Australian Government
Department of Agriculture, Water and the Environment

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. Please see the caveat for interpretation of information provided here.

Report created: 12-Oct-2022

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.

World Heritage Properties:	1
National Heritage Places:	2
Wetlands of International Importance (Ramsar	None
Great Barrier Reef Marine Park:	None
Commonwealth Marine Area:	None
Listed Threatened Ecological Communities:	2
Listed Threatened Species:	57
Listed Migratory Species:	19

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

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. Information on the new heritage laws can be found at http://www.environment.gov.au/heritage

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.

Commonwealth Lands:	None
Commonwealth Heritage Places:	None
Listed Marine Species:	24
Whales and Other Cetaceans:	None
Critical Habitats:	None
Commonwealth Reserves Terrestrial:	None
Australian Marine Parks:	None
Habitat Critical to the Survival of Marine Turtles:	None

Extra Information

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

State and Territory Reserves:	11
Regional Forest Agreements:	None
Nationally Important Wetlands:	1
EPBC Act Referrals:	5
Key Ecological Features (Marine):	None
Biologically Important Areas:	None
Bioregional Assessments:	None
Geological and Bioregional Assessments:	None

Details

Matters of National Environmental Significance

World Heritage Properties [Resource Information]

Name	State	Legal Status	Buffer Status
Wet Tropics of Queensland	QLD	Declared property	In feature area

National Heritage Places [Resource Information]

Name	State	Legal Status	Buffer Status
Indigenous			
Wet Tropics World Heritage Area (Indigenous Values)	QLD	Within listed place	In feature area
Natural			
Wet Tropics of Queensland	QLD	Listed place	In feature area

Listed 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.
Status of Vulnerable, Disallowed and Ineligible are not MNES under the EPBC Act.

Community Name	Threatened Category	Presence Text	Buffer Status
Broad leaf tea-tree (Melaleuca viridiflora) woodlands in high rainfall coastal north Queensland	Endangered	Community likely to occur within area	In feature area
Mabi Forest (Complex Notophyll Vine Forest 5b)	Critically Endangered	Community likely to occur within area	In feature area

Listed Threatened Species [Resource Information]

Status of Conservation Dependent and Extinct are not MNES under the EPBC Act.
Number is the current name ID.

Scientific Name	Threatened Category	Presence Text	Buffer Status
BIRD			
Calidris ferruginea			
Curlew Sandpiper [856]	Critically Endangered	Species or species habitat may occur within area	In feature area
Casuarius casuarius johnsonii			
Southern Cassowary, Australian Cassowary, Double-wattled Cassowary [25986]	Endangered	Species or species habitat known to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Erythrotriorchis radiatus Red Goshawk [942]	Vulnerable	Species or species habitat known to occur within area	In feature area
Falco hypoleucos Grey Falcon [929]	Vulnerable	Species or species habitat may occur within area	In feature area
Hirundapus caudacutus White-throated Needletail [682]	Vulnerable	Species or species habitat known to occur within area	In feature area
Numenius madagascariensis Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat may occur within area	In feature area
Rostratula australis Australian Painted Snipe [77037]	Endangered	Species or species habitat likely to occur within area	In feature area
Turnix olivii Buff-breasted Button-quail [59293]	Endangered	Species or species habitat likely to occur within area	In feature area
Tyto novaehollandiae kimberli Masked Owl (northern) [26048]	Vulnerable	Species or species habitat likely to occur within area	In feature area
FROG			
Litoria dayi Australian Lace-lid, Lace-eyed Tree Frog, Day's Big-eyed Treefrog [86707]	Vulnerable	Species or species habitat known to occur within area	In feature area
Litoria nyakalensis Mountain Mistfrog, Nyakala Frog [1820]	Critically Endangered	Species or species habitat likely to occur within area	In feature area
Pseudophryne covacevichae Magnificent Brood Frog [64385]	Vulnerable	Species or species habitat known to occur within area	In feature area
MAMMAL			
Bettongia tropica Northern Bettong [214]	Endangered	Species or species habitat may occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Dasyurus hallucatus Northern Quoll, Digul [Gogo-Yimidir], Wijingadda [Dambimangari], Wiminji [Martu] [331]	Endangered	Species or species habitat known to occur within area	In feature area
Dasyurus maculatus gracilis Spotted-tailed Quoll (North Queensland), Yarri [64475]	Endangered	Species or species habitat known to occur within area	In feature area
Hipposideros semoni Semon's Leaf-nosed Bat, Greater Wart-nosed Horseshoe-bat [180]	Vulnerable	Species or species habitat may occur within area	In feature area
Macroderma gigas Ghost Bat [174]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Mesembriomys gouldii rattoides Black-footed Tree-rat (north Queensland), Shaggy Rabbit-rat [87620]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Petauroides minor Greater Glider (northern), Greater Glider (north-eastern Queensland) [92008]	Vulnerable	Species or species habitat known to occur within area	In feature area
Petaurus australis Wet Tropics subspecies Yellow-bellied Glider (Wet Tropics), Fluffy Glider [88022]	Endangered	Foraging, feeding or related behaviour known to occur within area	In feature 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]	Endangered	Species or species habitat known to occur within area	In feature area
Pteropus conspicillatus Spectacled Flying-fox [185]	Endangered	Species or species habitat likely to occur within area	In feature area
Pteropus poliocephalus Grey-headed Flying-fox [186]	Vulnerable	Foraging, feeding or related behaviour may occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
[Rhinolophus robertsi](#) Large-eared Horseshoe Bat, Greater Large-eared Horseshoe Bat [87639]	Vulnerable	Species or species habitat likely to occur within area	In feature area
[Saccolaimus saccolaimus nudicluniatus](#) Bare-rumped Sheath-tailed Bat, Bare-rumped Sheathtail Bat [66889]	Vulnerable	Species or species habitat likely to occur within area	In feature area
PLANT			
[Acacia purpureopetala](#) Purple-flowered Wattle [61156]	Critically Endangered	Species or species habitat likely to occur within area	In buffer area only
[Alloxylon flammeum](#) Red Silky Oak, Queensland Waratah, Tree Waratah [56400]	Vulnerable	Species or species habitat known to occur within area	In feature area
[Aponogeton bullosus](#) [8299]	Endangered	Species or species habitat likely to occur within area	In feature area
[Arthraxon hispidus](#) Hairy-joint Grass [9338]	Vulnerable	Species or species habitat likely to occur within area	In feature area
[Canarium acutifolium](#) [23956]	Vulnerable	Species or species habitat likely to occur within area	In buffer area only
[Carronia pedicellata](#) [24178]	Endangered	Species or species habitat likely to occur within area	In feature area
[Chingia australis](#) [24603]	Endangered	Species or species habitat likely to occur within area	In feature area
[Corymbia rhodops](#) [64015]	Vulnerable	Species or species habitat may occur within area	In buffer area only
[Cycas platyphylla](#) a cycad [55796]	Vulnerable	Species or species habitat known to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Dichanthium setosum bluegrass [14159]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Diplazium cordifolium [15585]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Euphorbia carissoides [12431]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Grevillea glossadenia [7979]	Vulnerable	Species or species habitat likely to occur within area	In buffer area only
Homoranthus porteri [55196]	Vulnerable	Species or species habitat known to occur within area	In buffer area only
Lastreopsis walleri a fern [18229]	Vulnerable	Species or species habitat known to occur within area	In feature area
Macropteranthes montana [9003]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Phaius australis Lesser Swamp-orchid [5872]	Endangered	Species or species habitat may occur within area	In feature area
Phaius pictus [22564]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Phlegmariurus filiformis Rat's Tail Tassel-fern [86551]	Endangered	Species or species habitat may occur within area	In buffer area only
Phlegmariurus lockyeri [86552]	Vulnerable	Species or species habitat may occur within area	In buffer area only

Scientific Name	Threatened Category	Presence Text	Buffer Status
Phlegmariurus marsupiiformis Water Tassel-fern [86553]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Phlegmariurus tetrastichoides Square Tassel Fern [86555]	Vulnerable	Species or species habitat likely to occur within area	In buffer area only
Polyphlebium endlicherianum Middle Filmy Fern [87494]	Endangered	Species or species habitat likely to occur within area	In feature area
Prostanthera clotteniana [76165]	Critically Endangered	Species or species habitat known to occur within area	In feature area
Tephrosia leveillei [16946]	Vulnerable	Species or species habitat may occur within area	In feature area
Tomophyllum walleri [83507]	Vulnerable	Species or species habitat may occur within area	In feature area
Triplarina nitchaga [64593]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Tropilis callitrophilis Thin Feather Orchid [82771]	Vulnerable	Species or species habitat known to occur within area	In feature area
Vappodes lithocola Dwarf Butterfly Orchid, Cooktown Orchid [78893]	Endangered	Species or species habitat known to occur within area	In feature area
Zeuxine polygonoides Velvet Jewel Orchid [46794]	Vulnerable	Species or species habitat may occur within area	In feature area
REPTILE			
Delma mitella Atherton Delma, Legless Lizard [25931]	Vulnerable	Species or species habitat known to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Egernia rugosa Yakka Skink [1420]	Vulnerable	Species or species habitat may occur within area	In buffer area only

Listed Migratory Species [Resource Information]

Scientific Name	Threatened Category	Presence Text	Buffer Status
Migratory Marine Birds			
Apus pacificus Fork-tailed Swift [678]		Species or species habitat likely to occur within area	In feature area
Migratory Marine Species			
Crocodylus porosus Salt-water Crocodile, Estuarine Crocodile [1774]		Species or species habitat likely to occur within area	In feature area
Migratory Terrestrial Species			
Cuculus optatus Oriental Cuckoo, Horsfield's Cuckoo [86651]		Species or species habitat may occur within area	In feature area
Hirundapus caudacutus White-throated Needletail [682]	Vulnerable	Species or species habitat known to occur within area	In feature area
Hirundo rustica Barn Swallow [662]		Species or species habitat likely to occur within area	In feature area
Monarcha melanopsis Black-faced Monarch [609]		Species or species habitat known to occur within area	In feature area
Motacilla cinerea Grey Wagtail [642]		Species or species habitat may occur within area	In feature area
Motacilla flava Yellow Wagtail [644]		Species or species habitat likely to occur within area	In feature area
Myiagra cyanoleuca Satin Flycatcher [612]		Species or species habitat likely to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
[Rhipidura rufifrons](#) Rufous Fantail [592]		Species or species habitat known to occur within area	In feature area
[Symposiachrus trivirgatus as Monarcha trivirgatus](#) Spectacled Monarch [83946]		Species or species habitat known to occur within area	In feature area
Migratory Wetlands Species			
[Actitis hypoleucos](#) Common Sandpiper [59309]		Species or species habitat likely to occur within area	In feature area
[Calidris acuminata](#) Sharp-tailed Sandpiper [874]		Species or species habitat may occur within area	In feature area
[Calidris ferruginea](#) Curlew Sandpiper [856]	Critically Endangered	Species or species habitat may occur within area	In feature area
[Calidris melanotos](#) Pectoral Sandpiper [858]		Species or species habitat may occur within area	In feature area
[Gallinago hardwickii](#) Latham's Snipe, Japanese Snipe [863]		Species or species habitat known to occur within area	In feature area
[Numenius madagascariensis](#) Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat may occur within area	In feature area
[Pandion haliaetus](#) Osprey [952]		Species or species habitat likely to occur within area	In buffer area only
[Tringa nebularia](#) Common Greenshank, Greenshank [832]		Species or species habitat may occur within area	In buffer area only

Other Matters Protected by the EPBC Act

Listed Marine Species			[Resource Information]
Scientific Name	Threatened Category	Presence Text	Buffer Status
Bird			
Actitis hypoleucos Common Sandpiper [59309]		Species or species habitat likely to occur within area	In feature area
Anseranas semipalmata Magpie Goose [978]		Species or species habitat may occur within area overfly marine area	In feature area
Apus pacificus Fork-tailed Swift [678]		Species or species habitat likely to occur within area overfly marine area	In feature area
Bubulcus ibis as Ardea ibis Cattle Egret [66521]		Species or species habitat may occur within area overfly marine area	In feature area
Calidris acuminata Sharp-tailed Sandpiper [874]		Species or species habitat may occur within area	In feature area
Calidris ferruginea Curlew Sandpiper [856]	Critically Endangered	Species or species habitat may occur within area overfly marine area	In feature area
Calidris melanotos Pectoral Sandpiper [858]		Species or species habitat may occur within area overfly marine area	In feature area
Chalcites osculans as Chrysococcyx osculans Black-eared Cuckoo [83425]		Species or species habitat may occur within area overfly marine area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Gallinago hardwickii Latham's Snipe, Japanese Snipe [863]		Species or species habitat known to occur within area overfly marine area	In feature area
Haliaeetus leucogaster White-bellied Sea-Eagle [943]		Species or species habitat known to occur within area	In feature area
Hirundapus caudacutus White-throated Needletail [682]	Vulnerable	Species or species habitat known to occur within area overfly marine area	In feature area
Hirundo rustica Barn Swallow [662]		Species or species habitat likely to occur within area overfly marine area	In feature area
Merops ornatus Rainbow Bee-eater [670]		Species or species habitat may occur within area overfly marine area	In feature area
Monarcha melanopsis Black-faced Monarch [609]		Species or species habitat known to occur within area overfly marine area	In feature area
Motacilla cinerea Grey Wagtail [642]		Species or species habitat may occur within area overfly marine area	In feature area
Motacilla flava Yellow Wagtail [644]		Species or species habitat likely to occur within area overfly marine area	In feature area
Myiagra cyanoleuca Satin Flycatcher [612]		Species or species habitat likely to occur within area overfly marine area	In feature area
Numenius madagascariensis Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat may occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Pandion haliaetus			
Osprey [952]		Species or species habitat likely to occur within area	In buffer area only
Rhipidura rufifrons			
Rufous Fantail [592]		Species or species habitat known to occur within area overfly marine area	In feature area
Rostratula australis as Rostratula benghalensis (sensu lato)			
Australian Painted Snipe [77037]	Endangered	Species or species habitat likely to occur within area overfly marine area	In feature area
Symposiachrus trivirgatus as Monarcha trivirgatus			
Spectacled Monarch [83946]		Species or species habitat known to occur within area overfly marine area	In feature area
Tringa nebularia			
Common Greenshank, Greenshank [832]		Species or species habitat may occur within area overfly marine area	In buffer area only
Reptile			
Crocodylus porosus			
Salt-water Crocodile, Estuarine Crocodile [1774]		Species or species habitat likely to occur within area	In feature area

Extra Information

State and Territory Reserves			[Resource Information]
Protected Area Name	Reserve Type	State	Buffer Status
Alcock	Forest Reserve	QLD	In buffer area only
Kirrama	National Park	QLD	In buffer area only
Koombooloomba	Conservation Park	QLD	In buffer area only
Koombooloomba	National Park	QLD	In feature area
Koombooloomba South	Forest Reserve	QLD	In feature area
Millstream Falls	National Park	QLD	In buffer area only
Ravenshoe 1	Forest Reserve	QLD	In feature area
Tully Falls	National Park	QLD	In feature area

Protected Area Name	Reserve Type	State	Buffer Status
Tully Gorge	National Park	QLD	In buffer area only
Yourka	Nature Refuge	QLD	In feature area
Yourka Reserve	Nature Refuge	QLD	In feature area

Nationally Important Wetlands [Resource Information]

Wetland Name	State	Buffer Status
Innot Hot Springs	QLD	In buffer area only

EPBC Act Referrals [Resource Information]

Title of referral	Reference	Referral Outcome	Assessment Status	Buffer Status
Kaban Green Power Hub, Kaban, Qld	2018/8289		Post-Approval	In buffer area only
Controlled action				
Chalumbin Wind Farm	2021/8983	Controlled Action	Guidelines Issued	In feature area
High Voltage Electricity Transmission Line	2001/232	Controlled Action	Post-Approval	In buffer area only
Not controlled action				
Improving rabbit biocontrol: releasing another strain of RHDV, sthrn two thirds of Australia	2015/7522	Not Controlled Action	Completed	In feature area
Reconfiguration of Lot 68 on SP104558	2010/5438	Not Controlled Action	Completed	In buffer area only

Caveat

1 PURPOSE

This report is designed to assist in identifying the location of matters of national environmental significance (MNES) and other matters protected by the Environment Protection and Biodiversity Conservation Act 1999 (Cth) (EPBC Act) which may be relevant in determining obligations and requirements under the EPBC Act.

The report contains the mapped locations of:

- World and National Heritage properties;
- Wetlands of International and National Importance;
- Commonwealth and State/Territory reserves;
- distribution of listed threatened, migratory and marine species;
- listed threatened ecological communities; and
- other information that may be useful as an indicator of potential habitat value.

2 DISCLAIMER

This report is not intended to be exhaustive and should only be relied upon as a general guide as mapped data is not available for all species or ecological communities listed under the EPBC Act (see below). Persons seeking to use the information contained in this report to inform the referral of a proposed action under the EPBC Act should consider the limitations noted below and whether additional information is required to determine the existence and location of MNES and other protected matters.

Where data are available to inform the mapping of protected species, the presence type (e.g. known, likely or may occur) that can be determined from the data is indicated in general terms. It is the responsibility of any person using or relying on the information in this report to ensure that it is suitable for the circumstances of any proposed use. The Commonwealth cannot accept responsibility for the consequences of any use of the report or any part thereof. To the maximum extent allowed under governing law, the Commonwealth will not be liable for any loss or damage that may be occasioned directly or indirectly through the use of, or reliance

3 DATA SOURCES

Threatened ecological communities

For threatened ecological communities where the distribution is well known, maps are generated based on information contained in recovery plans, State vegetation maps and 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.

Threatened, migratory and marine species

Threatened, migratory and marine species distributions have been discerned through a variety of methods. Where distributions are well known and if time permits, distributions are inferred from either thematic spatial data (i.e. vegetation, soils, geology, elevation, aspect, terrain, etc.) together with point locations and described habitat; or modelled (MAXENT or BIOCLIM habitat modelling) using

Where little information is available for a species or large number of maps are required in a short time-frame, maps are derived either from 0.04 or 0.02 decimal degree cells; by an automated process using polygon capture techniques (static two kilometre grid cells, alpha-hull and convex hull); or captured manually or by using topographic features (national park boundaries, islands, etc.).

In the early stages of the distribution mapping process (1999-early 2000s) distributions were defined by degree blocks, 100K or 250K map sheets to rapidly create distribution maps. More detailed distribution mapping methods are used to update these distributions

4 LIMITATIONS

The following species and ecological communities have not been mapped and do not appear in this report:

- threatened species listed as extinct or considered vagrants;
- some recently listed species and ecological communities;
- some listed migratory and listed marine species, which are not listed as threatened species; and
- migratory species that are very widespread, vagrant, or only occur in Australia in small numbers.

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

- listed migratory and/or listed marine seabirds, which are not listed as threatened, have only been mapped for recorded
- seals which have only been mapped for breeding sites near the Australian continent

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

Refer to the metadata for the feature group (using the Resource Information link) for the currency of the information.

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:

-Office of Environment and Heritage, New South Wales
-Department of Environment and Primary Industries, Victoria
-Department of Primary Industries, Parks, Water and Environment, Tasmania
-Department of Environment, Water and Natural Resources, South Australia
-Department of Land and Resource Management, Northern Territory
-Department of Environmental and Heritage Protection, Queensland
-Department of Parks and Wildlife, Western Australia
-Environment and Planning Directorate, ACT
-Birdlife Australia
-Australian Bird and Bat Banding Scheme
-Australian National Wildlife Collection
-Natural history museums of Australia
-Museum Victoria
-Australian Museum
-South Australian 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, Canberra
-University of New England
-Ocean Biogeographic Information System
-Australian Government, Department of Defence
Forestry Corporation, NSW
-Geoscience Australia
-CSIRO
-Australian Tropical Herbarium, Cairns
-eBird Australia
-Australian Government – Australian Antarctic Data Centre
-Museum and Art Gallery of the Northern Territory
-Australian Government National Environmental Science Program
-Australian Institute of Marine Science
-Reef Life Survey Australia
-American Museum of Natural History
-Queen Victoria Museum and Art Gallery, Inveresk, Tasmania
-Tasmanian Museum and Art Gallery, Hobart, Tasmania
-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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Queensland Government

WildNet species list

Search Criteria: Species List for a Defined Area
Species: All
Type: All
Queensland status: All
Records: Confirmed
Date: Since 1980
Latitude: 17.655 to 17.966
Longitude: 145.3 to 145.563
Email: nikki.odonnell@attexo.com.au
Date submitted: Monday 10 Oct 2022 21:06:43
Date extracted: Monday 10 Oct 2022 21:10:03

The number of records retrieved = 905

Kingdom	Class	Family	Scientific Name	Common Name	I	Q	A	Records
animals	amphibians	Bufonidae	*Rhinella marina*	cane toad	Y			36
animals	amphibians	Hylidae	*Litoria bicolor*	northern sedgefrog		C		2
animals	amphibians	Hylidae	*Litoria caerulea*	common green treefrog		C		7
animals	amphibians	Hylidae	*Litoria fallax*	eastern sedgefrog		C		25
animals	amphibians	Hylidae	*Litoria gracilenta*	graceful treefrog		C		30
animals	amphibians	Hylidae	*Litoria inermis*	bumpy rocketfrog		C		37
animals	amphibians	Hylidae	*Litoria jungguy*	northern stony creek frog		C		2
animals	amphibians	Hylidae	*Litoria latopalmata*	broad palmed rocketfrog		C		2
animals	amphibians	Hylidae	*Litoria lesueuri sensu lato*	stony creek frog		C		15
animals	amphibians	Hylidae	*Litoria nasuta*	striped rocketfrog		C		19
animals	amphibians	Hylidae	*Litoria rothii*	northern laughing treefrog		C		7
animals	amphibians	Hylidae	*Litoria rubella*	ruddy treefrog		C		19
animals	amphibians	Hylidae	*Litoria serrata*	tapping green eyed frog		V		21/7
animals	amphibians	Hylidae	*Litoria xanthomera*	orange thighed treefrog		C		14
animals	amphibians	Limnodynastidae	*Limnodynastes convexiusculus*	marbled frog		C		2
animals	amphibians	Limnodynastidae	*Limnodynastes peronii*	striped marshfrog		C		42
animals	amphibians	Limnodynastidae	*Limnodynastes terraereginae*	scarlet sided pobblebonk		C		20
animals	amphibians	Limnodynastidae	*Platyplectrum ornatum*	ornate burrowing frog		C		14
animals	amphibians	Microhylidae	*Austrochaperina pluvialis*	white browed whistlefrog		C		2
animals	amphibians	Microhylidae	*Austrochaperina robusta*	robust whistlefrog		C		9/2
animals	amphibians	Microhylidae	*Cophixalus australis*	southern ornate nursery-frog		C		123/19
animals	amphibians	Microhylidae	*Cophixalus infacetus*	creaking nurseryfrog		C		1
animals	amphibians	Myobatrachidae	*Mixophyes coggeri*	mottled barred frog		C		1
animals	amphibians	Myobatrachidae	*Mixophyes schevilli*	northern barred frog		C		10/3
animals	amphibians	Myobatrachidae	*Mixophyes schevilli sensu lato*	northern barred frog		C		5
animals	amphibians	Myobatrachidae	*Pseudophryne covacevichae*	magnificent broodfrog		V	V	51
animals	amphibians	Myobatrachidae	*Uperoleia altissima*	tableland gungan		C		53/1
animals	amphibians	Myobatrachidae	*Uperoleia mimula*	mimicking gungan		C		1
animals	birds	Acanthizidae	*Acanthiza katherina*	mountain thornbill		C		16
animals	birds	Acanthizidae	*Acanthiza reguloides*	buff-rumped thornbill		C		1
animals	birds	Acanthizidae	*Gerygone mouki*	brown gerygone		C		5
animals	birds	Acanthizidae	*Gerygone olivacea*	white-throated gerygone		C		2
animals	birds	Acanthizidae	*Gerygone palpebrosa*	fairy gerygone		C		1
animals	birds	Acanthizidae	*Oreoscopus gutturalis*	fernwren		C		3
animals	birds	Acanthizidae	*Sericornis citreogularis*	yellow-throated scrubwren		C		11
animals	birds	Acanthizidae	*Sericornis frontalis*	white-browed scrubwren		C		1
animals	birds	Acanthizidae	*Sericornis keri*	Atherton scrubwren		C		4
animals	birds	Acanthizidae	*Sericornis magnirostra*	large-billed scrubwren		C		1
animals	birds	Acanthizidae	*Smicrornis brevirostris*	weebill		C		5
animals	birds	Accipitridae	*Accipiter cirrocephalus*	collared sparrowhawk		C		1/1
animals	birds	Accipitridae	*Accipiter fasciatus*	brown goshawk		C		3
animals	birds	Accipitridae	*Accipiter novaehollandiae*	grey goshawk		C		1
animals	birds	Accipitridae	*Aquila audax*	wedge-tailed eagle		C		9
animals	birds	Accipitridae	*Aviceda subcristata*	Pacific baza		C		1
animals	birds	Accipitridae	*Erythrotriorchis radiatus*	red goshawk		E	V	1
animals	birds	Accipitridae	*Haliastur sphenurus*	whistling kite		C		2

Kingdom	Class	Family	Scientific Name	Common Name	I	Q	A	Records
animals	birds	Aegothelidae	*Aegotheles cristatus*	Australian owlet-nightjar		C		17
animals	birds	Alcedinidae	*Ceyx azureus*	azure kingfisher		C		1
animals	birds	Alcedinidae	*Ceyx pusillus*	little kingfisher		C		1
animals	birds	Anatidae	*Anas gracilis*	grey teal		C		1
animals	birds	Anatidae	*Anas superciliosa*	Pacific black duck		C		3
animals	birds	Anatidae	*Aythya australis*	hardhead		C		1
animals	birds	Apodidae	*Aerodramus terraereginae*	Australian swiftlet		C		3
animals	birds	Apodidae	*Apus pacificus*	fork-tailed swift		SL		1
animals	birds	Ardeidae	*Ardea alba modesta*	eastern great egret		C		1
animals	birds	Ardeidae	*Ardea pacifica*	white-necked heron		C		1
animals	birds	Ardeidae	*Egretta garzetta*	little egret		C		1
animals	birds	Ardeidae	*Egretta novaehollandiae*	white-faced heron		C		4
animals	birds	Ardeidae	*Nycticorax caledonicus*	nankeen night-heron		C		1
animals	birds	Artamidae	*Artamus leucorynchus*	white-breasted woodswallow		C		3
animals	birds	Artamidae	*Cracticus nigrogularis*	pied butcherbird		C		5
animals	birds	Artamidae	*Cracticus torquatus*	grey butcherbird		C		12
animals	birds	Artamidae	*Gymnorhina tibicen*	Australian magpie		C		8
animals	birds	Artamidae	*Strepera graculina*	pied currawong		C		17
animals	birds	Burhinidae	*Burhinus grallarius*	bush stone-curlew		C		6
animals	birds	Cacatuidae	*Cacatua galerita*	sulphur-crested cockatoo		C		16
animals	birds	Cacatuidae	*Calyptorhynchus banksii*	red-tailed black-cockatoo		C		4
animals	birds	Cacatuidae	*Calyptorhynchus banksii banksii*	red-tailed black-cockatoo (Cape York & Eastern Aust)		C		2
animals	birds	Campephagidae	*Coracina novaehollandiae*	black-faced cuckoo-shrike		C		10
animals	birds	Campephagidae	*Coracina papuensis*	white-bellied cuckoo-shrike		C		17
animals	birds	Campephagidae	*Edolisoma tenuirostre*	common cicadabird		C		16
animals	birds	Campephagidae	*Lalage leucomela*	varied triller		C		4
animals	birds	Campephagidae	*Lalage tricolor*	white-winged triller		C		2
animals	birds	Casuariidae	*Casuarius casuarius johnsonii (southern population)*	southern cassowary (southern population)		E	E	13
animals	birds	Casuariidae	*Dromaius novaehollandiae*	emu		C		5
animals	birds	Charadriidae	*Elseyornis melanops*	black-fronted dotterel		C		1
animals	birds	Climacteridae	*Cormobates leucophaea minor*	white-throated treecreeper (northern)		C		15
animals	birds	Columbidae	*Chalcophaps longirostris*	Pacific emerald dove		C		4
animals	birds	Columbidae	*Geopelia placida*	peaceful dove		C		13
animals	birds	Columbidae	*Geophaps scripta peninsulae*	squatter pigeon (northern subspecies)		C		8
animals	birds	Columbidae	*Lopholaimus antarcticus*	topknot pigeon		C		2
animals	birds	Columbidae	*Macropygia amboinensis*	brown cuckoo-dove		C		16/1
animals	birds	Columbidae	*Ocyphaps lophotes*	crested pigeon		C		4
animals	birds	Columbidae	*Phaps chalcoptera*	common bronzewing		C		11
animals	birds	Columbidae	*Ptilinopus magnificus*	wompoo fruit-dove		C		7
animals	birds	Columbidae	*Ptilinopus superbus*	superb fruit-dove		C		13
animals	birds	Coraciidae	*Eurystomus orientalis*	dollarbird		C		7
animals	birds	Corvidae	*Corvus coronoides*	Australian raven		C		1
animals	birds	Corvidae	*Corvus orru*	Torresian crow		C		13
animals	birds	Corvidae	*Corvus sp.*			C		2

Kingdom	Class	Family	Scientific Name	Common Name	I	Q	A	Records
animals	birds	Cuculidae	*Cacomantis flabelliformis*	fan-tailed cuckoo		C		2
animals	birds	Cuculidae	*Cacomantis variolosus*	brush cuckoo		C		8
animals	birds	Cuculidae	*Centropus phasianinus*	pheasant coucal		C		13
animals	birds	Cuculidae	*Chalcites basalis*	Horsfield's bronze-cuckoo		C		1
animals	birds	Cuculidae	*Chalcites lucidus*	shining bronze-cuckoo		C		6
animals	birds	Cuculidae	*Eudynamys orientalis*	eastern koel		C		3
animals	birds	Cuculidae	*Scythrops novaehollandiae*	channel-billed cuckoo		C		5
animals	birds	Dicruridae	*Dicrurus bracteatus*	spangled drongo		C		14
animals	birds	Estrildidae	*Neochmia temporalis*	red-browed finch		C		11
animals	birds	Eurostopodidae	*Eurostopodus argus*	spotted nightjar		C		1
animals	birds	Eurostopodidae	*Eurostopodus mystacalis*	white-throated nightjar		C		3
animals	birds	Falconidae	*Falco peregrinus*	peregrine falcon		C		1
animals	birds	Halcyonidae	*Dacelo leachii*	blue-winged kookaburra		C		10/1
animals	birds	Halcyonidae	*Dacelo novaeguineae*	laughing kookaburra		C		20
animals	birds	Halcyonidae	*Todiramphus macleayii*	forest kingfisher		C		3
animals	birds	Halcyonidae	*Todiramphus sanctus*	sacred kingfisher		C		2
animals	birds	Maluridae	*Malurus melanocephalus*	red-backed fairy-wren		C		14
animals	birds	Megaluridae	*Cincloramphus timoriensis*	tawny grassbird		C		1
animals	birds	Megapodiidae	*Alectura lathami*	Australian brush-turkey		C		2
animals	birds	Megapodiidae	*Megapodius reinwardt*	orange-footed scrubfowl		C		10
animals	birds	Meliphagidae	*Acanthorhynchus tenuirostris*	eastern spinebill		C		5
animals	birds	Meliphagidae	*Bolemoreus frenatus*	bridled honeyeater		C		8
animals	birds	Meliphagidae	*Caligavis chrysops*	yellow-faced honeyeater		C		28
animals	birds	Meliphagidae	*Entomyzon cyanotis*	blue-faced honeyeater		C		9
animals	birds	Meliphagidae	*Lichmera indistincta*	brown honeyeater		C		10
animals	birds	Meliphagidae	*Manorina melanocephala*	noisy miner		C		13
animals	birds	Meliphagidae	*Meliphaga lewinii*	Lewin's honeyeater		C		15
animals	birds	Meliphagidae	*Meliphaga notata*	yellow-spotted honeyeater		C		1
animals	birds	Meliphagidae	*Melithreptus albogularis*	white-throated honeyeater		C		10
animals	birds	Meliphagidae	*Melithreptus gularis gularis*	black-chinned honeyeater (eastern)		C		1
animals	birds	Meliphagidae	*Melithreptus lunatus*	white-naped honeyeater		C		3
animals	birds	Meliphagidae	*Microptilotis gracilis*	graceful honeyeater		C		2
animals	birds	Meliphagidae	*Myzomela sanguinolenta*	scarlet honeyeater		C		10
animals	birds	Meliphagidae	*Philemon citreogularis*	little friarbird		C		20
animals	birds	Meliphagidae	*Philemon corniculatus*	noisy friarbird		C		29
animals	birds	Meliphagidae	*Phylidonyris niger*	white-cheeked honeyeater		C		1
animals	birds	Meliphagidae	*Ptilotula fusca*	fuscous honeyeater		C		2
animals	birds	Meliphagidae	*Xanthotis flaviventer*	tawny-breasted honeyeater		C		1
animals	birds	Meliphagidae	*Xanthotis macleayanus*	Macleay's honeyeater		C		2
animals	birds	Meropidae	*Merops ornatus*	rainbow bee-eater		C		4
animals	birds	Monarchidae	*Carterornis leucotis*	white-eared monarch		C		1
animals	birds	Monarchidae	*Grallina cyanoleuca*	magpie-lark		C		4
animals	birds	Monarchidae	*Machaerirhynchus flaviventer*	yellow-breasted boatbill		C		2
animals	birds	Monarchidae	*Monarcha melanopsis*	black-faced monarch		SL		5
animals	birds	Monarchidae	*Myiagra rubecula*	leaden flycatcher		C		9
animals	birds	Monarchidae	*Symposiachrus trivirgatus*	spectacled monarch		SL		3

Kingdom	Class	Family	Scientific Name	Common Name	I	Q	A	Records
animals	birds	Nectariniidae	*Dicaeum hirundinaceum*	mistletoebird		C		6
animals	birds	Neosittidae	*Daphoenositta chrysoptera*	varied sittella		C		5
animals	birds	Oriolidae	*Oriolus sagittatus*	olive-backed oriole		C		8
animals	birds	Oriolidae	*Sphecotheres vieilloti*	Australasian figbird		C		1
animals	birds	Orthonychidae	*Orthonyx spaldingii*	chowchilla		C		5
animals	birds	Pachycephalidae	*Colluricincla boweri*	Bower's shrike-thrush		C		6
animals	birds	Pachycephalidae	*Colluricincla harmonica*	grey shrike-thrush		C		22
animals	birds	Pachycephalidae	*Colluricincla megarhyncha*	little shrike-thrush		C		2
animals	birds	Pachycephalidae	*Pachycephala pectoralis*	golden whistler		C		15
animals	birds	Pachycephalidae	*Pachycephala rufiventris*	rufous whistler		C		15
animals	birds	Pachycephalidae	*Pachycephala simplex peninsulae*	grey whistler		C		1
animals	birds	Paradisaeidae	*Ptiloris victoriae*	Victoria's riflebird		C		7
animals	birds	Pardalotidae	*Pardalotus punctatus*	spotted pardalote		C		15
animals	birds	Pardalotidae	*Pardalotus striatus*	striated pardalote		C		5
animals	birds	Pelecanidae	*Pelecanus conspicillatus*	Australian pelican		C		1
animals	birds	Petroicidae	*Eopsaltria australis*	eastern yellow robin		C		9
animals	birds	Petroicidae	*Heteromyias cinereifrons*	grey-headed robin		C		6
animals	birds	Petroicidae	*Microeca fascinans*	jacky winter		C		1
animals	birds	Petroicidae	*Microeca flavigaster*	lemon-bellied flycatcher		C		4
animals	birds	Petroicidae	*Poecilodryas superciliosa*	white-browed robin		C		1
animals	birds	Phalacrocoracidae	*Microcarbo melanoleucos*	little pied cormorant		C		4
animals	birds	Phalacrocoracidae	*Phalacrocorax sulcirostris*	little black cormorant		C		1
animals	birds	Phasianidae	*Synoicus ypsilophorus*	brown quail		C		1
animals	birds	Podargidae	*Podargus strigoides*	tawny frogmouth		C		10
animals	birds	Pomatostomidae	*Pomatostomus temporalis*	grey-crowned babbler		C		4
animals	birds	Psittacidae	*Alisterus scapularis*	Australian king-parrot		C		5
animals	birds	Psittacidae	*Aprosmictus erythropterus*	red-winged parrot		C		4
animals	birds	Psittacidae	*Cyclopsitta diophthalma macleayana*	Macleay's fig-parrot		V		1
animals	birds	Psittacidae	*Parvipsitta pusilla*	little lorikeet		C		8
animals	birds	Psittacidae	*Platycercus adscitus*	pale-headed rosella		C		9
animals	birds	Psittacidae	*Platycercus elegans*	crimson rosella		C		7
animals	birds	Psittacidae	*Trichoglossus chlorolepidotus*	scaly-breasted lorikeet		C		18
animals	birds	Psittacidae	*Trichoglossus moluccanus*	rainbow lorikeet		C		30
animals	birds	Psophodidae	*Psophodes olivaceus*	eastern whipbird		C		4
animals	birds	Ptilonorhynchidae	*Ailuroedus maculosus*	spotted catbird		C		5
animals	birds	Ptilonorhynchidae	*Chlamydera nuchalis*	great bowerbird		C		3
animals	birds	Ptilonorhynchidae	*Prionodura newtoniana*	golden bowerbird		C		10
animals	birds	Ptilonorhynchidae	*Ptilonorhynchus violaceus*	satin bowerbird		C		2
animals	birds	Ptilonorhynchidae	*Scenopoeetes dentirostris*	tooth-billed bowerbird		C		18
animals	birds	Rallidae	*Gallinula tenebrosa*	dusky moorhen		C		2
animals	birds	Rhipiduridae	*Rhipidura albiscapa*	grey fantail		C		22
animals	birds	Rhipiduridae	*Rhipidura leucophrys*	willie wagtail		C		4
animals	birds	Rhipiduridae	*Rhipidura rufifrons*	rufous fantail		SL		5
animals	birds	Strigidae	*Ninox boobook*	southern boobook		C		12
animals	birds	Strigidae	*Ninox connivens*	barking owl		C		5
animals	birds	Strigidae	*Ninox rufa queenslandica*	rufous owl (southern subspecies)		C		5

Kingdom	Class	Family	Scientific Name	Common Name	I	Q	A	Records
animals	birds	Threskiornithidae	*Platalea regia*	royal spoonbill		C		1
animals	birds	Threskiornithidae	*Threskiornis molucca*	Australian white ibis		C		1
animals	birds	Threskiornithidae	*Threskiornis spinicollis*	straw-necked ibis		C		1
animals	birds	Timaliidae	*Zosterops lateralis*	silvereye		C		4
animals	birds	Turnicidae	*Turnix sp.*			C		2
animals	birds	Tytonidae	*Tyto javanica*	eastern barn owl		C		3
animals	birds	Tytonidae	*Tyto novaehollandiae kimberli*	masked owl (northern subspecies)		V	V	1
animals	birds	Tytonidae	*Tyto tenebricosa multipunctata*	lesser sooty owl		C		2
animals	insects	Papilionidae	*Ornithoptera priamus*	New Guinea birdwing		C		1
animals	mammals	Acrobatidae	*Acrobates pygmaeus*	feathertail glider		C		1
animals	mammals	Canidae	*Canis familiaris*	dog	Y			2
animals	mammals	Canidae	*Canis familiaris (dingo)*	dingo				12
animals	mammals	Canidae	*Canis sp.*		Y			1
animals	mammals	Dasyuridae	*Antechinus adustus*	rusty antechinus		C		1
animals	mammals	Dasyuridae	*Antechinus flavipes rubeculus*	yellow-footed antechinus (north-east Queensland)		C		1
animals	mammals	Dasyuridae	*Dasyurus hallucatus*	northern quoll		C	E	1
animals	mammals	Dasyuridae	*Dasyurus maculatus gracilis*	spotted-tailed quoll (northern subspecies)		E	E	1
animals	mammals	Dasyuridae	*Planigale maculata*	common planigale		C		6
animals	mammals	Dasyuridae	*Sminthopsis murina*	common dunnart		C		1
animals	mammals	Dasyuridae	*Sminthopsis sp.*			C		2
animals	mammals	Felidae	*Felis catus*	cat	Y			4
animals	mammals	Leporidae	*Oryctolagus cuniculus*	rabbit	Y			5
animals	mammals	Macropodidae	*Dendrolagus lumholtzi*	Lumholtz's tree-kangaroo		NT		2
animals	mammals	Macropodidae	*Macropus giganteus*	eastern grey kangaroo		C		30
animals	mammals	Macropodidae	*Macropus sp.*			C		1
animals	mammals	Macropodidae	*Notamacropus agilis*	agile wallaby		C		9
animals	mammals	Macropodidae	*Notamacropus parryi*	whiptail wallaby		C		37
animals	mammals	Macropodidae	*Osphranter robustus*	common wallaroo		C		9
animals	mammals	Macropodidae	*Petrogale mareeba*	Mareeba rock-wallaby		C		1
animals	mammals	Macropodidae	*Thylogale stigmatica*	red-legged pademelon		C		7
animals	mammals	Macropodidae	*Wallabia bicolor*	swamp wallaby		C		5
animals	mammals	Miniopteridae	*Miniopterus australis*	little bent-wing bat		C		7
animals	mammals	Miniopteridae	*Miniopterus schreibersii oceanensis*	eastern bent-wing bat		C		2
animals	mammals	Muridae	*Melomys burtoni*	grassland melomys		C		7
animals	mammals	Muridae	*Melomys cervinipes*	fawn-footed melomys		C		5
animals	mammals	Muridae	*Melomys sp.*			C		1
animals	mammals	Muridae	*Mus musculus*	house mouse	Y			6
animals	mammals	Muridae	*Pogonomys sp.*	tree mouse		C		1
animals	mammals	Muridae	*Pseudomys delicatulus*	delicate mouse		C		2
animals	mammals	Muridae	*Pseudomys patrius*	eastern pebble-mound mouse		C		2
animals	mammals	Muridae	*Rattus fuscipes*	bush rat		C		1
animals	mammals	Muridae	*Rattus lutreolus*	swamp rat		C		1/1
animals	mammals	Muridae	*Rattus rattus*	black rat	Y			2
animals	mammals	Muridae	*Rattus sp.*			C		6/1

