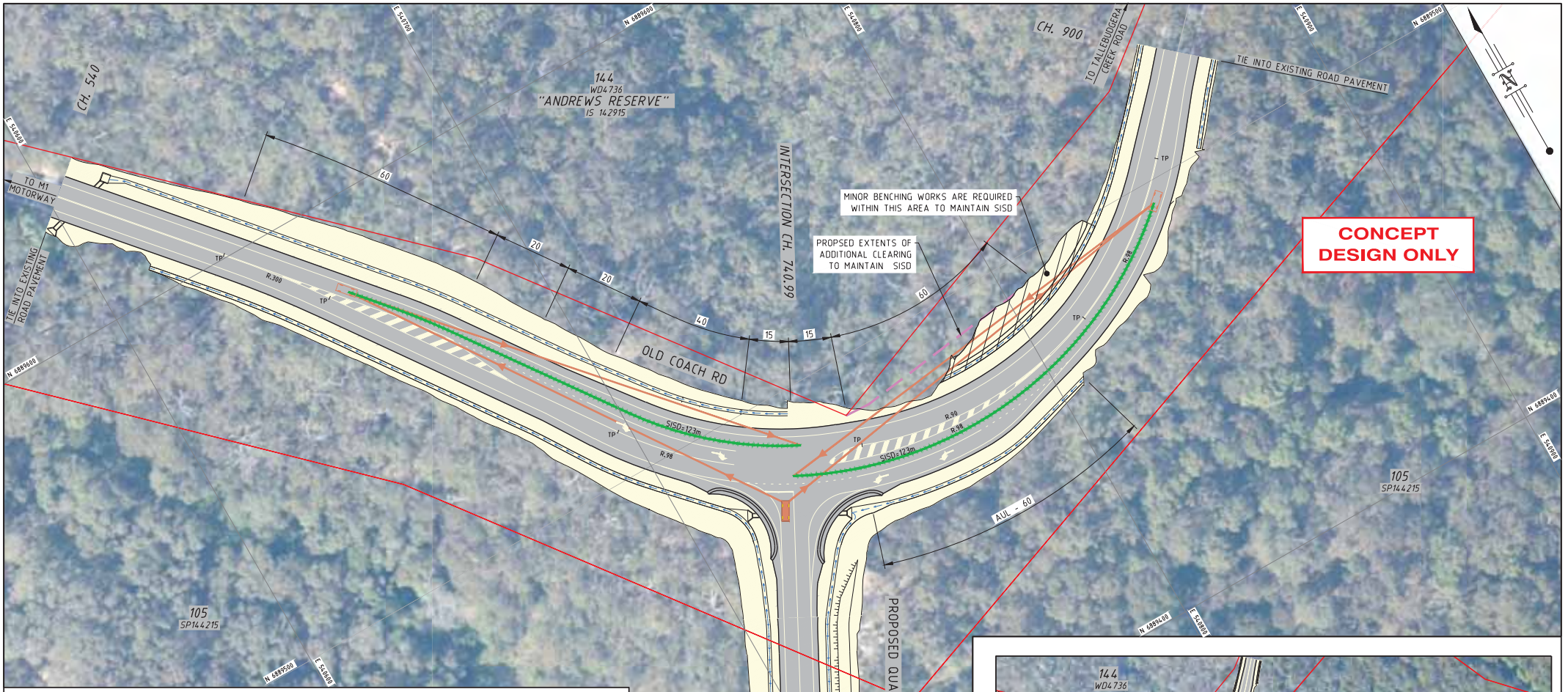
Gold Coast Quarry EIS

ATTACHMENT D
SITE ACCESS PLANS

Cardno
Shaping the Future



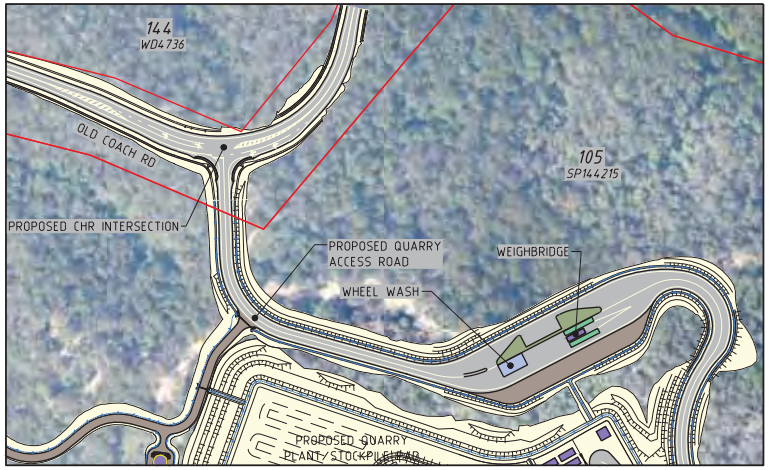
NOTES:

1. THIS CONCEPT CHR INTERSECTION LAYOUT IS GENERALLY IN ACCORDANCE WITH AUSTROADS GUIDE TO ROAD DESIGN PART 4A FOR AN OPERATING (DESIGN) SPEED OF 60km/h.
2. THE MINIMUM HORIZONTAL RADIUS THROUGH THE INTERSECTION IS 98m AND IS GENERALLY IN ACCORDANCE WITH AUSTROADS GUIDE TO ROAD DESIGN PART 3.
3. INTERSECTION CURVE WIDENING AND SUPERELEVATION IS GENERALLY IN ACCORDANCE WITH AUSTROADS GUIDE TO ROAD DESIGN PART 3. THE MAXIMUM SUPERELEVATION TO BE APPLIED THROUGH THE INTERSECTION IS 5%.
4. SAFE INTERSECTION SIGHT DISTANCE (SISD) OF 123m IS ACHIEVED IN BOTH DIRECTIONS AND IS GENERALLY IN ACCORDANCE WITH AUSTROADS GUIDE TO ROAD DESIGN PART 3.
5. HORIZONTAL AND VERTICAL ALIGNMENTS FOR OLD COACH ROAD THROUGH THE INTERSECTION AREA HAVE BEEN DESIGNED USING FIELD SURVEY PROVIDED BY SCHLENCKER SURVEYING (QLD) PTY LTD DATED NOVEMBER 2012.
6. FINAL EXTENTS OF PROPOSED ROADWORKS AND CLEARING IS SUBJECT TO DETAILED DESIGN.
7. REFER DRG. NO. B12119-SK-133 FOR LONGITUDINAL SECTION DETAILING PROPOSED VERTICAL RE-GRADING EXTENTS ON OLD COACH ROAD.

LEGEND:

- CADASTRAL BOUNDARY
- SAFE INTERSECTION SIGHT DISTANCE MEASURED ON TRAFFIC LANE
- SISD SIGHT LINE
- ASSUMED VEGETATION CLEARANCE LINE
- VEHICLE LOCATIONS FOR SISD CHECKING
- EXISTING WATERCOURSE
- GCQ DISTURBANCE FOOTPRINT

PLAN - PROPOSED CHR INTERSECTION
SCALE 1:500



PLAN - PROPOSED QUARRY ACCESS ROAD
SCALE 1:2000

SCHEMATIC PURPOSE ONLY
01 Feb, 2013 - 1:46pm

0 5 10 15 20m
A1-SCALE 1:500

0 20 40 60 80m
A1-SCALE 1:2,000

Project:
GOLD COAST QUARRY
HIGH LEVEL OPTIONS ASSESSMENT

BORAL

Client:
BORAL RESOURCES (QLD) PTY LIMITED

Title:
INTERSECTION OPTIONS ANALYSIS
PROPOSED CHR INTERSECTION LAYOUT

LAMBERT & REHBEIN
ENGINEERS • MANAGERS • SCIENTISTS
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The Association of Consulting Engineers Australia

Drawn	Checked	Approved
ES	BE	RR

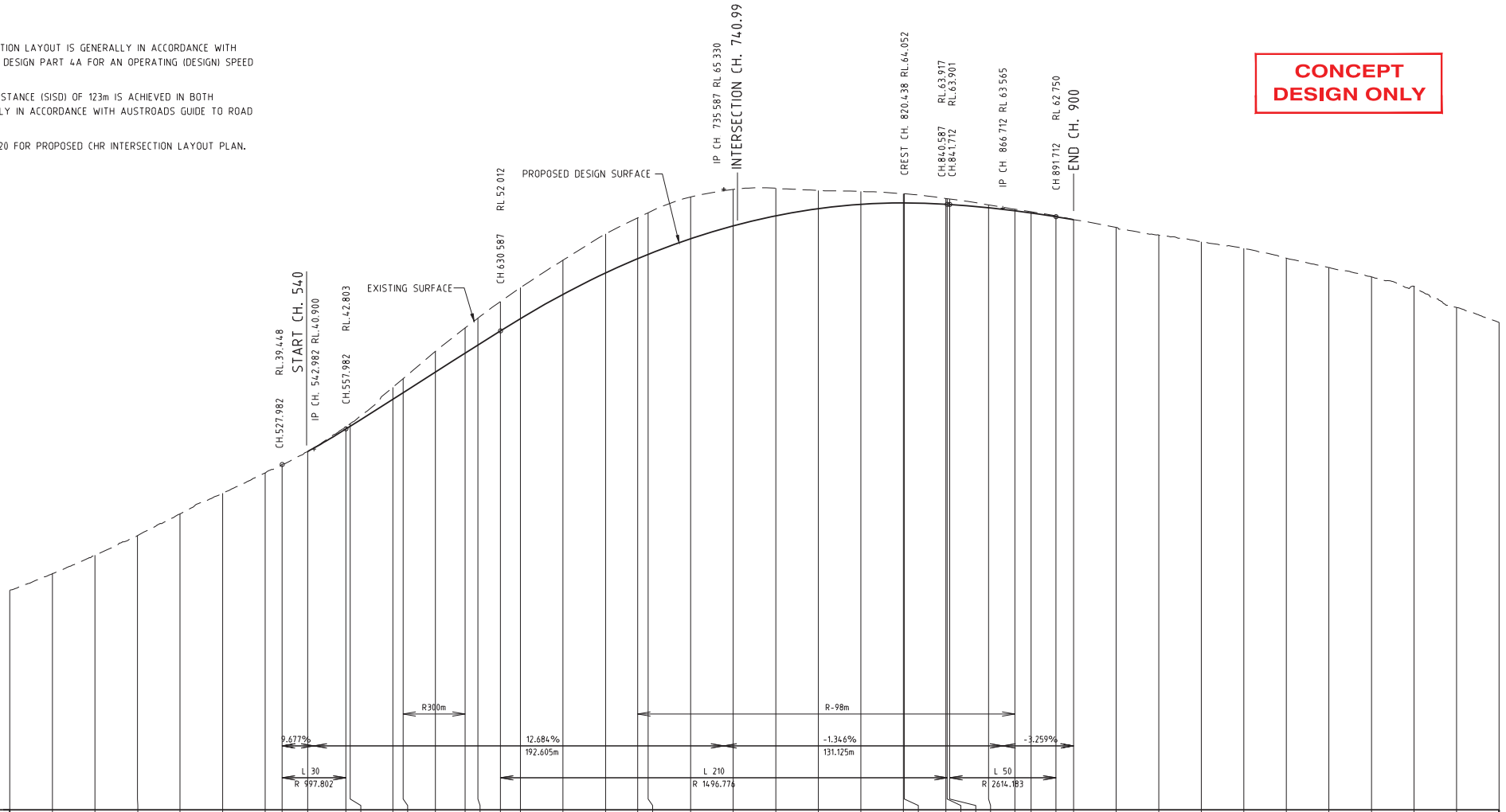
Rev.	Date
C	01/02/2013
B	13/11/2012
A	30/12/2012

Figure No: B12119-SK-120
Scale: AS SHOWN
File Ref: WBQ
Sheet Size: A1

NOTES:

1. THIS CONCEPT CHR INTERSECTION LAYOUT IS GENERALLY IN ACCORDANCE WITH AUSTROADS GUIDE TO ROAD DESIGN PART 4A FOR AN OPERATING (DESIGN) SPEED OF 60km/h.
2. SAFE INTERSECTION SIGHT DISTANCE (SISD) OF 123m IS ACHIEVED IN BOTH DIRECTIONS AND IS GENERALLY IN ACCORDANCE WITH AUSTROADS GUIDE TO ROAD DESIGN PART 3.
3. REFER DRG. NO. B12119-SK-120 FOR PROPOSED CHR INTERSECTION LAYOUT PLAN.

CONCEPT DESIGN ONLY



Horiz Curve Data

Vertical Geometry Grade (%)
Vertical Grade Length (m)

Vertical Curve Length (m)
Vertical Curve Radius (m)

DATUM RL 7

CHAINAGE	400	420	440	460	480	500	520	527.982	540	557.982	560	580	584.835	600	613.98	620	630.587	640	660	680	695.132	700	720	740	760	780	800	820	820.438	840	840.587	841.712	860	872.374	880	891.712	900	920	940	960	980	1000	1020	1040	1060	1080	1100
EXISTING SURFACE	27.636	29.191	30.934	32.768	34.810	36.751	38.663	39.472	40.684	43.015	43.296	46.715	47.525	50.092	52.291	53.211	54.774	56.089	58.661	61.140	62.650	63.122	64.600	65.318	65.434	65.221	65.131	64.916	64.911	64.457	64.439	64.411	63.866	63.455	63.224	62.833	62.480	61.840	61.120	60.484	59.874	58.947	58.070	57.189	56.305	54.313	52.920
PROPOSED DESIGN SURFACE									40.684	42.803	43.059	45.595	46.209	48.132	49.905	50.669	52.012	53.176	55.454	57.464	58.807	59.207	60.682	61.891	62.832	63.506	63.913	64.052	64.052	63.924	63.917	63.901	63.591	63.309	63.106	62.750	62.480										
CUT DEPTH									0.000	0.212	0.237	1.119	1.316	1.960	2.386	2.542	2.762	2.913	3.207	3.676	3.843	3.916	3.918	3.427	2.602	1.716	1.218	0.864	0.859	0.533	0.523	0.510	0.275	0.146	0.118	0.083	0.000										

OLD COACH ROAD - PROPOSED CHR INTERSECTION

LONGITUDINAL SECTION

SCALES: HORZ. 1:1000, VERT. 1:200

SCHEMATIC PURPOSE ONLY
01 Feb, 2013 - 1:48pm

A1-SCALE 1:200 (0 2 4 6 8m)

A1-SCALE 1:1,000 (0 10 20 30 40m)

Project: GOLD COAST QUARRY
HIGH LEVEL OPTIONS ASSESSMENT

Client: *BORAL RESOURCES (QLD) PTY LIMITED*

Title: INTERSECTION OPTIONS ANALYSIS
PROPOSED CHR INTERSECTION LONGITUDINAL SECTION

LAMBERT & REHBEIN
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The Association of Consulting Engineers Australia

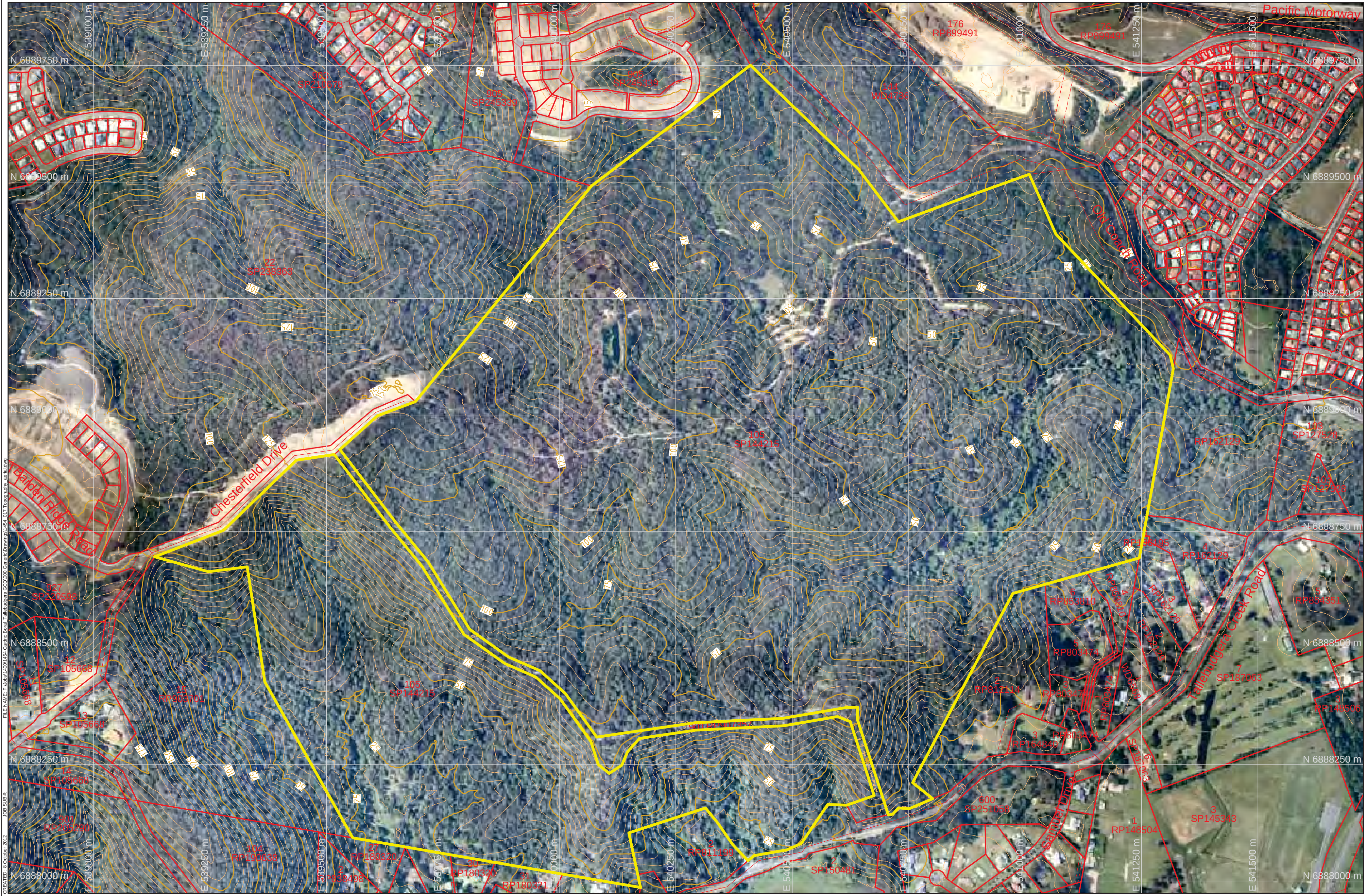
Drawn: ES | Checked: BE | Approved: RR

Rev.	Date
C	01/02/2013
B	13/11/2012
A	30/10/2012

Figure No: B12119-SK-133
Scale: AS SHOWN
File Ref: WBQ
A1

ATTACHMENT E
SITE TOPOGRAPHY

Cardno
Shaping the Future



REV	DESCRIPTION	DATE	BY

Data Sources:
Photography: Nearmap. Image date: 2011-11-09
Topography: Boral 2009
Cadastre:
Ecosystem:
Other:

Legend:
- Site Boundary
- Cadastral Boundary
- Easement Boundary

N

PROJECT: Tallebudgera

CLIENT: Cardno

TITLE: Figure 13 - Aerial Photo and Topography

GROUNDWORK plus
Ph: +61 7 3871 0411
www.groundwork.com.au

SCALE: 1:7,500 When Printed On A3 — 0 150

DRAWING NUMBER: 1454.017

REVISION:

DATE: 9 October 2012

PRINTED: 11 October 2012

DRAWN: LT

CHECKED:

DATUM: HORIZONTAL / VERTICAL / ZONE — MGA / AHD / 56

Gold Coast Quarry EIS

ATTACHMENT F

EPBC PROTECTED MATTERS SEARCH

Cardno
Shaping the Future

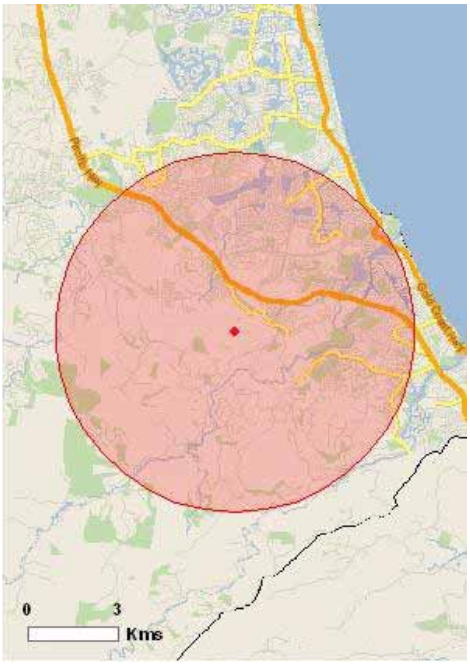
EPBC Act Protected Matters Report

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

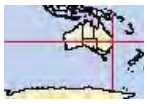
Information on the coverage of this report and qualifications on data supporting this report are contained in the caveat at the end of the report.

Information about the EPBC Act including significance guidelines, forms and application process details can be found at http://www.environment.gov.au/epbc/assessmentsapprovals/index.html

Report created: 01/06/12 14:33:07



Coordinates
Buffer: 6.0Km



Summary

Matters of National Environment Significance

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

World Heritage Properties:	None
National Heritage Places:	None
Wetlands of International	1
Great Barrier Reef Marine Park:	None
Commonwealth Marine Areas:	None
Threatened Ecological Communities:	1
Threatened Species:	57
Migratory Species:	27

Other Matters Protected by the EPBC Act

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

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

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

A permit may be required for activities in or on a Commonwealth area that may affect a member of a listed threatened species or ecological community, a member of a listed migratory species, whales and other cetaceans, or a member of a listed marine species. Information on EPBC Act permit requirements and application forms can be found at http://www.environment.gov.

Commonwealth Lands:	None
Commonwealth Heritage Places:	None
Listed Marine Species:	27
Whales and Other Cetaceans:	None
Critical Habitats:	None
Commonwealth Reserves:	None

Extra Information

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

Place on the RNE:	4
State and Territory Reserves:	6
Regional Forest Agreements:	None
Invasive Species:	10
Nationally Important Wetlands:	None

Details

Matters of National Environmental Significance

Wetlands of International Significance (RAMSAR) [Resource Information]

Name	Proximity
Moreton bay	Upstream from Ramsar

Threatened Ecological Communities [Resource Information]

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

Name	Status	Type of Presence
Lowland Rainforest of Subtropical Australia	Critically Endangered	Community likely to

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

Name	Status	Type of Presence
		occur within area

Threatened Species [Resource Information]

Name	Status	Type of Presence
BIRDS		
Anthochaera phrygia Regent Honeyeater [82338]	Endangered	Species or species habitat may occur within area
Botaurus poiciloptilus Australasian Bittern [1001]	Endangered	Species or species habitat known to occur within area
Cyclopsitta diophthalma_coxeni Coxen's Fig-Parrot [59714]	Endangered	Species or species habitat likely to occur within area
Dasyornis brachypterus Eastern Bristlebird [533]	Endangered	Species or species habitat may occur within area
Geophaps scripta_scripta Squatter Pigeon (southern) [64440]	Vulnerable	Species or species habitat may occur within area
Lathamus discolor Swift Parrot [744]	Endangered	Species or species habitat may occur within area
Poephila cincta_cincta Black-throated Finch (southern) [64447]	Endangered	Species or species habitat may occur within area
Rostratula australis Australian Painted Snipe [77037]	Vulnerable	Species or species habitat may occur within area
Turnix melanogaster Black-breasted Button-quail [923]	Vulnerable	Species or species habitat likely to occur within area
FISH		
Epinephelus daemelii Black Rockcod, Black Cod, Saddled Rockcod [68449]	Vulnerable	Species or species habitat may occur within area
FROGS		
Litoria olongburensis Wallum Sedge Frog [1821]	Vulnerable	Species or species habitat likely to occur within area
Mixophyes fleayi Fleay's Frog [25960]	Endangered	Species or species habitat likely to occur within area
Mixophyes iteratus Giant Barred Frog, Southern Barred Frog [1944]	Endangered	Species or species habitat likely to occur within area
INSECTS		
Phyllodes imperialis_(southern subsp. - ANIC 3333) Pink Underwing Moth [67453]	Endangered	Species or species habitat likely to occur within area
MAMMALS		
Chalinolobus dwyeri Large-eared Pied Bat, Large Pied Bat [183]	Vulnerable	Species or species habitat may occur within

Name	Status	Type of Presence
		area
Dasyurus hallucatus		
Northern Quoll [331]	Endangered	Species or species habitat may occur within area
Dasyurus maculatus maculatus (SE mainland population)		
Spot-tailed Quoll, Spotted-tail Quoll, Tiger Quoll (southeastern mainland population) [75184]	Endangered	Species or species habitat may occur within area
Petrogale penicillata		
Brush-tailed Rock-wallaby [225]	Vulnerable	Species or species habitat may occur within area
Phascolarctos cinereus (combined populations of Qld, NSW and the ACT)		
Koala (combined populations of Queensland, New South Wales and the Australian Capital Territory) [85104]	Vulnerable	Species or species habitat known to occur within area
Potorous tridactylus tridactylus		
Long-nosed Potoroo (SE mainland) [66645]	Vulnerable	Species or species habitat may occur within area
Pseudomys novaehollandiae		
New Holland Mouse [96]	Vulnerable	Species or species habitat likely to occur within area
Pteropus poliocephalus		
Grey-headed Flying-fox [186]	Vulnerable	Roosting known to occur within area
Xeromys myoides		
Water Mouse, False Water Rat [66]	Vulnerable	Species or species habitat likely to occur within area
PLANTS		
Acacia attenuata		
[10690]	Vulnerable	Species or species habitat likely to occur within area
Acronychia littoralis		
Scented Acronychia [8582]	Endangered	Species or species habitat likely to occur within area
Allocasuarina defungens		
Dwarf Heath Casuarina [21924]	Endangered	Species or species habitat may occur within area
Arthraxon hispidus		
Hairy-joint Grass [9338]	Vulnerable	Species or species habitat may occur within area
Baloghia marmorata		
Marbled Balogia, Jointed Baloghia [8463]	Vulnerable	Species or species habitat likely to occur within area
Bosistoa selwynii		
Heart-leaved Bosistoa [13702]	Vulnerable	Species or species habitat likely to occur within area
Bosistoa transversa		
Three-leaved Bosistoa [16091]	Vulnerable	Species or species habitat likely to occur within area
Cryptocarya foetida		
Stinking Cryptocarya, Stinking Laurel [11976]	Vulnerable	Species or species habitat known to occur within area
Davidsonia johnsonii		
Smooth Davidsonia, Smooth Davidson's Plum, Small-leaved Davidson's Plum [67178]	Endangered	Species or species habitat likely to occur within area
Diploglottis campbellii		
Small-leaved Tamarind [21484]	Endangered	Species or species habitat likely to occur within area

Name	Status	Type of Presence
Endiandra floydii Floyd's Walnut [52955]	Endangered	Species or species habitat likely to occur within area
Endiandra hayesii Rusty Rose Walnut, Velvet Laurel [13866]	Vulnerable	Species or species habitat likely to occur within area
Floydia praealta Ball Nut, Possum Nut, Big Nut, Beefwood [15762]	Vulnerable	Species or species habitat likely to occur within area
Fontainea australis Southern Fontainea [24037]	Vulnerable	Species or species habitat likely to occur within area
Gossia fragrantissima Sweet Myrtle, Small-leaved Myrtle [78867]	Endangered	Species or species habitat likely to occur within area
Hicksbeachia pinnatifolia Monkey Nut, Bopple Nut, Red Bopple, Red Bopple Nut, Red Nut, Beef Nut, Red Apple Nut, Red Boppel Nut, Ivory Silky Oak [21189]	Vulnerable	Species or species habitat likely to occur within area
Lepidium peregrinum Wandering Pepper-cress [14035]	Endangered	Species or species habitat may occur within area
Macadamia integrifolia Macadamia Nut, Queensland Nut, Smooth-shelled Macadamia, Bush Nut, Nut Oak [7326]	Vulnerable	Species or species habitat likely to occur within area
Phaius australis Lesser Swamp-orchid [5872]	Endangered	Species or species habitat likely to occur within area
Phebalium distans Mt Berryman Phebalium [81869]	Critically Endangered	Species or species habitat may occur within area
Randia moorei Spiny Gardenia [10577]	Endangered	Species or species habitat likely to occur within area
Syzygium hodgkinsoniae Smooth-bark Rose Apple, Red Lilly Pilly [3539]	Vulnerable	Species or species habitat likely to occur within area
Syzygium moorei Rose Apple, Coolamon, Robby, Durobby, Watermelon Tree, Coolamon Rose Apple [12284]	Vulnerable	Species or species habitat likely to occur within area
Taeniophyllum muelleri Minute Orchid, Ribbon-root Orchid [10771]	Vulnerable	Species or species habitat likely to occur within area
Tinospora tinosporoides Arrow-head Vine [5128]	Vulnerable	Species or species habitat likely to occur within area
REPTILES		
Caretta caretta Loggerhead Turtle [1763]	Endangered	Foraging, feeding or related behaviour known to occur within area
Chelonia mydas Green Turtle [1765]	Vulnerable	Species or species habitat likely to occur within area
Coeranoscincus reticulatus Three-toed Snake-tooth Skink [59628]	Vulnerable	Species or species habitat may occur within area

Name	Status	Type of Presence
Delma torquata Collared Delma [1656]	Vulnerable	Species or species habitat may occur within area
Dermochelys coriacea Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Species or species habitat likely to occur within area
Eretmochelys imbricata Hawksbill Turtle [1766]	Vulnerable	Species or species habitat likely to occur within area
Furina dunmalli Dunmall's Snake [59254]	Vulnerable	Species or species habitat may occur within area
Lepidochelys olivacea Olive Ridley Turtle, Pacific Ridley Turtle [1767]	Endangered	Species or species habitat likely to occur within area
Natator depressus Flatback Turtle [59257]	Vulnerable	Species or species habitat likely to occur within area

Migratory Species [Resource Information]

* Species is listed under a different scientific name on the EPBC Act - Threatened Species list.

Name	Threatened	Type of Presence
Migratory Marine Birds		
Apus pacificus Fork-tailed Swift [678]		Species or species habitat may occur within area
Ardea alba Great Egret, White Egret [59541]		Species or species habitat may occur within area
Ardea ibis Cattle Egret [59542]		Breeding likely to occur within area
Sterna albifrons Little Tern [813]		Species or species habitat may occur within area
Migratory Marine Species		
Caretta caretta Loggerhead Turtle [1763]	Endangered	Foraging, feeding or related behaviour known to occur within area
Chelonia mydas Green Turtle [1765]	Vulnerable	Species or species habitat likely to occur within area
Dermochelys coriacea Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Species or species habitat likely to occur within area
Eretmochelys imbricata Hawksbill Turtle [1766]	Vulnerable	Species or species habitat likely to occur within area
Lamna nasus Porbeagle, Mackerel Shark [83288]		Species or species habitat may occur within area
Lepidochelys olivacea Olive Ridley Turtle, Pacific Ridley Turtle [1767]	Endangered	Species or species habitat likely to occur within area
Natator depressus Flatback Turtle [59257]	Vulnerable	Species or species habitat likely to occur within area

Name	Threatened	Type of Presence
Migratory Terrestrial Species		
Cyclopsitta diophthalma coxeni		
Coxen's Fig-Parrot [59714]	Endangered	Species or species habitat likely to occur within area
Haliaeetus leucogaster		
White-bellied Sea-Eagle [943]		Species or species habitat likely to occur within area
Hirundapus caudacutus		
White-throated Needletail [682]		Species or species habitat may occur within area
Merops ornatus		
Rainbow Bee-eater [670]		Species or species habitat may occur within area
Monarcha melanopsis		
Black-faced Monarch [609]		Species or species habitat known to occur within area
Monarcha trivirgatus		
Spectacled Monarch [610]		Breeding likely to occur within area
Myiagra cyanoleuca		
Satin Flycatcher [612]		Breeding likely to occur within area
Rhipidura rufifrons		
Rufous Fantail [592]		Breeding may occur within area
Xanthomyza phrygia		
Regent Honeyeater [430]	Endangered*	Species or species habitat may occur within area
Migratory Wetlands Species		
Ardea alba		
Great Egret, White Egret [59541]		Species or species habitat may occur within area
Ardea ibis		
Cattle Egret [59542]		Breeding likely to occur within area
Gallinago hardwickii		
Latham's Snipe, Japanese Snipe [863]		Roosting may occur within area
Numenius madagascariensis		
Eastern Curlew [847]		Roosting known to occur within area
Numenius minutus		
Little Curlew, Little Whimbrel [848]		Roosting likely to occur within area
Numenius phaeopus		
Whimbrel [849]		Roosting known to occur within area
Rostratula benghalensis (sensu lato)		
Painted Snipe [889]	Vulnerable*	Species or species habitat may occur within area

Other Matters Protected by the EPBC Act

Listed Marine Species [Resource Information]

* Species is listed under a different scientific name on the EPBC Act - Threatened Species list.

Name	Threatened	Type of Presence
Birds		
Anseranas semipalmata		
Magpie Goose [978]		Species or species

Name	Threatened	Type of Presence
		habitat may occur within area
Apus pacificus Fork-tailed Swift [678]		Species or species habitat may occur within area
Ardea alba Great Egret, White Egret [59541]		Species or species habitat may occur within area
Ardea ibis Cattle Egret [59542]		Breeding likely to occur within area
Gallinago hardwickii Latham's Snipe, Japanese Snipe [863]		Roosting may occur within area
Gallinago megala Swinhoe's Snipe [864]		Roosting likely to occur within area
Gallinago stenura Pin-tailed Snipe [841]		Roosting likely to occur within area
Haliaeetus leucogaster White-bellied Sea-Eagle [943]		Species or species habitat likely to occur within area
Himantopus himantopus Black-winged Stilt [870]		Roosting known to occur within area
Hirundapus caudacutus White-throated Needletail [682]		Species or species habitat may occur within area
Lathamus discolor Swift Parrot [744]	Endangered	Species or species habitat may occur within area
Merops ornatus Rainbow Bee-eater [670]		Species or species habitat may occur within area
Monarcha melanopsis Black-faced Monarch [609]		Species or species habitat known to occur within area
Monarcha trivirgatus Spectacled Monarch [610]		Breeding likely to occur within area
Myiagra cyanoleuca Satin Flycatcher [612]		Breeding likely to occur within area
Numenius madagascariensis Eastern Curlew [847]		Roosting known to occur within area
Numenius minutus Little Curlew, Little Whimbrel [848]		Roosting likely to occur within area
Numenius phaeopus Whimbrel [849]		Roosting known to occur within area
Rhipidura rufifrons Rufous Fantail [592]		Breeding may occur within area
Rostratula benghalensis (sensu lato) Painted Snipe [889]	Vulnerable*	Species or species habitat may occur within area
Sterna albifrons Little Tern [813]		Species or species habitat may occur within area
Reptiles		

Name	Threatened	Type of Presence
Caretta caretta		
Loggerhead Turtle [1763]	Endangered	Foraging, feeding or related behaviour known to occur within area
Chelonia mydas		
Green Turtle [1765]	Vulnerable	Species or species habitat likely to occur within area
Dermochelys coriacea		
Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Species or species habitat likely to occur within area
Eretmochelys imbricata		
Hawksbill Turtle [1766]	Vulnerable	Species or species habitat likely to occur within area
Lepidochelys olivacea		
Olive Ridley Turtle, Pacific Ridley Turtle [1767]	Endangered	Species or species habitat likely to occur within area
Natator depressus		
Flatback Turtle [59257]	Vulnerable	Species or species habitat likely to occur within area

Extra Information

Places on the RNE [Resource Information]

Note that not all Indigenous sites may be listed.

