300m ; >300 ; (not linear)
Width of total remnant: <35m wide ; 35-75m ; 75-150m ; 150-300m ; >300 ; not linear
Total RE Area: Does not extend beyond site; <1ha ; 1-5ha; 5-20ha ; 20-50ha ; >50ha
Total remnant Area: Does not extend beyond site; <1ha ; 1-5ha; 5-20ha ; 20-50ha ; >50ha

	RE code	EPBC status	VMA status	EPA status
DNRW RE map	12.11.6 / 12.11.14		N / O	N / O
Survey result	12.11.6		N	N

Canopy stratum growth form: tree Canopy Crown Cover: 30 %
Canopy Median Height: 14 m. Structural Code: .....

All woody species present within 50m x 10m plot (plus dominant and EVR non-woody species)

Name	Rel. Dom.	Height (Ocular estimate (m)) E	T1	T2	T3	S1	S2	G	Abundance (B (Basal Area); C (Cover Estimate)) E	T1	T2	T3	S1	S2	G
Euc crebra	C		15							15					
Cor citriodora	C		15							15					
Cor clarksoniana	U		14												
Euc acmenoides? O	U			12											
Alstonia muelleri?	U				2										
Pogonolobus reticulatus	U				1.5										
Planchonia careya	U				3										
Cymbopogon refractus	U							0.5							
Themeda triandra	U							0.75							
Sida subspicata	U					1.5							1.		1.
Xanthorrhoea latifolia	U					1									
Aristida sp	U							0.5							
Cryptostegia grandiflora**	U					1.5									
Lantana montevidensis**	C							0.2							15
" camara **	U					1.5									
Passiflora aberosa *	U							0.3							
Opuntia stricta **	U							0.5							
Rock cover (%) 5															
Bare ground cover (%) 15															
Litter cover (%) 60															
Cryptogam cover (%)															
Average/Total															

*Species annotations: C Collected * Exotic Species ** Declared Species + Outside but adjoining 50m x 10m plot*
Rel. Dom. = Relative Dominance within stratum (D = dominant; C = Common; U = Uncommon; R = Rare)
Strata: E = Emergent; T1-3 = Tree strata 1-3; S1-2 = Shrub strata 1-2; G = Ground stratum
Basal Area = Basal area using Bitterlich technique (m^2/ha) Cover = Percentage Cover using ocular estimate

Scheduled flora possibilities: No / Yes (if so .....collected? Y / N
.....collected? Y / N

Additional notes on pest plants .....

.....

.....

Weed Cover (%): <5 ; 5-25 ; 25-50 ; >50

Disturbance (% of site affected): 0, <1; 1-5; >5

Health: Pristine / Excellent / Very Good / Good / Average / Degraded / Completely Degraded (almost without natives)

Slope: Crest; Ridge; Hillock; Simple slope; Upper slope; Mid-slope; Lower slope; Flat; Open depression; Closed depression

Soils: Map; Cutting, Core; Surface observation **Reliability:** Low, Medium, High

Soil Colour: whitish; grayish; mottled; yellow; orange; brown; red; black; dark; grey; pale

Soil Texture: clay; clay loam; silty loam; loam; sandy loam; sand; stony; silty clay; sandy clay; silty clay loam; sandy clay loam; loam sand

stony

Table 24 CORVEG landform situation codes

Landform situation	Code	Landform situation	Code
PLAIN		HILLS, MOUNTAINS, TABLELANDS	
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Alluvial plain or flat, alluvium, flood plain	B	Coastal rocky headland	N
Inland clay pan, salt flat or pan (inland)	U	Top, crest of mountain or ridge	K
Tidal flat, salt flat (coastal)	V	Jump-up, mesa, tableland, plateau	Q
STREAMS		DUNE	
Lakes, banks of lake, river, stream, water course, levees + permanent water	C	Fossil coastal dune, high dune	S
Gully, drainage line, ravine gorge, outwash — + intermittently wet	D	Unspecified coastal dune, beach dune, recent coastal dune, low dune, coastal sandhill	R
Bed of channel—distributaries of inland streams, beds + intermittently flooded	E	Inland dune, inland sandhill	T
		WATER	
		Freshwater lake, lagoon, spring, stream	X
		Freshwater swamp, marsh, soak, seepage crea	W
		Gilgai, melon hole, sinkhole	Z
		Saltwater, sea, saltwater swamp	Y

Table 25 CORVEG types of erosional landform patterns by slope and relief class codes

Slope class							
Class	LE Level	VG Very gently inclined	GE Gently inclined	MO Moderately inclined	ST Steep	VS Very steep	PR Precipitous
Percentage	<1	1–3	3–10	10–32	32–56	56–100	100
Degrees (rounded to nearest whole number)	0	1–2	3–5	7–18	19–29	30–45	>45
Relief class	**Erosional landform pattern**						
M Very high >300 m (about 500 m)	–	–	–	RM Rolling mountains	SM Steep mountains	VM Very steep mountains	PM Precipitous
H High 90–300 m (about 150 m)	–	–	UH Undulating hills	RH Rolling hills	SH Steep hills	VH Very steep hills	PH Precipitous hills
L Low 30–90 m (about 50 m)	–	–	UL Undulating low hills	RL Rolling low hills	SL Steep low hills	VL Very steep low hills	B Badlands
R Very low 9–30 m (about 15 m)	–	GR Gently undulating rises	UR Undulating rises	RR Rolling rises	SR Steep rises	B Badlands	B Badlands
P Extremely low <9 m)	LP Level plain	GP Gently undulating plain	UP Undulating plain	RP Rolling plain	B badlands	B Badlands	B Badlands

Source: Speight (1990)

Particular sensitivities to proposed impacts (incl. fragmentation):.....
.....
.....

Special conservation significance:.....
cultural .....
commercial .....
recreational .....
observed or Horticultural Crops .....

Other notes: Some logged timber
.....
.....
Rabbit burrow PR 1763-4
.....
.....
.....
.....

Appendix C: Fauna Assessment Data Sheets

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HLA

HABITAT ASSESSMENT FOR 1 ha SEARCH AREA

PROJECT: GLADSTONE - ARP DATE: 22/6/07

SITE NO.: FA01 LOCATION: 012 NAME: D. Fleming

AMG: 56 EASTING: 313117 NORTHING: 7361881

DISTANCE and DIRECTION from TOWN: SITE IS ____ km (s) ____ (N. S. E. W.) OF ____ IN ____ (state)

WAS GPS USED? ☑ YES ☐ NO IF YES, WHICH DATUM WAS USED? ☐ Aust (84/66) ☑ WGS 84 or GDA ALTITUDE: ____

GENERAL

☑ Remnant trees ☐ Regrowth ☐ Plantation

☑ Native grasses (trees / shrubs may be present)

☐ Non-native grasses (trees / shrubs may be present)

☐ Improved pasture ☐ Other

Habitat type: Woodland

RE: 11.3.39/12.3.3 // 12.11.6 VEG: FA LANDFORM: HSL

SOIL: Loamy sand

LANDSCAPE

Shape of patch?

☐ Circular / square ☑ Irregular ☐ Strip <50 m

☐ Strip >50 m

Strip details: ☐ Creek / river ☐ Roadside ☐ Windbreak ☐ Other ____

Width ____

Area of full patch that contains 1 ha area:

☑ < 3 ha ☐ 3-10 ha ☐ 11-30 ha

☐ 31-100 ha ☐ 101-400 ha ☐ > 400 ha

Is the 1 ha patch connected to other similar sized or larger patches of vegetation?

☑ YES ☐ NO

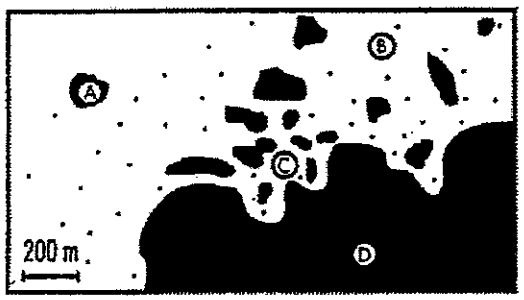
Position of this 1 ha search area relative to the surrounding tree / shrub cover?

☐ A- Isolated ☐ B-Semi isolated

☑ C-Not isolated ☐ D-Continuous tree / shrub

Intersected by infrastructure (railway)

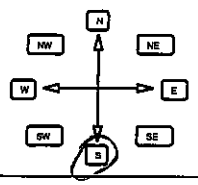
■ Continuous tree/shrub cover ⁘ Scattered trees ☐ Grassland



Is this 1 ha area on a:

☐ Flat ☐ Ridge ☐ Gully ☑ Slope

If slope, give aspect over 20 m



Degrees of slope over 20 m: 5

VEGETATION STRUCTURE : OVERSTORY

Tree canopy cover (trees taller that 3 m):

☐ Absent ☐ Sparse ☑ Open ☐ Dense

If trees present:

☐ single tree species

☑ two or three species

☐ more than three species

Are trees mostly?

☑ native ☐ exotic

Species: C. tessellaris, E. exserta, E. crebra

Average height of overstory?

☐ 3-5 m ☐ 5-10 m ☑ 10-15 m ☐ > 15 m

Are the trees?

☐ Even-aged (Trees mostly the same age or size)

☑ Multi-aged (Trees of varing size or age)

Are there obvious signs of dieback in the tree canopy?

☑ None ☐ Some dieback ☐ Extensive dieback

VEGETATION STRUCTURE : UNDERSTORY

Tall understory shrub cover (>2 m):

☐ Absent ☐ Scattered ☑ Common ☐ Abundant

If shrubs present:

☐ single shrub species

☑ two or three species

☐ more than three species

Are shrubs mostly?

☑ native ☐ exotic

Species: Acacia aulacocarpa, Pogonolobus reticulatus.

Low shrub cover (0.5 m – 2 m):

☐ Absent ☑ Scattered ☐ Common ☐ Abundant

If shrubs present:

☐ single shrub species

☐ two or three species

☑ more than three species

Are shrubs mostly?

☑ native ☐ exotic

Species: As for Understorey

Dominant ground cover within this 1 ha area:

☐ Tussocks ☐ Hummocks ☑ Continuous grass / herbs

☐ Low Heath ☐ Weeds ☐ Bare dirt / rocks / litter

LAND USE

Used for?

☐ Mixed grazing ☑ Sheep ☐ Cattle

☐ Crops Crop type ____

☐ Other Other ____

HLA

HABITAT ASSESSMENT (*cont.*)

KEY HABITAT FEATURES

HOLLOWS and LOGS

No. of hollows within 1 ha patch?

☑ Absent (0) ☐ Scattered (1-5) ☐ Common (6-10) ☐ Abundant (>10)

If present, are they mostly? ☐ dead ☐ living

Fallen trees or branches present 10-50 cm diameter?

☐ Absent (0) ☐ Scattered (1-10) ☑ Common (10-20) ☐ Abundant (> 20)

Fallen trees or branches present >50 cm diameter?

☑ Absent (0) ☐ Scattered (1-5) ☐ Common (6-10) ☐ Abundant (>10)

Leaf litter?

☐ Absent ☐ Sparse ☐ Patchy ☑ Dense

Mistletoe within this 1 ha area?

☑ Absent ☐ Scattered ☐ Common ☐ Abundant

ROCKS

Outcrops within this 1 ha area?

☑ Absent ☐ Scattered ☐ Common ☐ Abundant

Surface rocks of 10–30 cm diameter?

☑ Absent ☐ Scattered ☐ Common ☐ Abundant

Surface rocks of > 30 cm diameter?

☑ Absent ☐ Scattered ☐ Common ☐ Abundant

Cliffs and overhangs within this 1 ha area?

☑ Absent ☐ Scattered ☐ Common ☐ Abundant

If present, are they mostly?

☐ Sandstone ☐ Granite

☐ Basalt ☐ Karst

☐ Other

CRACKING CLAY SOILS

☐ YES ☑ NO

HABITAT QUALITY FOR:

Hollow dependent fauna

☑ Absent ☐ Poor ☐ Average ☐ Good ☐ Excellent

Rock dependent fauna

☑ Absent ☐ Poor ☐ Average ☐ Good ☐ Excellent

Log dependent fauna

☐ Absent ☐ Poor ☑ Average ☐ Good ☐ Excellent

Small birds

☐ Absent ☐ Poor ☑ Average ☐ Good ☐ Excellent

OTHER HABITAT QUALITY ASPECTS:

Indications of past land clearing (benching of slope). Site is devoid of large, old trees. Low intensity past grass fire.