Kingdom	Class	Family	Scientific Name	Common Name	I	Q	A	Records
animals	mammals	Muridae	*Uromys caudimaculatus*	giant white-tailed rat		C		4
animals	mammals	Ornithorhynchidae	*Ornithorhynchus anatinus*	platypus		SL		1
animals	mammals	Peramelidae	*Isoodon macrourus*	northern brown bandicoot		C		3
animals	mammals	Peramelidae	*Perameles pallescens*	northern long-nosed bandicoot		C		10
animals	mammals	Petauridae	*Dactylopsila trivirgata*	striped possum		C		1
animals	mammals	Petauridae	*Petaurus australis unnamed subsp.*	yellow-bellied glider (northern subspecies)		E	E	1
animals	mammals	Petauridae	*Petaurus notatus*	Krefft's glider		C		9
animals	mammals	Petauridae	*Petaurus sp.*			C		5
animals	mammals	Phalangeridae	*Trichosurus vulpecula*	common brushtail possum		C		40
animals	mammals	Phascolarctidae	*Phascolarctos cinereus*	koala		E	E	2
animals	mammals	Potoroidae	*Aepyprymnus rufescens*	rufous bettong		C		11
animals	mammals	Pseudocheiridae	*Hemibelideus lemuroides*	lemuroid ringtail possum		C		113
animals	mammals	Pseudocheiridae	*Petauroides minor*	northern greater glider		V	V	29
animals	mammals	Pseudocheiridae	*Pseudocheirus peregrinus*	common ringtail possum		C		1
animals	mammals	Pseudocheiridae	*Pseudochirops archeri*	green ringtail possum		C		21
animals	mammals	Pseudocheiridae	*Pseudochirulus herbertensis*	Herbert River ringtail possum		C		46
animals	mammals	Pteropodidae	*Nyctimene robinsoni*	eastern tube-nosed bat		C		5
animals	mammals	Pteropodidae	*Pteropus conspicillatus*	spectacled flying-fox		E	E	6
animals	mammals	Pteropodidae	*Pteropus scapulatus*	little red flying-fox		C		10
animals	mammals	Rhinolophidae	*Rhinolophus megaphyllus*	eastern horseshoe-bat		C		1
animals	mammals	Suidae	*Sus scrofa*	pig	Y			9
animals	mammals	Tachyglossidae	*Tachyglossus aculeatus*	short-beaked echidna		SL		2
animals	mammals	Vespertilionidae	*Chalinolobus nigrogriseus*	hoary wattled bat		C		2
animals	mammals	Vespertilionidae	*Kerivoula papuensis*	golden-tipped bat		C		3
animals	mammals	Vespertilionidae	*Murina florium*	tube-nosed insectivorous bat		V		2
animals	mammals	Vespertilionidae	*Myotis macropus*	large-footed myotis		C		1
animals	mammals	Vespertilionidae	*Nyctophilus bifax*	northern long-eared bat		C		5
animals	mammals	Vespertilionidae	*Nyctophilus geoffroyi*	lesser long-eared bat		C		1
animals	mammals	Vespertilionidae	*Nyctophilus gouldi*	Gould's long-eared bat		C		2
animals	mammals	Vespertilionidae	*Scoteanax rueppellii*	greater broad-nosed bat		C		2
animals	mammals	Vespertilionidae	*Vespadelus pumilus*	eastern forest bat		C		3
animals	ray-finned fishes	Anguillidae	*Anguilla reinhardtii*	longfin eel				2
animals	ray-finned fishes	Atherinidae	*Craterocephalus stercusmuscarum*	flyspecked hardyhead				1
animals	ray-finned fishes	Eleotridae	*Hypseleotris sp.*					2
animals	ray-finned fishes	Eleotridae	*Mogurnda adspersa*	southern purplespotted gudgeon				4
animals	ray-finned fishes	Plotosidae	*Tandanus tropicanus*					2
animals	ray-finned fishes	Poeciliidae	*Gambusia holbrooki*	mosquitofish	Y			1
animals	ray-finned fishes	Terapontidae	*Hephaestus fuliginosus*	sooty grunter				2
animals	ray-finned fishes	Terapontidae	*Leiopotherapon unicolor*	spangled perch				2
animals	reptiles	Agamidae	*Diporiphora australis*	tommy roundhead		C		19
animals	reptiles	Agamidae	*Diporiphora nobbi*	nobbi		C		1
animals	reptiles	Agamidae	*Intellagama lesueurii*	eastern water dragon		C		2
animals	reptiles	Agamidae	*Lophosaurus boydii*	Boyd's forest dragon		C		1/1
animals	reptiles	Agamidae	*Pogona barbata*	bearded dragon		C		1
animals	reptiles	Boidae	*Morelia spilota*	carpet python		C		4

Kingdom	Class	Family	Scientific Name	Common Name	I	Q	A	Records
animals	reptiles	Boidae	*Simalia kinghorni*	amethystine python (Australian form)		C		1/1
animals	reptiles	Carphodactylidae	*Carphodactylus laevis*	chameleon gecko		C		5
animals	reptiles	Carphodactylidae	*Saltuarius cornutus*	northern leaf-tailed gecko		C		27
animals	reptiles	Chelidae	*Emydura macquarii krefftii*	Krefft's river turtle		C		1
animals	reptiles	Chelidae	*Wollumbinia latisternum*	saw-shelled turtle		C		2
animals	reptiles	Colubridae	*Boiga irregularis*	brown tree snake		C		1
animals	reptiles	Colubridae	*Dendrelaphis punctulatus*	green tree snake		C		2
animals	reptiles	Colubridae	*Stegonotus australis*	slaty-grey snake		C		1
animals	reptiles	Colubridae	*Tropidonophis mairii*	freshwater snake		C		1
animals	reptiles	Diplodactylidae	*Amalosia rhombifer*	zig-zag gecko		C		3
animals	reptiles	Diplodactylidae	*Lucasium steindachneri*	Steindachner's gecko		C		2
animals	reptiles	Diplodactylidae	*Oedura monilis sensu lato*	ocellated velvet gecko		C		1
animals	reptiles	Elapidae	*Cacophis churchilli*	northern dwarf crowned snake		C		1
animals	reptiles	Elapidae	*Cryptophis nigrescens*	eastern small-eyed snake		C		4
animals	reptiles	Elapidae	*Pseudechis porphyriacus*	red-bellied black snake		C		2
animals	reptiles	Elapidae	*Vermicella annulata*	bandy-bandy		C		1
animals	reptiles	Gekkonidae	*Gehyra dubia*	dubious dtella		C		2
animals	reptiles	Gekkonidae	*Heteronotia binoei*	Bynoe's gecko		C		2
animals	reptiles	Pygopodidae	*Lialis burtonis*	Burton's legless lizard		C		1
animals	reptiles	Scincidae	*Bellatorias frerei*	major skink		C		1
animals	reptiles	Scincidae	*Carlia jarnoldae*	lined rainbow-skink		C		4
animals	reptiles	Scincidae	*Carlia rostralis*	black-throated rainbow-skink		C		1
animals	reptiles	Scincidae	*Carlia rubigo*	orange-flanked rainbow skink		C		12
animals	reptiles	Scincidae	*Carlia rubrigularis*	red-throated rainbow-skink		C		8
animals	reptiles	Scincidae	*Carlia vivax*	tussock rainbow-skink		C		1
animals	reptiles	Scincidae	*Coeranoscincus frontalis*	limbless snake-tooth skink		C		1
animals	reptiles	Scincidae	*Concinnia tigrina*	yellow-blotched forest-skink		C		1
animals	reptiles	Scincidae	*Cryptoblepharus pulcher pulcher*	elegant snake-eyed skink		C		5
animals	reptiles	Scincidae	*Cryptoblepharus virgatus*	striped snake-eyed skink		C		2
animals	reptiles	Scincidae	*Ctenotus sp.*			C		1
animals	reptiles	Scincidae	*Ctenotus spaldingi*	straight-browed ctenotus		C		2
animals	reptiles	Scincidae	*Ctenotus strauchii*	eastern barred wedgesnout ctenotus		C		2
animals	reptiles	Scincidae	*Ctenotus taeniolatus*	copper-tailed skink		C		1
animals	reptiles	Scincidae	*Cyclodomorphus gerrardii*	pink-tongued lizard		C		2
animals	reptiles	Scincidae	*Eulamprus quoyii*	eastern water skink		C		1
animals	reptiles	Scincidae	*Glaphyromorphus cracens*	slender mulch-skink		C		1
animals	reptiles	Scincidae	*Glaphyromorphus mjobergi*	Atherton Tableland mulch-skink		C		1
animals	reptiles	Scincidae	*Gnypetoscincus queenslandiae*	prickly forest skink		C		1
animals	reptiles	Scincidae	*Lampropholis bellendenkerensis*			C		2
animals	reptiles	Scincidae	*Lygisaurus foliorum*	tree-base litter-skink		C		9/2
animals	reptiles	Scincidae	*Lygisaurus laevis*	rainforest edge litter-skink		C		1
animals	reptiles	Scincidae	*Morethia taeniopleura*	fire-tailed skink		C		9
animals	reptiles	Scincidae	*Pygmaeascincus timlowi*	dwarf litter-skink		C		7
animals	reptiles	Scincidae	*Saproscincus basiliscus*	basilisk shadeskink		C		17
animals	reptiles	Typhlopidae	*Anilios torresianus*	north-eastern blind snake		C		2
animals	reptiles	Varanidae	*Varanus tristis*	black-tailed monitor		C		2

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animals	reptiles	Varanidae	*Varanus varius*	lace monitor		C		7
fungi	Agaricomycetes	Agaricaceae	*Lepiota*					1/1
fungi	Agaricomycetes	Agaricaceae	*Macrolepiota clelandii*			C		1/1
fungi	Agaricomycetes	Amanitaceae	*Amanita*			C		5/5
fungi	Agaricomycetes	Atheliaceae	*Dictyonema irpicinum*			C		1/1
fungi	Agaricomycetes	Boletaceae	*Austroboletus*					2/2
fungi	Agaricomycetes	Boletaceae	*Boletellus emodensis*			C		1/1
fungi	Agaricomycetes	Boletaceae	*Boletus*					2/2
fungi	Agaricomycetes	Boletaceae	*Strobilomyces*					1/1
fungi	Agaricomycetes	Boletaceae	*Tylopilus*					2/2
fungi	Agaricomycetes	Cantharellaceae	*Cantharellus*					1/1
fungi	Agaricomycetes	Clavariaceae	*Clavicorona*					1/1
fungi	Agaricomycetes	Cortinariaceae	*Cortinarius*					1/1
fungi	Agaricomycetes	Cortinariaceae	*Gymnopilus*					4/4
fungi	Agaricomycetes	Crepidotaceae	*Crepidotus*					2/2
fungi	Agaricomycetes	Entolomataceae	*Entoloma*					1/1
fungi	Agaricomycetes	Fomitopsidaceae	*Fomitopsis*					1/1
fungi	Agaricomycetes	Ganodermataceae	*Amauroderma rude*			C		1/1
fungi	Agaricomycetes	Ganodermataceae	*Ganoderma*					2/2
fungi	Agaricomycetes	Geastraceae	*Geastrum*			C		1/1
fungi	Agaricomycetes	Gomphaceae	*Ramaria*			C		1/1
fungi	Agaricomycetes	Hyaloriaceae	*Pseudohydnum gelatinosum*			C		1/1
fungi	Agaricomycetes	Hydnangiaceae	*Laccaria*					6/6
fungi	Agaricomycetes	Hygrophoraceae	*Humidicutis mavis*			C		1/1
fungi	Agaricomycetes	Hygrophoraceae	*Hygrocybe*					1/1
fungi	Agaricomycetes	Hygrophoraceae	*Hygrocybe cantharellus*			C		1/1
fungi	Agaricomycetes	Inocybaceae	*Inocybe*			C		7/7
fungi	Agaricomycetes	Inocybaceae	*Inocybe gracilissima*			C		1/1
fungi	Agaricomycetes	Inocybaceae	*Inocybe nobilissima*			C		1/1
fungi	Agaricomycetes	Mycenaceae	*Mycena*					10/10
fungi	Agaricomycetes	Mycenaceae	*Panellus pusillus*			C		1/1
fungi	Agaricomycetes	Mycenaceae	*Xeromphalina*					1/1
fungi	Agaricomycetes	Pleurotaceae	*Hohenbuehelia*					1/1
fungi	Agaricomycetes	Podoscyphaceae	*Cymatoderma elegans*			C		1/1
fungi	Agaricomycetes	Polyporaceae	*Laetiporus sulphureus*			C		1/1
fungi	Agaricomycetes	Polyporaceae	*Microporus*					1/1
fungi	Agaricomycetes	Polyporaceae	*Microporus xanthopus*			C		2/2
fungi	Agaricomycetes	Polyporaceae	*Polyporus*					2/2
fungi	Agaricomycetes	Polyporaceae	*Poria*					1/1
fungi	Agaricomycetes	Polyporaceae	*Trametes*					5/5
fungi	Agaricomycetes	Psathyrellaceae	*Psathyrella*					2/2
fungi	Agaricomycetes	Psathyrellaceae	*Psathyrella candolleana*			C		1/1
fungi	Agaricomycetes	Pterulaceae	*Pterula*					1/1
fungi	Agaricomycetes	Russulaceae	*Russula*			C		5/5
fungi	Agaricomycetes	Russulaceae	*Russula cyanoxantha*			C		1/1
fungi	Agaricomycetes	Russulaceae	*Russula foetens*			C		1/1

Kingdom	Class	Family	Scientific Name	Common Name	I	Q	A	Records
fungi	Agaricomycetes	Russulaceae	*Russula lenkunya*			C		1/1
fungi	Agaricomycetes	Sclerodermataceae	*Scleroderma*					4/4
fungi	Agaricomycetes	Sclerodermataceae	*Scleroderma polyrhizum*			C		1/1
fungi	Agaricomycetes	Stereaceae	*Stereum illudens*			C		1/1
fungi	Agaricomycetes	Stereaceae	*Stereum ostrea*			C		3/3
fungi	Agaricomycetes	Strophariaceae	*Galerina*					1/1
fungi	Agaricomycetes	Strophariaceae	*Hypholoma*					1/1
fungi	Agaricomycetes	Strophariaceae	*Hypholoma fasciculare*			C		1/1
fungi	Agaricomycetes	Tricholomataceae	*Collybia*					1/1
fungi	Agaricomycetes	Tricholomataceae	*Filoboletus manipularis*			C		2/2
fungi	Agaricomycetes	Tricholomataceae	*Gymnopus*					1/1
fungi	Agaricomycetes	Tricholomataceae	*Tricholoma eucalypticum*			C		1/1
fungi	lecanoromycetes	Cladoniaceae	*Cladia muelleri*			C		2/2
fungi	lecanoromycetes	Collemataceae	*Leptogium bullatulum*			C		1/1
fungi	lecanoromycetes	Collemataceae	*Leptogium cyanescens*			C		1/1
fungi	lecanoromycetes	Lecanoraceae	*Lecanora sulfurescens*			C		1/1
fungi	lecanoromycetes	Lobariaceae	*Pseudocyphellaria beccarii*			C		1/1
fungi	lecanoromycetes	Lobariaceae	*Pseudocyphellaria pickeringii*			C		1/1
fungi	lecanoromycetes	Lobariaceae	*Sticta myrioloba*			C		1/1
fungi	lecanoromycetes	Pannariaceae	*Physma byrsaeum*			C		1/1
fungi	lecanoromycetes	Parmeliaceae	*Notoparmelia queenslandensis*			C		1/1
fungi	lecanoromycetes	Parmeliaceae	*Usnea alboverrucata*			C		3/3
fungi	lecanoromycetes	Parmeliaceae	*Usnea baileyi*			C		8/8
fungi	lecanoromycetes	Parmeliaceae	*Usnea bismolliuscula*			C		2/2
fungi	lecanoromycetes	Parmeliaceae	*Usnea cornuta*			C		1/1
fungi	lecanoromycetes	Parmeliaceae	*Usnea dasaea*			C		2/2
fungi	lecanoromycetes	Parmeliaceae	*Usnea effusa*			C		1/1
fungi	lecanoromycetes	Parmeliaceae	*Usnea elixii*			C		7/7
fungi	lecanoromycetes	Parmeliaceae	*Usnea molliuscula subsp. queenslandica*			C		4/4
fungi	lecanoromycetes	Parmeliaceae	*Usnea pectinata*			C		3/3
fungi	lecanoromycetes	Parmeliaceae	*Usnea rubicunda*			C		2/2
fungi	lecanoromycetes	Parmeliaceae	*Usnea rubrotincta*			C		3/3
fungi	lecanoromycetes	Physciaceae	*Heterodermia koyana*			C		1/1
fungi	lecanoromycetes	Physciaceae	*Rinodina confragosula*			C		1/1
fungi	lecanoromycetes	Physciaceae	*Rinodina moziana var. moziana*			C		1/1
fungi	lecanoromycetes	Ramalinaceae	*Physcidia australasica*			C		1/1
fungi	sordariomycetes	Xylariaceae	*Xylaria longipes*			C		1/1
plants	land plants	Acanthaceae	*Hypoestes phyllostachya*		Y			1/1
plants	land plants	Acanthaceae	*Rostellularia adscendens*			C		1/1
plants	land plants	Acanthaceae	*Rostellularia adscendens subsp. adscendens*			C		1/1
plants	land plants	Amaryllidaceae	*Proiphys amboinensis*			SL		1/1
plants	land plants	Annonaceae	*Desmos goezeanus*			C		2/2
plants	land plants	Annonaceae	*Polyalthia submontana subsp. sessiliflora*			C		4/4
plants	land plants	Apocynaceae	*Alyxia grandis*			C		1/1
plants	land plants	Apocynaceae	*Alyxia ilicifolia*			C		1/1
plants	land plants	Apocynaceae	*Alyxia orophila*	mountain alyxia		C		1/1

Kingdom	Class	Family	Scientific Name	Common Name	I	Q	A	Records
plants	land plants	Apocynaceae	*Alyxia ruscifolia*			C		1/1
plants	land plants	Apocynaceae	*Hoya australis subsp. tenuipes*			C		1/1
plants	land plants	Apocynaceae	*Leichhardtia jensenii*			C		1/1
plants	land plants	Apocynaceae	*Melodinus baccellianus*			C		1/1
plants	land plants	Apocynaceae	*Neisosperma poweri*			C		2/2
plants	land plants	Apocynaceae	*Parsonsia grayana*			C		3/3
plants	land plants	Apocynaceae	*Parsonsia latifolia*	green-leaved silkpod		C		1/1
plants	land plants	Apocynaceae	*Parsonsia straminea*	monkey rope		C		3/3
plants	land plants	Apocynaceae	*Vincetoxicum*					1/1
plants	land plants	Aponogetonaceae	*Aponogeton bullosus*			E	E	1/1
plants	land plants	Araceae	*Alocasia brisbanensis*			C		1/1
plants	land plants	Araceae	*Pothos longipes*			C		1/1
plants	land plants	Araliaceae	*Cephalaralia cephalobotrys*	climbing panax		C		1/1
plants	land plants	Araliaceae	*Hydrocotyle acutiloba*			C		1/1
plants	land plants	Araliaceae	*Hydrocotyle miranda*			C		1/1
plants	land plants	Araliaceae	*Motherwellia haplosciadea*			C		1/1
plants	land plants	Araliaceae	*Polyscias australiana*	ivory basswood		C		1/1
plants	land plants	Argophyllaceae	*Argophyllum ferrugineum*			C		3/3
plants	land plants	Aristolochiaceae	*Pararistolochia australopithecurus*			C		1/1
plants	land plants	Aspleniaceae	*Asplenium nidus*			C		1/1
plants	land plants	Asteraceae	*Acmella grandiflora var. brachyglossa*			C		1/1
plants	land plants	Asteraceae	*Adenostemma macrophyllum*			C		1/1
plants	land plants	Asteraceae	*Ageratum conyzoides*	billygoat weed	Y			1/1
plants	land plants	Asteraceae	*Apowollastonia spilanthoides*			C		2/2
plants	land plants	Asteraceae	*Bidens pilosa*		Y			1/1
plants	land plants	Asteraceae	*Centipeda minima subsp. minima*			C		1/1
plants	land plants	Asteraceae	*Chromolaena odorata*	Siam weed	Y			3/3
plants	land plants	Asteraceae	*Cirsium vulgare*	spear thistle	Y			1/1
plants	land plants	Asteraceae	*Coronidium rupicola*			C		2/2
plants	land plants	Asteraceae	*Crassocephalum crepidioides*	thickhead	Y			1/1
plants	land plants	Asteraceae	*Dichrocephala integrifolia*		Y			3/3
plants	land plants	Asteraceae	*Erechtites valerianifolius*		Y			1/1
plants	land plants	Asteraceae	*Erigeron bonariensis*		Y			1/1
plants	land plants	Asteraceae	*Erigeron pusillus*		Y			1/1
plants	land plants	Asteraceae	*Eschenbachia leucantha*			C		2/2
plants	land plants	Asteraceae	*Euchiton japonicus*			C		1/1
plants	land plants	Asteraceae	*Phacellothrix cladochaeta*			C		1/1
plants	land plants	Asteraceae	*Picris angustifolia subsp. carolorum-henricorum*			C		1/1
plants	land plants	Asteraceae	*Praxelis clematidea*		Y			5/5
plants	land plants	Asteraceae	*Stevia ovata*		Y			7/7
plants	land plants	Athyriaceae	*Diplazium dilatatum*			C		2/2
plants	land plants	Austrobaileyaceae	*Austrobaileya scandens*			C		1/1
plants	land plants	Aytoniaceae	*Asterella drummondii*			C		1/1
plants	land plants	Aytoniaceae	*Asterella whiteleggeana*			C		1/1
plants	land plants	Aytoniaceae	*Plagiochasma rupestre*			C		1/1
plants	land plants	Aytoniaceae	*Reboulia hemisphaerica*			C		1/1

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plants	land plants	Balanopaceae	*Balanops australiana*			C		4/4
plants	land plants	Balsaminaceae	*Impatiens walleriana*	balsam	Y			2/2
plants	land plants	Bignoniaceae	*Dolichandra unguis-cati*	cat's claw creeper	Y			1/1
plants	land plants	Bignoniaceae	*Pandorea nervosa*			C		1/1
plants	land plants	Blechnaceae	*Blechnum lineare*			SL		1/1
plants	land plants	Blechnaceae	*Blechnum neglectum*			SL		1/1
plants	land plants	Blechnaceae	*Blechnum patersonii subsp. queenslandicum*			SL		1/1
plants	land plants	Boryaceae	*Borya septentrionalis*			C		1/1
plants	land plants	Burseraceae	*Canarium australasicum*	mango bark		C		3/3
plants	land plants	Byblidaceae	*Byblis liniflora*			SL		1/1
plants	land plants	Byttneriaceae	*Commersonia dasyphylla*			C		1/1
plants	land plants	Byttneriaceae	*Seringia hookeriana*			C		1/1
plants	land plants	Byttneriaceae	*Seringia lanceolata*			C		3/3
plants	land plants	Campanulaceae	*Wahlenbergia*					1/1
plants	land plants	Campanulaceae	*Wahlenbergia caryophylloides*			SL		1/1
plants	land plants	Celastraceae	*Hippocratea barbata*	knotvine		C		1/1
plants	land plants	Celastraceae	*Siphonodon membranaceus*			C		3/3
plants	land plants	Centrolepidaceae	*Centrolepis banksii*			C		1/1
plants	land plants	Centrolepidaceae	*Centrolepis exserta*			C		1/1
plants	land plants	Clusiaceae	*Garcinia*					1/1
plants	land plants	Clusiaceae	*Garcinia zichii*			C		9/9
plants	land plants	Colchicaceae	*Schelhammera multiflora*			C		3/3
plants	land plants	Commelinaceae	*Aneilema*					1/1
plants	land plants	Commelinaceae	*Cartonema brachyantherum*			C		2/2
plants	land plants	Commelinaceae	*Pollia crispata*	pollia		C		1/1
plants	land plants	Cornaceae	*Alangium polyosmoides subsp. polyosmoides*			C		1/1
plants	land plants	Corynocarpaceae	*Corynocarpus cribbianus*	cribwood		C		1/1
plants	land plants	Cucurbitaceae	*Trichosanthes pilosa*			C		1/1
plants	land plants	Cunoniaceae	*Davidsonia pruriens*			C		1/1
plants	land plants	Cunoniaceae	*Pullea stutzeri*	hard alder		C		3/3
plants	land plants	Cyatheaceae	*Alsophila baileyana*			C		1/1
plants	land plants	Cyatheaceae	*Alsophila rebeccae*			C		2/2
plants	land plants	Cyatheaceae	*Alsophila woollsiana*			C		1/1
plants	land plants	Cyatheaceae	*Sphaeropteris celebica*			NT		1/1
plants	land plants	Cyperaceae	*Carex maculata*			C		1/1
plants	land plants	Cyperaceae	*Chorizandra cymbaria*			C		1/1
plants	land plants	Cyperaceae	*Cyperus cyperoides*			C		1/1
plants	land plants	Cyperaceae	*Cyperus haspan subsp. juncoides*			C		1/1
plants	land plants	Cyperaceae	*Cyperus laevis*			C		1/1
plants	land plants	Cyperaceae	*Cyperus polystachyos var. polystachyos*			C		1/1
plants	land plants	Cyperaceae	*Cyperus procerus*			C		1/1
plants	land plants	Cyperaceae	*Cyperus prolifer*	dwarf papyrus	Y			1/1
plants	land plants	Cyperaceae	*Cyperus tetraphyllus*			C		1/1
plants	land plants	Cyperaceae	*Fimbristylis acicularis*			C		1/1
plants	land plants	Cyperaceae	*Fimbristylis cinnamometorum*			C		1/1
plants	land plants	Cyperaceae	*Fimbristylis furva*			C		2/2

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plants	land plants	Cyperaceae	*Lepironia articulata*			C		1/1
plants	land plants	Cyperaceae	*Machaerina rubiginosa*			C		1/1
plants	land plants	Cyperaceae	*Rhynchospora brownii*	beak rush		C		1/1
plants	land plants	Cyperaceae	*Rhynchospora leae*			C		1/1
plants	land plants	Cyperaceae	*Schoenus kennyi*			C		1/1
plants	land plants	Cyperaceae	*Schoenus melanostachys*			C		2/2
plants	land plants	Cyperaceae	*Schoenus sparteus*			C		1/1
plants	land plants	Cyperaceae	*Scleria sphacelata*			C		1/1
plants	land plants	Cyperaceae	*Tetraria capillaris*			C		1/1
plants	land plants	Dennstaedtiaceae	*Hypolepis glandulifera*	sticky ground fern		C		1/1
plants	land plants	Dennstaedtiaceae	*Microlepia speluncae*	cave fern		C		1/1
plants	land plants	Dichapetalaceae	*Dichapetalum papuanum*			C		2/2
plants	land plants	Dicksoniaceae	*Calochlaena villosa*			NT		1/1
plants	land plants	Dilleniaceae	*Hibbertia aspera subsp. pilosifolia*			C		1/1
plants	land plants	Dilleniaceae	*Hibbertia bicarpellata*			C		2/2
plants	land plants	Dipentodontaceae	*Perrottetia arborescens*			C		1/1
plants	land plants	Droseraceae	*Drosera lanata*			SL		1/1
plants	land plants	Droseraceae	*Drosera lunata*			SL		1/1
plants	land plants	Dryopteridaceae	*Bolbitis taylorii*			SL		1/1
plants	land plants	Dryopteridaceae	*Lastreopsis wurunuran*			SL		1/1
plants	land plants	Dryopteridaceae	*Parapolystichum rufescens*			SL		2/2
plants	land plants	Ebenaceae	*Diospyros hemicycloides*			C		3/3
plants	land plants	Elaeagnaceae	*Elaeagnus triflora var. triflora*			C		1/1
plants	land plants	Elaeocarpaceae	*Elaeocarpus carolinae*			C		2/2
plants	land plants	Elaeocarpaceae	*Elaeocarpus elliffii*			C		4/4
plants	land plants	Elaeocarpaceae	*Elaeocarpus eumundi*	Eumundi quandong		C		2/2
plants	land plants	Elaeocarpaceae	*Elaeocarpus foveolatus*			C		1/1
plants	land plants	Elaeocarpaceae	*Elaeocarpus largiflorens subsp. largiflorens*			C		2/2
plants	land plants	Elaeocarpaceae	*Elaeocarpus obovatus subsp. umbratilis*			C		2/2
plants	land plants	Elaeocarpaceae	*Elaeocarpus ruminatus*			C		1/1
plants	land plants	Elaeocarpaceae	*Elaeocarpus sericopetalus*			C		2/2
plants	land plants	Elaeocarpaceae	*Sloanea australis subsp. parviflora*			C		1/1
plants	land plants	Elaeocarpaceae	*Sloanea macbrydei*	northern yellow carabeen		C		1/1
plants	land plants	Ericaceae	*Acrothamnus spathaceus*			C		1/1
plants	land plants	Eriocaulaceae	*Eriocaulon depressum*			C		1/1
plants	land plants	Eriocaulaceae	*Eriocaulon fistulosum*			C		1/1
plants	land plants	Escalloniaceae	*Polyosma alangiacea*			C		2/2
plants	land plants	Escalloniaceae	*Polyosma hirsuta*			C		2/2
plants	land plants	Euphorbiaceae	*Bertya polystigma*			C		3/3
plants	land plants	Euphorbiaceae	*Claoxylon tenerifolium subsp. boreale*			C		1/1
plants	land plants	Euphorbiaceae	*Croton triacros*			C		2/2
plants	land plants	Euphorbiaceae	*Euphorbia hirta*		Y			1/1
plants	land plants	Euphorbiaceae	*Mallotus polyadenos*			C		1/1
plants	land plants	Flagellariaceae	*Flagellaria indica*	whip vine		C		1/1
plants	land plants	Gentianaceae	*Fagraea fagraeacea*			C		1/1
plants	land plants	Gesneriaceae	*Boea hygroscopica*			SL		1/1

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plants	land plants	Gleicheniaceae	*Gleichenia dicarpa*	pouched coral fern		C		1/1
plants	land plants	Gleicheniaceae	*Sticherus flabellatus var. flabellatus*			C		1/1
plants	land plants	Goodeniaceae	*Goodenia grandiflora*			C		1/1
plants	land plants	Goodeniaceae	*Goodenia subsolana*			C		3/3
plants	land plants	Haloragaceae	*Gonocarpus chinensis subsp. verrucosus*			C		1/1
plants	land plants	Haloragaceae	*Gonocarpus humilis*			C		1/1
plants	land plants	Himantandraceae	*Galbulimima baccata*			C		4/4
plants	land plants	Hymenophyllaceae	*Crepidomanes bipunctatum*			SL		1/1
plants	land plants	Hymenophyllaceae	*Hymenophyllum walleri*			SL		1/1
plants	land plants	Hymenophyllaceae	*Vandenboschia johnstonensis*			SL		1/1
plants	land plants	Jungermanniaceae	*Jungermannia*					1/1
plants	land plants	Lamiaceae	*Anisomeles moschata*			C		1/1
plants	land plants	Lamiaceae	*Coleus*					1/1
plants	land plants	Lamiaceae	*Coleus amicorum*			C		8/8
plants	land plants	Lamiaceae	*Coleus amoenus*			V		5/5
plants	land plants	Lamiaceae	*Coleus australis*			C		4/3
plants	land plants	Lamiaceae	*Coleus glabriflorus*			C		1/1
plants	land plants	Lamiaceae	*Leucas zeylanica*		Y			1/1
plants	land plants	Lamiaceae	*Mentha satureioides*	native pennyroyal		C		1/1
plants	land plants	Lamiaceae	*Pityrodia salviifolia*	pityrodia		C		1/1
plants	land plants	Lamiaceae	*Platostoma longicorne*			C		1/1
plants	land plants	Lamiaceae	*Prostanthera clotteniana*			E	CE	2/2
plants	land plants	Lamiaceae	*Teucrium argutum*			C		1/1
plants	land plants	Lauraceae	*Beilschmiedia brunnea*			C		1/1
plants	land plants	Lauraceae	*Beilschmiedia collina*			C		2/2
plants	land plants	Lauraceae	*Beilschmiedia recurva*			C		2/2
plants	land plants	Lauraceae	*Beilschmiedia tooram*			C		2/2
plants	land plants	Lauraceae	*Cryptocarya angulata*	ivory laurel		C		4/4
plants	land plants	Lauraceae	*Cryptocarya cocosoides*			C		5/5
plants	land plants	Lauraceae	*Cryptocarya corrugata*			C		3/3
plants	land plants	Lauraceae	*Cryptocarya densiflora*			C		3/3
plants	land plants	Lauraceae	*Cryptocarya grandis*			C		2/2
plants	land plants	Lauraceae	*Cryptocarya leucophylla*			C		1/1
plants	land plants	Lauraceae	*Cryptocarya lividula*			C		9/9
plants	land plants	Lauraceae	*Cryptocarya mackinnoniana*			C		1/1
plants	land plants	Lauraceae	*Cryptocarya melanocarpa*			C		11/11
plants	land plants	Lauraceae	*Cryptocarya oblata*			C		1/1
plants	land plants	Lauraceae	*Cryptocarya obovata*	pepperberry		C		1/1
plants	land plants	Lauraceae	*Cryptocarya putida*			C		13/13
plants	land plants	Lauraceae	*Cryptocarya saccharata*			C		2/2
plants	land plants	Lauraceae	*Cryptocarya smaragdina*			C		3/3
plants	land plants	Lauraceae	*Endiandra dichrophylla*	coach walnut		C		10/10
plants	land plants	Lauraceae	*Endiandra discolor*	domatia tree		C		1/1
plants	land plants	Lauraceae	*Endiandra montana*			C		5/5
plants	land plants	Lauraceae	*Endiandra palmerstonii*	Queensland walnut		C		2/2
plants	land plants	Lauraceae	*Endiandra sankeyana*	Sankey's walnut		C		1/1

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plants	land plants	Lauraceae	*Endiandra sideroxylon*			C		3/3
plants	land plants	Lauraceae	*Endiandra wolfei*			C		1/1
plants	land plants	Lauraceae	*Litsea connorsii*			C		3/3
plants	land plants	Lauraceae	*Neolitsea dealbata*	white bolly gum		C		1/1
plants	land plants	Laxmanniaceae	*Eustrephus latifolius*	wombat berry		C		1/1
plants	land plants	Leguminosae	*Acacia*					1/1
plants	land plants	Leguminosae	*Acacia burrana*			C		1/1
plants	land plants	Leguminosae	*Acacia calyculata*			C		1/1
plants	land plants	Leguminosae	*Acacia celsa*			C		1/1
plants	land plants	Leguminosae	*Acacia crassicarpa*			C		1/1
plants	land plants	Leguminosae	*Acacia humifusa*			C		1/1
plants	land plants	Leguminosae	*Aeschynomene villosa*		Y			1/1
plants	land plants	Leguminosae	*Archidendron vaillantii*	salmon bean		C		1/1
plants	land plants	Leguminosae	*Caesalpinia robusta*	giant mother-in-law vine		C		2/2
plants	land plants	Leguminosae	*Chamaecrista rotundifolia var. rotundifolia*		Y			1/1
plants	land plants	Leguminosae	*Chorizema parviflorum*	eastern flame pea		C		1/1
plants	land plants	Leguminosae	*Crotalaria brevis*			C		1/1
plants	land plants	Leguminosae	*Desmodium gangeticum*			C		1/1
plants	land plants	Leguminosae	*Desmodium heterocarpon var. heterocarpon*			C		1/1
plants	land plants	Leguminosae	*Desmodium nemorosum*			C		1/1
plants	land plants	Leguminosae	*Gompholobium nitidum*			C		1/1
plants	land plants	Leguminosae	*Hovea densivellosa*			C		1/1
plants	land plants	Leguminosae	*Indigofera linnaei*	Birdsville indigo		C		1/1
plants	land plants	Leguminosae	*Indigofera trifoliata*			C		1/1
plants	land plants	Leguminosae	*Mirbelia pungens*			C		1/1
plants	land plants	Leguminosae	*Mucuna pruriens*		Y			2
plants	land plants	Leguminosae	*Senna aciphylla*	Australian senna		C		1/1
plants	land plants	Leguminosae	*Senna septemtrionalis*		Y			3/3
plants	land plants	Leguminosae	*Tephrosia sp. (Miriam Vale E.J.Thompson+ MIR33)*			C		1/1
plants	land plants	Leguminosae	*Vigna vexillata var. angustifolia*			C		1/1
plants	land plants	Leguminosae	*Zornia muriculata subsp. muriculata*			C		1/1
plants	land plants	Lejeuneaceae	*Lejeunea*					1/1
plants	land plants	Lejeuneaceae	*Lejeuneaceae*					1/1
plants	land plants	Lejeuneaceae	*Leptolejeunea*					1/1
plants	land plants	Lentibulariaceae	*Utricularia caerulea*	blue bladderwort		SL		2/2
plants	land plants	Lepidoziaceae	*Lepidozia*					1/1
plants	land plants	Leucobryaceae	*Leucobryum*					3/3
plants	land plants	Linderniaceae	*Artanema fimbriatum*			C		1/1
plants	land plants	Linderniaceae	*Lindernia sp. (Sudley A.Gunness 1886)*			C		1/1
plants	land plants	Lindsaeaceae	*Lindsaea terrae-reginae*			E		1/1
plants	land plants	Loganiaceae	*Mitrasacme oasena*			C		2/2
plants	land plants	Loganiaceae	*Mitrasacme phascoides*			C		1/1
plants	land plants	Lophocoleaceae	*Chiloscyphus*					4/4
plants	land plants	Lophocoleaceae	*Heteroscyphus argutus*			C		1/1
plants	land plants	Lythraceae	*Rotala mexicana*			C		1/1
plants	land plants	Lythraceae	*Rotala tripartita*			C		2/2

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plants	land plants	Maesaceae	*Maesa dependens var. dependens*			C		1/1
plants	land plants	Malvaceae	*Sida rhombifolia*		Y			1/1
plants	land plants	Malvaceae	*Urena lobata*	urena weed	Y			2/2
plants	land plants	Marattiaceae	*Ptisana oreades*			C		2/2
plants	land plants	Meliaceae	*Synoum glandulosum subsp. glandulosum*			C		1/1
plants	land plants	Meliaceae	*Synoum glandulosum subsp. paniculosum*			C		1/1
plants	land plants	Menispermaceae	*Hypserpa decumbens*			C		1/1
plants	land plants	Menispermaceae	*Hypserpa smilacifolia*			C		2/2
plants	land plants	Menispermaceae	*Parapachygone longifolia*			C		1/1
plants	land plants	Menispermaceae	*Stephania japonica var. timoriensis*			C		1/1
plants	land plants	Meteoriaceae	*Aerobryopsis longissima*			C		1/1
plants	land plants	Meteoriaceae	*Papillaria crocea*			C		1/1
plants	land plants	Meteoriaceae	*Papillaria flexicaulis*			C		2/2
plants	land plants	Monimiaceae	*Austromatthaea elegans*			C		2/2
plants	land plants	Monimiaceae	*Hedycarya loxocarya*			C		1/1
plants	land plants	Monimiaceae	*Levieria acuminata*			C		3/3
plants	land plants	Monimiaceae	*Pendressia wardellii*			C		1/1
plants	land plants	Monimiaceae	*Steganthera laxiflora subsp. laxiflora*			C		1/1
plants	land plants	Monimiaceae	*Wilkiea angustifolia*			C		4/4
plants	land plants	Moraceae	*Ficus copiosa*			C		1/1
plants	land plants	Moraceae	*Ficus henneana*			C		1/1
plants	land plants	Myrsinaceae	*Myrsine achradifolia*			C		1/1
plants	land plants	Myrsinaceae	*Myrsine ireneae subsp. ireneae*			C		2/2
plants	land plants	Myrsinaceae	*Myrsine maculata*			C		1/1
plants	land plants	Myrsinaceae	*Myrsine porosa*			C		1/1
plants	land plants	Myrsinaceae	*Myrsine smithii*			C		1/1
plants	land plants	Myrsinaceae	*Myrsine subsessilis subsp. cryptostemon*			C		1/1
plants	land plants	Myrsinaceae	*Tapeinosperma pallidum*			C		1/1
plants	land plants	Myrtaceae	*Acmena resa*	red Eungella satinash		C		1/1
plants	land plants	Myrtaceae	*Acmena smithii*	lillypilly satinash		C		2/2
plants	land plants	Myrtaceae	*Eucalyptus exserta*	Queensland peppermint		C		1/1
plants	land plants	Myrtaceae	*Eucalyptus granitica*	granite ironbark		C		1/1
plants	land plants	Myrtaceae	*Eucalyptus lockyeri subsp. exuta*			C		3/3
plants	land plants	Myrtaceae	*Eucalyptus pachycalyx subsp. pachycalyx*			C		1/1
plants	land plants	Myrtaceae	*Eucalyptus shirleyi*			C		1/1
plants	land plants	Myrtaceae	*Gossia grayi*			C		2/2
plants	land plants	Myrtaceae	*Gossia myrsinocarpa*			C		1/1
plants	land plants	Myrtaceae	*Homoranthus porteri*			V	V	4/4
plants	land plants	Myrtaceae	*Lenwebbia lasioclada*			C		1/1
plants	land plants	Myrtaceae	*Leptospermum anfractum*			C		1/1
plants	land plants	Myrtaceae	*Leptospermum brachyandrum*	weeping tea-tree		C		2/2
plants	land plants	Myrtaceae	*Melaleuca recurva*			C		2/2
plants	land plants	Myrtaceae	*Melaleuca sylvana*			E		3/3
plants	land plants	Myrtaceae	*Melaleuca viminalis*			C		1/1
plants	land plants	Myrtaceae	*Pilidiostigma tetramerum*			C		2/2
plants	land plants	Myrtaceae	*Pilidiostigma tropicum*	apricot myrtle		C		2/2

