28ºS ENVIRONMENTAL

Ripley View Residential Subdivision

Preliminary Documentation Report

EPBC Referral 2020/8615

VOLUME 6 – APPENDICES 15-21

23/02/2024 - *version 7.1*

Report prepared for Arxhe Ripley View Investment Trust

Appendix 15

Wildlife Online Database Searches

Appendix 15.1

2 km Buffered Point Search

Queensland Government

Wildlife Online Extract

Search Criteria: Species List for a Specified Point
Species: All
Type: All
Status: All
Records: All
Date: Since 1980
Latitude: -27.6518
Longitude: 152.7895
Distance: 2
Email: rebecca@28south.com.au
Date submitted: Wednesday 28 Oct 2020 16:49:31
Date extracted: Wednesday 28 Oct 2020 16:50:02

The number of records retrieved = 231

Kingdom	Class	Family	Scientific Name	Common Name	I	Q	A	Records
animals	amphibians	Bufonidae	*Rhinella marina*	cane toad	Y			2
animals	amphibians	Hylidae	*Litoria nasuta*	striped rocketfrog		C		1
animals	amphibians	Hylidae	*Litoria rubella*	ruddy treefrog		C		1
animals	amphibians	Hylidae	*Litoria caerulea*	common green treefrog		C		2
animals	amphibians	Hylidae	*Litoria gracilenta*	graceful treefrog		C		1
animals	amphibians	Hylidae	*Litoria fallax*	eastern sedgefrog		C		2
animals	amphibians	Hylidae	*Litoria latopalmata*	broad palmed rocketfrog		C		1
animals	amphibians	Limnodynastidae	*Limnodynastes peronii*	striped marshfrog		C		2
animals	amphibians	Limnodynastidae	*Limnodynastes terraereginae*	scarlet sided pobblebonk		C		1
animals	amphibians	Myobatrachidae	*Crinia parinsignifera*	beeping froglet		C		1
animals	amphibians	Myobatrachidae	*Pseudophryne coriacea*	red backed broodfrog		C		1
animals	birds	Acanthizidae	*Sericornis frontalis*	white-browed scrubwren		C		4
animals	birds	Acanthizidae	*Pyrrholaemus sagittatus*	speckled warbler		C		2
animals	birds	Acanthizidae	*Acanthiza chrysorrhoa*	yellow-rumped thornbill		C		1
animals	birds	Acanthizidae	*Acanthiza pusilla*	brown thornbill		C		1
animals	birds	Acanthizidae	*Gerygone olivacea*	white-throated gerygone		C		5
animals	birds	Accipitridae	*Accipiter cirrocephalus*	collared sparrowhawk		C		2
animals	birds	Accipitridae	*Aquila audax*	wedge-tailed eagle		C		5
animals	birds	Accipitridae	*Haliastur sphenurus*	whistling kite		C		5
animals	birds	Accipitridae	*Haliaeetus leucogaster*	white-bellied sea-eagle		C		5
animals	birds	Accipitridae	*Haliastur indus*	brahminy kite		C		2
animals	birds	Accipitridae	*Elanus axillaris*	black-shouldered kite		C		3
animals	birds	Accipitridae	*Circus approximans*	swamp harrier		C		2
animals	birds	Accipitridae	*Lophoictinia isura*	square-tailed kite		C		1
animals	birds	Accipitridae	*Accipiter fasciatus*	brown goshawk		C		3
animals	birds	Accipitridae	*Aviceda subcristata*	Pacific baza		C		1
animals	birds	Acrocephalidae	*Acrocephalus australis*	Australian reed-warbler		C		7
animals	birds	Alcedinidae	*Ceyx azureus*	azure kingfisher		C		4
animals	birds	Anatidae	*Cygnus atratus*	black swan		C		6
animals	birds	Anatidae	*Dendrocygna arcuata*	wandering whistling-duck		C		1
animals	birds	Anatidae	*Spatula rhynchotis*	Australasian shoveler		C		1
animals	birds	Anatidae	*Dendrocygna eytoni*	plumed whistling-duck		C		1
animals	birds	Anatidae	*Anas platyrhynchos*	northern mallard	Y			1
animals	birds	Anatidae	*Chenonetta jubata*	Australian wood duck		C		14
animals	birds	Anatidae	*Anas superciliosa*	Pacific black duck		C		11
animals	birds	Anatidae	*Aythya australis*	hardhead		C		9
animals	birds	Anatidae	*Anas gracilis*	grey teal		C		6
animals	birds	Anatidae	*Anas castanea*	chestnut teal		C		3
animals	birds	Anhingidae	*Anhinga novaehollandiae*	Australasian darter		C		9
animals	birds	Anseranatidae	*Anseranas semipalmata*	magpie goose		C		1
animals	birds	Apodidae	*Hirundapus caudacutus*	white-throated needletail		V	V	3
animals	birds	Ardeidae	*Ardea pacifica*	white-necked heron		C		4
animals	birds	Ardeidae	*Ardea alba modesta*	eastern great egret		C		4
animals	birds	Ardeidae	*Bubulcus ibis*	cattle egret		C		11
animals	birds	Ardeidae	*Ardea intermedia*	intermediate egret		C		5
animals	birds	Ardeidae	*Egretta novaehollandiae*	white-faced heron		C		9

Kingdom	Class	Family	Scientific Name	Common Name	I	Q	A	Records
animals	birds	Ardeidae	*Nycticorax caledonicus*	nankeen night-heron		C		1
animals	birds	Ardeidae	*Egretta garzetta*	little egret		C		3
animals	birds	Artamidae	*Cracticus torquatus*	grey butcherbird		C		12
animals	birds	Artamidae	*Artamus leucorynchus*	white-breasted woodswallow		C		3
animals	birds	Artamidae	*Cracticus nigrogularis*	pied butcherbird		C		11
animals	birds	Artamidae	*Gymnorhina tibicen*	Australian magpie		C		15
animals	birds	Cacatuidae	*Eolophus roseicapilla*	galah		C		7
animals	birds	Cacatuidae	*Cacatua tenuirostris*	long-billed corella	Y	C		1
animals	birds	Cacatuidae	*Cacatua sanguinea*	little corella		C		1
animals	birds	Cacatuidae	*Cacatua galerita*	sulphur-crested cockatoo		C		10
animals	birds	Campephagidae	*Coracina novaehollandiae*	black-faced cuckoo-shrike		C		10
animals	birds	Campephagidae	*Lalage tricolor*	white-winged triller		C		1
animals	birds	Campephagidae	*Coracina tenuirostris*	cicadabird		C		1
animals	birds	Charadriidae	*Erythrogonys cinctus*	red-kneed dotterel		C		4
animals	birds	Charadriidae	*Elseyornis melanops*	black-fronted dotterel		C		6
animals	birds	Charadriidae	*Vanellus miles novaehollandiae*	masked lapwing (southern subspecies)		C		13
animals	birds	Ciconiidae	*Ephippiorhynchus asiaticus*	black-necked stork		C		4
animals	birds	Cisticolidae	*Cisticola exilis*	golden-headed cisticola		C		7
animals	birds	Climacteridae	*Cormobates leucophaea metastasis*	white-throated treecreeper (southern)		C		2
animals	birds	Columbidae	*Streptopelia chinensis*	spotted dove	Y			4
animals	birds	Columbidae	*Geopelia humeralis*	bar-shouldered dove		C		4
animals	birds	Columbidae	*Phaps chalcoptera*	common bronzewing		C		1
animals	birds	Columbidae	*Ocyphaps lophotes*	crested pigeon		C		11
animals	birds	Columbidae	*Geopelia striata*	peaceful dove		C		3
animals	birds	Columbidae	*Columba livia*	rock dove	Y			6
animals	birds	Coraciidae	*Eurystomus orientalis*	dollarbird		C		3
animals	birds	Corvidae	*Corvus orru*	Torresian crow		C		16
animals	birds	Cuculidae	*Centropus phasianinus*	pheasant coucal		C		2
animals	birds	Cuculidae	*Eudynamys orientalis*	eastern koel		C		5
animals	birds	Cuculidae	*Scythrops novaehollandiae*	channel-billed cuckoo		C		4
animals	birds	Cuculidae	*Cacomantis flabelliformis*	fan-tailed cuckoo		C		5
animals	birds	Cuculidae	*Chalcites lucidus*	shining bronze-cuckoo		C		1
animals	birds	Cuculidae	*Chalcites basalis*	Horsfield's bronze-cuckoo		C		1
animals	birds	Cuculidae	*Cacomantis pallidus*	pallid cuckoo		C		1
animals	birds	Dicruridae	*Dicrurus bracteatus*	spangled drongo		C		2
animals	birds	Estrildidae	*Neochmia temporalis*	red-browed finch		C		1
animals	birds	Estrildidae	*Lonchura punctulata*	nutmeg mannikin	Y			1
animals	birds	Estrildidae	*Lonchura castaneothorax*	chestnut-breasted mannikin		C		4
animals	birds	Estrildidae	*Taeniopygia bichenovii*	double-barred finch		C		8
animals	birds	Eurostopodidae	*Eurostopodus mystacalis*	white-throated nightjar		C		1
animals	birds	Falconidae	*Falco cenchroides*	nankeen kestrel		C		4
animals	birds	Falconidae	*Falco longipennis*	Australian hobby		C		1
animals	birds	Falconidae	*Falco berigora*	brown falcon		C		2
animals	birds	Halcyonidae	*Todiramphus macleayii*	forest kingfisher		C		2
animals	birds	Halcyonidae	*Todiramphus sanctus*	sacred kingfisher		C		3
animals	birds	Halcyonidae	*Dacelo novaeguineae*	laughing kookaburra		C		9

Kingdom	Class	Family	Scientific Name	Common Name	I	Q	A	Records
animals	birds	Hirundinidae	*Cheramoeca leucosterna*	white-backed swallow		C		1
animals	birds	Hirundinidae	*Petrochelidon ariel*	fairy martin		C		4
animals	birds	Hirundinidae	*Petrochelidon nigricans*	tree martin		C		4
animals	birds	Hirundinidae	*Hirundo neoxena*	welcome swallow		C		10
animals	birds	Jacanidae	*Irediparra gallinacea*	comb-crested jacana		C		6
animals	birds	Laridae	*Chroicocephalus novaehollandiae*	silver gull		C		1
animals	birds	Laridae	*Chlidonias hybrida*	whiskered tern		C		1
animals	birds	Maluridae	*Malurus cyaneus*	superb fairy-wren		C		11
animals	birds	Maluridae	*Malurus lamberti*	variegated fairy-wren		C		3
animals	birds	Maluridae	*Malurus melanocephalus*	red-backed fairy-wren		C		8
animals	birds	Megaluridae	*Cincloramphus cruralis*	brown songlark		C		1
animals	birds	Megaluridae	*Megalurus timoriensis*	tawny grassbird		C		5
animals	birds	Megaluridae	*Megalurus gramineus*	little grassbird		C		5
animals	birds	Meliphagidae	*Ptilotula fusca*	fuscous honeyeater		C		4
animals	birds	Meliphagidae	*Caligavis chrysops*	yellow-faced honeyeater		C		3
animals	birds	Meliphagidae	*Entomyzon cyanotis*	blue-faced honeyeater		C		2
animals	birds	Meliphagidae	*Lichmera indistincta*	brown honeyeater		C		8
animals	birds	Meliphagidae	*Philemon corniculatus*	noisy friarbird		C		12
animals	birds	Meliphagidae	*Manorina melanocephala*	noisy miner		C		15
animals	birds	Meliphagidae	*Myzomela sanguinolenta*	scarlet honeyeater		C		5
animals	birds	Meliphagidae	*Plectorhyncha lanceolata*	striped honeyeater		C		1
animals	birds	Meliphagidae	*Melithreptus albogularis*	white-throated honeyeater		C		2
animals	birds	Meliphagidae	*Philemon citreogularis*	little friarbird		C		5
animals	birds	Meropidae	*Merops ornatus*	rainbow bee-eater		C		5
animals	birds	Monarchidae	*Myiagra rubecula*	leaden flycatcher		C		1
animals	birds	Monarchidae	*Grallina cyanoleuca*	magpie-lark		C		14
animals	birds	Motacillidae	*Anthus novaeseelandiae*	Australasian pipit		C		2
animals	birds	Nectariniidae	*Dicaeum hirundinaceum*	mistletoebird		C		6
animals	birds	Neosittidae	*Daphoenositta chrysoptera*	varied sittella		C		3
animals	birds	Oriolidae	*Sphecotheres vieilloti*	Australasian figbird		C		4
animals	birds	Pachycephalidae	*Colluricincla megarhyncha*	little shrike-thrush		C		1
animals	birds	Pachycephalidae	*Pachycephala rufiventris*	rufous whistler		C		6
animals	birds	Pachycephalidae	*Colluricincla harmonica*	grey shrike-thrush		C		5
animals	birds	Pachycephalidae	*Pachycephala pectoralis*	golden whistler		C		6
animals	birds	Pardalotidae	*Pardalotus striatus*	striated pardalote		C		15
animals	birds	Passeridae	*Passer domesticus*	house sparrow	Y			4
animals	birds	Pelecanidae	*Pelecanus conspicillatus*	Australian pelican		C		9
animals	birds	Petroicidae	*Eopsaltria australis*	eastern yellow robin		C		2
animals	birds	Petroicidae	*Petroica rosea*	rose robin		C		2
animals	birds	Phalacrocoracidae	*Microcarbo melanoleucos*	little pied cormorant		C		9
animals	birds	Phalacrocoracidae	*Phalacrocorax varius*	pied cormorant		C		6
animals	birds	Phalacrocoracidae	*Phalacrocorax carbo*	great cormorant		C		5
animals	birds	Phalacrocoracidae	*Phalacrocorax sulcirostris*	little black cormorant		C		10
animals	birds	Phasianidae	*Coturnix ypsilophora*	brown quail		C		2
animals	birds	Phasianidae	*Coturnix pectoralis*	stubble quail		C		2
animals	birds	Podargidae	*Podargus strigoides*	tawny frogmouth		C		5

Kingdom	Class	Family	Scientific Name	Common Name	I	Q	A	Records
animals	birds	Podicipedidae	*Tachybaptus novaehollandiae*	Australasian grebe		C		9
animals	birds	Podicipedidae	*Podiceps cristatus*	great crested grebe		C		5
animals	birds	Pomatostomidae	*Pomatostomus temporalis*	grey-crowned babbler		C		2
animals	birds	Psittacidae	*Parvipsitta pusilla*	little lorikeet		C		5
animals	birds	Psittacidae	*Platycercus adscitus*	pale-headed rosella		C		15
animals	birds	Psittacidae	*Barnardius zonarius*	Australian ringneck		C		5
animals	birds	Psittacidae	*Glossopsitta concinna*	musk lorikeet		C		1
animals	birds	Psittacidae	*Melopsittacus undulatus*	budgerigar		C		1
animals	birds	Psittacidae	*Trichoglossus chlorolepidotus*	scaly-breasted lorikeet		C		14
animals	birds	Psittacidae	*Trichoglossus haematodus moluccanus*	rainbow lorikeet		C		11
animals	birds	Psophodidae	*Psophodes olivaceus*	eastern whipbird		C		2
animals	birds	Rallidae	*Porzana pusilla*	Baillon's crake		C		3
animals	birds	Rallidae	*Porphyrio melanotus*	purple swamphen		C		9
animals	birds	Rallidae	*Gallinula tenebrosa*	dusky moorhen		C		10
animals	birds	Rallidae	*Lewinia pectoralis*	Lewin's rail		C		1
animals	birds	Rallidae	*Porzana tabuensis*	spotless crake		C		4
animals	birds	Rallidae	*Fulica atra*	Eurasian coot		C		9
animals	birds	Rallidae	*Gallirallus philippensis*	buff-banded rail		C		3
animals	birds	Rallidae	*Porzana fluminea*	Australian spotted crake		C		4
animals	birds	Recurvirostridae	*Himantopus himantopus*	black-winged stilt		C		6
animals	birds	Rhipiduridae	*Rhipidura leucophrys*	willie wagtail		C		14
animals	birds	Rhipiduridae	*Rhipidura rufifrons*	rufous fantail		SL		1
animals	birds	Rhipiduridae	*Rhipidura albiscapa*	grey fantail		C		9
animals	birds	Rostratulidae	*Rostratula australis*	Australian painted snipe		E	E	2
animals	birds	Scolopacidae	*Limosa limosa*	black-tailed godwit		SL		1
animals	birds	Scolopacidae	*Actitis hypoleucos*	common sandpiper		SL		2
animals	birds	Scolopacidae	*Calidris acuminata*	sharp-tailed sandpiper		SL		1
animals	birds	Scolopacidae	*Tringa stagnatilis*	marsh sandpiper		SL		1
animals	birds	Scolopacidae	*Gallinago hardwickii*	Latham's snipe		SL		2
animals	birds	Strigidae	*Ninox boobook*	southern boobook		C		2
animals	birds	Sturnidae	*Sturnus vulgaris*	common starling	Y			4
animals	birds	Sturnidae	*Acridotheres tristis*	common myna	Y			5
animals	birds	Threskiornithidae	*Platalea regia*	royal spoonbill		C		7
animals	birds	Threskiornithidae	*Platalea flavipes*	yellow-billed spoonbill		C		6
animals	birds	Threskiornithidae	*Plegadis falcinellus*	glossy ibis		SL		2
animals	birds	Threskiornithidae	*Threskiornis molucca*	Australian white ibis		C		4
animals	birds	Threskiornithidae	*Threskiornis spinicollis*	straw-necked ibis		C		8
animals	birds	Timaliidae	*Zosterops lateralis*	silvereye		C		12
animals	birds	Turnicidae	*Turnix maculosus*	red-backed button-quail		C		1
animals	birds	Tytonidae	*Tyto delicatula*	eastern barn owl		C		2
animals	insects	Nymphalidae	*Junonia villida villida*	meadow argus				1
animals	insects	Nymphalidae	*Charaxes sempronius sempronius*	tailed emperor				1
animals	insects	Nymphalidae	*Tirumala hamata hamata*	blue tiger				1
animals	insects	Nymphalidae	*Melanitis leda bankia*	evening brown				1
animals	insects	Nymphalidae	*Euploea corinna*	common crow				1
animals	insects	Papilionidae	*Graphium choredon*	blue triangle				1