WETLANDS

Wetlands present?

☐ YES ☑ NO

TYPE OF WETLAND:

MARINE:

☐ Coral reef ☐ Rocky shore ☐ Beach (all)

☐ Estuarine ☐ Tidal mudflat ☐ Tidal marsh

☐ Tidal forest (e.g. mangrove) ☐ Lagoon

☐ Saline / brackish lake / swamp

INLAND WETLAND:

☐ Creek ➡ ☐ Dry ☐ Flowing

☐ River ☐ Floodplain, river flat

☐ Small billabong , pools (<8 ha) ☐ Freshwater lake (>8 ha)

☐ Shrubby swamp ☐ Wooded swamp

☐ Gilgai ☐ Claypan

☐ Ephemeral Marsh / swamp with emergent veg

ARTIFICIAL WETLANDS:

☐ Large dam, reservoir (>8 ha) ☐ Small dam, pond, tank

☐ Irrigation channel, rice field ☐ Wastewater treatment

☐ Canal, drainage channel, ditch ☐ Salt pond / field

AREA OF WETLAND:

☐ < 2 ha ☐ 2-8 ha ☐ 8-100 ha ☐ >100 ha

➡ Water mostly

☐ Fresh ☐ Brackish / saline ☐ Salty

FEATURES PRESENT

☐ Broad, shallow, swampy areas for birds to feed

☐ Islands for birds to roost and nest

☐ Dead or living trees in the water (partly submerged) for roosting and nesting habitat

☐ Fencing to exclude grazing stock from direct access to the waters edge

☐ Dense tree and / or shrub cover close to the edge of the water

ADDITIONAL NOTES:

photo 0196 - 0197

Rufous whistler
Striated pardalote
Brown honeyeater
White-throated honeyeater
White-headed sitella
Grey fantail
Rainbow lorikeet.

SITE NO.

HLA

HABITAT ASSESSMENT FOR 1 ha SEARCH AREA

PROJECT: GLADSTONE - ARP DATE: 23/6/07

SITE NO: FA02 LOCATION: 013 NAME: D. Fleming

AMG: 56 EASTING: 313164 NORTHING: 7361809

DISTANCE and DIRECTION from TOWN: SITE IS ____ km (s) ____ (N. S. E. W.) OF ____ IN ____ (state)

WAS GPS USED? ☑ YES ☐ NO IF YES, WHICH DATUM WAS USED? ☐ Aust (84/66) ☑ WGS 84 or GDA ALTITUDE ____

GENERAL

☑ Remnant trees ☐ Regrowth ☐ Plantation

☐ Native grasses (trees / shrubs may be present)

☑ Non-native grasses (trees / shrubs may be present)

☐ Improved pasture ☐ Other

Habitat type: Riparian fringe adjacent to Woodland

RE: 12.3.3 VEG: ST2 LANDFORM: DDE

SOIL: Sandy clay loam

LANDSCAPE

Shape of patch?

☐ Circular / square ☐ Irregular ☑ Strip <50 m

☐ Strip >50 m

➡ Strip details: ☑ Creek / river ☐ Roadside

☐ Windbreak ☐ Other ____

Width: < 35

Area of full patch that contains 1 ha area:

☐ < 3 ha ☐ 3-10 ha ☐ 11-30 ha

☐ 31-100 ha ☐ 101-400 ha ☑ > 400 ha

Is the 1 ha patch connected to other similar sized or larger patches of vegetation?

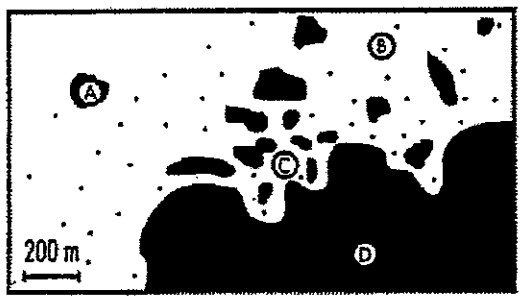
☐ YES ☐ NO

Position of this 1 ha search area relative to the surrounding tree / shrub cover?

☐ A- Isolated ☐ B-Semi isolated

☐ C-Not isolated ☑ D-Continuous tree / shrub

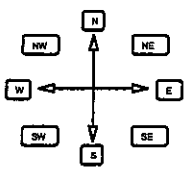
■ Continuous tree/shrub cover ⊡ Scattered trees ☐ Grassland



Is this 1 ha area on a:

☐ Flat ☐ Ridge ☑ Gully ☐ Slope

If slope, give aspect over 20 m



Degrees of slope over 20 m: ____

VEGETATION STRUCTURE : OVERSTORY

Tree canopy cover (trees taller that 3 m):

☐ Absent ☑ Sparse ☐ Open ☐ Dense

If trees present: within gully, woodland adjacent

☐ single tree species

☐ two or three species

☑ more than three species

Are trees mostly?

☑ native ☐ exotic

Species: C. Clarksoniana, C. tessellaris, E. tereticornis, E. crebra

Average height of overstory?

☐ 3-5 m ☐ 5-10 m ☐ 10-15 m ☑ > 15 m

Are the trees?

☐ Even-aged (Trees mostly the same age or size)

☑ Multi-aged (Trees of varing size or age)

Are there obvious signs of dieback in the tree canopy?

☑ None ☐ Some dieback ☐ Extensive dieback

VEGETATION STRUCTURE : UNDERSTORY

Tall understory shrub cover (>2 m):

☐ Absent ☐ Scattered ☑ Common ☐ Abundant

If shrubs present:

☐ single shrub species

☑ two or three species

☐ more than three species

Are shrubs mostly?

☑ native ☐ exotic

Species: Melaleuca nervosa, Pogonolobus reticulatus, Planchonia careya.

Low shrub cover (0.5 m – 2 m):

☐ Absent ☑ Scattered ☐ Common ☐ Abundant

If shrubs present:

☐ single shrub species

☐ two or three species

☑ more than three species

Are shrubs mostly?

☑ native ☐ exotic

Species: Cycas sp. Xanthorrhea sp.

Dominant ground cover within this 1 ha area:

☐ Tussocks ☐ Hummocks ☑ Continuous grass / herbs

☐ Low Heath ☐ Weeds ☐ Bare dirt / rocks / litter

LAND USE

Used for?

☐ Mixed grazing ☐ Sheep ☐ Cattle

☐ Crops Crop type: ____

☐ Other Other: ____

HLA

HABITAT ASSESSMENT (*cont.*)

KEY HABITAT FEATURES

HOLLOWS and LOGS

No. of hollows within 1 ha patch?

☑ Absent (0) ☐ Scattered (1-5) ☐ Common (6-10) ☐ Abundant (>10)

If present, are they mostly? ☐ dead ☐ living

Fallen trees or branches present 10-50 cm diameter?

☐ Absent (0) ☑ Scattered (1-10) ☐ Common (10-20) ☐ Abundant (> 20)

Fallen trees or branches present >50 cm diameter?

☑ Absent (0) ☐ Scattered (1-5) ☐ Common (6-10) ☐ Abundant (>10)

Leaf litter?

☐ Absent ☑ Sparse ☐ Patchy ☐ Dense

Mistletoe within this 1 ha area?

☑ Absent ☐ Scattered ☐ Common ☐ Abundant

ROCKS

Outcrops within this 1 ha area?

☑ Absent ☐ Scattered ☐ Common ☐ Abundant

Surface rocks of 10–30 cm diameter?

☑ Absent ☐ Scattered ☐ Common ☐ Abundant

Surface rocks of > 30 cm diameter?

☑ Absent ☐ Scattered ☐ Common ☐ Abundant

Cliffs and overhangs within this 1 ha area?

☑ Absent ☐ Scattered ☐ Common ☐ Abundant

But outlet pipes.

If present, are they mostly?

☐ Sandstone ☐ Granite

☐ Basalt ☐ Karst

☐ Other

CRACKING CLAY SOILS

☐ YES ☑ NO

HABITAT QUALITY FOR:

Hollow dependent fauna

☑ Absent ☐ Poor ☐ Average ☐ Good ☐ Excellent

Rock dependent fauna

☑ Absent ☐ Poor ☐ Average ☐ Good ☐ Excellent

Log dependent fauna

☐ Absent ☑ Poor ☐ Average ☐ Good ☐ Excellent

Small birds

☐ Absent ☐ Poor ☐ Average ☑ Good ☐ Excellent

OTHER HABITAT QUALITY ASPECTS:

Riparian vegetation along gully. Intersected by old rail line. Good habitat for small birds.

WETLANDS

Wetlands present?

☐ YES ☑ NO

TYPE OF WETLAND:

MARINE:

☐ Coral reef ☐ Rocky shore ☐ Beach (all)

☐ Estuarine ☐ Tidal mudflat ☐ Tidal marsh

☐ Tidal forest (e.g. mangrove) ☐ Lagoon

☐ Saline / brackish lake / swamp

INLAND WETLAND:

☐ Creek ➡ ☐ Dry ☐ Flowing

☐ River ☐ Floodplain, river flat

☐ Small billabong , pools (<8 ha) ☐ Freshwater lake (>8 ha)

☐ Shrubby swamp ☐ Wooded swamp

☐ Gilgai ☐ Claypan

☐ Ephemeral Marsh / swamp with emergent veg

ARTIFICIAL WETLANDS:

☐ Large dam, reservoir (>8 ha) ☐ Small dam, pond, tank

☐ Irrigation channel, rice field ☐ Wastewater treatment

☐ Canal, drainage channel, ditch ☐ Salt pond / field

AREA OF WETLAND:

☐ < 2 ha ☐ 2-8 ha ☐ 8-100 ha ☐ >100 ha

➡ Water mostly

☐ Fresh ☐ Brackish / saline ☐ Salty

FEATURES PRESENT

☐ Broad, shallow, swampy areas for birds to feed

☐ Islands for birds to roost and nest

☐ Dead or living trees in the water (partly submerged) for roosting and nesting habitat

☐ Fencing to exclude grazing stock from direct access to the waters edge

☐ Dense tree and / or shrub cover close to the edge of the water

ADDITIONAL NOTES:

Avey-fantail.

SITE NO.

HLA

HABITAT ASSESSMENT FOR 1 ha SEARCH AREA

PROJECT: GLADSTONE - ARP DATE: 23/6/07

SITE NO.: FA03 LOCATION: 017 NAME: D. Fleming

AMG: 56 EASTING: 308626 NORTHING: 7355578

DISTANCE and DIRECTION from TOWN: SITE IS ____ km (s) ____ (N. S. E. W.) OF ____ IN ____ (state)

WAS GPS USED? ☑ YES ☐ NO IF YES, WHICH DATUM WAS USED? ☐ Aust (84/66) ☑ WGS 84 or GDA ALTITUDE ____

GENERAL

☑ Remnant trees ☐ Regrowth ☐ Plantation

☑ Native grasses (trees / shrubs may be present)

☐ Non-native grasses (trees / shrubs may be present)

☐ Improved pasture ☐ Other

Habitat type: Open Forest

RE: 11.3.26 / 11.11.4 VEG: DS LANDFORM: PLA

SOIL: Sandy loam

LANDSCAPE

Shape of patch?

☑ Circular / square ☐ Irregular ☐ Strip <50 m

☐ Strip >50 m

Strip details: ☐ Creek / river ☐ Roadside ☐ Windbreak ☐ Other ____

Width ____

Area of full patch that contains 1 ha area:

☐ < 3 ha ☐ 3-10 ha ☐ 11-30 ha

☐ 31-100 ha ☐ 101-400 ha ☑ > 400 ha

Is the 1 ha patch connected to other similar sized or larger patches of vegetation?