Name	State	Status
Natural		
Burleigh Heads National Park	QLD	Registered
The Knoll Environmental Park	QLD	Registered
Indigenous		
Maybree Fishtrap	QLD	Indicative Place
Tallebudgera Green Space Shell Middens	QLD	Registered

State and Territory Reserves [Resource Information]

Name	State
Burleigh Head	QLD
Burleigh Knoll	QLD
Fleays	QLD
Fleays Wildlife Park	QLD
Tallebudgera Creek	QLD
Tallebudgera Creek	QLD

Invasive Species [Resource Information]

Weeds reported here are the 20 species of national significance (WoNS), along with other introduced plants that are considered by the States and Territories to pose a particularly significant threat to biodiversity. The following feral animals are reported: Goat, Red Fox, Cat, Rabbit, Pig, Water Buffalo and Cane Toad. Maps from Landscape Health Project, National Land and Water Resouces Audit,

Name	Status	Type of Presence
Frogs		
Bufo marinus		
Cane Toad [1772]		Species or species habitat likely to occur within area
Mammals		
Felis catus		
Cat, House Cat, Domestic Cat [19]		Species or species habitat likely to occur

Name	Status	Type of Presence
		within area
Sus scrofa		
Pig [6]		Species or species habitat likely to occur within area
Vulpes vulpes		
Red Fox, Fox [18]		Species or species habitat likely to occur within area
Plants		
Alternanthera philoxeroides		
Alligator Weed [11620]		Species or species habitat likely to occur within area
Cabomba caroliniana		
Cabomba, Fanwort, Carolina Watershield, Fish Grass, Washington Grass, Watershield, Carolina Fanwort, Common Cabomba [5171]		Species or species habitat likely to occur within area
Chrysanthemoides monilifera		
Bitou Bush, Boneseed [18983]		Species or species habitat may occur within area
Hymenachne amplexicaulis		
Hymenachne, Olive Hymenachne, Water Stargrass, West Indian Grass, West Indian Marsh Grass [31754]		Species or species habitat likely to occur within area
Lantana camara		
Lantana, Common Lantana, Kamara Lantana, Large-leaf Lantana, Pink Flowered Lantana, Red Flowered Lantana, Red-Flowered Sage, White Sage, Wild Sage [10892]		Species or species habitat likely to occur within area
Salvinia molesta		
Salvinia, Giant Salvinia, Aquarium Watermoss, Kariba Weed [13665]		Species or species habitat likely to occur within area

Coordinates

-28.12532 153.41041

Caveat

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

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

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

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

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

Only selected species covered by the following provisions of the EPBC Act have been mapped:

- migratory and
- marine

The following species and ecological communities have not been mapped and do not appear in reports produced from this database:

- threatened species listed as extinct or considered as vagrants
- some species and ecological communities that have only recently been listed
- some terrestrial species that overfly the Commonwealth marine area
- migratory species that are very widespread, vagrant, or only occur in small numbers

The following groups have been mapped, but may not cover the complete distribution of the species:

- non-threatened seabirds which have only been mapped for recorded breeding sites
- seals which have only been mapped for breeding sites near the Australian continent

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

Acknowledgements

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

-Department of Environment, Climate Change and Water, New South Wales
-Department of Sustainability and Environment, Victoria
-Department of Primary Industries, Parks, Water and Environment, Tasmania
-Department of Environment and Natural Resources, South Australia
-Parks and Wildlife Service NT, NT Dept of Natural Resources, Environment and the Arts
-Environmental and Resource Management, Queensland
-Department of Environment and Conservation, Western Australia
-Department of the Environment, Climate Change, Energy and Water
-Birds Australia
-Australian Bird and Bat Banding Scheme
-Australian National Wildlife Collection
-Natural history museums of Australia
-Museum Victoria
-Australian Museum
-SA Museum
-Queensland Museum
-Online Zoological Collections of Australian Museums
-Queensland Herbarium
-National Herbarium of NSW
-Royal Botanic Gardens and National Herbarium of Victoria
-Tasmanian Herbarium
-State Herbarium of South Australia
-Northern Territory Herbarium
-Western Australian Herbarium
-Australian National Herbarium, Atherton and Canberra
-University of New England
-Ocean Biogeographic Information System
-Australian Government, Department of Defence
-State Forests of NSW
-Other groups and individuals

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

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

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Gold Coast Quarry EIS

ATTACHMENT G

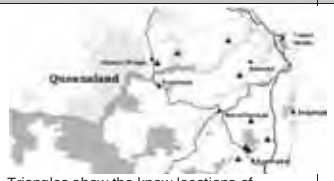
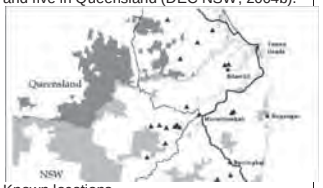
THREATENED AND MIGRATORY SPECIES DESCRIPTIONS AND ANALYSIS

Cardno
Shaping the Future

Attachment 1, Part 1 – Threatened Flora Species

Species	EPBC Status *	NCA Status *	Database / Reference #	Habitat (foraging and resting) Preferences, Breeding/nesting and Seasonal Influences	Species Distribution	SEWPAC Survey Requirements	Site Assessments	Likely Presence
Acacia attenuata	V	V	W, EPBC, H	The species occurs in high rainfall areas of south-east Queensland and is confined to coastal lowland sand plains, where it is never more than 40 km from the coast, (SEWPAC, 2012af). The species is restricted to heath ecotones or layered eucalypt open-forest and woodland. *A. attenuata* has been recorded growing in shrublands with *Leptospermum whitei and Baeckea frutescens*; in wallum with *Banksia aemula* and *Eucalyptus robusta*; in woodlands with *Corymbia trachyphloia, E. umbra* and *Banksia oblongifolia;* and in open forests of *E. umbra, E. racemosa and Melaleuca quinquenervia*. It has also been recorded on roadsides and in areas previously cleared of natural vegetation (SEWPAC, 2010af).	The species grows from just north of Bundaberg to Burleigh Heads on the Gold Coast, where it is never more than 40 km from the coast. It is mostly restricted to the Sunshine Coast region, (SEWPAC, 2012af). A 6km Wildnet search returned 3 records of this species.		Assessment in 2005 (Gold Coast Botany) in addition to dry and wet season surveys in 2012 did not identify the species on site.	**Absence Known or Suspected (High)**
Acacia baueri subsp. Baueri Tiny Wattle		V	EPBC, W, H	Found in sandy, sometimes waterlogged soils. Flowers winter to spring. (Leiper et. al, 2008)	Ranges from Fraser Is., Qld, S to Sydney, N.S.W. (Leiper et. al, 2008)		Assessment in 2005 (Gold Coast Botany) in addition to dry and wet season surveys in 2012 did not identify the species on site.	**Absence Known or Suspected (High)**
Acianthus ledwardii	E	LC	W	Collected from Burleigh Heads, south-east Queensland (Leiper et. al, 2008).	The type specimen was collected from Burleigh Heads, south-east Queensland, in 1934 and again in 1938, but has not been recorded since, (SEWPAC, 2012ag).		Assessment in 2005 (Gold Coast Botany) in addition to dry and wet season surveys in 2012 did not identify the species on site.	**Unlikely (High)**
Acronychia littoralis Scented Acronychia	E	LC	EPBC	Scented Acronychia is found on sand in humid, high rainfall zones (greater than 1600 mm), within 2 km of the ocean. The species occurs in transition zones between littoral rainforest and swamp sclerophyll forest; between littoral and coastal cypress pine communities; and margins of littoral forest and cleared land. Associated species include *Lophostemon confertus*, *Banksia integrifolia*, *Callitris columellaris*, *Araucaria cunninghamii*, *Eucalyptus intermedia* and *Melaleuca quinquenervia* (SEWPAC, 2012ap)	Scented Acronychia occurs from Fraser Island in Queensland to Port Macquarie in NSW, (SEWPAC, 2012ap)		Assessment in 2005 (Gold Coast Botany) in addition to dry and wet season surveys in 2012 did not identify the species on site.	**Absence Known or Suspected (High)**
Allocasuarina defungens Dwarf Heath Casuarina	E	LC	EPBC	The Dwarf Heath Casuarina is found in coastal areas of wet to dry, dense, low, closed heath land growing on Pleistocene marine aeolian derived soils. A few populations occur in coastal clay heath on bedrock soils, and on hinterland sandstone. These soils are humus podzols. The drier heath is on podzols with a sub-soil hard pan. Both soil types are subject to a high watertables during the rainy season, (SEWPAC, 2012ah).	The Dwarf Heath Casuarina is confined to the north coast region of NSW, between Raymond Terrace and Port Macquarie (SEWPAC, 2012ah)		Assessment in 2005 (Gold Coast Botany) in addition to dry and wet season surveys in 2012 did not identify the species on site.	**Absence Known or Suspected (High)**
Archidendron muellerianum Veiny Lace flower		NT	W, H	Grows chiefly in subtropical and littoral rainforest (Leiper et. al, 2008).	North from Rous (near Alstonville, E of Lismore) to Little Nerang Creek (N of springbook), (Harden, 2006).		Assessment in 2005 (Gold Coast Botany) in addition to dry and wet season surveys in 2012 did not identify the species on site.	**Unlikely (High)**
Ardisia bakeri		NT	H	In warm-temperate and subtropical rainforest (Leiper et. al, 2008).	Tweed Valley and McPherson Range (Leiper et. al, 2008).		Assessment in 2005 (Gold Coast Botany) in addition to dry and wet season surveys in 2012 did not identify the species on site.	**Unlikely (High)**
Argophyllum nullumense			H	Grows in subtropical and warm-temperate rainforest (Leiper et. al, 2008).	From Nimbin to McPherson Range, Biggenden (W of Maryborough) to Many Peaks Range (S of Gladstone), also near Mackay (Harden, 2006).		Assessment in 2005 (Gold Coast Botany) in addition to wet season surveys in 2012 confirmed the species on site.	**Known (High)**
Arthraxon hispidus Hairy-joint Grass	V	V	EPBC	In NSW and Queensland, Hairy-joint Grass is found in or on the edges of rainforest and in wet eucalypt forest, often near creeks or swamps as well as woodland. In south-east Queensland, Hairy-joint Grass has also been recorded growing around freshwater springs on coastal foreshore dunes, in shaded small gullies, on creek banks, and on sandy alluvium in creek beds in open forests, and also with bog mosses in mound springs (SEWPAC, 2012ar).	In Australia, the species has been recorded from scattered locations throughout Queensland and on the northern tablelands and north coast of NSW. This species occurs as far south as Kempsey, and west to Glen Innes, NSW; in Queensland it occurs north to Port Douglas, and west to disjunct occurrences around mound springs in Carnarvon National Park (NP); however, most occurrences are from Noosa southwards. This species occurs within the Border River–Gwydir, Northern Rivers (NSW), Fitzroy,		Assessment in 2005 (Gold Coast Botany) in addition to dry and wet season surveys in 2012 did not identify the species on site.	**Unlikely (High)**

Species	EPBC Status *	NCA Status *	Database / Reference #	Habitat (foraging and resting) Preferences, Breeding/nesting and Seasonal Influences	Species Distribution	SEWPAC Survey Requirements	Site Assessments	Likely Presence
					Border Rivers–Maranoa Balonne, Condamine, South East, Burnett Mary and Wet Tropics (Queensland) Natural Resource Management Regions. Hairy-joint Grass is known to be reserved in Carnarvon Cooloola NP, Noosa NP, Carnarvon NP (SEWPAC, 2012ar). A 6km Wildnet search did not return records of this species.			
Baloghia marmorata Marbled Balogia, Jointed Baloghia	V	V	EPBC	Marbled Balogia is found in subtropical rainforest/notophyll vine forest and wet sclerophyll forest (brush box woodland) with rainforest understorey between 150 and 550 m above sea level Associated species can include *Eucalyptus microcorys, Archontophoenix cunninghamiana, Aphananthe philippinensis, Capparis arborea, Planchonella australis, Ficus spp., Olea paniculata, Planchonella myrsinoides,Brachychiton discolor, Mallotus claoxyloides, Drypetes deplancheri, and Calamus muelleri* (SEWPAC, 2012as)	Geographically disjunct distribution confined to the Lismore district, in north-east NSW, and the Tamborine Mountains and Springbrook, in south-east Queensland. Locations include Canungra Land Warfare Centre Training, Joalah National Park (NP), Mt Pinbarren, Tamborine Mountain NP, along Mudgeeraba–Springbrook Road, Lower Beechmont, along Upper Coomera–Canungra Road, and Wilkie's Scrub within Gold Coast Council conservation reserve (SEWPAC. 2012as) A 6km Wildnet search did not return records of this species.		Assessment in 2005 (Gold Coast Botany) in addition to dry and wet season surveys in 2012 did not identify the species on site.	**Absence Known or Suspected (High)**
Bosistoa selwynii = *Bosistoa transversa s. lat.* Three-leaved Bosistoa	V	LC	EPBC	Three-leaved Bosistoa grows in wet sclerophyll forest, dry sclerophyll forest and rainforest up to 300 m in altitude (SEWPAC, 2012at).	Three-leaved Bosistoa is known from the Richmond River, NSW, to Mt Larcom near Gladstone, Queensland. This species is conserved within Mt Warning National Park, Numbinbah Nature Reserve, Limpinwood Nature Reserve and Whian Whian State Forest (SEWPAC, 2012at). A 6km Wildnet search returned 2 records of this species.		Assessment in 2005 (Gold Coast Botany) in addition to dry and wet season surveys in 2012 did not identify the species on site.	**Absence Known or Suspected (High)**
Cassia marksiana		V	H	Grows in littoral and riverine rainforest (Leiper et. al, 2008).	North from Brunswick heads to southern Queensland (Plantnet, 2012a).		Assessment in 2005 (Gold Coast Botany) in addition to dry and wet season surveys in 2012 did not identify the species on site.	**Absence Known or Suspected (High)**
Comesperma breviflorum		NT	W	In eucalypt forests (Leiper, 2008).	In eucalypt forests of Mt Greville and the peaks in Mt Barney area, (Leiper, 2008).		Assessment in 2005 (Gold Coast Botany) in addition to dry and wet season surveys in 2012 did not identify the species on site.	**Absence Known or Suspected (High)**
Cryptocarya foetida Stinking Cryptocarya, Stinking Laurel	V	V	W, EPBC, H	Scattered in littoral rainforest (Plantnet, 2012i)	Stinking Cryptocarya is known from Iluka, NSW, to Fraser Island and east of Gympie, southern Queensland. This species is conserved within the Cooloola National Park (NP), Noosa NP, Burleigh Heads NP, Lamington NP, Broken Head Nature Reserve (NR), Brunswick Heads NR, Ukerebagh NR and Tyagarah NR (SEWPAC, 2012au) A 6km Wildnet search returned 12 records of this species.		Assessment in 2005 (Gold Coast Botany) in addition to dry and wet season surveys in 2012 did not identify the species on site.	**Absence Known or Suspected (High)**
Cupaniopsis newmanii long-leaved tuckeroo		NT	W, H	Sub tropical rainforest and wet gullies (Leiper, 2008).	From Mullumbimby to Beenleigh district (SE of Brisbane), also recorded at Kin Kin (SE of Gympie), (Harden, 2006).		Assessment in 2005 (Gold Coast Botany) in addition to dry and wet season surveys in 2012 confirmed the species on site.	**Known (High)**
Davidsonia johnsonii Smooth Davidsonia, Smooth Davidson's Plum, Small-leaved Davidson's Plum	E	E	W, EPBC, H	Wet sclerophyll forests, with a smaller number of sites known from subtropical rainforest (complex notophyll vine forest) Records of individuals have also been made from land that has been cleared in the past. Plants still persist in these areas as isolated clumps in paddocks or in regrowth dominated by Lantana (*Lantana camara*) and other weed species (DEC NSW, 2004a). Occurrences of the Smooth Davidsonia are known from an altitudinal range of 15–270 m, with the highest locations being in NSW at Wilsons Creek (260 m) and Huonbrook (250 m). The Smooth Davidsonia occurs	The Smooth Davidsonia is distributed from the Tallebudgera and Numinbah Valleys in Queensland to Tintenbar, near Ballina in NSW (Figure 1). Most locations are close to the coast, but two isolated locations are 25–30 km inland at Nimbin and Terania Creek (DEC NSW, 2004a)		Assessment in 2005 (Gold Coast Botany) in addition to dry and wet season surveys in 2012 did not identify the species on site.	**Absence Known or Suspected (High)**