Kingdom	Class	Family	Scientific Name	Common Name	I	Q	A	Records
animals	insects	Papilionidae	*Papilio aegeus aegeus*	orchard swallowtail (Australian subspecies)				1
animals	insects	Pieridae	*Pieris rapae*	cabbage white	Y			1
animals	insects	Pieridae	*Eurema hecabe*	large grass-yellow				1
animals	insects	Pieridae	*Catopsilia pomona*	lemon migrant				1
animals	mammals	Acrobatidae	*Acrobates pygmaeus*	feathertail glider		C		1
animals	mammals	Canidae	*Canis familiaris (dingo)*	dingo				1
animals	mammals	Leporidae	*Lepus europaeus*	European brown hare	Y			3
animals	mammals	Macropodidae	*Macropus giganteus*	eastern grey kangaroo		C		1
animals	mammals	Macropodidae	*Notamacropus rufogriseus*	red-necked wallaby		C		1
animals	mammals	Macropodidae	*Wallabia bicolor*	swamp wallaby		C		1
animals	mammals	Macropodidae	*Macropus sp.*			C		2
animals	mammals	Muridae	*Rattus rattus*	black rat	Y			1
animals	mammals	Muridae	*Mus musculus*	house mouse	Y			1
animals	mammals	Peramelidae	*Isoodon macrourus*	northern brown bandicoot		C		1
animals	mammals	Phalangeridae	*Trichosurus vulpecula*	common brushtail possum		C		2
animals	mammals	Phascolarctidae	*Phascolarctos cinereus*	koala		V	V	44
animals	mammals	Pteropodidae	*Pteropus poliocephalus*	grey-headed flying-fox		C	V	1
animals	mammals	Tachyglossidae	*Tachyglossus aculeatus*	short-beaked echidna		SL		1
animals	mammals	Vespertilionidae	*Myotis macropus*	large-footed myotis		C		1
animals	ray-finned fishes	Eleotridae	*Hypseleotris galii*	firetail gudgeon				1
animals	ray-finned fishes	Poeciliidae	*Gambusia holbrooki*	mosquitofish	Y			1
animals	reptiles	Agamidae	*Pogona barbata*	bearded dragon		C		5
animals	reptiles	Agamidae	*Intellagama lesueurii*	eastern water dragon		C		1
animals	reptiles	Boidae	*Morelia spilota*	carpet python		C		1
animals	reptiles	Colubridae	*Tropidonophis mairii*	freshwater snake		C		1
animals	reptiles	Colubridae	*Dendrelaphis punctulatus*	green tree snake		C		3
animals	reptiles	Elapidae	*Pseudechis porphyriacus*	red-bellied black snake		C		1
animals	reptiles	Elapidae	*Brachyurophis australis*	coral snake		C		1
animals	reptiles	Elapidae	*Pseudonaja textilis*	eastern brown snake		C		4
animals	reptiles	Elapidae	*Furina diadema*	red-naped snake		C		4
animals	reptiles	Elapidae	*Cacophis harriettae*	white-crowned snake		C		1
animals	reptiles	Scincidae	*Concinnia martini*	dark bar-sided skink		C		1
animals	reptiles	Scincidae	*Cryptoblepharus pulcher pulcher*	elegant snake-eyed skink		C		1
animals	reptiles	Scincidae	*Carlia pectoralis sensu lato*			C		1
animals	reptiles	Scincidae	*Lampropholis delicata*	dark-flecked garden sunskink		C		3
animals	reptiles	Scincidae	*Anomalopus verreauxii*	three-clawed worm-skink		C		1
animals	reptiles	Scincidae	*Lampropholis amicula*	friendly sunskink		C		1
animals	reptiles	Scincidae	*Carlia vivax*	tussock rainbow-skink		C		1
animals	reptiles	Scincidae	*Ctenotus spaldingi*	straight-browed ctenotus		C		2
animals	reptiles	Scincidae	*Tiliqua scincoides*	eastern blue-tongued lizard		C		3
animals	reptiles	Scincidae	*Ctenotus taeniolatus*	copper-tailed skink		C		1
animals	reptiles	Varanidae	*Varanus varius*	lace monitor		C		1
plants	land plants	Acanthaceae	*Ruellia simplex*		Y			1/1
plants	land plants	Asteraceae	*Thymophylla tenuiloba*		Y			1/1
plants	land plants	Fabaceae	*Indigofera spicata*	creeping indigo	Y			1/1

Kingdom	Class	Family	Scientific Name	Common Name	I	Q	A	Records
plants	land plants	Lamiaceae	*Coleus habrophyllus*			E	E	1/1
plants	land plants	Pteridaceae	*Acrostichum speciosum*	mangrove fern		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 in the Wild (PE), Endangered (E), Vulnerable (V), Near Threatened (NT), Least Concern (C) or Not Protected ( ).

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

Records – The first number indicates the total number of records of the taxon for the record option selected (i.e. All, Confirmed or Specimens).
This number is output as 99999 if it equals or exceeds this value. The second number located after the / indicates the number of specimen records for the taxon.
This number is output as 999 if it equals or exceeds this value.

28ºS ENVIRONMENTAL

Appendix 15.2

5 km Buffered Point Search

Queensland Government

Wildlife Online Extract

Search Criteria: Species List for a Specified Point
Species: All
Type: All
Status: All
Records: All
Date: Since 1980
Latitude: -27.6518
Longitude: 152.7895
Distance: 5
Email: rebecca@28south.com.au
Date submitted: Wednesday 28 Oct 2020 16:25:29
Date extracted: Wednesday 28 Oct 2020 16:30:01

The number of records retrieved = 610

Kingdom	Class	Family	Scientific Name	Common Name	I	Q	A	Records
animals	amphibians	Bufonidae	*Rhinella marina*	cane toad	Y			19
animals	amphibians	Hylidae	*Litoria dentata*	bleating treefrog		C		4
animals	amphibians	Hylidae	*Litoria rubella*	ruddy treefrog		C		1
animals	amphibians	Hylidae	*Litoria caerulea*	common green treefrog		C		14
animals	amphibians	Hylidae	*Litoria wilcoxii*	eastern stony creek frog		C		1
animals	amphibians	Hylidae	*Litoria gracilenta*	graceful treefrog		C		3
animals	amphibians	Hylidae	*Litoria latopalmata*	broad palmed rocketfrog		C		2
animals	amphibians	Hylidae	*Litoria fallax*	eastern sedgefrog		C		12
animals	amphibians	Hylidae	*Litoria nasuta*	striped rocketfrog		C		5
animals	amphibians	Limnodynastidae	*Limnodynastes peronii*	striped marshfrog		C		9
animals	amphibians	Limnodynastidae	*Platyplectrum ornatum*	ornate burrowing frog		C		3
animals	amphibians	Limnodynastidae	*Limnodynastes terraereginae*	scarlet sided pobblebonk		C		3
animals	amphibians	Myobatrachidae	*Uperoleia fusca*	dusky gungan		C		2
animals	amphibians	Myobatrachidae	*Crinia signifera*	clicking froglet		C		3
animals	amphibians	Myobatrachidae	*Pseudophryne raveni*	copper backed broodfrog		C		1
animals	amphibians	Myobatrachidae	*Crinia parinsignifera*	beeping froglet		C		7
animals	amphibians	Myobatrachidae	*Pseudophryne coriacea*	red backed broodfrog		C		1
animals	birds	Acanthizidae	*Smicrornis brevirostris*	weebill		C		11
animals	birds	Acanthizidae	*Sericornis citreogularis*	yellow-throated scrubwren		C		1
animals	birds	Acanthizidae	*Sericornis frontalis*	white-browed scrubwren		C		17
animals	birds	Acanthizidae	*Pyrrholaemus sagittatus*	speckled warbler		C		8
animals	birds	Acanthizidae	*Acanthiza lineata*	striated thornbill		C		2
animals	birds	Acanthizidae	*Acanthiza pusilla*	brown thornbill		C		1
animals	birds	Acanthizidae	*Gerygone mouki*	brown gerygone		C		1
animals	birds	Acanthizidae	*Acanthiza chrysorrhoa*	yellow-rumped thornbill		C		14
animals	birds	Acanthizidae	*Acanthiza nana*	yellow thornbill		C		3
animals	birds	Acanthizidae	*Gerygone olivacea*	white-throated gerygone		C		14
animals	birds	Accipitridae	*Aquila audax*	wedge-tailed eagle		C		12
animals	birds	Accipitridae	*Haliastur indus*	brahminy kite		C		4
animals	birds	Accipitridae	*Haliaeetus leucogaster*	white-bellied sea-eagle		C		11
animals	birds	Accipitridae	*Haliastur sphenurus*	whistling kite		C		6
animals	birds	Accipitridae	*Accipiter cirrocephalus*	collared sparrowhawk		C		8
animals	birds	Accipitridae	*Milvus migrans*	black kite		C		4
animals	birds	Accipitridae	*Pandion cristatus*	eastern osprey		SL		2
animals	birds	Accipitridae	*Elanus axillaris*	black-shouldered kite		C		12
animals	birds	Accipitridae	*Circus approximans*	swamp harrier		C		6
animals	birds	Accipitridae	*Aviceda subcristata*	Pacific baza		C		5
animals	birds	Accipitridae	*Accipiter fasciatus*	brown goshawk		C		11
animals	birds	Accipitridae	*Lophoictinia isura*	square-tailed kite		C		1
animals	birds	Acrocephalidae	*Acrocephalus australis*	Australian reed-warbler		C		14
animals	birds	Aegothelidae	*Aegotheles cristatus*	Australian owlet-nightjar		C		3
animals	birds	Alcedinidae	*Ceyx azureus*	azure kingfisher		C		8
animals	birds	Anatidae	*Malacorhynchus membranaceus*	pink-eared duck		C		1
animals	birds	Anatidae	*Nettapus coromandelianus*	cotton pygmy-goose		C		1
animals	birds	Anatidae	*Tadorna tadornoides*	Australian shelduck		C		1
animals	birds	Anatidae	*Spatula rhynchotis*	Australasian shoveler		C		2

Kingdom	Class	Family	Scientific Name	Common Name	I	Q	A	Records
animals	birds	Anatidae	*Dendrocygna eytoni*	plumed whistling-duck		C		2
animals	birds	Anatidae	*Anas platyrhynchos*	northern mallard	Y			4
animals	birds	Anatidae	*Chenonetta jubata*	Australian wood duck		C		58
animals	birds	Anatidae	*Anas superciliosa*	Pacific black duck		C		32
animals	birds	Anatidae	*Aythya australis*	hardhead		C		19
animals	birds	Anatidae	*Cygnus atratus*	black swan		C		13
animals	birds	Anatidae	*Anas gracilis*	grey teal		C		14
animals	birds	Anatidae	*Anas castanea*	chestnut teal		C		5
animals	birds	Anatidae	*Dendrocygna arcuata*	wandering whistling-duck		C		1
animals	birds	Anhingidae	*Anhinga novaehollandiae*	Australasian darter		C		23
animals	birds	Anseranatidae	*Anseranas semipalmata*	magpie goose		C		3
animals	birds	Apodidae	*Hirundapus caudacutus*	white-throated needletail		V	V	4
animals	birds	Ardeidae	*Nycticorax caledonicus*	nankeen night-heron		C		2
animals	birds	Ardeidae	*Ardea alba modesta*	eastern great egret		C		15
animals	birds	Ardeidae	*Butorides striata*	striated heron		C		2
animals	birds	Ardeidae	*Egretta garzetta*	little egret		C		4
animals	birds	Ardeidae	*Egretta novaehollandiae*	white-faced heron		C		26
animals	birds	Ardeidae	*Ardea intermedia*	intermediate egret		C		8
animals	birds	Ardeidae	*Ardea pacifica*	white-necked heron		C		9
animals	birds	Ardeidae	*Bubulcus ibis*	cattle egret		C		30
animals	birds	Artamidae	*Artamus superciliosus*	white-browed woodswallow		C		1
animals	birds	Artamidae	*Artamus leucorynchus*	white-breasted woodswallow		C		6
animals	birds	Artamidae	*Cracticus torquatus*	grey butcherbird		C		57
animals	birds	Artamidae	*Strepera graculina*	pied currawong		C		13
animals	birds	Artamidae	*Gymnorhina tibicen*	Australian magpie		C		133
animals	birds	Artamidae	*Cracticus nigrogularis*	pied butcherbird		C		67
animals	birds	Burhinidae	*Burhinus grallarius*	bush stone-curlew		C		4
animals	birds	Cacatuidae	*Cacatua galerita*	sulphur-crested cockatoo		C		32
animals	birds	Cacatuidae	*Cacatua sanguinea*	little corella		C		3
animals	birds	Cacatuidae	*Cacatua tenuirostris*	long-billed corella	Y	C		3
animals	birds	Cacatuidae	*Eolophus roseicapilla*	galah		C		45
animals	birds	Campephagidae	*Lalage leucomela*	varied triller		C		5
animals	birds	Campephagidae	*Coracina novaehollandiae*	black-faced cuckoo-shrike		C		100
animals	birds	Campephagidae	*Coracina tenuirostris*	cicadabird		C		4
animals	birds	Campephagidae	*Lalage tricolor*	white-winged triller		C		1
animals	birds	Campephagidae	*Coracina maxima*	ground cuckoo-shrike		C		2
animals	birds	Charadriidae	*Vanellus miles novaehollandiae*	masked lapwing (southern subspecies)		C		46
animals	birds	Charadriidae	*Erythrogonys cinctus*	red-kneed dotterel		C		4
animals	birds	Charadriidae	*Elseyornis melanops*	black-fronted dotterel		C		12
animals	birds	Charadriidae	*Vanellus miles*	masked lapwing		C		5
animals	birds	Ciconiidae	*Ephippiorhynchus asiaticus*	black-necked stork		C		10
animals	birds	Cisticolidae	*Cisticola exilis*	golden-headed cisticola		C		41
animals	birds	Climacteridae	*Cormobates leucophaea metastasis*	white-throated treecreeper (southern)		C		2
animals	birds	Columbidae	*Phaps chalcoptera*	common bronzewing		C		5
animals	birds	Columbidae	*Streptopelia chinensis*	spotted dove	Y			89
animals	birds	Columbidae	*Macropygia amboinensis*	brown cuckoo-dove		C		1

Kingdom	Class	Family	Scientific Name	Common Name	I	Q	A	Records
animals	birds	Columbidae	*Geopelia humeralis*	bar-shouldered dove		C		15
animals	birds	Columbidae	*Columba livia*	rock dove	Y			35
animals	birds	Columbidae	*Ocyphaps lophotes*	crested pigeon		C		48
animals	birds	Columbidae	*Columba leucomela*	white-headed pigeon		C		2
animals	birds	Columbidae	*Geopelia striata*	peaceful dove		C		7
animals	birds	Columbidae	*Geopelia cuneata*	diamond dove		C		2
animals	birds	Coraciidae	*Eurystomus orientalis*	dollarbird		C		29
animals	birds	Corvidae	*Corvus sp.*			C		1
animals	birds	Corvidae	*Corvus orru*	Torresian crow		C		142
animals	birds	Cuculidae	*Centropus phasianinus*	pheasant coucal		C		16
animals	birds	Cuculidae	*Cacomantis variolosus*	brush cuckoo		C		3
animals	birds	Cuculidae	*Eudynamys orientalis*	eastern koel		C		24
animals	birds	Cuculidae	*Cacomantis pallidus*	pallid cuckoo		C		1
animals	birds	Cuculidae	*Scythrops novaehollandiae*	channel-billed cuckoo		C		32
animals	birds	Cuculidae	*Chalcites basalis*	Horsfield's bronze-cuckoo		C		4
animals	birds	Cuculidae	*Cuculus optatus*	oriental cuckoo		SL		1
animals	birds	Cuculidae	*Cacomantis flabelliformis*	fan-tailed cuckoo		C		12
animals	birds	Cuculidae	*Chalcites lucidus*	shining bronze-cuckoo		C		2
animals	birds	Dicruridae	*Dicrurus bracteatus*	spangled drongo		C		29
animals	birds	Estrildidae	*Neochmia temporalis*	red-browed finch		C		9
animals	birds	Estrildidae	*Neochmia modesta*	plum-headed finch		C		2
animals	birds	Estrildidae	*Lonchura punctulata*	nutmeg mannikin	Y			5
animals	birds	Estrildidae	*Lonchura castaneothorax*	chestnut-breasted mannikin		C		16
animals	birds	Estrildidae	*Taeniopygia guttata*	zebra finch		C		2
animals	birds	Estrildidae	*Taeniopygia bichenovii*	double-barred finch		C		35
animals	birds	Eurostopodidae	*Eurostopodus mystacalis*	white-throated nightjar		C		1
animals	birds	Falconidae	*Falco berigora*	brown falcon		C		4
animals	birds	Falconidae	*Falco longipennis*	Australian hobby		C		5
animals	birds	Falconidae	*Falco cenchroides*	nankeen kestrel		C		12
animals	birds	Falconidae	*Falco peregrinus*	peregrine falcon		C		4
animals	birds	Halcyonidae	*Dacelo novaeguineae*	laughing kookaburra		C		73
animals	birds	Halcyonidae	*Dacelo leachii*	blue-winged kookaburra		C		5
animals	birds	Halcyonidae	*Todiramphus macleayii*	forest kingfisher		C		4
animals	birds	Halcyonidae	*Todiramphus pyrrhopygius*	red-backed kingfisher		C		3
animals	birds	Halcyonidae	*Todiramphus sanctus*	sacred kingfisher		C		30
animals	birds	Hirundinidae	*Petrochelidon nigricans*	tree martin		C		5
animals	birds	Hirundinidae	*Petrochelidon ariel*	fairy martin		C		14
animals	birds	Hirundinidae	*Hirundo neoxena*	welcome swallow		C		43
animals	birds	Hirundinidae	*Cheramoeca leucosterna*	white-backed swallow		C		1
animals	birds	Jacanidae	*Irediparra gallinacea*	comb-crested jacana		C		9
animals	birds	Laridae	*Chroicocephalus novaehollandiae*	silver gull		C		1
animals	birds	Laridae	*Chlidonias hybrida*	whiskered tern		C		1
animals	birds	Maluridae	*Malurus melanocephalus*	red-backed fairy-wren		C		34
animals	birds	Maluridae	*Malurus lamberti*	variegated fairy-wren		C		20
animals	birds	Maluridae	*Malurus cyaneus*	superb fairy-wren		C		84
animals	birds	Megaluridae	*Megalurus gramineus*	little grassbird		C		5