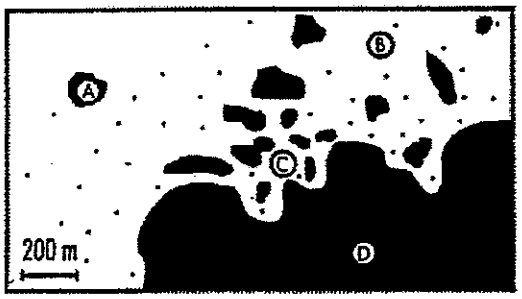
☑ YES ☐ NO

Position of this 1 ha search area relative to the surrounding tree / shrub cover?

☐ A- Isolated ☐ B-Semi isolated

☐ C-Not isolated ☑ D-Continuous tree / shrub

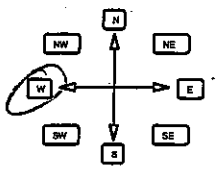
■ Continuous tree/shrub cover ⁘ Scattered trees ☐ Grassland



Is this 1 ha area on a:

☐ Flat ☐ Ridge ☐ Gully ☑ Slope

If slope, give aspect over 20 m



Degrees of slope over 20 m: < 5

VEGETATION STRUCTURE : OVERSTORY

Tree canopy cover (trees taller that 3 m):

☐ Absent ☐ Sparse ☑ Open ☐ Dense

If trees present:

☐ single tree species

☑ two or three species

☐ more than three species

Are trees mostly?

☑ native ☐ exotic

Species: C. citriodora, E. moluccana, E. crebra

Average height of overstory?

☐ 3-5 m ☐ 5-10 m ☐ 10-15 m ☑ > 15 m

Are the trees?

☐ Even-aged (Trees mostly the same age or size)

☑ Multi-aged (Trees of varing size or age)

Are there obvious signs of dieback in the tree canopy?

☐ None ☑ Some dieback ☐ Extensive dieback

VEGETATION STRUCTURE : UNDERSTORY

Tall understory shrub cover (>2 m):

☐ Absent ☑ Scattered ☐ Common ☐ Abundant

If shrubs present:

☐ single shrub species

☑ two or three species

☐ more than three species

Are shrubs mostly?

☑ native ☐ exotic

Species: Carissa, Aristida sp. Bursaria spinosa. Uncommon weeds.

Low shrub cover (0.5 m – 2 m):

☐ Absent ☑ Scattered ☐ Common ☐ Abundant

If shrubs present:

☐ single shrub species

☑ two or three species

☐ more than three species

Are shrubs mostly?

☑ native ☐ exotic

Species: As for Understorey. Some Semi-evergreen Vine Thicket species.

Dominant ground cover within this 1 ha area:

☑ Tussocks ☐ Hummocks ☐ Continuous grass / herbs

☐ Low Heath ☐ Weeds ☐ Bare dirt / rocks / litter

LAND USE

Used for?

☐ Mixed grazing ☐ Sheep ☐ Cattle

☐ Crops Crop type ____

☑ Other Other: Residential Bush block

HLA

HABITAT ASSESSMENT (*cont.*)

KEY HABITAT FEATURES

HOLLOWS and LOGS

No. of hollows within 1 ha patch?

☐ Absent (0) ☐ Scattered (1-5) ☑ Common (6-10) ☐ Abundant (>10)

If present, are they mostly? ☐ dead ☑ living

Fallen trees or branches present 10-50 cm diameter?

☐ Absent (0) ☐ Scattered (1-10) ☐ Common (10-20) ☑ Abundant (> 20)

Fallen trees or branches present >50 cm diameter?

☐ Absent (0) ☑ Scattered (1-5) ☐ Common (6-10) ☐ Abundant (>10)

Leaf litter?

☐ Absent ☐ Sparse ☐ Patchy ☑ Dense

Mistletoe within this 1 ha area?

☑ Absent ☐ Scattered ☐ Common ☐ Abundant

ROCKS

Outcrops within this 1 ha area?

☑ Absent ☐ Scattered ☐ Common ☐ Abundant

Surface rocks of 10–30 cm diameter?

☑ Absent ☐ Scattered ☐ Common ☐ Abundant

Surface rocks of > 30 cm diameter?

☑ Absent ☐ Scattered ☐ Common ☐ Abundant

Cliffs and overhangs within this 1 ha area?

☑ Absent ☐ Scattered ☐ Common ☐ Abundant

If present, are they mostly?

☐ Sandstone ☐ Granite

☐ Basalt ☐ Karst

☐ Other

CRACKING CLAY SOILS

☐ YES ☑ NO

HABITAT QUALITY FOR:

Hollow dependent fauna

☐ Absent ☐ Poor ☑ Average ☐ Good ☐ Excellent

Rock dependent fauna

☑ Absent ☐ Poor ☐ Average ☐ Good ☐ Excellent

Log dependent fauna

☐ Absent ☐ Poor ☑ Average ☐ Good ☐ Excellent

Small birds

☐ Absent ☐ Poor ☑ Average ☐ Good ☐ Excellent

OTHER HABITAT QUALITY ASPECTS: SEVT nearby. Dense understorey in patches (across road). Young trees suggest past clearing / logging. Old termite nests provide alternative source of hollows.

WETLANDS

Wetlands present?

☐ YES ☑ NO

TYPE OF WETLAND:

MARINE:

☐ Coral reef ☐ Rocky shore ☐ Beach (all)

☐ Estuarine ☐ Tidal mudflat ☐ Tidal marsh

☐ Tidal forest (e.g. mangrove) ☐ Lagoon

☐ Saline / brackish lake / swamp

INLAND WETLAND:

☐ Creek ➡ ☐ Dry ☐ Flowing

☐ River ☐ Floodplain, river flat

☐ Small billabong , pools (<8 ha) ☐ Freshwater lake (>8 ha)

☐ Shrubby swamp ☐ Wooded swamp

☐ Gilgai ☐ Claypan

☐ Ephemeral Marsh / swamp with emergent veg

ARTIFICIAL WETLANDS:

☐ Large dam, reservoir (>8 ha) ☐ Small dam, pond, tank

☐ Irrigation channel, rice field ☐ Wastewater treatment

☐ Canal, drainage channel, ditch ☐ Salt pond / field

AREA OF WETLAND:

☐ < 2 ha ☐ 2-8 ha ☐ 8-100 ha ☐ >100 ha

➡ Water mostly

☐ Fresh ☐ Brackish / saline ☐ Salty

FEATURES PRESENT

☐ Broad, shallow, swampy areas for birds to feed

☐ Islands for birds to roost and nest

☐ Dead or living trees in the water (partly submerged) for roosting and nesting habitat

☐ Fencing to exclude grazing stock from direct access to the waters edge

☐ Dense tree and / or shrub cover close to the edge of the water

ADDITIONAL NOTES:

Rufous whistler
Buff-rumped thornbill
Brown honeyeater
Little friarbird

photos 0200, 0201

SITE NO.

HLA

HABITAT ASSESSMENT FOR 1 ha SEARCH AREA

PROJECT: GLADSTONE - ARP DATE: 23/6/07.

SITE NO: FA04 LOCATION: 020 NAME: D.F.

AMG: 56 EASTING: 310012 NORTHING: 7356522

DISTANCE and DIRECTION from TOWN: SITE IS ____ km (s) ____ (N. S. E. W.) OF ____ IN ____ (state)

WAS GPS USED? ☑ YES ☐ NO IF YES, WHICH DATUM WAS USED? ☐ Aust (84/66) ☑ WGS 84 or GDA ALTITUDE: 39m.

GENERAL

☑ Remnant trees ☐ Regrowth ☐ Plantation

☑ Native grasses (trees / shrubs may be present)

☐ Non-native grasses (trees / shrubs may be present)

☐ Improved pasture ☐ Other

Habitat type: Riparian woodland

RE: 11.3.26/11.3.4 VEG: MK. LANDFORM: PLA

SOIL: Sandy clay

LANDSCAPE

Shape of patch?

☐ Circular / square ☑ Irregular ☐ Strip <50 m

☐ Strip >50 m

Strip details: ☑ Creek / river ☐ Roadside

☐ Windbreak ☐ Other

Width: ≈ 50.

Area of full patch that contains 1 ha area:

☐ < 3 ha ☐ 3-10 ha ☐ 11-30 ha

☐ 31-100 ha ☐ 101-400 ha ☑ > 400 ha

Is the 1 ha patch connected to other similar sized or larger patches of vegetation?

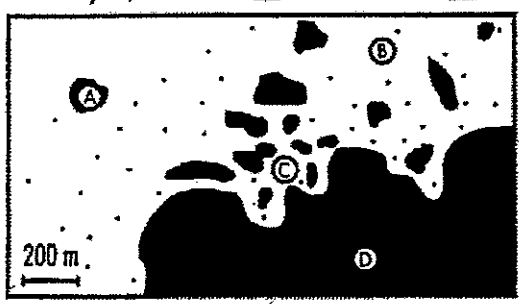
☑ YES ☐ NO

Position of this 1 ha search area relative to the surrounding tree / shrub cover?

☐ A- Isolated ☐ B-Semi isolated

☐ C-Not isolated ☑ D-Continuous tree / shrub but at edge.

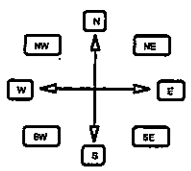
■ Continuous tree/shrub cover ⁘ Scattered trees ☐ Grassland



Is this 1 ha area on a:

☐ Flat ☐ Ridge ☑ Gully ☐ Slope

If slope, give aspect over 20 m



Degrees of slope over 20 m: ____

VEGETATION STRUCTURE : OVERSTORY

Tree canopy cover (trees taller that 3 m):

☐ Absent ☑ Sparse ☑ Open on fringe ☐ Dense

If trees present:

☐ single tree species

☑ two or three species

☐ more than three species

Are trees mostly?

☑ native ☐ exotic

Species: E. tereticornis, E. crebra, C. tessellaris.

Average height of overstory?

☐ 3-5 m ☐ 5-10 m ☐ 10-15 m ☑ > 15 m

Are the trees?

☐ Even-aged (Trees mostly the same age or size)

☑ Multi-aged (Trees of varing size or age)

Are there obvious signs of dieback in the tree canopy?

☐ None ☑ Some dieback ☐ Extensive dieback

VEGETATION STRUCTURE : UNDERSTORY

Tall understory shrub cover (>2 m):

☐ Absent ☑ Scattered ☐ Common ☐ Abundant

If shrubs present:

☐ single shrub species

☑ two or three species

☐ more than three species

Are shrubs mostly?

☑ native ☐ exotic

Species: Hophostemon suaveolens, Mallotus phillipensis, Casuarina cunninghamiana

Low shrub cover (0.5 m – 2 m):

☐ Absent ☑ Scattered ☐ Common ☐ Abundant

If shrubs present:

☐ single shrub species

☑ two or three species

☐ more than three species

Are shrubs mostly?

☑ native ☐ exotic

Species: Alphitonia excelsa, Lantana camara, Bursaria spinosa

Dominant ground cover within this 1 ha area:

☐ Tussocks ☐ Hummocks ☑ Continuous grass / herbs

☐ Low Heath ☐ Weeds ☐ Bare dirt / rocks / litter

LAND USE

Used for?

☐ Mixed grazing ☑ Sheep ☐ Cattle

☐ Crops Crop type: ____

☐ Other Other: ____

HLA

HABITAT ASSESSMENT (*cont.*)

KEY HABITAT FEATURES

HOLLOWS and LOGS

No. of hollows within 1 ha patch?

☐ Absent (0) ☑ Scattered (1-5) ☐ Common (6-10) ☐ Abundant (>10)

If present, are they mostly? ☐ dead ☑ living

Fallen trees or branches present 10-50 cm diameter?

☐ Absent (0) ☑ Scattered (1-10) ☐ Common (10-20) ☐ Abundant (> 20)

Fallen trees or branches present >50 cm diameter?

☐ Absent (0) ☑ Scattered (1-5) ☐ Common (6-10) ☐ Abundant (>10)

Leaf litter?

☐ Absent ☐ Sparse ☑ Patchy ☐ Dense

Mistletoe within this 1 ha area?

☑ Absent ☐ Scattered ☐ Common ☐ Abundant

ROCKS

Outcrops within this 1 ha area?

☐ Absent ☐ Scattered ☐ Common ☐ Abundant

Surface rocks of 10–30 cm diameter?