Species	EPBC Status *	NCA Status *	Database / Reference #	Habitat (foraging and resting) Preferences, Breeding/nesting and Seasonal Influences	Species Distribution	SEWPAC Survey Requirements	Site Assessments	Likely Presence
				on landforms that include moderate to gentle slopes, creek flats and gullies. Aspect is most commonly south-western to south-eastern, although at least one known site is in a north-facing location (DEC NSW, 2004a)	 Triangles show the know locations of Davidsonia. A 6km Wildnet search returned 10records of this species.			
Diploglottis campbellii Small-leaved Tamarind	E	E	W, EPBC, H	The Small-leaved Tamarind is confined to the warm subtropical rainforests of the NSW-Queensland border lowlands and adjacent low ranges. This area has mild winters and marked summer-autumn rainfall. Maximum rainfall over the range of the species varies between 1500 and 1750 mm per year. Frosts can occur at some sites (DEC NSW, 2004b).	There are 25 sites at which the Small-leaved Tamarind has been confirmed, 20 in NSW and five in Queensland (DEC NSW, 2004b).  Known locations. A 6km Wildnet database search returned 15 records of this species.		Assessment in 2005 (Gold Coast Botany) in addition to dry and wet season surveys in 2012 did not identify the species on site.	**Unlikely (High)**
Endiandra floydii Floyd's Walnut		E	W, EPBC, H	Occurs in subtropical (including littoral) rainforest or wet sclerophyll forest, often with *Lophostemon confertus* (Brush Box) in the canopy and occasionally with *Araucaria cunninghamii* (Hoop Pine) emergents. Disturbed and regrowth sites may include *Cinnamomum camphora* (Camphor Laurel) and *Lantana camara* (Lantana) as weed components. Most locations are on soils derived from Palaeozoic metamorphics, sometimes with basalt nearby. A small number of sites are on alluvium or sand. Sheltered locations are apparently preferred, and landforms including ridgelines, slopes, gullies and creek flats have been documented. The altitude varies between close to sea level up to 430 m above sea level. All known occurrences are within 30 km of the coast (DEC NSW, 2004).	confined to Tweed district (Plantnet, 2012k). A 6km Wildnet database search returned 1 record of this species.		Assessment in 2005 (Gold Coast Botany) in addition to dry and wet season surveys in 2012 did not identify the species on site.	**Unlikely (High)**
Endiandra globosa Ball-fruited walnut		NT	W, H	Restricted to riverine rainforest on rich alluvial soils and on moist slopes in subtropical rainforest (Leiper, 2008).	North from Mullumbimby to Tallebudgera Creek (E of Springbrook), also in N Qld, (Harden, 2006).		Wet season surveys in 2012 confirmed the species on site.	**Known (High)**
Endiandra hayesii Rusty Rose Walnut, Velvet Laurel	V	V	W, EPBC, H	The Rusty Rose Walnut is a rainforest tree, occurring in cool, moist sheltered valleys and gullies; mostly lowland riverine notophyll to complex notophyll vineforest on sedimentary soils and alluvium. The species has also been recorded at higher altitudes up to 720 m on basalt, and in Brush Box forests. The species occurs in regrowth and highly modified forms of these habitats (SEWPAC, 2012ai). The critically endangered Nightcap Oak (*Eidothea hardeniana*), the endangered Minyon Quandong (*Elaeocarpus sp. "Rocky Creek"*), the endangered Davidson's Plum (*Davidsonia jerseyana*) and the endangered Spiny Gardenia (*Randia moorei)* are amongst the very rare and restricted rainforest trees that may occur in habitat with the Rusty Rose Walnut (SEWPAC, 2012ai).	The Rusty Rose Walnut is endemic to Australia, occurring in a restricted area north from Maclean, on the lower Clarence River, NSW to Burleigh Heads, Queensland. In Queensland it occurs in Springbrook National Park (NP), Burleigh Heads and Tallebudgera. In NSW the species is known in the Nightcap NP, Border Ranges NP, Goonengerry NP, Mebbin NP, Mooball NP, Mount Jerusalem NP and Mount Warning NP. The species is also known from Minyon Falls Flora Reserve, Numinbah Nature Reserve (NR), Billinudgel NR, Brunswick Heads NR, Limpinwood NR and Snows Gully NR, as well as Rocky Creek in Whian Whian State Forest (SF), Wanganui, Tuckean Swamp, Pottsville, Mebbin SF, Tyalgum, North Tumbulgum and Bilambil (SEWPAC, 2012ai). A 6km Wildnet database search returned 4 records of this species.		Assessment in 2005 (Gold Coast Botany) in addition to dry and wet season surveys in 2012 did not identify the species on site.	**Unlikely (High)**

Species	EPBC Status *	NCA Status *	Database / Reference #	Habitat (foraging and resting) Preferences, Breeding/nesting and Seasonal Influences	Species Distribution	SEWPAC Survey Requirements	Site Assessments	Likely Presence
Eucalyptus curtisii		NT	H	It is generally found growing on sandy or stony clay soils, often in sandstone areas (Leiper, 2008).	Southeast Queensland , the Darling Downs and the southern Bingalow Belt (Bostock & Holand, 2010)		Assessment in 2005 (Gold Coast Botany) in addition to dry and wet season surveys in 2012 did not identify the species on site.	**Unlikely (High)**
Floydia praealta Ball Nut, Possum Nut, Big Nut, Beefwood	V	V	EPBC	Grows in subtropical and riverine rainforest (Plantnet, 2012f).	North from the Clarence R.(Plantnet, 2012f) A 6km Wildnet database search returned 4 records of this species.		Assessment in 2005 (Gold Coast Botany) in addition to dry and wet season surveys in 2012 did not identify the species on site.	**Unlikely (High)**
Fontainea australis Southern Fontainea	V	V	EPBC	Southern Fontainea occurs in lowland subtropical rainforest and complex notophyll vine forest on basaltic alluvial flats and well drained, bright reddish-brown alluvial clay loam. It has been recorded at higher altitudes in the Nightcap Range. Southern Fontainea has been recorded growing in White Booyong (*Heritiera trifoliolata*) Subtropical Rainforest Alliance, and in vine forests with *Eucalyptus grandis* emergents. Associated species include *Caldcluvia paniculosa, Dendrocnide excelsa, Dysoxylum fraserianum, Mischocarpus lachnocarpus, Planchonella australis, Sloanea woollsii,* and *Syzygium francisii* at Natural Bridge NP and White Booyong, *Syzygium hodgkinsoniae, Endiandra pubens, Dendrocnide photinophylla, Acmena ingens, Diploglottis cunninghamii, and Diospyros mabacea* at Oxley River (SEWPAC, 2012av).	Southern Fontainea is known from the Tweed Valley and a few locations in the upper reaches of the Richmond Valley in NSW, north to Currumbin Valley and Springbrook National Park (NP) in southern Queensland. Recorded occurrences in NSW include Nightcap NP, Numinbah Nature Reserve (NR), Goonengerry State Forest, Limpinwood NR, Mount Warning NP, Inverell Shire, and the Border Ranges. In Queensland, it is recorded from Currumbin and Tallebudgera Valleys Conservation Reserves, Springbrook NP, Deep Creek, and Six Mile Creek (SEWPAC, 2012av). A 6km Wildnet database search returned 3 records of this species.		Assessment in 2005 (Gold Coast Botany) in addition to dry and wet season surveys in 2012 did not identify the species on site.	**Unlikely (High)**
Gossia fragrantissima Sweet Myrtle, Small-leaved Myrtle	V	LC	EPBC, H	Grows in subtropical rainforest (Plantnet, 2012j)	coastal districts north from around Lismore (Plantnet, 2012j). A 6km Wildnet database search returned 10 records of this species.		Assessment in 2005 (Gold Coast Botany) in addition to dry and wet season surveys in 2012 did not identify the species on site.	**Unlikely (High)**
Helmholtzia glaberrima		NT	H	Grows on steep sides of damp rainforest gullies and along rocky streams (Leiper, 2008).	Northeastrern NSW and southeastern QLD.		Assessment in 2005 (Gold Coast Botany) in addition to dry and wet season surveys in 2012 did not identify the species on site.	**Absence Known or Suspected (High)**
Hicksbeachia pinnatifolia Monkey Nut, Bopple Nut, Red Bopple, Red Bopple Nut, Red Nut, Beef Nut, Red Apple Nut, Red Boppel Nut, Ivory Silky Oak	V	V	EPBC, W, H	It occurs in and on the margins of subtropical rainforest from near sea level to 700 m altitude, and sometimes extends into wet sclerophyll forest (SEWPAC, 2012aw).	Monkey Nut occurs from Tamborine Mountain, south-east Queensland, to the Bellinger and Nambucca Valleys, in north-east NSW. In Queensland, Monkey Nut has been recorded from the upper reaches of Currumbin, Tallebudgera, and Mudgeeraba Creeks in the Gold Coast hinterland. In NSW, Monkey Nut was originally of the Richmond River and has been recorded at Missabotti, Upper Bellinger River, Dorrigo National Park, Buffer Creek, Never Never State Forest, Kyogle, Terania Creek, Whian Whian State Forest, Boomerang Falls, Durroughby, Rosebank, Rotary Park, Alstonville, Billinudgel, Mooball, Chillingham and Murwillumbah. It is conserved within Nightcap National Park and the Mount Cougal section of Springbrook National Park (SEWPAC, 2012aw).		Assessment in 2005 (Gold Coast Botany) in addition to dry and wet season surveys in 2012 did not identify the species on site.	**Unlikely (High)**
Lastreopsis silvestris Mountain shield fern		V	W	In rainforest at higher altitudes (Leiper, 2008).	In the Border Ranges and northeastern N.S.W (Leiper, 2008).		Assessment in 2005 (Gold Coast Botany) in addition to dry and wet season surveys in 2012 did not identify the species on site.	**Unlikely (High)**
Lepiderema pulchella		V	H	Grows in riverine rainforest (Leiper, 2008).	North from the Tweed Valley to southeast QLD (Leiper, 2008).		Assessment in 2005 (Gold Coast Botany) in addition to dry and wet season surveys in 2012 did not identify the species on site.	**Unlikely (High)**

Species	EPBC Status *	NCA Status *	Database / Reference #	Habitat (foraging and resting) Preferences, Breeding/nesting and Seasonal Influences	Species Distribution	SEWPAC Survey Requirements	Site Assessments	Likely Presence
Lepidium peregrinum Wandering Pepper-cress	E	LC	EPBC	Sprawling herb on rainforest edges and elevated sites, Eucalypt forest (Leiper, 2008). The largest population of Wandering Pepper Cress occurs in an open riparian forest on the banks of the Tenterfield creek at Clifton. Sandy alluvium is the main soil type at the site. Associated species at the Clifton site are dominated by *Eucalyptus camaldulensis* and *Casuarina cunninghamiana*, with a variably dense shrubby understorey of *Hymenanthera dentata, Bursaria spinosa, Acacia fimbriata, Acacia floribunda, Callistemon viminalis* and *Leptospermum brachyandrum. Lepidium peregrinum* was most abundant in the tussock grassland fringe of the riparian open forest, comprising *Poa* species, *Lomandra longifolia* and *Paspalum dilatatum.*	Recorded from the Blue Mtns and near the Qld border (Plantnet, 2012h) A 6km Wildnet database search returned no records of this species.		Assessment in 2005 (Gold Coast Botany) in addition to dry and wet season surveys in 2012 did not identify the species on site.	**Unlikely (High)**
Macadamia integrifolia Macadamia Nut, Queensland Nut, Smooth-shelled Macadamia, Bush Nut, Nut Oak	V	V	EPBC,W, H	The Macadamia Nut grows in remnant rainforest, preferring partially open areas such as rainforest edges. However, this habitat is not continuously fit for the species. In a survey of eight populations in the Cooroy-Maleny district of the Sunshine Coast by Barry and Thomas the following habitat information was collated. The sites spanned a wide range of landforms including hill crests, hill slopes, scree slopes and foot slopes, gullies, benches and terrace plains. The slopes range from level to steep, with altitudes from 5–340 m above sea level. High nutrient alluvial and volcanic soils predominate often with considerable exposure of rock fragments or substrate, mostly basalt and diorite. The surface soils are uniformly dark, slightly acid (pH 5.5–6.5) and varying in texture from clayey-sand through various loams to silty-clay. All sites are well-drained, some excessively so. The Macadamia Nut prefers to grow in mild frost-free areas with a reasonably high rainfall. There have been records of planted specimens bearing fruit as far south as Sydney. Vegetation communities in which the Macadamia Nut is found range from complex notophyll mixed forest, extremely tall closed forest, simple notophyll mixed very tall closed forest to simple microphyll-notophyll mixed mid-high closed forest with *Araucaria* and *Argyrodendron* emergents (SEWPAC, 2012aj).	The Macadamia Nut is found in remnant rainforest in northern NSW and south-east Queensland. In Queensland, this species is known from Mt Bauple, north of Gympie, to Currumbin Valley in the Gold Coast hinterland (SEWPAC, 2012aj). A 6km Wildnet database search returned 7 records of this species.		Assessment in 2005 (Gold Coast Botany) in addition to dry and wet season surveys in 2012 did not identify the species on site.	**Unlikely (High)**
Macadamia tetraphylla Rough-shelled Bush Nut, Macadamia Nut, Rough-shelled Macadamia, Rough-leaved Queensland Nut	V	V	W, H	Rough-shelled Bush Nut generally occurs in subtropical rainforest and complex notophyll vineforest, at the margins of these forests and in mixed sclerophyll forest. It occurs in restricted habitat, growing on moderate to steep hillslopes on alluvial soils at well-drained sites Vegetation associated with Rough-shelled Bush Nut include: • very tall mixed sclerophyll-simple notophyll vineforest along riparian zones involving Tallow-wood (*Eucalyptus microcorys*), Queensland Brush Box (*Lophostemon confertus*) and Turpentine (*Syncarpia glomulifera*) • very tall open forest with regenerating complex notophyll vineforest understorey involving Tallow-wood and Queensland Brush Box • complex notopyhll vineforest • simple-complex notophyl rainforest involving Lilly Pilly (*Acmena smithii*), Hairy Acronychia (*Acronychia pubescens)*, Jackwood (*Cryptocarya glaucescens*), Sandpaper Fig (*Ficus coronata*) and Rose Apple (*Syzgium moorei*) (SEWPAC, 2012ak).	Rough-shelled Bush Nut occurs from northern NSW (mainly the Richmond and Tweed River areas) to south-east Queensland (from the Gold Coast hinterland north to Mt Wongawallan). In Queensland, records include Wyangan Creek, Mudgeeraba; Upper Tallebudgera-Mount Cougal, partly within Springbrook National Park; Natural Bridge, Springbrook National Park; Montville-Maleny, north of Brisbane (possibly cultivated populations); Nicoll Scrub National Park; Lower Bellbird, Lamington National Park; and from freehold properties at Numinbah Valley/Cave Creek, Camp Bornhoffen, Numinbah Valley, Beechmont and Mudgeerabah (SEWPAC, 2012ak). A 6km Wildnet database search returned 12 records of this species.	Rough-shelled Bush Nut flowers from August to October, with ripe fruit in January (SEWPAC, 2012)	Assessment in 2005 (Gold Coast Botany) in addition to dry and wet season surveys in 2012 did not identify the species on site.	**Unlikely (High)**
Marsdenia coronata	V	V	H	Commonly found in eucalypt forest or, at Mount Coolum, in open grassland among rock (SEWPAC, 2012).	South-east Queensland (SEWPAC, 2012).		Dry season surveys in 2012 confirmed the species on site.	**Known (High)**
Papillilabium beckleri		NT	H	Grows in rainforest, especially along creeks, on the outer twigs of trees; north from Royal N.P., on the coast and coastal ranges, from sea level to c. 600 m alt (Plantnet, 2012b).	North from Royal N.P., on the coast and coastal ranges to Southeast QLD (Plantnet, 2012b).		Assessment in 2005 (Gold Coast Botany) in addition to dry and wet season surveys in 2012 did not identify the species on site.	**Possible (High)**
Pararistolochia praevenosa		NT	W, H	Subtropical rainforest in coastal areas (Leiper, 2008).	Southeast QLD, north to Kin Kin (Leiper, 2008).		Dry season surveys in 2012 confirmed the species on site.	**Known (High)**
Phaius	E	E	EPBC,	Commonly associated with coastal wet heath/sedgeland wetlands,	The Lesser Swamp-orchid is endemic to	Surveys should be conducted in the spring as	Assessment in 2005 (Gold	**Absence Known or**

Species	EPBC Status *	NCA Status *	Database / Reference #	Habitat (foraging and resting) Preferences, Breeding/nesting and Seasonal Influences	Species Distribution	SEWPAC Survey Requirements	Site Assessments	Likely Presence
australis Lesser Swamp Orchid				swampy grassland or swampy forest and often where Broad-leaved Paperbark or Swamp Mahogany are found. Typically, the Lesser Swamp-orchid is restricted to the swamp-forest margins, where it occurs in swamp sclerophyll forest (Broad-leaved Paperbark/Swamp Mahogany/Swamp Box (*Lophostemon suaveolens*)), swampy rainforest (often with sclerophyll emergents), or fringing open forest. It is often associated with rainforest elements such as Bangalow Palm (*Archontophoenix cunninghamiana*) or Cabbage Tree Palm (*Livistona australis*), (SEWPAC, 2012al).	Australia and occurs in southern Queensland and northern NSW, (SEWPAC, 2012al).	this species can only be distinguished from other swamp orchids by characteristics of its flowers (SEWPAC, 2012al).	Coast Botany) in addition to dry and wet season surveys in 2012 did not identify the species on site.	**Suspected (High)**
Phebalium distans Mt Berryman Phebalium	CE	LC	EPBC	Mt Berryman Phebalium is found in semi-evergreen vine thicket on red volcanic soils, or in communities adjacent to this vegetation type . Geology of the area in which this species occurs is deeply weathered basalt with undulating to hilly terrain. Soils range from red-brown earths to brown clays (derived from siltstone and mudstones), and lithosols to shallow, gravelly krasnozems (very dark brown loam), derived from the Main Range Volcanics of the Tertiary period, (SEWPAC, 2012am). Vegetation associations in which Mt Berryman *Phebalium* occur include microphyll to notophyll vine forest with or without *Araucaria cunninghamii* and low microphyll vine forest and semi-evergreen vine thicket with or without *Araucaria cunninghamii* which can be divided further into regional ecosystems depending on substrate, geography and associated vegetation species, (SEWPAC, 2012am).	Mt Berryman *Phebalium* is found in south-eastern Queensland. Populations are known from near Mt Berryman, Kingaroy (Mt Jones Plateau and surrounds) and Mt Walla (Coalston Lakes), (SEWPAC, 2012am) The extent of occurrence is estimated to be less than 100 km²,(SEWPAC, 2012am). The area of occupancy is estimated to be less than 10 km², (SEWPAC, 2012am). Mt Berryman *Phebalium* has a severely fragmented distribution and is found at three separate locations over 90 km apart (Mt Berryman, Kingaroy and Mt Walla). The land between known locations has been cleared for agriculture with no connectivity between remnants. Fragmentation and lack of connectivity is a particular problem due to this species' limited capacity for seed dispersal and no records of vegetative reproduction (SEWPAC, 2012am). A 6km Wildnet database search returned no records of this species.	Surveys to detect Mount Berryman Phebalium can be conducted throughout the year. For the most part, surveys can be restricted to patch edges and other high light areas. Expert acceptance of surveys is limited to those accompanied by vouchered and GPS logged or map grid referenced specimens, for referencing, referral and ground-truthing. Access to freehold land for surveys can be limiting, (SEWPAC, 2012am). Recommended survey methods include selective grid systems, transects, or application of random meander technique, (SEWPAC, 2012am).	Assessment in 2005 (Gold Coast Botany) in addition to dry and wet season surveys in 2012 did not identify the species on site.	**Absence Known or Suspected (High)**
Prasophyllum exilis		NT	H	Grows in damp grassy sites in sclerophyll forest, woodland and wallum communities (Plantnet, 2012c).	North from Cudgen Lake (Plantnet, 2012c).		Assessment in 2005 (Gold Coast Botany) in addition to dry and wet season surveys in 2012 did not identify the species on site.	**Unlikely (High)**
Pterostylis nigricans		NT	W, H	Grows in coastal scrub and heath (Plantnet, 2012d).	North from Evans Head to Southeast QLD, (Plantnet, 2012d)		Assessment in 2005 (Gold Coast Botany) in addition to dry and wet season surveys in 2012 did not identify the species on site.	**Unlikely (High)**
Randia moorei Spiny Gardenia	E	E	W, EPBC, H	Spiny Gardenia grows in subtropical, riverine, littoral and dry stunted rainforests along moist scrubby water courses at altitudes up to 360 m asl, with most records made from below 100 m asl (SEWPAC,2012an).	Spiny Gardenia is endemic to eastern Australia where it is known from Lismore, north-east NSW, and northwards to the Logan River in the Moreton District of south-east Queensland. However, the current distribution of the species within this range is poorly understood (SEWPAC, 2012an). In Queensland the species is recorded within two small National Parks: Nicoll Scrub National Park and Burleigh Head National Park and three conservation areas: Wilkies Scrub Conservation Area (CA), Upper Mudgeeraba CA and Darlington Reserve. The species is also known from Upper Tallebudgera Creek and the Darlington Range-Ormeau-Wongawallen area. Additional Queensland sites have been found at Currumbin Valley, consisting of one mature shrub, and Mudgeeraba, consisting of three mature shrubs. The topography of the Currumbin site probably restricts clearing. The species has been recorded recently in several sub-populations around Hinze Dam with an approximate overall population size of 1500 plants (SEWPAC, 2012an). A 6km Wildnet database search returned 21		Assessment in 2005 (DDW Fauna) in addition to dry and wet season surveys in 2012 did not identify the species on site.	**Unlikely (High)**