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plants	land plants	Myrtaceae	*Rhodamnia blairiana*			C		1/1
plants	land plants	Myrtaceae	*Rhodamnia costata*			C		1/1
plants	land plants	Myrtaceae	*Rhodomyrtus canescens*			E		1/1
plants	land plants	Myrtaceae	*Rhodomyrtus macrocarpa*	finger cherry		C		1/1
plants	land plants	Myrtaceae	*Rhodomyrtus pervagata*			E		1/1
plants	land plants	Myrtaceae	*Sannantha angusta*			C		4/4
plants	land plants	Myrtaceae	*Syzygium*					1/1
plants	land plants	Myrtaceae	*Syzygium apodophyllum*			C		1/1
plants	land plants	Myrtaceae	*Syzygium cryptophlebium*			C		1/1
plants	land plants	Myrtaceae	*Syzygium endophloium*			C		2/2
plants	land plants	Myrtaceae	*Syzygium johnsonii*	Johnson's satinash		C		2/2
plants	land plants	Myrtaceae	*Syzygium kuranda*	Kuranda satinash		C		2/2
plants	land plants	Myrtaceae	*Syzygium luehmannii*			C		1/1
plants	land plants	Myrtaceae	*Syzygium trachyphloium*			C		2/2
plants	land plants	Myrtaceae	*Syzygium wesa*			C		2/2
plants	land plants	Myrtaceae	*Triplarina nitchaga*			V	V	7/7
plants	land plants	Myrtaceae	*Uromyrtus tenella*			C		2/2
plants	land plants	Myrtaceae	*Waterhousea unipunctata*			C		1/1
plants	land plants	Ochnaceae	*Brackenridgea australiana*			C		7/7
plants	land plants	Oleaceae	*Chionanthus acuminiger*			C		1/1
plants	land plants	Oleaceae	*Jasminum dallachii*	soft jasmine		C		1/1
plants	land plants	Oleaceae	*Notelaea sp. (Barakula A.R.Bean 7553)*			C		2/2
plants	land plants	Onagraceae	*Ludwigia octovalvis*	willow primrose		C		1/1
plants	land plants	Orchidaceae	*Arthrochilus dockrillii*			SL		2/2
plants	land plants	Orchidaceae	*Bulbophyllum lilianae*			SL		1/1
plants	land plants	Orchidaceae	*Cadetia taylori*			SL		1/1
plants	land plants	Orchidaceae	*Caladenia carnea*			SL		1/1
plants	land plants	Orchidaceae	*Corybas abellianus*	nodding helmet orchid		NT		1/1
plants	land plants	Orchidaceae	*Dendrobium canaliculatum*			SL		1/1
plants	land plants	Orchidaceae	*Dendrobium carrii*			SL		1/1
plants	land plants	Orchidaceae	*Dipodium ensifolium*	leafy hyacinth orchid		SL		2/2
plants	land plants	Orchidaceae	*Diuris oporina*	northern white donkeys tails		NT		2/2
plants	land plants	Orchidaceae	*Dockrillia nugentii*			SL		1/1
plants	land plants	Orchidaceae	*Microtis parviflora*	slender onion orchid		SL		1/1
plants	land plants	Orchidaceae	*Mobilabium hamatum*			SL		1/1
plants	land plants	Orchidaceae	*Octarrhena pusilla*			SL		2/2
plants	land plants	Orchidaceae	*Pterostylis stricta*			SL		1/1
plants	land plants	Orchidaceae	*Thelymitra queenslandica*			SL		1/1
plants	land plants	Oxalidaceae	*Oxalis chnoodes*			C		1/1
plants	land plants	Pallaviciniaceae	*Symphyogyna*					1/1
plants	land plants	Pennantiaceae	*Pennantia cunninghamii*	brown beech		C		2/2
plants	land plants	Phyllanthaceae	*Antidesma erostre*			C		2/2
plants	land plants	Phyllanthaceae	*Glochidion harveyanum var. harveyanum*			C		1/1
plants	land plants	Phyllanthaceae	*Glochidion hylandii*			C		1/1
plants	land plants	Phyllanthaceae	*Glochidion sessiliflorum var. pedicellatum*			C		1/1
plants	land plants	Phyllanthaceae	*Phyllanthus dallachyanus subsp. (Irvinebank P.I.Forster PIF14675)*			C		1/1

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plants	land plants	Phyllanthaceae	*Phyllanthus tenellus*		Y			1/1
plants	land plants	Piperaceae	*Peperomia enervis*			C		1/1
plants	land plants	Pittosporaceae	*Pittosporum rubiginosum*			C		1/1
plants	land plants	Pittosporaceae	*Pittosporum trilobum*			C		1/1
plants	land plants	Plantaginaceae	*Mecardonia procumbens*		Y			1/1
plants	land plants	Plantaginaceae	*Plantago major*	greater plantain	Y			1/1
plants	land plants	Plantaginaceae	*Scoparia dulcis*	scoparia	Y			2/2
plants	land plants	Plantaginaceae	*Veronica plebeia*	trailing speedwell		C		2/2
plants	land plants	Poaceae	*Axonopus compressus*		Y			1/1
plants	land plants	Poaceae	*Axonopus fissifolius*		Y			1/1
plants	land plants	Poaceae	*Cymbopogon refractus*	barbed-wire grass		C		1/1
plants	land plants	Poaceae	*Dimeria sp. (Mosquito Point J.R.Clarkson+ 9994)*			C		1/1
plants	land plants	Poaceae	*Ectrosia agrostoides*			C		1/1
plants	land plants	Poaceae	*Eragrostis brownii*	Brown's lovegrass		C		1/1
plants	land plants	Poaceae	*Eragrostis elongata*			C		1/1
plants	land plants	Poaceae	*Eragrostis mexicana*	Mexican lovegrass	Y			1/1
plants	land plants	Poaceae	*Eragrostis parviflora*	weeping lovegrass		C		1/1
plants	land plants	Poaceae	*Eragrostis sororia*			C		1/1
plants	land plants	Poaceae	*Eragrostis sp. (Lakefield NP J.R.Clarkson+ 7010)*			C		1/1
plants	land plants	Poaceae	*Hyparrhenia filipendula*	tambookie grass		C		1/1
plants	land plants	Poaceae	*Hyparrhenia rufa subsp. altissima*		Y			1/1
plants	land plants	Poaceae	*Leersia hexandra*	swamp rice grass		C		1/1
plants	land plants	Poaceae	*Microlaena stipoides var. stipoides*			C		2/2
plants	land plants	Poaceae	*Oplismenus aemulus*	creeping shade grass		C		1/1
plants	land plants	Poaceae	*Ottochloa nodosa*			C		1/1
plants	land plants	Poaceae	*Panicum mitchellii*			C		1/1
plants	land plants	Poaceae	*Panicum simile*			C		1/1
plants	land plants	Poaceae	*Paspalidium distans*	shotgrass		C		1/1
plants	land plants	Poaceae	*Paspalum paniculatum*	Russell River grass	Y			1/1
plants	land plants	Poaceae	*Paspalum urvillei*	vasey grass	Y			1/1
plants	land plants	Poaceae	*Phyllostachys bambusoides*		Y			1/1
plants	land plants	Poaceae	*Schizachyrium fragile*	firegrass		C		1/1
plants	land plants	Poaceae	*Setaria pumila subsp. subtesselata*		Y			1/1
plants	land plants	Poaceae	*Sporobolus fertilis*	giant Parramatta grass	Y			2/2
plants	land plants	Poaceae	*Sporobolus pyramidalis*		Y			1/1
plants	land plants	Poaceae	*Urochloa decumbens*		Y			1/1
plants	land plants	Podocarpaceae	*Prumnopitys amara*			C		1/1
plants	land plants	Polygalaceae	*Comesperma rhyoliticum*			C		1/1
plants	land plants	Polygalaceae	*Salomonia ciliata*			C		1/1
plants	land plants	Polygalaceae	*Xanthophyllum octandrum*			C		3/3
plants	land plants	Polypodiaceae	*Ctenopterella gordonii*			SL		1/1
plants	land plants	Polypodiaceae	*Dictymia brownii*	strap fern		SL		2/2
plants	land plants	Polypodiaceae	*Grammitis stenophylla*			SL		1/1
plants	land plants	Polypodiaceae	*Lepisorus mucronatus*			SL		1/1
plants	land plants	Polypodiaceae	*Pyrrosia confluens var. dielsii*			SL		1/1
plants	land plants	Polypodiaceae	*Selliguea simplicissima*			SL		1/1

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plants	land plants	Polytrichaceae	*Dawsonia polytrichoides*			C		1/1
plants	land plants	Porellaceae	*Porella crawfordii*			C		1/1
plants	land plants	Proteaceae	*Alloxylon flammeum*			V	V	1/1
plants	land plants	Proteaceae	*Banksia aquilonia*			C		2/2
plants	land plants	Proteaceae	*Bleasdalea bleasdalei*			C		6/6
plants	land plants	Proteaceae	*Buckinghamia celsissima*	spotted silky oak		C		1/1
plants	land plants	Proteaceae	*Cardwellia sublimis*			C		1/1
plants	land plants	Proteaceae	*Carnarvonia araliifolia var. montana*			C		1/1
plants	land plants	Proteaceae	*Darlingia darlingiana*			C		4/4
plants	land plants	Proteaceae	*Darlingia ferruginea*			C		1/1
plants	land plants	Proteaceae	*Helicia lamingtoniana*			C		1/1
plants	land plants	Proteaceae	*Helicia nortoniana*			C		1/1
plants	land plants	Proteaceae	*Lomatia milnerae*			C		1/1
plants	land plants	Proteaceae	*Persoonia tropica*			C		7/7
plants	land plants	Proteaceae	*Stenocarpus reticulatus*			C		3/3
plants	land plants	Pteridaceae	*Adiantum silvaticum*			SL		1/1
plants	land plants	Pteridaceae	*Cheilanthes*					1/1
plants	land plants	Pteridaceae	*Pteris umbrosa*	jungle bracken		SL		1/1
plants	land plants	Pteridaceae	*Vaginularia acrocarpa*			SL		1/1
plants	land plants	Pterobryaceae	*Calyptothecium*					1/1
plants	land plants	Pterobryaceae	*Muellerobryum whiteleggei*			C		1/1
plants	land plants	Pterobryaceae	*Pterobryidium australe*			C		1/1
plants	land plants	Ptychomniaceae	*Garovaglia*					1/1
plants	land plants	Ptychomniaceae	*Garovaglia elegans subsp. dietrichiae*			C		1/1
plants	land plants	Putranjivaceae	*Drypetes acuminata*			C		2/2
plants	land plants	Pylaisiadelphaceae	*Isopterygium albescens*			C		1/1
plants	land plants	Radulaceae	*Radula ocellata*			C		1/1
plants	land plants	Restionaceae	*Dapsilanthus ramosus*			C		1/1
plants	land plants	Rhamnaceae	*Cryptandra debilis*			C		1/1
plants	land plants	Rhizogoniaceae	*Pyrrhobryum spiniforme*			C		1/1
plants	land plants	Ripogonaceae	*Ripogonum danesii*			C		1/1
plants	land plants	Rosaceae	*Rubus moluccanus var. trilobus*			C		1/1
plants	land plants	Rubiaceae	*Amaracarpus nematopodus*			C		2/2
plants	land plants	Rubiaceae	*Antirhea*					1/1
plants	land plants	Rubiaceae	*Antirhea tenuiflora*			C		1/1
plants	land plants	Rubiaceae	*Atractocarpus fitzalanii subsp. fitzalanii*			C		1/1
plants	land plants	Rubiaceae	*Atractocarpus fitzalanii subsp. tenuipes*			C		2/2
plants	land plants	Rubiaceae	*Atractocarpus merikin*			C		1/1
plants	land plants	Rubiaceae	*Bobea myrtoides*			C		3/3
plants	land plants	Rubiaceae	*Cyclophyllum multiflorum*			C		1/1
plants	land plants	Rubiaceae	*Gynochthodes jasminoides*			C		2/2
plants	land plants	Rubiaceae	*Gynochthodes oresbia*			C		1/1
plants	land plants	Rubiaceae	*Gynochthodes retropila*			C		4/4
plants	land plants	Rubiaceae	*Gynochthodes umbellata*			C		1/1
plants	land plants	Rubiaceae	*Ixora oreogena*			C		1/1
plants	land plants	Rubiaceae	*Opercularia diphylla*			C		1/1

Kingdom	Class	Family	Scientific Name	Common Name	I	Q	A	Records
plants	land plants	Rubiaceae	*Pavetta australiensis var. pubigera*			C		1/1
plants	land plants	Rubiaceae	*Psychotria sp. (Utchee Creek H.Flecker NQNC5313)*			C		1/1
plants	land plants	Rubiaceae	*Psydrax laxiflorens*			C		2/2
plants	land plants	Rubiaceae	*Richardia brasiliensis*	white eye	Y			1/1
plants	land plants	Rubiaceae	*Scleromitrion polycladum*			NT		2/2
plants	land plants	Rubiaceae	*Spermacoce sp. (Lorim Point A.Morton AM1237)*			C		2/2
plants	land plants	Rutaceae	*Acronychia acronychioides*			C		1/1
plants	land plants	Rutaceae	*Acronychia crassipetala*			C		3/3
plants	land plants	Rutaceae	*Acronychia parviflora*			C		2/2
plants	land plants	Rutaceae	*Acronychia vestita*			C		3/3
plants	land plants	Rutaceae	*Clausena brevistyla*	clausena		C		1/1
plants	land plants	Rutaceae	*Cyanothamnus occidentalis*			C		2/2
plants	land plants	Rutaceae	*Flindersia acuminata*	silver silkwood		C		1/1
plants	land plants	Rutaceae	*Flindersia bourjotiana*			C		8/8
plants	land plants	Rutaceae	*Flindersia pimenteliana*	maple silkwood		C		8/8
plants	land plants	Rutaceae	*Halfordia kendack*	saffron heart		C		2/2
plants	land plants	Rutaceae	*Melicope broadbentiana*			C		1/1
plants	land plants	Rutaceae	*Melicope xanthoxyloides*			C		2/2
plants	land plants	Rutaceae	*Zanthoxylum veneficum*			C		1/1
plants	land plants	Rutaceae	*Zieria fordii*	Ford's stink bush		CR		1/1
plants	land plants	Rutaceae	*Zieria minutiflora subsp. trichocarpa*			C		1/1
plants	land plants	Salicaceae	*Casearia costulata*			C		1/1
plants	land plants	Salicaceae	*Casearia dallachii*			C		1/1
plants	land plants	Salicaceae	*Casearia grayi*			C		2/2
plants	land plants	Sapindaceae	*Alectryon semicinereus*			C		1/1
plants	land plants	Sapindaceae	*Arytera pauciflora*			C		2/2
plants	land plants	Sapindaceae	*Castanospora alphandii*	brown tamarind		C		2/2
plants	land plants	Sapindaceae	*Cnesmocarpon dasyantha*			C		2/2
plants	land plants	Sapindaceae	*Cupaniopsis flagelliformis var. flagelliformis*			C		1/1
plants	land plants	Sapindaceae	*Cupaniopsis papillosa*			C		5/5
plants	land plants	Sapindaceae	*Dodonaea uncinata*			NT		2/2
plants	land plants	Sapindaceae	*Guioa acutifolia*	northern guioa		C		1/1
plants	land plants	Sapindaceae	*Guioa lasioneura*			C		1/1
plants	land plants	Sapindaceae	*Guioa montana*			C		2/2
plants	land plants	Sapindaceae	*Harpullia rhyticarpa*			C		1/1
plants	land plants	Sapindaceae	*Lepiderema ixiocarpa*			C		4/4
plants	land plants	Sapindaceae	*Mischarytera lautereriana*	corduroy tamarind		C		2/2
plants	land plants	Sapindaceae	*Mischocarpus lachnocarpus*			C		1/1
plants	land plants	Sapindaceae	*Mischocarpus macrocarpus*			C		1/1
plants	land plants	Sapindaceae	*Mischocarpus pyriformis subsp. pyriformis*			C		2/2
plants	land plants	Sapindaceae	*Rhysotoechia mortoniana*			C		2/2
plants	land plants	Sapindaceae	*Sarcopteryx martyana*			C		2/2
plants	land plants	Sapindaceae	*Sarcotoechia cuneata*			C		3/3
plants	land plants	Sapindaceae	*Sarcotoechia lanceolata*			C		5/5
plants	land plants	Sapindaceae	*Sarcotoechia protracta*			C		4/4
plants	land plants	Sapindaceae	*Synima cordierorum*			C		1/1

Kingdom	Class	Family	Scientific Name	Common Name	I	Q	A	Records
plants	land plants	Sapindaceae	*Synima reynoldsiae*			C		2/2
plants	land plants	Sapindaceae	*Toechima erythrocarpum*			C		1/1
plants	land plants	Sapotaceae	*Planchonella asterocarpon*			C		2/2
plants	land plants	Sapotaceae	*Planchonella euphlebia*			C		4/4
plants	land plants	Sapotaceae	*Pleioluma brownlessiana*			C		2/2
plants	land plants	Smilacaceae	*Smilax aculeatissima*			C		1/1
plants	land plants	Solanaceae	*Cestrum elegans*		Y			1/1
plants	land plants	Solanaceae	*Solanum americanum*		Y			2/2
plants	land plants	Solanaceae	*Solanum hamulosum*			V		1/1
plants	land plants	Solanaceae	*Solanum lasiocarpum*		Y			1/1
plants	land plants	Solanaceae	*Solanum macoorai*			C		1/1
plants	land plants	Solanaceae	*Solanum mauritianum*	wild tobacco	Y			1/1
plants	land plants	Solanaceae	*Solanum parvifolium subsp. tropicum*			C		2/2
plants	land plants	Solanaceae	*Solanum viridifolium*			C		1/1
plants	land plants	Sphenostemonaceae	*Sphenostemon lobosporus*			C		1/1
plants	land plants	Stemonuraceae	*Irvingbaileya australis*			C		2/2
plants	land plants	Sterculiaceae	*Firmiana papuana*	lacewood		V		1/1
plants	land plants	Sterculiaceae	*Franciscodendron laurifolium*			C		3/3
plants	land plants	Stylidiaceae	*Stylidium eriorhizum*			SL		2/2
plants	land plants	Symplocaceae	*Symplocos gittinsii*			C		1/1
plants	land plants	Symplocaceae	*Symplocos glabra*			C		2/2
plants	land plants	Symplocaceae	*Symplocos hayesii*			C		2/2
plants	land plants	Symplocaceae	*Symplocos stawellii*			C		1/1
plants	land plants	Thelypteridaceae	*Pneumatopteris sogerensis*			SL		1/1
plants	land plants	Thuidiaceae	*Thuidium*					2/2
plants	land plants	Thymelaeaceae	*Pimelea linifolia*			C		1/1
plants	land plants	Thymelaeaceae	*Pimelea linifolia subsp. linifolia*			C		1/1
plants	land plants	Thymelaeaceae	*Pimelea plurinervia*			C		3/3
plants	land plants	Urticaceae	*Elatostema reticulatum*	rainforest spinach		C		2/2
plants	land plants	Verbenaceae	*Lantana camara*	lantana	Y			1/1
plants	land plants	Verbenaceae	*Stachytarpheta jamaicensis*	Jamaica snakeweed	Y			1/1
plants	land plants	Verbenaceae	*Verbena incompta*		Y			1/1
plants	land plants	Violaceae	*Viola hederacea*			C		1/1
plants	land plants	Viscaceae	*Viscum whitei subsp. whitei*			C		2/2
plants	land plants	Vitaceae	*Cissus vinosa*			C		2/2
plants	land plants	Xyridaceae	*Xyris complanata*	yellow-eye		C		1/1

CODES

I - Y indicates that the taxon is introduced to Queensland and has naturalised.

Q - Indicates the Queensland conservation status of each taxon under the *Nature Conservation Act 1992.*
The codes are Extinct (EX), Extinct in the Wild (PE), Critically Endangered (CR), Endangered (E), Vulnerable (V), Near Threatened (NT), Special Least Concern (SL) and Least Concern (C).

A - Indicates the Australian conservation status of each taxon under the *Environment Protection and Biodiversity Conservation Act 1999.*
The values of EPBC are Extinct (EX), Extinct in the Wild (XW), Critically Endangered (CE), Endangered (E), Vulnerable (V) and Conservation Dependent (CD).

Records - The first number indicates the total number of records of the taxon (wildlife records and species listings for selected areas).
This number is output as 99999 if it equals or exceeds this value. A second number located after a / indicates the number of specimen records for the taxon.
This number is output as 999 if it equals or exceeds this value.

Queensland Government

Department of Environment and Science

Environmental Reports

Biodiversity and Conservation Values

Biodiversity Planning Assessments and Aquatic Conservation Assessments

For the selected area of interest
Lot: 1 Plan: CWL3298

Environmental Reports - General Information

The Environmental Reports portal provides for the assessment of selected matters of interest relevant to a user specified location, or Area of Interest (AOI). All area and derivative figures are relevant to the extent of matters of interest contained within the AOI unless otherwise stated. Please note, if a user selects an AOI via the "Central co-ordinates" option, the resulting assessment area encompasses an area extending from 2km radius from the point of interest.

All area and area derived figures included in this report have been calculated via reprojecting relevant spatial features to Albers equal-area conic projection (central meridian = 146, datum Geocentric Datum of Australia 1994). As a result, area figures may differ slightly if calculated for the same features using a different co-ordinate system.

Figures in tables may be affected by rounding.

The matters of interest reported on in this document are based upon available state mapped datasets. Where the report indicates that a matter of interest is not present within the AOI (e.g. where area related calculations are equal to zero, or no values are listed), this may be due either to the fact that state mapping has not been undertaken for the AOI, that state mapping is incomplete for the AOI, or that no values have been identified within the site.

The information presented in this report should be considered as a guide only and field survey may be required to validate values on the ground.

Please direct queries about these reports to: biodiversity.planning@des.qld.gov.au

Disclaimer

Whilst every care is taken to ensure the accuracy of the information provided in this report, the Queensland Government makes no representations or warranties about its accuracy, reliability, completeness, or suitability, for any particular purpose and disclaims all responsibility and all liability (including without limitation, liability in negligence) for all expenses, losses, damages (including indirect or consequential damage) and costs which the user may incur as a consequence of the information being inaccurate or incomplete in any way and for any reason.

Table of Contents

Summary Information

Tables 1 to 8 provide an overview of the AOI with respect to selected topographic and environmental values.

Table 1: Area of interest details: Lot: 1 Plan: CWL3298

Size (ha)	20,365.94
Local Government(s)	Tablelands Regional
Bioregion(s)	Einasleigh Uplands, Wet Tropics
Subregion(s)	Herberton - Wairuna, Kirrama - Hinchinbrook
Catchment(s)	Herbert, Tully

The following table identifies available Biodiversity Planning Assessments (BPAs) and Aquatic Conservation Assessments (ACAs) with respect to the AOI.

Table 2: Available Biodiversity Planning and Aquatic Conservation Assessments

Assessment Type	Assessment Area and Version
Biodiversity Planning Assessment(s)	Einasleigh Uplands v1.1, Wet Tropics v1.1
Aquatic Conservation Assessment(s) (riverine)	Great Barrier Reef Catchments v1.1
Aquatic Conservation Assessment(s) (non-riverine)	Great Barrier Reef Catchments v1.3

Table 3: Remnant regional ecosystems within the AOI as per the Qld Herbarium's 'biodiversity status'

Biodiversity Status	Area (Ha)	% of AOI
Endangered	3,824.20	18.78
Of concern	7,094.82	34.84
No concern at present	8,848.18	43.45

The following table identifies the extent and proportion of the user specified area of interest (AOI) which is mapped as being of "State", "Regional" or "Local" significance via application of the Queensland Department of Environment and Science's *Biodiversity Assessment and Mapping Methodology* (BAMM).

Table 4: Summary table, biodiversity significance

Biodiversity significance	Area (Ha)	% of AOI
State Habitat for EVNT taxa	407.79	2.0
State	15,698.62	77.08
Regional	3,408.44	16.74
Local or Other Values	139.23	0.68

Table 5: Non-riverine wetlands intersecting the AOI

Non-riverine wetland types intersecting the area of interest	#
Number of Palustrine wetlands	3
Number of Lacustrine wetlands	0
Total number of non-riverine wetlands	3

NB. The figures presented in the table above are derived from the relevant non-riverine Aquatic Conservation Assessment(s). Later releases of wetland mapping produced via the Queensland Wetland Mapping Program may provide more recent information in regards to wetland extent.

Table 6: Named waterways intersecting the AOI

Name	Permanency
BLUNDER CREEK	Non-perennial
CHARMILLIN CREEK	Non-perennial
SUNDAY CREEK	Non-perennial

Refer to **Map 1** for general locality information.

The following two tables identify the extent and proportion of the user specified AOI which is mapped as being of "Very High", "High", "Medium", "Low", or "Very Low" aquatic conservation value for riverine and non-riverine wetlands via application of the Queensland Department of Environment and Science's *Aquatic Biodiversity Assessment and Mapping Method* (AquaBAMM).

Table 7: Summary table, aquatic conservation significance (riverine)

Aquatic conservation significance (riverine wetlands)	Area (Ha)	% of AOI
Very High	4,572.14	22.45
High	9,384.82	46.08
Medium	6,408.96	31.47
Low	0.0	0.0
Very Low	0.0	0.0

Table 8: Summary table, aquatic conservation significance (non-riverine)

Aquatic conservation significance (non-riverine wetlands)	Area (Ha)	% of AOI
Very High	68.62	0.34
High	0.0	0.0
Medium	0.0	0.0
Low	0.0	0.0
Very Low	0.0	0.0

Biodiversity Planning Assessments

Introduction

The Department of Environment and Science (DES) attributes biodiversity significance on a bioregional scale through a Biodiversity Planning Assessment (BPA). A BPA involves the integration of ecological criteria using the *Biodiversity assessment and Mapping Methodology* (BAMM) and is developed in two stages: 1) **diagnostic criteria**, and 2) **expert panel criteria**. The diagnostic criteria are based on existing data which is reliable and uniformly available across a bioregion, while the expert panel criteria allows for the refinement of the mapped information from the diagnostic output by incorporating local knowledge and expert opinion.

The BAMM methodology has application for identifying areas with various levels of significance solely for biodiversity reasons. These include threatened ecosystems or taxa, large tracts of habitat in good condition, ecosystem diversity, landscape context and connection, and buffers to wetlands or other types of habitat important for the maintenance of biodiversity or ecological processes. While natural resource values such as dryland salinity, soil erosion potential or land capability are not dealt with explicitly, they are included to some extent within the biodiversity status of regional ecosystems recognised by the DES.

Biodiversity Planning Assessments (BPAs) assign three levels of overall biodiversity significance.

- **State significance** - areas assessed as being significant for biodiversity at the bioregional or state scales. They also include areas assessed by other studies/processes as being significant at national or international scales. In addition, areas flagged as being of State significance due to the presence of endangered, vulnerable and/or near threatened taxa, are identified as "State Habitat for EVNT taxa".
- **Regional significance** - areas assessed as being significant for biodiversity at the subregional scale. These areas have lower significance for biodiversity than areas assessed as being of State significance.
- **Local significance and/or other values** - areas assessed as not being significant for biodiversity at state or regional scales. Local values are of significance at the local government scale.

For further information on released BPAs and a copy of the underlying methodology, go to:

http://www.qld.gov.au/environment/plants-animals/biodiversity/planning/

The GIS results can be downloaded from the Queensland Spatial Catalogue at:

http://qspatial.information.qld.gov.au/geoportal/

The following table identifies the extent and proportion of the user specified AOI which is mapped as being of "State", "Regional" or "Local" significance via application of the BAMM.

Table 9: Summary table, biodiversity significance

Biodiversity significance	Area (Ha)	% of AOI
State Habitat for EVNT taxa	407.79	2.0
State	15,698.62	77.08
Regional	3,408.44	16.74
Local or Other Values	139.23	0.68

Refer to **Map 2** for further information.

Diagnostic Criteria

Diagnostic criteria are based on existing data which is reliable and uniformly available across a bioregion. These criteria are diagnostic in that they are used to filter the available data and provide a "first-cut" or initial determination of biodiversity significance. This initial assessment is then combined through a second group of other essential criteria.

A description of the individual diagnostic criteria is provided in the following sections.

Criteria A. Habitat for EVNT taxa: Classifies areas according to their significance based on the presence of endangered, vulnerable and/or rare (EVNT) taxa. EVNT taxa are those scheduled under the *Nature Conservation Act 1992* and/or the

Environment Protection and Biodiversity Conservation Act 1999. It excludes highly mobile fauna taxa which are instead considered in Criterion H and brings together information on EVNT taxa using buffering of recorded sites or habitat suitability models (HSM) where available.

Criteria B. Ecosystem value: Classifies on the basis of biodiversity status of regional ecosystems, their extent in protected areas (presence of poorly conserved regional ecosystems), the presence of significant wetlands; and areas of national importance such as the presence of Threatened Ecological Communities, World Heritage areas and Ramsar sites. Ecosystem value is applied at a bioregional (**B1**) and regional (**B2**) scale.

Criteria C. Tract size: Measures the relative size of tracts of vegetation in the landscape. The size of any tract is a major indicator of ecological significance, and is also strongly correlated with the long-term viability of biodiversity values. Larger tracts are less susceptible to ecological edge effects and are more likely to sustain viable populations of native flora and fauna than smaller tracts.

Criteria D. Relative size of regional ecosystems: Classifies the relative size of each regional ecosystem unit within its bioregion (**D1**) and its subregion (**D2**). Remnant units are compared with all other occurrences with the same regional ecosystem. Large examples of a regional ecosystem are more significant than smaller examples of the same regional ecosystem because they are more representative of the biodiversity values particular to the regional ecosystem, are more resilient to the effects of disturbance, and constitute a significant proportion of the total area of the regional ecosystem.

Criteria F. Ecosystem diversity: Is an indicator of the number of regional ecosystems occurring within an area. An area with high ecosystem diversity will have many regional ecosystems and ecotones relative to other areas within the bioregion.

Criteria G. Context and connection: Represents the extent to which a remnant unit incorporates, borders or buffers areas such as significant wetlands, endangered ecosystems; and the degree to which it is connected to other vegetation.

A summary of the biodiversity status based upon the diagnostic criteria is provided in the following table.

Table 10: Summary of biodiversity significance based upon diagnostic criteria with respect to the AOI

Biodiversity significance	Description	Area (Ha)	% of AOI
State	Remnant contains an RE that is one of the largest of its type in the bioregion (D1) & Remnant has high connectivity or buffers an endangered RE or Sig. Wetland (G)	2,397.08	11.77
State	Remnant contains at least 1 Endangered or 2 Vulnerable or Near Threatened species (A)	407.79	2.0
State	Remnant contains at least 1 Endangered RE (B1)	3,181.28	15.62
State	Remnant contains at least 1 Endangered RE (B1) & Nat. Threatened Ecol. Community (B1)	21.77	0.11
State	Remnant contains at least 1 Endangered RE (B1) & World Heritage Area (B1)	303.01	1.49
State	Remnant contains at least one Of Concern RE (B1) & Is part of moderately large Tract (C) & Contains a RE that is a moderately large RE of its type in the bioregion (D1) & Has high connectivity or buffers an endangered RE or Significant Wetland (G)	1,793.33	8.81
State	Remnant contains at least one Of Concern RE (B1) & Remnant contains an RE that is one of the largest of its type in the bioregion (D1)	1,145.54	5.62
State	World Heritage Area (B1)	47.74	0.23
Regional	Remnant contains an RE that is one of the largest of its type in the subregion (D2)	84.35	0.41
Regional	Remnant contains at least 1 RE with <10 pc extent remaining or rare in subregion (B2)	17.75	0.09
Regional	Remnant contains at least 1 RE with 10-30 percent extent remaining in the subregion (B2) & Remnant is part of moderately large Tract (C) & Remnant has high connectivity or buffers an endangered RE or Significant Wetland (G)	1,059.92	5.2
Regional	Remnant contains at least 1 Vulnerable or Near Threatened species (A)	286.39	1.41
Regional	Remnant contains at least one Of Concern RE (B1)	4,103.48	20.15
Local or Other Values	Refer to diagnostic data for additional information	4,749.48	23.32

Assessment of diagnostic criteria with respect to the AOI

The following table reflects an assessment of the individual diagnostic criteria noted above in regards to the AOI.

Table 11: Assessment of individual diagnostic criteria with respect to the AOI

Diagnostic Criteria	Very High Rating - Area (Ha)	Very High Rating - % of AOI	High Rating - Area (Ha)	High Rating - % of AOI	Medium Rating - Area (Ha)	Medium Rating - % of AOI	Low Rating - Area (Ha)	Low Rating - % of AOI
A: Habitat for EVNT Taxa	407.79	2.0	323.74	1.6	11,303.62	55.5	7,550.36	37.1
B1: Ecosystem Value (Bioregion)	3,892.55	19.1	7,115.62	34.9	284.19	1.4	8,306.48	40.8
B2: Ecosystem Value (Subregion)	176.48	0.9			2,210.38	10.9	17,198.46	84.4

Diagnostic Criteria	Very High Rating - Area (Ha)	Very High Rating - % of AOI	High Rating - Area (Ha)	High Rating - % of AOI	Medium Rating - Area (Ha)	Medium Rating - % of AOI	Low Rating - Area (Ha)	Low Rating - % of AOI
C: Tract Size			19,577.50	96.1			7.82	
D1: Relative RE Size (Bioregion)	3,997.37	19.6	4,107.76	20.2	2,326.74	11.4	9,153.45	44.9
D2: Relative RE Size (Subregion)	6,678.21	32.8	3,598.70	17.7	2,067.14	10.1	7,241.27	35.6
F: Ecosystem Diversity	2,893.53	14.2	12,178.78	59.8	4,500.60	22.1	12.41	0.1
G: Context and Connection	18,325.07	90.0	1,107.77	5.4	148.01	0.7	4.47	

Other Essential Criteria

Other essential criteria (also known as expert panel criteria) are based on non-uniform information sources and which may rely more upon expert opinion than on quantitative data. These criteria are used to provide a "second-cut" determination of biodiversity significance, which is then combined with the diagnostic criteria for an overall assessment of relative biodiversity significance. A summary of the biodiversity status based upon the other essential criteria is provided in the following table.

Table 12: Summary of biodiversity significance based upon other essential criteria with respect to the AOI

Biodiversity significance	Description	Area (Ha)	% of AOI
State	Remnant contains Core Habitat for Priority Taxa (H) & Remnant contains Special Biodiversity Values (view Expert Panel data for further information) (I)	142.58	0.7
State	Remnant contains Special Biodiversity Values (view Expert Panel data for further information) (I)	12,066.68	59.25
State	Remnant contains Special Biodiversity Values (view Expert Panel data for further information) (I) & Remnant forms part of a bioregional corridor (J)	1,973.26	9.69
State	Remnant forms part of a bioregional corridor (J)	654.47	3.21
Regional	Remnant contains Special Biodiversity Values (view Expert Panel data for further information) (I)	4,597.20	22.57

A description of each of the other essential criteria and associated assessment in regards to the AOI is provided in the following sections.

Criteria H. Essential and general habitat for priority taxa: Priority taxa are those which are at risk or of management concern, taxa of scientific interest as relictual (ancient or primitive), endemic taxa or locally significant populations (such as a flying fox camp or heronry), highly specialised taxa whose habitat requirements are complex and distributions are not well correlated with any particular regional ecosystem, taxa important for maintaining genetic diversity (such as complex spatial patterns of genetic variation, geographic range limits, highly disjunct populations), taxa critical for management or monitoring of biodiversity (functionally important or ecological indicators), or economic and culturally important taxa.

Criteria I. Special biodiversity values: areas with special biodiversity values are important because they contain multiple taxa in a unique ecological and often highly biodiverse environment. Areas with special biodiversity values can include the following:

- Ia - centres of endemism - areas where concentrations of taxa are endemic to a bioregion or subregion are found.
- Ib - wildlife refugia (Morton *et al*. 1995), for example, islands, mound springs, caves, wetlands, gorges, mountain ranges and topographic isolates, ecological refuges, refuges from exotic animals, and refuges from clearing. The latter may include large areas that are not suitable for clearing because of land suitability/capability.

- Ic - areas with concentrations of disjunct populations.
- Id - areas with concentrations of taxa at the limits of their geographic ranges.
- Ie - areas with high species richness.
- If - areas with concentrations of relictual populations (ancient and primitive taxa).
- Ig - areas containing REs with distinct variation in species composition associated with geomorphology and other environmental variables.
- Ih - an artificial waterbody or managed/manipulated wetland considered by the panel/s to be of ecological significance.
- Ii - areas with a high density of hollow-bearing trees that provide habitat for animals.
- Ij - breeding or roosting sites used by a significant number of individuals.
- Ik - climate change refuge.

The following table identifies the value and extent area of the Other Essential Criteria H and I within the AOI.

Table 13: Relative importance of expert panel criteria (H and I) used to access overall biodiversity significance with respect to the AOI

Expert Panel	Very High Rating - Area (Ha)	Very High Rating - % of AOI	High Rating - Area (Ha)	High Rating - % of AOI	Medium Rating - Area (Ha)	Medium Rating - % of AOI	Low Rating - Area (Ha)	Low Rating - % of AOI
H: Core Habitat Priority Taxa	35.36	0.2	119.29	0.6	29.29	0.1		
Ia: Centres of Endemism	11,239.67	55.2	2,017.35	9.9	57.1	0.3		
Ib: Wildlife Refugia	13,216.08	64.9	5,562.36	27.3				
Ic: Disjunct Populations	13,167.38	64.7	57.1	0.3				
Id: Limits of Geographic Ranges	13,167.38	64.7	57.1	0.3				
Ie: High Species Richness	14,168.39	69.6						
If: Relictual Populations	39.26	0.2						
Ig: Variation in Species Composition	1,464.73	7.2	11,110.77	54.6				
Ih: Artificial Wetland								
Ii: Hollow Bearing Trees	13,167.38	64.7	48.7	0.2				
Ij: Breeding or Roosting Site	2,066.05	10.1	11,150.03	54.7				
Ik: Climate Refugia			11,150.03	54.7				

NB. Whilst biodiversity values associated with Criteria I may be present within the site (refer to tables 12 and 15), for the New England Tableland and Central Queensland Coast BPAs, area and % area figures associated with Criteria Ia through to Ij cannot be listed in the table above (due to slight variations in data formats between BPAs).

Criteria J. Corridors: areas identified under this criterion qualify either because they are existing vegetated corridors important for contiguity, or cleared areas that could serve this purpose if revegetated. Some examples of corridors include

riparian habitats, transport corridors and "stepping stones".

Bioregional and subregional conservation corridors have been identified in the more developed bioregions of Queensland through the BPAs, using an intensive process involving expert panels. Map 3 displays the location of corridors as identified under the Statewide Corridor network. The Statewide Corridor network incorporates BPA derived corridors and for bioregions where no BPA has been assessed yet, corridors derived under other planning processes. *Note: as a result of updating and developing a statewide network, the alignment of corridors may differ slightly in some instances when compared to those used in individual BPAs.*

The functions of these corridors are:

- **Terrestrial** Bioregional corridors, in conjunction with large tracts of remnant vegetation, maintain ecological and evolutionary processes at a landscape scale, by:

  • Maintaining long term evolutionary/genetic processes that allow the natural change in distributions of species and connectivity between populations of species over long periods of time;

  • Maintaining landscape/ecosystems processes associated with geological, altitudinal and climatic gradients, to allow for ecological responses to climate change;

  • Maintaining large scale seasonal/migratory species processes and movement of fauna;

  • Maximising connectivity between large tracts/patches of remnant vegetation;

  • Identifying key areas for rehabilitation and offsets; and

- **Riparian** Bioregional Corridors also maintain and encourage connectivity of riparian and associated ecosystems.

The location of the corridors is determined by the following principles:

- Terrestrial

  • Complement riparian landscape corridors (i.e. minimise overlap and maximise connectivity);

  • Follow major watershed/catchment and/or coastal boundaries;

  • Incorporate major altitudinal/geological/climatic gradients;

  • Include and maximise connectivity between large tracts/patches of remnant vegetation;

  • Include and maximise connectivity between remnant vegetation in good condition; and

- Riparian

  • Located on the major river or creek systems within the bioregion in question.

The total extent of remnant vegetation triggered as being of "State", "Regional" or "Local" significance due to the presence of an overlying BPA derived terrestrial or riparian corridor within the AOI, is provided in the following table. For further information on how remnant vegetation is triggered due to the presence of an overlying BPA derived corridor, refer to the relevant landscape BPA expert panel report(s).

Table 14: Extent of triggered remnant vegetation due to the presence of BPA derived corridors with respect to the AOI

Biodiversity Significance	Area (Ha)	% of AOI
State	2,627.73	12.9
Regional	0.0	0.0
Local	0.0	0.0

NB: area figures associated with the extent of corridor triggered remnant vegetation are only available for those bioregions where a BPA has been undertaken.

Refer to **Map 3** for further information.

Threatening process/condition (Criteria K) - areas identified by experts under this criterion may be used to amend (upgrade or downgrade) biodiversity significance arising from the "first-cut" analysis. The condition of remnant vegetation is affected by threatening processes such as weeds, ferals, grazing and burning regime, selective timber harvesting/removal, salinity, soil erosion, and climate change.

Assessment of Criteria K with respect to the AOI is not currently included in the "Biodiversity and Conservation Values" report, as it has not been applied to the majority of Queensland due to data/information limitations and availability.

Special Area Decisions

Expert panel derived "Special Area Decisions" are used to assign values to Other Essential Criteria. The specific decisions which relate to the AOI in question are listed in the table below.

Table 15: Expert panel decisions for assigning levels of biodiversity significance with respect to the AOI

Decision Number	Description	Panel Recommended Significance	Criteria Values
eiu_fa_24	Eastern ecotone	State	Ia (centre of endemism): HIGH Ib (wildlife refugia): VERY HIGH Ic (disjunct populations): VERY HIGH Id (taxa at the limits of their ranges): VERY HIGH Ie (high species richness): VERY HIGH Ii (high density of hollow-bearing trees): VERY HIGH Ij (significant breeding or roosting sites): VERY HIGH
eiu_fl_24	High precision records for priority taxa of State significance are contained within the remnant.	State	Criterion H: VERY HIGH
eiu_fl_26	High precision records for priority taxa of Regional significance are contained within the remnant.	Regional	Criterion H: HIGH
eiu_l_03	Riparian ecosystems and associated areas.	State	Ib (wildlife refugia): VERY HIGH Ie (high species richness): VERY HIGH Ig (RE's with distinct variation): VERY HIGH Ii (high density of hollow-bearing trees): HIGH Ij (significant breeding or roosting sites): VERY HIGH
eiu_l_06	Wetlands	Regional	Ib (wildlife refugia): HIGH Ie (high species richness): HIGH Ii (high density of hollow-bearing trees): HIGH Ij (significant breeding or roosting sites): HIGH
eiu_l_15	Ecosystems with a Biodiversity status of Endangered or Of Concern and a current extent of less than 10,000ha	State	Ib (wildlife refugia): HIGH Ig (RE's with distinct variation): VERY HIGH
eiu_l_32	Bioregional Terrestrial Corridors	State or Regional	J (corridors): State or Regional
wet_fa_22	High 'rainforest vertebrate' taxa richness	State	Ie) (species richness): VH
wet_fl_09	Mountain tops south of Daintree - Harris Peak to Herbert River above 950m	State	Ia (endemic richness): VH Ib (refugia): H Ic (disjunct populations): H Id (range limits): VH Ie (species richness): VH If (relictual taxa): VH Ig (ecosystem variation): VH Ik (climate change refugia): H
wet_l_06	Major waterfalls and associated large gorges	Regional	Ia (endemic richness): M Ic (disjunct populations): H Id (range limits): H
wet_l_15	Sclerophyll forest west of rainforest - tall open forest	State	Ia (endemic richness): VH Ib (refugia): VH Ic (disjunct populations): VH Id (range limits): VH Ie (species richness): VH Ig (ecosystem variation): H Ii (hollows and habitat): VH Ij (aggregation site): H Ik (climate change refugia): H
wet_l_16	Wet Tropics endemic BVGs of simple to complex upland mesophyll and notophyll vine forests.	State	Ia (endemic richness):VH

Decision Number	Description	Panel Recommended Significance	Criteria Values
wet_l_23	Wet Tropics World Heritage Area Outstanding Universal Values - Concentrations of endemism	State	Ia (endemics): VH
wet_l_25	Core areas	Regional	Ib (refugia): H
wet_l_30a	Terrestrial bioregional corridors (landscape connections) .	State	Criterion J (terrestrial corridor): STATE
wet_l_31b	Riparian bioregional corridors (landscape connections)	Regional	Criterion J (riparian corridor): REGIONAL

Expert panel decision descriptions:

eiu_fa_24

The Eastern ecotone of the Einasleigh Uplands is a band of eucalypt forest separating the rainforest of the Wet Tropics from the dry tropical woodlands that characterize the bioregion. These better developed forests support a number of species that are endemic to the ecotone, or are isolated populations of species more widely distributed in the wet sclerophyll forest of south-east Queensland. These species include the northern bettong (**Bettongia tropica**), eastern yellow robin (**Eopsaltria australis**), yellow thornbill (**Acanthiza nana**), greater glider (**Petauroides volans**), Squirrel glider (**Petaurus norfolcensis**), crested shrike-tit (**Falcunculus frontatus**) and the yellow-faced honeyeater (**Lichenostomus chrysops**). Disjunct tree species that have the major part of their North Queensland distribution in the ecotone include **Eucalyptus resinifera, E. pellita, E. grandis, E. moluccana, E. reducta, E. cloeziana, E. citriodora** and **Angophora floribunda.**

eiu_fl_24

Remnant contains Core Habitat for Priority taxa with high precision records.

eiu_fl_26

Remnant contains Core Habitat for Priority taxa with high precision records.

eiu_l_03

Most of the Einasleigh Uplands is dominated by open vegetation on shallow or skeletal soils. Riparian RE's associated with the larger river systems function as important refuges for many species of flora and fauna because of the relatively high nutrient levels associated with most of these areas, their better moisture balance and their generally well developed vegetation. These mesic ribbons of habitat provide an important seasonal refuge and resources for a variety of species, in particular arboreal mammals, woodland birds, hollow-roosting species and amphibians. Many raptor species preferentially nest in tall riparian trees.