Kingdom	Class	Family	Scientific Name	Common Name	I	Q	A	Records
animals	birds	Megaluridae	*Megalurus timoriensis*	tawny grassbird		C		13
animals	birds	Megaluridae	*Cincloramphus cruralis*	brown songlark		C		1
animals	birds	Megapodiidae	*Alectura lathami*	Australian brush-turkey		C		1
animals	birds	Meliphagidae	*Meliphaga lewinii*	Lewin's honeyeater		C		15
animals	birds	Meliphagidae	*Melithreptus brevirostris*	brown-headed honeyeater		C		1
animals	birds	Meliphagidae	*Plectorhyncha lanceolata*	striped honeyeater		C		6
animals	birds	Meliphagidae	*Melithreptus albogularis*	white-throated honeyeater		C		15
animals	birds	Meliphagidae	*Anthochaera chrysoptera*	little wattlebird		C		2
animals	birds	Meliphagidae	*Philemon citreogularis*	little friarbird		C		21
animals	birds	Meliphagidae	*Ptilotula fusca*	fuscous honeyeater		C		9
animals	birds	Meliphagidae	*Caligavis chrysops*	yellow-faced honeyeater		C		20
animals	birds	Meliphagidae	*Entomyzon cyanotis*	blue-faced honeyeater		C		26
animals	birds	Meliphagidae	*Lichmera indistincta*	brown honeyeater		C		51
animals	birds	Meliphagidae	*Melithreptus gularis*	black-chinned honeyeater		C		6
animals	birds	Meliphagidae	*Melithreptus lunatus*	white-naped honeyeater		C		3
animals	birds	Meliphagidae	*Philemon corniculatus*	noisy friarbird		C		69
animals	birds	Meliphagidae	*Manorina melanocephala*	noisy miner		C		64
animals	birds	Meliphagidae	*Myzomela sanguinolenta*	scarlet honeyeater		C		30
animals	birds	Meropidae	*Merops ornatus*	rainbow bee-eater		C		26
animals	birds	Monarchidae	*Myiagra inquieta*	restless flycatcher		C		3
animals	birds	Monarchidae	*Symposiachrus trivirgatus*	spectacled monarch		SL		1
animals	birds	Monarchidae	*Myiagra rubecula*	leaden flycatcher		C		5
animals	birds	Monarchidae	*Grallina cyanoleuca*	magpie-lark		C		86
animals	birds	Motacillidae	*Anthus novaeseelandiae*	Australasian pipit		C		2
animals	birds	Nectariniidae	*Dicaeum hirundinaceum*	mistletoebird		C		37
animals	birds	Neosittidae	*Daphoenositta chrysoptera*	varied sittella		C		8
animals	birds	Oriolidae	*Sphecotheres vieilloti*	Australasian figbird		C		73
animals	birds	Oriolidae	*Oriolus sagittatus*	olive-backed oriole		C		12
animals	birds	Pachycephalidae	*Pachycephala rufiventris*	rufous whistler		C		26
animals	birds	Pachycephalidae	*Colluricincla megarhyncha*	little shrike-thrush		C		1
animals	birds	Pachycephalidae	*Pachycephala pectoralis*	golden whistler		C		22
animals	birds	Pachycephalidae	*Colluricincla harmonica*	grey shrike-thrush		C		9
animals	birds	Pardalotidae	*Pardalotus punctatus*	spotted pardalote		C		4
animals	birds	Pardalotidae	*Pardalotus striatus*	striated pardalote		C		54
animals	birds	Passeridae	*Passer domesticus*	house sparrow	Y			48
animals	birds	Pelecanidae	*Pelecanus conspicillatus*	Australian pelican		C		28
animals	birds	Petroicidae	*Petroica rosea*	rose robin		C		8
animals	birds	Petroicidae	*Petroica boodang*	scarlet robin		C		2
animals	birds	Petroicidae	*Microeca fascinans*	jacky winter		C		3
animals	birds	Petroicidae	*Eopsaltria australis*	eastern yellow robin		C		11
animals	birds	Phaethontidae	*Phaethon lepturus*	white-tailed tropicbird		SL		1/1
animals	birds	Phalacrocoracidae	*Phalacrocorax sulcirostris*	little black cormorant		C		29
animals	birds	Phalacrocoracidae	*Microcarbo melanoleucos*	little pied cormorant		C		25
animals	birds	Phalacrocoracidae	*Phalacrocorax carbo*	great cormorant		C		10
animals	birds	Phalacrocoracidae	*Phalacrocorax varius*	pied cormorant		C		17
animals	birds	Phasianidae	*Coturnix pectoralis*	stubble quail		C		2

Kingdom	Class	Family	Scientific Name	Common Name	I	Q	A	Records
animals	birds	Phasianidae	*Coturnix ypsilophora*	brown quail		C		8
animals	birds	Podargidae	*Podargus strigoides*	tawny frogmouth		C		20
animals	birds	Podicipedidae	*Tachybaptus novaehollandiae*	Australasian grebe		C		21
animals	birds	Podicipedidae	*Podiceps cristatus*	great crested grebe		C		8
animals	birds	Pomatostomidae	*Pomatostomus temporalis*	grey-crowned babbler		C		8
animals	birds	Psittacidae	*Parvipsitta pusilla*	little lorikeet		C		16
animals	birds	Psittacidae	*Platycercus eximius*	eastern rosella		C		2
animals	birds	Psittacidae	*Alisterus scapularis*	Australian king-parrot		C		8
animals	birds	Psittacidae	*Barnardius zonarius*	Australian ringneck		C		5
animals	birds	Psittacidae	*Platycercus adscitus*	pale-headed rosella		C		54
animals	birds	Psittacidae	*Glossopsitta concinna*	musk lorikeet		C		4
animals	birds	Psittacidae	*Melopsittacus undulatus*	budgerigar		C		2
animals	birds	Psittacidae	*Trichoglossus chlorolepidotus*	scaly-breasted lorikeet		C		85
animals	birds	Psittacidae	*Platycercus adscitus palliceps*	pale-headed rosella (southern form)		C		1
animals	birds	Psittacidae	*Trichoglossus haematodus moluccanus*	rainbow lorikeet		C		50
animals	birds	Psophodidae	*Psophodes olivaceus*	eastern whipbird		C		9
animals	birds	Rallidae	*Lewinia pectoralis*	Lewin's rail		C		4
animals	birds	Rallidae	*Gallirallus philippensis*	buff-banded rail		C		6
animals	birds	Rallidae	*Amaurornis moluccana*	pale-vented bush-hen		C		1
animals	birds	Rallidae	*Porphyrio melanotus*	purple swamphen		C		19
animals	birds	Rallidae	*Gallinula tenebrosa*	dusky moorhen		C		27
animals	birds	Rallidae	*Fulica atra*	Eurasian coot		C		22
animals	birds	Rallidae	*Porzana pusilla*	Baillon's crake		C		13
animals	birds	Rallidae	*Porzana fluminea*	Australian spotted crake		C		6
animals	birds	Rallidae	*Porzana tabuensis*	spotless crake		C		6
animals	birds	Recurvirostridae	*Himantopus himantopus*	black-winged stilt		C		11
animals	birds	Rhipiduridae	*Rhipidura albiscapa*	grey fantail		C		35
animals	birds	Rhipiduridae	*Rhipidura leucophrys*	willie wagtail		C		84
animals	birds	Rhipiduridae	*Rhipidura rufifrons*	rufous fantail		SL		4
animals	birds	Rostratulidae	*Rostratula australis*	Australian painted snipe		E	E	7
animals	birds	Scolopacidae	*Limosa limosa*	black-tailed godwit		SL		4
animals	birds	Scolopacidae	*Tringa stagnatilis*	marsh sandpiper		SL		1
animals	birds	Scolopacidae	*Calidris melanotos*	pectoral sandpiper		SL		1
animals	birds	Scolopacidae	*Calidris acuminata*	sharp-tailed sandpiper		SL		1
animals	birds	Scolopacidae	*Gallinago hardwickii*	Latham's snipe		SL		6
animals	birds	Scolopacidae	*Actitis hypoleucos*	common sandpiper		SL		9
animals	birds	Strigidae	*Ninox connivens*	barking owl		C		2
animals	birds	Strigidae	*Ninox boobook*	southern boobook		C		8
animals	birds	Sturnidae	*Acridotheres tristis*	common myna	Y			41
animals	birds	Sturnidae	*Sturnus vulgaris*	common starling	Y			28
animals	birds	Threskiornithidae	*Platalea regia*	royal spoonbill		C		14
animals	birds	Threskiornithidae	*Platalea flavipes*	yellow-billed spoonbill		C		10
animals	birds	Threskiornithidae	*Plegadis falcinellus*	glossy ibis		SL		3
animals	birds	Threskiornithidae	*Threskiornis molucca*	Australian white ibis		C		12
animals	birds	Threskiornithidae	*Threskiornis spinicollis*	straw-necked ibis		C		25
animals	birds	Timaliidae	*Zosterops lateralis*	silvereye		C		101

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animals	birds	Turnicidae	*Turnix maculosus*	red-backed button-quail		C		2
animals	birds	Tytonidae	*Tyto delicatula*	eastern barn owl		C		4
animals	insects	Aeshnidae	*Adversaeschna brevistyla*	blue-spotted hawker				1
animals	insects	Aeshnidae	*Anax papuensis*	Australian Emperor				1
animals	insects	Coenagrionidae	*Ischnura heterosticta heterosticta*	common bluetail				1
animals	insects	Corduliidae	*Hemicordulia australiae*	Australian emerald				1
animals	insects	Corduliidae	*Hemicordulia continentalis*	fat-bellied emerald				1
animals	insects	Hesperiidae	*Toxidia peron*	dingy grass-skipper				1
animals	insects	Hesperiidae	*Suniana sunias rectivitta*	wide-brand grass-dart				1
animals	insects	Hesperiidae	*Ocybadistes walkeri sothis*	green grass-dart				1
animals	insects	Lestidae	*Austrolestes leda*	wandering ringtail				1
animals	insects	Libellulidae	*Tramea loewii*	common glider				1
animals	insects	Libellulidae	*Orthetrum villosovittatum*	fiery skimmer				1
animals	insects	Libellulidae	*Crocothemis nigrifrons*	black-headed skimmer				1
animals	insects	Libellulidae	*Orthetrum caledonicum*	blue skimmer				1
animals	insects	Libellulidae	*Diplacodes haematodes*	scarlet percher				1
animals	insects	Libellulidae	*Diplacodes bipunctata*	wandering percher				1
animals	insects	Libellulidae	*Pantala flavescens*	wandering glider				1
animals	insects	Libellulidae	*Macrodiplax cora*	wandering pennant				1
animals	insects	Libellulidae	*Orthetrum sabina*	slender skimmer				1
animals	insects	Lycaenidae	*Prosotas dubiosa dubiosa*	purple line-blue				1
animals	insects	Lycaenidae	*Catopyrops florinda*					1
animals	insects	Lycaenidae	*Zizina otis labradus*	common grass-blue (Australian subspecies)				2
animals	insects	Lycaenidae	*Psychonotis caelius taygetus*	small green-banded blue				2
animals	insects	Nymphalidae	*Junonia villida villida*	meadow argus				6
animals	insects	Nymphalidae	*Tirumala hamata hamata*	blue tiger				5
animals	insects	Nymphalidae	*Melanitis leda bankia*	evening brown				9
animals	insects	Nymphalidae	*Hypolimnas misippus*	danaid eggfly				1
animals	insects	Nymphalidae	*Vanessa kershawi*	Australian painted lady				3
animals	insects	Nymphalidae	*Danaus plexippus*	monarch	Y			8
animals	insects	Nymphalidae	*Euploea corinna*	common crow				16
animals	insects	Nymphalidae	*Danaus petilia*	lesser wanderer				3
animals	insects	Nymphalidae	*Danaus sp.*					1
animals	insects	Nymphalidae	*Charaxes sempronius sempronius*	tailed emperor				5
animals	insects	Nymphalidae	*Hypolimnas bolina nerina*	varied eggfly				1
animals	insects	Nymphalidae	*Hypocysta adiante adiante*	orange ringlet				1
animals	insects	Nymphalidae	*Heteronympha merope merope*	common brown				1
animals	insects	Nymphalidae	*Mynes geoffroyi guerini*	jezebel nymph				1
animals	insects	Nymphalidae	*Phaedyma shepherdi shepherdi*	white-banded plane (southern subspecies)				4
animals	insects	Nymphalidae	*Acraea andromacha andromacha*	glasswing				5
animals	insects	Papilionidae	*Papilio demoleus sthenelus*	chequered swallowtail				1
animals	insects	Papilionidae	*Cressida cressida cressida*	clearwing swallowtail				2
animals	insects	Papilionidae	*Graphium eurypylus lycaon*	pale triangle				1
animals	insects	Papilionidae	*Papilio anactus*	dainty swallowtail				2

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animals	insects	Papilionidae	*Graphium choredon*	blue triangle				13
animals	insects	Papilionidae	*Papilio aegeus aegeus*	orchard swallowtail (Australian subspecies)				6
animals	insects	Papilionidae	*Papilio aegeus*					1
animals	insects	Pieridae	*Catopsilia pyranthe crokera*	white migrant				1
animals	insects	Pieridae	*Cepora perimale scyllara*	caper gull (Australian subspecies)				1
animals	insects	Pieridae	*Belenois java teutonia*	caper white				11
animals	insects	Pieridae	*Catopsilia pomona*	lemon migrant				10
animals	insects	Pieridae	*Catopsilia gorgophone gorgophone*	yellow migrant				3
animals	insects	Pieridae	*Eurema smilax*	small grass-yellow				1
animals	insects	Pieridae	*Eurema hecabe*	large grass-yellow				5
animals	insects	Pieridae	*Pieris rapae*	cabbage white	Y			3
animals	insects	Pieridae	*Delias argenthona argenthona*	scarlet jezebel				4
animals	insects	Pieridae	*Delias nigrina*	black jezebel				1
animals	mammals	Acrobatidae	*Acrobates pygmaeus*	feathertail glider		C		1
animals	mammals	Canidae	*Vulpes vulpes*	red fox	Y			5
animals	mammals	Canidae	*Canis familiaris (dingo)*	dingo				1
animals	mammals	Dasyuridae	*Antechinus flavipes flavipes*	yellow-footed antechinus (south-east Queensland)		C		2
animals	mammals	Dasyuridae	*Phascogale tapoatafa tapoatafa*	brush-tailed phascogale		C		1
animals	mammals	Emballonuridae	*Saccolaimus flaviventris*	yellow-bellied sheathtail bat		C		2
animals	mammals	Felidae	*Felis catus*	cat	Y			5
animals	mammals	Leporidae	*Lepus europaeus*	European brown hare	Y			11
animals	mammals	Macropodidae	*Notamacropus dorsalis*	black-striped wallaby		C		1
animals	mammals	Macropodidae	*Notamacropus rufogriseus*	red-necked wallaby		C		9
animals	mammals	Macropodidae	*Notamacropus parryi*	whiptail wallaby		C		1
animals	mammals	Macropodidae	*Macropus giganteus*	eastern grey kangaroo		C		6
animals	mammals	Macropodidae	*Wallabia bicolor*	swamp wallaby		C		4
animals	mammals	Macropodidae	*Macropus sp.*			C		2
animals	mammals	Miniopteridae	*Miniopterus schreibersii oceanensis*	eastern bent-wing bat		C		1
animals	mammals	Miniopteridae	*Miniopterus australis*	little bent-wing bat		C		1
animals	mammals	Molossidae	*Mormopterus lumsdenae*	northern free-tailed bat		C		2
animals	mammals	Molossidae	*Tadarida australis*	white-striped freetail bat		C		9
animals	mammals	Muridae	*Mus musculus*	house mouse	Y			4
animals	mammals	Muridae	*Rattus rattus*	black rat	Y			2
animals	mammals	Peramelidae	*Isoodon macrourus*	northern brown bandicoot		C		3
animals	mammals	Petauridae	*Petaurus sp.*			C		1
animals	mammals	Petauridae	*Petaurus norfolcensis*	squirrel glider		C		6
animals	mammals	Petauridae	*Petaurus breviceps sensu lato*	sugar glider		C		4
animals	mammals	Phalangeridae	*Trichosurus vulpecula*	common brushtail possum		C		18
animals	mammals	Phalangeridae	*Trichosurus caninus*	short-eared possum		C		1
animals	mammals	Phascolarctidae	*Phascolarctos cinereus*	koala		V	V	192
animals	mammals	Pseudocheiridae	*Pseudocheirus peregrinus*	common ringtail possum		C		4
animals	mammals	Pteropodidae	*Pteropus poliocephalus*	grey-headed flying-fox		C	V	21
animals	mammals	Pteropodidae	*Pteropus scapulatus*	little red flying-fox		C		1
animals	mammals	Pteropodidae	*Pteropus alecto*	black flying-fox		C		22