Species	EPBC Status *	NCA Status *	Database / Reference #	Habitat (foraging and resting) Preferences, Breeding/nesting and Seasonal Influences	Species Distribution	SEWPAC Survey Requirements	Site Assessments	Likely Presence
					records of this species.			
Rhodamnia maideniana		NT	Jinks (2005)	Sub-tropical rainforest (Lieper, 2006).	North from Rous (Richmond River) to Little Nerang Creek (N of Springbrook), (Harden, 2006).		Assessment in 2005 (Gold Coast Botany) in addition to dry season surveys in 2012 confirmed the species on site.	**Known (High)**
Ricinocarpos speciosus		V	W, H	Found in damp situations along streams (Lieper, 2006).	North from Dorrigo district to Nambour area, (Harden, 2006).		Assessment in 2005 (Gold Coast Botany) in addition to dry and wet season surveys in 2012 did not identify the species on site.	**Absence Known or Suspected (High)**
Sarcochilus fitzgeraldii	V	E	H	Grows on rocks or cliffs in moist, shady situations in gorges and ravines in the foothills of ranges. It occurs in open and closed, subtropical and temperate rainforest and seldom encountered at altitudes higher than 600m above sea level (Plantet, 2012).	Northern NSW to SEQ (SEWPAC, 2012).		Assessment in 2005 (Gold Coast Botany) in addition to dry and wet season surveys in 2012 did not identify the species on site.	**Unlikely (High)**
Syzygium hodgkinsoniae Smooth-bark Rose Apple, Red Lilly Pilly	V	V	EPBC, H	The Smooth-bark Rose Apple grows in riverine subtropical or gallery rainforest on deep rich alluvial and basalt soils at altitudes of up to 300 m above sea level, (SEWPAC, 2012ao). Smooth-bark Rose Apple flowers have been recorded in January to May, June, November and December, (SEWPAC, 2012ao).	The Smooth-bark Rose Apple occurs in a geographically disjunct distribution from the Richmond River in north-east New South Wales (NSW) to Maleny and Kin Kin in south-east Queensland, with disjunct populations in Kuranda and Gordonvale, north-east Queensland. The species is locally common in some parts of its range, but is otherwise sparsely distributed, (SEWPAC, 2012ao).		Assessment in 2005 (Gold Coast Botany) in addition to dry and wet season surveys in 2012 did not identify the species on site.	**Unlikely (High)**
Syzygium moorei Rose Apple, Coolamon, Robby, Durobby, Watermelon Tree, Coolamon Rose Apple	V	V	EPBC, H	Rose Apple occurs in warm, protected, fertile soils in riverine and gully rainforests at low altitudes. Rose Apple is most commonly found in Subtropical Rainforest *Argyrodendron trifoliatum* Alliance, including sub-alliance 1 (*Argyrodendron trifoliatum*) on lowland krasnozem; suballiance 2 (*Toona-Flindersia spp*.) on lowland alluvium; and sub-alliance 6 (*Archontophoenix-Livistona*) on alluvium with excess moisture. Stands of the *A. trifoliatum* Alliance originally occurred on the best potential agricultural land, so consequently was mostly cleared, with the exception of small patches occurring in flood prone, stony or poorly drained soils (SEWPAC, 2012ax).	Occurs along sections of the Richmond, Brunswick and Tweed Rivers in NSW, as well as at three sites in Upper Mudgeeraba Creek and Upper Tallebudgera Creek in south-east Queensland. Recorded occurrences include Emigrant Creek, Hayters Hill, Mullumbimby, Crabbes Creek, Burringbar, Big Scrub, Dum Dum, Eungella, Couchy Creek, Durobby Creek and Hogans Scrub. Individual plants are conserved within several conservation reserves, including Inner Pocket, Brunswick Heads, Tyagarah and Broken Head Nature Reserves (SEWPAC, 2012ax) A 6km Wildnet database search returned 14 records of this species.		Assessment in 2005 (Gold Coast Botany) in addition to dry season surveys in 2012 confirmed the species on site.	**Known (High)**
Taeniophyllum muelleri Minute Orchid, Ribbon-root Orchid	V	LC	EPBC	Grows on outer branches and branchlets of rainforest trees; coast and coastal ranges, from sea level to 250 m alt (Plantnet, 2012e).	North from the Bellinger R.(Plantnet, 2012e)		Dry season surveys in 2012 confirmed the species on site.	**Known (High)**
Tinospora tinosporoides Arrow-head Vine	V	V	EPBC, W, H	Tall climber in rainforest at Burleigh Heads and NSW (Logan River Branch SGAP (Qld Region), 2008). Arrow-head Vine is locally common in rainforest on basalt and also occurs in complex notophyll vine forest (SEWPAC, 2012ay).	Arrow-head Vine occurs near the coast at Richmond River in northern NSW to Burleigh Heads National Park (NP) in Queensland. This species is conserved within the Toonumbar NP, Nightcap NP, Mt Warning NP, Bongil Bongil NP, Snows Gully Nature Reserve (NR), Numinbah NR, Boat Harbour NR, Davis Scrub NR, Johnsons Scrub NR, Victoria Park NP, Minyon Falls Flora Reserve, and the Springbrook Conservation areas (SEWPAc, 2012ay). A 6km Wildnet database search returned 4 records of this species.		Assessment in 2005 (Gold Coast Botany) in addition to dry and wet season surveys in 2012 did not identify the species on site.	**Unlikely (Medium)**

#: EPBC (Protected Matters Database Search)
W (Wildnet Database Search)
H (HERBRECS Database Search)
*: E – Endangered, V – Vulnerable, NT – Near Threatened.

Attachment 1, Part 2 – Threatened Fauna Species

Species	EPBC Status *	NCA Status *	Database / Reference #	Habitat (foraging and resting) Preferences, Breeding/nesting and Seasonal Influences	Species Distribution	SEWPAC Survey Requirements	Site Assessments	Likely Presence
Birds								
Accipiter novaehollandiae Grey Goshawk		NT	W	Forest, woodlands, well timbered landscapes, sometimes hunting over open country, (Flegg, 2003)	Northern and eastern Australia, (Flegg, 2003)	Not applicable, NCA listed species only.	Assessment in 2005 (DDW Fauna) in addition to dry and wet season surveys in 2012 did not identify the species on site.	**Possible (High)**
Aerodramus terraereginae Australian Swiftlet		NT	W	Very common in tropical lowlands, such as Cairns, Qld, (Thomas, 2011).	North-east Qld (Thomas, 2011).	Not applicable, NCA listed species only.	Assessment in 2005 (DDW Fauna) in addition to dry and wet season surveys in 2012 did not identify the species on site.	**Possible (Medium)**
Anthochaera phrygia Regent Honeyeater	E	E	W, EPBC	Regent Honeyeaters mostly occur in dry box-ironbark eucalypt woodland and dry sclerophyll forest associations, wherein they prefer the most fertile sites available, e.g. along creek flats, or in broad river valleys and foothills. Regent Honeyeaters occur typically in associations that support species which reliably produce copious amounts of nectar, such as *Eucalyptus sideroxylon* (Mugga Ironbark), *E. melliodora* (Yellow Box), White Box and *E. leucoxylon* (Yellow Gum) , but also in associated woodlands supporting *E. microcarpa* (Grey Box), *E. polyanthemos* (Red Box), *E. blakelyi* (Blakely's Red Gum), *E. camaldulensis* (River Red Gum), *E. melanophloia* (Silver-leaved Ironbark), *E. crebra* (Narrow-leaved Ironbark), *E. caleyi* (Caley's Ironbark) and *Angophora floribunda* (Rough-barked Apple). They sometimes use native pine Callitris woodlands, usually where mixed with eucalypts. They regularly occur in remnant trees or patches of woodland in farmland, partly cleared agricultural land and riverine forest of River Sheoak, usually infested by mistletoe, and sometimes mixed with eucalypts. Regent Honeyeaters usually nest in the canopy of forests or woodlands, and usually in the crowns of tall trees. Studies in the Bundarra-Barraba region indicate that birds actively select the tallest trees available to nest in. Nests are usually built in rough-barked trees, mostly eucalypts such as ironbarks, stringybarks or River Sheoak, or sometimes in smooth or box-barked species (e.g. Blakely's Red Gum, White Box, Yellow Box) if rough-barked trees are not available. Nests are often also built amongst mistletoes in trees (SEWPAC, 2012a). It is an irregular autumn-winter visitor to Queensland.	The Regent Honeyeater is endemic to south-eastern Australia, where it is widespread but very sparsely scattered, mostly on the inland slopes of the Great Dividing Range (SEWPAC, 2012a). In Queensland, the Regent Honeyeater is an occasional visitor to the south-east. Small numbers have been reported in most years since 1988, from at least 15 sites, ranging north to south from Pomona to Logan Reserve. These include several records on Bribie Island between 1995 and 1998. The Regent Honeyeater has also been recorded from several sites in the Granite Belt, from Warwick ranging west to Gore and south to Sundown National Park. Recent records are centered around the Gore-Karara area, and there is increasing evidence that a small breeding population may exist in this area. A single record from the south-west of the state, near Eulo is likely to be erroneous (SEWPAC, 2012a). One record of this species from Wildnet within 6km of the site.	The Regent Honeyeater breeds from May to March, but with a peak in breeding activity from September to November. Throughout the range of the species, seasonal patterns in breeding appear to correspond to regional patterns in the flowering of key eucalypt and mistletoe species, especially Mugga Ironbark (which flowers from May to December), White Box (which flowers from June to October), Yellow Box (which flowers from September to February) and Needle-leaf Mistletoe (which flowers from August to November) (SEWPAC, 2012a). Area searches in suitable habitat, preferably in the morning but other times may also be appropriate. Detection by call is possible when birds are most vocal (outside the breeding season). Otherwise, detection is by sighting. Targeted searches of woodland patches with heavily flowering trees is useful, especially around waterpoints such as dams and creeklines. Also check among flocks of other blossom nomads such as lorikeets and other honeyeaters. Broadcast surveys immediately before and during the breeding season may also be useful (SEWPAC, 2012a).	Assessment in 2005 (DDW Fauna) in addition to dry and wet season surveys in 2012 did not identify the species on site.	**Unlikely (Medium)**
Botaurus poiciloptilus Australasian Bittern	E	LC	EPBC	The Australasian Bittern occurs mainly in densely vegetated freshwater wetlands and, rarely, in estuaries or tidal wetlands, (SEWPAC, 2012). The Australasian Bittern feeds mostly on animals taken from or around pools and waterways, (SEWPAC, 2012b). Knowledge of the breeding ecology of the Australasian Bittern is poor. Available data indicate that the Bittern breeds in relatively deep, densely vegetated freshwater swamps and pools, building its nests in deep cover over shallow water, (SEWPAC, 2012b).	The Australasian Bittern occurs from south-east Queensland to south-east South Australia, Tasmania and in the southwest of Western Australia, (SEWPAC, 2012b).	The Australasian Bittern is difficult to detect visually; it has camouflage-like plumage and occupies wetlands with dense vegetation. In most habitats, the recommended method for surveying the Bittern is by nocturnal survey with detection by call. Surveys should be conducted during the spring-summer breeding season, when calls are most often heard. Surveys would be most effective during calm weather. It is recommended that each site be surveyed for a minimum of 1 hour listening time, (SEWPAC, 2012b).	Assessment in 2005 (DDW Fauna) in addition to dry and wet season surveys in 2012 did not identify the species on site.	**Unlikely (High)**
Calyptorhynchus lathami Glossy Black-Cockatoo		V	W	The Glossy Black-Cockatoo (Kangaroo Island) inhabits woodlands that are dominated by Drooping Sheoak (Allocasuarina verticillata) and often interspersed with taller stands of Sugar Gum (Eucalyptus cladocalyx), (SEWPAC, 2012c). The Glossy Black-Cockatoo (Kangaroo Island) feeds almost exclusively on the seeds of Drooping Sheoak. It occasionally also feeds on the seeds of Slaty Sheoak, (SEWPAC, 2012c). The Glossy Black-Cockatoo (Kangaroo Island) breeds from late summer to spring, with eggs laid from January to July. It nests in hollows in the trunks and upper limbs of tall Eucalyptus trees (especially Sugar Gum, but also Blue Gum and Manna Gum), (SEWPAC, 2012c).	The Glossy Black-Cockatoo (Kangaroo Island) is currently restricted to Kangaroo Island in South Australia, (SEWPAC, 2012c).	The recommended method for detecting the presence of the Glossy Black-Cockatoo (Kangaroo Island) within a particular location is to perform area searches or transect surveys, on foot, through stands of Drooping Sheoak, in search of signs of recent foraging. These signs consist of shredded seed cones that are coloured pale green to creamy white (shredded in the previous 24 hours), cream to light orange (shredded in the previous few days), bright orange (shredded in the previous week) or orange-brown (shredded in the previous six weeks or so); shredded cones that are brown or grey in colour may be up to one year old, (SEWPAC, 2012c).	Assessment in 2005 (DDW Fauna) in addition to wet season surveys in 2012 confirmed activity of the species on site.	**Known (High)**
Cyclopsitta diophthalma	E, MT	E	W, EPBC	Coxen's Fig-Parrot occurs in rainforest habitats including subtropical rainforest, dry rainforest, littoral and developing littoral rainforest, and	The distribution of Coxen's Fig-Parrot is poorly known. Based on accepted records,	Coxen's Fig-Parrot can be difficult to detect. This is because of its small size and	Assessment in 2005 (DDW Fauna) in addition to dry and	**Absence Known or Suspected (High)**