Riparian areas are also biogeographically significant habitat as they allow inland incursions of many east coast species into drier areas on the edge of their geographic range.

Riparian areas were given a 200m buffer with the same significance rating to ensure that adjacent habitat used opportunistically by species using the riparian areas was also included.

This decision includes Landscape decision 4.

eiu_l_06

• Wetlands have a range of biodiversity values, both in their own right, and for the role they play in maintaining water quality, protecting downstream aquatic ecosystems, and as part of the wetland ecosystem continuum where they are periodically connected with other aquatic ecosystems. Wetlands act as refugia for many species, and play a vital role in the life cycle of others.

• Wetlands were given a 200m buffer with the same significance rating to ensure that all areas adjacent to them, and the areas most likely to have higher values, were also included.

eiu_l_15

Einasleigh Upland regional ecosystems with a remaining extent that is less than 10,000ha have a naturally restricted distribution, and their threatened status is a reflection of this. They are susceptible to what would normally be viewed as local threats or impacts, and are therefore most vulnerable of all ecosystems to rapid and potentially total loss of natural values. In most cases their restricted distribution relates to geomorphic and/or micro-climatic settings that are also restricted and these areas therefore have particular ecological and scientific values. These values relate to the unique combination of ecological characteristics, and to the unusual habitat conditions they provide for particular species or genotypes. Where the status has been upgraded to Endangered due to the impact of threatening processes their susceptibility to further loss of values is extreme.

eiu_l_32

This terrestrial corridors decision identifies major themes of habitat connectivity across the bioregion. They identify north/south and east/west links that cover higher altitude areas along watersheds and mountain ranges, and areas characterised by a relative continuity of similar or related habitats, using the methodology outlined in EPA 2008. Identified corridor centrelines are buffered according to the significance of the centreline and the landscape context within which it occurs

Decision eiu_l_22 Corridor Special Management Areas identifies areas where values associated with landscape scale habitat connectivity have been compromised.

wet_fa_22

Areas of WET remnant vegetation modelled as being of either high richness for rainforest dependent/partly dependent amphibian, avian, mammalian, or reptile taxa.

This special area representation is derived from research produced through a collaborative fauna modelling project (Williams 2006). Part of the project resulted in the construction of approximately 170 rainforest vertebrate species distribution models. Additionally, species richness, diversity and endemic richness maps were subsequently produced. Rainforest taxa were defined as those species which were obligate to periodic users of Wet Tropic rainforests.

For the purpose of the current special area representation, the extent shown in the adjoining thumbnail captures remnant vegetation which overlapped areas modelled as being of either high amphibian, avian, mammal, or reptile richness. For each taxonomic group, the area of high rainforest taxa richness was defined as the highest modelled 10% area (limited to areas within remnant vegetation) within the WET. The resultant outputs, were then combined to provide a flattened extent area capturing the four major vertebrate taxonomic faunal groups of modelled high species richness.

wet_fl_09

The following description provides a general overview of the peaks above 950m from Harris Peak to the Herbert River with the exclusion of Mt Bartle Frere and Bellenden Ker. The feature encompasses areas such as Harris Peak, Herberton Range, Cardwell Ranges, Hann Tableland peak tops, and Bakers Blue. The range east of Cairns including Bell Peak (Malbon Thompson) are included but use a different altitudinal cut off due to change in elevation of cloud cover (450m rather than 950m).

Based upon past climatic modelling, these general Wet Tropic Mountain Ranges are considered as having exhibited moderate to strong stability in terms of microphyll-notophyll rainforest retention. Regional ecosystem 7.12.16a (communities of simple notophyll vine forest on wet and moist uplands) exhibits significant variation in taxa composition across the areas depicted. Rock pavements and outcrops occur which provide microhabitat for sedge and fern lands. Also of note, some peaks exhibit similar characteristics to Windsor Tablelands in harbouring both wet and dry rainforest types due to distinct climate/environmental gradients.

In general, floristically the panel considered the areas as being species rich, also with very high levels of endemism, although less than similar mountain top decisions.

wet_l_06

This special feature is comprised of the larger waterfalls and gorges. For a number of amphibia and other aquatic taxa including the estuarine crocodile, large falls (especially the first major fall inland from the coast) act as a significant geographic barrier resulting in range limits and discontinuity of species distributions.

The constant flow of water, topographic ruggedness, diversity of habitats and light shading creates localised microclimatic conditions. In conjunction with geographic isolation, these conditions result in moderate levels of endemism and restricted distributions. Bloomfield Falls for example, has a localised **Xanthostemon** species, whilst an adjoining 11km stretch of the river system houses the locally restricted (**Guyu wujalwujalensis**). Persistence of **Guyu wujalwujalensis**, may be due to the presence of waterfalls which blocked migration of more aggressive tropical freshwater fish species (i.e. **Hephaestus fuliginosus**) that presumably displaced the species from its former range. The geographic isolation may also provide a refugial role for populations of threatened amphibia from Chytridiomycosis (amphibian chytrid fungus disease).

The topographic richness associated with these environments, also encourages richness of species and a relatively high abundance of lycophytes, ferns, figs and orchids on rocky substrates are present. The rocky environments and poor soils conditions of the gorges also permit dry rainforest plant colonies to occur in wet locations, whilst microclimatic conditions similarly facilitate higher elevation species to occur at lower elevation. With respect to fauna richness, by way of example, Barron Falls provides habitat for 36 amphibian species including five endangered and one vulnerable taxa under the NCA.

wet_l_15

Predominantly situated at the Western margins of the WET and extending from Mt Windsor south to Mt Zero, the feature also incorporates Einasleigh elements. The transition from dry, moist through to tall wet sclerophyll up to the rainforest margin is a highly dynamic zone influenced by climate and fire regimes (and is one of the few WET landscape systems that can carry a crown fire). The considerable environmental heterogeneity associated with the transition often incorporates the tension zone between lowland and upland species, resulting in a high diversity of vertebrate taxa, including many endemics. The largest contiguous remaining tracts of wet sclerophyll adjacent to rainforest occur along western margin of Coane, Seaview and Cardwell ranges and in upper Daintree area (Stanton et al. 2014). Reduced fire exposure is considered a significant threat to the wet sclerophyll communities from rainforest incursion (Stanton et al. 2014).

The panel noted that the system has an adaptive capacity to climate change with potential movement of vegetation communities along an elevation gradient. This feature also acts as an important corridor along the western bioregion boundary, and areas with the greatest long-term climatic stability for wet sclerophyll forest have been identified as the sections encompassing the western edge of the Atherton, Kirrama and Paluma uplands (VanDerWal et al. 2009).

A number of threatened fauna inhabit this ecotone including **Delma mitella**, **Dasyurus hallucatus**, **Dasyurus maculatus gracilis**, **Bettongia tropica**, **Petauroides volans** and **Petaurus australis** unnamed subsp. (NQ). Disjunct taxa also occur, e.g. **Cormobates leucophaea minor**, **Falcunculus frontatus**, **Antechinus flavipes** and **Isoodon obesulus peninsulae**.

Presence of widespread endemics, e.g. **Bolemoreus frenatus, Xanthotis macleayanus** and **Arses kaupi**. The snail **Steorra estherlilleyae** is narrowly restricted to this habitat west of Paluma. Other invertebrates associated with wet sclerophyll forest include **Temnoplectron cooki**, **Onthophagus pinaroo**, **Pamborus elegans** and **Anomalomorpha monteithi** (Yeates Monteith 2008). Many WET taxa also reach their western and southern limits in this community. Tall eucalypts provide hollows for gliders, possums and large cockatoos, e.g. **Calyptorhynchus lathami**. This habitat is also important for winter feeding by **Pteropus conspicillatus**.

With respect to flora, some of the threatened species present include: **Prostanthera clotteniana**, **Tylophora rupicola**, **Corymbia leptoloma**, **Corymbia rhodops**, **Parsonsia wildensis**, **Plectranthus amoenus**,

Calochlaena villosa, and **Dodonaea uncinata**.

Examples of Wet Tropic endemic flora include: **Actephila flavescens, Acrothamnus spathaceus, Alpinia arctiflora, Argyrodendron peralatum, Athertonia diversifolia, Brackenridgea australiana, Bulbophyllum gadgarrense, Comesperma rhyoliticum, Corymbia leptoloma, Desmos goezeanus, Elaeocarpus carolinae, Endiandra bessaphila, Gmelina fasciculiflora, Hibbertia melhanioides var. baileyana, Lastreopsis tinarooensis, Medicosma glandulosa, Myrsine smithii, Persoonia tropica, Sarcochilus borealis, Solanum magnifolium** and **Symplocos glabra**. Examples of disjunct flora include: **Acacia ulicifolia, Alectryon semicinereus, Archidendron hendersonii, Boletellus emodensis, Cantharellus concinnus, Fistulinella mollis, Hibiscus diversifolius, Knoxia sumatrensis, Lomandra laxa, Notelaea ovata** and **Platycerium superbum.**

wet_l_16

The special area encompasses the broad vegetation groups 1b and 5c (at the 1:1,000,000 scale). BVG 1b refers to - Complex mesophyll to notophyll vine forests usually on basalt tablelands whilst the BVG 5c refers to - Simple to complex notophyll vine forests, often with **Agathis** spp. on ranges and uplands of the WET.

Both these BVGs are unique and endemic to the Wet Tropics and exhibit a unique combination of vegetation communities that only exist within the bioregion.

wet_l_23

The Wet Tropics is regarded as a centre of endemism (second only to New Caledonia in the number of endemic genera per unit area), and provides critical insights into the evolutionary patterns both within and outside the rainforests, including the evolutionary history with the surrounding sclerophyll forests. It also provides outstanding examples of important ongoing ecological processes and biological evolution.

The special feature depicted reflects taxa rich "hot spots" derived from known records, and for taxa considered to be endemic to the bioregion (DES 2018). For the purpose of this implementation, the highest ranked 10% area of remnant vegetation within the bioregion was extracted.

Nb. spatial representation not restricted to the WTWHA.

wet_l_25

Tracts are defined as patches of continuous remnant vegetation. The size of any tract is a major indicator of ecological significance and is strongly correlated with the long-term viability of biodiversity values. Larger tracts are less susceptible to ecological edge effects and are more likely to sustain viable populations of native flora and fauna than smaller tracts. These areas can be considered core nodes/refugia in which a large proportion of the bioregions biodiversity is represented.

A modified tract size analysis (Criterion C) (EHP 2014) was used to identify and delineate discrete tracts of remnant vegetation at a bioregion scale. For the purpose of the assessment, a core area was identified as a relatively contiguous area of remnant vegetation (disregarding small perforations, or linear breaks) and which was generally greater than 5km in width (based upon the minimum width of the terrestrial corridor network). Tracts of greater than 2,000ha were included.

wet_l_30a

The broad purpose of landscape-scale connections, is to provide for ecological and evolutionary processes at a bioregional scale. Maintaining connectivity across a landscape, either through "continuous linkages" or via "stepping-stones" of remnant vegetation, is important for the long-term conservation of biodiversity.

Corridor triggered remnant vegetation is focused upon areas between core tracts/nodes (as identified under the special area decision wet_l_25) within the bioregion. For further information regarding the broad principles and intent, as well as more specific information relating to the Wet Tropics terrestrial corridor network, refer to Section 3.3.2.1 and Table 14.

wet_l_31b

Riparian corridors encompass some of the most diverse, dynamic and complex habitats incorporating both environmental and topographic gradients. Comparatively, such areas tend to exhibit high species richness with respect to both flora and fauna, provide important resources in terms of water, food, shelter, nesting and nursery sites and act as a refugia during periods of drought, or in response to longer terms impacts associated with climatic change.

At the landscape scale, networks of major and minor riparian linkages are a significant element of habitat continuity and provide important migratory and dispersal pathways for a substantial number of species (especially birds, insects and flora, but also for many arboreal mammals and reptiles). In some areas of fragmented landscapes, watercourses often provide the only remaining habitat connectivity due to the extensive clearing and surrounding modified landscape.

Within the WET, the panel determined that remnant vegetation within 200m and 100m of major and minor waterways should be designated as being of State and Regional significance respectively. The significance of selected riverine systems were also modified in some instances (Table 16). Corridor triggered remnant vegetation focuses upon identifying key connections between remaining core tracts/nodes (as identified under the special area decisions wet_l_25) within the bioregion. For further information regarding the broad principles and intent, as well as more specific information relating to the Wet Tropics riparian corridor network, refer to Section 3.3.2.2.

Aquatic Conservation Assessments

Introduction

The Aquatic Biodiversity Assessment and Mapping Method or AquaBAMM (Clayton *et al.* 2006), was developed to assess conservation values of wetlands in queensland, and may also have application in broader geographical contexts. It is a comprehensive method that uses available data, including data resulting from expert opinion, to identify relative wetland conservation/ecological values within a specified study area (usually a catchment). The product of applying this method is an Aquatic Conservation Assessment (ACA) for the study area.

An ACA using AquaBAMM is non-social, non-economic and identifies the conservation/ecological values of wetlands at a user-defined scale. It provides a robust and objective conservation assessment using criteria, indicators and measures that are founded upon a large body of national and international literature. The criteria, each of which may have variable numbers of indicators and measures, are naturalness (aquatic), naturalness (catchment), diversity and richness, threatened species and ecosystems, priority species and ecosystems, special features, connectivity and representativeness. An ACA using AquaBAMM is a powerful decision support tool that is easily updated and simply interrogated through a geographic information system (GIS).

Where they have been conducted, ACAs can provide a source of baseline wetland conservation/ecological information to support natural resource management and planning processes. They are useful as an independent product or as an important foundation upon which a variety of additional environmental and socio-economic elements can be added and considered (i.e. an early input to broader 'triple-bottom-line' decision-making processes). An ACA can have application in:

- determining priorities for protection, regulation or rehabilitation of wetlands and other aquatic ecosystems
- on-ground investment in wetlands and other aquatic ecosystems
- contributing to impact assessment of large-scale development (e.g. dams)
- water resource and strategic regional planning prcesses

For a detailed explanation of the methodology please refer to the summary and expert panel reports relevant to the ACA utilised in this assessment. These reports can be accessed at Wetland *Info*:

http://wetlandinfo.des.qld.gov.au/wetlands/assessment/assessment-methods/aca

The GIS results can be downloaded from the Queensland Spatial Catalogue at:

http://qspatial.information.qld.gov.au/geoportal/

Explanation of Criteria

Under the AquaBAMM, eight criteria are assessed to derive an overall conservation value. Similar to the Biodiversity Assessment and Mapping Methodology, the criteria may be primarily diagnostic (quantitative) or primarily expert opinion (qualitative) in nature. The following sections provide a brief description of each of the 8 criteria.

Criteria 1. Naturalness - Aquatic: This attribute reflects the extent to which a wetland's (riverine, non-riverine, estuarine) aquatic state of naturalness is affected through relevant influencing indicators which include: presence of exotic flora and fauna; presence of aquatic communities; degree of habitat modification and degree of hydrological modification.

Criteria 2. Naturalness - Catchment: The naturalness of the terrestrial systems of a catchment can have an influence on many wetland characteristics including: natural ecological processes e.g. nutrient cycling, riparian vegetation, water chemistry, and flow. The indicators utilised to assess this criterion include: presence of exotic flora and/or fauna; riparian, catchment and flow modification.

Criteria 3. Naturalness - Diversity and Richness: This criterion is common to many ecological assessment methods and can include both physical and biological features. It includes such indicators as species richness, riparian ecosystem richness and geomorphological diversity.

Criteria 4. Threatened Species and Ecosystems: This criterion evaluates ecological rarity characteristics of a wetland. This includes both species rarity and rarity of communities / assemblages. The communities and assemblages are best represented by regional ecosystems. Species rarity is determined by NCA and EPBC status with Endangered, Vulnerable or Near-threatened species being included in the evaluation. Ecosystem rarity is determined by regional ecosystem biodiversity status i.e. Endangered, Of Concern, or Not of Concern.

Criteria 5. Priority Species and Ecosystems: Priority flora and fauna species lists are expert panel derived. These are aquatic, semi-aquatic and riparian species which exhibit at least 1 particular trait in order to be eligible for consideration. For

flora species the traits included:

- It forms significant macrophyte beds (in shallow or deep water).
- It is an important food source.
- It is important/critical habitat.
- It is implicated in spawning or reproduction for other fauna and/or flora species.
- It is at its distributional limit or is a disjunct population.
- It provides stream bank or bed stabilisation or has soil binding properties.
- It is a small population and subject to threatening processes.

Fauna species are included if they meet at least one of the following traits:

- It is endemic to the study area (>75 per cent of its distribution is in the study area/catchment).
- It has experienced, or is suspected of experiencing, a serious population decline.
- It has experienced a significant reduction in its distribution and has a naturally restricted distribution in the study area/catchment.
- It is currently a small population and threatened by loss of habitat.
- It is a significant disjunct population.
- It is a migratory species (other than birds).
- A significant proportion of the breeding population (>one per cent for waterbirds, >75 per cent other species) occurs in the waterbody (see Ramsar criterion 6 for waterbirds).
- Limit of species range.

See the individual expert panel reports for the priority species traits specific to an ACA.

Criteria 6. Special Features: Special features are areas identified by flora, fauna and ecology expert panels which exhibit characteristics beyond those identified in other criteria and which the expert panels consider to be of the highest ecological importance. Special feature traits can relate to, but are not solely restricted to geomorphic features, unique ecological processes, presence of unique or distinct habitat, presence of unique or special hydrological regimes e.g. spring-fed streams. Special features are rated on a 1 - 4 scale (4 being the highest).

Criteria 7. Connectivity: This criterion is based on the concept that appropriately connected aquatic ecosystems are healthy and resilient, with maximum potential biodiversity and delivery of ecosystem services.

Criteria 8. Representativeness: This criterion applies primarily to non-riverine assessments, evaluates the rarity and uniqueness of a wetland type in relation to specific geographic areas. Rarity is determined by the degree of wetland protection within "protected Areas" estate or within an area subject to the *Fisheries Act 1994*, *Coastal Protection and Management Act 1995*, or *Marine Parks Act 2004*. Wetland uniqueness evaluates the relative abundance and size of a wetland or wetland management group within geographic areas such as catchment and subcatchment.

Riverine Wetlands

Riverine wetlands are all wetlands and deepwater habitats within a channel. The channels are naturally or artificially created, periodically or continuously contain moving water, or connecting two bodies of standing water. AquaBAMM, when applied to riverine wetlands uses a discrete spatial unit termed subsections. A subsection can be considered as an area which encompasses discrete homogeneous stream sections in terms of their natural attributes (i.e. physical, chemical, biological and utilitarian values) and natural resources. Thus in an ACA, an aquatic conservation significance score is calculated for each subsection and applies to all streams within a subsection, rather than individual streams as such.

Please note, the area figures provided in Tables 16 and 17, are derived using the extent of riverine subsections within the AOI. Refer to **Map 5** for further information. A summary of the conservation significance of riverine wetlands within the AOI is provided in the following table.

Table 16: Overall level/s of riverine aquatic conservation significance

Aquatic conservation significance (riverine wetlands)	Area (Ha)	% of AOI
Very High	4,572.14	22.45

Aquatic conservation significance (riverine wetlands)	Area (Ha)	% of AOI
High	9,384.82	46.08
Medium	6,408.96	31.47
Low	0.0	0.0
Very Low	0.0	0.0

The individual aquatic conservation criteria ratings for riverine wetlands within the AOI are listed below.

Table 17: Level/s of riverine aquatic conservation significance based on selected criteria

Criteria	Very High Rating - Area (Ha)	Very High Rating - % of AOI	High Rating - Area (Ha)	High Rating - % of AOI	Medium Rating - Area (Ha)	Medium Rating - % of AOI	Low Rating - Area (Ha)	Low Rating - % of AOI
1. Naturalness aquatic	2,591.57	12.7	7.53		783.77	3.8	16,983.04	83.4
2. Naturalness catchment	9,367.65	46.0	10,998.26	54.0				
3. Diversity and richness			6,526.92	32.0	13,838.99	68.0		
4. Threatened species and ecosystems	19,704.43	96.8						
5. Priority species and ecosystems	3,933.75	19.3	3,205.03	15.7				
6. Special features	4,572.14	22.4						
7. Connectivity	3,958.44	19.4	638.39	3.1	15,010.00	73.7	759.08	3.7
8. Representative-ness								

The table below lists and describes the relevant expert panel decisions used to assign conservation significance values to riverine wetlands within the AOI.

Table 18: Expert panel decisions for assigning overall levels of riverine aquatic conservation significance

Decision number	Special feature	Catchment	Criteria/Indicator/Measure	Conservation rating (1-4)
(No Records)				

4 is the highest rating/value

Expert panel decision descriptions:

(No Records)

Non-riverine Wetlands

Non-riverine wetlands include both lacustrine and palustrine wetlands, however, do not currently incorporate estuarine, marine or subterranean wetland types. A summary of the conservation significance of non-riverine wetlands within the AOI is provided in the following table. Refer to **Map 6** for further information.

Table 19: Overall level/s of non-riverine aquatic conservation significance

Aquatic conservation significance (non-riverine wetlands)	Area (Ha)	% of AOI
Very High	68.62	0.34
High	0.0	0.0
Medium	0.0	0.0
Low	0.0	0.0
Very Low	0.0	0.0

The following table provides an assessment of non-riverine wetlands within the AOI and associated aquatic conservation criteria values.

Table 20: Level/s of non-riverine aquatic conservation significance based on selected criteria

Criteria	Very High Rating - Area (Ha)	Very High Rating - % of AOI	High Rating - Area (Ha)	High Rating - % of AOI	Medium Rating - Area (Ha)	Medium Rating - % of AOI	Low Rating - Area (Ha)	Low Rating - % of AOI
1. Naturalness aquatic	68.62	0.3						
2. Naturalness catchment	12.51	0.1	56.11	0.3				
3. Diversity and richness					68.62	0.3		
4. Threatened species and ecosystems	1.42		67.2	0.3				
5. Priority species and ecosystems			54.69	0.3				
6. Special features	67.2	0.3						
7. Connectivity								
8. Representative-ness	56.11	0.3			12.51	0.1		

The table below lists and describes the relevant expert panel decisions used to assign conservation significance values to non-riverine wetlands within the AOI.

Table 21: Expert panel decisions for assigning overall levels of non-riverine aquatic conservation significance.

Decision number	Special feature	Catchment	Criteria/Indicator/Measure	Conservation rating (1-4)
he_nr_ec_08	Blunder Park	Herbert	6.1.1,6.4.1	4

4 is the highest rating/value

Expert panel decision descriptions:

he_nr_ec_08

The wetlands at Blunder Park are unique black plain swamps usually only found in the Einasleigh Uplands bioregion. The only other similar permanent systems in the Upper Herbert are subject to modification. The vegetation is unique due to its altitude and location and the area is high in geomorphic diversity. The permanent water in the area is provided by reliable local runoff from hard surrounding catchment.

Note: This decision is a revised decision based on decision number he_ec_5 (Herbert wetland ecology expert panel 2007).

Threatened and Priority Species

Introduction

This chapter contains a list of threatened and priority flora and/or fauna species that have been recorded on, or within 4km of the Assessment Area.

The information presented in this chapter with respect to species presence is derived from compiled databases developed primarily for the purpose of BPAs and ACAs. Data is collated from a number of sources and is updated periodically.

It is important to note that the list of species provided in this report, may differ when compared to other reports generated from other sources such as the State government's WildNet, Herbrecs or the federal government's EPBC database for a number of reasons.

Records for threatened and priority species are filtered and checked based on a number of rules including:

- Taxonomic nomenclature - current scientific names and status,
- Location - cross-check co-ordinates with location description,
- Taxon by location - requires good knowledge of the taxon and history of the record,
- Duplicate records - identify and remove,
- Expert panels - check records and provide new records,
- Flora cultivated records excluded,
- Use precise records less than or equal to 2000m,
- Use recent records greater than or equal to 1975 animals, greater than or equal to 1950 plants.

Threatened Species

Threatened species are those species classified as "Endangered" or "Vulnerable" under the *Environment Protection and Biodiversity Conservation Act 1999* or "Endangered", "Vulnerable" or "Near threatened" under the *Nature Conservation Act 1992*.

The following threatened species have been recorded on, or within approximately 4km of the AOI.

Table 22: Threatened species recorded on, or within 4km of the AOI

Species	Common name	NCA status	EPBC status	Back on Track rank	Migratory species*	Wetland species**	Identified flora/fauna
Alloxylon flammeum		V	V	Low			FL
Aponogeton bullosus		E	E	High		Y	FL
Calochlaena villosa		NT		Low			FL
Casuarius casuarius johnsonii (southern population)	southern cassowary (southern population)	E	E	Critical			FA
Corybas abellianus	nodding helmet orchid	NT		Data Deficient			FL
Dasyurus maculatus gracilis	spotted-tailed quoll (northern subspecies)	E	E	Critical			FA
Dendrolagus lumholtzi	Lumholtz's tree-kangaroo	NT		Low			FA
Diuris oporina	northern white donkeys tails	NT		Low			FL
Dodonaea uncinata		NT		Low			FL
Litoria nannotis	waterfall frog	E	E	Low		Y	FA
Litoria nyakalensis	mountain mistfrog	E	CE	Low			FA
Litoria rheocola	common mistfrog	E	E	Low		Y	FA
Litoria serrata	tapping green eyed frog	V		Low		Y	FA

Species	Common name	NCA status	EPBC status	Back on Track rank	Migratory species*	Wetland species**	Identified flora/fauna
Murina florium	tube-nosed insectivorous bat	V		High			FA
Petauroides volans	greater glider	V	V	Low			FA
Petauroides volans minor	northern greater glider	V	V				FA
Petaurus australis unnamed subsp.	yellow-bellied glider (northern subspecies)	V	V	Critical			FA
Prostanthera clotteniana		E	CE	Critical			FL
Pseudophryne covacevichae	magnificent broodfrog	V	V	Low		Y	FA
Sminthopsis leucopus	white-footed dunnart	V		Low			FA
Triplarina nitchaga		V	V	Low			FL

NB. Please note that the threatened species listed in this section are based upon the most recently compiled DES internal state-wide threatened species dataset. This dataset may contain additional records that were not originally available for inclusion in the relevant individual BPAs and ACAs.

**JAMBA - Japan-Australia Migratory Bird Agreement; CAMBA - China-Australia Migratory Bird Agreement; ROKAMBA - Republic of Korea-Australia Migratory Bird Agreement; CMS - Convention on the Conservation of Migratory Species*.

***Y - wetland indicator species*.

BPA Priority Species

A list of BPA priority species that have been recorded on, or within approximately 4km of the AOI is contained in the following table.

Table 23: Priority species recorded on, or within 4km of the AOI

Species	Common name	Back on Track rank	Identified flora/fauna
Acacia whitei	None	L	FL
Acanthiza katherina	Mountain Thornbill	L	FA
Aepyprymnus rufescens	Rufous Bettong	L	FA
Ailuroedus maculosus	Spotted Catbird	L	FA
Amblyornis newtonianus	Golden Bowerbird	L	FA
Austrophlebioides porphyrobranchius	mayfly	None	FA
Austrophlebioides wooroonooran	mayfly	None	FA
Colluricincla boweri	Bower's Shrike-thrush	L	FA
Craterodiscus pricei	Price's Discus-snail	None	FA
Dendrobium carrii	None	None	FL
Dividospiralia alba	Bellenden Ker Pinwheel Snail	None	FA
Dockrillia nugentii	None	None	FL
Dromaeschna weiskei	Ochre-tipped Darner	None	FA
Hemibelideus lemuroides	Lemuroid Ringtail Possum	L	FA
Heteromyias cinereifrons	Grey-headed Robin	L	FA
Hibbertia longifolia	None	None	FL
Hibbertia melhanioides var. melhanioides	None	None	FL
Hovea nana	None	L	FL
Melaleuca viridiflora	None	None	FL

Species	Common name	Back on Track rank	Identified flora/fauna
Oreoscopus gutturalis	Fernwren	L	FA
Orthonyx spaldingii	Chowchilla	L	FA
Pseudochirops archeri	Green Ringtail Possum	L	FA
Pseudochirulus herbertensis	Herbert River Ringtail Possum	L	FA
Ptiloris victoriae	Victoria's Riflebird	L	FA
Rhodomyrtus pervagata	None	None	FL
Scenopoeetes dentirostris	Tooth-billed Bowerbird	L	FA
Sericornis keri	Atherton Scrubwren	L	FA
Tephrosia filipes	None	None	FL

NB. Please note that the list of priority species is based on those species identified in the BPAs, however records for these species may be more recent than the originals used. furthermore, the BPA priority species databases are updated from time to time. At each update, the taxonomic details for all species are amended as necessary to reflect current taxonomic name and/or status changes.

ACA Priority Species

A list of ACA priority species used in riverine and non-riverine ACAs that have been recorded on, or within approximately 4km of the AOI are contained in the following tables.

Table 24: Priority species recorded on, or within 4 km of the AOI - riverine

Species	Common name	Back on Track rank	Identified flora/fauna
Leersia hexandra	swamp rice grass	None	FL
Litoria jungguy	Northern Stony Creek Frog	Low	FA
Litoria xanthomera	Orange Thighed Treefrog	Low	FA
Macrobrachium koombooloomba	Koombooloomba Prawn	Low	FA
Mixophyes schevilli	Northern Barred-Frog	Low	FA
Ornithorhynchus anatinus	Platypus	Low	FA

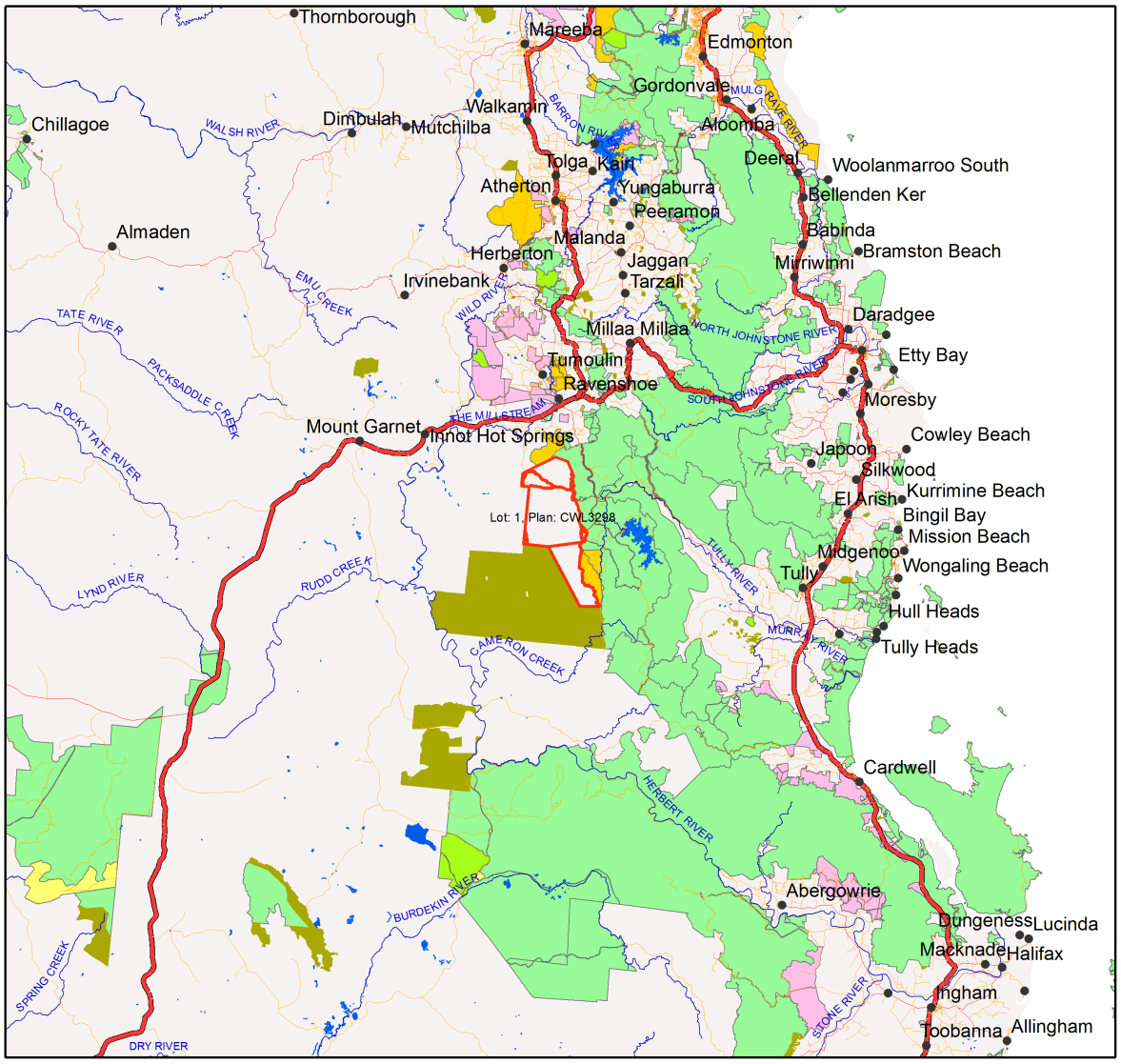
Table 25: Priority species recorded on, or within 4 km of the AOI - non-riverine

Species	Common name	Back on Track rank	Identified flora/fauna
Leersia hexandra	swamp rice grass	None	FL
Lepironia articulata	None	None	FL
Litoria jungguy	Northern Stony Creek Frog	Low	FA
Litoria xanthomera	Orange Thighed Treefrog	Low	FA
Mixophyes schevilli	Northern Barred-Frog	Low	FA

NB. Please note that the priority species records used in the above two tables are comprised of those adopted for the released individual ACAs. The ACA riverine and non-riverine priority species databases are updated from time to time to reflect new release of ACAs. At each update, the taxonomic details for all ACAs records are amended as necessary to reflect current taxonomic name and/or status changes.

Maps

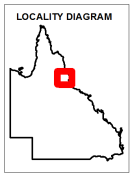
Map 1 - Locality Map



Locality Map

Legend

- Selected Lot and Plan
- Towns
- Highway
- Connector
- Street/Local Road
- Reservoirs
- Lakes
- National Park (Scientific)
- National Park
- National Park (CYPAL)
- Conservation Park
- Resources Reserve
- Forest Reserve
- State Forest
- Timber Reserve
- Nature Refuges
- Coordinated Conservation Areas
- Major rivers/creeks
- Queensland



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0 11000 22000 33000 44000 55000 m

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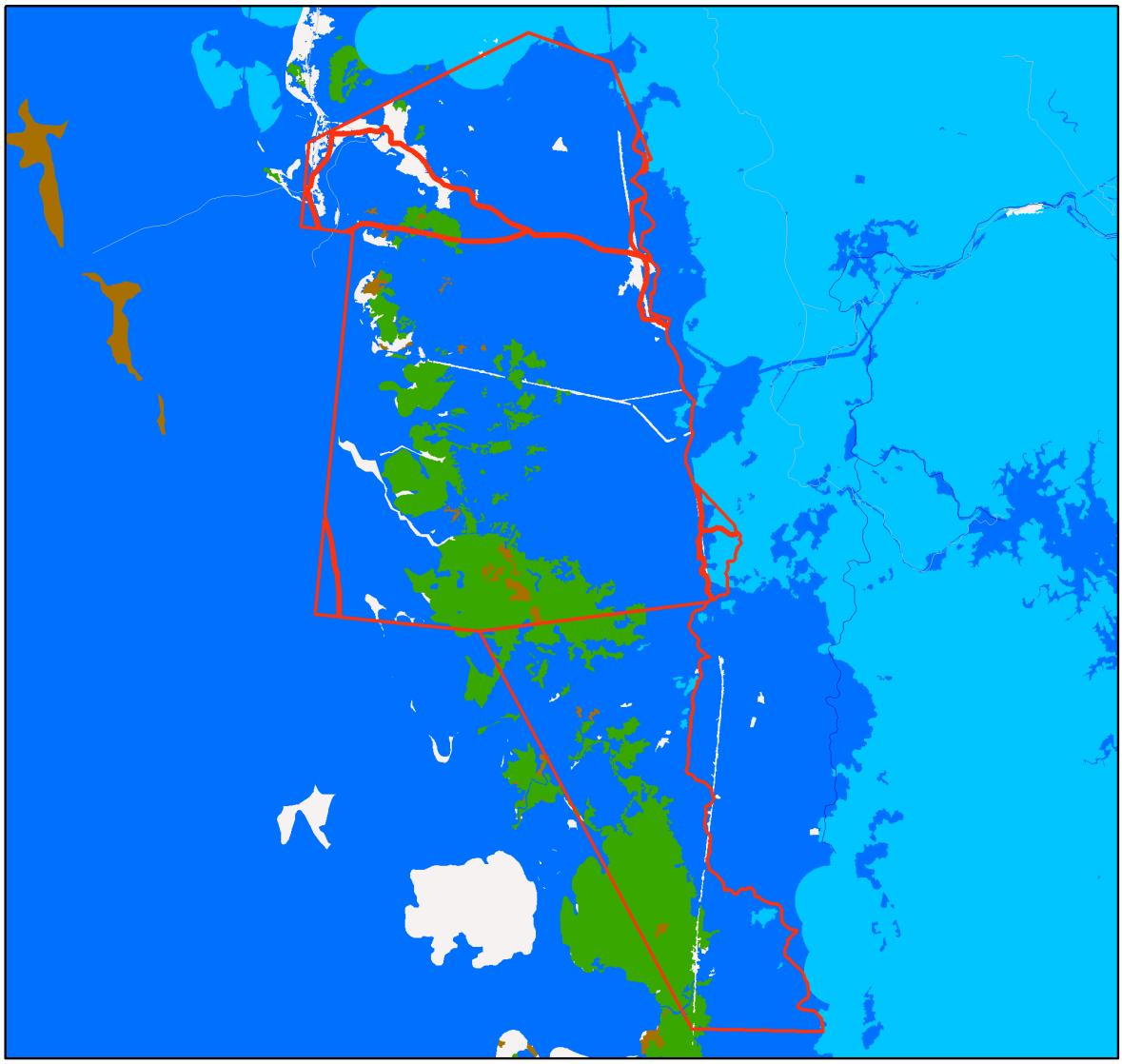
Map 2 - Biodiversity Planning Assessment (BPA)



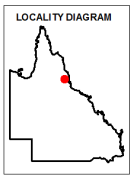
Biodiversity Planning Assessments

Legend

- Selected Lot and Plan
- Towns
- Roads
- Major rivers/creeks
- Queensland

Biodiversity Planning Assessment

- State Habitat for EVNT taxa
- State
- Regional
- Local or Other Values
- Non Bioregion Ecosystem