☑ Absent ☐ Scattered ☐ Common ☐ Abundant

Surface rocks of > 30 cm diameter?

☑ Absent ☐ Scattered ☐ Common ☐ Abundant

Cliffs and overhangs within this 1 ha area?

☑ Absent ☐ Scattered ☐ Common ☐ Abundant

If present, are they mostly?

☐ Sandstone ☐ Granite

☐ Basalt ☐ Karst

☐ Other

CRACKING CLAY SOILS

☐ YES ☑ NO

HABITAT QUALITY FOR:

Hollow dependent fauna

☐ Absent ☑ Poor ☐ Average ☐ Good ☐ Excellent

Rock dependent fauna

☑ Absent ☐ Poor ☐ Average ☐ Good ☐ Excellent

Log dependent fauna

☐ Absent ☐ Poor ☐ Average ☑ Good ☐ Excellent

Small birds

☐ Absent ☑ Poor ☐ Average ☐ Good ☐ Excellent

OTHER HABITAT QUALITY ASPECTS:

Riparian area adjacent to woodland/ open forest, patches of dense shrubs & 2m

WETLANDS

Wetlands present?

☐ YES ☑ NO

TYPE OF WETLAND:

MARINE:

☐ Coral reef ☐ Rocky shore ☐ Beach (all)

☐ Estuarine ☐ Tidal mudflat ☐ Tidal marsh

☐ Tidal forest (e.g. mangrove) ☐ Lagoon

☐ Saline / brackish lake / swamp

INLAND WETLAND:

☐ Creek ➡ ☐ Dry ☐ Flowing

☐ River ☐ Floodplain, river flat

☐ Small billabong , pools (<8 ha) ☐ Freshwater lake (>8 ha)

☐ Shrubby swamp ☐ Wooded swamp

☐ Gilgai ☐ Claypan

☐ Ephemeral Marsh / swamp with emergent veg

ARTIFICIAL WETLANDS:

☐ Large dam, reservoir (>8 ha) ☐ Small dam, pond, tank

☐ Irrigation channel, rice field ☐ Wastewater treatment

☐ Canal, drainage channel, ditch ☐ Salt pond / field

AREA OF WETLAND:

☐ < 2 ha ☐ 2-8 ha ☐ 8-100 ha ☐ >100 ha

➡ Water mostly

☐ Fresh ☐ Brackish / saline ☐ Salty

FEATURES PRESENT

☐ Broad, shallow, swampy areas for birds to feed

☐ Islands for birds to roost and nest

☐ Dead or living trees in the water (partly submerged) for roosting and nesting habitat

☐ Fencing to exclude grazing stock from direct access to the waters edge

☐ Dense tree and / or shrub cover close to the edge of the water

ADDITIONAL NOTES:

Wood ducks.

Cehyra dubia

SITE NO.

HLA

HABITAT ASSESSMENT FOR 1 ha SEARCH AREA

PROJECT: GLADSTONE - ARP | DATE: 23/6/07

SITE NO.: FA05 | LOCATION: 024 | NAME: D. Fleming

AMG: 56 | EASTING: 310008 | NORTHING: 7358051

DISTANCE and DIRECTION from TOWN: SITE IS ____ km (s) ____ (N. S. E. W.) OF ____ IN ____ (state)

WAS GPS USED? ☑ YES ☐ NO | IF YES, WHICH DATUM WAS USED? ☐ Aust (84/66) ☑ WGS 84 or GDA | ALTITUDE: 50

GENERAL

☑ Remnant trees ☐ Regrowth ☐ Plantation

☐ Native grasses (trees / shrubs may be present)

☑ Non-native grasses (trees / shrubs may be present)

☐ Improved pasture ☐ Other

Habitat type: Farm dam adjacent to woodland

RE: 12-11-6 | VEG: DV | LANDFORM: HSL

SOIL: Clayey sand

LANDSCAPE

Shape of patch?

☐ Circular / square ☐ Irregular ☐ Strip <50 m

☐ Strip >50 m

Strip details: ☐ Creek / river ☐ Roadside ☐ Windbreak ☐ Other ____

Width ____

Area of full patch that contains 1 ha area:

☐ < 3 ha ☐ 3-10 ha ☐ 11-30 ha

☐ 31-100 ha ☐ 101-400 ha ☑ > 400 ha adjacent to dam

Is the 1 ha patch connected to other similar sized or larger patches of vegetation?

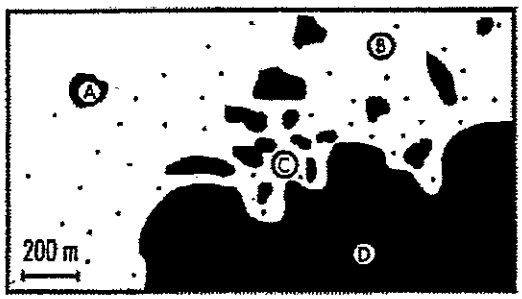
☑ YES ☐ NO

Position of this 1 ha search area relative to the surrounding tree / shrub cover?

☐ A- Isolated ☐ B-Semi isolated

☐ C-Not isolated ☑ D-Continuous tree / shrub at edge

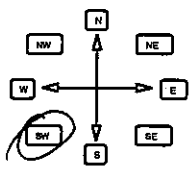
■ Continuous tree/shrub cover ⊡ Scattered trees ☐ Grassland



Is this 1 ha area on a:

☐ Flat ☐ Ridge ☐ Gully ☑ Slope

If slope, give aspect over 20 m



Degrees of slope over 20 m: Variable.

VEGETATION STRUCTURE : OVERSTORY

Tree canopy cover (trees taller that 3 m):

☑ Absent ☐ Sparse ☐ Open ☐ Dense

If trees present:

☐ single tree species

☐ two or three species

☐ more than three species

Are trees mostly? ☐ native ☐ exotic

Species:

Average height of overstory?

☐ 3-5 m ☐ 5-10 m ☐ 10-15 m ☐ > 15 m

Are the trees?

☐ Even-aged (Trees mostly the same age or size)

☐ Multi-aged (Trees of varing size or age)

Are there obvious signs of dieback in the tree canopy?

☐ None ☐ Some dieback ☐ Extensive dieback

VEGETATION STRUCTURE : UNDERSTORY

Tall understory shrub cover (>2 m):

☑ Absent ☐ Scattered ☐ Common ☐ Abundant

If shrubs present:

☐ single shrub species

☐ two or three species

☐ more than three species

Are shrubs mostly? ☐ native ☐ exotic

Species:

Low shrub cover (0.5 m – 2 m):

☑ Absent ☐ Scattered ☐ Common ☐ Abundant

If shrubs present:

☐ single shrub species

☐ two or three species

☐ more than three species

Are shrubs mostly? ☐ native ☐ exotic

Species:

Dominant ground cover within this 1 ha area:

☐ Tussocks ☐ Hummocks ☐ Continuous grass / herbs

☐ Low Heath ☑ Weeds ☑ Bare dirt / rocks / litter

LAND USE

Used for?

☐ Mixed grazing ☐ Sheep ☑ Cattle

☐ Crops Crop type ____

☐ Other Other ____

HLA

HABITAT ASSESSMENT (*cont.*)

KEY HABITAT FEATURES

HOLLOWS and LOGS

No. of hollows within 1 ha patch?

☑ Absent (0) ☐ Scattered (1-5) ☐ Common (6-10) ☐ Abundant (>10)

If present, are they mostly? ☐ dead ☐ living

Fallen trees or branches present 10-50 cm diameter?

☑ Absent (0) ☐ Scattered (1-10) ☐ Common (10-20) ☐ Abundant (> 20)

Fallen trees or branches present >50 cm diameter?

☑ Absent (0) ☐ Scattered (1-5) ☐ Common (6-10) ☐ Abundant (>10)

Leaf litter?

☑ Absent ☐ Sparse ☐ Patchy ☐ Dense

Mistletoe within this 1 ha area?

☑ Absent ☐ Scattered ☐ Common ☐ Abundant

ROCKS

Outcrops within this 1 ha area?

☑ Absent ☐ Scattered ☐ Common ☐ Abundant

Surface rocks of 10–30 cm diameter?

☑ Absent ☐ Scattered ☐ Common ☐ Abundant

Surface rocks of > 30 cm diameter?

☑ Absent ☐ Scattered ☐ Common ☐ Abundant

Cliffs and overhangs within this 1 ha area?

☑ Absent ☐ Scattered ☐ Common ☐ Abundant

If present, are they mostly?

☐ Sandstone ☐ Granite

☐ Basalt ☐ Karst

☐ Other

CRACKING CLAY SOILS

☐ YES ☑ NO

HABITAT QUALITY FOR:

Hollow dependent fauna

☑ Absent ☐ Poor ☐ Average ☐ Good ☐ Excellent

Rock dependent fauna

☑ Absent ☐ Poor ☐ Average ☐ Good ☐ Excellent

Log dependent fauna

☑ Absent ☐ Poor ☐ Average ☐ Good ☐ Excellent

Small birds

☑ Absent ☐ Poor ☐ Average ☐ Good ☐ Excellent

OTHER HABITAT QUALITY ASPECTS:

Very little habitat value within electricity easement or dam. Some value for disturbance adapted waders eg. ducks, egrets. Lantana thickets at edge of dam and in easement

WETLANDS

Wetlands present?

☑ YES ☐ NO

TYPE OF WETLAND:

MARINE:

☐ Coral reef ☐ Rocky shore ☐ Beach (all)

☐ Estuarine ☐ Tidal mudflat ☐ Tidal marsh

☐ Tidal forest (e.g. mangrove) ☐ Lagoon

☐ Saline / brackish lake / swamp

INLAND WETLAND:

☐ Creek ➡ ☐ Dry ☐ Flowing

☐ River ☐ Floodplain, river flat

☐ Small billabong , pools (<8 ha) ☐ Freshwater lake (>8 ha)

☐ Shrubby swamp ☐ Wooded swamp

☐ Gilgai ☐ Claypan

☐ Ephemeral Marsh / swamp with emergent veg

ARTIFICIAL WETLANDS:

☐ Large dam, reservoir (>8 ha) ☑ Small dam, pond, tank

☐ Irrigation channel, rice field ☐ Wastewater treatment

☐ Canal, drainage channel, ditch ☐ Salt pond / field

AREA OF WETLAND:

☐ < 2 ha ☑ 2-8 ha ☐ 8-100 ha ☐ >100 ha

➡ Water mostly

☑ Fresh ☐ Brackish / saline ☐ Salty

FEATURES PRESENT

☑ Broad, shallow, swampy areas for birds to feed

☐ Islands for birds to roost and nest

☐ Dead or living trees in the water (partly submerged) for roosting and nesting habitat

☐ Fencing to exclude grazing stock from direct access to the waters edge

☐ Dense tree and / or shrub cover close to the edge of the water - woodland vegetation approx. 10-15 from edge of dam.

ADDITIONAL NOTES:

Intermediate egret

Magpie

Pseudophryne major.

SITE NO.

HLA

HABITAT ASSESSMENT FOR 1 ha SEARCH AREA

PROJECT: GLADSTONE - ARP DATE: 23/6/07

SITE NO.: FA06 LOCATION: 026 NAME: D. Fleming

AMG: 56 EASTING: 309914 NORTHING: 7358313

DISTANCE and DIRECTION from TOWN: SITE IS ____ km (s) ____ (N. S. E. W.) OF ____ IN ____ (state)

WAS GPS USED? ☑ YES ☐ NO IF YES, WHICH DATUM WAS USED? ☐ Aust (84/66) ☑ WGS 84 or GDA ALTITUDE: 74

GENERAL

☑ Remnant trees ☐ Regrowth ☐ Plantation

☐ Native grasses (trees / shrubs may be present)

☑ Non-native grasses (trees / shrubs may be present)

☐ Improved pasture ☐ Other

Habitat type: Woodland

RE: 11.11.14 / 11.11.18 VEG: DS LANDFORM: HSL

SOIL: Silty clay.

LANDSCAPE

Shape of patch?