Species	EPBC Status *	NCA Status *	Database / Reference #	Habitat (foraging and resting) Preferences, Breeding/nesting and Seasonal Influences	Species Distribution	SEWPAC Survey Requirements	Site Assessments	Likely Presence
coxeni Coxen's Fig-Parrot				vine forest. The fig-parrot was, in the past, probably most abundant in lowland subtropical rainforest. However, this rainforest was extensively cleared following the arrival of Europeans. The remaining populations are now concentrated into fragmented remnants of dry rainforest and cool subtropical rainforest that are drier and more hilly than the habitats that were occupied in the past. Within these rainforest habitats, the fig-parrot is likely to favour alluvial areas that support figs and other trees with fleshy fruits, in particular, habitats that have a high diversity of fig species, and that have a fruiting season that is staggered across moisture and altitudinal gradients. Most recent records of the fig-parrot have been from small stands of remnant native vegetation, at forest edges, and in thin tracts of gallery forest (at edges of rivers or streams). Coxen's Fig-Parrot has also been recorded in other habitat types including sub-littoral mixed scrub; corridors of riparian vegetation in woodland, open woodland or other types of cleared or partially-cleared habitat; and isolated stands of fig or other trees on urban, agricultural or cleared land (SEWPAC, 2012d).	the core distribution extends from Gympie in south-eastern Queensland to the Richmond River in north-eastern New South Wales, and west to the Bunya Mountains, Main Range and Koreelah Range. Historical records from near Maryborough and Stanthorpe in Queensland and the Macleay River in New South Wales, which are indicative of a more widespread distribution, have not been universally accepted. However, there have been recent and credible (but usually unsubstantiated) reports of Coxen's Fig-Parrot from north of the accepted range including the Rockhampton area, Deepwater National Park (between Gladstone and Bundaberg) and the greater Bundaberg area in Queensland, and from south of the accepted range in the Hastings River area in New South Wales. These records suggest that the distribution of Coxen's Fig-Parrot may be much more widespread than has previously been recognized. In Queensland, the most recent reliable records of Coxen's Fig-Parrot are from near Imbil, Kin Kin Creek, Upper Pinbarren Creek, Montville, the Maleny area, Mount Glorious, Main Range National Park and Lamington National Park (SEWPAC, 2012d). In Queensland, it has been recorded in Bunya Mountains National Park, Burrum Coast National Park, Conondale National Park, Deepwater National Park, Great Sandy National Park, Lamington National Park, Main Range National Park, Mapleton Falls National Park and Mount Pinbarren National Park (SEWPAC, 2012d). A 6km Wildnet search revealed one record of this species. Coxens Fig Parrot is not listed on GCCC threatened species management website.	predominantly green plumage, which makes it difficult to see against the foliage of the rainforest trees that it frequents, and because it is generally quiet and unobtrusive when feeding. It can sometimes be detected by the falling debris that is discarded during feeding or by its soft, chattering call. It can be noisy and conspicuous when in flight, but it travels quickly and high above the forest canopy (SEWPAC, 2012d). The survey guidelines for Australia's Threatened Birds (DEWHA, 2010d) recommend that the area is searched for potential nesting trees or fruiting fig trees. Undertake watches of food trees. The recommended survey effort for potential nesting and feeding trees is 20 hours over 5 days and targeted dawn and dusk searches where potential feeding/nesting trees have been located for 15 hours over 4 days.	wet season surveys in 2012 did not identify the species on site.	
Dasyornis brachypterus Eastern Bristlebird	E	E	EPBC	The Eastern Bristlebird inhabits low dense vegetation in a broad range of habitat types including sedgeland, heathland, swampland, shrubland, sclerophyll forest and woodland, and rainforest, (DWEHA, 2012). Eastern Bristlebirds mainly feed on seeds, small fruits and invertebrates, but it also take fungi and occasionally nectar, food scraps and tadpoles,(DWEHA, 2012e). The Eastern Bristlebird breeds from August to February. It builds a small, globular nest that has a side entrance and is made from grass, bark, sedges or reeds, and sometimes leaves. The nest is placed less than 1 m above the ground in low dense vegetation, in or near the base of sedges, grasses, ferns and shrubs, (SEWPAC, 2012e).	The Eastern Bristlebird is endemic to Australia and occurs in three geographically-separate regional populations in south-eastern Australia. The first, a northern population, occurs in south-eastern Queensland and north-eastern NSW, and consists of extant local populations at Conondale Range National Park, Main Range National Park, Mount Barney National Park, Lamington National Park, Border Ranges National Park, Grady's Creek and Gibraltar Range National Park. The second, a central population, occurs on the central coast of NSW, and consists of extant local populations at Budderoo National Park and adjoining Barren Grounds Nature Reserve, in the Morton National Park-Red Rocks Nature Reserve area, and at Jervis Bay. The third, a southern population, occurs in south-eastern NSW and eastern Victoria, and consists of one extant local population in Nadgee Nature Reserve and another in adjoining Croajingalong National Park, (SEWPAC, 2012e).	Area searches or transect-point surveys in suitable habitat, such as rank grasses in riparian areas with pandanus or corypha palm, checking carefully within flocks of other finches. Detection by calls and sighting. Broadcast (playback) surveys may be useful, especially in the morning and evening. Targeted searches and watches of waterholes may also be useful in the dry season. In larger sites, vehicle transects may be an appropriate way to locate water sources and flocks of finches, (SEWPAC, 2012e).	Assessment in 2005 (DDW Fauna) in addition to dry and wet season surveys in 2012 did not identify the species on site.	**Absence Known or Suspected (High)**
Diomedea exulans exulans Tristan	V	V	W	Tristan Albatross is a marine, pelagic seabird. It forages in open water in the Atlantic Ocean (SEWPAC,2012f)	The 'at sea' distribution of this newly described species is yet to be defined. There is currently only one definitive record of the Tristan Albatross from Australian waters. A bird banded as a chick on Gough Island was	The survey guidelines for Australia's Threatened Birds (DEWHA, 2010f) recommend shipboard surveys in the non-breeding season. On land, observation from onshore vantage points using telescopes.	Assessment in 2005 (DDW Fauna) in addition to dry and wet season surveys in 2012 did not identify the species on site.	**Absence Known or Suspected (High)**

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Albatross					recaptured four years later off the NSW coast at Wollongong (SEWPAC, 2012f)	Detection of flying birds. Surveys of beach cast birds may provide an opportunity to detect this species, though they provide little information on origins of specimens as bodies are usually displaced by currents and winds.		
Ephippiorhynchus asiaticus Black-Necked Stork		NT	W	Characteristic of, and most common in, Top End wetlands; easily seen on the Yellow Waters cruise and many Kakadu billabongs, (Thomas, 2011).	Northern and eastern Australia, (Thomas, 2011).	Not applicable, NCA listed species only.	Assessment in 2005 (DDW Fauna) in addition to dry and wet season surveys in 2012 did not identify the species on site.	**Unlikely (High)**
Erythrotriorchis radiatus Red Goshawk	V	E	W	The Red Goshawk occurs in coastal and sub-coastal areas in wooded and forested lands of tropical and warm-temperate Australia, riverine forests are also used frequently, (SEWPAC, 2012g). The Red Goshawk's diet is 95% birds, (SEWPAC, 2012g). The breeding season for Red Goshawks is long with courtship starting as early as April and young not leaving their natal territories until as late as the end of December. The Red Goshawk breeds solitarily, in forested or wooded areas, within one km of permanent water, and in a large (over 20 m tall) tree, (SEWPAC, 2012g).	The Red Goshawk is endemic to Australia. It is very sparsely dispersed across approximately 15% of coastal and sub-coastal Australia, from western Kimberley Division (north of 19°S) to northeastern NSW (north of 33°), and occasionally on continental islands, (SEWPAC, 2012g).	In sub-coastal woodland, these areas can initially be identified from aerial photos and then searched during follow-up ground surveys. Further inland requires ground searches along river banks for nests within the tallest trees. Driving slowly through tropical woodland tracks and scanning groups of tall trees for nests can also be effective. In eastern Australia's ranges, searching for nests is more difficult but soaring birds can sometimes be located from vantage points such as mountain tops. Some success has been had surveying this species using call playbacks during the breeding season, (DEWHA, 2010g).	Assessment in 2005 (DDW Fauna) in addition to dry and wet season surveys in 2012 did not identify the species on site.	**Unlikely (High)**
Geophaps scripta scripta Squatter Pigeon	V	V	EPBC	The Squatter Pigeon (southern) occurs mainly in grassy woodlands and open forests that are dominated by eucalypts, (SEWPAC, 2012h). The Squatter Pigeon (southern) feeds on the seeds of grasses, legumes and other herbs and forbs, and sometimes eats fallen seeds from acacias. It also feeds on insects and ticks, and readily takes grit, (SEWPAC, 2012h). The nest is a depression scraped into the ground and sparsely lined with grass, and is placed beneath a tussock of grass, (SEWPAC, 2012h).	The Squatter Pigeon (southern) occurs on the inland slopes of the Great Dividing Range. Its distribution extends from the Burdekin-Lynd divide in central Queensland, west to Charleville and Longreach, east to the coastline between Proserpine and Port Curtis (near Gladstone), and south to scattered sites throughout south-eastern Queensland,(SEWPAC, 2012h)	Area searches or transects surveys in suitable habitat. Flushing surveys also likely to be useful (DEWHA, 2010h).	Assessment in 2005 (DDW Fauna) in addition to dry and wet season surveys in 2012 did not identify the species on site.	**Unlikely (High)**
Lathamus discolor Swift Parrot	E, M, Marine	E	W, EPBC	Forest and woodlands, orchards, parks and Gardens, (Flegg, 2003). The Swift Parrot is endemic to south-eastern Australia. It breeds only in Tasmania, and migrates to mainland Australia in autumn. The Swift Parrot migrates from its Tasmanian breeding grounds to overwinter in the box-ironbark forests and woodlands of Victoria, New South Wales and southern Queensland. The principal wintering grounds are the inland slopes of the Great Dividing Range and along the eastern coastal plains (SEWPAC, 2012i). In northern New South Wales and south-eastern Queensland, Narrow-leaved Red Ironbark (*E. crebra*), Forest Red Gum forests and Yellow Box forest are commonly utilized (SEWPAC, 2012i). During the non-breeding season this species feeds extensively on nectar and lerp and other items from eucalypt foliage.	Recent records from southern Queensland have come from the Gold Coast, Noosa, Toowoomba, Warwick and Lockyer Valley areas (SEWPAC, 2012i).	Swift Parrots are often noisy, active and conspicuous, but can feed silently and become quite cryptic especially in the middle of the day (DEWHA, 2010i). The survey guidelines for Australia's Threatened Birds (DEWHA, 2010i) recommend that area searches (for less than 50ha) or targeted searches of suitable habitat be undertaken preferably in the early morning and afternoon. Detection is by sight or call. Targeted surveys of patches of heavily flowering eucalypts may be useful. Surveys on the mainland should be conducted between March and July. Survey effort should be 20hours over 8 days.	Assessment in 2005 (DDW Fauna) in addition to dry and wet season surveys in 2012 did not identify the species on site.	**Possible (Medium)** *(Feeding resources are present within the buffer. This species has been identified within 6km of the Study Area by Wildnet searches. It is more likely to be a transient than resident species)*
Haematopus fuliginosus Sooty Oystercatcher		NT	W	A widespread bird of rocky shores, headlands and reefs, although less common than preceding species. Often roosts in small groups at high tide. Could be encountered on virtually any headland or reef around the south-east and in Tes, (Thomas, 2011).	Coastal Australia and Tas (Thomas, 2011)	Not applicable, NCA listed species only.	Assessment in 2005 (DDW Fauna) in addition to dry and wet season surveys in 2012 did not identify the species on site.	**Absence Known or Suspected (High)**
Lewinia pectoralis Lewin's rail		NT	EPBC	It may occur in association with crakes at the edge of drying swamps in late summer; It also occurs in overgrown ditches and *Lantana* thickets, (Thomas, 2011).	Coastal eastern Australia and Tas (Thomas, 2011).	Not applicable, NCA listed species only.	Assessment in 2005 (DDW Fauna) in addition to dry and wet season surveys in 2012 did not identify the species on site.	**Unlikely (High)**
Macronectes giganteus Southern Giant Petrel	E	E	W	Marine; Antarctic to subtropical waters. In summer, mainly over Antarctic waters, widespread south to pack-ice and on to Antarctic continent (SEWPAC, 2012j).	In summer, predominantly occurs in subantarctic to Antarctic waters, usually below 60 °S in the South Pacific and south-east Indian Oceans, or 53 °S in the Heard Island and Macquarie Island regions. Some adults are mainly sedentary, remaining close to their subantarctic breeding islands throughout the year. Nonetheless, numbers diminish at all sites over winter. Throughout the colder months, young and most adults	At sea, shipboard surveys. On land, area searches or transect surveys and observation from onshore vantage points (the latter involves using telescopes). Detection of flying birds and nests. Colony sites well documented. Surveys of beach cast birds may provide an opportunity to detect this species, though they provide little information on origins of specimens as bodies are usually displaced by currents and winds (DEWHA, 2010j).	Assessment in 2005 (DDW Fauna) in addition to dry and wet season surveys in 2012 did not identify the species on site.	**Absence Known or Suspected (High)**

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					disperse widely. Dispersal is circumpolar, extending north from 50 °S to the Tropic of Capricorn (23 °S) and sometimes beyond. Thus, in winter they are rare in the southern waters of the Indian Ocean and more common off South America, South Africa, Australia and New Zealand (SEWPAC, 2012j).			
Melithreptus gularis Black-chinned Honeyeater		NT	W	Black-chinned Honeyeaters occupy the dry eucalypt woodland within an annual rainfall range of 400-700 mm, particularly associations containing ironbark and box (SEWPAC, 2012).	Eastern and northern Australia (Thomas, 2011).	Not applicable, NCA listed species only.	Assessment in 2005 (DDW Fauna) in addition to dry and wet season surveys in 2012 did not identify the species on site.	**Possible (Medium)** *(Feeding resources are present within the buffer. This species has been identified within 6km of the Study Area by Wildnet searches. It is more likely to be a transient than resident species)*
Ninox strenua Powerful owl		V	W	The Powerful Owl is found in wet sclerophyll forest, including that with rainforest trees in the midstorey, and dry sclerophyll forest and woodland, extending inland in riverine woodland. Roost and nest sites are usually in gullies, (Curtis, 2012).	The Powerful Owl occurs from central-coastal Qld to south-east SA. In south-east Qld, it is found in coastal and upland areas from the Clarke Range(north of Eungella) to the NSW border, inland to Carnarvon Gorge, Blackdown tableland and Durikai State Forest (west of Warwick), (Curtis, 2012).	Not applicable, NCA listed species only.	Assessment in 2005 (DDW Fauna) in addition to dry and wet season surveys in 2012 did not identify the species on site.	**Possible (Medium)** *(Feeding resources are present within the buffer. This species has been identified within 6km of the Study Area by Wildnet searches. It is more likely to be a transient than resident species)*
Podargus ocellatus plumiferus Plumed Frogmouth		V	W	Preferred habitat of the southern Marbled Frogmouth is subtropical rainforest, including complex and simple notophyll vine forest and sometimes Araucarian notophyll vine forest, (Curtis, 2012). The nest is a flimsy 'saucer' of vegetation (e.g. moss, ferns or orchids) in the fork of rainforest tree, (Curtis, 2012). Food is mainly nocturnal insects and other arthropods, taken from the rainforest floor and foliage by perch-pouncing, (Curtis, 2012).	The species is restricted within its Australian range to two isolated populations, representing two separate subspecies; the population in northern Qld (*P. o. marmoratus*) is not considered threatened. The other subspecies occurs in south-eastern Qld and north- eastern NSW (*P. o. plumiferus*), where it is distributed through coastal ranges of the Mount Warning caldera, north NSW to the Many Peaks Range, south-east Qld, (Curtis, 2012).	Not applicable, NCA listed species only.	Assessment in 2005 (DDW Fauna) in addition to dry and wet season surveys in 2012 did not identify the species on site.	**Unlikely (High)**

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Poephila cincta cincta Black-throated Finch (southern)	E	V	W	The Black-throated Finch (southern) occurs mainly in grassy, open woodlands and forests, typically dominated by Eucalyptus, Corymbia and Melaleuca, and occasionally in tussock grasslands or other habitats (for example freshwater wetlands), often along or near watercourses, or in the vicinity of water(SEWPAC, 2012k). Black-throated Finches (southern) require habitat where there is access to seeding grasses and water, and will utilize a variety of different habitats for foraging, particularly in north Queensland during the wet season(SEWPAC, 2012k). The nests are often built in a hollow branch of a tree, or in a fork of a tree, shrub or sapling (SEWPAC, 2012k).	The Black-throated Finch (southern) occurs at two general locations: in the Townsville region, where it is considered to be locally common at a few sites around Townsville and Charters Towers and at scattered sites in central-eastern Queensland. The Black-throated Finch (southern) historically occurred from far south-eastern Queensland, near the Queensland-NSW border, through eastern Queensland north to the divide between the Burdekin and Lynd Rivers The subspecies is now extinct at most sites south of Burdekin River, and is confined to a very few remaining 'pockets' of suitable habitat. The lack of recent records from NSW and southern Queensland suggests that the Black-throated Finch (southern) may now be extinct in NSW, (SEWPAC, 2012k).	In the tropics, locate and watch suitable waterholes late in the dry season and conduct area searches of savanna woodland. Also check around breeding black-faced woodswallow *Artamus cinereus* flocks in the early wet season. Elsewhere use area searches of suitable habitat for sightings and checking flocks of other finch species, (DEWHA, 2010k)	Assessment in 2005 (DDW Fauna) in addition to dry and wet season surveys in 2012 did not identify the species on site.	**Absence Known or Suspected (High)**
Pterodroma heraldica Herald Petrel	CE	E	W	The Herald Petrel is a marine, pelagic species of tropical and subtropical waters, (SEWPAC, 2012l). The Herald Petrel probably feeds on cephalopods (squid), but its diet is otherwise unknown, (SEWPAC, 2012l). The species nests on tropical and subtropical islands, atolls, cays and rocky islets, (SEWPAC, 2012l). On Raine Island, nests have been recorded in July and August, and chicks in July, (SEWPAC, 2012l).	The Herald Petrel occurs in the Pacific Ocean, (SEWPAC, 2012l).	There is no information available specifically regarding survey techniques for the Herald Petrel, (SEWPAC, 2012l).	Assessment in 2005 (DDW Fauna) in addition to dry and wet season surveys in 2012 did not identify the species on site.	**Absence Known or Suspected (High)**
Pterodroma leucoptera leucoptera Gould's Petrel (Australian subspecies)	E	LC	W	Gould's Petrel is a pelagic marine species, spending much of its time foraging at sea and coming ashore only to breed. The Australian subspecies breeds and roosts on two islands off NSW, Cabbage Tree and Boondelbah Islands, and the at-sea distribution is poorly known, (SEWPAC, 2012m). The diet of Gould's Petrel is poorly known, but the diet of the species as a whole includes cephalopods (squid) and fish, such as Lanternfish (Electrona rissoi), (SEWPAC, 2012m). Gould's Petrel nests consist of a depression in the ground, and usually contain little more than a few short broken lengths of dry palm fronds. Nest-sites are used by the same birds in successive years, (SEWPAC, 2012m).	The Australian subspecies of the Gould's Petrel breeds only on Cabbage Tree Island and on nearby Boondelbah Island, near Port Stephens, in NSW, (SEWPAC, 2012m).	Gould's Petrel is best detected at its breeding colonies. Any survey should be nocturnal (as the species is only active around the nest-site at night), and it should follow the peak time of egg-laying, which is relatively synchronous, and occurs between late November and early December, when adults are incubating. The best method of censuring Gould's Petrels at their colonies is to conduct transect surveys, eliciting responses to imitations of the species' calls or by making other loud noises such as banging rocks together, (SEWPAC, 2012m).	Assessment in 2005 (DDW Fauna) in addition to dry and wet season surveys in 2012 did not identify the species on site.	**Absence Known or Suspected (High)**
Rostratula australis Australian Painted Snipe	V	V	EPBC	Mainly in shallow, often temporary freshwater wetlands or saltmarshes, generally with good cover of grasses, low scrub, lignum, open timber or samphire (SEWPAC, 2012n). The Australian Painted Snipe eats vegetation, seeds, insects, worms and molluscs, crustaceans and other invertebrates, (SEWPAC, 2012n).	This species has mainly been recorded in the Murray-Darling region, but has also been recorded in south-east Queensland, eastern NSW, south-east South Australia and the Mt Lofty Ranges, (SEWPAC, 2012n).	Area searches or transects through suitable wetlands; detection by sighting and flushing. Targeted stationary observations at dawn and dusk of suitable foraging locations within wetlands; detection by sighting. Also a brief spotlight search shortly after dusk may detect birds (DEWHA, 2010n).	Assessment in 2005 (DDW Fauna) in addition to dry and wet season surveys in 2012 did not identify the species on site.	**Unlikely (High)**