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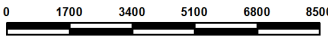
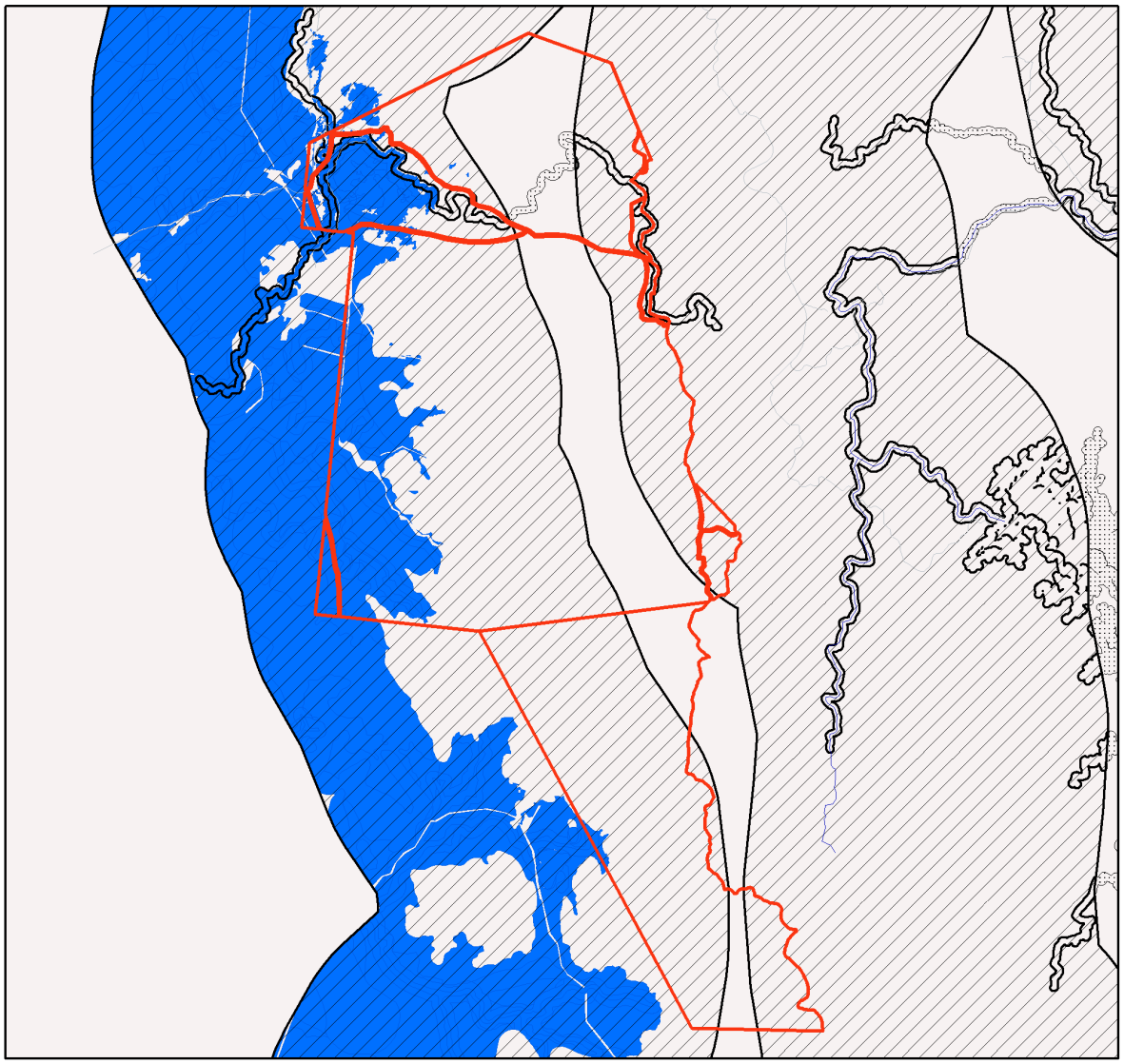


This product is projected into GDA 1994 Queensland Albers

Map 3 - Corridors



Corridors

Legend

- Selected Lot and Plan
- Towns
- Roads
- Major rivers/creeks
- Queensland

Corridors

- State
- Regional

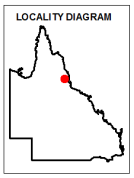
Corridor Triggered Vegetation

- State
- Regional
- Local

Core Area Vegetation

- Brigalow Belt only

LOCALITY DIAGRAM



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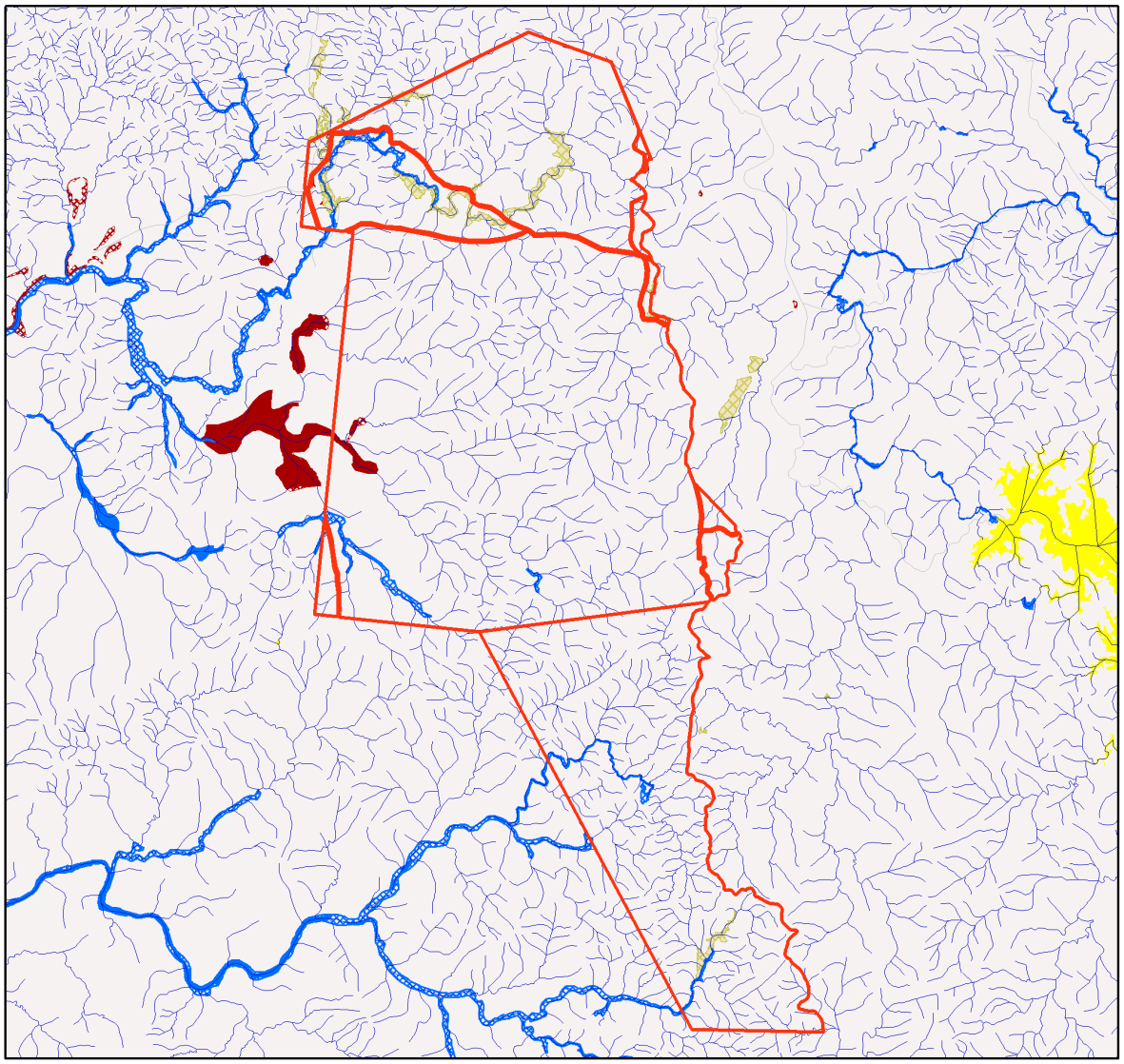
Map 4 - Wetlands and waterways



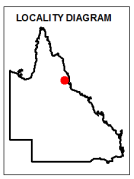
Wetlands and Waterways

Legend

- Selected Lot and Plan
- Towns
- Roads
- Springs
- Rivers/Creeks
- Directory of Important Wetlands
- Ramsar Sites - QLD
- Queensland

Wetland Type

- Marine Waterbodies
- Estuarine Waterbodies
- Riverine Waterbodies
- Lacustrine Waterbodies
- Palustrine Waterbodies
- Marine RE
- Estuarine RE
- Riverine RE
- Lacustrine RE
- Palustrine RE
- RE 51-80% wetland (mosaic units)
- RE 1-50% wetland (mosaic units)



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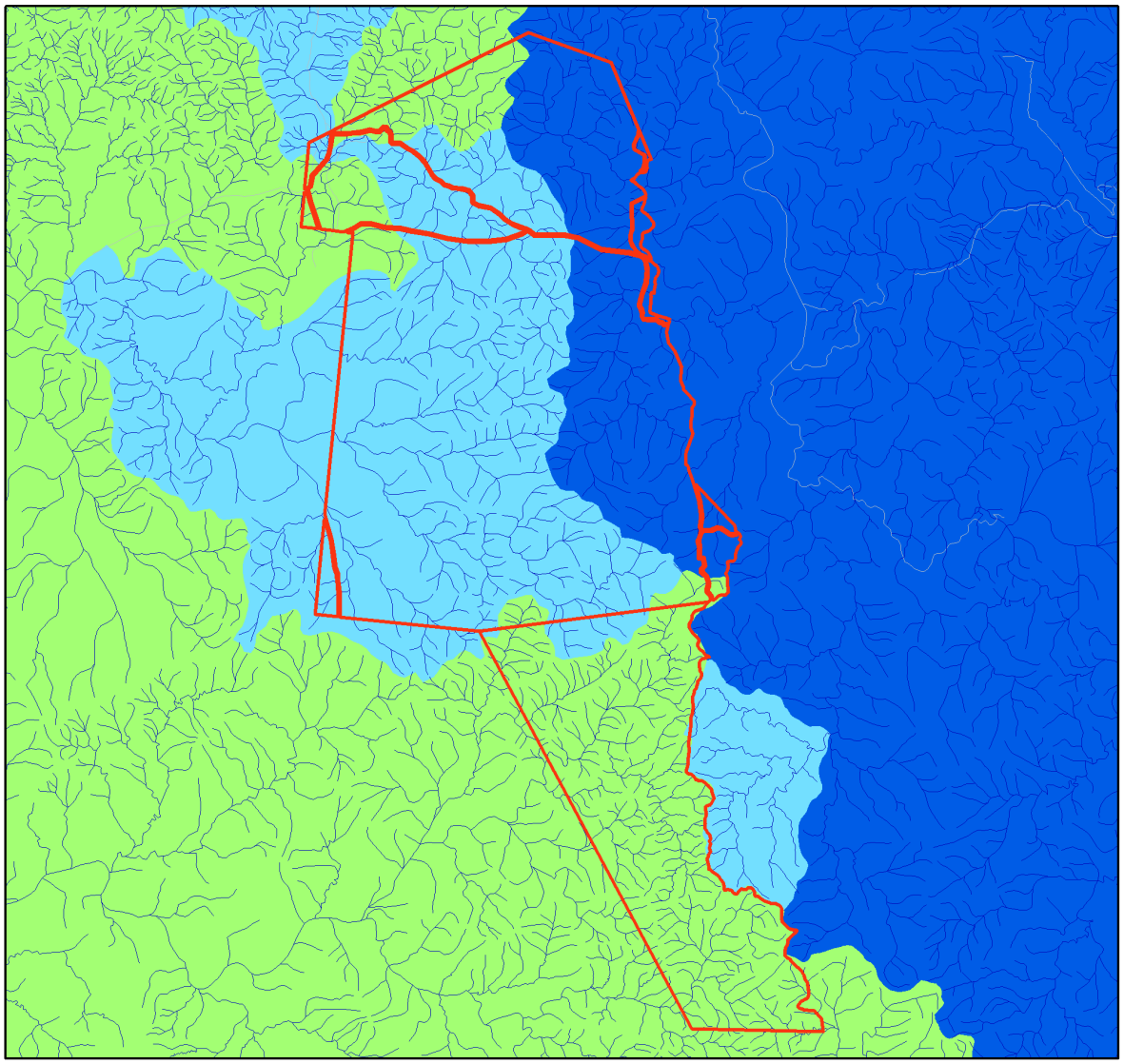
Map 5 - Aquatic Conservation Assessment (ACA) - riverine



Aquatic Conservation Assessment (ACA) - riverine

Legend

- Selected Lot and Plan
- Towns
- Roads
- Rivers/Creeks
- Queensland

ACA Riverine - Subcatchment Significance

- Very High
- High
- Medium
- Low
- Very Low

LOCALITY DIAGRAM

N

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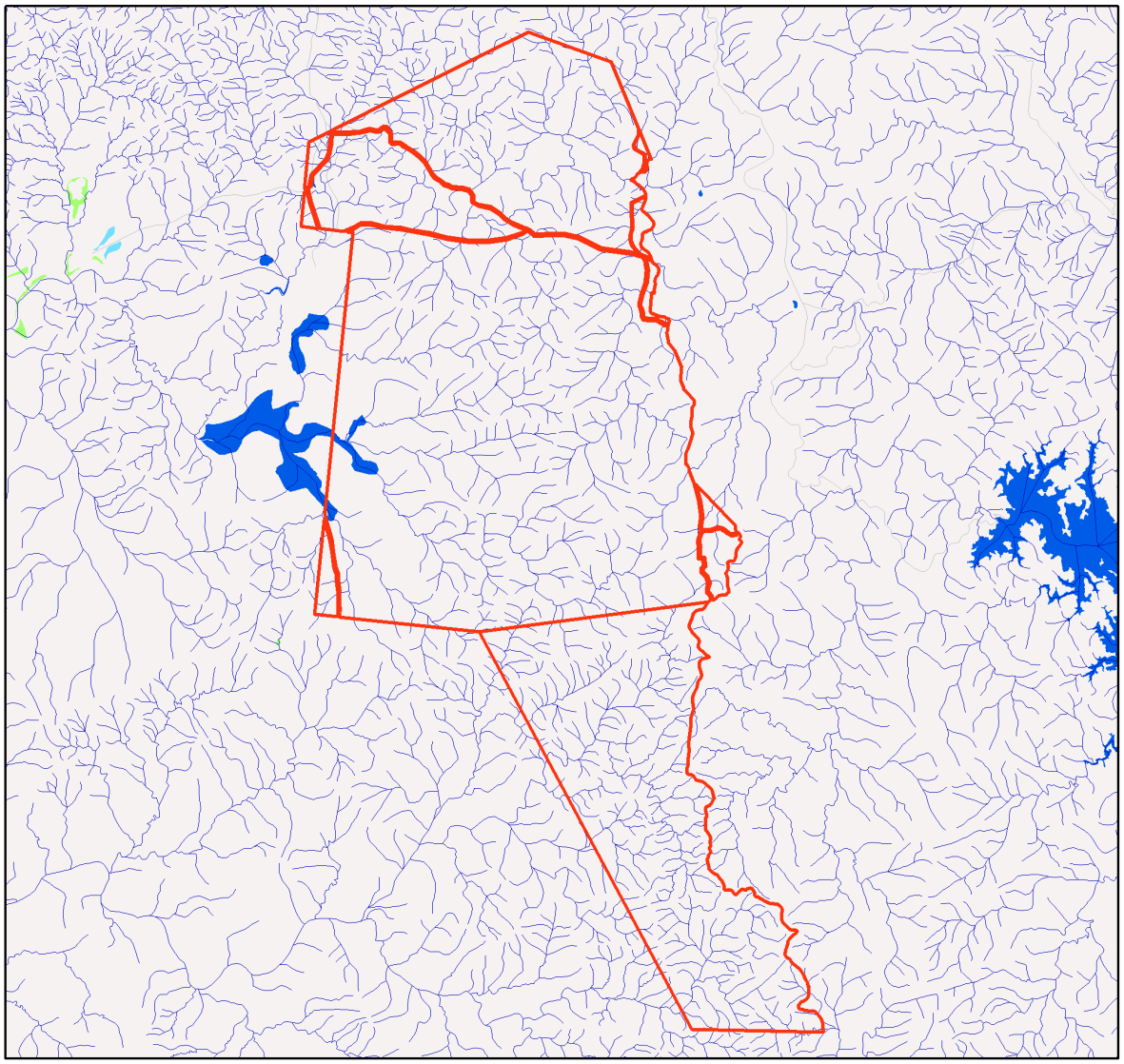
Map 6 - Aquatic Conservation Assessment (ACA) - non-riverine



Aquatic Conservation Assessment (ACA) - nonriverine

Legend

- Selected Lot and Plan
- Towns
- Roads
- Rivers/Creeks
- Queensland

ACA Non-riverine

- Very High
- High
- Medium
- Low
- Very Low

LOCALITY DIAGRAM

N

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0 1700 3400 5100 6800 8500 m

This product is projected into GDA 1994 Queensland Albers

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Appendices

Appendix 1 - Source Data

Theme	Datasets
Aquatic Conservation Assessments Non-riverine*	Combination of the following datasets: Cape York Peninsula Non-riverine v1.1 Eastern Gulf of Carpentaria v1.1 Great Barrier Reef Catchment Non-riverine v1.3 Lake Eyre and Bulloo Basins v1.1 QMDB Non-riverine ACA v1.4 Southeast Queensland ACA v1.1 WBB Non-riverine ACA v1.1 Southern Gulf Catchments Non-riverine ACA v1.1
Aquatic Conservation Assessments Riverine*	Combination of the following datasets: Cape York Peninsula Riverine v1.1 Eastern Gulf of Carpentaria v1.1 Great Barrier Reef Catchment Riverine v1.1 Lake Eyre and Bulloo Basins v1.1 QMDB Riverine ACA v1.4 Southeast Queensland ACA v1.1 WBB Riverine ACA v1.1 Southern Gulf Catchments Riverine ACA v1.1
Biodiversity Planning Assessments*	Combination of the following datasets: Brigalow Belt BPA v2.1 Cape York Peninsula BPA v1.1 Central Queensland Coast BPA v1.3 Channel Country BPA v1.1 Desert Uplands BPA v1.3 Einasleigh Uplands BPA v1.1 Gulf Plains BPA v1.1 Mitchell Grass Downs BPA v1.1 Mulga Lands BPA v1.4 New England Tableland v2.3 Northwest Highlands v1.1 Southeast Queensland v4.1 Wet Tropics v1.1
Statewide BPA Corridors*	Statewide corridors v1.6
Threatened Species	An internal DES database compiled from Wildnet, Herbrecs, Corveg, the QLD Museum, as well as other incidental sources.
BPA Priority Species	An internal DES database compiled from Wildnet, Herbrecs, Corveg, the QLD Museum, as well as other incidental sources.
ACA Priority Species	An internal DES database compiled from Wildnet, Herbrecs, Corveg, the QLD Museum, as well as other incidental sources.

***These datasets are available at:**

http://dds.information.qld.gov.au/DDS

Appendix 2 - Acronyms and Abbreviations

AOI	- Area of Interest
ACA	- Aquatic Conservation Assessment
AQUABAMM	- Aquatic Biodiversity Assessment and Mapping Methodology
BAMM	- Biodiversity Assessment and Mapping Methodology
BoT	- Back on Track
BPA	- Biodiversity Planning Assessment
CAMBA	- China-Australia Migratory Bird Agreement
DES	- Department of Environment and Science
EPBC	- *Environment Protection and Biodiversity Conservation Act 1999*
EVNT	- Endangered, Vulnerable, Near Threatened
GDA94	- Geocentric Datum of Australia 1994
GIS	- Geographic Information System
JAMBA	- Japan-Australia Migratory Bird Agreement
NCA	- *Nature Conservation Act 1992*
RE	- Regional Ecosystem
REDD	- Regional Ecosystem Description Database
ROKAMBA	- Republic of Korea-Australia Migratory Bird Agreement

Queensland Government

Department of Environment and Science

Environmental Reports

Biodiversity and Conservation Values

Biodiversity Planning Assessments and Aquatic Conservation Assessments

For the selected area of interest
Lot: 31 Plan: SP288862

Environmental Reports - General Information

The Environmental Reports portal provides for the assessment of selected matters of interest relevant to a user specified location, or Area of Interest (AOI). All area and derivative figures are relevant to the extent of matters of interest contained within the AOI unless otherwise stated. Please note, if a user selects an AOI via the "Central co-ordinates" option, the resulting assessment area encompasses an area extending from 2km radius from the point of interest.

All area and area derived figures included in this report have been calculated via reprojecting relevant spatial features to Albers equal-area conic projection (central meridian = 146, datum Geocentric Datum of Australia 1994). As a result, area figures may differ slightly if calculated for the same features using a different co-ordinate system.

Figures in tables may be affected by rounding.

The matters of interest reported on in this document are based upon available state mapped datasets. Where the report indicates that a matter of interest is not present within the AOI (e.g. where area related calculations are equal to zero, or no values are listed), this may be due either to the fact that state mapping has not been undertaken for the AOI, that state mapping is incomplete for the AOI, or that no values have been identified within the site.

The information presented in this report should be considered as a guide only and field survey may be required to validate values on the ground.

Please direct queries about these reports to: biodiversity.planning@des.qld.gov.au

Disclaimer

Whilst every care is taken to ensure the accuracy of the information provided in this report, the Queensland Government makes no representations or warranties about its accuracy, reliability, completeness, or suitability, for any particular purpose and disclaims all responsibility and all liability (including without limitation, liability in negligence) for all expenses, losses, damages (including indirect or consequential damage) and costs which the user may incur as a consequence of the information being inaccurate or incomplete in any way and for any reason.

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Summary Information

Tables 1 to 8 provide an overview of the AOI with respect to selected topographic and environmental values.

Table 1: Area of interest details: Lot: 31 Plan: SP288862

Size (ha)	11,282.74
Local Government(s)	Tablelands Regional
Bioregion(s)	Einasleigh Uplands, Wet Tropics
Subregion(s)	Herberton - Wairuna, Kirrama - Hinchinbrook, Atherton
Catchment(s)	Herbert

The following table identifies available Biodiversity Planning Assessments (BPAs) and Aquatic Conservation Assessments (ACAs) with respect to the AOI.

Table 2: Available Biodiversity Planning and Aquatic Conservation Assessments

Assessment Type	Assessment Area and Version
Biodiversity Planning Assessment(s)	Einasleigh Uplands v1.1, Wet Tropics v1.1
Aquatic Conservation Assessment(s) (riverine)	Great Barrier Reef Catchments v1.1
Aquatic Conservation Assessment(s) (non-riverine)	Great Barrier Reef Catchments v1.3

Table 3: Remnant regional ecosystems within the AOI as per the Qld Herbarium's 'biodiversity status'

Biodiversity Status	Area (Ha)	% of AOI
Endangered	36.97	0.33
Of concern	2,346.71	20.8
No concern at present	8,171.06	72.42

The following table identifies the extent and proportion of the user specified area of interest (AOI) which is mapped as being of "State", "Regional" or "Local" significance via application of the Queensland Department of Environment and Science's *Biodiversity Assessment and Mapping Methodology* (BAMM).

Table 4: Summary table, biodiversity significance

Biodiversity significance	Area (Ha)	% of AOI
State Habitat for EVNT taxa	465.27	4.12
State	10,220.85	90.59
Regional	215.06	1.91
Local or Other Values	235.98	2.09

Table 5: Non-riverine wetlands intersecting the AOI

Non-riverine wetland types intersecting the area of interest	#
Number of Palustrine wetlands	15
Number of Lacustrine wetlands	0
Total number of non-riverine wetlands	15

NB. The figures presented in the table above are derived from the relevant non-riverine Aquatic Conservation Assessment(s). Later releases of wetland mapping produced via the Queensland Wetland Mapping Program may provide more recent information in regards to wetland extent.

Table 6: Named waterways intersecting the AOI

Name	Permanency
BLUNDER CREEK	Non-perennial

Refer to **Map 1** for general locality information.

The following two tables identify the extent and proportion of the user specified AOI which is mapped as being of "Very High", "High", "Medium", "Low", or "Very Low" aquatic conservation value for riverine and non-riverine wetlands via application of the Queensland Department of Environment and Science's *Aquatic Biodiversity Assessment and Mapping Method* (AquaBAMM).

Table 7: Summary table, aquatic conservation significance (riverine)

Aquatic conservation significance (riverine wetlands)	Area (Ha)	% of AOI
Very High	0.0	0.0
High	2,097.96	18.59
Medium	9,184.79	81.41
Low	0.0	0.0
Very Low	0.0	0.0

Table 8: Summary table, aquatic conservation significance (non-riverine)

Aquatic conservation significance (non-riverine wetlands)	Area (Ha)	% of AOI
Very High	9.62	0.09
High	16.44	0.15
Medium	66.35	0.59
Low	0.0	0.0
Very Low	0.0	0.0

Biodiversity Planning Assessments

Introduction

The Department of Environment and Science (DES) attributes biodiversity significance on a bioregional scale through a Biodiversity Planning Assessment (BPA). A BPA involves the integration of ecological criteria using the *Biodiversity assessment and Mapping Methodology* (BAMM) and is developed in two stages: 1) **diagnostic criteria**, and 2) **expert panel criteria**. The diagnostic criteria are based on existing data which is reliable and uniformly available across a bioregion, while the expert panel criteria allows for the refinement of the mapped information from the diagnostic output by incorporating local knowledge and expert opinion.

The BAMM methodology has application for identifying areas with various levels of significance solely for biodiversity reasons. These include threatened ecosystems or taxa, large tracts of habitat in good condition, ecosystem diversity, landscape context and connection, and buffers to wetlands or other types of habitat important for the maintenance of biodiversity or ecological processes. While natural resource values such as dryland salinity, soil erosion potential or land capability are not dealt with explicitly, they are included to some extent within the biodiversity status of regional ecosystems recognised by the DES.

Biodiversity Planning Assessments (BPAs) assign three levels of overall biodiversity significance.

- **State significance** - areas assessed as being significant for biodiversity at the bioregional or state scales. They also include areas assessed by other studies/processes as being significant at national or international scales. In addition, areas flagged as being of State significance due to the presence of endangered, vulnerable and/or near threatened taxa, are identified as "State Habitat for EVNT taxa".
- **Regional significance** - areas assessed as being significant for biodiversity at the subregional scale. These areas have lower significance for biodiversity than areas assessed as being of State significance.
- **Local significance and/or other values** - areas assessed as not being significant for biodiversity at state or regional scales. Local values are of significance at the local government scale.

For further information on released BPAs and a copy of the underlying methodology, go to:

http://www.qld.gov.au/environment/plants-animals/biodiversity/planning/

The GIS results can be downloaded from the Queensland Spatial Catalogue at:

http://qspatial.information.qld.gov.au/geoportal/

The following table identifies the extent and proportion of the user specified AOI which is mapped as being of "State", "Regional" or "Local" significance via application of the BAMM.

Table 9: Summary table, biodiversity significance

Biodiversity significance	Area (Ha)	% of AOI
State Habitat for EVNT taxa	465.27	4.12
State	10,220.85	90.59
Regional	215.06	1.91
Local or Other Values	235.98	2.09

Refer to **Map 2** for further information.

Diagnostic Criteria

Diagnostic criteria are based on existing data which is reliable and uniformly available across a bioregion. These criteria are diagnostic in that they are used to filter the available data and provide a "first-cut" or initial determination of biodiversity significance. This initial assessment is then combined through a second group of other essential criteria.

A description of the individual diagnostic criteria is provided in the following sections.

Criteria A. Habitat for EVNT taxa: Classifies areas according to their significance based on the presence of endangered, vulnerable and/or rare (EVNT) taxa. EVNT taxa are those scheduled under the *Nature Conservation Act 1992* and/or the

Environment Protection and Biodiversity Conservation Act 1999. It excludes highly mobile fauna taxa which are instead considered in Criterion H and brings together information on EVNT taxa using buffering of recorded sites or habitat suitability models (HSM) where available.

Criteria B. Ecosystem value: Classifies on the basis of biodiversity status of regional ecosystems, their extent in protected areas (presence of poorly conserved regional ecosystems), the presence of significant wetlands; and areas of national importance such as the presence of Threatened Ecological Communities, World Heritage areas and Ramsar sites. Ecosystem value is applied at a bioregional (**B1**) and regional (**B2**) scale.

Criteria C. Tract size: Measures the relative size of tracts of vegetation in the landscape. The size of any tract is a major indicator of ecological significance, and is also strongly correlated with the long-term viability of biodiversity values. Larger tracts are less susceptible to ecological edge effects and are more likely to sustain viable populations of native flora and fauna than smaller tracts.

Criteria D. Relative size of regional ecosystems: Classifies the relative size of each regional ecosystem unit within its bioregion (**D1**) and its subregion (**D2**). Remnant units are compared with all other occurrences with the same regional ecosystem. Large examples of a regional ecosystem are more significant than smaller examples of the same regional ecosystem because they are more representative of the biodiversity values particular to the regional ecosystem, are more resilient to the effects of disturbance, and constitute a significant proportion of the total area of the regional ecosystem.

Criteria F. Ecosystem diversity: Is an indicator of the number of regional ecosystems occurring within an area. An area with high ecosystem diversity will have many regional ecosystems and ecotones relative to other areas within the bioregion.

Criteria G. Context and connection: Represents the extent to which a remnant unit incorporates, borders or buffers areas such as significant wetlands, endangered ecosystems; and the degree to which it is connected to other vegetation.

A summary of the biodiversity status based upon the diagnostic criteria is provided in the following table.

Table 10: Summary of biodiversity significance based upon diagnostic criteria with respect to the AOI

Biodiversity significance	Description	Area (Ha)	% of AOI
State	Remnant contains an RE that is one of the largest of its type in the bioregion (D1) & Remnant has Ecosystem diversity in the top quartile (F)	1,999.27	17.72
State	Remnant contains an RE that is one of the largest of its type in the bioregion (D1) & Remnant has high connectivity or buffers an endangered RE or Sig. Wetland (G)	396.42	3.51
State	Remnant contains at least 1 Endangered or 2 Vulnerable or Near Threatened species (A)	465.27	4.12
State	Remnant contains at least 1 Endangered RE (B1)	36.97	0.33
State	Remnant contains at least one Of Concern RE (B1) & Remnant contains an RE that is one of the largest of its type in the bioregion (D1)	151.85	1.35
Regional	Remnant contains an RE that is one of the largest of its type in the subregion (D2)	192.85	1.71
Regional	Remnant contains at least 1 RE with <10 pc extent remaining or rare in subregion (B2)	248.87	2.21
Regional	Remnant contains at least 1 Vulnerable or Near Threatened species (A)	171.56	1.52
Regional	Remnant contains at least one Of Concern RE (B1)	2,206.02	19.55
Local or Other Values	Refer to diagnostic data for additional information	4,645.79	41.18

Assessment of diagnostic criteria with respect to the AOI

The following table reflects an assessment of the individual diagnostic criteria noted above in regards to the AOI.

Table 11: Assessment of individual diagnostic criteria with respect to the AOI

Diagnostic Criteria	Very High Rating - Area (Ha)	Very High Rating - % of AOI	High Rating - Area (Ha)	High Rating - % of AOI	Medium Rating - Area (Ha)	Medium Rating - % of AOI	Low Rating - Area (Ha)	Low Rating - % of AOI
A: Habitat for EVNT Taxa	465.27	4.1	171.81	1.5	5,386.04	47.7	4,491.79	39.8
B1: Ecosystem Value (Bioregion)	36.96	0.3	2,402.23	21.3	2,652.92	23.5	5,422.80	48.1
B2: Ecosystem Value (Subregion)	261.0	2.3	2,013.12	17.8	3,329.26	29.5	4,911.53	43.5
C: Tract Size	41.21	0.4	10,472.95	92.8			0.75	
D1: Relative RE Size (Bioregion)	2,552.59	22.6			2,794.52	24.8	5,167.80	45.8
D2: Relative RE Size (Subregion)	3,014.30	26.7	2,579.01	22.9	380.21	3.4	4,540.54	40.2
F: Ecosystem Diversity	4,449.24	39.4	5,330.39	47.2	734.43	6.5	0.85	

Diagnostic Criteria	Very High Rating - Area (Ha)	Very High Rating - % of AOI	High Rating - Area (Ha)	High Rating - % of AOI	Medium Rating - Area (Ha)	Medium Rating - % of AOI	Low Rating - Area (Ha)	Low Rating - % of AOI
G: Context and Connection	9,166.63	81.2	1,248.82	11.1	98.28	0.9	1.18	

Other Essential Criteria

Other essential criteria (also known as expert panel criteria) are based on non-uniform information sources and which may rely more upon expert opinion than on quantitative data. These criteria are used to provide a "second-cut" determination of biodiversity significance, which is then combined with the diagnostic criteria for an overall assessment of relative biodiversity significance. A summary of the biodiversity status based upon the other essential criteria is provided in the following table.

Table 12: Summary of biodiversity significance based upon other essential criteria with respect to the AOI

Biodiversity significance	Description	Area (Ha)	% of AOI
State	Remnant contains Special Biodiversity Values (view Expert Panel data for further information) (I)	4,846.86	42.96
State	Remnant contains Special Biodiversity Values (view Expert Panel data for further information) (I) & Remnant forms part of a bioregional corridor (J)	5,230.37	46.36
State	Remnant forms part of a bioregional corridor (J)	582.73	5.16
Regional	Remnant contains Special Biodiversity Values (view Expert Panel data for further information) (I)	48.37	0.43

A description of each of the other essential criteria and associated assessment in regards to the AOI is provided in the following sections.

Criteria H. Essential and general habitat for priority taxa: Priority taxa are those which are at risk or of management concern, taxa of scientific interest as relictual (ancient or primitive), endemic taxa or locally significant populations (such as a flying fox camp or heronry), highly specialised taxa whose habitat requirements are complex and distributions are not well correlated with any particular regional ecosystem, taxa important for maintaining genetic diversity (such as complex spatial patterns of genetic variation, geographic range limits, highly disjunct populations), taxa critical for management or monitoring of biodiversity (functionally important or ecological indicators), or economic and culturally important taxa.

Criteria I. Special biodiversity values: areas with special biodiversity values are important because they contain multiple taxa in a unique ecological and often highly biodiverse environment. Areas with special biodiversity values can include the following:

- Ia - centres of endemism - areas where concentrations of taxa are endemic to a bioregion or subregion are found.
- Ib - wildlife refugia (Morton *et al*. 1995), for example, islands, mound springs, caves, wetlands, gorges, mountain ranges and topographic isolates, ecological refuges, refuges from exotic animals, and refuges from clearing. The latter may include large areas that are not suitable for clearing because of land suitability/capability.
- Ic - areas with concentrations of disjunct populations.
- Id - areas with concentrations of taxa at the limits of their geographic ranges.
- Ie - areas with high species richness.
- If - areas with concentrations of relictual populations (ancient and primitive taxa).
- Ig - areas containing REs with distinct variation in species composition associated with geomorphology and other environmental variables.
- Ih - an artificial waterbody or managed/manipulated wetland considered by the panel/s to be of ecological significance.
- Ii - areas with a high density of hollow-bearing trees that provide habitat for animals.
- Ij - breeding or roosting sites used by a significant number of individuals.
- Ik - climate change refuge.

The following table identifies the value and extent area of the Other Essential Criteria H and I within the AOI.

Table 13: Relative importance of expert panel criteria (H and I) used to access overall biodiversity significance with respect to the AOI

Expert Panel	Very High Rating - Area (Ha)	Very High Rating - % of AOI	High Rating - Area (Ha)	High Rating - % of AOI	Medium Rating - Area (Ha)	Medium Rating - % of AOI	Low Rating - Area (Ha)	Low Rating - % of AOI
H: Core Habitat Priority Taxa			61.01	0.5				
Ia: Centres of Endemism	199.44	1.8	9,877.79	87.5				
Ib: Wildlife Refugia	10,077.23	89.3	48.36	0.4				
Ic: Disjunct Populations	10,077.23	89.3						
Id: Limits of Geographic Ranges	10,077.23	89.3						
Ie: High Species Richness	10,077.23	89.3						
If: Relictual Populations								
Ig: Variation in Species Composition	1,164.86	10.3						
Ih: Artificial Wetland								
Ii: Hollow Bearing Trees	10,077.23	89.3						
Ij: Breeding or Roosting Site	10,077.23	89.3						
Ik: Climate Refugia								

NB. Whilst biodiversity values associated with Criteria I may be present within the site (refer to tables 12 and 15), for the New England Tableland and Central Queensland Coast BPAs, area and % area figures associated with Criteria Ia through to Ij cannot be listed in the table above (due to slight variations in data formats between BPAs).

Criteria J. Corridors: areas identified under this criterion qualify either because they are existing vegetated corridors important for contiguity, or cleared areas that could serve this purpose if revegetated. Some examples of corridors include riparian habitats, transport corridors and "stepping stones".

Bioregional and subregional conservation corridors have been identified in the more developed bioregions of Queensland through the BPAs, using an intensive process involving expert panels. Map 3 displays the location of corridors as identified under the Statewide Corridor network. The Statewide Corridor network incorporates BPA derived corridors and for bioregions where no BPA has been assessed yet, corridors derived under other planning processes. *Note: as a result of updating and developing a statewide network, the alignment of corridors may differ slightly in some instances when compared to those used in individual BPAs.*

The functions of these corridors are:

- **Terrestrial** Bioregional corridors, in conjunction with large tracts of remnant vegetation, maintain ecological and evolutionary processes at a landscape scale, by:

    • Maintaining long term evolutionary/genetic processes that allow the natural change in distributions of species and connectivity between populations of species over long periods of time;

• Maintaining landscape/ecosystems processes associated with geological, altitudinal and climatic gradients, to allow for ecological responses to climate change;
• Maintaining large scale seasonal/migratory species processes and movement of fauna;
• Maximising connectivity between large tracts/patches of remnant vegetation;
• Identifying key areas for rehabilitation and offsets; and

- **Riparian** Bioregional Corridors also maintain and encourage connectivity of riparian and associated ecosystems.

The location of the corridors is determined by the following principles:

- Terrestrial
  • Complement riparian landscape corridors (i.e. minimise overlap and maximise connectivity);
  • Follow major watershed/catchment and/or coastal boundaries;
  • Incorporate major altitudinal/geological/climatic gradients;
  • Include and maximise connectivity between large tracts/patches of remnant vegetation;
  • Include and maximise connectivity between remnant vegetation in good condition; and

- Riparian
  • Located on the major river or creek systems within the bioregion in question.

The total extent of remnant vegetation triggered as being of "State", "Regional" or "Local" significance due to the presence of an overlying BPA derived terrestrial or riparian corridor within the AOI, is provided in the following table. For further information on how remnant vegetation is triggered due to the presence of an overlying BPA derived corridor, refer to the relevant landscape BPA expert panel report(s).

Table 14: Extent of triggered remnant vegetation due to the presence of BPA derived corridors with respect to the AOI

Biodiversity Significance	Area (Ha)	% of AOI
State	5,813.11	51.52
Regional	0.0	0.0
Local	0.0	0.0

NB: area figures associated with the extent of corridor triggered remnant vegetation are only available for those bioregions where a BPA has been undertaken.

Refer to **Map 3** for further information.

Threatening process/condition (Criteria K) - areas identified by experts under this criterion may be used to amend (upgrade or downgrade) biodiversity significance arising from the "first-cut" analysis. The condition of remnant vegetation is affected by threatening processes such as weeds, ferals, grazing and burning regime, selective timber harvesting/removal, salinity, soil erosion, and climate change.

Assessment of Criteria K with respect to the AOI is not currently included in the "Biodiversity and Conservation Values" report, as it has not been applied to the majority of Queensland due to data/information limitations and availability.

Special Area Decisions

Expert panel derived "Special Area Decisions" are used to assign values to Other Essential Criteria. The specific decisions which relate to the AOI in question are listed in the table below.

Table 15: Expert panel decisions for assigning levels of biodiversity significance with respect to the AOI

Decision Number	Description	Panel Recommended Significance	Criteria Values
eiu_fa_24	Eastern ecotone	State	Ia (centre of endemism): HIGH Ib (wildlife refugia): VERY HIGH Ic (disjunct populations): VERY HIGH Id (taxa at the limits of their ranges): VERY HIGH Ie (high species richness): VERY HIGH Ii (high density of hollow-bearing trees): VERY HIGH Ij (significant breeding or roosting sites): VERY HIGH
eiu_fl_01	Stannary Hills (west of Herberton) & Glen Gordon Volcanics	State	Ia (centre of endemism): VERY HIGH Ib (wildlife refugia): VERY HIGH Ic (disjunct populations): HIGH Id (taxa at the limits of their ranges): HIGH Ie (high species richness): VERY HIGH
eiu_fl_26	High precision records for priority taxa of Regional significance are contained within the remnant.	Regional	Criterion H: HIGH
eiu_l_03	Riparian ecosystems and associated areas.	State	Ib (wildlife refugia): VERY HIGH Ie (high species richness): VERY HIGH Ig (RE's with distinct variation): VERY HIGH Ii (high density of hollow-bearing trees): HIGH Ij (significant breeding or roosting sites): VERY HIGH
eiu_l_06	Wetlands	Regional	Ib (wildlife refugia): HIGH Ie (high species richness): HIGH Ii (high density of hollow-bearing trees): HIGH Ij (significant breeding or roosting sites): HIGH
eiu_l_15	Ecosystems with a Biodiversity status of Endangered or Of Concern and a current extent of less than 10,000ha	State	Ib (wildlife refugia): HIGH Ig (RE's with distinct variation): VERY HIGH
eiu_l_32	Bioregional Terrestrial Corridors	State or Regional	J (corridors): State or Regional
wet_l_25	Core areas	Regional	Ib (refugia): H
wet_l_30a	Terrestrial bioregional corridors (landscape connections) .	State	Criterion J (terrestrial corridor): STATE
wet_l_31b	Riparian bioregional corridors (landscape connections)	Regional	Criterion J (riparian corridor): REGIONAL

Expert panel decision descriptions:

eiu_fa_24

The Eastern ecotone of the Einasleigh Uplands is a band of eucalypt forest separating the rainforest of the Wet Tropics from the dry tropical woodlands that characterize the bioregion. These better developed forests support a number of species that are endemic to the ecotone, or are isolated populations of species more widely distributed in the wet sclerophyll forest of south-east Queensland. These species include the northern bettong (**Bettongia tropica**), eastern yellow robin (**Eopsaltria australis**), yellow thornbill (**Acanthiza nana**), greater glider (**Petauroides volans**), Squirrel glider (**Petaurus norfolcensis**), crested shrike-tit (**Falcunculus frontatus**) and the yellow-faced honeyeater (**Lichenostomus chrysops**). Disjunct tree species that have the major part of their North Queensland distribution in the ecotone include **Eucalyptus resinifera, E. pellita, E. grandis, E. moluccana, E. reducta, E. cloeziana, E. citriodora** and **Angophora floribunda.**

eiu_fl_01

Extensive area of hills and ranges west of Herberton, on granites and metamorphic rocks. Includes the highest altitude parts of the Herberton-Wairuna Subregion, continuous with the western edge of the Atherton Tablelands. It includes the most extensive area over 700m ASL within the WET/EIU ecotone. Due to its unique combination of climate, altitude and geomorphology the area is a centre of endemism, contains a large number of species that are disjunct occurrences or at the limit of their ranges (including a number of NCA listed R T species), and a significant climate refugia.

Flora endemic to the area include: **Acacia purpureopetala** (V), **Corymbia rhodops** (V) and **Grevillea glossadenia** (V). Species of conservation significance that have the major extent of their occurrence here include **Acacia longipedunculata** (R), **Cycas platyphylla** (V), **Eucalyptus atrata**, **Eucalyptus lockyeri** subsp. **lockyeri** (R), **Eucalyptus lockyeri** subsp. **exuta** (R), **Eucalyptus lockyeri** (R), **Eucalyptus pachycalyx** subsp **pachycalyx** (R), **Goodenia stirlingii** (R), **Homoranthus porteri** (V), **Hovea nana**, **Plectranthus amoenus** (V, a species of the western margin of the Wet Tropics) and **Micromyrtus delicata** (E, also a WET margin species). Other plant species of significance include **Acacia meiosperma** (R), **Peripleura scabra** (R) **Peripleura sericea** (R) and **Prostanthera clotteniana** (E). Parts of the area are still poorly known and in urgent need of survey.

eiu_fl_26

Remnant contains Core Habitat for Priority taxa with high precision records.

eiu_l_03

Most of the Einasleigh Uplands is dominated by open vegetation on shallow or skeletal soils. Riparian RE's associated with the larger river systems function as important refuges for many species of flora and fauna because of the relatively high nutrient levels associated with most of these areas, their better moisture balance and their generally well developed vegetation. These mesic ribbons of habitat provide an important seasonal refuge and resources for a variety of species, in particular arboreal mammals, woodland birds, hollow-roosting species and amphibians. Many raptor species preferentially nest in tall riparian trees.