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animals	mammals	Pteropodidae	*Pteropus sp.*			C		1
animals	mammals	Tachyglossidae	*Tachyglossus aculeatus*	short-beaked echidna		SL		7
animals	mammals	Vespertilionidae	*Nyctophilus gouldi*	Gould's long-eared bat		C		1
animals	mammals	Vespertilionidae	*Myotis macropus*	large-footed myotis		C		1
animals	mammals	Vespertilionidae	*Vespadelus troughtoni*	eastern cave bat		C		1
animals	mammals	Vespertilionidae	*Chalinolobus morio*	chocolate wattled bat		C		1
animals	mammals	Vespertilionidae	*Chalinolobus gouldii*	Gould's wattled bat		C		1
animals	mammals	Vespertilionidae	*Scotorepens sp. (Parnaby)*	central-eastern broad-nosed bat		C		1
animals	ray-finned fishes	Ambassidae	*Ambassis agassizii*	Agassiz's glassfish				1
animals	ray-finned fishes	Anguillidae	*Anguilla australis*	southern shortfin eel				9
animals	ray-finned fishes	Anguillidae	*Anguilla reinhardtii*	longfin eel				16
animals	ray-finned fishes	Atherinidae	*Craterocephalus marjoriae*	silverstreak hardyhead				1
animals	ray-finned fishes	Atherinidae	*Craterocephalus stercusmuscarum*	flyspecked hardyhead				4
animals	ray-finned fishes	Cichlidae	*Oreochromis mossambica*	Mozambique mouthbrooder	Y			3
animals	ray-finned fishes	Clupeidae	*Nematalosa erebi*	bony bream				1
animals	ray-finned fishes	Eleotridae	*Gobiomorphus australis*	striped gudgeon				10
animals	ray-finned fishes	Eleotridae	*Hypseleotris sp.*					1
animals	ray-finned fishes	Eleotridae	*Hypseleotris compressa*	empire gudgeon				11
animals	ray-finned fishes	Eleotridae	*Philypnodon grandiceps*	flathead gudgeon				1
animals	ray-finned fishes	Eleotridae	*Hypseleotris klunzingeri*	western carp gudgeon				1
animals	ray-finned fishes	Eleotridae	*Hypseleotris galii*	firetail gudgeon				13
animals	ray-finned fishes	Melanotaeniidae	*Melanotaenia duboulayi*	crimsonspotted rainbowfish				6
animals	ray-finned fishes	Mugilidae	*Mugil cephalus*	sea mullet				6
animals	ray-finned fishes	Plotosidae	*Tandanus tandanus*	freshwater catfish				4
animals	ray-finned fishes	Poeciliidae	*Gambusia holbrooki*	mosquitofish	Y			17
animals	ray-finned fishes	Poeciliidae	*Xiphophorus maculatus*	platy	Y			8
animals	ray-finned fishes	Pseudomugilidae	*Pseudomugil signifer*	Pacific blue eye				5
animals	ray-finned fishes	Retropinnidae	*Retropinna semoni*	Australian smelt				5
animals	ray-finned fishes	Scorpaenidae	*Notesthes robusta*	bullrout				3
animals	ray-finned fishes	Terapontidae	*Leiopotherapon unicolor*	spangled perch				8
animals	reptiles	Agamidae	*Intellagama lesueurii*	eastern water dragon		C		10
animals	reptiles	Agamidae	*Diporiphora australis*	tommy roundhead		C		3
animals	reptiles	Agamidae	*Pogona barbata*	bearded dragon		C		16
animals	reptiles	Boidae	*Morelia spilota*	carpet python		C		7
animals	reptiles	Chelidae	*Emydura macquarii macquarii*	Murray turtle		C		2
animals	reptiles	Chelidae	*Chelodina expansa*	broad-shelled river turtle		C		2
animals	reptiles	Chelidae	*Chelodina longicollis*	eastern snake-necked turtle		C		3
animals	reptiles	Colubridae	*Boiga irregularis*	brown tree snake		C		1
animals	reptiles	Colubridae	*Tropidonophis mairii*	freshwater snake		C		1
animals	reptiles	Colubridae	*Dendrelaphis punctulatus*	green tree snake		C		11
animals	reptiles	Diplodactylidae	*Diplodactylus vittatus*	wood gecko		C		1
animals	reptiles	Elapidae	*Brachyurophis australis*	coral snake		C		1
animals	reptiles	Elapidae	*Cacophis squamulosus*	golden crowned snake		C		1
animals	reptiles	Elapidae	*Pseudonaja textilis*	eastern brown snake		C		11
animals	reptiles	Elapidae	*Demansia psammophis*	yellow-faced whipsnake		C		3
animals	reptiles	Elapidae	*Cacophis harriettae*	white-crowned snake		C		4

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animals	reptiles	Elapidae	*Furina diadema*	red-naped snake		C		8
animals	reptiles	Elapidae	*Pseudechis porphyriacus*	red-bellied black snake		C		2
animals	reptiles	Gekkonidae	*Gehyra dubia*	dubious dtella		C		4
animals	reptiles	Gekkonidae	*Hemidactylus frenatus*	house gecko	Y			2
animals	reptiles	Pygopodidae	*Delma plebeia*	common delma		C		2
animals	reptiles	Pygopodidae	*Pygopus lepidopodus*	common scaly-foot		C		1
animals	reptiles	Scincidae	*Carlia vivax*	tussock rainbow-skink		C		2
animals	reptiles	Scincidae	*Karma murrayi*	Murray's skink		C		1
animals	reptiles	Scincidae	*Lampropholis sp.*			C		1
animals	reptiles	Scincidae	*Carlia pectoralis*	open-litter rainbow skink		C		2
animals	reptiles	Scincidae	*Concinnia martini*	dark bar-sided skink		C		1
animals	reptiles	Scincidae	*Ctenotus spaldingi*	straight-browed ctenotus		C		9
animals	reptiles	Scincidae	*Tiliqua scincoides*	eastern blue-tongued lizard		C		11
animals	reptiles	Scincidae	*Lygisaurus foliorum*	tree-base litter-skink		C		1
animals	reptiles	Scincidae	*Ctenotus taeniolatus*	copper-tailed skink		C		1
animals	reptiles	Scincidae	*Lampropholis amicula*	friendly sunskink		C		1
animals	reptiles	Scincidae	*Cryptoblepharus pulcher pulcher*	elegant snake-eyed skink		C		16
animals	reptiles	Scincidae	*Anomalopus verreauxii*	three-clawed worm-skink		C		5
animals	reptiles	Scincidae	*Lampropholis delicata*	dark-flecked garden sunskink		C		14
animals	reptiles	Scincidae	*Carlia pectoralis sensu lato*			C		1
animals	reptiles	Varanidae	*Varanus varius*	lace monitor		C		3
animals	uncertain	Indeterminate	*Indeterminate*	Unknown or Code Pending				3
fungi	lecanoromycetes	Cladoniaceae	*Cladia muelleri*			C		1/1
plants	land plants	Acanthaceae	*Ruellia simplex*		Y			6/6
plants	land plants	Acanthaceae	*Brunoniella australis*	blue trumpet		C		1/1
plants	land plants	Acanthaceae	*Pseuderanthemum variabile*	pastel flower		C		1/1
plants	land plants	Adoxaceae	*Sambucus nigra*		Y			3/3
plants	land plants	Aizoaceae	*Mesembryanthemum cordifolium*		Y			1/1
plants	land plants	Amaranthaceae	*Alternanthera denticulata*	lesser joyweed		C		1/1
plants	land plants	Amaranthaceae	*Amaranthus viridis*	green amaranth	Y			2/2
plants	land plants	Amaranthaceae	*Alternanthera nana*	hairy joyweed		C		1/1
plants	land plants	Amaryllidaceae	*Zephyranthes carinata*		Y			2/2
plants	land plants	Anthericaceae	*Chlorophytum comosum*		Y			1/1
plants	land plants	Apiaceae	*Ammi majus*	bishop's weed	Y			3/3
plants	land plants	Apiaceae	*Daucus carota*	wild carrot	Y			1/1
plants	land plants	Apiaceae	*Platysace ericoides*	heath platysace		C		2/2
plants	land plants	Apiaceae	*Cyclospermum leptophyllum*		Y			2/2
plants	land plants	Apocynaceae	*Catharanthus roseus*	pink periwinkle	Y			1/1
plants	land plants	Apocynaceae	*Cascabela thevetia*	yellow oleander	Y			2/2
plants	land plants	Apocynaceae	*Parsonsia brisbanensis*	broad-leaved monkey vine		C		7/7
plants	land plants	Apocynaceae	*Marsdenia coronata*	slender milkvine		V		10/10
plants	land plants	Araceae	*Colocasia esculenta*	taro	Y			2/2
plants	land plants	Araceae	*Pistia stratiotes*	water lettuce	Y			1/1
plants	land plants	Arecaceae	*Syagrus romanzoffiana*	Queen palm	Y			1/1
plants	land plants	Aristolochiaceae	*Aristolochia meridionalis subsp. meridionalis*			C		3/3
plants	land plants	Asparagaceae	*Asparagus africanus*	ornamental asparagus	Y			1/1

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plants	land plants	Asphodelaceae	*Aloe maculata*		Y			2/2
plants	land plants	Asteraceae	*Tithonia diversifolia*	Japanese sunflower	Y			1/1
plants	land plants	Asteraceae	*Dimorphotheca ecklonis*		Y			1/1
plants	land plants	Asteraceae	*Ambrosia artemisiifolia*	annual ragweed	Y			1/1
plants	land plants	Asteraceae	*Gamochaeta pensylvanica*		Y			1/1
plants	land plants	Asteraceae	*Ozothamnus diosmifolius*	white dogwood		C		1/1
plants	land plants	Asteraceae	*Sphagneticola trilobata*		Y			1/1
plants	land plants	Asteraceae	*Crassocephalum crepidioides*	thickhead	Y			1/1
plants	land plants	Asteraceae	*Lactuca serriola forma serriola*		Y			2/2
plants	land plants	Asteraceae	*Solidago altissima subsp. altissima*	goldenrod	Y			1/1
plants	land plants	Asteraceae	*Verbesina encelioides var. encelioides*		Y			1/1
plants	land plants	Asteraceae	*Thymophylla tenuiloba*		Y			2/2
plants	land plants	Asteraceae	*Solenogyne bellioides*			C		1/1
plants	land plants	Asteraceae	*Leiocarpa brevicompta*			C		1/1
plants	land plants	Asteraceae	*Brachyscome basaltica*			C		1/1
plants	land plants	Asteraceae	*Ageratum houstonianum*	blue billygoat weed	Y			1/1
plants	land plants	Asteraceae	*Vittadinia pustulata*			C		1/1
plants	land plants	Asteraceae	*Calyptocarpus vialis*	creeping cinderella weed	Y			3/3
plants	land plants	Asteraceae	*Erigeron canadensis*		Y			1/1
plants	land plants	Asteraceae	*Cassinia straminea*			C		1/1
plants	land plants	Asteraceae	*Tridax procumbens*	tridax daisy	Y			2/2
plants	land plants	Asteraceae	*Cichorium intybus*	chicory	Y			2/2
plants	land plants	Asteraceae	*Olearia nernstii*	Ipswich daisy		C		2/2
plants	land plants	Asteraceae	*Cirsium vulgare*	spear thistle	Y			1/1
plants	land plants	Asteraceae	*Bidens pilosa*		Y			1/1
plants	land plants	Asteraceae	*Tagetes minuta*	stinking roger	Y			1/1
plants	land plants	Asteraceae	*Centaurea jacea*		Y			1/1
plants	land plants	Basellaceae	*Anredera cordifolia*	Madeira vine	Y			1/1
plants	land plants	Bignoniaceae	*Jacaranda mimosifolia*	jacaranda	Y			1/1
plants	land plants	Bignoniaceae	*Pandorea floribunda*			C		1/1
plants	land plants	Bignoniaceae	*Pyrostegia venusta*		Y			1/1
plants	land plants	Bignoniaceae	*Campsis radicans*		Y			1/1
plants	land plants	Blechnaceae	*Doodia caudata*			C		1/1
plants	land plants	Boraginaceae	*Cordia myxa*		Y			1/1
plants	land plants	Boraginaceae	*Echium plantagineum*	Paterson's curse	Y			1/1
plants	land plants	Brassicaceae	*Raphanus raphanistrum*	wild radish	Y			2/2
plants	land plants	Brassicaceae	*Brassica chinensis*	Chinese cabbage	Y			1/1
plants	land plants	Brassicaceae	*Cardamine hirsuta*	common bittercress	Y			1/1
plants	land plants	Cactaceae	*Opuntia aurantiaca*	tiger pear	Y			1/1
plants	land plants	Caesalpiniaceae	*Senna pendula var. glabrata*	Easter cassia	Y			2/2
plants	land plants	Caesalpiniaceae	*Cassia fistula*	Indian laburnum	Y			1/1
plants	land plants	Campanulaceae	*Wahlenbergia littoricola*			C		1/1
plants	land plants	Campanulaceae	*Lobelia browniana*			C		1/1
plants	land plants	Campanulaceae	*Wahlenbergia capillaris*			C		1/1
plants	land plants	Caryophyllaceae	*Stellaria media*	chickweed	Y			1/1
plants	land plants	Caryophyllaceae	*Sagina procumbens*	spreading pearlwort	Y			1/1

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plants	land plants	Casuarinaceae	*Casuarina cunninghamiana subsp. cunninghamiana*			C		1/1
plants	land plants	Casuarinaceae	*Casuarina glauca*	swamp she-oak		C		1/1
plants	land plants	Celastraceae	*Denhamia cunninghamii*			C		1/1
plants	land plants	Celastraceae	*Denhamia silvestris*			C		1/1
plants	land plants	Celastraceae	*Hippocratea barbata*	knotvine		C		1/1
plants	land plants	Chenopodiaceae	*Einadia nutans subsp. linifolia*			C		1/1
plants	land plants	Chenopodiaceae	*Maireana microphylla*			C		1/1
plants	land plants	Colchicaceae	*Iphigenia indica*			C		1/1
plants	land plants	Combretaceae	*Combretum paniculatum*		Y			2/2
plants	land plants	Commelinaceae	*Commelina benghalensis*		Y			2/2
plants	land plants	Commelinaceae	*Callisia repens*		Y			1/1
plants	land plants	Crassulaceae	*Bryophyllum fedtschenkoi*		Y			1/1
plants	land plants	Crassulaceae	*Bryophyllum daigremontianum*		Y			1/1
plants	land plants	Cupressaceae	*Callitris baileyi*	Bailey's cypress		NT		1/1
plants	land plants	Cyperaceae	*Fimbristylis microcarya*			C		1/1
plants	land plants	Cyperaceae	*Cyperus involucratus*		Y			1/1
plants	land plants	Cyperaceae	*Caustis blakei*			C		1
plants	land plants	Cyperaceae	*Fimbristylis dichotoma*	common fringe-rush		C		1/1
plants	land plants	Ericaceae	*Acrotriche aggregata*	red cluster heath		C		1/1
plants	land plants	Euphorbiaceae	*Euphorbia hyssopifolia*		Y			3/3
plants	land plants	Euphorbiaceae	*Euphorbia dallachyana*			C		1/1
plants	land plants	Euphorbiaceae	*Euphorbia ophthalmica*		Y			2/2
plants	land plants	Euphorbiaceae	*Ricinus communis*	castor oil bush	Y			1/1
plants	land plants	Euphorbiaceae	*Euphorbia umbellata*		Y			1/1
plants	land plants	Fabaceae	*Glycine*					1/1
plants	land plants	Fabaceae	*Hovea lorata*			C		2/2
plants	land plants	Fabaceae	*Tipuana tipu*	tipuana	Y			3/3
plants	land plants	Fabaceae	*Vigna adenantha*		Y			1/1
plants	land plants	Fabaceae	*Hovea planifolia*			C		1/1
plants	land plants	Fabaceae	*Tephrosia juncea*			C		1/1
plants	land plants	Fabaceae	*Melilotus indicus*	hexham scent	Y			1/1
plants	land plants	Fabaceae	*Indigofera baileyi*			C		3/3
plants	land plants	Fabaceae	*Indigofera spicata*	creeping indigo	Y			3/3
plants	land plants	Fabaceae	*Desmodium triflorum*		Y			1/1
plants	land plants	Fabaceae	*Medicago polymorpha*	burr medic	Y			1/1
plants	land plants	Fabaceae	*Stylosanthes scabra*		Y			2/2
plants	land plants	Fabaceae	*Stylosanthes humilis*	Townsville stylo	Y			1/1
plants	land plants	Fabaceae	*Chorizema parviflorum*	eastern flame pea		C		1/1
plants	land plants	Fabaceae	*Swainsona brachycarpa*			C		1/1
plants	land plants	Fabaceae	*Swainsona queenslandica*			C		1/1
plants	land plants	Fabaceae	*Desmodium rhytidophyllum*			C		1/1
plants	land plants	Fabaceae	*Macroptilium lathyroides*		Y			1/1
plants	land plants	Fabaceae	*Tephrosia glomeruliflora*	pink tephrosia	Y			1/1
plants	land plants	Fabaceae	*Macroptilium atropurpureum*	siratro	Y			2/2
plants	land plants	Fabaceae	*Crotalaria pallida var. obovata*		Y			1/1
plants	land plants	Fabaceae	*Galactia tenuiflora var. lucida*			C		1/1