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Rostratula benghalensis Painted Snipe	V, MW, Marine	V	EPBC	The Australian Painted Snipe generally inhabits shallow terrestrial freshwater (occasionally brackish) wetlands, including temporary and permanent lakes, swamps and claypans. They also use inundated or waterlogged grassland or saltmarsh, dams, rice crops, sewage farms and bore drains, (SEWPAC, 2012o). The Australian Painted Snipe eats vegetation, seeds, insects, worms and molluscs, crustaceans and other invertebrates, (SEWPAC, 2012o). The nest is usually placed in a scrape in the ground, and either has scant lining or is a shallow bowl-shaped nest of dry grass or other plant material, (SEWPAC, 2012o).	The Australian Painted Snipe has been recorded at wetlands in all states of Australia. It is most common in eastern Australia, where it has been recorded at scattered locations throughout much of Queensland, NSW, Victoria and south-eastern South Australia, (SEWPAC, 2012o).	No survey requirements listed.	Assessment in 2005 (DDW Fauna) in addition to dry and wet season surveys in 2012 did not identify the species on site.	**Unlikely (High)**
Sternula albifrons Little Tern		E	W	The Little Tern is mainly found along sheltered coastal areas, including beaches, sheltered inlets, estuaries, lakes, sewage farms, lagoons, river mouths and deltas, (Curtis, 2012). Little Terns feed by plunging into shallow water of channels and estuaries and in surf off beaches, feeding primarily on small fish, (Curtis, 2012). Little Terns nest on undisturbed an unvegetated sites near estuaries and adjacent freshwater lake, on islands and on coral cays, with nests between the high tide mark and shore vegetation. Nesting site are inherently vulnerable to natural disturbance in the form of adverse weather and tidal conditions, and from encroachment of dune vegetation,(Curtis, 2012).	There are three populations of this race that occur in Australia: a northern population, a south-eastern population and a non-breeding migratory population from Asia, (Curtis, 2012).	Not applicable, NCA listed species only.	Assessment in 2005 (DDW Fauna) in addition to dry and wet season surveys in 2012 did not identify the species on site.	**Absence Known or Suspected (High)**
Thalassarche cauta	V	V	W	The Shy Albatross is a marine species occurring in subantarctic and subtropical waters, reaching the tropics in the cool Humboldt Current off South America, (SEWPAC, 2012p). The main foods of the Shy Albatross are fish, cephalopods (squid), crustaceans and tunicates, (SEWPAC, 2012p). The nest is a conical mound of mud, guano, rock fragments, feathers, plant material, fish and bird bones, lined with fine material. The nest structure varies from a solid column on flat sites to a small lip on sloping rocks. The nests are re-used annually and layers of dead chicks from previous seasons are sometimes visible. Most eggs are laid in September or early October, (SEWPAC, 2012p).	Shy Albatrosses appear to occur over all Australian coastal waters below 25° S. It is most commonly observed over the shelf waters around Tasmania and southeastern Australia, (SEWPAC, 2012p).	At sea, shipboard surveys. On land, area searches or transect surveys, and observation from onshore vantage points (using telescopes). Detection of flying birds and nests. Colony sites well documented (Department of Primary Industries, Water and Environment, Hobart). Surveys of beach cast birds may provide an opportunity to detect this species, though they provide little information on origins of specimens as bodies are usually displaced by currents and winds, (DEWHA, 2010p)	Assessment in 2005 (DDW Fauna) in addition to dry and wet season surveys in 2012 did not identify the species on site.	**Absence Known or Suspected (High)**
Turnix melanogaster Black-breasted Button-quail	V	V	EPBC, W	The Black-breasted Button-quail is restricted to rainforests and forests, mostly in areas with 770-1200 mm rainfall per annum. They prefer drier low closed forests, particularly semi-evergreen vine thicket, low microphyll vine forest, araucarian microphyll vine forest and araucarian notophyll vine forest. They may also be found in low, dense acacia thickets and, in littoral area, in vegetation behind sand dunes (SEWPAC, 2012q).	The Black-breasted Button-quail is endemic to eastern Australia. It is restricted to coastal and near-coastal regions of south-eastern Queensland and north-eastern New South Wales. The main populations occur within south-east Queensland. Present-day known distribution in Queensland extends from near Byfield in the north, south to the New South Wales border and westwards to Palm Grove National Park and Barakula State Forest. The most significant populations appear to be in the Yarraman-Nanango, Jimna-Conondale and Great Sandy regions (SEWPAC, 2012q). In Queensland, reserves where this species occurs include Sharon Gorge Nature Park, Boat Mountain Environmental Park, Tarong, Great Sandy, Palm Grove, Bunya Mountains, Ravensbourne, Mount French, Spicer's Gap and Lamington National Parks (SEWPAC, 2012q). During a survey of south-eastern Queensland from May 1992 to October 1993, with incidental observations up to and including 1996, birds were seen, or believed to be present, at a total of 75 sites in 14 discrete groups around the following locations (from north to south): Marlborough; Palm Grove; Kalpower; Bundaberg; Maryborough-Wide Bay-Fraser I.; Auburn River; Goomeri lowlands; Conondale Ranges; Yarraman-Nanango; Bunya Mountains; D'Aguilar Ranges; Toowoomba-Lockyer Valley; Boonah-Mt French; Border	The Black-breasted Button-quail is shy, inconspicuous and highly cryptic. It is usually detected by observation of birds that flush or walk away after being disturbed (DEWHA, 2010q). Birds use a pivot foraging action, digging in leaf litter with their feet and pivoting in a circular fashion before moving onto a new location. Foraging birds create distinctive crater-like depressions (called platelets) in the leaf litter (SEWPAC, 2012q).	Assessment in 2005 (DDW Fauna) in addition to dry and wet season surveys in 2012 did not identify the species on site.	**Unlikely (High)**

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					Ranges. These sites are still occupied today, with the largest populations in the Conondale, Yarraman-Nanango and Wide Bay-Fraser regions (SEWPAC, 2012q). A 6km Wildnet search returned 1 record of this species.			
Tyto tenebricosa tenebricosa Sooty Owl		NT	W	It is a bird of tall wet forests with a dense understorey, (Thomas, 2011).	Coastal eastern Australia (Thomas, 2011).	Not applicable, NCA listed species only.	Assessment in 2005 (DDW Fauna) in addition to dry and wet season surveys in 2012 did not identify the species on site.	**Possible (Medium)**
Xanthomyza phrygia Regent Honeyeater	E,MT	LC	EPBC	Regent Honeyeaters mostly occur in dry box-ironbark eucalypt woodland and dry sclerophyll forest associations, wherein they prefer the most fertile sites available, e.g. along creek flats, or in broad river valleys and foothills. Regent Honeyeaters occur typically in associations that support species which reliably produce copious amounts of nectar, such as *Eucalyptus sideroxylon* (Mugga Ironbark), *E. melliodora* (Yellow Box), White Box and *E. leucoxylon* (Yellow Gum) , but also in associated woodlands supporting *E. microcarpa* (Grey Box), *E. polyanthemos* (Red Box), *E. blakelyi* (Blakely's Red Gum), *E. camaldulensis* (River Red Gum), *E. melanophloia* (Silver-leaved Ironbark), *E. crebra* (Narrow-leaved Ironbark), *E. caleyi* (Caley's Ironbark) and *Angophora floribunda* (Rough-barked Apple). They sometimes use native pine Callitris woodlands, usually where mixed with eucalypts. They regularly occur in remnant trees or patches of woodland in farmland, partly cleared agricultural land and riverine forest of River Sheoak, usually infested by mistletoe, and sometimes mixed with eucalypts. Regent Honeyeaters usually nest in the canopy of forests or woodlands, and usually in the crowns of tall trees. Studies in the Bundarra-Barraba region indicate that birds actively select the tallest trees available to nest in. Nests are usually built in rough-barked trees, mostly eucalypts such as ironbarks, stringybarks or River Sheoak, or sometimes in smooth or box-barked species (e.g. Blakely's Red Gum, White Box, Yellow Box) if rough-barked trees are not available. Nests are often also built amongst mistletoes in trees (SEWPAC, 2012r). It is an irregular visitor to Queensland.	The Regent Honeyeater is endemic to south-eastern Australia, where it is widespread but very sparsely scattered, mostly on the inland slopes of the Great Dividing Range, (SEWPAC, 2012r). In Queensland, the Regent Honeyeater is an occasional visitor to the south-east. Small numbers have been reported in most years since 1988, from at least 15 sites, ranging north to south from Pomona to Logan Reserve. These include several records on Bribie Island between 1995 and 1998. The Regent Honeyeater has also been recorded from several sites in the Granite Belt, from Warwick ranging west to Gore and south to Sundown National Park. Recent records are centered around the Gore-Karara area, and there is increasing evidence that a small breeding population may exist in this area. A single record from the south-west of the state, near Eulo is likely to be erroneous (SEWPAC, 2012r). A 6km Wildnet database search returned 1 record of this species.	The Regent Honeyeater breeds from May to March, but with a peak in breeding activity from September to November. Throughout the range of the species, seasonal patterns in breeding appear to correspond to regional patterns in the flowering of key eucalypt and mistletoe species, especially Mugga Ironbark (which flowers from May to December), White Box (which flowers from June to October), Yellow Box (which flowers from September to February) and Needle-leaf Mistletoe (which flowers from August to November) (SEWPAC, 2012r). The survey guidelines for Australia's Threatened Birds (DEWHA, 2010r) recommend that this species be surveyed using area searches in suitable habitat, preferably in the morning. Detection is by call or by sighting. Targeted searches of woodland patches with heavuily flowering trees is useful especially around waterpoints. Recommended survey effort is for 20 hours over 10 days in areas of less than 50ha or targeted searches over the same time frame for larger areas. The buffer area is approximately 200ha.	Assessment in 2005 (DDW Fauna) in addition to dry and wet season surveys in 2012 did not identify the species on site.	**Possible (Medium)** *(Feeding resources are present within the buffer. This species has been identified within 6km of the Study Area by Wildnet searches. It is more likely to be a transient than resident species)*
Mammals								
Chalinolobus dwyeri Large-eared Pied Bat, Large Pied Bat	V	V	EPBC	Little is known about the habitat and roosting requirements of the Large-eared Pied Bat, but natural roosts may depend heavily on sandstone outcrops. It has been found roosting in disused mine shafts, caves, overhangs and disused Fairy Martin (*Hirundo ariel*) nests for shelter and to raise young. It also possibly roosts in the hollows of trees. In NSW this species has been recorded from a large range of vegetation types including: dry and wet sclerophyll forest; Cyprus-pine dominated forest; tall open eucalypt forest with a rainforest sub-canopy; sub-alpine woodland; and sandstone outcrop country. In south-eastern Queensland the species has primarily been recorded from higher altitude moist tall open forest adjacent to rainforest (SEWPAC, 2012s).	The current distribution of this species is also poorly known. Records exist from Shoalwater Bay, north of Rockhampton, Queensland, through to the vicinity of Ulladulla, NSW in the south. In Queensland, further records are known from sandstone escarpments in the Carnarvon, Expedition Ranges and Blackdown Tablelands. It is likely that these areas support a high proportion of the Queensland populations of the Large-eared Pied Bat, although estimates of the number of individuals present and their distribution in these areas has not been established. Additional records exist in the Scenic Rim near the NSW/Queensland border. The populations in this area appear to be reliant on the presence of roosts in volcanic rock types. Much of the known distribution of the Large-eared Pied Bat occurs in NSW. In the north-east of the state at Coolah Tops, Mt Kaputar and the Warrumbungle National Park, it is present in areas of volcanic strata (SEWPAC, 2012s). Has been recorded in the following QLD reserves: • Carnarvon Gorge National Park • Lamington National Park • Main Range National Park	The Large-eared Pied Bat can be detected through a range of survey techniques below: Surveys are best conducted from October to March. <u>Observation within roosts</u> Individuals can be observed within roosts in caves and manmade structures such as tunnels, mines and culverts. This can either be through direct observation or indirectly through the use of infrared cameras. Care should be taken to minimise disturbance to colonies during such investigations. <u>Mistnets</u> Mistnets can be of use in the vicinities of roosts to capture individuals. Use of mistnets is generally inefficient away from the proximity of roosts due the low densities of this species. <u>Harp Traps</u> Harp traps are an efficient means of capturing individuals both in the proximity of roosts as well as sites where the Large-eared Pied Bat occurs in lower densities. <u>Echolocation call detection</u> An efficient means of detecting the presence of the Large-eared Pied Bat is by echolocation call detection. Sampling throughout the night at multiple locations is feasible with commercially available systems such as the Anabat system. This is the most efficient	Assessment in 2005 (DDW Fauna) in addition to dry and wet season surveys in 2012 did not identify the species on site.	**Unlikely (High)**

Species	EPBC Status *	NCA Status *	Database / Reference #	Habitat (foraging and resting) Preferences, Breeding/nesting and Seasonal Influences	Species Distribution	SEWPAC Survey Requirements	Site Assessments	Likely Presence
					• Blackdown Tableland National Park. • Blackdown Tableland State Forest • Gambubal State Forest • Road reserves in the Wivenhoe Dam, Lake Moogerah and west of Mt Barney areas. • Private land adjacent to Mt Mistake. A 6km Wildnet search did not return any records of this species.	means of ascertaining the presence of the Large-eared Pied Bat. Individuals produce alternating calls with characteristic frequencies between 21.5 and 25.5 kHz.		
Dasyurus hallucatus Northern Quoll	E	E	EPBC	The Northern Quoll occupies a diversity of habitats across its range which includes rocky areas, eucalypt forest and woodlands, rainforests, sandy lowlands and beaches, shrubland, grasslands and desert , (SEWPAC, 2012t). Northern Quolls are opportunistic omnivores, consuming a wide range of prey including beetles, grasshoppers, spiders, scorpions and centipedes. They also eat fruit, nectar, and are known to feed on carrion and human refuse, (SEWPAC, 2012t). At a study site on the lowland savannas of northern Australia in Kakadu National Park, the breeding season occurs in mid-dry season, from late May to early June, (SEWPAC, 2012t)	The Northern Quoll was historically common across northern Australia, occurring almost continuously from the Pilbara, Western Australia, to near Brisbane, Queensland. The Northern Quoll now occurs in five regional populations across Queensland, the Northern Territory and Western Australia both on the mainland and on offshore islands, (SEWPAC, 2012t)	Surveys should: • be conducted by a suitably qualified person with demonstrated skill in mammal surveys • maximise the chance of detecting the species • account for uncertainty and error (such as false presences and absences). Surveys for the Northern Quoll can have different objectives and therefore require different guidelines and experimental design. However for the purposes of referral and assessment under the EPBC Act it is recommended that surveys for Northern Quoll involve an initial reconnaissance survey which aims to identify the need for further investigations through a targeted survey. Where it is not possible to conduct surveys in this manner, failure to detect Northern Quoll should not be considered indicative of its absence. (SEWPAC, 2012t).	Assessment in 2005 (DDW Fauna) in addition to dry and wet season surveys in 2012 did not identify the species on site.	**Absence Known or Suspected (High)**
Dasyurus maculatus maculatus (SE mainland population) Spot-tailed Quoll, Spotted-tail Quoll, Tiger Quoll (southeastern mainland population)	E	V	EPBC	The Spot-tailed Quoll is predominantly nocturnal and rests during the day in dens. Habitat requirements include suitable den sites such as hollow logs, tree hollows, rock outcrops or caves. Individuals also require an abundance of food, such as birds and small mammals, and large areas of relatively intact vegetation through which to forage. This subspecies is moderately arboreal and approximately 11% of travelling is done in trees, (SEWPAC, 2012u). The Spot-tailed Quoll has a preference for mature wet forest habitat, especially in areas with rainfall 600 mm/year. Unlogged forest or forest that has been less disturbed by timber harvesting is also preferable, (SEWPAC, 2012u).	The Spot-tailed Quoll occurs in south-east Queensland: coastally from Bundaberg to the border and inland to Monto and Stanthorpe. Occurrences from five broad geographic areas are known: four from coastal ranges and the Great Dividing Range from the NSW border to Gladstone. The fifth is centred on the eastern Darling Downs-Inglewood Sandstone provinces of the Brigalow Belt South Bioregion (SEWPAC, 2012u). A 6km Wildnet search returned no records of this species.	Latrines of the Spot-tailed Quoll are sites where groups of individuals repeatedly urinate and defecate over long periods of time. This results in the bleaching of the soil substrate and an accumulation of scats). For a highly cryptic species such as the Spot-tailed Quoll, latrines provide focal points for studies into distribution, diet, habitat, population structure, and management .Latrines are typically found in rocky creek beds, at the bases of cliffs, and on roads, (SEWPAC, 2012u). Techniques to survey Spot-tailed Quolls include searches for latrine sites, searches for scats of other predators (which may contain quoll hair and bone fragments) and hair sampling tubes. The Australian Museum Business Services recommended the following survey techniques to detect the presence of the Spot-tailed Quoll (including Tasmanian populations) in areas up to 5 ha in size: • daytime searches for potentially suitable habitat resources, such as areas associated with gullies or ridges and potential den sites (caves, hollow logs or dense understorey vegetation such as Lantana (*Lantana spp*.) that provides suitable cover) • daytime searches for signs of activity, including tracks, scats and latrines • hair sampling device (hair-funnels) surveys, using a mixture of sardines, tuna oil and flour for bait (the Spot-tailed Quoll is included among those animals able to be distinguished from hair samples) (SEWPAC, 2012u).	DDW undertook diurnal, Assessment in 2005 (DDW Fauna) in addition to dry and wet season surveys in 2012 did not identify the species on site.	**Unlikely (High)**