Riparian areas are also biogeographically significant habitat as they allow inland incursions of many east coast species into drier areas on the edge of their geographic range.

Riparian areas were given a 200m buffer with the same significance rating to ensure that adjacent habitat used opportunistically by species using the riparian areas was also included.

This decision includes Landscape decision 4.

eiu_l_06

- Wetlands have a range of biodiversity values, both in their own right, and for the role they play in maintaining water quality, protecting downstream aquatic ecosystems, and as part of the wetland ecosystem continuum where they are periodically connected with other aquatic ecosystems. Wetlands act as refugia for many species, and play a vital role in the life cycle of others.
- Wetlands were given a 200m buffer with the same significance rating to ensure that all areas adjacent to them, and the areas most likely to have higher values, were also included.

eiu_l_15

Einasleigh Upland regional ecosystems with a remaining extent that is less than 10,000ha have a naturally restricted distribution, and their threatened status is a reflection of this. They are susceptible to what would normally be viewed as local threats or impacts, and are therefore most vulnerable of all ecosystems to rapid and potentially total loss of natural values. In most cases their restricted distribution relates to geomorphic and/or micro-climatic settings that are also restricted and these areas therefore have particular ecological and scientific values. These values relate to the unique combination of ecological characteristics, and to the unusual habitat conditions they provide for particular species or genotypes. Where the status has been upgraded to Endangered due to the impact of threatening processes their susceptibility to further loss of values is extreme.

eiu_l_32

This terrestrial corridors decision identifies major themes of habitat connectivity across the bioregion. They identify north/south and east/west links that cover higher altitude areas along watersheds and mountain ranges, and areas characterised by a relative continuity of similar or related habitats, using the methodology outlined in EPA 2008. Identified corridor centrelines are buffered according to the significance of the centreline and the landscape context within which it

occurs

Decision eiu_l_22 Corridor Special Management Areas identifies areas where values associated with landscape scale habitat connectivity have been compromised.

wet_l_25

Tracts are defined as patches of continuous remnant vegetation. The size of any tract is a major indicator of ecological significance and is strongly correlated with the long-term viability of biodiversity values. Larger tracts are less susceptible to ecological edge effects and are more likely to sustain viable populations of native flora and fauna than smaller tracts. These areas can be considered core nodes/refugia in which a large proportion of the bioregions biodiversity is represented.

A modified tract size analysis (Criterion C) (EHP 2014) was used to identify and delineate discrete tracts of remnant vegetation at a bioregion scale. For the purpose of the assessment, a core area was identified as a relatively contiguous area of remnant vegetation (disregarding small perforations, or linear breaks) and which was generally greater than 5km in width (based upon the minimum width of the terrestrial corridor network). Tracts of greater than 2,000ha were included.

wet_l_30a

The broad purpose of landscape-scale connections, is to provide for ecological and evolutionary processes at a bioregional scale. Maintaining connectivity across a landscape, either through "continuous linkages" or via "stepping-stones" of remnant vegetation, is important for the long-term conservation of biodiversity.

Corridor triggered remnant vegetation is focused upon areas between core tracts/nodes (as identified under the special area decision wet_l_25) within the bioregion. For further information regarding the broad principles and intent, as well as more specific information relating to the Wet Tropics terrestrial corridor network, refer to Section 3.3.2.1 and Table 14.

wet_l_31b

Riparian corridors encompass some of the most diverse, dynamic and complex habitats incorporating both environmental and topographic gradients. Comparatively, such areas tend to exhibit high species richness with respect to both flora and fauna, provide important resources in terms of water, food, shelter, nesting and nursery sites and act as a refugia during periods of drought, or in response to longer terms impacts associated with climatic change.

At the landscape scale, networks of major and minor riparian linkages are a significant element of habitat continuity and provide important migratory and dispersal pathways for a substantial number of species (especially birds, insects and flora, but also for many arboreal mammals and reptiles). In some areas of fragmented landscapes, watercourses often provide the only remaining habitat connectivity due to the extensive clearing and surrounding modified landscape.

Within the WET, the panel determined that remnant vegetation within 200m and 100m of major and minor waterways should be designated as being of State and Regional significance respectively. The significance of selected riverine systems were also modified in some instances (Table 16). Corridor triggered remnant vegetation focuses upon identifying key connections between remaining core tracts/nodes (as identified under the special area decisions wet_l_25) within the bioregion. For further information regarding the broad principles and intent, as well as more specific information relating to the Wet Tropics riparian corridor network, refer to Section 3.3.2.2.

Aquatic Conservation Assessments

Introduction

The Aquatic Biodiversity Assessment and Mapping Method or AquaBAMM (Clayton *et al.* 2006), was developed to assess conservation values of wetlands in queensland, and may also have application in broader geographical contexts. It is a comprehensive method that uses available data, including data resulting from expert opinion, to identify relative wetland conservation/ecological values within a specified study area (usually a catchment). The product of applying this method is an Aquatic Conservation Assessment (ACA) for the study area.

An ACA using AquaBAMM is non-social, non-economic and identifies the conservation/ecological values of wetlands at a user-defined scale. It provides a robust and objective conservation assessment using criteria, indicators and measures that are founded upon a large body of national and international literature. The criteria, each of which may have variable numbers of indicators and measures, are naturalness (aquatic), naturalness (catchment), diversity and richness, threatened species and ecosystems, priority species and ecosystems, special features, connectivity and representativeness. An ACA using AquaBAMM is a powerful decision support tool that is easily updated and simply interrogated through a geographic information system (GIS).

Where they have been conducted, ACAs can provide a source of baseline wetland conservation/ecological information to support natural resource management and planning processes. They are useful as an independent product or as an important foundation upon which a variety of additional environmental and socio-economic elements can be added and considered (i.e. an early input to broader 'triple-bottom-line' decision-making processes). An ACA can have application in:

- determining priorities for protection, regulation or rehabilitation of wetlands and other aquatic ecosystems
- on-ground investment in wetlands and other aquatic ecosystems
- contributing to impact assessment of large-scale development (e.g. dams)
- water resource and strategic regional planning prcesses

For a detailed explanation of the methodology please refer to the summary and expert panel reports relevant to the ACA utilised in this assessment. These reports can be accessed at Wetland *Info*:

http://wetlandinfo.des.qld.gov.au/wetlands/assessment/assessment-methods/aca

The GIS results can be downloaded from the Queensland Spatial Catalogue at:

http://qspatial.information.qld.gov.au/geoportal/

Explanation of Criteria

Under the AquaBAMM, eight criteria are assessed to derive an overall conservation value. Similar to the Biodiversity Assessment and Mapping Methodology, the criteria may be primarily diagnostic (quantitative) or primarily expert opinion (qualitative) in nature. The following sections provide a brief description of each of the 8 criteria.

Criteria 1. Naturalness - Aquatic: This attribute reflects the extent to which a wetland's (riverine, non-riverine, estuarine) aquatic state of naturalness is affected through relevant influencing indicators which include: presence of exotic flora and fauna; presence of aquatic communities; degree of habitat modification and degree of hydrological modification.

Criteria 2. Naturalness - Catchment: The naturalness of the terrestrial systems of a catchment can have an influence on many wetland characteristics including: natural ecological processes e.g. nutrient cycling, riparian vegetation, water chemistry, and flow. The indicators utilised to assess this criterion include: presence of exotic flora and/or fauna; riparian, catchment and flow modification.

Criteria 3. Naturalness - Diversity and Richness: This criterion is common to many ecological assessment methods and can include both physical and biological features. It includes such indicators as species richness, riparian ecosystem richness and geomorphological diversity.

Criteria 4. Threatened Species and Ecosystems: This criterion evaluates ecological rarity characteristics of a wetland. This includes both species rarity and rarity of communities / assemblages. The communities and assemblages are best represented by regional ecosystems. Species rarity is determined by NCA and EPBC status with Endangered, Vulnerable or Near-threatened species being included in the evaluation. Ecosystem rarity is determined by regional ecosystem biodiversity status i.e. Endangered, Of Concern, or Not of Concern.

Criteria 5. Priority Species and Ecosystems: Priority flora and fauna species lists are expert panel derived. These are aquatic, semi-aquatic and riparian species which exhibit at least 1 particular trait in order to be eligible for consideration. For

flora species the traits included:

- It forms significant macrophyte beds (in shallow or deep water).
- It is an important food source.
- It is important/critical habitat.
- It is implicated in spawning or reproduction for other fauna and/or flora species.
- It is at its distributional limit or is a disjunct population.
- It provides stream bank or bed stabilisation or has soil binding properties.
- It is a small population and subject to threatening processes.

Fauna species are included if they meet at least one of the following traits:

- It is endemic to the study area (>75 per cent of its distribution is in the study area/catchment).
- It has experienced, or is suspected of experiencing, a serious population decline.
- It has experienced a significant reduction in its distribution and has a naturally restricted distribution in the study area/catchment.
- It is currently a small population and threatened by loss of habitat.
- It is a significant disjunct population.
- It is a migratory species (other than birds).
- A significant proportion of the breeding population (>one per cent for waterbirds, >75 per cent other species) occurs in the waterbody (see Ramsar criterion 6 for waterbirds).
- Limit of species range.

See the individual expert panel reports for the priority species traits specific to an ACA.

Criteria 6. Special Features: Special features are areas identified by flora, fauna and ecology expert panels which exhibit characteristics beyond those identified in other criteria and which the expert panels consider to be of the highest ecological importance. Special feature traits can relate to, but are not solely restricted to geomorphic features, unique ecological processes, presence of unique or distinct habitat, presence of unique or special hydrological regimes e.g. spring-fed streams. Special features are rated on a 1 - 4 scale (4 being the highest).

Criteria 7. Connectivity: This criterion is based on the concept that appropriately connected aquatic ecosystems are healthy and resilient, with maximum potential biodiversity and delivery of ecosystem services.

Criteria 8. Representativeness: This criterion applies primarily to non-riverine assessments, evaluates the rarity and uniqueness of a wetland type in relation to specific geographic areas. Rarity is determined by the degree of wetland protection within "protected Areas" estate or within an area subject to the *Fisheries Act 1994*, *Coastal Protection and Management Act 1995*, or *Marine Parks Act 2004*. Wetland uniqueness evaluates the relative abundance and size of a wetland or wetland management group within geographic areas such as catchment and subcatchment.

Riverine Wetlands

Riverine wetlands are all wetlands and deepwater habitats within a channel. The channels are naturally or artificially created, periodically or continuously contain moving water, or connecting two bodies of standing water. AquaBAMM, when applied to riverine wetlands uses a discrete spatial unit termed subsections. A subsection can be considered as an area which encompasses discrete homogeneous stream sections in terms of their natural attributes (i.e. physical, chemical, biological and utilitarian values) and natural resources. Thus in an ACA, an aquatic conservation significance score is calculated for each subsection and applies to all streams within a subsection, rather than individual streams as such.

Please note, the area figures provided in Tables 16 and 17, are derived using the extent of riverine subsections within the AOI. Refer to **Map 5** for further information. A summary of the conservation significance of riverine wetlands within the AOI is provided in the following table.

Table 16: Overall level/s of riverine aquatic conservation significance

Aquatic conservation significance (riverine wetlands)	Area (Ha)	% of AOI
Very High	0.0	0.0

Aquatic conservation significance (riverine wetlands)	Area (Ha)	% of AOI
High	2,097.96	18.59
Medium	9,184.79	81.41
Low	0.0	0.0
Very Low	0.0	0.0

The individual aquatic conservation criteria ratings for riverine wetlands within the AOI are listed below.

Table 17: Level/s of riverine aquatic conservation significance based on selected criteria

Criteria	Very High Rating - Area (Ha)	Very High Rating - % of AOI	High Rating - Area (Ha)	High Rating - % of AOI	Medium Rating - Area (Ha)	Medium Rating - % of AOI	Low Rating - Area (Ha)	Low Rating - % of AOI
1. Naturalness aquatic	303.2	2.7					10,979.54	97.3
2. Naturalness catchment	9,580.17	84.9	1,702.57	15.1				
3. Diversity and richness					8,462.50	75.0	2,820.24	25.0
4. Threatened species and ecosystems	2,849.73	25.3	8,433.01	74.7				
5. Priority species and ecosystems			2,280.81	20.2				
6. Special features								
7. Connectivity					6,620.77	58.7	4,661.97	41.3
8. Representative-ness								

The table below lists and describes the relevant expert panel decisions used to assign conservation significance values to riverine wetlands within the AOI.

Table 18: Expert panel decisions for assigning overall levels of riverine aquatic conservation significance

Decision number	Special feature	Catchment	Criteria/Indicator/Measure	Conservation rating (1-4)
(No Records)				

4 is the highest rating/value

Expert panel decision descriptions:

(No Records)

Non-riverine Wetlands

Non-riverine wetlands include both lacustrine and palustrine wetlands, however, do not currently incorporate estuarine, marine or subterranean wetland types. A summary of the conservation significance of non-riverine wetlands within the AOI is provided in the following table. Refer to **Map 6** for further information.

Table 19: Overall level/s of non-riverine aquatic conservation significance

Aquatic conservation significance (non-riverine wetlands)	Area (Ha)	% of AOI
Very High	9.62	0.09
High	16.44	0.15
Medium	66.35	0.59
Low	0.0	0.0
Very Low	0.0	0.0

The following table provides an assessment of non-riverine wetlands within the AOI and associated aquatic conservation criteria values.

Table 20: Level/s of non-riverine aquatic conservation significance based on selected criteria

Criteria	Very High Rating - Area (Ha)	Very High Rating - % of AOI	High Rating - Area (Ha)	High Rating - % of AOI	Medium Rating - Area (Ha)	Medium Rating - % of AOI	Low Rating - Area (Ha)	Low Rating - % of AOI
1. Naturalness aquatic	74.99	0.7	16.45	0.1			0.98	
2. Naturalness catchment	40.54	0.4	51.88	0.5				
3. Diversity and richness			16.45	0.1	75.97	0.7		
4. Threatened species and ecosystems			91.44	0.8				
5. Priority species and ecosystems			1.85					
6. Special features	9.62	0.1						
7. Connectivity								
8. Representative-ness					91.44	0.8		

The table below lists and describes the relevant expert panel decisions used to assign conservation significance values to non-riverine wetlands within the AOI.

Table 21: Expert panel decisions for assigning overall levels of non-riverine aquatic conservation significance.

Decision number	Special feature	Catchment	Criteria/Indicator/Measure	Conservation rating (1-4)
he_nr_ec_08	Blunder Park	Herbert	6.1.1,6.4.1	4

4 is the highest rating/value

Expert panel decision descriptions:

he_nr_ec_08

The wetlands at Blunder Park are unique black plain swamps usually only found in the Einasleigh Uplands bioregion. The only other similar permanent systems in the Upper Herbert are subject to modification. The vegetation is unique due to its altitude and location and the area is high in geomorphic diversity. The permanent water in the area is provided by reliable local runoff from hard surrounding catchment.

Note: This decision is a revised decision based on decision number he_ec_5 (Herbert wetland ecology expert panel 2007).

Threatened and Priority Species

Introduction

This chapter contains a list of threatened and priority flora and/or fauna species that have been recorded on, or within 4km of the Assessment Area.

The information presented in this chapter with respect to species presence is derived from compiled databases developed primarily for the purpose of BPAs and ACAs. Data is collated from a number of sources and is updated periodically.

It is important to note that the list of species provided in this report, may differ when compared to other reports generated from other sources such as the State government's WildNet, Herbrecs or the federal government's EPBC database for a number of reasons.

Records for threatened and priority species are filtered and checked based on a number of rules including:

- Taxonomic nomenclature - current scientific names and status,
- Location - cross-check co-ordinates with location description,
- Taxon by location - requires good knowledge of the taxon and history of the record,
- Duplicate records - identify and remove,
- Expert panels - check records and provide new records,
- Flora cultivated records excluded,
- Use precise records less than or equal to 2000m,
- Use recent records greater than or equal to 1975 animals, greater than or equal to 1950 plants.

Threatened Species

Threatened species are those species classified as "Endangered" or "Vulnerable" under the *Environment Protection and Biodiversity Conservation Act 1999* or "Endangered", "Vulnerable" or "Near threatened" under the *Nature Conservation Act 1992*.

The following threatened species have been recorded on, or within approximately 4km of the AOI.

Table 22: Threatened species recorded on, or within 4km of the AOI

Species	Common name	NCA status	EPBC status	Back on Track rank	Migratory species*	Wetland species**	Identified flora/fauna
Dendrolagus lumholtzi	Lumholtz's tree-kangaroo	NT		Low			FA
Litoria rheocola	common mistfrog	E	E	Low		Y	FA
Petauroides volans	greater glider	V	V	Low			FA
Petauroides volans minor	northern greater glider	V	V				FA
Pseudophryne covacevichae	magnificent broodfrog	V	V	Low		Y	FA
Triplarina nitchaga		V	V	Low			FL

NB. Please note that the threatened species listed in this section are based upon the most recently compiled DES internal state-wide threatened species dataset. This dataset may contain additional records that were not originally available for inclusion in the relevant individual BPAs and ACAs.

**JAMBA - Japan-Australia Migratory Bird Agreement; CAMBA - China-Australia Migratory Bird Agreement; ROKAMBA - Republic of Korea-Australia Migratory Bird Agreement; CMS - Convention on the Conservation of Migratory Species*.

***Y - wetland indicator species*.

BPA Priority Species

A list of BPA priority species that have been recorded on, or within approximately 4km of the AOI is contained in the following table.

Table 23: Priority species recorded on, or within 4km of the AOI

Species	Common name	Back on Track rank	Identified flora/fauna
Aepyprymnus rufescens	Rufous Bettong	L	FA
Dockrillia nugentii	None	None	FL
Lomandra longifolia	None	None	FL
Stylidium cordifolium	None	None	FL
Tephrosia filipes	None	None	FL
Tephrosia juncea	None	None	FL
Xanthorrhoea johnsonii	None	None	FL

NB. Please note that the list of priority species is based on those species identified in the BPAs, however records for these species may be more recent than the originals used. furthermore, the BPA priority species databases are updated from time to time. At each update, the taxonomic details for all species are amended as necessary to reflect current taxonomic name and/or status changes.

ACA Priority Species

A list of ACA priority species used in riverine and non-riverine ACAs that have been recorded on, or within approximately 4km of the AOI are contained in the following tables.

Table 24: Priority species recorded on, or within 4 km of the AOI - riverine

Species	Common name	Back on Track rank	Identified flora/fauna
Leersia hexandra	swamp rice grass	None	FL
Litoria jungguy	Northern Stony Creek Frog	Low	FA
Ornithorhynchus anatinus	Platypus	Low	FA

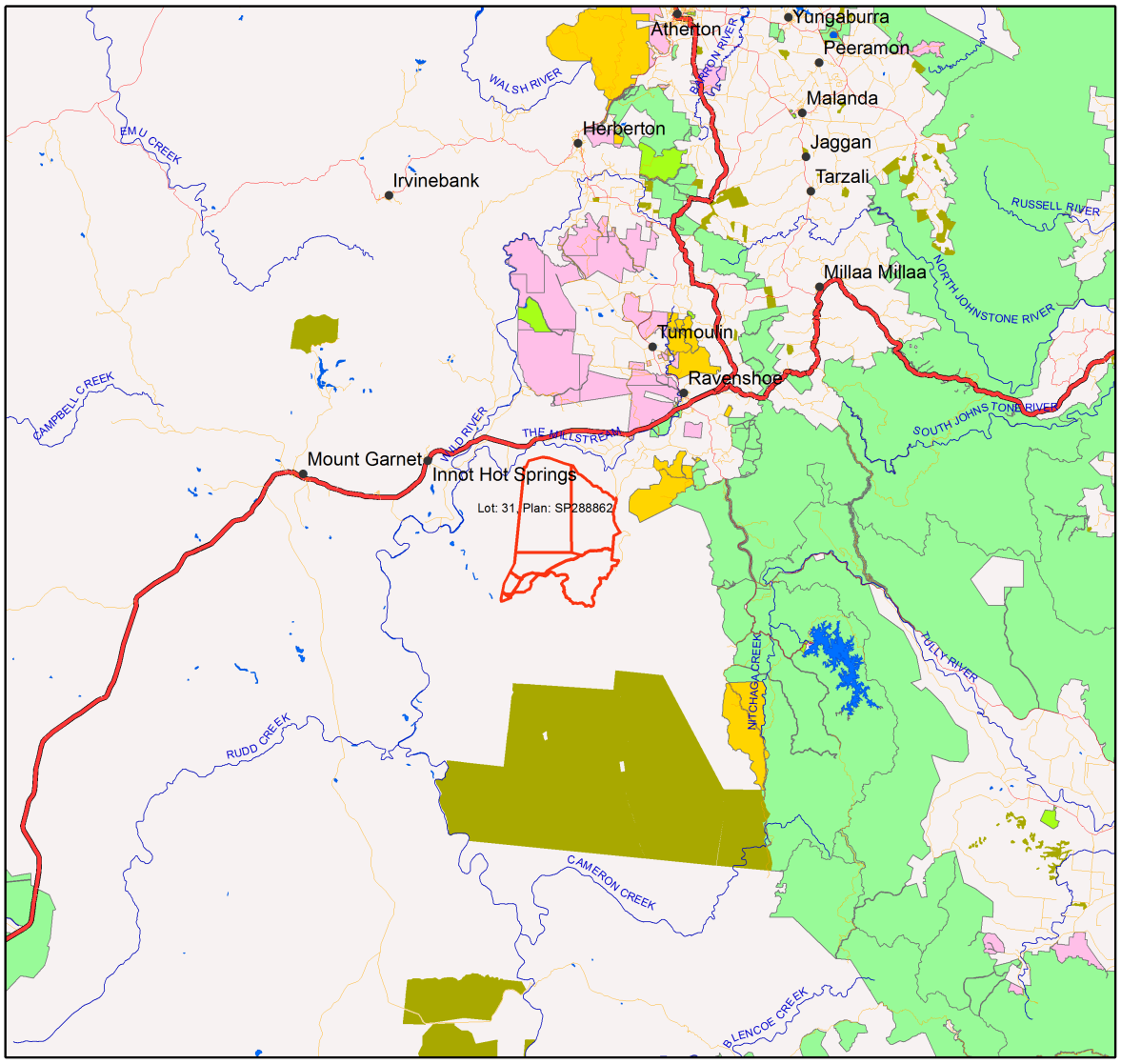
Table 25: Priority species recorded on, or within 4 km of the AOI - non-riverine

Species	Common name	Back on Track rank	Identified flora/fauna
Leersia hexandra	swamp rice grass	None	FL
Litoria jungguy	Northern Stony Creek Frog	Low	FA

NB. Please note that the priority species records used in the above two tables are comprised of those adopted for the released individual ACAs. The ACA riverine and non-riverine priority species databases are updated from time to time to reflect new release of ACAs. At each update, the taxonomic details for all ACAs records are amended as necessary to reflect current taxonomic name and/or status changes.

Maps

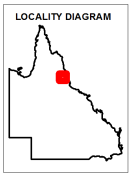
Map 1 - Locality Map



Locality Map

Legend

- Selected Lot and Plan
- Towns
- Highway
- Connector
- Street/Local Road
- Reservoirs
- Lakes
- National Park (Scientific)
- National Park
- National Park (CYPAL)
- Conservation Park
- Resources Reserve
- Forest Reserve
- State Forest
- Timber Reserve
- Nature Refuges
- Coordinated Conservation Areas
- Major rivers/creeks
- Queensland



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Map 2 - Biodiversity Planning Assessment (BPA)

Biodiversity Planning Assessments

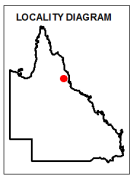
Legend

- Selected Lot and Plan
- Towns
- Roads
- Major rivers/creeks
- Queensland

Biodiversity Planning Assessment

- State Habitat for EVNT taxa
- State
- Regional
- Local or Other Values
- Non Bioregion Ecosystem

LOCALITY DIAGRAM



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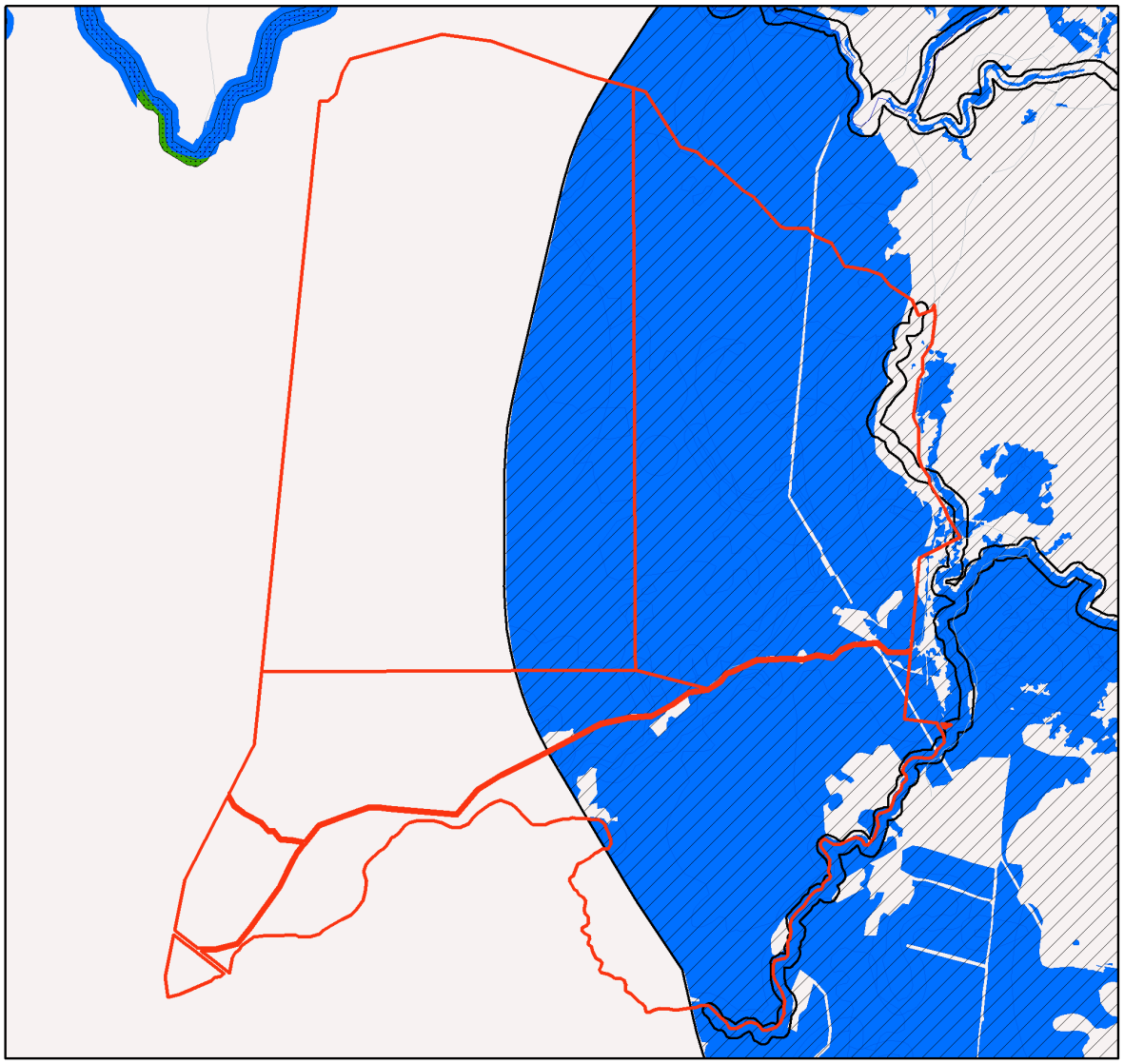
Map 3 - Corridors



Corridors

Legend

- Selected Lot and Plan
- Towns
- Roads
- Major rivers/creeks
- Queensland

Corridors

- State
- Regional

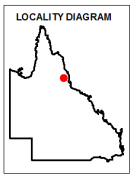
Corridor Triggered Vegetation

- State
- Regional
- Local

Core Area Vegetation

- Brigalow Belt only

LOCALITY DIAGRAM



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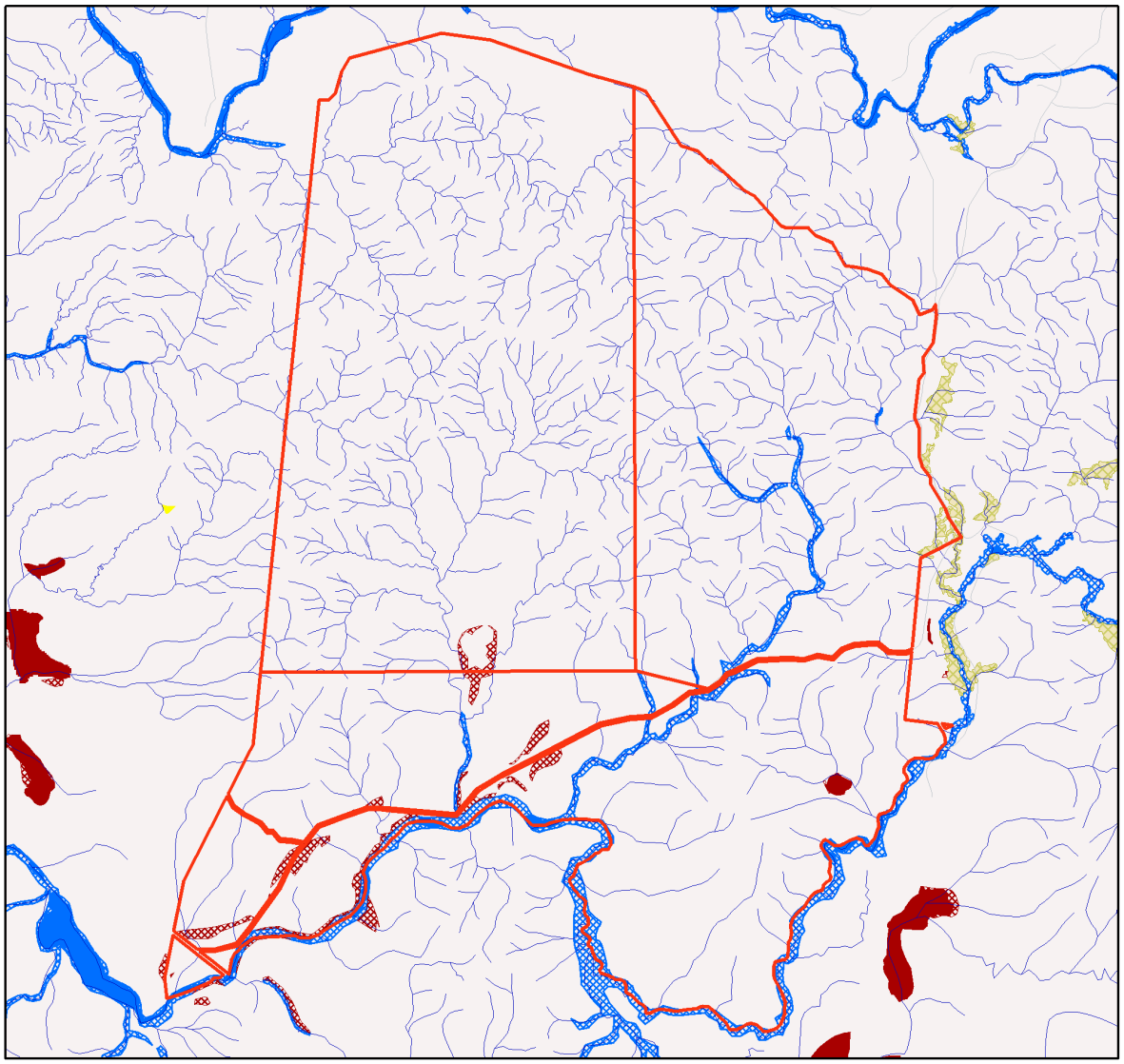
Map 4 - Wetlands and waterways



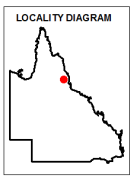
Wetlands and Waterways

Legend

- Selected Lot and Plan
- Towns
- Roads
- Springs
- Rivers/Creeks
- Directory of Important Wetlands
- Ramsar Sites - QLD
- Queensland

Wetland Type

- Marine Waterbodies
- Estuarine Waterbodies
- Riverine Waterbodies
- Lacustrine Waterbodies
- Palustrine Waterbodies
- Marine RE
- Estuarine RE
- Riverine RE
- Lacustrine RE
- Palustrine RE
- RE 51-80% wetland (mosaic units)
- RE 1-50% wetland (mosaic units)



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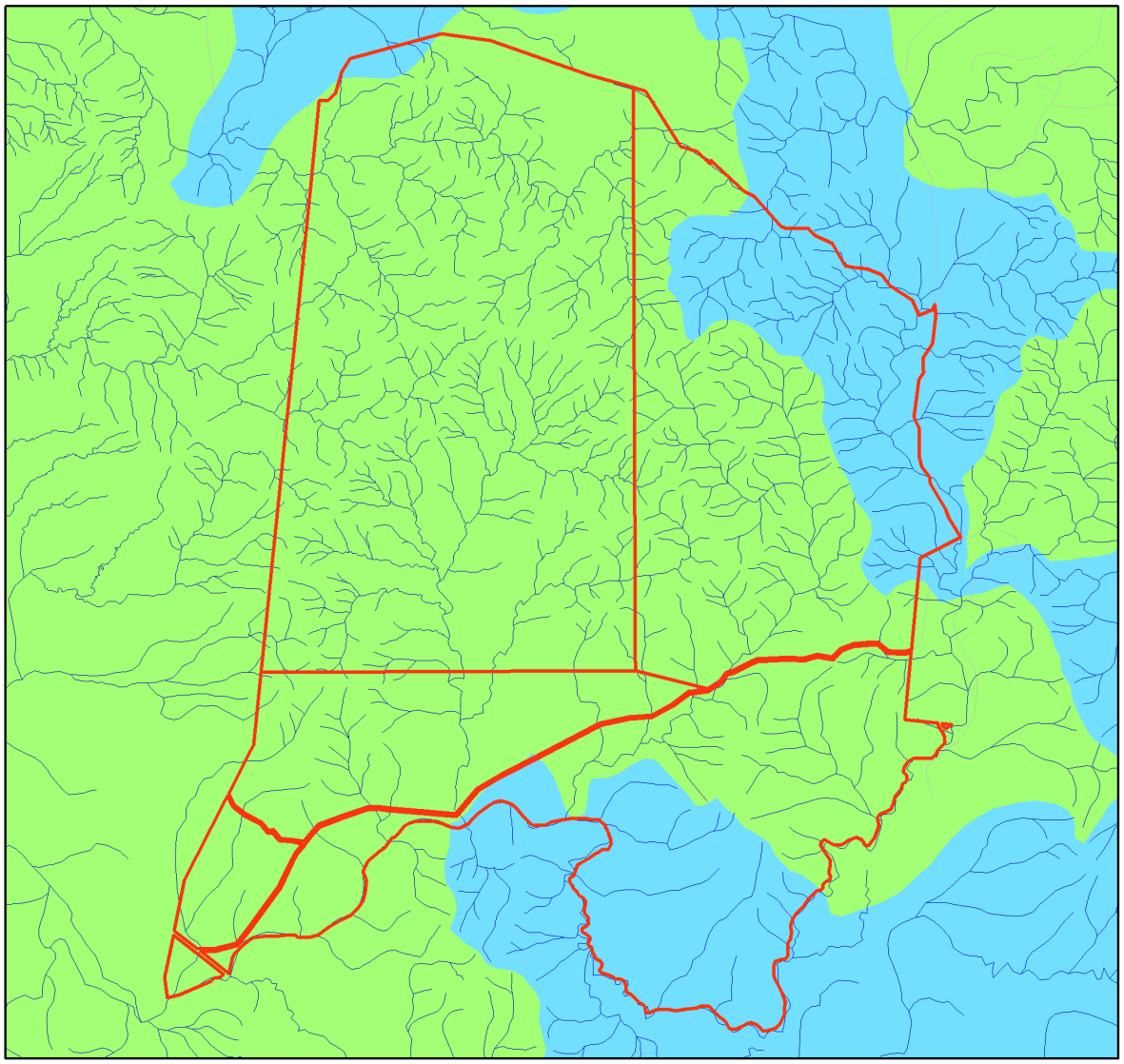
Map 5 - Aquatic Conservation Assessment (ACA) - riverine



Aquatic Conservation Assessment (ACA) - riverine

Legend

- Selected Lot and Plan
- Towns
- Roads
- Rivers/Creeks
- Queensland

ACA Riverine - Subcatchment Significance

- Very High
- High
- Medium
- Low
- Very Low

LOCALITY DIAGRAM

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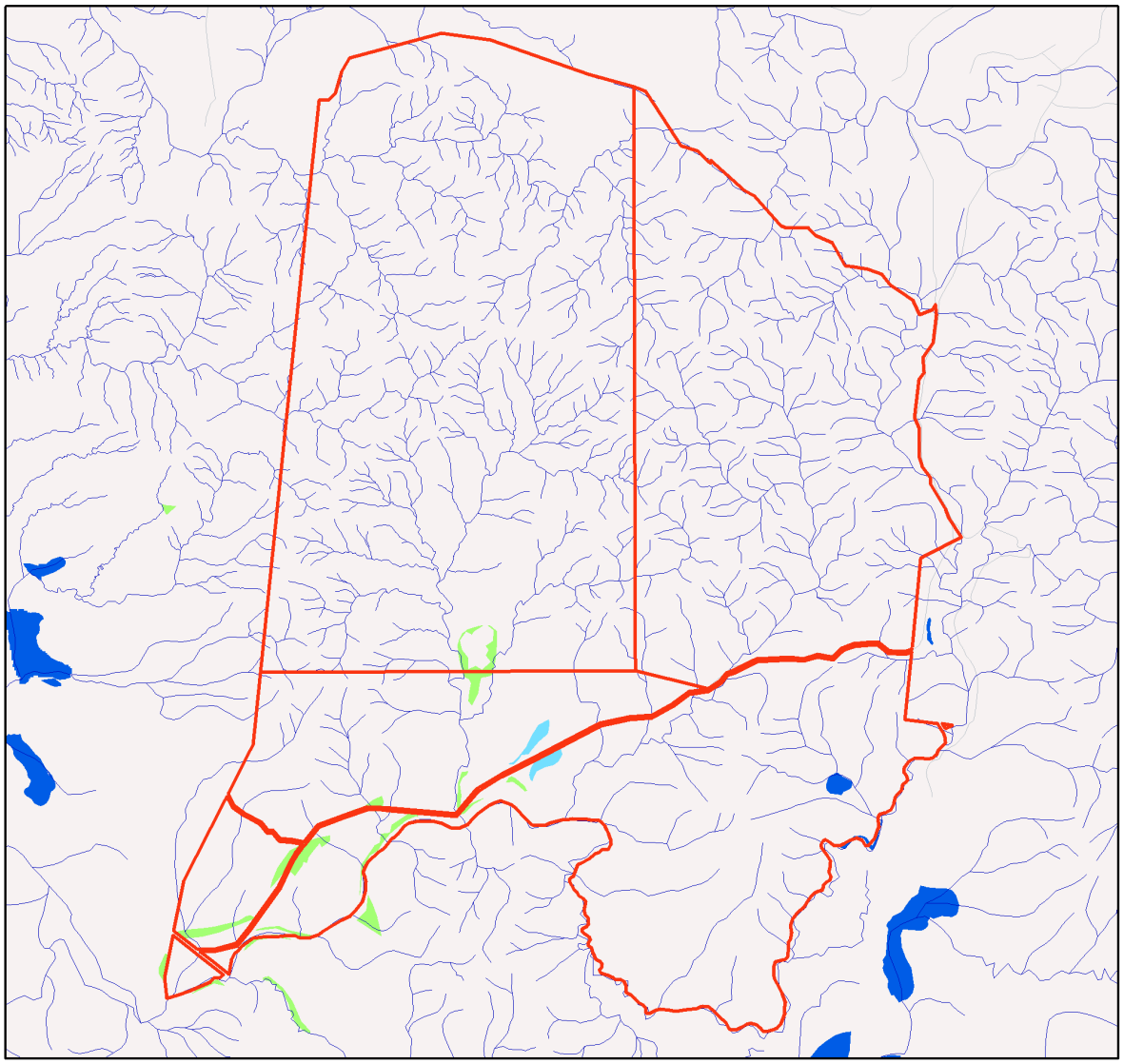
Map 6 - Aquatic Conservation Assessment (ACA) - non-riverine



Aquatic Conservation Assessment (ACA) - nonriverine

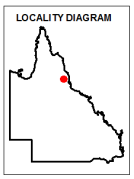
Legend

- Selected Lot and Plan
- Towns
- Roads
- Rivers/Creeks
- Queensland

ACA Non-riverine

- Very High
- High
- Medium
- Low
- Very Low

LOCALITY DIAGRAM



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Appendices

Appendix 1 - Source Data

Theme	Datasets
Aquatic Conservation Assessments Non-riverine*	Combination of the following datasets: Cape York Peninsula Non-riverine v1.1 Eastern Gulf of Carpentaria v1.1 Great Barrier Reef Catchment Non-riverine v1.3 Lake Eyre and Bulloo Basins v1.1 QMDB Non-riverine ACA v1.4 Southeast Queensland ACA v1.1 WBB Non-riverine ACA v1.1 Southern Gulf Catchments Non-riverine ACA v1.1
Aquatic Conservation Assessments Riverine*	Combination of the following datasets: Cape York Peninsula Riverine v1.1 Eastern Gulf of Carpentaria v1.1 Great Barrier Reef Catchment Riverine v1.1 Lake Eyre and Bulloo Basins v1.1 QMDB Riverine ACA v1.4 Southeast Queensland ACA v1.1 WBB Riverine ACA v1.1 Southern Gulf Catchments Riverine ACA v1.1
Biodiversity Planning Assessments*	Combination of the following datasets: Brigalow Belt BPA v2.1 Cape York Peninsula BPA v1.1 Central Queensland Coast BPA v1.3 Channel Country BPA v1.1 Desert Uplands BPA v1.3 Einasleigh Uplands BPA v1.1 Gulf Plains BPA v1.1 Mitchell Grass Downs BPA v1.1 Mulga Lands BPA v1.4 New England Tableland v2.3 Northwest Highlands v1.1 Southeast Queensland v4.1 Wet Tropics v1.1
Statewide BPA Corridors*	Statewide corridors v1.6
Threatened Species	An internal DES database compiled from Wildnet, Herbrecs, Corveg, the QLD Museum, as well as other incidental sources.
BPA Priority Species	An internal DES database compiled from Wildnet, Herbrecs, Corveg, the QLD Museum, as well as other incidental sources.
ACA Priority Species	An internal DES database compiled from Wildnet, Herbrecs, Corveg, the QLD Museum, as well as other incidental sources.