☑ Circular / square ☐ Irregular ☐ Strip <50 m

☐ Strip >50 m

Strip details: ☐ Creek / river ☐ Roadside ☐ Windbreak ☐ Other ____

Width ____

Area of full patch that contains 1 ha area:

☐ < 3 ha ☐ 3-10 ha ☐ 11-30 ha

☐ 31-100 ha ☐ 101-400 ha ☑ > 400 ha

Is the 1 ha patch connected to other similar sized or larger patches of vegetation?

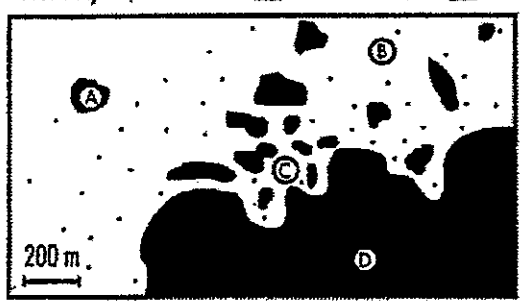
☑ YES ☐ NO

Position of this 1 ha search area relative to the surrounding tree / shrub cover?

☐ A- Isolated ☐ B-Semi isolated

☐ C-Not isolated ☑ D-Continuous tree / shrub at edge

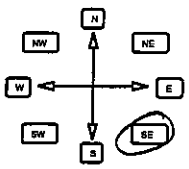
■ Continuous tree/shrub cover ⁙ Scattered trees ☐ Grassland



Is this 1 ha area on a:

☐ Flat ☐ Ridge ☐ Gully ☑ Slope

If slope, give aspect over 20 m



Degrees of slope over 20 m: 5-10

VEGETATION STRUCTURE : OVERSTORY

Tree canopy cover (trees taller that 3 m):

☐ Absent ☐ Sparse ☑ Open ☐ Dense

If trees present:

☐ single tree species

☑ two or three species

☐ more than three species

Are trees mostly?

☑ native ☐ exotic

Species: C. citriodora, E. crebra, E. tereticornis

Average height of overstory?

☐ 3-5 m ☐ 5-10 m ☐ 10-15 m ☐ > 15 m

Are the trees?

☐ Even-aged (Trees mostly the same age or size)

☑ Multi-aged (Trees of varing size or age) most large trees absent

Are there obvious signs of dieback in the tree canopy?

☐ None ☑ Some dieback ☐ Extensive dieback

VEGETATION STRUCTURE : UNDERSTORY

Tall understory shrub cover (>2 m):

☐ Absent ☐ Scattered ☑ Common ☐ Abundant

If shrubs present:

☐ single shrub species

☐ two or three species

☑ more than three species

Are shrubs mostly?

☑ native ☐ exotic

Species: Acacia oulacocarpa, Planchonia careya, Jagera pseudorhus, Bursaria

Low shrub cover (0.5 m – 2 m):

☐ Absent ☐ Scattered ☑ Common ☐ Abundant

If shrubs present:

☐ single shrub species

☐ two or three species

☑ more than three species

Are shrubs mostly?

☑ native ☐ exotic

Species: As above.

Dominant ground cover within this 1 ha area:

☐ Tussocks ☐ Hummocks ☑ Continuous grass / herbs Thatch grass patches

☐ Low Heath ☐ Weeds ☐ Bare dirt / rocks / litter

LAND USE

Used for?

☐ Mixed grazing ☐ Sheep ☐ Cattle

☐ Crops Crop type ____

☐ Other Other ____

HLA

HABITAT ASSESSMENT (*cont.*)

KEY HABITAT FEATURES

HOLLOWS and LOGS

No. of hollows within 1 ha patch?

☐ Absent (0) ☑ Scattered (1-5) ☐ Common (6-10) ☐ Abundant (>10)

If present, are they mostly? ☑ dead ☐ living

Fallen trees or branches present 10-50 cm diameter?

☐ Absent (0) ☐ Scattered (1-10) ☑ Common (10-20) ☐ Abundant (> 20)

Fallen trees or branches present >50 cm diameter?

☑ Absent (0) ☐ Scattered (1-5) ☐ Common (6-10) ☐ Abundant (>10)

large fallen trees in State Forest across road

Leaf litter?

☐ Absent ☐ Sparse ☑ Patchy ☐ Dense

Mistletoe within this 1 ha area?

☐ Absent ☑ Scattered ☐ Common ☐ Abundant

ROCKS

Outcrops within this 1 ha area?

☑ Absent ☐ Scattered ☐ Common ☐ Abundant

Surface rocks of 10–30 cm diameter?

☑ Absent ☐ Scattered ☐ Common ☐ Abundant

Surface rocks of > 30 cm diameter?

☑ Absent ☐ Scattered ☐ Common ☐ Abundant

Cliffs and overhangs within this 1 ha area?

☑ Absent ☐ Scattered ☐ Common ☐ Abundant

If present, are they mostly?

☐ Sandstone ☐ Granite

☐ Basalt ☐ Karst

☐ Other

CRACKING CLAY SOILS

☐ YES ☑ NO

HABITAT QUALITY FOR:

Hollow dependent fauna

☐ Absent ☑ Poor ☐ Average ☐ Good ☐ Excellent

Rock dependent fauna

☑ Absent ☐ Poor ☐ Average ☐ Good ☐ Excellent

Log dependent fauna

☐ Absent ☐ Poor ☑ Average ☐ Good ☐ Excellent

Small birds

☐ Absent ☐ Poor ☐ Average ☑ Good ☐ Excellent

OTHER HABITAT QUALITY ASPECTS:

Adjacent to SF increases value of this patch. Lacks some structural complexity and refugia compared with SF, but good habitat nonetheless. Most large trees are presumed to have been logged out.

WETLANDS

Wetlands present?

☐ YES ☑ NO

TYPE OF WETLAND:

MARINE:

☐ Coral reef ☐ Rocky shore ☐ Beach (all)

☐ Estuarine ☐ Tidal mudflat ☐ Tidal marsh

☐ Tidal forest (e.g. mangrove) ☐ Lagoon

☐ Saline / brackish lake / swamp

INLAND WETLAND:

☐ Creek ➡ ☐ Dry ☐ Flowing

☐ River ☐ Floodplain, river flat

☐ Small billabong , pools (<8 ha) ☐ Freshwater lake (>8 ha)

☐ Shrubby swamp ☐ Wooded swamp

☐ Gilgai ☐ Claypan

☐ Ephemeral Marsh / swamp with emergent veg

ARTIFICIAL WETLANDS:

☐ Large dam, reservoir (>8 ha) ☐ Small dam, pond, tank

☐ Irrigation channel, rice field ☐ Wastewater treatment

☐ Canal, drainage channel, ditch ☐ Salt pond / field

AREA OF WETLAND:

☐ < 2 ha ☐ 2-8 ha ☐ 8-100 ha ☐ >100 ha

➡ Water mostly

☐ Fresh ☐ Brackish / saline ☐ Salty

FEATURES PRESENT

☐ Broad, shallow, swampy areas for birds to feed

☐ Islands for birds to roost and nest

☐ Dead or living trees in the water (partly submerged) for roosting and nesting habitat

☐ Fencing to exclude grazing stock from direct access to the waters edge

☐ Dense tree and / or shrub cover close to the edge of the water

ADDITIONAL NOTES:

photos 0211 - 0212

Rookaburra

Striated pardalote.

SITE NO.

HLA

HABITAT ASSESSMENT FOR 1 ha SEARCH AREA

PROJECT: GLADSTONE - ARP DATE: 23/6/07

SITE NO.: FA07 LOCATION: 027 NAME: D. Fleming

AMG: 56 EASTING: 309959 NORTHING: 7358942

DISTANCE and DIRECTION from TOWN: SITE IS ____ km (s) ____ (N. S. E. W.) OF ____ IN ____ (state)

WAS GPS USED? ☑ YES ☐ NO IF YES, WHICH DATUM WAS USED? ☐ Aust (84/66) ☑ WGS 84 or GDA ALTITUDE: 60

GENERAL

☑ Remnant trees ☐ Regrowth ☐ Plantation

☐ Native grasses (trees / shrubs may be present)

☑ Non-native grasses (trees / shrubs may be present)

☐ Improved pasture ☐ Other

Habitat type: Open Forest

RE: 12.11.6 VEG: DS LANDFORM: PLA

SOIL: Silty clay.

LANDSCAPE

Shape of patch?

☑ Circular / square ☐ Irregular ☐ Strip <50 m

☐ Strip >50 m

Strip details: ☐ Creek / river ☐ Roadside ☐ Windbreak ☐ Other ____

Width ____

Area of full patch that contains 1 ha area:

☐ < 3 ha ☐ 3-10 ha ☐ 11-30 ha

☐ 31-100 ha ☐ 101-400 ha ☑ > 400 ha

Is the 1 ha patch connected to other similar sized or larger patches of vegetation?

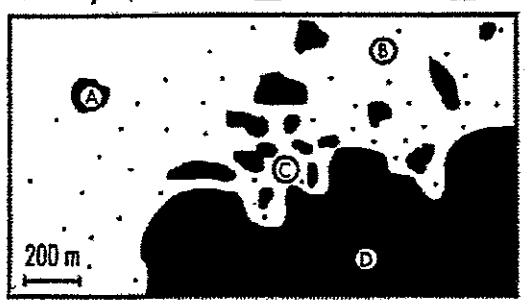
☑ YES ☐ NO

Position of this 1 ha search area relative to the surrounding tree / shrub cover?

☐ A- Isolated ☐ B-Semi isolated

☐ C-Not isolated ☑ D-Continuous tree / shrub

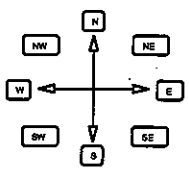
■ Continuous tree/shrub cover ⁘ Scattered trees ☐ Grassland



Is this 1 ha area on a:

☑ Flat ☐ Ridge ☐ Gully ☐ Slope

If slope, give aspect over 20 m



Degrees of slope over 20 m: ____

VEGETATION STRUCTURE : OVERSTORY

Tree canopy cover (trees taller that 3 m):

☐ Absent ☑ Sparse ☐ Open ☐ Dense

If trees present:

☐ single tree species

☑ two or three species

☐ more than three species

Are trees mostly?

☑ native ☐ exotic

Species: C. citriodora, E. crebra

Average height of overstory?

☐ 3-5 m ☐ 5-10 m ☐ 10-15 m ☑ > 15 m

Are the trees?

☐ Even-aged (Trees mostly the same age or size)

☑ Multi-aged (Trees of varing size or age)

Are there obvious signs of dieback in the tree canopy?

☐ None ☑ Some dieback ☐ Extensive dieback

VEGETATION STRUCTURE : UNDERSTORY

Tall understory shrub cover (>2 m):

☐ Absent ☐ Scattered ☑ Common ☐ Abundant

If shrubs present:

☐ single shrub species

☐ two or three species

☑ more than three species

Are shrubs mostly?

☑ native ☐ exotic

Species: Alphitonia excelsa, Pogolobus reticulatus, Lophostemon suaveolens.

Low shrub cover (0.5 m – 2 m):

☐ Absent ☑ Scattered ☐ Common ☐ Abundant

If shrubs present:

☐ single shrub species

☐ two or three species

☑ more than three species

Are shrubs mostly?

☑ native ☐ exotic

Species: Bursaria, Maytenus, Acacia bidwillii, Hibiscus, Lantana camara

Dominant ground cover within this 1 ha area:

☑ Tussocks ☐ Hummocks ☐ Continuous grass / herbs

☐ Low Heath ☐ Weeds ☐ Bare dirt / rocks / litter

LAND USE

Used for?

☐ Mixed grazing ☑ Sheep ☐ Cattle

☐ Crops Crop type ____

☐ Other Other ____

HLA

HABITAT ASSESSMENT (*cont.*)

KEY HABITAT FEATURES

HOLLOWS and LOGS

No. of hollows within 1 ha patch?

☑ Absent (0) ☐ Scattered (1-5) ☐ Common (6-10) ☐ Abundant (>10)

If present, are they mostly? ☐ dead ☐ living

Fallen trees or branches present 10-50 cm diameter?

☐ Absent (0) ☑ Scattered (1-10) ☐ Common (10-20) ☐ Abundant (> 20)

Fallen trees or branches present >50 cm diameter?

☐ Absent (0) ☑ Scattered (1-5) ☐ Common (6-10) ☐ Abundant (>10)

Leaf litter?