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plants	land plants	Fabaceae	*Neonotonia wightii var. wightii*		Y			3/3
plants	land plants	Fabaceae	*Sesbania cannabina var. cannabina*			C		1/1
plants	land plants	Goodeniaceae	*Goodenia hederacea subsp. hederacea*			C		1/1
plants	land plants	Hemerocallidaceae	*Dianella longifolia var. stenophylla*			C		3/3
plants	land plants	Hypoxidaceae	*Hypoxis pratensis var. tuberculata*			C		2/2
plants	land plants	Lamiaceae	*Ajuga australis*	Australian bugle		C		1/1
plants	land plants	Lamiaceae	*Coleus habrophyllus*			E	E	1/1
plants	land plants	Lamiaceae	*Mentha satureioides*	native pennyroyal		C		2/2
plants	land plants	Lamiaceae	*Westringia eremicola*	slender westringia		C		1/1
plants	land plants	Lamiaceae	*Plectranthus verticillatus*		Y			1/1
plants	land plants	Lauraceae	*Cryptocarya triplinervis var. pubens*			C		1/1
plants	land plants	Laxmanniaceae	*Laxmannia gracilis*	slender wire lily		C		1/1
plants	land plants	Laxmanniaceae	*Lomandra filiformis subsp. coriacea*			C		1/1
plants	land plants	Laxmanniaceae	*Lomandra confertifolia subsp. pallida*			C		1/1
plants	land plants	Laxmanniaceae	*Lomandra filiformis subsp. filiformis*			C		1/1
plants	land plants	Malvaceae	*Hibiscus tridactylites*			C		1/1
plants	land plants	Malvaceae	*Gossypium hirsutum*		Y			1/1
plants	land plants	Malvaceae	*Malvastrum coromandelianum subsp. coromandelianum*		Y			1/1
plants	land plants	Malvaceae	*Sida rhombifolia*		Y			1/1
plants	land plants	Malvaceae	*Pavonia hastata*	pink pavonia	Y			1/1
plants	land plants	Mimosaceae	*Acacia complanata*	flatstem wattle		C		2/2
plants	land plants	Mimosaceae	*Leucaena leucocephala subsp. leucocephala*		Y			3/3
plants	land plants	Mimosaceae	*Leucaena leucocephala subsp. glabrata*		Y			1/1
plants	land plants	Mimosaceae	*Albizia lebbeck*	Indian siris		C		3/3
plants	land plants	Mimosaceae	*Acacia salicina*	doolan		C		1/1
plants	land plants	Moraceae	*Morus alba*	white mulberry	Y			2/2
plants	land plants	Myrtaceae	*Eucalyptus dura*			C		1/1
plants	land plants	Myrtaceae	*Melaleuca irbyana*			E		2/2
plants	land plants	Myrtaceae	*Eucalyptus crebra*	narrow-leaved red ironbark		C		1/1
plants	land plants	Myrtaceae	*Eucalyptus melanophloia subsp. melanophloia*			C		1/1
plants	land plants	Myrtaceae	*Leptospermum lamellatum*			C		1/1
plants	land plants	Myrtaceae	*Eucalyptus acmenoides*			C		2/2
plants	land plants	Myrtaceae	*Corymbia torelliana*	cadaghi		C		1/1
plants	land plants	Ochnaceae	*Ochna serrulata*	ochna	Y			1/1
plants	land plants	Oleaceae	*Notelaea ovata*	forest olive		C		2/2
plants	land plants	Oleaceae	*Olea europaea subsp. cuspidata*		Y			2/2
plants	land plants	Oleaceae	*Notelaea microcarpa*			C		1/1
plants	land plants	Oleaceae	*Notelaea ipsviciensis*	Cooneana olive		CR	CE	10/10
plants	land plants	Oleaceae	*Notelaea*					1/1
plants	land plants	Oleaceae	*Notelaea lloydii*	Lloyd's native olive		V	V	10/10
plants	land plants	Papaveraceae	*Fumaria officinalis subsp. officinalis*		Y			1/1
plants	land plants	Papaveraceae	*Fumaria bastardii*	bastard fumitory	Y			1/1
plants	land plants	Passifloraceae	*Passiflora pallida*		Y			1/1
plants	land plants	Petiveriaceae	*Rivina humilis*		Y			1/1
plants	land plants	Phyllanthaceae	*Phyllanthus virgatus*			C		1/1
plants	land plants	Phyllanthaceae	*Phyllanthus hirtellus*			C		2/2

Kingdom	Class	Family	Scientific Name	Common Name	I	Q	A	Records
plants	land plants	Plantaginaceae	*Plantago lanceolata*		Y			2/2
plants	land plants	Plantaginaceae	*Bacopa monnieri*			C		1/1
plants	land plants	Poaceae	*Austrostipa rudis subsp. nervosa*			C		1/1
plants	land plants	Poaceae	*Dinebra decipiens var. decipiens*			C		1/1
plants	land plants	Poaceae	*Microlaena stipoides var. stipoides*			C		1/1
plants	land plants	Poaceae	*Calyptochloa gracillima subsp. ipsviciensis*			C		3/3
plants	land plants	Poaceae	*Panicum simile*			C		1/1
plants	land plants	Poaceae	*Aristida vagans*			C		1/1
plants	land plants	Poaceae	*Eleusine indica*	crowsfoot grass	Y			1/1
plants	land plants	Poaceae	*Aristida calycina var. calycina*			C		1/1
plants	land plants	Poaceae	*Cynodon dactylon var. dactylon*		Y			1/1
plants	land plants	Poaceae	*Digitaria didactyla*	Queensland blue couch	Y			1/1
plants	land plants	Poaceae	*Urochloa decumbens*		Y			1/1
plants	land plants	Poaceae	*Sorghum halepense*	Johnson grass	Y			1/1
plants	land plants	Poaceae	*Cenchrus setaceus*		Y			1/1
plants	land plants	Poaceae	*Bambusa vulgaris*		Y			1/1
plants	land plants	Poaceae	*Urochloa mutica*		Y			1/1
plants	land plants	Poaceae	*Lachnagrostis filiformis*			C		1/1
plants	land plants	Poaceae	*Hyparrhenia rufa subsp. rufa*		Y			1/1
plants	land plants	Poaceae	*x Cynochloris macivorii*			C		1/1
plants	land plants	Poaceae	*Aristida leichhardtiana*			C		1/1
plants	land plants	Poaceae	*Cleistochloa subjuncea*			C		1/1
plants	land plants	Poaceae	*Eremochloa bimaculata*	poverty grass		C		1/1
plants	land plants	Poaceae	*Dichanthium aristatum*	angleton grass	Y			1/1
plants	land plants	Poaceae	*Dichanthium annulatum*	sheda grass	Y			1/1
plants	land plants	Polygonaceae	*Persicaria attenuata*			C		1/1
plants	land plants	Polygonaceae	*Rumex crispus*	curled dock	Y			1/1
plants	land plants	Polygonaceae	*Rumex brownii*	swamp dock		C		1/1
plants	land plants	Polygonaceae	*Antigonon leptopus*		Y			2/2
plants	land plants	Portulacaceae	*Calandrinia pickeringii*			C		1/1
plants	land plants	Potamogetonaceae	*Stuckenia pectinata*			C		1/1
plants	land plants	Proteaceae	*Persoonia sericea*	silky geebung		C		1/1
plants	land plants	Pteridaceae	*Acrostichum speciosum*	mangrove fern		C		1/1
plants	land plants	Pteridaceae	*Cheilanthes distans*	bristly cloak fern		C		1/1
plants	land plants	Pteridaceae	*Cheilanthes sieberi subsp. sieberi*			C		1/1
plants	land plants	Ptychomitriaceae	*Ptychomitrium australe*			C		1/1
plants	land plants	Ranunculaceae	*Ranunculus sceleratus subsp. sceleratus*		Y			1/1
plants	land plants	Rhamnaceae	*Pomaderris lanigera*			C		1/1
plants	land plants	Rhamnaceae	*Cryptandra longistaminea*			C		1/1
plants	land plants	Rosaceae	*Prunus persica var. persica*		Y			1/1
plants	land plants	Rosaceae	*Eriobotrya japonica*	loquat	Y			1/1
plants	land plants	Rubiaceae	*Spermacoce multicaulis*			C		2/2
plants	land plants	Rubiaceae	*Galium aparine*	cleavers	Y			1/1
plants	land plants	Rubiaceae	*Richardia stellaris*		Y			4/4
plants	land plants	Rubiaceae	*Pomax umbellata*			C		1/1
plants	land plants	Salicaceae	*Salix babylonica*	weeping willow	Y			2/2

Kingdom	Class	Family	Scientific Name	Common Name	I	Q	A	Records
plants	land plants	Sapindaceae	*Dodonaea triangularis*			C		1/1
plants	land plants	Sapindaceae	*Cardiospermum grandiflorum*	heart seed vine	Y			5/5
plants	land plants	Scrophulariaceae	*Eremophila debilis*	winter apple		C		1/1
plants	land plants	Scrophulariaceae	*Buddleja madagascariensis*	buddleia	Y			1/1
plants	land plants	Solanaceae	*Solanum seaforthianum*	Brazilian nightshade	Y			1/1
plants	land plants	Solanaceae	*Solanum mauritianum*	wild tobacco	Y			1/1
plants	land plants	Solanaceae	*Solanum linnaeanum*	apple of Sodom	Y			1/1
plants	land plants	Solanaceae	*Solanum americanum*		Y			1/1
plants	land plants	Solanaceae	*Solanum lasiocarpum*		Y			1/1
plants	land plants	Sparrmanniaceae	*Corchorus olitorius*	jute		C		1/1
plants	land plants	Stackhousiaceae	*Stackhousia muricata*			C		1/1
plants	land plants	Ulmaceae	*Celtis sinensis*	Chinese elm	Y			3/3
plants	land plants	Verbenaceae	*Duranta erecta*	duranta	Y			1/1
plants	land plants	Verbenaceae	*Lantana montevidensis*	creeping lantana	Y			1/1
plants	land plants	Verbenaceae	*Glandularia aristigera*		Y			1/1
plants	land plants	Vitaceae	*Cayratia clematidea*	slender grape		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 in the Wild (PE), Endangered (E), Vulnerable (V), Near Threatened (NT), Least Concern (C) or Not Protected ( ).

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

Records – The first number indicates the total number of records of the taxon for the record option selected (i.e. All, Confirmed or Specimens).
This number is output as 99999 if it equals or exceeds this value. The second number located after the / indicates the number of specimen records for the taxon.
This number is output as 999 if it equals or exceeds this value.

Appendix 16

Swift Parrot Assessment of Significant Impact

Attachment 17

Significant Impact Assessment – *Lathamus discolor* (Swift parrot)

Lathamus discolor (swift parrot) is critically endangered with ongoing, marked population decline resulting from the clearing of high-quality breeding and high-quality foraging habitats, nest predation by *Petaurus breviceps* (sugar gliders), habitat degradation from altered fire regimes, timber harvesting and changing climate[1].

The swift parrot breeds in Tasmania during the austral summer and the entire population migrates north to mainland Australia for the austral winter. The swift parrot uses habitats across all tenures, with the majority of habitats occurring outside formal conservation reserves. Whilst on the mainland the swift parrot disperses widely, foraging on flowers and lerps in *Eucalyptus* spp. mainly in Victoria and New South Wales, but small numbers are observed on a regular basis in Queensland. Swift parrot presence in Queensland is more likely during times when the species' preferred wintering habitat in Victoria is in drought (Saunders *et al.* 2016).

Research within mainland over-wintering habitats has identified key foraging habitat types. In south-east Queensland these habitats include the following key species: *Eucalyptus microcarpa* (grey box), *Eucalyptus melliodora* (yellow box), *Eucalyptus robusta* (swamp mahogany) and *Eucalyptus tereticornis* (Queensland blue gum) (Saunders & Tzaros 2011). Within these habitats and their greater breeding and wintering ranges, the swift parrot has been found to preferentially forage in large, mature trees that provide more reliable foraging resources (i.e. more intense and frequent flowering) than smaller, younger trees (Brereton et al. 2004; Kennedy & Tzaros 2005; Saunders & Tzaros 2011).

Although they are also known to use a wider range of habitat types, they are thought to do so opportunistically as these do not provide the quality and quantity of resources upon which the species can depend. Due to the presence of aggressive competitors, disturbed areas are thought to provide sub-optimal habitat for the swift parrot (Saunders & Tzaros 2011). Conversely, the presence of non-aggressive competitor species, as well as increasing frequency of lerp and nectar-producing flowers, are all positively correlated with the occurrence of swift parrots at foraging sites (Saunders & Heinsohn 2008).

The swift parrot only nests in Tasmania but relies on mainland regions for over-wintering. Roost-tree requirements in mainland Australia are likely similar to those of nest-tree requirements in Tasmania. Nest-tree suitability has been shown to increase with increasing height, diameter at breast height, degree of senescence, and number of hollows (Webb et al. 2012). Ecosystems with significant numbers of trees matching these requirements will likely provide important potential habitat for swift parrots in south-east Queensland.

There are a number of key sites important for swift parrots; three in Tasmania, six in Victoria, and 9 in New South Wales. *None are located in Queensland*[2] and this is likely to be as a direct result of the reliance on south-east Queensland only during periods of drought related foraging resource shortages in southern states.

Records and Potential Movement into south-east Queensland

Small numbers of migrating swift parrots (usually involving 1–5 or sometimes up to 12 birds) rarely reach south-east Queensland (outer Brisbane and Ipswich areas, and occasionally Warwick,

[1] https://www.dcceew.gov.au/sites/default/files/env/pages/5e1da7da-3322-49d8-80d6-4b5210acb1d4/files/swift-parrot-year-3-scorecard.pdf accessed 13 September 2022
[2] BirdLife International Swift Parrot *Lathamus discolor* - http://datazone.birdlife.org/species/factsheet/swift-parrot-lathamus-discolor/details accessed 15 September 2022

Toowoomba, Bundaberg areas), at the northern extremity of their winter range (Debus *pers. comm.* 2021). Their occurrence in Queensland is related to the availability of food (or lack thereof) farther south (*ibid*). In periods of drought or lower foraging resources on the tablelands of the New England region to the south and south-west, swift parrots will seek foraging and shelter resources in coastal areas, traversing the Great Dividing Range escarpment to find suitable winter resources. Occasionally when present in south-east Queensland, swift parrots will remain for an extended period of time (the example being one bird which remained at Springfield Lakes for all of July 2019 (BirdLife Australia 2019)).

BirdLife Australia conducts annual monitoring of swift parrots nationally, during their mainland over-wintering. During the period 2018-2021 swift parrots recorded in south-east Queensland included:

- 2018 – eight (8) from Sheep Station Creek Conservation Park, 60 km to the north east of the site (near Caboolture) and two (2) at Durikai State Forest near Warwick. A small (undisclosed) number were recorded at Lake Samsonvale (43km to the north east) (BirdLife Australia 2018)

- 2019 - One (1), Springfield Lakes (BirdLife Australia 2019)

- 2020 – Three (3), two at Carney's Creek near Scenic Rim (close proximity to the New South Wales border) and one (1) from Gympie (BirdLife Australia 2020)

- 2021 – Four (4), Durikai State Forest near Warwick (BirdLife Australia 2021).

Post 1980 swift parrot records within 30 km of the site are shown in **Figure 1**. There are no records in close proximity to the site. Sub-regional and regional records have been collected from the Queensland Government's Wildlife online database[3] (**Attachment A**) and the Atlas of living Australia[4] (**Attachment B**). Records for the swift parrot are located ca. 11 km to the east at Springfield Lakes, 18 km to the east at the Greenbank Military Training Area, 25 km to the east in Kingston, 30 km east of the Site in Logan City. North of the Brisbane River records occur at Kenmore (24 km north-east), Kenmore Hills and Brookfield (22 km to the north-east), Bardon (28 km to the north-east), Mt Coot-tha (20 km to north-east) and Pine Mountain (15 km north-west). The breakdown of records is:

- 0-5 km – nil

- >5-10 km – one.

- >10-15 km – 22, however 21 were from the same time on the same day (2019) – comprising one (1) discrete sighting[5]

- >15-20 km – nil

- >20-25 km – 13

- >25-30 km 8.