***These datasets are available at:**

http://dds.information.qld.gov.au/DDS

Appendix 2 - Acronyms and Abbreviations

AOI	- Area of Interest
ACA	- Aquatic Conservation Assessment
AQUABAMM	- Aquatic Biodiversity Assessment and Mapping Methodology
BAMM	- Biodiversity Assessment and Mapping Methodology
BoT	- Back on Track
BPA	- Biodiversity Planning Assessment
CAMBA	- China-Australia Migratory Bird Agreement
DES	- Department of Environment and Science
EPBC	- *Environment Protection and Biodiversity Conservation Act 1999*
EVNT	- Endangered, Vulnerable, Near Threatened
GDA94	- Geocentric Datum of Australia 1994
GIS	- Geographic Information System
JAMBA	- Japan-Australia Migratory Bird Agreement
NCA	- *Nature Conservation Act 1992*
RE	- Regional Ecosystem
REDD	- Regional Ecosystem Description Database
ROKAMBA	- Republic of Korea-Australia Migratory Bird Agreement

Queensland Government

Department of Environment and Science

Environmental Reports

Matters of State Environmental Significance

For the selected area of interest
Lot: 1 Plan: CWL3298

Environmental Reports - General Information

The Environmental Reports portal provides for the assessment of selected matters of interest relevant to a user specified location, or area of interest (AOI). All area and derivative figures are relevant to the extent of matters of interest contained within the AOI unless otherwise stated. Please note, if a user selects an AOI via the "central coordinates" option, the resulting assessment area encompasses an area extending for a 2km radius from the point of interest.

All area and area derived figures included in this report have been calculated via reprojecting relevant spatial features to Albers equal-area conic projection (central meridian = 146, datum Geocentric Datum of Australia 1994). As a result, area figures may differ slightly if calculated for the same features using a different co-ordinate system.

Figures in tables may be affected by rounding.

The matters of interest reported on in this document are based upon available state mapped datasets. Where the report indicates that a matter of interest is not present within the AOI (e.g. where area related calculations are equal to zero, or no values are listed), this may be due either to the fact that state mapping has not been undertaken for the AOI, that state mapping is incomplete for the AOI, or that no values have been identified within the site.

The information presented in this report should be considered as a guide only and field survey may be required to validate values on the ground.

Please direct queries about these reports to: Planning.Support@des.qld.gov.au

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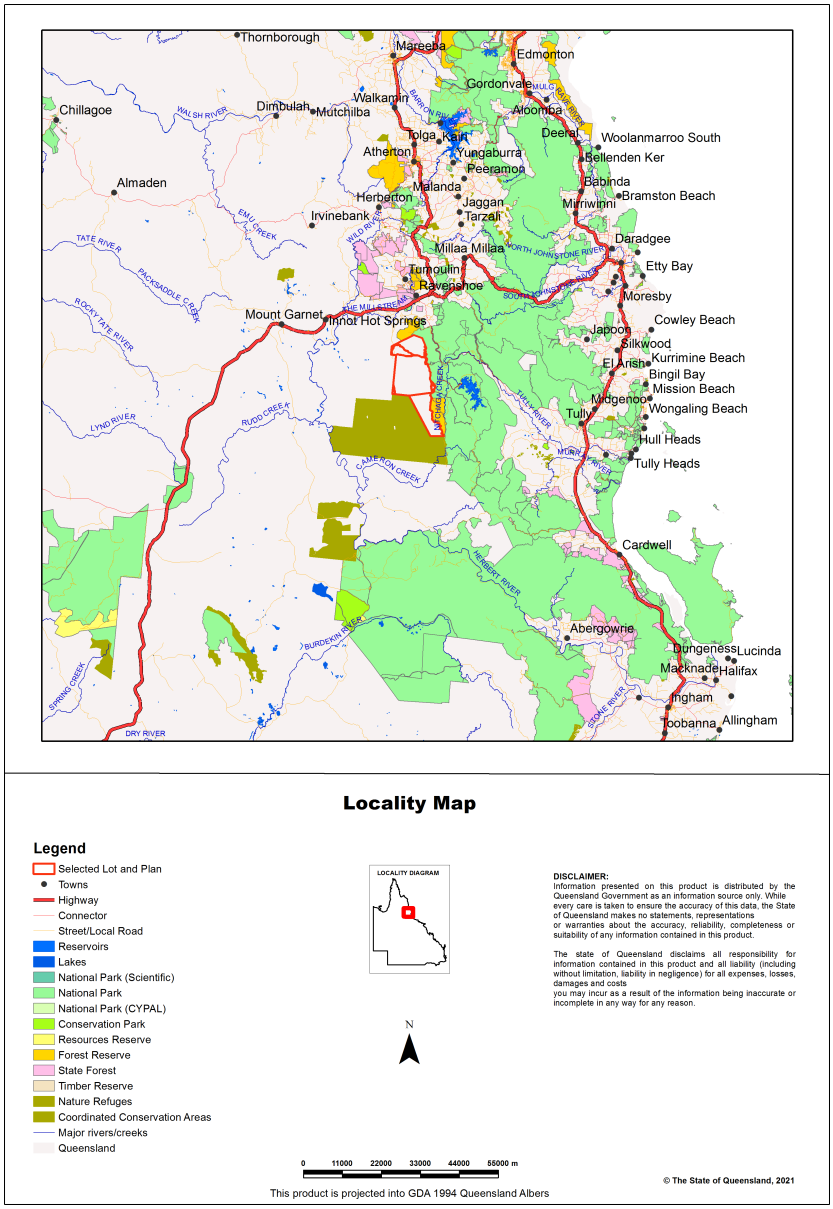
Table of Contents

Assessment Area Details

The following table provides an overview of the area of interest (AOI) with respect to selected topographic and environmental values.

Table 1: Summary table, details for AOI Lot: 1 Plan: CWL3298

Size (ha)	20,365.94
Local Government(s)	Tablelands Regional
Bioregion(s)	Einasleigh Uplands, Wet Tropics
Subregion(s)	Herberton - Wairuna, Kirrama - Hinchinbrook
Catchment(s)	Herbert, Tully



Matters of State Environmental Significance (MSES)

MSES Categories

Queensland's State Planning Policy (SPP) includes a biodiversity State interest that states:

'The sustainable, long-term conservation of biodiversity is supported. Significant impacts on matters of national or state environmental significance are avoided, or where this cannot be reasonably achieved; impacts are minimised and residual impacts offset.'

The MSES mapping product is a guide to assist planning and development assessment decision-making. Its primary purpose is to support implementation of the SPP biodiversity policy. While it supports the SPP, the mapping does not replace the regulatory mapping or environmental values specifically called up under other laws or regulations. Similarly, the SPP biodiversity policy does not override or replace specific requirements of other Acts or regulations.

The SPP defines matters of state environmental significance as:

- Protected areas (including all classes of protected area except coordinated conservation areas) under the *Nature Conservation Act 1992* ;

- Marine parks and land within a 'marine national park', 'conservation park', 'scientific research', 'preservation' or 'buffer' zone under the *Marine Parks Act 2004* ;

- Areas within declared fish habitat areas that are management A areas or management B areas under the Fisheries Regulation 2008;

- Threatened wildlife under the *Nature Conservation Act 1992* and special least concern animals under the Nature Conservation (Wildlife) Regulation 2006;

- Regulated vegetation under the *Vegetation Management Act 1999* that is:

    • Category B areas on the regulated vegetation management map, that are 'endangered' or 'of concern' regional ecosystems;

    • Category C areas on the regulated vegetation management map that are 'endangered' or 'of concern' regional ecosystems;

    • Category R areas on the regulated vegetation management map;

    • Regional ecosystems that intersect with watercourses identified on the vegetation management watercourse and drainage feature map;

    • Regional ecosystems that intersect with wetlands identified on the vegetation management wetlands map;

- Strategic Environmental Areas under the *Regional Planning Interests Act 2014* ;

- Wetlands in a wetland protection area of wetlands of high ecological significance shown on the Map of Queensland Wetland Environmental Values under the Environment Protection Regulation 2019;

- Wetlands and watercourses in high ecological value waters defined in the Environmental Protection (Water) Policy 2009, schedule 2;

- Legally secured offset areas.

MSES Values Present

The MSES values that are present in the area of interest are summarised in the table below:

Table 2: Summary of MSES present within the AOI

1a Protected Areas- estates	0.0 ha	0.0 %
1b Protected Areas- nature refuges	0.0 ha	0.0 %
1c Protected Areas- special wildlife reserves	0.0 ha	0.0 %
2 State Marine Parks- highly protected zones	0.0 ha	0.0 %
3 Fish habitat areas (A and B areas)	0.0 ha	0.0 %
4 Strategic Environmental Areas (SEA)	0.0 ha	0.0 %
5 High Ecological Significance wetlands on the map of Referable Wetlands	68.62 ha	0.3%
6a High Ecological Value (HEV) wetlands	0.0 ha	0.0 %
6b High Ecological Value (HEV) waterways **	6.8 km	Not applicable
7a Threatened (endangered or vulnerable) wildlife	1643.23 ha	8.1%
7b Special least concern animals	177.6 ha	0.9%
7c i Koala habitat area - core (SEQ)	0.0 ha	0.0 %
7c ii Koala habitat area - locally refined (SEQ)	0.0 ha	0.0 %
8a Regulated Vegetation - Endangered/Of concern in Category B (remnant)	3958.9 ha	19.4%
8b Regulated Vegetation - Endangered/Of concern in Category C (regrowth)	29.59 ha	0.1%
8c Regulated Vegetation - Category R (GBR riverine regrowth)	68.77 ha	0.3%
8d Regulated Vegetation - Essential habitat	1361.92 ha	6.7%
8e Regulated Vegetation - intersecting a watercourse **	386.6 km	Not applicable
8f Regulated Vegetation - within 100m of a Vegetation Management Wetland	112.83 ha	0.6%
9a Legally secured offset areas- offset register areas	0.0 ha	0.0 %
9b Legally secured offset areas- vegetation offsets through a Property Map of Assessable Vegetation	0.0 ha	0.0 %

Additional Information with Respect to MSES Values Present

MSES - State Conservation Areas

1a. Protected Areas - estates

(no results)

1b. Protected Areas - nature refuges

(no results)

1c. Protected Areas - special wildlife reserves

(no results)

2. State Marine Parks - highly protected zones

(no results)

3. Fish habitat areas (A and B areas)

(no results)

Refer to **Map 1 - MSES - State Conservation Areas** for an overview of the relevant MSES.

MSES - Wetlands and Waterways

4. Strategic Environmental Areas (SEA)

(no results)

5. High Ecological Significance wetlands on the Map of Queensland Wetland Environmental Values

Natural wetlands that are 'High Ecological Significance' (HES) on the Map of Queensland Wetland Environmental Values are present.

6a. Wetlands in High Ecological Value (HEV) waters

(no results)

6b. Waterways in High Ecological Value (HEV) waters

Natural waterways that occur in HEV (maintain) freshwater and estuarine areas under the Environmental Protection (water) Policy are present.

Refer to **Map 2 - MSES - Wetlands and Waterways** for an overview of the relevant MSES.

MSES - Species

7a. Threatened (endangered or vulnerable) wildlife

Values are present

7b. Special least concern animals

Values are present

7c i. Koala habitat area - core (SEQ)

Not applicable

7c ii. Koala habitat area - locally refined (SEQ)

Not applicable

Threatened (endangered or vulnerable) wildlife habitat suitability models

Species	Common name	NCA status	Presence
Boronia keysii		V	None
Calyptorhynchus lathami	Glossy black cockatoo	V	None
Casuarius casuarius johnsonii	Sthn population cassowary	E	Core
Crinia tinnula	Wallum froglet	V	None
Denisonia maculata	Ornamental snake	V	None
Litoria freycineti	Wallum rocketfrog	V	None
Litoria olongburensis	Wallum sedgefrog	V	None
Melaleuca irbyana		E	None
Petaurus gracilis	Mahogany Glider	E	None
Petrogale persephone	Proserpine rock-wallaby	E	None
Phascolarctos cinereus	Koala - outside SEQ*	V	None
Pezoporus wallicus wallicus	Eastern ground parrot	V	None
Taudactylus pleione	Kroombit tinkerfrog	E	None
Xeromys myoides	Water Mouse	V	None

**For koala model, this includes areas outside SEQ. Check 7c SEQ koala habitat for presence/absence.*

Threatened (endangered or vulnerable) wildlife species records

Scientific name	Common name	NCA status	EPBC status	Migratory status
Petaurus australis unnamed subsp.	yellow-bellied glider (northern subspecies)	V	V	
Litoria nyakalensis	mountain mistfrog	E	CE	
Petauroides volans	greater glider	V	V	
Litoria serrata	tapping green eyed frog	V		
Alloxylon flammeum		V	V	
Murina florium	tube-nosed insectivorous bat	V		
Pseudophryne covacevichae	magnificent broodfrog	V	V	

Special least concern animal species records

Scientific name	Common name	Migratory status
Ornithorhynchus anatinus	platypus	
Tachyglossus aculeatus	short-beaked echidna	

**Nature Conservation Act 1992 (NCA) Status- Endangered (E), Vulnerable (V) or Special Least Concern Animal (SL). Environment Protection and Biodiversity Conservation Act 1999 (EPBC) status: Critically Endangered (CE) Endangered (E), Vulnerable (V)*

Migratory status (M) - China and Australia Migratory Bird Agreement (C), Japan and Australia Migratory Bird Agreement (J), Republic of Korea and Australia Migratory Bird Agreement (R), Bonn Migratory Convention (B), Eastern Flyway (E)

To request a species list for an area, or search for a species profile, access Wildlife Online at:

https://www.qld.gov.au/environment/plants-animals/species-list/

Refer to **Map 3a - MSES - Species - Threatened (endangered or vulnerable) wildlife and special least concern animals** and **Map 3b - MSES - Species - Koala habitat area (SEQ)** for an overview of the relevant MSES.

MSES - Regulated Vegetation

For further information relating to regional ecosystems in general, go to:

https://www.qld.gov.au/environment/plants-animals/plants/ecosystems/

For a more detailed description of a particular regional ecosystem, access the regional ecosystem search page at:

https://environment.ehp.qld.gov.au/regional-ecosystems/

8a. Regulated Vegetation - Endangered/Of concern in Category B (remnant)

Regional ecosystem	Vegetation management polygon	Vegetation management status
7.8.15a	O-dom	rem_oc
7.12.52	O-dom	rem_oc
7.12.66b	O-dom	rem_oc
7.12.66c	O-dom	rem_oc
7.12.66e	O-dom	rem_oc
7.3.43a	O-dom	rem_oc
7.12.57a	O-dom	rem_oc
7.12.58	O-dom	rem_oc
7.3.26a	O-dom	rem_oc
7.3.19g	O-dom	rem_oc
7.8.7a	O-dom	rem_oc
9.3.4	O-dom	rem_oc
9.3.15/7.3.26a	O-subdom	rem_oc
7.3.48a	O-dom	rem_oc
7.12.37i	O-dom	rem_oc
7.8.16a	O-dom	rem_oc
7.8.16c	O-dom	rem_oc
7.3.19a	O-dom	rem_oc
7.12.60a	O-dom	rem_oc

Regional ecosystem	Vegetation management polygon	Vegetation management status
9.5.17/9.5.5d	O-dom	rem_oc
9.5.17	O-dom	rem_oc
7.3.42a	O-dom	rem_oc

8b. Regulated Vegetation - Endangered/Of concern in Category C (regrowth)

Regional ecosystem	Vegetation management polygon	Vegetation management status
7.3.34	E-dom	hvr_end
7.3.43a	O-dom	hvr_oc
7.3.19f	O-dom	hvr_oc
7.8.7a	O-dom	hvr_oc
7.8.19	E-dom	hvr_end
7.12.52	O-dom	hvr_oc

8c. Regulated Vegetation - Category R (GBR riverine regrowth)

Regulated vegetation map category	Map number	RVM rule
R	7962	4
R	8062	4

8d. Regulated Vegetation - Essential habitat

Values are present

8e. Regulated Vegetation - intersecting a watercourse**

A vegetation management watercourse is mapped as present

8f. Regulated Vegetation - within 100m of a Vegetation Management wetland

Regulated vegetation map category	Map number	RVM rule
B	7962	2

Refer to **Map 4 - MSES - Regulated Vegetation** for an overview of the relevant MSES.

MSES - Offsets

9a. Legally secured offset areas - offset register areas

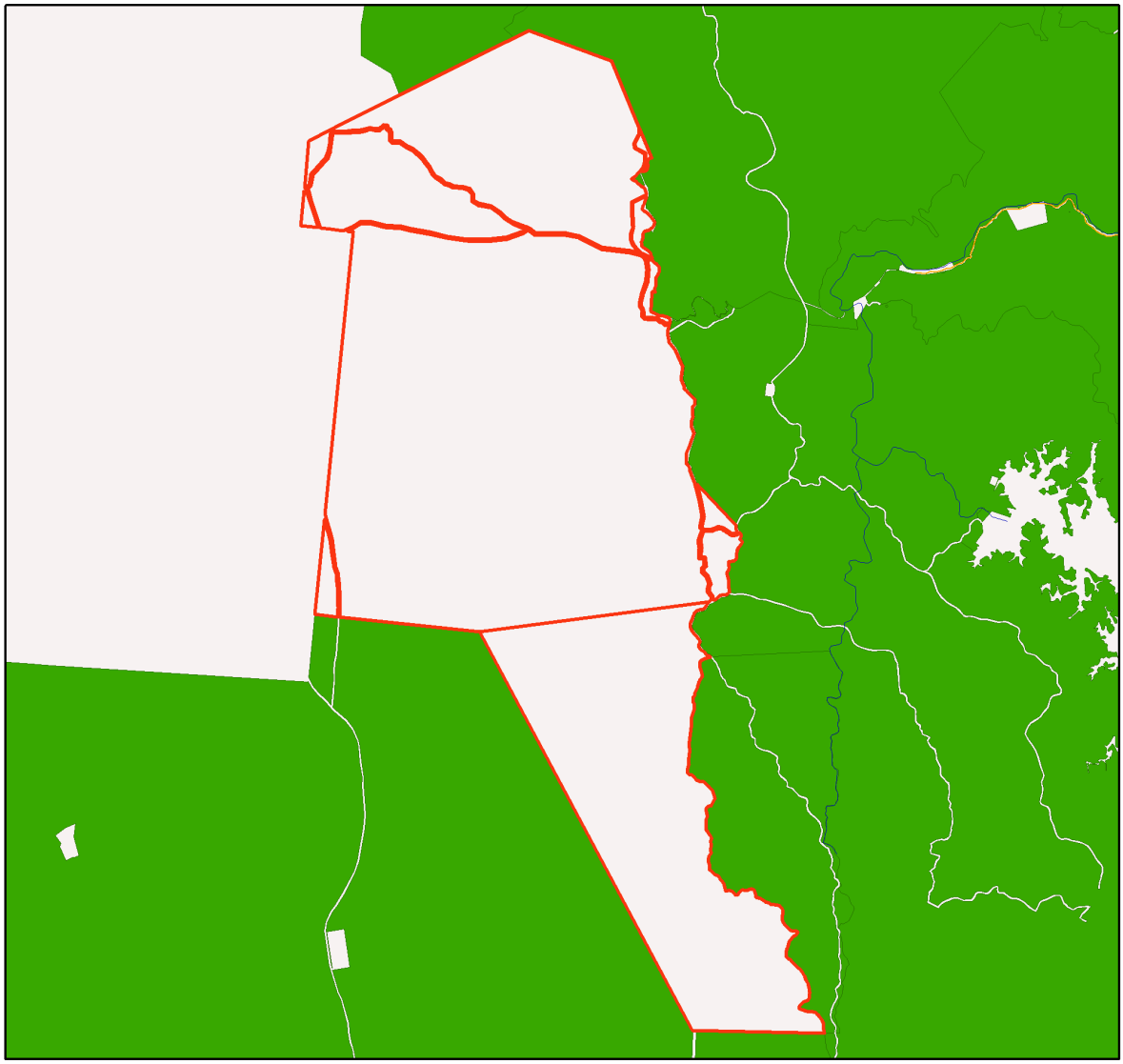
(no results)

9b. Legally secured offset areas - vegetation offsets through a Property Map of Assessable Vegetation

(no results)

Refer to **Map 5 - MSES - Offset Areas** for an overview of the relevant MSES.

Map 1 - MSES - State Conservation Areas

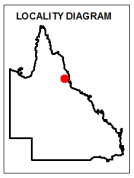


MSES - State Conservation Areas

Area of Interest

- Selected Lot and Plan
- Towns
- Freeways/Highways
- Secondary roads
- Major rivers/creeks
- Protected area (estates, nature refuges, special wildlife reserves)
- Declared fish habitat area (A and B areas)
- Marine park (highly protected)

LOCALITY DIAGRAM



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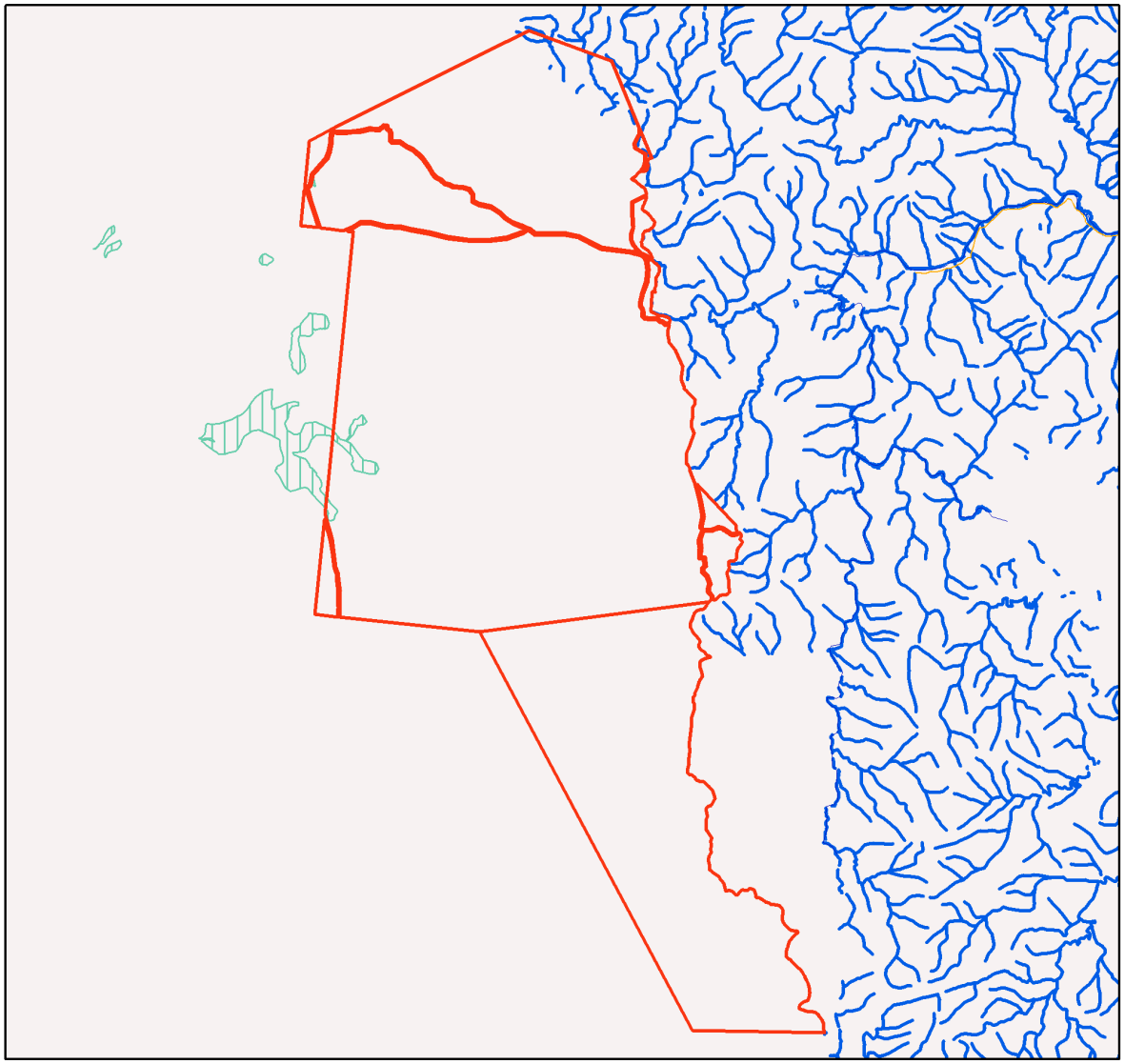
Map 2 - MSES - Wetlands and Waterways

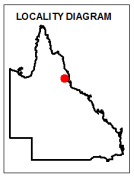


MSES - Wetlands and Waterways

Area of Interest

- Selected Lot and Plan
- Towns
- Freeways/Highways
- Secondary roads
- Major rivers/creeks
- Declared high ecological value waters (watercourse)
- Strategic environmental area (designated precinct)
- Declared high ecological value waters (wetland)
- High ecological significance wetlands

LOCALITY DIAGRAM



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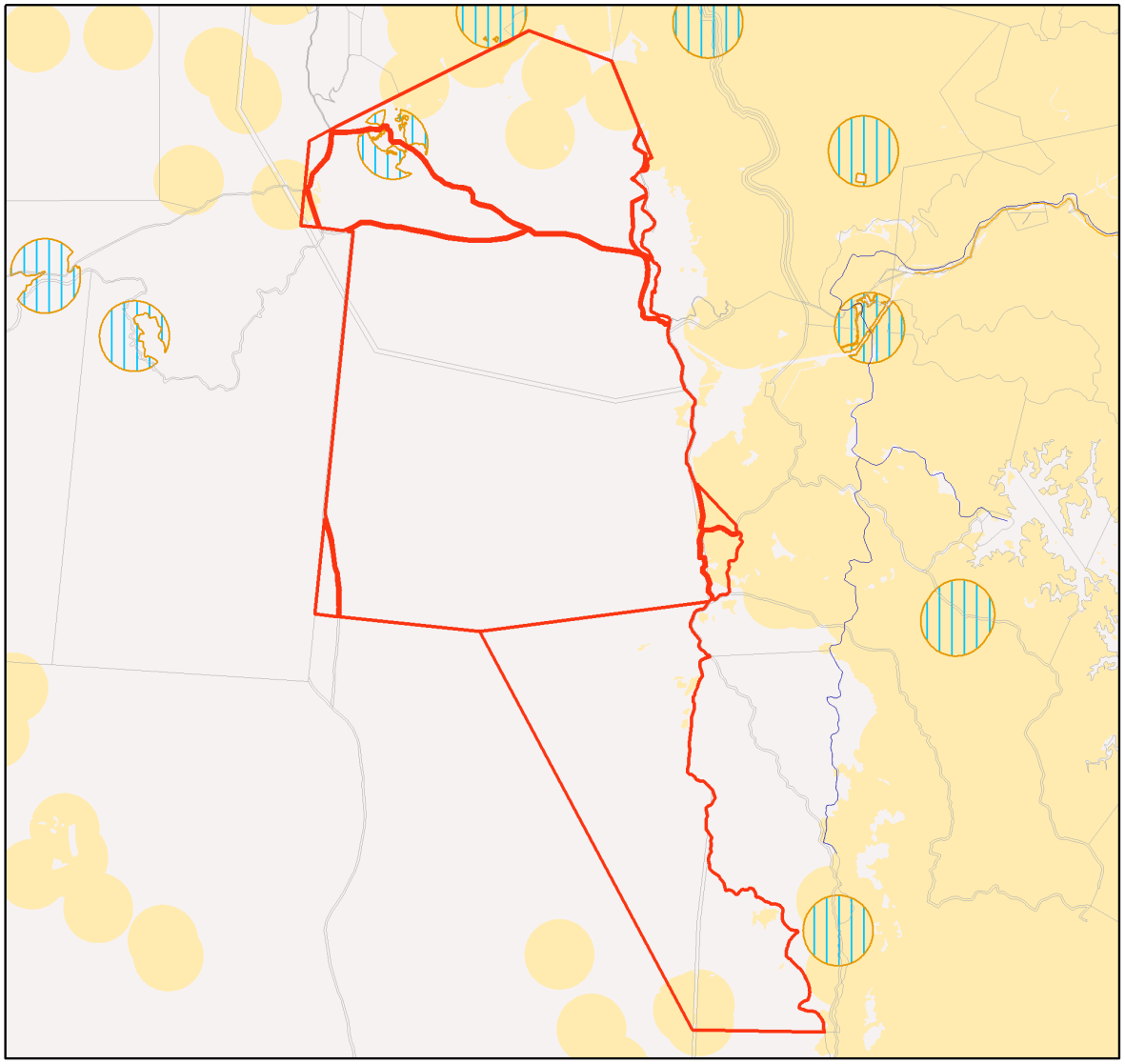
Map 3a - MSES - Species - Threatened (endangered or vulnerable) wildlife and special least concern animals

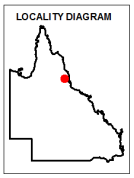


MSES - Species
Threatened (endangered or vulnerable) wildlife and special least concern animals

Area of Interest

- Selected Lot and Plan
- Towns
- Freeways/Highways
- Secondary roads
- Major rivers/creeks
- Wildlife habitat (special least concern)
- Wildlife habitat (endangered or vulnerable)

LOCALITY DIAGRAM



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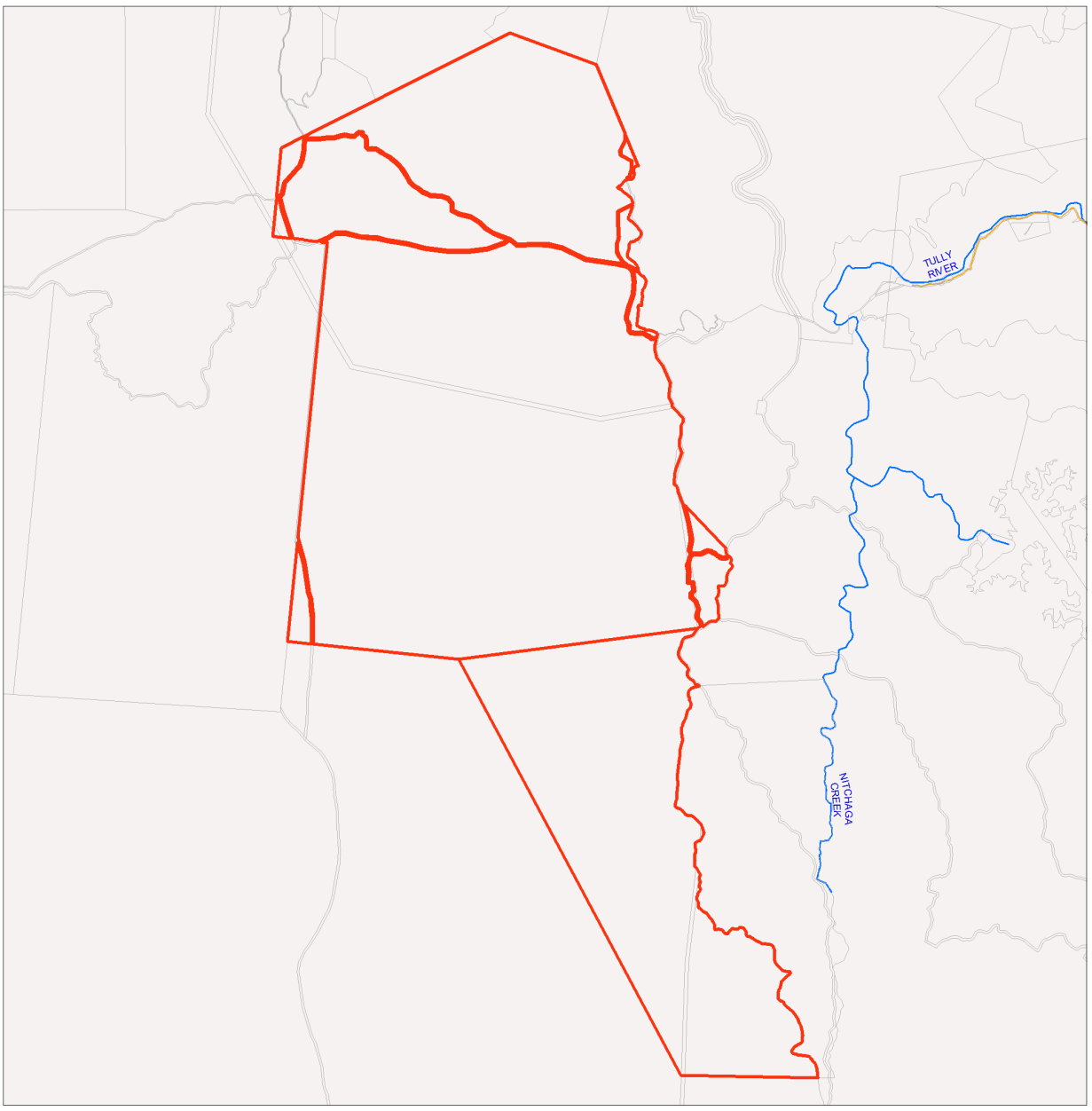
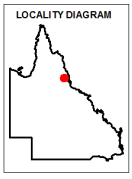
Map 3b - MSES - Species - Koala habitat area (SEQ)



MSES - Species
Koala habitat area (SEQ)

Area of Interest
- Selected Lot and Plan
- Towns
- Freeways/Highways
- Secondary roads
- Major rivers/creeks
- Koala habitat area (core)
- Koala habitat area (locally refined)

LOCALITY DIAGRAM



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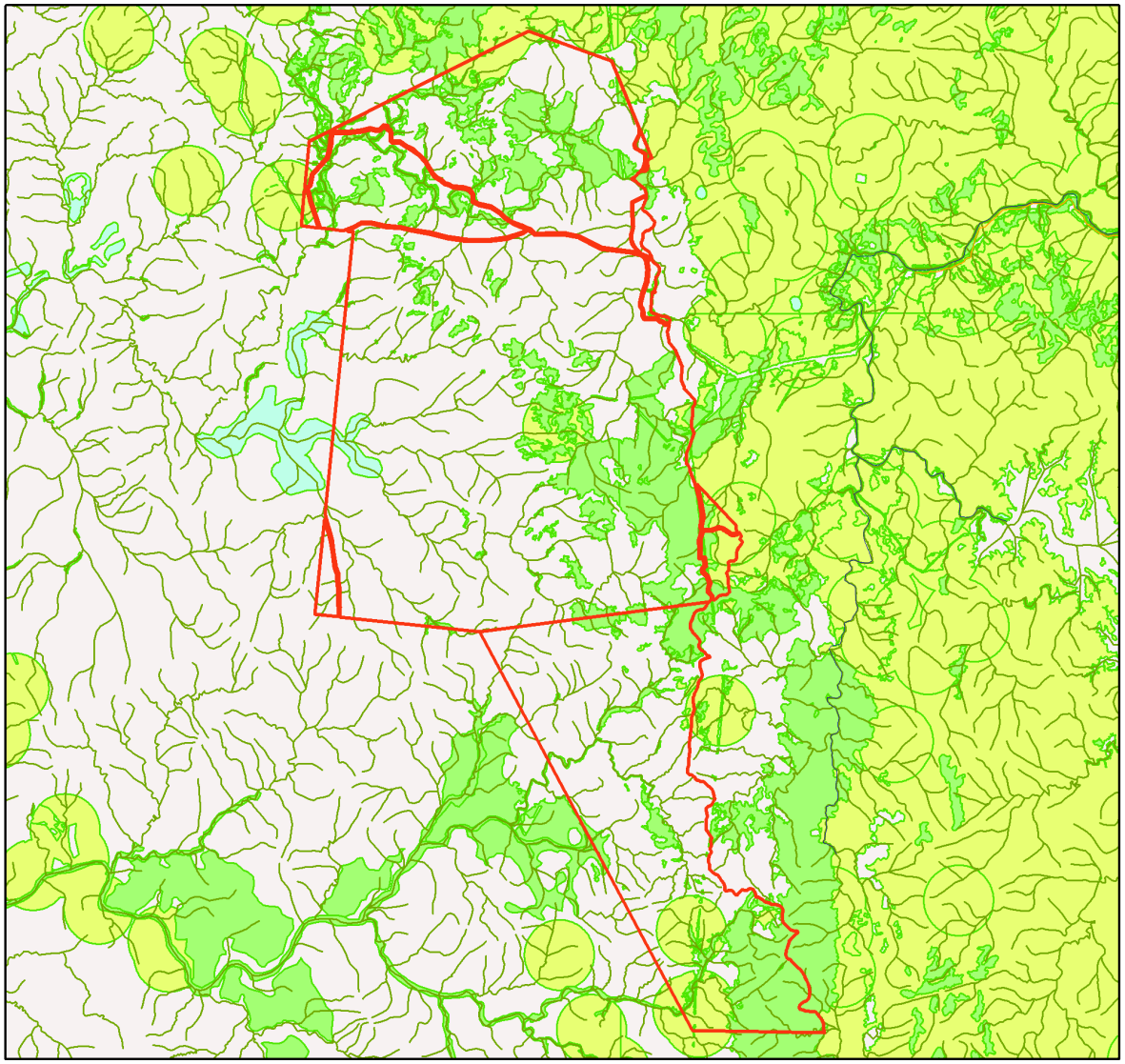
The represented layers for SEQ 'koala habitat area-core' and 'koala habitat area- locally refined' in MSES are sourced directly from the regulatory mapping under the Nature Conservation (Koala) Conservation Plan 2017. Whilst every effort is made to ensure the information remains current, there may be delays between updating versions. Please refer to the original mapping for the most recent version. See https://environment.des.qld.gov.au/wildlife/animals/living-with/koalas/mapping

The koala habitat mapping within South East Queensland uses regional ecosystem linework compiled at a scale varying from 1:25,000 to 1:100,000. Linework should be used as a guide only. The positional accuracy of regional ecosystem data mapped at a scale of 1:100,000 is +/- 100 metres.

0 1,500 3,000 4,500 6,000 7,500 m

This product is projected into GDA 1994 Queensland Albers

Map 4 - MSES - Regulated Vegetation

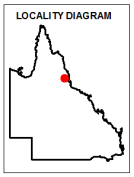


MSES - Regulated Vegetation

Area of Interest

- Selected Lot and Plan
- Towns
- Freeways/Highways
- Secondary roads
- Major rivers/creeks
- Regulated vegetation (intersecting a watercourse)
- Regulated vegetation (100m from wetland)
- Regulated vegetation (category B - endangered or of concern)
- Regulated vegetation (category C - endangered or of concern)
- Regulated vegetation (category R - GBR riverine)
- Regulated vegetation (essential habitat)

LOCALITY DIAGRAM



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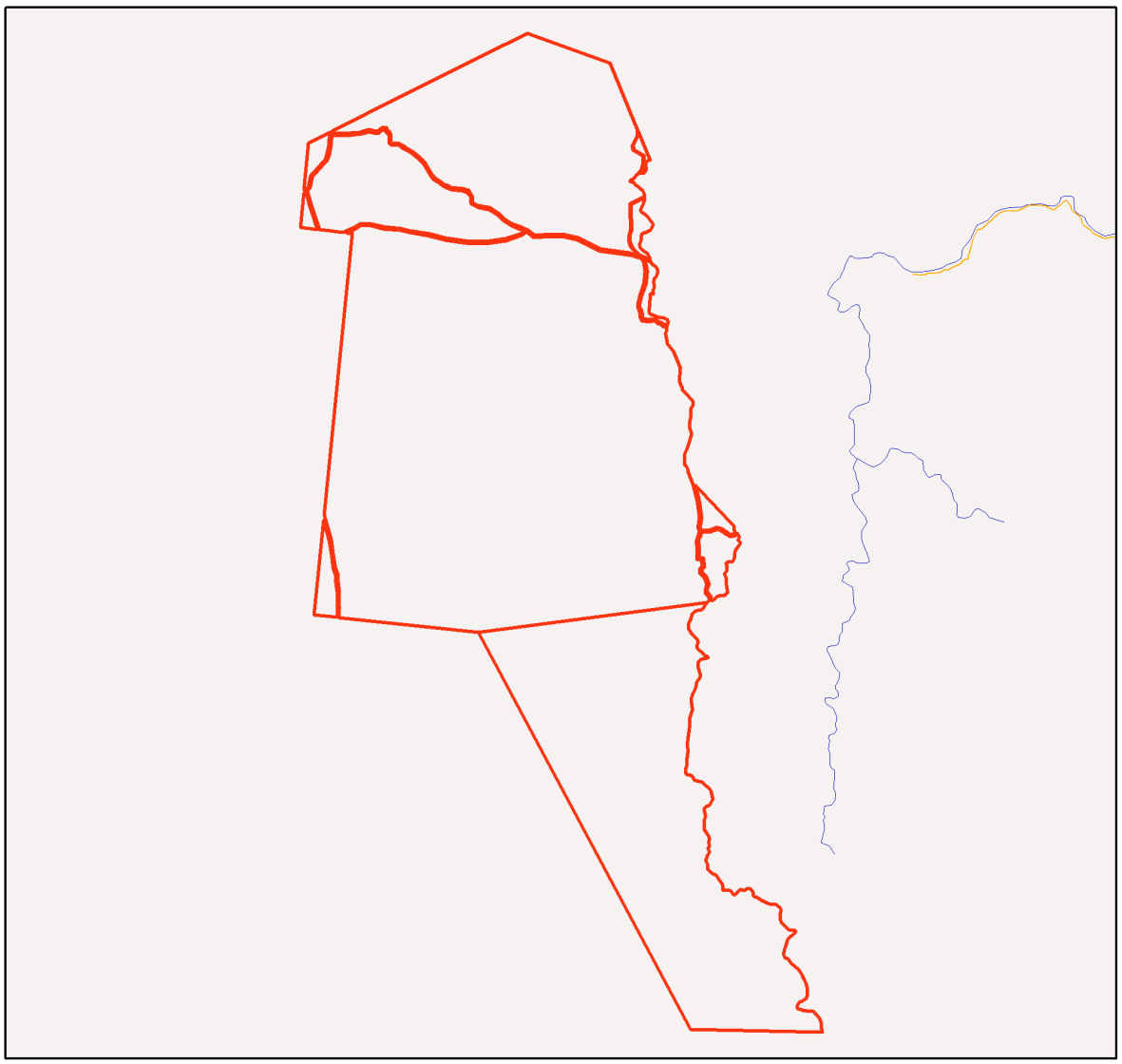
This product is projected into GDA 1994 Queensland Albers

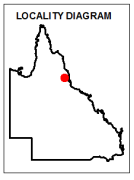
Map 5 - MSES - Offset Areas



MSES - Offsets

Area of Interest

- Selected Lot and Plan
- Towns
- Freeways/Highways
- Secondary roads
- Major rivers/creeks
- Legally secured offset area (offset register)
- Legally secured offset area (vegetation offsets)



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Appendices

Appendix 1 - Matters of State Environmental Significance (MSES) methodology

MSES mapping is a regional-scale representation of the definition for MSES under the State Planning Policy (SPP). The compiled MSES mapping product is a guide to assist planning and development assessment decision-making. Its primary purpose is to support implementation of the SPP biodiversity policy. While it supports the SPP, the mapping does not replace the regulatory mapping or environmental values specifically called up under other laws or regulations. Similarly, the SPP biodiversity policy does not override or replace specific requirements of other Acts or regulations.