☐ Absent ☑ Sparse ☐ Patchy ☐ Dense

Mistletoe within this 1 ha area?

☑ Absent ☐ Scattered ☐ Common ☐ Abundant

ROCKS

Outcrops within this 1 ha area?

☑ Absent ☐ Scattered ☐ Common ☐ Abundant

Surface rocks of 10–30 cm diameter?

☑ Absent ☐ Scattered ☐ Common ☐ Abundant

Surface rocks of > 30 cm diameter?

☑ Absent ☐ Scattered ☐ Common ☐ Abundant

Cliffs and overhangs within this 1 ha area?

☑ Absent ☐ Scattered ☐ Common ☐ Abundant

If present, are they mostly?

☐ Sandstone ☐ Granite

☐ Basalt ☐ Karst

☐ Other

CRACKING CLAY SOILS

☐ YES ☑ NO

HABITAT QUALITY FOR:

Hollow dependent fauna

☑ Absent ☐ Poor ☐ Average ☐ Good ☐ Excellent

Rock dependent fauna

☑ Absent ☐ Poor ☐ Average ☐ Good ☐ Excellent

Log dependent fauna

☐ Absent ☐ Poor ☑ Average ☐ Good ☐ Excellent

Small birds

☐ Absent ☐ Poor ☑ Average ☐ Good ☐ Excellent

OTHER HABITAT QUALITY ASPECTS:

Evidence of past logging. Ground cover dominated by Thatch grass.

WETLANDS

Wetlands present?

☐ YES ☑ NO

TYPE OF WETLAND:

MARINE:

☐ Coral reef ☐ Rocky shore ☐ Beach (all)

☐ Estuarine ☐ Tidal mudflat ☐ Tidal marsh

☐ Tidal forest (e.g. mangrove) ☐ Lagoon

☐ Saline / brackish lake / swamp

INLAND WETLAND:

☐ Creek ➡ ☐ Dry ☐ Flowing

☐ River ☐ Floodplain, river flat

☐ Small billabong , pools (<8 ha) ☐ Freshwater lake (>8 ha)

☐ Shrubby swamp ☐ Wooded swamp

☐ Gilgai ☐ Claypan

☐ Ephemeral Marsh / swamp with emergent veg

ARTIFICIAL WETLANDS:

☐ Large dam, reservoir (>8 ha) ☐ Small dam, pond, tank

☐ Irrigation channel, rice field ☐ Wastewater treatment

☐ Canal, drainage channel, ditch ☐ Salt pond / field

AREA OF WETLAND:

☐ < 2 ha ☐ 2-8 ha ☐ 8-100 ha ☐ >100 ha

➡ Water mostly

☐ Fresh ☐ Brackish / saline ☐ Salty

FEATURES PRESENT

☐ Broad, shallow, swampy areas for birds to feed

☐ Islands for birds to roost and nest

☐ Dead or living trees in the water (partly submerged) for roosting and nesting habitat

☐ Fencing to exclude grazing stock from direct access to the waters edge

☐ Dense tree and / or shrub cover close to the edge of the water

ADDITIONAL NOTES:

Peaceful dove
Rockabarra
Mistletoe bird

SITE NO.

HLA

HABITAT ASSESSMENT FOR 1 ha SEARCH AREA

PROJECT: GLADSTONE - ARP DATE: 23/6/07

SITE NO.: FA08 LOCATION: 028 NAME: D. Fleming

AMG: 56 EASTING: 309983 NORTHING: 7359193

DISTANCE and DIRECTION from TOWN: SITE IS ____ km (s) ____ (N. S. E. W.) OF ____ IN ____ (state)

WAS GPS USED? ☑ YES ☐ NO IF YES, WHICH DATUM WAS USED? ☐ Aust (84/66) ☑ WGS 84 or GDA ALTITUDE ____

GENERAL

☑ Remnant trees ☐ Regrowth ☐ Plantation

☑ Native grasses (trees / shrubs may be present)

☐ Non-native grasses (trees / shrubs may be present)

☐ Improved pasture ☐ Other

Habitat type: Open Forest with SEVT patches

RE: 11.11.18 VEG: DS LANDFORM: PLA

SOIL: Silty clay.

LANDSCAPE

Shape of patch?

☐ Circular / square ☑ Irregular ☐ Strip <50 m

☐ Strip >50 m

➡ Strip details: ☐ Creek / river ☐ Roadside ☐ Windbreak ☐ Other ____

Width ____

Area of full patch that contains 1 ha area:

☐ < 3 ha ☐ 3-10 ha ☐ 11-30 ha

☐ 31-100 ha ☐ 101-400 ha ☑ > 400 ha

Is the 1 ha patch connected to other similar sized or larger patches of vegetation?

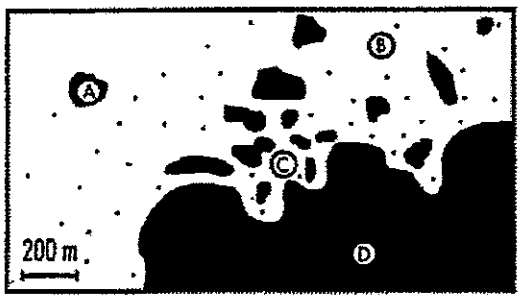
☑ YES ☐ NO

Position of this 1 ha search area relative to the surrounding tree / shrub cover?

☐ A- Isolated ☐ B-Semi isolated

☐ C-Not isolated ☑ D-Continuous tree / shrub at edge of pasture

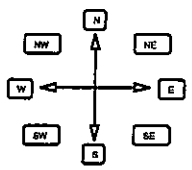
■ Continuous tree/shrub cover ⁘ Scattered trees ☐ Grassland



Is this 1 ha area on a:

☑ Flat ☐ Ridge ☐ Gully ☐ Slope

If slope, give aspect over 20 m



Degrees of slope over 20 m: ____

VEGETATION STRUCTURE : OVERSTORY

Tree canopy cover (trees taller that 3 m):

☐ Absent ☐ Sparse ☑ Open ☐ Dense

If trees present:

☐ single tree species

☑ two or three species

☐ more than three species

Are trees mostly?

☑ native ☐ exotic

Species: C. citriodora, E. crebra, C. tessellaris

Average height of overstory?

☐ 3-5 m ☐ 5-10 m ☐ 10-15 m ☑ > 15 m

Are the trees?

☐ Even-aged (Trees mostly the same age or size)

☑ Multi-aged (Trees of varing size or age)

Are there obvious signs of dieback in the tree canopy?

☐ None ☑ Some dieback ☐ Extensive dieback

VEGETATION STRUCTURE : UNDERSTORY

Tall understory shrub cover (>2 m):

☐ Absent ☐ Scattered ☐ Common ☑ Abundant

If shrubs present:

☐ single shrub species

☐ two or three species

☑ more than three species

Are shrubs mostly?

☑ native ☐ exotic

Species: SEVT thickets, Jagera pseudorhus, Bursaria, Diospyros sp.

Low shrub cover (0.5 m – 2 m):

☐ Absent ☐ Scattered ☐ Common ☑ Abundant

If shrubs present:

☐ single shrub species

☐ two or three species

☑ more than three species

Are shrubs mostly?

☑ native ☐ exotic

Species: ____

Dominant ground cover within this 1 ha area:

☑ Tussocks ☐ Hummocks ☐ Continuous grass / herbs

☐ Low Heath ☐ Weeds ☐ Bare dirt / rocks / litter

LAND USE

Used for?

☐ Mixed grazing ☐ Sheep ☐ Cattle

☐ Crops Crop type: ____

☐ Other Other: ____

HLA

HABITAT ASSESSMENT (*cont.*)

KEY HABITAT FEATURES

HOLLOWS and LOGS

No. of hollows within 1 ha patch?

☐ Absent (0) ☑ Scattered (1-5) ☐ Common (6-10) ☐ Abundant (>10)

If present, are they mostly? ☐ dead ☑ living

Fallen trees or branches present 10-50 cm diameter?

☐ Absent (0) ☑ Scattered (1-10) ☐ Common (10-20) ☐ Abundant (> 20)

Fallen trees or branches present >50 cm diameter?

☐ Absent (0) ☐ Scattered (1-5) ☑ Common (6-10) ☐ Abundant (>10)

Leaf litter?

☐ Absent ☐ Sparse ☑ Patchy ☐ Dense

Mistletoe within this 1 ha area?

☐ Absent ☐ Scattered ☑ Common ☐ Abundant

ROCKS

Outcrops within this 1 ha area?

☑ Absent ☐ Scattered ☐ Common ☐ Abundant

Surface rocks of 10–30 cm diameter?

☑ Absent ☐ Scattered ☐ Common ☐ Abundant

Surface rocks of > 30 cm diameter?

☑ Absent ☐ Scattered ☐ Common ☐ Abundant

Cliffs and overhangs within this 1 ha area?

☑ Absent ☐ Scattered ☐ Common ☐ Abundant

If present, are they mostly?

☐ Sandstone ☐ Granite

☐ Basalt ☐ Karst

☐ Other

CRACKING CLAY SOILS

☐ YES ☑ NO

HABITAT QUALITY FOR:

Hollow dependent fauna

☐ Absent ☑ Poor ☐ Average ☐ Good ☐ Excellent

Rock dependent fauna

☑ Absent ☐ Poor ☐ Average ☐ Good ☐ Excellent

Log dependent fauna

☐ Absent ☐ Poor ☐ Average ☑ Good ☐ Excellent

Small birds

☐ Absent ☐ Poor ☐ Average ☐ Good ☑ Excellent

OTHER HABITAT QUALITY ASPECTS:

SEVT - like understorey.

WETLANDS

Wetlands present?

☐ YES ☑ NO

TYPE OF WETLAND:

MARINE:

☐ Coral reef ☐ Rocky shore ☐ Beach (all)

☐ Estuarine ☐ Tidal mudflat ☐ Tidal marsh

☐ Tidal forest (e.g. mangrove) ☐ Lagoon

☐ Saline / brackish lake / swamp

INLAND WETLAND:

☐ Creek ➡ ☐ Dry ☐ Flowing

☐ River ☐ Floodplain, river flat

☐ Small billabong , pools (<8 ha) ☐ Freshwater lake (>8 ha)

☐ Shrubby swamp ☐ Wooded swamp

☐ Gilgai ☐ Claypan

☐ Ephemeral Marsh / swamp with emergent veg

ARTIFICIAL WETLANDS:

☐ Large dam, reservoir (>8 ha) ☐ Small dam, pond, tank

☐ Irrigation channel, rice field ☐ Wastewater treatment

☐ Canal, drainage channel, ditch ☐ Salt pond / field

AREA OF WETLAND:

☐ <2 ha ☐ 2-8 ha ☐ 8-100 ha ☐ >100 ha

➡ Water mostly

☐ Fresh ☐ Brackish / saline ☐ Salty

FEATURES PRESENT

☐ Broad, shallow, swampy areas for birds to feed

☐ Islands for birds to roost and nest

☐ Dead or living trees in the water (partly submerged) for roosting and nesting habitat

☐ Fencing to exclude grazing stock from direct access to the waters edge

☐ Dense tree and / or shrub cover close to the edge of the water

ADDITIONAL NOTES:

Rainbow lorikeet
Rainbow bee-eater
Little friarbird
Peaceful dove
Brown honeyeater
Mistletoebird

Very old turkey mound or scrub-fowl mound.

SITE NO.

HLA

HABITAT ASSESSMENT FOR 1 ha SEARCH AREA

PROJECT: GLADSTONE - ARP DATE: 23/6/07

SITE NO.: FA09 LOCATION: 029 NAME: D. Fleming

AMG: 56 EASTING: 309740 NORTHING: 7360377

DISTANCE and DIRECTION from TOWN: SITE IS ____ km (s) ____ (N. S. E. W.) OF ____ IN ____ (state)

WAS GPS USED? ☑ YES ☐ NO IF YES, WHICH DATUM WAS USED? ☐ Aust (84/66) ☑ WGS 84 or GDA ALTITUDE ____

GENERAL

☑ Remnant trees ☐ Regrowth ☐ Plantation

☐ Native grasses (trees / shrubs may be present)

☑ Non-native grasses (trees / shrubs may be present)

☐ Improved pasture ☐ Other

Habitat type: Riparian Woodland

RE: 11.3.4 VEG: ____ LANDFORM: ____

SOIL: ____

LANDSCAPE

Shape of patch?