The patterning of records within the greater Brisbane, Logan and Ipswich Region is indicative of birds crossing the Queensland Border from the Northern Tablelands of NSW, traversing along the Main Range (State significant corridor) to Toowoomba, along the Little Liverpool Range and Flinders Peak – Mount Goolman complex and along the State significant Flinders Peak Corridor that extends from

[3] Post 1980, Wildlife online data was sourced at 1, 2, 5, 10, 15, 20, 25 and 30 km radii from the central point -27.6519, 152.7895 (GDA 2020)
[4] Data was vetted to exclude point sources prior to 1980, or which did not have record dates attached
[5] It is noted therefore that ALA records for swift parrot at this location in 2019 contain many duplicates

Rathdowney in the South, to Greenbank in the north and from the Flinders Peak Corridor along a number of regionally important corridors to the Bremer and Brisbane Rivers (**Figure 1**).

Given their wide-ranging nature and increased ecological assessment (associated with development of the Ripley Valley Priority Development Area (RVPDA) and Swanbank Industrial Areas) and the number of new residents in this area, the absence of observations nearby, and the records closer to east suggests that the main movement pathways in the region are along the Flinders/ Mount Goolman Range (the State significant Flinders Peak Corridor).

The lack of records near the Flinders View Site, the RVPDA, surrounding locality and the infrequency of records in south-east Queensland tends to indicate that the species is highly unlikely to occur at the Site; and if visiting, to be highly transient through the locality.

Extent and habitat quality surrounding the site

As noted, research within mainland over-wintering habitats has allowed the identification of key winter foraging habitats in south-east Queensland as those with grey box, yellow box, swamp mahogany and Queensland blue gum (Saunders & Tzaros 2011). Yellow box is a species associated with the western slopes of the Great Dividing Range (to the west of the site, i.e. Toowoomba). Swamp mahogany is associated with coastal lowland areas (i.e. to the east of the Impact Area). The extent of remnant and regrowth Regional Ecosystems with Queensland blue gum as a dominant or sub-dominant canopy species within 30 km of the Site are shown in **Figure 2** (remnant) and **Figure 3** (regrowth).

Approximately 12,137 ha of remnant and 12,514 ha of regrowth vegetation, with Queensland blue gum listed as a dominant or co-dominant canopy species, occurring within 30 km of the Site has been identified. Details are presented in **Table C-1** (remnant) and **Table C-2** (regrowth) of **Attachment C**.

It is noted that patches of Queensland blue gum exist throughout the landscape in areas which are not mapped remnant or regrowth vegetation as containing Queensland blue gum. It is not possible to identify or quantify their extent as these areas are too small to map (under the Queensland RE framework). These areas are often represented by relictual patches of vegetation <1 ha in area, or are isolated and copses of veteran trees and are not mapped by Queensland's regional ecosystem framework. Within the upper Bremer River, Warrill Creek; Brisbane River, Oxley Creek; and the Logan River, Teviott Brook, catchments (which are all represented within 30 km of the Impact Area), there are many such representations of extensive tracts of Queensland Blue Gum.

Site Habitats

The Site is located at the northern extent of the RVPDA and is adjoined immediately to the south by the expanding front of approved development, and to the east by the Swanbank Industrial Area. Recent aerial photography, showing the location of the Site in relation to surrounding development, is shown in **Figure 4**.

Within the Site, the greatest concentration of and largest specimens of Queensland blue gum coincide with the Linear Park (a minor tributary of the Bremer River). This area is identified as RE12.3.3 and is shown in pre-clear regional ecosystem mapping. RE12.3.3 is a Queensland blue gum dominated woodland to open forest community. The balance of the site is formerly RE12.9-10.2, which is a spotted gum and ironbark woodland to open forest community. Much of the RE12.9-10.2 on the site was previously cleared for agricultural production and trees present within the higher slopes tend to be less mature.

Large winter flowering trees which might attract swift parrots (Queensland blue gum) are largely restricted to the lower alluvial and riparian environments within the Site (**Figure 5**). These will be largely preserved within the Open Space and Conservation Precinct.

The Site's most important habitat for the swift parrot is restricted to the alluvial and riparian corridor through the centre of the Site. Other scattered Queensland blue gums throughout the Site are less likely to attract the swift parrot, due to their smaller stature and potential lack of extensive clustered winter flower resources and their isolated nature.

Habitat values within the Site are generally aligned to the Vegetation Communities mapped in **Figure 6**. Within the Site, a number of overarching habitat types and habitat qualities are supported, ranging from low to moderate in ecological significance and condition. Generally, those areas located in the south of the Site, on lower slopes and immediately over existing waterways occur in a more advanced, higher quality state (e.g. the remnant and regrowth Endangered Regional Ecosystem). These areas support a fully-layered forest type; however, weed incursion within the shrub and ground layer was consistent, particularly lantana.

These lower areas support mature trees, larger fallen debris / logs and hollow features. Riparian areas supported braided streams with pools and riffles, which at the time of survey were holding water (despite limited rain preceding the survey period). Where topography begins to elevate from these lower areas, ecological condition begins to diminish, particularly to the west of the waterway and within the north-eastern allotment; while the vegetation within the south-eastern allotment occurs as young regrowth with large stands of weed infestation or historically earth-worked areas (dams, flat pads, etc.).

The following sections provide an outline of each broad habitat type.

Open exotic grasslands with scattered taller trees

This habitat type is the most abundant habitat on Site, comprising a significant portion of the Site (west of the riparian corridor and the north-east), reflecting Vegetation Community 4 within **Figure 6**. Pre-clear mapping shows the area as RE12.9-10.2. This habitat type has a reduced value for fauna communities due to its simplified vegetation composition, structure and lack of floristic diversity. The avian fauna of these areas are dominated by aggressive edge species.

Nevertheless, it is noted that this habitat type is not bereft of all ecological value. Larger individual trees do occur, particularly Queensland blue gum, and these can attract mobile nectar-feeding species (e.g., friarbirds, lorikeets, etc.).

Riparian corridor

The waterway that extends through the Site in a south-west to north-east direction is a braided, meandering system that opens into an alluvial floodplain in the northern extent of the Site (Vegetation Community 1 of **Figure 6**). Pre-clear mapping shows the area as RE12.3.3 adjoining the waterway and potentially RE12.9-10.7 on lower slopes adjoining overland flow paths along the northern boundary of the Site. The vegetation forms a mix of remnant and regrowth open forest with a canopy dominated by *Eucalyptus tereticornis* (Queensland blue gum), with associated *Angophora leiocarpa* (smooth-barked apple), *Corymbia intermedia* (pink bloodwood) and the occasional *Corymbia tessellaris* (Moreton Bay ash). The mid-storey was dominated by *Lophostemon suaveolens* (swamp box) in dense stands adjoining the creek banks and the lower alluvial terrace. *Acacia disparrima* (hickory wattle) and *Alphitonia excelsa* (red ash) were also present throughout the mid-storey. The shrub layer is sparse and contains regenerating mid-storey and canopy species.

This community became variable within the northern extent of the Site where the Site has been subject to greater historical disturbance and modification. Similarly, the extent of exotic pest plants increased towards the northern extent of the Site, with dense patches of lantana present. The southern extent of the community was generally intact and contained mature remnant canopy and scattered relict trees.

This is the most complex and valuable habitat within the Site; it supports an intact canopy of large mature trees, dominated by Queensland blue gum. This community occurs as two distinct sub-components: i) remnant / regrowth with a fully-layered forest structure in the southern half of the Site; and, ii) non-remnant canopy over a dense lantana shrub layer in the northern half of the Site.

Regrowth vegetation

Two pockets of dense regrowth occur within the Site. These are confined to the south-eastern corner of the Site (between the riparian areas and Fischer Road) and a strip along the south-western boundary (reflecting Vegetation Community 2 within **Figure 6**). Pre-clear mapping shows the area as RE12.9-10.2. Where open paddock components of the Site transition abruptly into regrowth areas, habitat quality increases; albeit moderately. These habitats have a taller and denser shrub cover (largely dominated by pioneering acacias); however, they lack habitat features such as large woody debris and large canopy trees (emergent trees are rare).

Emergent trees are uncommon to rare and generally limited to road verges and edges of remnant areas. Those sporadic and smaller eucalypts do not flower prolifically and provide a reduced habitat amenity for nectivorous species. Given the lack of flowering trees, these habitats have limited resources to attract nectar feeding species.

Advanced regrowth vegetation over grassy paddocks

A small pocket of advanced regrowth is present in the central south-west of the Site, where trees provide moderate canopy cover (this is represented by Vegetation Community 3 in **Figure 6**). Pre-clear mapping shows the area as RE12.9-10.2. This pocket of vegetation supports limited to no shrub layer due to historical clearing, ongoing management and deleterious impacts from motocross activities. These pockets and other small areas of remnant vegetation along the western boundary of the Site have higher tree density than open paddocks or regrowth and provide better quality resources for conservation significant fauna; however, the quality of resources is still markedly lower than that of the adjoining remnants on lower and alluvial surfaces to the east.

On-site surveys of the Impact Area and their adequacy

Detailed fauna surveys for onsite bird utilisation were completed during early Autumn 2018; however, detailed mapping and generally ecological surveys were undertaken over the early July 2018 period when the onsite Queensland blue gums were in flower[6]. These detailed tree and general ecological surveys also coincided with a period when wintering swift parrots are potentially present within south-east Queensland.

Further, the detailed Bio-condition surveys were also undertaken by two field ecologists over two days during early August in 2020 when Queensland blue gum was also in flower.

Utilisation of the Site by swift parrot

[6] EcoSmart Ecology (2020), further undertook terrestrial vertebrate fauna assessment during 16-20 March 2020.

It is highly unlikely that swift parrots would occur at the site, and if visiting the region would be highly transient through the locality and utilise the larger tracts of intact remnant vegetation associated with State and Regional Corridors (of which the Impact Area is not part), and the larger patches with suitable foraging resources on Brisbane / Bremer River flood plains. Furthermore, given the lack of records for the swift parrot in the vicinity of the Site; the infrequency of records for swift parrots in south-east Queensland; and the negligible impacts of the Proposed Action on regional Queensland blue gum resources, it is concluded that the Proposed Action is unlikely to have direct or indirect impacts on this species.

Additionally, the species is considered unlikely to occur and possible impacts associated with the minor loss of vegetation from the Impact Area will be mitigated by virtue of the retention of the intact mature Queensland blue gum communities within the Linear Park, coupled with the future values gained by onsite regeneration and rehabilitation. These factors suggest additional targeted surveys for this species are unnecessary.

Effects, Avoidance and Mitigation

Terrestrial habitat assessment and Habitat Quality Assessments have identified that the area of greatest habitat integrity relative importance is associated with the riparian corridor. The riparian corridor contains the greatest extent of Queensland blue gum open forest (RE12.3.3) in the Site. It is also noted that the components of Queensland blue gum open forest being retained within the Proposed Action support the highest abundance of large, mature specimens, which provide a more significant foraging resource due to their prolific flowering and consolidated canopy area when compared to the widely scattered regrowth dominated by non-winter flowering species across other areas of the Site, or where not vegetation is present at all (i.e. the majority of the Site).

The development retains the vast majority of this important vegetation, within a linear habitat corridor (Linear Park) of some 12 ha out of a total site area of 37 ha. Retention of this vegetation in the Proposed Development retains a significant proportion of the Queensland blue gums and other winter flowering species. Queensland blue gum supplementary planting will also occur throughout the Linear Corridor as part of restoration works; as well as within the drainage reserves and local park spaces.

The balance of the site, comprising open paddock and regrowth, supports only marginal foraging habitat which is abundant in the broader landscape. For comparison, approximately 12,137 ha of remnant (representing higher quality forage habitat) and 12,514 ha of regrowth vegetation (representing lower quality forage habitat) where Queensland blue gum listed as a dominant or co-dominant canopy species occurs within 30 km of the Site (**Attachment C** and **Figure 2 & 3**). The extent of lost, and lower quality habitat as part of the Proposed Action therefore represents <0.0014% of potential lower quality resources within a 30 km range (noting this is only considering mapped regrowth and remnant vegetation and does not contemplate the significant level urban vegetation through the region.

As such, the Proposed Development will have limited to no impact on the swift parrot, particularly given it is a highly seasonal and transient visitor to the locality and the higher quality vegetation within the Site will be retained and improved. It is noted that this species readily forages and through urban environments during its over-wintering migration.

Significant Impact Assessment

An assessment of the significance of impacts arising from the Proposed Action on the swift parrot has been undertaken against the Significant Impact Guidelines 1.1 - Matters of National Environmental Significance. The 9 criteria relevant to critically endangered and endangered species are considered below.

Criterion 1 – Lead to a Long-term Decrease in the Size of the Population

The proposed works will not lead to a long-term decrease in the size of the swift parrot population in south-east Queensland. The better quality, preferred forage habitat (relatively large specimens of Queensland blue gum) will be retained within a 12 ha linear park and habitat. Further, habitat restoration works will be undertaken within the corridor to enhance the quality and abundance of Queensland blue gum. Given the highly unlikely presence of swift parrots in the immediate locality of the Site, lack of impact to foraging resources and the proposed mitigation measures, the Proposed Action will not lead to a long-term decrease in the size of the population.

Criterion 2 – Reduce the Area of Occupancy

The swift parrot is a very rare visitor to south-east Queensland. It highly unlikely to visit the Site or surrounding areas. When visiting the region, it readily forages in highly urbanised settings as shown in **Figure 4**. Given the species' vagile nature, the vast areas of preferred foraging habitats in the region and the retention of the foraging habitat within the Site, the Proposed Action will not reduce the area of occupancy of the species. Further, habitat restoration works within the area of linear park will ensure that there is no enduring impact (i.e., impacts are mitigated).

Criterion 3 – Fragment an Existing Population

The proposed action would not affect the swift parrot's migratory movements nor will it cause fragmentation to the existing swift parrot population. The swift parrot is a highly mobile migratory species to Southeast Queensland. Actions that cause a disruption to the species' migratory movements (including loss of critical habitat) would cause habitat fragmentation.

Habitats affected by the proposed action do not occur in critical habitats or otherwise important areas for the species. Habitat affected by the proposal have been affected historically by clearing and thinning for agriculture. Although these areas do contain minor levels of winter flowering species, the quality of the habitat is of lesser value than areas of Queensland blue gum open forest retained and enhanced within linear park and that of the regional patches of preferred foraging habitat more frequently visited by transient individuals. The proposed works will not fragment an existing population of the swift parrot.

Criterion 4 – Adversely Affect Habitat Critical to Survival

The Site and in particularly the habitats to be cleared by the Proposed Action do not support habitat critical to the survival of the swift parrot. While the Site itself supports small patches of intact Queensland blue gum, the paucity of records within 10 km of the Site demonstrates the Site and immediate surrounding locality does not support habitat critical to the survival of the swift parrot. Correspondence with Dr Steve Debus (provided in **Attachment D**) affirms this. The lack or records coupled with the retention of the Site's winter flowering vegetation and the proposed rehabilitation works of this vegetation community will retain and improve the Sites foraging habitat for swift parrot.

Further, the vegetation being removed by the Proposed Action which provides winter resource is extremely minor in relation to the migratory forage range of this species in Southeast Queensland, and the habitat restoration works will ensure that there are no enduring impacts (i.e. impacts are mitigated).

Criterion 5 – Disrupt the Breeding Cycle of a Population

Swift parrot breeding occurs in Tasmania. The proposed action will not disrupt the breeding cycle of the swift parrot.

Criterion 6 – Modify etc. Habitat Leading to Species Decline

The Proposed Action will not modify habitats in a way that leads to the species' decline. The swift parrot is a highly infrequent visitor to south-east Queensland, typically visiting specific areas (as noted in the section relating to *Records and Potential Movement into south-east Queensland*). The Proposed Action largely results in the establishment of residential development over areas of cleared paddock, young regrowth with widely scattered mature trees. Vegetation communities to be cleared are largely comprised of species which flower outside of the swift parrots' migratory periods.

The retained areas within the Site (linear alluvial corridor) support consolidated areas of Queensland blue gum (winter flowering resource) while also undertaking ecological restoration works that will establish more of this resource over time. It is also noted, the swift parrot is a highly vagile species which readily forages in urban areas, being adaptable to habitat modification so long as resources remain available in a locality during its migratory periods. As such, the Proposed Action will not result in modifications to habitat that will lead to a decline in the swift parrot population.

Better quality foraging habitat is associated with the waterway corridor, which will be retained in the areas of proposed development. The habitat along the waterway is a recognised Queensland blue gum dominated community containing a large number of mature and veteran Queensland blue gums.

Further, the area of impact is very small in relation to the migratory forage range of this species in south-east Queensland.

Criterion 7 – Result in Invasive Species Becoming Established

The proposed works will not promote the establishment of invasive species in swift parrot habitat. Development will not result in the translocation or incursion of introduced native or exotic invasive species which could out-compete swift parrots for space, resources or which could be a predator of swift parrots.

Retention of the clustered mature Queensland blue gum canopy, coupled with revegetation within the linear corridor will result in the re-establishment (infill planting) of native groundcover, shrub and canopy (i.e. Queensland blue gum). The planting will be entirely comprised of native species, no landscape or exotic species will be used. Certified weed free top-dressing material and mulch will be in the rehabilitation program.

Criterion 8 – Introduce Disease

The proposed works are unlikely to result in the direct introduction of Psittacine Beak and Feather Virus to any swift parrots which may traverse through the site.