The Queensland Government's "Method for mapping - matters of state environmental significance for use in land use planning and development assessment" can be downloaded from:

http://www.ehp.qld.gov.au/land/natural-resource/method-mapping-mses.html .

Appendix 2 - Source Data

The datasets listed below are available on request from:

http://qldspatial.information.qld.gov.au/catalogue/custom/index.page

- Matters of State environmental significance

Note: MSES mapping is not based on new or unique data. The primary mapping product draws data from a number of underlying environment databases and geo-referenced information sources. MSES mapping is a versioned product that is updated generally on a twice-yearly basis to incorporate the changes to underlying data sources. Several components of MSES mapping made for the current version may differ from the current underlying data sources. To ensure accuracy, or proper representation of MSES values, it is strongly recommended that users refer to the underlying data sources and review the current definition of MSES in the State Planning Policy, before applying the MSES mapping.

Individual MSES layers can be attributed to the following source data available at QSpatial:

MSES layers	**current QSpatial data (http://qspatial.information.qld.gov.au)**
Protected Areas-Estates, Nature Refuges, Special Wildlife Reserves	- Protected areas of Queensland - Nature Refuges - Queensland - Special Wildlife Reserves- Queensland
Marine Park-Highly Protected Zones	Moreton Bay marine park zoning 2008
Fish Habitat Areas	Queensland fish habitat areas
Strategic Environmental Areas-designated	Regional Planning Interests Act - Strategic Environmental Areas
HES wetlands	Map of Queensland Wetland Environmental Values
Wetlands in HEV waters	HEV waters: - EPP Water intent for waters Source Wetlands: - Queensland Wetland Mapping (Current version 5) Source Watercourses: - Vegetation management watercourse and drainage feature map (1:100000 and 1:250000)
Wildlife habitat (threatened and special least concern)	-WildNet database species records - habitat suitability models (various) - SEQ koala habitat areas under the Koala Conservation Plan 2019
VMA regulated regional ecosystems	Vegetation management regional ecosystem and remnant map
VMA Essential Habitat	Vegetation management - essential habitat map
VMA Wetlands	Vegetation management wetlands map
Legally secured offsets	Vegetation Management Act property maps of assessable vegetation. For offset register data-contact DES
Regulated Vegetation Map	Vegetation management - regulated vegetation management map

Appendix 3 - Acronyms and Abbreviations

AOI	- Area of Interest
DES	- Department of Environment and Science
EP Act	- *Environmental Protection Act 1994*
EPP	- Environmental Protection Policy
GDA94	- Geocentric Datum of Australia 1994
GEM	- General Environmental Matters
GIS	- Geographic Information System
MSES	- Matters of State Environmental Significance
NCA	- *Nature Conservation Act 1992*
RE	- Regional Ecosystem
SPP	- State Planning Policy
VMA	- *Vegetation Management Act 1999*

Queensland Government

Department of Environment and Science

Environmental Reports

Matters of State Environmental Significance

For the selected area of interest
Lot: 31 Plan: SP288862

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Please direct queries about these reports to: Planning.Support@des.qld.gov.au

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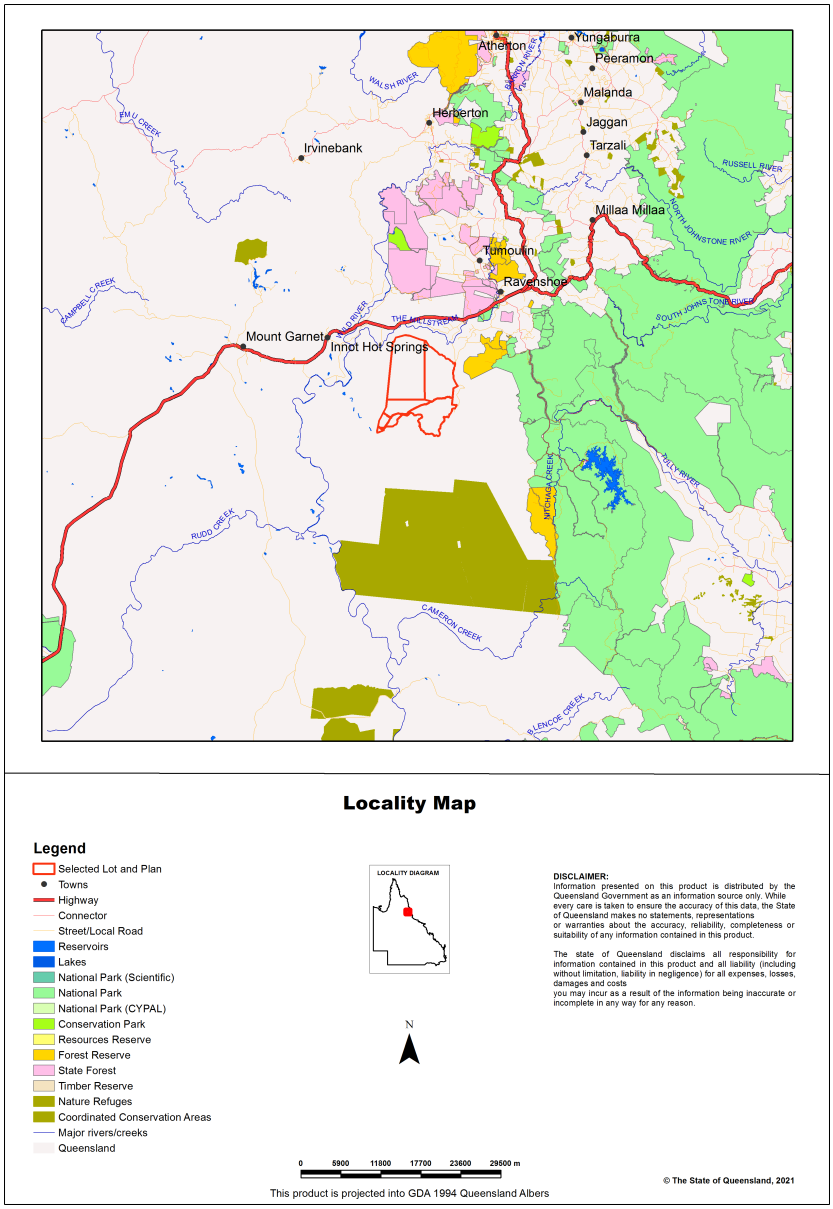
Table of Contents

Assessment Area Details

The following table provides an overview of the area of interest (AOI) with respect to selected topographic and environmental values.

Table 1: Summary table, details for AOI Lot: 31 Plan: SP288862

Size (ha)	11,282.74
Local Government(s)	Tablelands Regional
Bioregion(s)	Einasleigh Uplands, Wet Tropics
Subregion(s)	Herberton - Wairuna, Kirrama - Hinchinbrook, Atherton
Catchment(s)	Herbert



Matters of State Environmental Significance (MSES)

MSES Categories

Queensland's State Planning Policy (SPP) includes a biodiversity State interest that states:

'The sustainable, long-term conservation of biodiversity is supported. Significant impacts on matters of national or state environmental significance are avoided, or where this cannot be reasonably achieved; impacts are minimised and residual impacts offset.'

The MSES mapping product is a guide to assist planning and development assessment decision-making. Its primary purpose is to support implementation of the SPP biodiversity policy. While it supports the SPP, the mapping does not replace the regulatory mapping or environmental values specifically called up under other laws or regulations. Similarly, the SPP biodiversity policy does not override or replace specific requirements of other Acts or regulations.

The SPP defines matters of state environmental significance as:

- Protected areas (including all classes of protected area except coordinated conservation areas) under the *Nature Conservation Act 1992* ;

- Marine parks and land within a 'marine national park', 'conservation park', 'scientific research', 'preservation' or 'buffer' zone under the *Marine Parks Act 2004* ;

- Areas within declared fish habitat areas that are management A areas or management B areas under the Fisheries Regulation 2008;

- Threatened wildlife under the *Nature Conservation Act 1992* and special least concern animals under the Nature Conservation (Wildlife) Regulation 2006;

- Regulated vegetation under the *Vegetation Management Act 1999* that is:

    • Category B areas on the regulated vegetation management map, that are 'endangered' or 'of concern' regional ecosystems;

    • Category C areas on the regulated vegetation management map that are 'endangered' or 'of concern' regional ecosystems;

    • Category R areas on the regulated vegetation management map;

    • Regional ecosystems that intersect with watercourses identified on the vegetation management watercourse and drainage feature map;

    • Regional ecosystems that intersect with wetlands identified on the vegetation management wetlands map;

- Strategic Environmental Areas under the *Regional Planning Interests Act 2014* ;

- Wetlands in a wetland protection area of wetlands of high ecological significance shown on the Map of Queensland Wetland Environmental Values under the Environment Protection Regulation 2019;

- Wetlands and watercourses in high ecological value waters defined in the Environmental Protection (Water) Policy 2009, schedule 2;

- Legally secured offset areas.

MSES Values Present

The MSES values that are present in the area of interest are summarised in the table below:

Table 2: Summary of MSES present within the AOI

1a Protected Areas- estates	0.0 ha	0.0 %
1b Protected Areas- nature refuges	0.0 ha	0.0 %
1c Protected Areas- special wildlife reserves	0.0 ha	0.0 %
2 State Marine Parks- highly protected zones	0.0 ha	0.0 %
3 Fish habitat areas (A and B areas)	0.0 ha	0.0 %
4 Strategic Environmental Areas (SEA)	0.0 ha	0.0 %
5 High Ecological Significance wetlands on the map of Referable Wetlands	25.08 ha	0.2%
6a High Ecological Value (HEV) wetlands	0.0 ha	0.0 %
6b High Ecological Value (HEV) waterways **	0.0 km	Not applicable
7a Threatened (endangered or vulnerable) wildlife	1954.38 ha	17.3%
7b Special least concern animals	243.72 ha	2.2%
7c i Koala habitat area - core (SEQ)	0.0 ha	0.0 %
7c ii Koala habitat area - locally refined (SEQ)	0.0 ha	0.0 %
8a Regulated Vegetation - Endangered/Of concern in Category B (remnant)	195.96 ha	1.7%
8b Regulated Vegetation - Endangered/Of concern in Category C (regrowth)	16.61 ha	0.1%
8c Regulated Vegetation - Category R (GBR riverine regrowth)	21.49 ha	0.2%
8d Regulated Vegetation - Essential habitat	1576.89 ha	14.0%
8e Regulated Vegetation - intersecting a watercourse **	207.5 km	Not applicable
8f Regulated Vegetation - within 100m of a Vegetation Management Wetland	243.15 ha	2.2%
9a Legally secured offset areas- offset register areas	0.0 ha	0.0 %
9b Legally secured offset areas- vegetation offsets through a Property Map of Assessable Vegetation	0.0 ha	0.0 %

Additional Information with Respect to MSES Values Present

MSES - State Conservation Areas

1a. Protected Areas - estates

(no results)

1b. Protected Areas - nature refuges

(no results)

1c. Protected Areas - special wildlife reserves

(no results)

2. State Marine Parks - highly protected zones

(no results)

3. Fish habitat areas (A and B areas)

(no results)

Refer to **Map 1 - MSES - State Conservation Areas** for an overview of the relevant MSES.

MSES - Wetlands and Waterways

4. Strategic Environmental Areas (SEA)

(no results)

5. High Ecological Significance wetlands on the Map of Queensland Wetland Environmental Values

Natural wetlands that are 'High Ecological Significance' (HES) on the Map of Queensland Wetland Environmental Values are present.

6a. Wetlands in High Ecological Value (HEV) waters

(no results)

6b. Waterways in High Ecological Value (HEV) waters

(no results)

Refer to **Map 2 - MSES - Wetlands and Waterways** for an overview of the relevant MSES.

MSES - Species

7a. Threatened (endangered or vulnerable) wildlife

Values are present

7b. Special least concern animals

Values are present

7c i. Koala habitat area - core (SEQ)

Not applicable

7c ii. Koala habitat area - locally refined (SEQ)

Not applicable

Threatened (endangered or vulnerable) wildlife habitat suitability models

Species	Common name	NCA status	Presence
Boronia keysii		V	None
Calyptorhynchus lathami	Glossy black cockatoo	V	None
Casuarius casuarius johnsonii	Sthn population cassowary	E	None
Crinia tinnula	Wallum froglet	V	None
Denisonia maculata	Ornamental snake	V	None
Litoria freycineti	Wallum rocketfrog	V	None
Litoria olongburensis	Wallum sedgefrog	V	None
Melaleuca irbyana		E	None
Petaurus gracilis	Mahogany Glider	E	None
Petrogale persephone	Proserpine rock-wallaby	E	None
Phascolarctos cinereus	Koala - outside SEQ*	V	None
Pezoporus wallicus wallicus	Eastern ground parrot	V	None
Taudactylus pleione	Kroombit tinkerfrog	E	None
Xeromys myoides	Water Mouse	V	None

**For koala model, this includes areas outside SEQ. Check 7c SEQ koala habitat for presence/absence.*

Threatened (endangered or vulnerable) wildlife species records

Scientific name	Common name	NCA status	EPBC status	Migratory status
Petauroides volans	greater glider	V	V	
Pseudophryne covacevichae	magnificent broodfrog	V	V	
Litoria rheocola	common mistfrog	E	E	
Triplarina nitchaga		V	V	

Special least concern animal species records

Scientific name	Common name	Migratory status
Ornithorhynchus anatinus	platypus	

**Nature Conservation Act 1992 (NCA) Status- Endangered (E), Vulnerable (V) or Special Least Concern Animal (SL). Environment Protection and Biodiversity Conservation Act 1999 (EPBC) status: Critically Endangered (CE) Endangered (E), Vulnerable (V)*

Migratory status (M) - China and Australia Migratory Bird Agreement (C), Japan and Australia Migratory Bird Agreement (J), Republic of Korea and Australia Migratory Bird Agreement (R), Bonn Migratory Convention (B), Eastern Flyway (E)

To request a species list for an area, or search for a species profile, access Wildlife Online at:
https://www.qld.gov.au/environment/plants-animals/species-list/

Refer to **Map 3a - MSES - Species - Threatened (endangered or vulnerable) wildlife and special least concern animals** and **Map 3b - MSES - Species - Koala habitat area (SEQ)** for an overview of the relevant MSES.

MSES - Regulated Vegetation

For further information relating to regional ecosystems in general, go to:
https://www.qld.gov.au/environment/plants-animals/plants/ecosystems/
For a more detailed description of a particular regional ecosystem, access the regional ecosystem search page at:
https://environment.ehp.qld.gov.au/regional-ecosystems/

8a. Regulated Vegetation - Endangered/Of concern in Category B (remnant)

Regional ecosystem	Vegetation management polygon	Vegetation management status
7.8.10b	O-dom	rem_oc
7.3.43a	O-dom	rem_oc
7.8.19	E-dom	rem_end
7.8.7a	O-dom	rem_oc
7.8.10a	O-dom	rem_oc
7.3.26a	O-dom	rem_oc
9.3.4	O-dom	rem_oc
9.5.5b/9.5.14	O-subdom	rem_oc

8b. Regulated Vegetation - Endangered/Of concern in Category C (regrowth)

Regional ecosystem	Vegetation management polygon	Vegetation management status
9.3.4	O-dom	hvr_oc
7.8.10b	O-dom	hvr_oc
7.3.43a	O-dom	hvr_oc

8c. Regulated Vegetation - Category R (GBR riverine regrowth)

Regulated vegetation map category	Map number	RVM rule
R	7962	4

8d. Regulated Vegetation - Essential habitat

Values are present

8e. Regulated Vegetation - intersecting a watercourse**

A vegetation management watercourse is mapped as present

8f. Regulated Vegetation - within 100m of a Vegetation Management wetland

Regulated vegetation map category	Map number	RVM rule
R	7962	4
C	7962	3
B	7962	2

Refer to **Map 4 - MSES - Regulated Vegetation** for an overview of the relevant MSES.

MSES - Offsets

9a. Legally secured offset areas - offset register areas

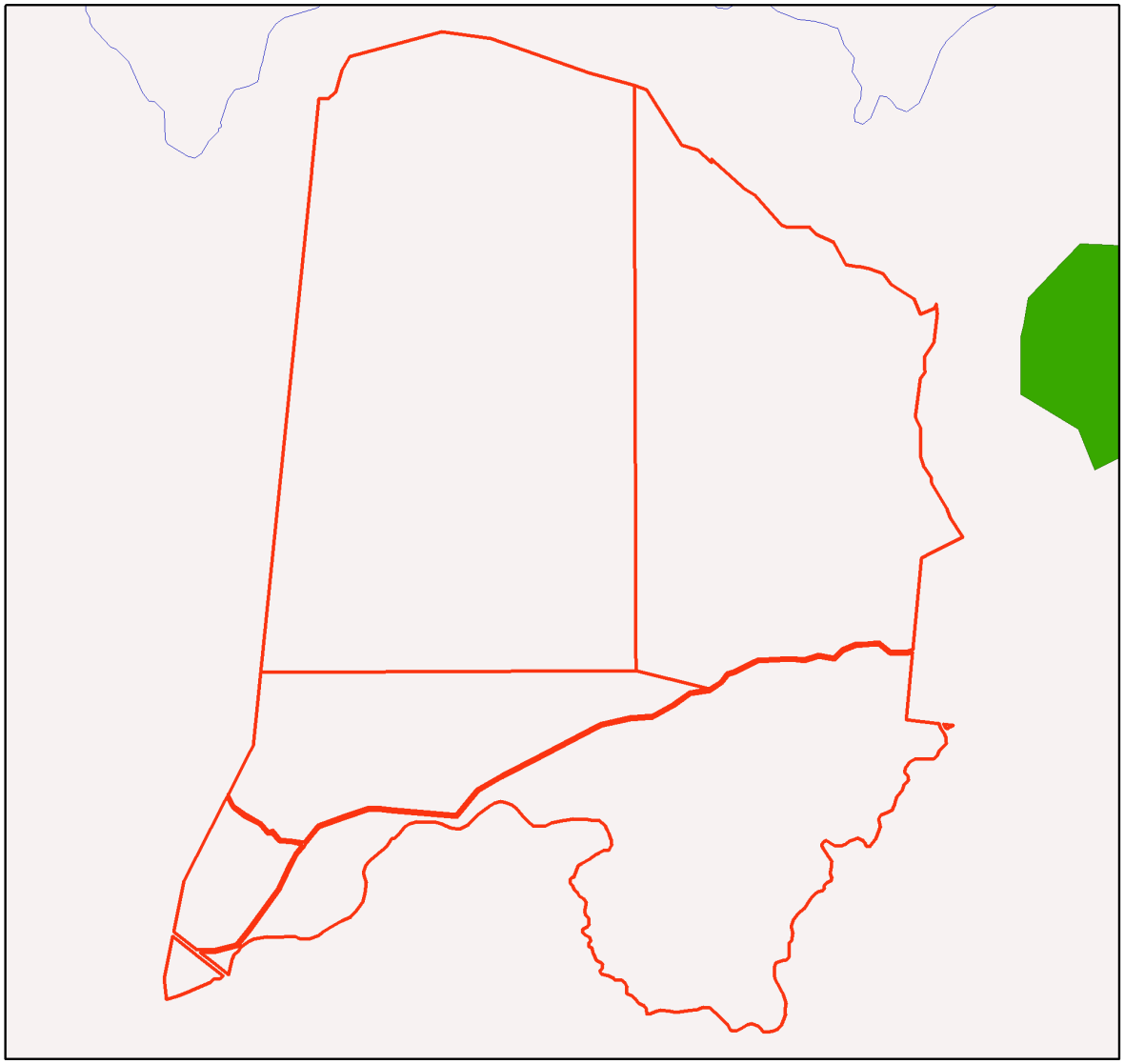
(no results)

9b. Legally secured offset areas - vegetation offsets through a Property Map of Assessable Vegetation

(no results)

Refer to **Map 5 - MSES - Offset Areas** for an overview of the relevant MSES.

Map 1 - MSES - State Conservation Areas

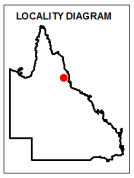


MSES - State Conservation Areas

Area of Interest

- Selected Lot and Plan
- Towns
- Freeways/Highways
- Secondary roads
- Major rivers/creeks
- Protected area (estates, nature refuges, special wildlife reserves)
- Declared fish habitat area (A and B areas)
- Marine park (highly protected)

LOCALITY DIAGRAM



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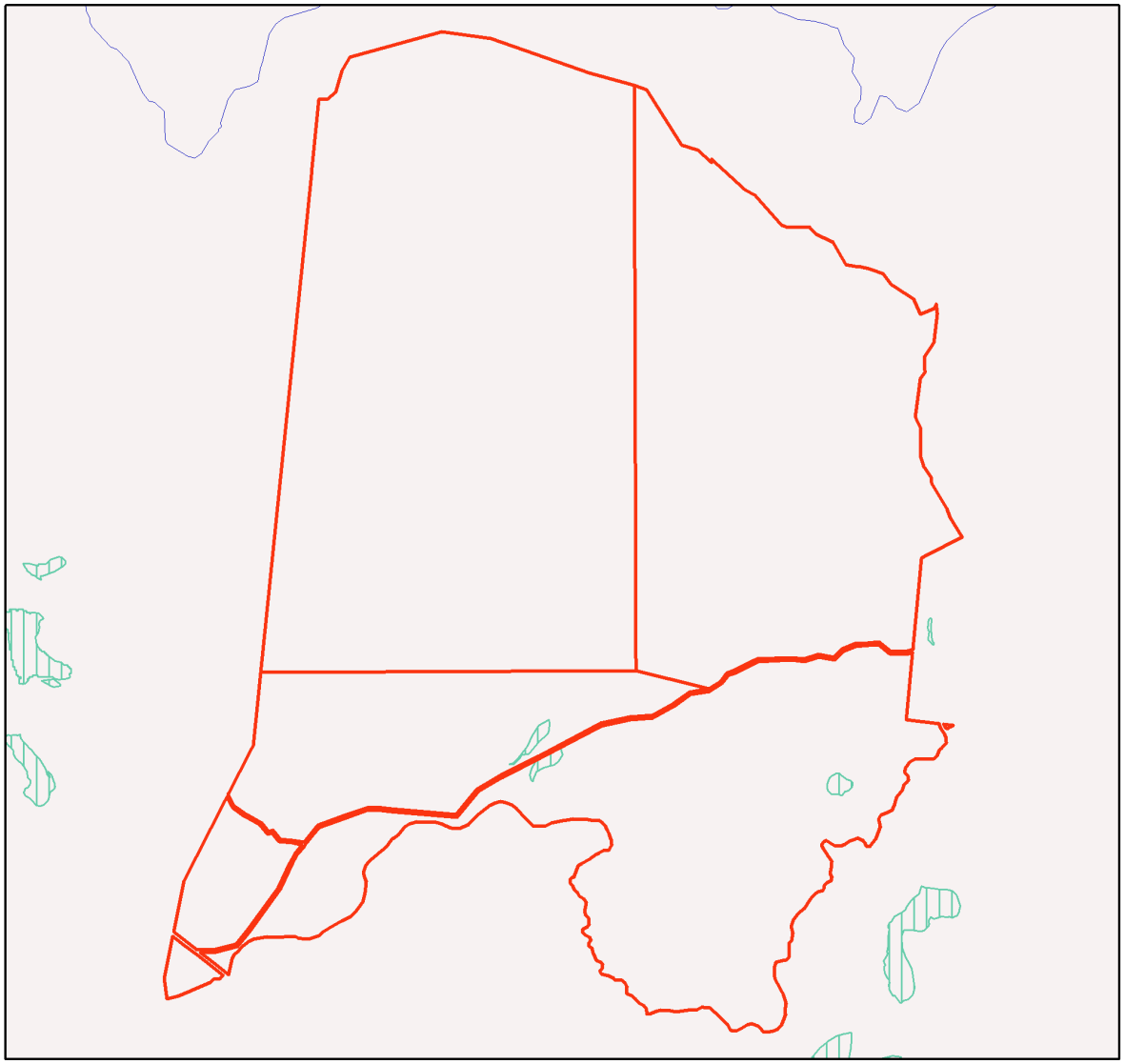
Map 2 - MSES - Wetlands and Waterways

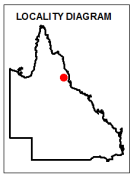


MSES - Wetlands and Waterways

Area of Interest

- Selected Lot and Plan
- Towns
- Freeways/Highways
- Secondary roads
- Major rivers/creeks
- Declared high ecological value waters (watercourse)
- Strategic environmental area (designated precinct)
- Declared high ecological value waters (wetland)
- High ecological significance wetlands

LOCALITY DIAGRAM



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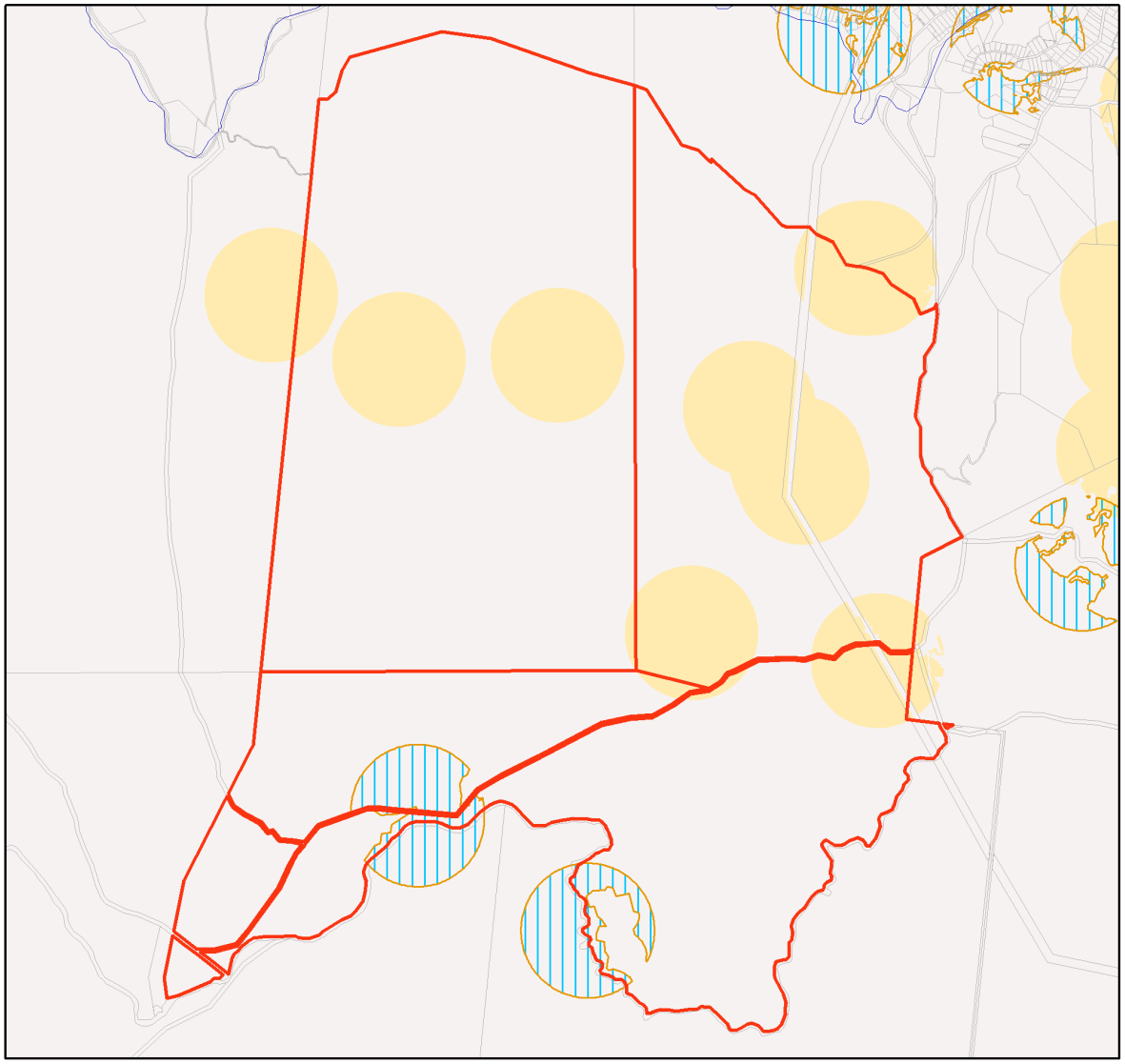
Map 3a - MSES - Species - Threatened (endangered or vulnerable) wildlife and special least concern animals

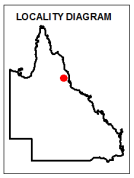


MSES - Species
Threatened (endangered or vulnerable) wildlife and special least concern animals

Area of Interest

- Selected Lot and Plan
- Towns
- Freeways/Highways
- Secondary roads
- Major rivers/creeks
- Wildlife habitat (special least concern)
- Wildlife habitat (endangered or vulnerable)

LOCALITY DIAGRAM



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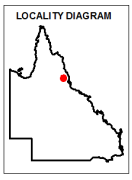
Map 3b - MSES - Species - Koala habitat area (SEQ)

MSES - Species
Koala habitat area (SEQ)

Area of Interest
- Selected Lot and Plan
- Towns
- Freeways/Highways
- Secondary roads
- Major rivers/creeks
- Koala habitat area (core)
- Koala habitat area (locally refined)

LOCALITY DIAGRAM



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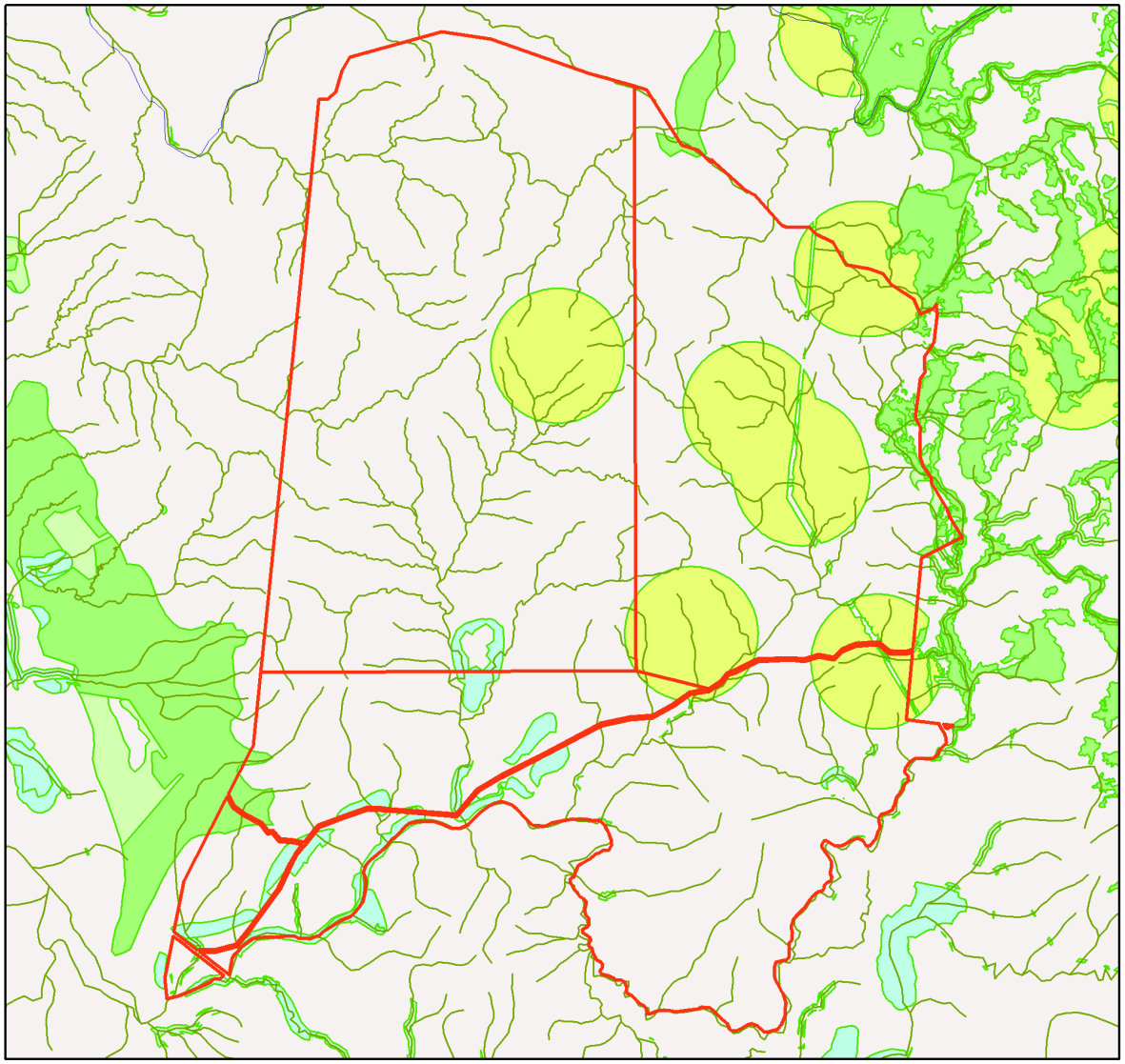
The represented layers for SEQ 'koala habitat area-core' and 'koala habitat area- locally refined' in MSES are sourced directly from the regulatory mapping under the Nature Conservation (Koala) Conservation Plan 2017. Whilst every effort is made to ensure the information remains current, there may be delays between updating versions. Please refer to the original mapping for the most recent version. See https://environment.des.qld.gov.au/wildlife/animals/living-with/koalas/mapping

The koala habitat mapping within South East Queensland uses regional ecosystem linework compiled at a scale varying from 1:25,000 to 1:100,000. Linework should be used as a guide only. The positional accuracy of regional ecosystem data mapped at a scale of 1:100,000 is +/- 100 metres.

0 800 1,600 2,400 3,200 4,000 m

This product is projected into GDA 1994 Queensland Albers

Map 4 - MSES - Regulated Vegetation

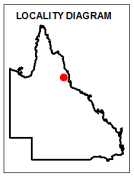


MSES - Regulated Vegetation

Area of Interest

- Selected Lot and Plan
- Towns
- Freeways/Highways
- Secondary roads
- Major rivers/creeks
- Regulated vegetation (intersecting a watercourse)
- Regulated vegetation (100m from wetland)
- Regulated vegetation (category B - endangered or of concern)
- Regulated vegetation (category C - endangered or of concern)
- Regulated vegetation (category R - GBR riverine)
- Regulated vegetation (essential habitat)

LOCALITY DIAGRAM



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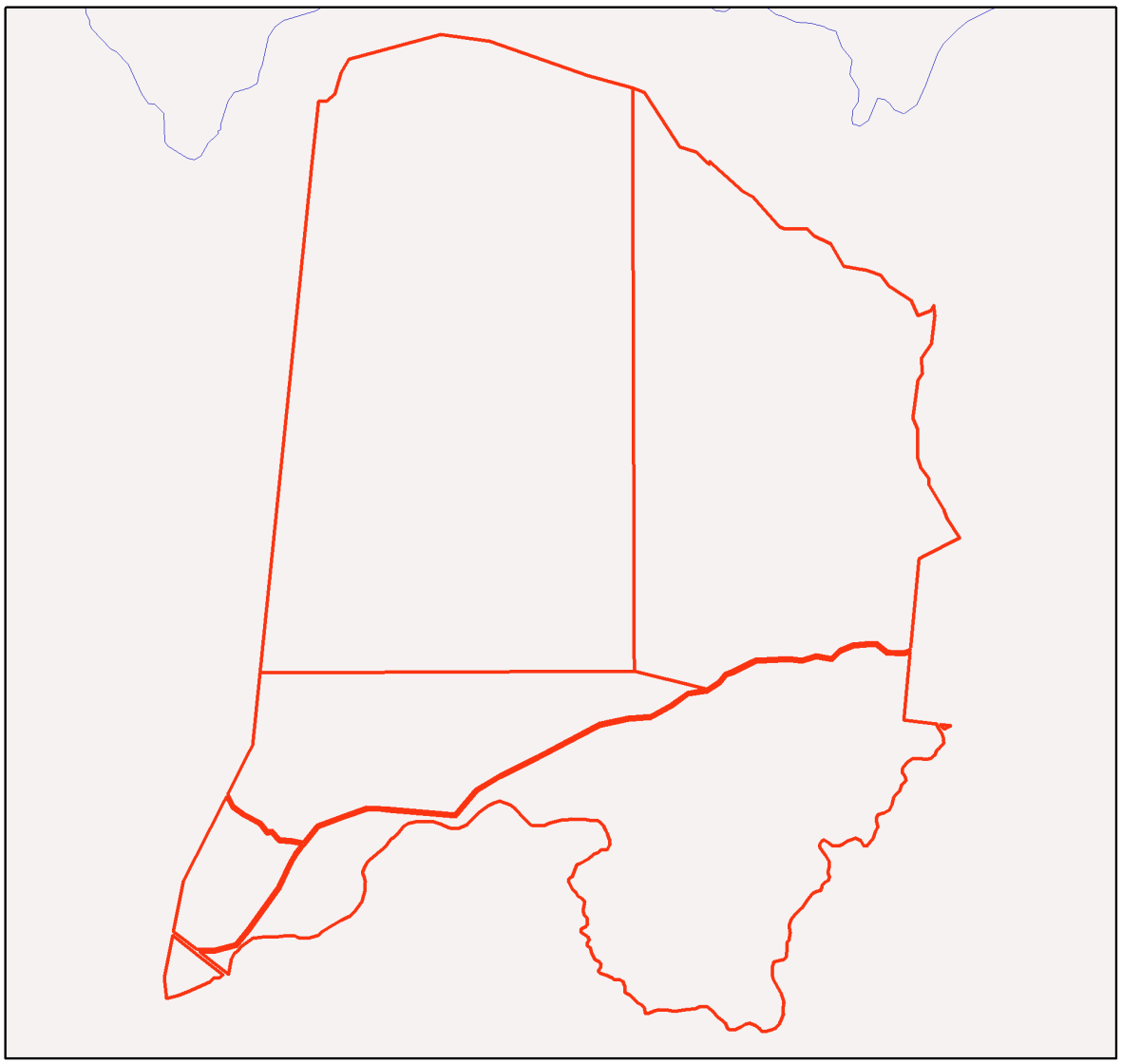
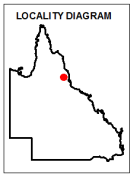
Map 5 - MSES - Offset Areas



MSES - Offsets

Area of Interest

- Selected Lot and Plan
- Towns
- Freeways/Highways
- Secondary roads
- Major rivers/creeks
- Legally secured offset area (offset register)
- Legally secured offset area (vegetation offsets)



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Appendices

Appendix 1 - Matters of State Environmental Significance (MSES) methodology

MSES mapping is a regional-scale representation of the definition for MSES under the State Planning Policy (SPP). The compiled MSES mapping product is a guide to assist planning and development assessment decision-making. Its primary purpose is to support implementation of the SPP biodiversity policy. While it supports the SPP, the mapping does not replace the regulatory mapping or environmental values specifically called up under other laws or regulations. Similarly, the SPP biodiversity policy does not override or replace specific requirements of other Acts or regulations.

The Queensland Government's "Method for mapping - matters of state environmental significance for use in land use planning and development assessment" can be downloaded from:

http://www.ehp.qld.gov.au/land/natural-resource/method-mapping-mses.html .

Appendix 2 - Source Data

The datasets listed below are available on request from:

http://qldspatial.information.qld.gov.au/catalogue/custom/index.page

- Matters of State environmental significance

Note: MSES mapping is not based on new or unique data. The primary mapping product draws data from a number of underlying environment databases and geo-referenced information sources. MSES mapping is a versioned product that is updated generally on a twice-yearly basis to incorporate the changes to underlying data sources. Several components of MSES mapping made for the current version may differ from the current underlying data sources. To ensure accuracy, or proper representation of MSES values, it is strongly recommended that users refer to the underlying data sources and review the current definition of MSES in the State Planning Policy, before applying the MSES mapping.

Individual MSES layers can be attributed to the following source data available at QSpatial:

MSES layers	**current QSpatial data (http://qspatial.information.qld.gov.au)**
Protected Areas-Estates, Nature Refuges, Special Wildlife Reserves	- Protected areas of Queensland - Nature Refuges - Queensland - Special Wildlife Reserves- Queensland
Marine Park-Highly Protected Zones	Moreton Bay marine park zoning 2008
Fish Habitat Areas	Queensland fish habitat areas
Strategic Environmental Areas-designated	Regional Planning Interests Act - Strategic Environmental Areas
HES wetlands	Map of Queensland Wetland Environmental Values
Wetlands in HEV waters	HEV waters: - EPP Water intent for waters Source Wetlands: - Queensland Wetland Mapping (Current version 5) Source Watercourses: - Vegetation management watercourse and drainage feature map (1:100000 and 1:250000)
Wildlife habitat (threatened and special least concern)	-WildNet database species records - habitat suitability models (various) - SEQ koala habitat areas under the Koala Conservation Plan 2019
VMA regulated regional ecosystems	Vegetation management regional ecosystem and remnant map
VMA Essential Habitat	Vegetation management - essential habitat map
VMA Wetlands	Vegetation management wetlands map
Legally secured offsets	Vegetation Management Act property maps of assessable vegetation. For offset register data-contact DES
Regulated Vegetation Map	Vegetation management - regulated vegetation management map

Appendix 3 - Acronyms and Abbreviations

AOI	- Area of Interest
DES	- Department of Environment and Science
EP Act	- *Environmental Protection Act 1994*
EPP	- Environmental Protection Policy
GDA94	- Geocentric Datum of Australia 1994
GEM	- General Environmental Matters
GIS	- Geographic Information System
MSES	- Matters of State Environmental Significance
NCA	- *Nature Conservation Act 1992*
RE	- Regional Ecosystem
SPP	- State Planning Policy
VMA	- *Vegetation Management Act 1999*