☐ Circular / square ☐ Irregular ☑ Strip <50 m

☐ Strip >50 m

Strip details: ☑ Creek / river ☐ Roadside ☐ Windbreak ☐ Other ____

Width: 25

Area of full patch that contains 1 ha area:

☐ < 3 ha ☑ 3-10 ha ☐ 11-30 ha

☐ 31-100 ha ☐ 101-400 ha ☐ > 400 ha

Is the 1 ha patch connected to other similar sized or larger patches of vegetation?

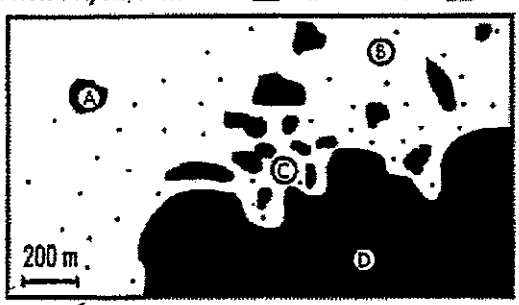
☑ YES ☐ NO much larger adjoining patches

Position of this 1 ha search area relative to the surrounding tree / shrub cover?

☐ A-Isolated ☐ B-Semi isolated

☑ C-Not isolated on edge ☐ D-Continuous tree / shrub

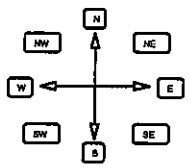
■ Continuous tree/shrub cover ⁘ Scattered trees ☐ Grassland



Is this 1 ha area on a:

☑ Flat ☐ Ridge ☐ Gully ☐ Slope

If slope, give aspect over 20 m



Degrees of slope over 20 m: ____

VEGETATION STRUCTURE : OVERSTORY

Tree canopy cover (trees taller that 3 m):

☐ Absent ☐ Sparse ☑ Open ☐ Dense

If trees present: along drainage line

☐ single tree species

☑ two or three species

☐ more than three species

Are trees mostly?

☑ native ☐ exotic

Species: E. crebra, E. tereticornis

Average height of overstory?

☐ 3-5 m ☐ 5-10 m ☑ 10-15 m ☐ > 15 m

Are the trees?

☐ Even-aged (Trees mostly the same age or size)

☑ Multi-aged (Trees of varing size or age)

Are there obvious signs of dieback in the tree canopy?

☐ None ☑ Some dieback ☐ Extensive dieback

VEGETATION STRUCTURE : UNDERSTORY

Tall understory shrub cover (>2 m):

☐ Absent ☐ Scattered ☑ Common ☐ Abundant

If shrubs present:

☐ single shrub species

☑ two or three species

☐ more than three species

Are shrubs mostly?

☑ native ☐ exotic

Species: Melaleuca quinquenervia, C. trachyphloia,

Low shrub cover (0.5 m – 2 m):

☐ Absent ☑ Scattered ☐ Common ☐ Abundant

If shrubs present:

☐ single shrub species

☑ two or three species

☐ more than three species

Are shrubs mostly?

☑ native ☐ exotic

Species: Acacia spp., Hibiscus heterophylla, Xanthorrhea johnsonii

Dominant ground cover within this 1 ha area:

☐ Tussocks ☐ Hummocks ☑ Continuous grass / herbs

☐ Low Heath ☐ Weeds ☐ Bare dirt / rocks / litter

LAND USE

Used for?

☐ Mixed grazing ☐ Sheep ☐ Cattle

☐ Crops Crop type: ____

☑ Other Other: Adjacent to easement and orchard.

HLA

HABITAT ASSESSMENT (*cont.*)

KEY HABITAT FEATURES

HOLLOWS and LOGS

No. of hollows within 1 ha patch?

☑ Absent (0) ☐ Scattered (1-5) ☐ Common (6-10) ☐ Abundant (>10)

If present, are they mostly? ☐ dead ☐ living

Fallen trees or branches present 10-50 cm diameter?

☐ Absent (0) ☑ Scattered (1-10) ☐ Common (10-20) ☐ Abundant (> 20)

Fallen trees or branches present >50 cm diameter?

☐ Absent (0) ☐ Scattered (1-5) ☐ Common (6-10) ☐ Abundant (>10)

Leaf litter?

☐ Absent ☐ Sparse ☑ Patchy ☐ Dense

Mistletoe within this 1 ha area?

☐ Absent ☑ Scattered ☐ Common ☐ Abundant

ROCKS

Outcrops within this 1 ha area?

☑ Absent ☐ Scattered ☐ Common ☐ Abundant

Surface rocks of 10–30 cm diameter?

☐ Absent ☑ Scattered ☐ Common ☐ Abundant

Surface rocks of > 30 cm diameter?

☑ Absent ☐ Scattered ☐ Common ☐ Abundant

Cliffs and overhangs within this 1 ha area?

☑ Absent ☐ Scattered ☐ Common ☐ Abundant

If present, are they mostly?

☐ Sandstone ☐ Granite

☐ Basalt ☐ Karst

☐ Other

CRACKING CLAY SOILS

☐ YES ☑ NO

HABITAT QUALITY FOR:

Hollow dependent fauna

☑ Absent ☐ Poor ☐ Average ☐ Good ☐ Excellent

Rock dependent fauna

☐ Absent ☑ Poor ☐ Average ☐ Good ☐ Excellent

Log dependent fauna

☐ Absent ☑ Poor ☐ Average ☐ Good ☐ Excellent

Small birds

☐ Absent ☐ Poor ☑ Average ☐ Good ☐ Excellent

OTHER HABITAT QUALITY ASPECTS:

WETLANDS

Wetlands present?

☐ YES ☑ NO

TYPE OF WETLAND:

MARINE:

☐ Coral reef ☐ Rocky shore ☐ Beach (all)

☐ Estuarine ☐ Tidal mudflat ☐ Tidal marsh

☐ Tidal forest (e.g. mangrove) ☐ Lagoon

☐ Saline / brackish lake / swamp

INLAND WETLAND:

☐ Creek ➡ ☐ Dry ☐ Flowing

☐ River ☐ Floodplain, river flat

☐ Small billabong , pools (<8 ha) ☐ Freshwater lake (>8 ha)

☐ Shrubby swamp ☐ Wooded swamp

☐ Gilgai ☐ Claypan

☐ Ephemeral Marsh / swamp with emergent veg

ARTIFICIAL WETLANDS:

☐ Large dam, reservoir (>8 ha) ☐ Small dam, pond, tank

☐ Irrigation channel, rice field ☐ Wastewater treatment

☐ Canal, drainage channel, ditch ☐ Salt pond / field

AREA OF WETLAND:

☐ < 2 ha ☐ 2-8 ha ☐ 8-100 ha ☐ >100 ha

➡ Water mostly

☐ Fresh ☐ Brackish / saline ☐ Salty

FEATURES PRESENT

☐ Broad, shallow, swampy areas for birds to feed

☐ Islands for birds to roost and nest

☐ Dead or living trees in the water (partly submerged) for roosting and nesting habitat

☐ Fencing to exclude grazing stock from direct access to the waters edge

☐ Dense tree and / or shrub cover close to the edge of the water

ADDITIONAL NOTES:

Brown honeyeater

ground cover dominated by weeds (Mitch grass, creeping [illegible])

SITE NO.

HLA

HABITAT ASSESSMENT FOR 1 ha SEARCH AREA

PROJECT: GLADSTONE - ARP | DATE: 24/6/07

SITE NO: FA 10 | LOCATION: 032 - off line Com line. | NAME: D. Fleming

AMG: 56 | EASTING: 309422 | NORTHING: 7361053

DISTANCE and DIRECTION from TOWN: SITE IS ____ km (s) ____ (N. S. E. W.) OF ____ IN ____ (state)

WAS GPS USED? ☑ YES ☐ NO | IF YES, WHICH DATUM WAS USED? ☐ Aust (84/66) ☑ WGS 84 or GDA | ALTITUDE ____

GENERAL

☑ Remnant trees ☐ Regrowth ☐ Plantation

☐ Native grasses (trees / shrubs may be present)

☑ Non-native grasses (trees / shrubs may be present)

☐ Improved pasture ☐ Other

Habitat type: Woodland / Open Forest

RE: 11.3.4 | VEG: DS | LANDFORM: PLA

SOIL: Sandy clay

LANDSCAPE

Shape of patch?

☑ Circular / square ☐ Irregular ☐ Strip <50 m

☐ Strip >50 m

➡ Strip details: ☐ Creek / river ☐ Roadside ☐ Windbreak ☐ Other ____

Width ____

Area of full patch that contains 1 ha area:

☑ < 3 ha ☐ 3-10 ha ☐ 11-30 ha

☐ 31-100 ha ☐ 101-400 ha ☐ > 400 ha

Is the 1 ha patch connected to other similar sized or larger patches of vegetation? connected to 7400ha patches, but at edge

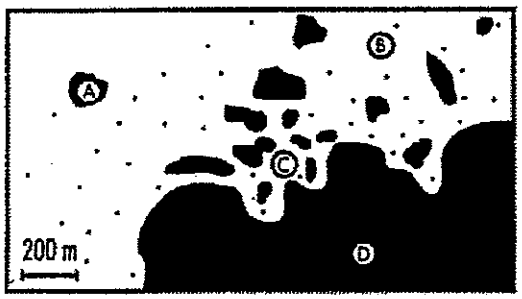
☑ YES ☐ NO

Position of this 1 ha search area relative to the surrounding tree / shrub cover?

☐ A- Isolated ☐ B-Semi isolated

☐ C-Not isolated ☑ D-Continuous tree / shrub

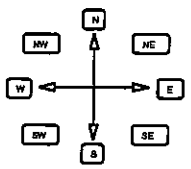
■ Continuous tree/shrub cover ⁘ Scattered trees ☐ Grassland



Is this 1 ha area on a:

☑ Flat ☐ Ridge ☐ Gully ☐ Slope

If slope, give aspect over 20 m



Degrees of slope over 20 m: ____

VEGETATION STRUCTURE : OVERSTORY

Tree canopy cover (trees taller that 3 m):

☐ Absent ☑ Sparse ☑ Open ☐ Dense

If trees present:

☐ single tree species

☐ two or three species

☑ more than three species

Are trees mostly?

☑ native ☐ exotic

Species: E. tereticornis, E. crebra, C. tessellaris

Average height of overstory?

☐ 3-5 m ☐ 5-10 m ☐ 10-15 m ☑ > 15 m

Are the trees?

☐ Even-aged (Trees mostly the same age or size)

☑ Multi-aged (Trees of varing size or age) lacking large, old trees.

Are there obvious signs of dieback in the tree canopy?

☐ None ☑ Some dieback ☐ Extensive dieback

VEGETATION STRUCTURE : UNDERSTORY

Tall understory shrub cover (>2 m):

☐ Absent ☑ Scattered ☐ Common ☐ Abundant

If shrubs present:

☐ single shrub species

☑ two or three species

☐ more than three species

Are shrubs mostly?

☑ native ☐ exotic

Species: Xanthostemon suaveolens, Acacia polystachya, Drypetes, Lantana

Low shrub cover (0.5 m – 2 m):

☐ Absent ☑ Scattered ☐ Common ☐ Abundant

If shrubs present:

☐ single shrub species

☑ two or three species

☐ more than three species

Are shrubs mostly?

☑ native ☑ exotic

Species: Melinis repens, Panicum maximum, Urochloa, Lantana camara

Dominant ground cover within this 1 ha area:

☐ Tussocks ☐ Hummocks ☐ Continuous grass / herbs

☐ Low Heath ☐ Weeds ☑ Bare dirt / rocks / litter

LAND USE

Used for?

☐ Mixed grazing ☐ Sheep ☐ Cattle

☐ Crops Crop type ____

☐ Other Other ____

HLA

HABITAT ASSESSMENT (*cont.*)

KEY HABITAT FEATURES

HOLLOWS and LOGS

No. of hollows within 1 ha patch?