Psittacine Beak and Feather Virus (PBFV) is believed to have evolved in Australia and is endemic across all states and territories. Transmission is thought to occur in the nest from parents to nestlings, from other member of the flock, other parrots and occasionally non-parrots.

Disease presents as an immunosuppressive condition with chronic irreversible loss of feathers as well as beak and claw deformities, eventually leading to death.

Criterion 9 – Interfere Substantially with Recovery

The area of vegetation removal is miniscule in relation to the migratory forage range of this species in south-east Queensland and largely comprised of vegetation which does not provide foraging resources

(e.g. cleared paddocks, spotted gum/ ironbark open forest or young regrowth). The proposed works will not cause the swift parrot to decline or interfere with its recovery.

Better quality foraging habitat is associated with the waterway corridor, which will be retained. Lesser quality habitat is associated with the areas of proposed development. The habitat along the waterway is a recognised Queensland blue gum dominated community containing a large number of mature and veteran Queensland blue gums. This will be retained and enhanced by infill planting within degraded areas.

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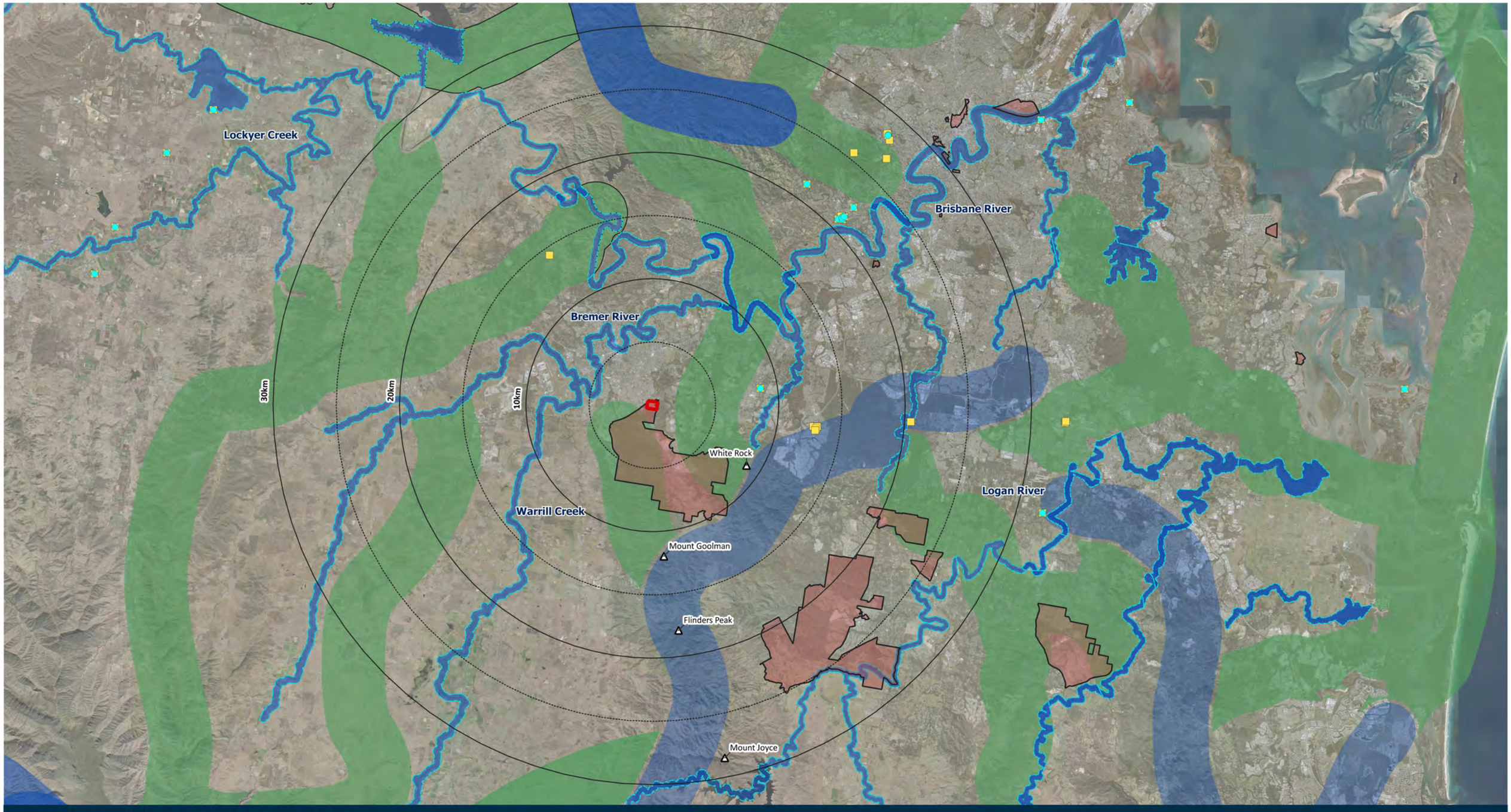
FIGURES



Flinders View Residential Development

Figure 1: Biodiversity Corridors and Swift Parrot Records

28 South Project Ref: 2018-079

Data Sources: Qld Globe (SIPS 2016); Digital Cadastre Database (Dept. Natural Resources and Mines, 2021); Roads (DNRME, 2020); Watercourse (DNRME, 2020); Contours (DNRME 2016).

28ºS ENVIRONMENTAL

Legend

- Impact Site
- ALA records of Swift Parrot Post-1980 Since Last Report
- Wildnet Records of Swift Parrot Post-1980
- Regional Biodiversity Corridors
- State Biodiversity Corridors
- Riparian corridor
- Priority Development Areas

Issue Date	Dwg No.	Author
20 September 2022	2018-079-001	TC
Approved	**Revision Note**	
AD/MT		

(A3) GDA 94 MGA 56

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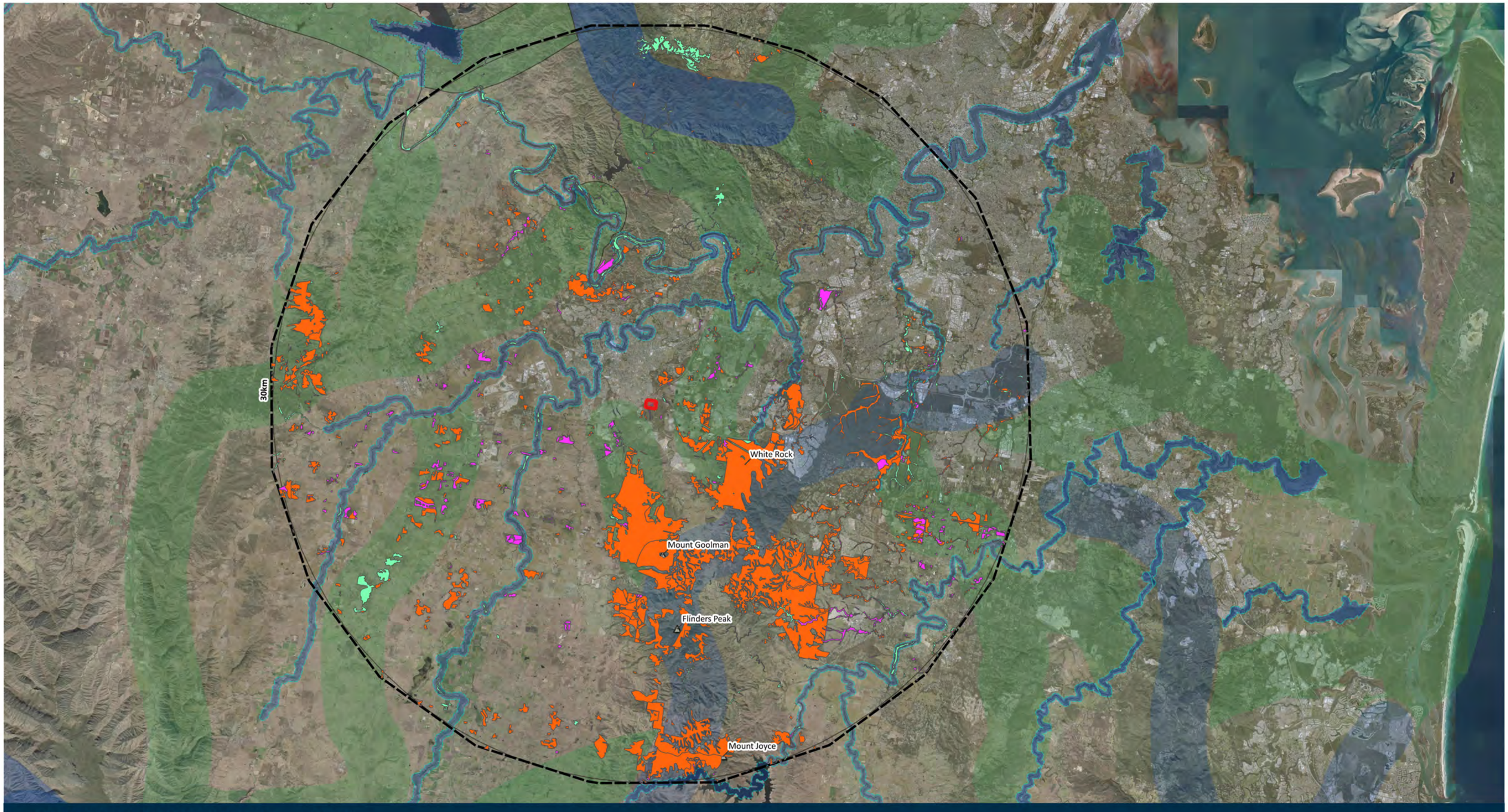

Flinders View, Residential Development

Figure 2: Eucalyptus tereticornis Remnant

28 South Project Ref: 2018-079

Data Sources: Qld Globe (SIPS 2016); Digital Cadastre Database (Dept. Natural Resources and Mines, 2021); Roads (DNRME, 2020); Watercourse (DNRME, 2020); Contours (DNRME 2016).

28ºS ENVIRONMENTAL

Legend

- Impact Site
- Remnant Endangered
- Remnant Least Concern
- Remnant Of Concern
- 30 km Site Radius
- Regional corridor
- State corridor
- Riparian corridor

Issue Date	Dwg No.	Author
20 September 2022	2018-079-003	TC
Approved	**Revision Note**	
AD/MT		

(A3) GDA 94 MGA 56

1:290,000

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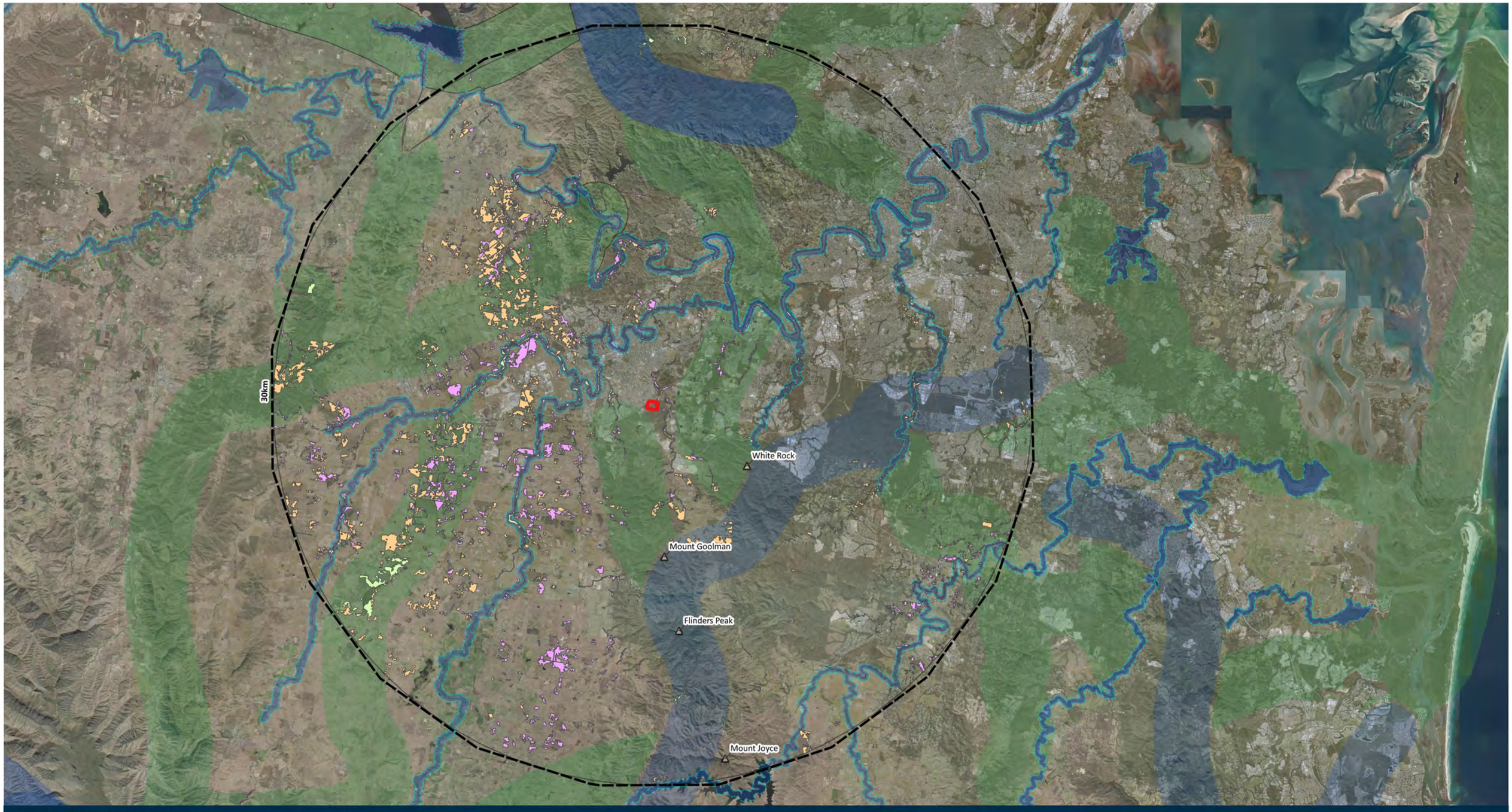

Flinders View, Residential Development

Figure 3: Eucalyptus tereticornis Regrowth

28 South Project Ref: 2018-079

Data Sources: Qld Globe (SIPS 2016); Digital Cadastre Database (Dept. Natural Resources and Mines, 2021); Roads (DNRME, 2020); Watercourse (DNRME, 2020); Contours (DNRME 2016).

28ºS ENVIRONMENTAL

Legend

- Impact Site
- High Value Regrowth Endangered
- High Value Regrowth Least Concern
- High Value Regrowth Of Concern
- 30 km Site Radius
- Regional Corridor
- State Corridor
- Riparian corridor

Issue Date	Dwg No.	Author
20 September 2022	2018-079-002	TC
Approved	**Revision Note**	
AD/MT		

(A3) GDA 94 MGA 56

1:290,000

0 5 10 15 20 km

N

Flinders View Residential Development

Figure 4 - Site Context July 2022

28 South Project Ref: 2018-079

Data Sources: Qld Globe (SIPS 2016); Digital Cadastre Database (Dept. Natural Resources and Mines, 2021); Roads (DNRME, 2020); Watercourse (DNRME, 2020); Contours (DNRME 2016).

28ºS ENVIRONMENTAL

Legend

- Impact Site
- Rail Network
- Watercourses
- Highways

Image Source	Issue Date	Dwg No.	Author
NearMap Aerial (30 July 2022)	14 September 2022	2018-079-004	TC

Approved	Revision Note
AD/MT	

(A3) GDA 94 MGA 56

1:14,000

0 250 500 750 m

N

Flinders View, Residential Development

Figure 5 - Winter/Spring Flowering Trees

28 South Project Ref: 2018-079

Data Sources: Qld Globe (SIPS 2016); Digital Cadastre Database (Dept. Natural Resources and Mines, 2021); Roads (DNRME, 2020); Watercourse (DNRME, 2020); Contours (DNRME 2016).