Species	EPBC Status *	NCA Status *	Database / Reference #	Habitat (foraging and resting) Preferences, Breeding/nesting and Seasonal Influences	Species Distribution	SEWPAC Survey Requirements	Site Assessments	Likely Presence
Petrogale pencillata Brush-tailed Rock Wallaby	V	V	EPBC	Bush-tailed Rock wallabies feed mainly on grasses and forbs but also eat a significant amount of browse, especially in drier months, (Dyck, 2008). Breeding peak occurs between February and May(Dyck, 2008). Brush-Tailed Rocky Wallabies being found in wide variety of rocky habitats, within rainforest, wet and dry sclerophyll forest and open woodland (Dyck, 2008)	The range of the Brush-tailed Rock-wallaby extends from south-east Queensland to the Grampians in western Victoria, roughly following the line of the Great Dividing Range. However the distribution of the species across its original range has declined significantly in the west and south and has become more fragmented (Dyck, 2008)	Throughout their range, Brush-tailed Rock-wallaby populations have been repeatedly found to be difficult to monitor. Pellet counts, trapping and visual counting are standard techniques (Jarman & Bayne 1997).	Assessment in 2005 (DDW Fauna) in addition to dry and wet season surveys in 2012 did not identify the species on site.	**Unlikely (High)**
Phascolarctos cinereus koala	V	V	EPBC, W	Koalas inhabit a range of temperate, sub-tropical and tropical forest, woodland and semi-arid communities dominated by species from the genus Eucalyptus, (SEWPAC, 2012v). The Koala is a leaf-eating specialist. Its diet is restricted mainly to foliage of Eucalyptus spp. It may also consume foliage of related genera, including *Corymbia spp., Angophora spp.* and *Lophostemon spp.* and at times supplement its diet with other species, including *Leptospermum spp. and Melaleuca spp,* (SEWPAC, 2012v).	The Koala is endemic to Australia, and is widespread in coastal and inland areas from north-east Queensland to Eyre Peninsula, SA, (SEWPAC, 2012v).	No survey requirements listed.	Assessment in 2005 (DDW Fauna) in addition to dry and wet season surveys in 2012 confirmed koala activity	**Known (High)**
Potorous tridactylus tridactylus Long-nosed Potoroo (SE mainland)	V	V	EPBC, W	The Long-nosed Potoroo (SE Mainland) is sparsely distributed along the coast and Great Dividing Range of south-east Queensland through NSW. There is limited information about the species habitat in Queensland and NSW. There is no consistent pattern to the habitat of the Long-nosed Potoroo (SE Mainland); it can be found in wet eucalypt forests to coastal heaths and scrubs. The main factors would appear to be access to some form of dense vegetation for shelter and the presence of an abundant supply of fungi for food (SEWPAC, 2012w).	The Long-nosed Potoroo (SE Mainland) has scattered populations extending from south-eastern Queensland through to NSW. The species has been recorded at Many Peaks Range, south-east of Gladstone, Bellthorpe near Beerwah and in the Border Ranges. It has also been seen at Bulburin, south-west of Miriam Vale. In NSW it has been seen at several locations. The Queensland populations are considered to be reasonably secure. Only one detailed study is available for NSW. The population at Tyagarah was estimated to be around 80–90 and was considered to be insecure. The status and security of other NSW populations is uncertain (SEWPAC, 2012w). A 6km Wildnet search returned 1 record of this species. The author is aware that this is likely to relate to the known population of the species in Springbrook.	No survey requirements listed.	Assessment in 2005 (DDW Fauna) in addition to dry and wet season surveys in 2012 did not identify the species on site.	**Unlikely (High)**
Pseudomys novaehollandiae New Holland Mouse	V	C	EPBC	Across the species' range the New Holland Mouse is known to inhabit open heathlands, open woodlands with a heathland understorey and vegetated sand dunes (SEWPAC, 2012x). The New Holland Mouse is nocturnal and omnivorous, with seeds forming a main component of its diet, though leaves, fungi and invertebrates are consumed based on seasonal or floristic characteristics of individual sites (SEWPAC, 2012x).	The New Holland Mouse has a fragmented distribution across Tasmania, Victoria, New South Wales and Queensland (SEWPAC, 2012x).	Posamentier and Recher (1974) proposed that the optimum habitat for this species was heath which was actively regenerating after fire. The studies of Fox and McKay (1981) showed that New Holland Mouse populations survived wildfire and reached maximum abundance at two to three years post-fire, (SEWPAC, 2012x) Coastal heath vegetation undergoing early to mid-successional regeneration, as a result of habitat disturbances (e.g. fire, mining, clearing), appears to be preferred habitat in many areas, although habitat at Wilson's Promontory consists of 20–30 year old vegetation where New Holland Mouse populations persist (SEWPAC, 2012x).	Assessment in 2005 (DDW Fauna) in addition to dry and wet season surveys in 2012 did not identify the species on site.	**Unlikely (High)**
Pteropus poliocephalus Grey-headed Flying-fox	V	LC	EPBC, W	The Grey-headed Flying-fox requires foraging resources and roosting sites. It is a canopy-feeding frugivore and nectarivore, which utilises vegetation communities including rainforests, open forests, closed and open woodlands, *Melaleuca* swamps and Banksia woodlands. It also feeds in introduced tree species in urban areas and in commercial fruit crops. The primary food source is blossom from *Eucalyptus* and related genera but in some areas it also utilises a wide range of rainforest fruits. None of the vegetation communities used by the Grey-headed Flying-fox produces continuous foraging resources throughout the year, and the species has adopted complex migration traits in response to ephemeral and patchy food resources, (SEWPAC, 2012y) The Grey-headed Flying-fox roosts in aggregations of various sizes on	Queensland: Black Swamp, Caboolture (Wararba Creek), Camira, Canungra (Gold Coast), Cascade Gardens (Gold Coast), Curlew Park (Sandgate), Dayboro (Strong Road), Eerwahvale, Esk, Giffin Park (Norman Creek), Goat Island (Noosaville), Gympie, Helensvale (Gold Coast), Hervey Bay, Indooroopilly, Kandanga, Kinmong Creek, Lytton Road, Meakin Park, Parklands, Peachester, Samford (Days Road)Sandstone Point, Sparkes Hill, State Forest 38, Stradbroke Island, Tallebudgera, Upper Rocky Creek/Murphys Creek, Victoria	A more effective survey method is to search appropriate databases and other sources for the locations of camps, and to conduct vegetation surveys to identify feeding habitat (SEWPAC, 2012y). Surveys of vegetation communities and food plants Vegetation communities, within the core range of Grey-headed Flying-foxes, have been mapped and the significance of each	Wet season surveys in 2012 confirmed the presence of the species. However, only a single individual was recorded on site. No camps are present.	Camps **Absence Known or Suspected (High)** Individuals **Known (High)**

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				exposed branches, commonly of emergent trees. Roost sites are typically located near water, such as lakes, rivers or the coast. Roost vegetation includes rainforest patches, stands of *Melaleuca*, mangroves and riparian vegetation, but colonies also use highly modified vegetation in urban and suburban areas. The species can maintain fidelity to roost sites for extended periods, although new sites have been colonised in recent times (SEWPAC, 2012y).	Point (Egret Drive), Woodend and Woodford (SEWPAC, 2012y). A 6km Wildnet database search revealed 23 records of this species.	community, as feeding habitat, has been ranked by Eby and Law (2008 cited in SEWPAC 2010m). This ranking should be consulted to help identify vegetation communities in the project area. Vegetation maps, based on modeled data, may be less useful as they do not always accurately represent field conditions. Furthermore, field surveys should be conducted by a qualified botanist to confirm the vegetation communities in the project area and the presence of food plants (SEWPAC, 2012y). Night time surveys Conduct walking transects (100 m apart) looking for feeding and flying bats. Smell can also provide a sign of their presence. Alternative methods may include night time audio recordings made at selected sites or where fruiting food plants occur within the project area (SEWPAC, 2012y).		
Xeromys myoides Water Mouse, False Water Rat	V	V	EPBC	Although the Water Mouse had been documented in three distinct locations (Northern Territory, Central south Queensland, south-east Queensland) they require similiar habitat including mangroves and the associated saltmarsh, sedgelands, clay pans, heathlands and freshwater wetlands. The main habitat difference at each location is the littoral, supralittoral and terrestrial vegetation which differs in structure and composition. These differences dictate the species' nesting behaviour, (SEWPAC, 2012z). The composition of the diet included a variety of crustaceans (*Parasesarma erythrodactyla*, *Helice leachi* and *Australoplax tridentata*), marine polyclads, marine pulmonates (*Salinator solida*, *Ophicardelus quoyi* and *Ochidina australis*) and marine bivalves (*Glauconome* sp.), (SEWPAC, 2012z).	The water mouse occurs in three discrete populations on the eastern and northern Australian coastline. In south-east Queensland the water mouse occurs between the Coomera River (50km southeast of Brisbane) and Hervey Bay; the islands of Moreton Bay and Pumicestone Passage, including the lee of North and South Stradbroke and Bribie Islands; and Fraser Island. The species has also been recorded as far inland as Beerwah, (SEWPAC, 2012z)		Assessment in 2005 (DDW Fauna) in addition to dry and wet season surveys in 2012 did not identify the species on site.	**Absence Known or Suspected (High)**
Reptiles								
Coeranoscincus reticulatus Three-toed Snake-tooth Skink	V	NT	EPBC	Found mostly in closed forest and possibly open layered Eucalyptus forest. Generally recorded in moist layered forest on loamy basaltic soils, but also found in closed forest overlying silica sand dunes at Cooloola. There are two published records of individuals in logged forest which had tall softwood regrowth. One specimen was recorded in a 3 ha isolated stand of rainforest regrowth near Maleny, SE Qld (SEWPAC, 2012ab). Within forests, this species is found in well-mulched, loose, friable rainforest soil in leaf litter, often immediately adjacent to fallen tree trunks. Projected foliage cover was estimated at 70-80 % at two sites (SEWPAC, 2012ab). Much of the lowland closed forest within its range has been cleared for agriculture and grazing, pasture improvement, crop production, tropical fruit production, and native forest logging. Suitable habitat has generally been reduced to patches, especially in lowland areas, (SEWPAC, 2012ab). Stomach contents of four specimens comprised three earthworms, one beetle larva and one unknown insect, (SEWPAC, 2012ab).	Occurs in the ranges and lowlands between Cooloola in south-eastern Qld and Grafton in north-eastern NSW. Known localities in Qld: Binnaburra, Emuvale, Tambourine Mtn, Beechmont, Lamington NP, Binna Burra, 6km south-east of Maleny, Cooloola SF, and Cunningham's Gap NP (SEWPAC, 2012ab). A 6km Wildnet search revealed no records for this species.	No survey requirements listed.	Assessment in 2005 (DDW Fauna) in addition to dry and wet season surveys in 2012 did not identify the species on site.	**Unlikely (High)**
Delma torquata Collared Delma	V	V	EPBC	The Collared Delma normally inhabits eucalypt-dominated woodlands and open-forests in Queensland Regional Ecosystem Land Zones (LZ): • LZ 3 - Alluvium (river and creek flats) • LZ 9 - Undulating country on fine-grained sedimentary rocks • LZ 10 - Sandstone ranges. The Collared Delma feeds on insects and spiders, with small cockroaches the most common prey item, (SEWPAC, 2012ac).	The species has been recorded at the following sites (SEWPAC, 2012ac): • the Bunya Mountains (approximately 200 km north-west of Brisbane) • Blackdown Tablelands National Park (approximately 200 km west of Rockhampton) • Expedition National Park (Central Queensland) • Western Creek, near Millmerran	A habitat assessment is recommended to be undertaken as a preliminary step to designing and undertaking a targeted survey, including: • Determine the proximity of nearest records to the study area. • Search relevant databases such as Zoology Data Search (Queensland Museum) and Wildlife Online (Queensland Department of Environment and Resource Management). • Obtain State vegetation mapping for the	Assessment in 2005 (DDW Fauna) in addition to dry and wet season surveys in 2012 did not identify the species on site.	**Unlikely (High)**

Species	EPBC Status *	NCA Status *	Database / Reference #	Habitat (foraging and resting) Preferences, Breeding/nesting and Seasonal Influences	Species Distribution	SEWPAC Survey Requirements	Site Assessments	Likely Presence
					(approximately 200 km south-west of Brisbane) • the Toowoomba Range,	study area to determine the extent of suitable habitat including the presence of associated vegetation communities. • Determine the presence of suitable microhabitat features in the study area. *Targeted survey (SEWPAC, 2012ac)* Targeted surveys to confirm the presence/absence of the Collared Delma are done by actively searching suitable habitats The species is more likely to be detected when conditions are warm, not too dry and maximum temperatures are greater than 25°C. Optimal survey times for active searching are early morning (within four hours of dawn) and during the evening on warm nights *Minimum survey effort(SEWPAC,2012ac)* Sufficient time is required to thoroughly search the study area. The minimum survey effort required includes : • a minimum of three survey days • At least one replicate survey employing all of the recommended techniques, if the species has not already been detected,		
Furina dunmalli Dunmall's Snake	V	V	EPBC	Dunmall's Snake has been found in a broad range of habitats, including(SEWPAC, 2012ad) : • Forests and woodlands on black alluvial cracking clay and clay loams dominated by Brigalow (*Acacia harpophylla*), other Wattles (*A. burowii, A. deanii, A. leioclyx*), native Cypress (*Callitris* spp.) or Bull-oak (*Allocasuarina luehmannii*) • Various Blue Spotted Gum (*Corymbia citriodora*), Ironbark (*Eucalyptus crebra* and *E. melanophloia*), White Cypress Pine (*Callitris glaucophylla*) and Bulloak open forest and woodland associations on sandstone derived soils. The diet of Dunmall's Snake consists of small skinks and geckos, (SEWPAC, 2012ad). Little is known about the life cycle or reproduction behaviour of Dunmall's Snake. While there is no information on the breeding season or clutch size of the species, it is known that the species lays eggs rather than live young, (SEWPAC, 2012ad).	The distribution of Dunmall's Snake extends from near the Queensland border throughout the Brigalow Belt South and Nandewar bioregions, as far south as Ashford in New South Wales (NSW), (SEWPAC, 2012ad).	A habitat assessment is recommended to be undertaken as a preliminary step to designing and undertaking a targeted survey, including: • Determine the proximity of nearest records to the study area. • Search relevant databases such as Zoology Data Search (Queensland Museum) and Wildlife Online (Queensland Department of Environment and Resource Management). • Obtain State vegetation mapping for the study area to determine the extent of suitable habitat including the presence of associated vegetation communities. • Determine the presence of suitable microhabitat features in the study area. *Targeted survey (SEWPAC, 2012ad)* Targeted surveys to confirm the presence/absence of Dunmall's Snake are done by actively searching suitable habitats . In addition, transects, spotlighting and opportunistic surveys of roads are recommended. Optimal conditions for active searching The species is more likely to be detected when conditions are warm, not too dry and maximum temperatures are greater than 25°C. Optimal survey times for active searching are early morning (two hours either side of dawn) and during the evening on warm nights. *Minimum survey effort (SEWPAC, 2012ad)*	Assessment in 2005 (DDW Fauna) in addition to dry and wet season surveys in 2012 did not identify the species on site.	**Unlikely (High)**

Species	EPBC Status *	NCA Status *	Database / Reference #	Habitat (foraging and resting) Preferences, Breeding/nesting and Seasonal Influences	Species Distribution	SEWPAC Survey Requirements	Site Assessments	Likely Presence
						Sufficient time is required to thoroughly search the area by day and to spotlight by night. The minimum survey effort required includes: • a minimum of three survey days and nights • At least one replicate survey employing all of the recommended techniques, if the species has not already been detected.		
INSECTS								
Acrodipsas illidgei Illidge's ant-blue		V	W	All breeding population have been found in mangroves or in ant nests close to mangroves (Curtis, 2012).	The species was known from mangroves and adjacent areas from Brisbane to Burleigh in south-east Qld in the 1940s.More recently its been extended to Redcliffe and Maryborough north of Brisbane and in extensive mangrove areas east of Beenleigh, (Curtis, 2012).	Not applicable, NCA listed species only.	Assessment in 2005 (DDW Fauna) in addition to dry and wet season surveys in 2012 did not identify the species on site.	**Absence Known or Suspected (High)**
Argyreus hyperbius inconstans Australian fritillary		E	W	It occurs in open, coastal, grassy sedgelands and wetlands where its larval food plant, *Viola betonicifolia,* is distributed (Curtis, 2012).	The species is restricted to scattered locations on the coastal strip from Gympie in Qld to Port Macquarie in NSW, (Curtis, 2012)	Not applicable, NCA listed species only.	Assessment in 2005 (DDW Fauna) in addition to dry and wet season surveys in 2012 did not identify the species on site.	**Unlikely (High)**
Ornithoptera richmondii Richmond birdwing		V	W	This Species is restricted to Subtropical rainforest areas containing the larval food plants *Pararistolochia praevenosa* and *P.laheyana.* Suitable area for *P. praevenosa* are lowland coastal rainforests, but *P.laheyana* occurs in montane rainforests along the Qld/NSW border (Curtis, 2012).	The Richmond Birdwing butterfly originally occurred from Maryborough in south-east Qld into northern NSW as far as Blackwall Range, (Curtis, 2012).	Not applicable, NCA listed species only.	Assessment in 2005 (DDW Fauna) in addition to dry and wet season surveys in 2012 did not identify the species on site.	**Possible (High)**
Phyllodes imperialis (southern subsp. - ANIC 3333) Pink Underwing Moth	E	LC	EPBC	The Pink Underwing Moth is found below the altitude of 600 m in undisturbed, subtropical rainforest (SEWPAC, 2012ae). The larvae of the Pink Underwing Moth feed on the vine *Carronia multisepalea* which appears to be relatively rare. Other forms of *P. imperialis* feed on *Pycanarrhena* species of vine (SEWPAC, 2012ae).	The Pink Underwing Moth is distributed from Nambour, south-east Queensland, to Dorrigo in northern NSW, (SEWPAC, 2012ae).	No survey requirements listed.	Assessment in 2005 (DDW Fauna) in addition to dry and wet season surveys in 2012 did not identify the species on site.	**Unlikely (High)**

#: EPBC (Protected Matters Database Search)
W (Wildnet Database Search)
H (HERBRECS Database Search)
*: E – Endangered, V – Vulnerable, NT – Near Threatened.

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