☑ Absent (0) ☐ Scattered (1-5) ☐ Common (6-10) ☐ Abundant (>10)

If present, are they mostly? ☐ dead ☐ living

Fallen trees or branches present 10-50 cm diameter?

☐ Absent (0) ☐ Scattered (1-10) ☐ Common (10-20) ☑ Abundant (> 20) in piles

Fallen trees or branches present >50 cm diameter?

☑ Absent (0) ☐ Scattered (1-5) ☐ Common (6-10) ☐ Abundant (>10)

Leaf litter?

☐ Absent ☐ Sparse ☑ Patchy ☐ Dense

Mistletoe within this 1 ha area?

☐ Absent ☑ Scattered ☐ Common ☐ Abundant

ROCKS

Outcrops within this 1 ha area?

☑ Absent ☐ Scattered ☐ Common ☐ Abundant

Surface rocks of 10–30 cm diameter?

☑ Absent ☐ Scattered ☐ Common ☐ Abundant

Surface rocks of > 30 cm diameter?

☑ Absent ☐ Scattered ☐ Common ☐ Abundant

Cliffs and overhangs within this 1 ha area?

☑ Absent ☐ Scattered ☐ Common ☐ Abundant

If present, are they mostly?

☐ Sandstone ☐ Granite

☐ Basalt ☐ Karst

☐ Other

CRACKING CLAY SOILS

☐ YES ☑ NO

HABITAT QUALITY FOR:

Hollow dependent fauna

☑ Absent ☐ Poor ☐ Average ☐ Good ☐ Excellent

Rock dependent fauna

☑ Absent ☐ Poor ☐ Average ☐ Good ☐ Excellent

Log dependent fauna

☐ Absent ☐ Poor ☐ Average ☑ Good ☐ Excellent

Small birds

☐ Absent ☐ Poor ☑ Average ☐ Good ☐ Excellent

OTHER HABITAT QUALITY ASPECTS:

Several piles of fallen limbs, branches. Evidence of burning in adjacent patches. General land maintenance. Culverts nearby for bat roosting.

WETLANDS

Wetlands present?

☐ YES ☑ NO

TYPE OF WETLAND:

MARINE:

☐ Coral reef ☐ Rocky shore ☐ Beach (all)

☐ Estuarine ☐ Tidal mudflat ☐ Tidal marsh

☐ Tidal forest (e.g. mangrove) ☐ Lagoon

☐ Saline / brackish lake / swamp

INLAND WETLAND:

☐ Creek ➡ ☐ Dry ☐ Flowing

☐ River ☐ Floodplain, river flat

☐ Small billabong , pools (<8 ha) ☐ Freshwater lake (>8 ha)

☐ Shrubby swamp ☐ Wooded swamp

☐ Gilgai ☐ Claypan

☐ Ephemeral Marsh / swamp with emergent veg

ARTIFICIAL WETLANDS:

☐ Large dam, reservoir (>8 ha) ☐ Small dam, pond, tank

☐ Irrigation channel, rice field ☐ Wastewater treatment

☐ Canal, drainage channel, ditch ☐ Salt pond / field

AREA OF WETLAND:

☐ < 2 ha ☐ 2-8 ha ☐ 8-100 ha ☐ >100 ha

➡ Water mostly

☐ Fresh ☐ Brackish / saline ☐ Salty

FEATURES PRESENT

☐ Broad, shallow, swampy areas for birds to feed

☐ Islands for birds to roost and nest

☐ Dead or living trees in the water (partly submerged) for roosting and nesting habitat

☐ Fencing to exclude grazing stock from direct access to the waters edge

☐ Dense tree and / or shrub cover close to the edge of the water

ADDITIONAL NOTES:

Grey fantail
Striated pardalote
Double-barred finch
Magpie

Drainage line through middle of patch. Paperbark dominant. Very recent fire and maintenance of understorey.

→ M. fluviatilis.

SITE NO.

HLA

HABITAT ASSESSMENT FOR 1 ha SEARCH AREA

PROJECT: GLADSTONE - ARP DATE: 24/6/07

SITE NO.: FA11 LOCATION: 034 adjacent to existing pipeline at KP 8.8 NAME: D. Fleming

AMG: 56 EASTING: 341000 NORTHING: 7362542

DISTANCE and DIRECTION from TOWN: SITE IS ____ km (s) ____ (N. S. E. W.) OF ____ IN ____ (state)

WAS GPS USED? ☑ YES ☐ NO IF YES, WHICH DATUM WAS USED? ☐ Aust (84/66) ☑ WGS 84 or GDA ALTITUDE ____

GENERAL

☑ Remnant trees ☐ Regrowth ☐ Plantation

☑ Native grasses (trees / shrubs may be present)

☐ Non-native grasses (trees / shrubs may be present)

☐ Improved pasture ☐ Other

Habitat type: Forest / Woodland

RE: 12.11.6 VEG: DS LANDFORM: HSL

SOIL: Sandy clay.

LANDSCAPE

Shape of patch?

☐ Circular / square ☑ Irregular ☐ Strip <50 m

☐ Strip >50 m

Strip details: ☐ Creek / river ☐ Roadside ☐ Windbreak ☐ Other ____

Width ____

Area of full patch that contains 1 ha area:

☐ < 3 ha ☐ 3-10 ha ☐ 11-30 ha

☐ 31-100 ha ☐ 101-400 ha ☑ > 400 ha

Is the 1 ha patch connected to other similar sized or larger patches of vegetation?

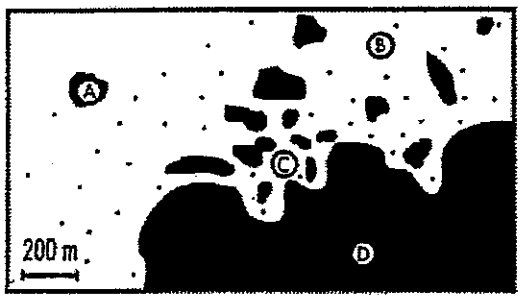
☐ YES ☐ NO

Position of this 1 ha search area relative to the surrounding tree / shrub cover?

☐ A- Isolated ☐ B-Semi isolated

☐ C-Not isolated ☑ D-Continuous tree / shrub

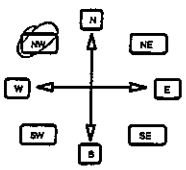
■ Continuous tree/shrub cover ▪ Scattered trees ☐ Grassland



Is this 1 ha area on a:

☐ Flat ☐ Ridge ☐ Gully ☑ Slope

If slope, give aspect over 20 m



Degrees of slope over 20 m: 10-15

VEGETATION STRUCTURE : OVERSTORY

Tree canopy cover (trees taller that 3 m):

☐ Absent ☑ Sparse ☑ Open ☐ Dense

If trees present:

☐ single tree species

☐ two or three species

☑ more than three species

Are trees mostly?

☑ native ☐ exotic

Species: C. citriodora, E. crebra, C. ethyphloia, E. fibrosa.

Average height of overstory?

☐ 3-5 m ☐ 5-10 m ☐ 10-15 m ☑ > 15 m

Are the trees?

☐ Even-aged (Trees mostly the same age or size)

☑ Multi-aged (Trees of varing size or age) Large trees absent.

Are there obvious signs of dieback in the tree canopy?

☐ None ☑ Some dieback ☐ Extensive dieback

VEGETATION STRUCTURE : UNDERSTORY

Tall understory shrub cover (>2 m):

☐ Absent ☑ Scattered ☐ Common ☐ Abundant

If shrubs present:

☐ single shrub species

☑ two or three species

☐ more than three species

Are shrubs mostly?

☑ native ☐ exotic

Species: Hophostemon suaveolens, Acacia spp.

Low shrub cover (0.5 m – 2 m):

☐ Absent ☑ Scattered ☐ Common ☐ Abundant

If shrubs present:

☐ single shrub species

☑ two or three species

☐ more than three species

Are shrubs mostly?

☑ native ☐ exotic

Species: Pogonolobus reticulatus, Xanthorrhea johnsonii

Dominant ground cover within this 1 ha area:

☐ Tussocks ☐ Hummocks ☐ Continuous grass / herbs

☐ Low Heath ☐ Weeds ☑ Bare dirt / rocks / litter

LAND USE

Used for?

☐ Mixed grazing ☐ Sheep ☐ Cattle

☐ Crops Crop type ____

☐ Other Other ____

HLA

HABITAT ASSESSMENT (*cont.*)

KEY HABITAT FEATURES

HOLLOWS and LOGS

No. of hollows within 1 ha patch?

☑ Absent (0) ☐ Scattered (1-5) ☐ Common (6-10) ☐ Abundant (>10)

If present, are they mostly? ☐ dead ☐ living

Fallen trees or branches present 10-50 cm diameter?

☐ Absent (0) ☐ Scattered (1-10) ☑ Common (10-20) ☐ Abundant (> 20)

Fallen trees or branches present >50 cm diameter?

☑ Absent (0) ☐ Scattered (1-5) ☐ Common (6-10) ☐ Abundant (>10)

Leaf litter?

☐ Absent ☐ Sparse ☑ Patchy ☐ Dense

Mistletoe within this 1 ha area?

☑ Absent ☐ Scattered ☐ Common ☐ Abundant

ROCKS

Outcrops within this 1 ha area?

☑ Absent ☐ Scattered ☐ Common ☐ Abundant

Surface rocks of 10–30 cm diameter?

☑ Absent ☐ Scattered ☐ Common ☐ Abundant

Surface rocks of > 30 cm diameter?

☑ Absent ☐ Scattered ☐ Common ☐ Abundant

Cliffs and overhangs within this 1 ha area?

☑ Absent ☐ Scattered ☐ Common ☐ Abundant

If present, are they mostly?

☐ Sandstone ☐ Granite

☐ Basalt ☐ Karst

☐ Other

CRACKING CLAY SOILS

☐ YES ☑ NO

HABITAT QUALITY FOR:

Hollow dependent fauna

☑ Absent ☐ Poor ☐ Average ☐ Good ☐ Excellent

Rock dependent fauna

☑ Absent ☐ Poor ☐ Average ☐ Good ☐ Excellent

Log dependent fauna

☐ Absent ☐ Poor ☑ Average ☐ Good ☐ Excellent

Small birds

☐ Absent ☑ Poor ☐ Average ☐ Good ☐ Excellent

OTHER HABITAT QUALITY ASPECTS:

Appears to be an old railway line, converted into gas pipeline. Absence of large old trees, Acacia patches provides some habitat for small birds.

WETLANDS

Wetlands present?

☐ YES ☑ NO

TYPE OF WETLAND:

MARINE:

☐ Coral reef ☐ Rocky shore ☐ Beach (all)

☐ Estuarine ☐ Tidal mudflat ☐ Tidal marsh

☐ Tidal forest (e.g. mangrove) ☐ Lagoon

☐ Saline / brackish lake / swamp

INLAND WETLAND:

☐ Creek ➡ ☐ Dry ☐ Flowing

☐ River ☐ Floodplain, river flat

☐ Small billabong , pools (<8 ha) ☐ Freshwater lake (>8 ha)

☐ Shrubby swamp ☐ Wooded swamp

☐ Gilgai ☐ Claypan

☐ Ephemeral Marsh / swamp with emergent veg

ARTIFICIAL WETLANDS:

☐ Large dam, reservoir (>8 ha) ☐ Small dam, pond, tank

☐ Irrigation channel, rice field ☐ Wastewater treatment

☐ Canal, drainage channel, ditch ☐ Salt pond / field

AREA OF WETLAND:

☐ < 2 ha ☐ 2-8 ha ☐ 8-100 ha ☐ >100 ha

➡ Water mostly

☐ Fresh ☐ Brackish / saline ☐ Salty

FEATURES PRESENT

☐ Broad, shallow, swampy areas for birds to feed

☐ Islands for birds to roost and nest

☐ Dead or living trees in the water (partly submerged) for roosting and nesting habitat

☐ Fencing to exclude grazing stock from direct access to the waters edge

☐ Dense tree and / or shrub cover close to the edge of the water

ADDITIONAL NOTES:

Rainbow Lorikeet
Striated pardalote.
Rainbow bee-eater
Rosella sp.
Whistling kite
White-throated honeyeater
Grey fantail.

SITE NO.