28ºS ENVIRONMENTAL

Legend

Site Boundary

Contours 5m

Tree Protection Zones

- Corymbia tessellaris (67)
- Eucalyptus crebra (45)
- Eucalyptus siderophloia (68)
- Eucalyptus tereticornis (1555)

Issue Date	Dwg No.	Author
20 September 2022	2018-079-005	TC
Approved	**Revision Note**	
AD/MT		

(A3) GDA 94 MGA 56

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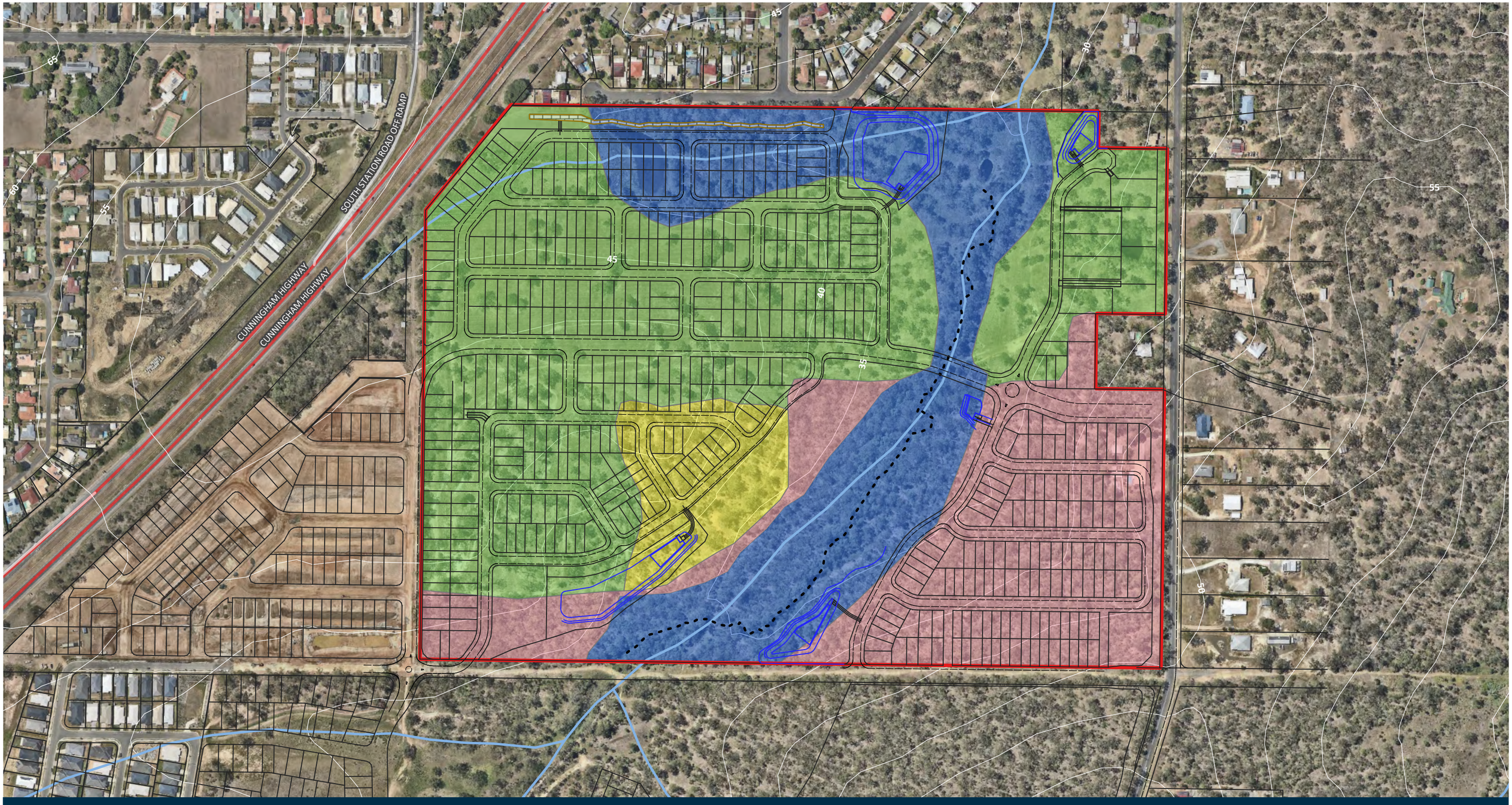

Flinders View Residential Development **Legend**

Figure 6 - Vegetation Communites

28 South Project Ref: 2018-079

Data Sources: Qld Globe (SIPS 2016); Digital Cadastre Database (Dept. Natural Resources and Mines, 2021); Roads (DNRME, 2020); Watercourse (DNRME, 2020); Contours (DNRME 2016).

28ºS ENVIRONMENTAL

- Site Boundary

Ground-truthed Vegetation Communities

- VC1 - Queensland Blue Gum on Alluvial Flats
- VC2 - Regrowth Open Forest on Slopes
- VC3 - Advanced Regrowth Open Forest over exotic grasses
- VC4 - Open Paddocks

- Watercourses in locality
- Highways
- Contours 5m

Issue Date	Dwg No.	Author
20 September 2022	2018-079-006	TC
Approved	**Revision Note**	
AD/MT		

(A3) GDA 94 MGA 56

1:4,000

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N

ATTACHMENT A

Wildlife Online Records

Queensland Government

WildNet species list

Search Criteria: Species List for a Specified Point
Species: Animals
Type: Native
Queensland status: Rare and threatened species
Records: Confirmed
Date: Since 1980
Latitude: -27.6519
Longitude: 152.7895
Distance: 1
Email: andrew@28south.com.au
Date submitted: Thursday 15 Sep 2022 14:46:35
Date extracted: Thursday 15 Sep 2022 14:50:27

The number of records retrieved = 1

Kingdom	Class	Family	Scientific Name	Common Name	I	Q	A	Records
animals	mammals	Phascolarctidae	*Phascolarctos cinereus*	koala		E	E	6

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

WildNet species list

Search Criteria: Species List for a Specified Point
Species: Animals
Type: Native
Queensland status: Rare and threatened species
Records: Confirmed
Date: Since 1980
Latitude: -27.6519
Longitude: 152.7895
Distance: 5
Email: andrew@28south.com.au
Date submitted: Thursday 15 Sep 2022 14:47:18
Date extracted: Thursday 15 Sep 2022 14:50:05

The number of records retrieved = 3

Kingdom	Class	Family	Scientific Name	Common Name	I	Q	A	Records
animals	birds	Apodidae	*Hirundapus caudacutus*	white-throated needletail		V	V	2
animals	birds	Rostratulidae	*Rostratula australis*	Australian painted-snipe		E	E	3
animals	mammals	Phascolarctidae	*Phascolarctos cinereus*	koala		E	E	127

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

WildNet species list

Search Criteria: Species List for a Specified Point
Species: Animals
Type: Native
Queensland status: Rare and threatened species
Records: Confirmed
Date: Since 1980
Latitude: -27.6519
Longitude: 152.7895
Distance: 10
Email: andrew@28south.com.au
Date submitted: Thursday 15 Sep 2022 14:48:14
Date extracted: Thursday 15 Sep 2022 14:50:24

The number of records retrieved = 7

Kingdom	Class	Family	Scientific Name	Common Name	I	Q	A	Records
animals	amphibians	Limnodynastidae	*Adelotus brevis*	tusked frog		V		2
animals	birds	Apodidae	*Hirundapus caudacutus*	white-throated needletail		V	V	3
animals	birds	Cacatuidae	*Calyptorhynchus lathami lathami*	glossy black-cockatoo (eastern)		V	V	11
animals	birds	Rostratulidae	*Rostratula australis*	Australian painted-snipe		E	E	3
animals	birds	Strigidae	*Ninox strenua*	powerful owl		V		12
animals	mammals	Phascolarctidae	*Phascolarctos cinereus*	koala		E	E	716
animals	mammals	Pseudocheiridae	*Petauroides armillatus*	central greater glider		E	E	4

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

WildNet species list

Search Criteria: Species List for a Specified Point
Species: Animals
Type: Native
Queensland status: Rare and threatened species
Records: Confirmed
Date: Since 1980
Latitude: -27.6519
Longitude: 152.7895
Distance: 15
Email: andrew@28south.com.au
Date submitted: Thursday 15 Sep 2022 14:48:34
Date extracted: Thursday 15 Sep 2022 14:50:22

The number of records retrieved = 14

Kingdom	Class	Family	Scientific Name	Common Name	I	Q	A	Records
animals	amphibians	Limnodynastidae	*Adelotus brevis*	tusked frog		V		17
animals	birds	Accipitridae	*Erythrotriorchis radiatus*	red goshawk		E	V	1
animals	birds	Apodidae	*Hirundapus caudacutus*	white-throated needletail		V	V	20
animals	birds	Cacatuidae	*Calyptorhynchus lathami lathami*	glossy black-cockatoo (eastern)		V	V	23
animals	birds	Rostratulidae	*Rostratula australis*	Australian painted-snipe		E	E	3
animals	birds	Scolopacidae	*Calidris ferruginea*	curlew sandpiper		CR	CE	1
animals	birds	Scolopacidae	*Numenius madagascariensis*	eastern curlew		E	CE	1
animals	birds	Strigidae	*Ninox strenua*	powerful owl		V		120
animals	birds	Turnicidae	*Turnix melanogaster*	black-breasted button-quail		V	V	5
animals	mammals	Macropodidae	*Petrogale penicillata*	brush-tailed rock-wallaby		V	V	2
animals	mammals	Petauridae	*Petaurus australis australis*	yellow-bellied glider (southern subspecies)		V	V	1
animals	mammals	Phascolarctidae	*Phascolarctos cinereus*	koala		E	E	1330
animals	mammals	Pseudocheiridae	*Petauroides armillatus*	central greater glider		E	E	4
animals	reptiles	Pygopodidae	*Delma torquata*	collared delma		V	V	4

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

WildNet species list

Search Criteria: Species List for a Specified Point
Species: Animals
Type: Native
Queensland status: Rare and threatened species
Records: Confirmed
Date: Since 1980
Latitude: -27.6519
Longitude: 152.7895
Distance: 20
Email: andrew@28south.com.au
Date submitted: Thursday 15 Sep 2022 14:48:52
Date extracted: Thursday 15 Sep 2022 14:50:02

The number of records retrieved = 20

Kingdom	Class	Family	Scientific Name	Common Name	I	Q	A	Records
animals	amphibians	Limnodynastidae	*Adelotus brevis*	tusked frog		V		76
animals	birds	Accipitridae	*Erythrotriorchis radiatus*	red goshawk		E	V	2
animals	birds	Apodidae	*Hirundapus caudacutus*	white-throated needletail		V	V	30
animals	birds	Burhinidae	*Esacus magnirostris*	beach stone-curlew		V		18
animals	birds	Cacatuidae	*Calyptorhynchus lathami lathami*	glossy black-cockatoo (eastern)		V	V	26
animals	birds	Cacatuidae	*Lophochroa leadbeateri*	Major Mitchell's cockatoo		V		3
animals	birds	Phaethontidae	*Phaethon rubricauda*	red-tailed tropicbird		V		1/1
animals	birds	Psittacidae	*Lathamus discolor*	swift parrot		E	CE	9
animals	birds	Rostratulidae	*Rostratula australis*	Australian painted-snipe		E	E	3
animals	birds	Scolopacidae	*Calidris ferruginea*	curlew sandpiper		CR	CE	1
animals	birds	Scolopacidae	*Numenius madagascariensis*	eastern curlew		E	CE	19
animals	birds	Strigidae	*Ninox strenua*	powerful owl		V		228
animals	birds	Turnicidae	*Turnix melanogaster*	black-breasted button-quail		V	V	8
animals	malacostracans	Parastacidae	*Cherax robustus*			V		1
animals	mammals	Macropodidae	*Petrogale penicillata*	brush-tailed rock-wallaby		V	V	13
animals	mammals	Petauridae	*Petaurus australis australis*	yellow-bellied glider (southern subspecies)		V	V	3
animals	mammals	Phascolarctidae	*Phascolarctos cinereus*	koala		E	E	2398
animals	mammals	Pseudocheiridae	*Petauroides armillatus*	central greater glider		E	E	11/1
animals	reptiles	Pygopodidae	*Delma torquata*	collared delma		V	V	5
animals	reptiles	Typhlopidae	*Anilios insperatus*	Fassifern blind snake		CR		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

WildNet species list

Search Criteria: Species List for a Specified Point
Species: Animals
Type: Native
Queensland status: Rare and threatened species
Records: Confirmed
Date: Since 1980
Latitude: -27.6519
Longitude: 152.7895
Distance: 25
Email: andrew@28south.com.au
Date submitted: Thursday 15 Sep 2022 14:49:15
Date extracted: Thursday 15 Sep 2022 14:50:07

The number of records retrieved = 27

Kingdom	Class	Family	Scientific Name	Common Name	I	Q	A	Records
animals	amphibians	Hylidae	*Litoria pearsoniana*	cascade treefrog		V		12
animals	amphibians	Limnodynastidae	*Adelotus brevis*	tusked frog		V		192
animals	amphibians	Myobatrachidae	*Crinia tinnula*	wallum froglet		V		2
animals	birds	Accipitridae	*Erythrotriorchis radiatus*	red goshawk		E	V	2
animals	birds	Apodidae	*Hirundapus caudacutus*	white-throated needletail		V	V	35
animals	birds	Burhinidae	*Esacus magnirostris*	beach stone-curlew		V		18
animals	birds	Cacatuidae	*Calyptorhynchus lathami lathami*	glossy black-cockatoo (eastern)		V	V	26
animals	birds	Cacatuidae	*Lophochroa leadbeateri*	Major Mitchell's cockatoo		V		4
animals	birds	Charadriidae	*Charadrius mongolus*	lesser sand plover		E	E	1
animals	birds	Phaethontidae	*Phaethon rubricauda*	red-tailed tropicbird		V		1/1
animals	birds	Psittacidae	*Lathamus discolor*	swift parrot		E	CE	12
animals	birds	Rostratulidae	*Rostratula australis*	Australian painted-snipe		E	E	3
animals	birds	Scolopacidae	*Calidris ferruginea*	curlew sandpiper		CR	CE	1
animals	birds	Scolopacidae	*Numenius madagascariensis*	eastern curlew		E	CE	19
animals	birds	Strigidae	*Ninox strenua*	powerful owl		V		315/1
animals	birds	Turnicidae	*Turnix melanogaster*	black-breasted button-quail		V	V	8
animals	insects	Papilionidae	*Ornithoptera richmondia*	Richmond birdwing		V		1
animals	malacostracans	Parastacidae	*Cherax robustus*			V		1
animals	mammals	Dasyuridae	*Dasyurus maculatus maculatus*	spotted-tailed quoll (southern subspecies)		E	E	1
animals	mammals	Macropodidae	*Petrogale penicillata*	brush-tailed rock-wallaby		V	V	15
animals	mammals	Petauridae	*Petaurus australis australis*	yellow-bellied glider (southern subspecies)		V	V	4
animals	mammals	Phascolarctidae	*Phascolarctos cinereus*	koala		E	E	2730
animals	mammals	Potoroidae	*Potorous tridactylus tridactylus*	long-nosed potoroo		V	V	1
animals	mammals	Pseudocheiridae	*Petauroides armillatus*	central greater glider		E	E	12/1
animals	reptiles	Elapidae	*Acanthophis antarcticus*	common death adder		V		1
animals	reptiles	Pygopodidae	*Delma torquata*	collared delma		V	V	5
animals	reptiles	Typhlopidae	*Anilios insperatus*	Fassifern blind snake		CR		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

WildNet species list

Search Criteria: Species List for a Specified Point
Species: Animals
Type: Native
Queensland status: Rare and threatened species
Records: Confirmed
Date: Since 1980
Latitude: -27.6519
Longitude: 152.7895
Distance: 30
Email: andrew@28south.com.au
Date submitted: Thursday 15 Sep 2022 14:49:32
Date extracted: Thursday 15 Sep 2022 14:50:19

The number of records retrieved = 31

Kingdom	Class	Family	Scientific Name	Common Name	I	Q	A	Records
animals	amphibians	Hylidae	*Litoria pearsoniana*	cascade treefrog		V		14
animals	amphibians	Limnodynastidae	*Adelotus brevis*	tusked frog		V		235
animals	amphibians	Myobatrachidae	*Crinia tinnula*	wallum froglet		V		9/3
animals	birds	Accipitridae	*Erythrotriorchis radiatus*	red goshawk		E	V	3
animals	birds	Apodidae	*Hirundapus caudacutus*	white-throated needletail		V	V	46
animals	birds	Burhinidae	*Esacus magnirostris*	beach stone-curlew		V		18
animals	birds	Cacatuidae	*Calyptorhynchus lathami*	glossy black-cockatoo		V		1
animals	birds	Cacatuidae	*Calyptorhynchus lathami lathami*	glossy black-cockatoo (eastern)		V	V	38
animals	birds	Cacatuidae	*Lophochroa leadbeateri*	Major Mitchell's cockatoo		V		4
animals	birds	Charadriidae	*Charadrius mongolus*	lesser sand plover		E	E	2
animals	birds	Columbidae	*Geophaps scripta scripta*	squatter pigeon (southern subspecies)		V	V	1
animals	birds	Phaethontidae	*Phaethon rubricauda*	red-tailed tropicbird		V		1/1
animals	birds	Podargidae	*Podargus ocellatus plumiferus*	plumed frogmouth		V		1
animals	birds	Psittacidae	*Lathamus discolor*	swift parrot		E	CE	12
animals	birds	Rostratulidae	*Rostratula australis*	Australian painted-snipe		E	E	4
animals	birds	Scolopacidae	*Calidris ferruginea*	curlew sandpiper		CR	CE	10
animals	birds	Scolopacidae	*Numenius madagascariensis*	eastern curlew		E	CE	22
animals	birds	Strigidae	*Ninox strenua*	powerful owl		V		455/1
animals	birds	Turnicidae	*Turnix melanogaster*	black-breasted button-quail		V	V	9
animals	insects	Papilionidae	*Ornithoptera richmondia*	Richmond birdwing		V		1
animals	malacostracans	Parastacidae	*Cherax robustus*			V		1
animals	mammals	Dasyuridae	*Dasyurus maculatus maculatus*	spotted-tailed quoll (southern subspecies)		E	E	1
animals	mammals	Macropodidae	*Petrogale penicillata*	brush-tailed rock-wallaby		V	V	15
animals	mammals	Petauridae	*Petaurus australis australis*	yellow-bellied glider (southern subspecies)		V	V	5
animals	mammals	Phascolarctidae	*Phascolarctos cinereus*	koala		E	E	3607
animals	mammals	Potoroidae	*Potorous tridactylus tridactylus*	long-nosed potoroo		V	V	1
animals	mammals	Pseudocheiridae	*Petauroides armillatus*	central greater glider		E	E	25/1
animals	reptiles	Elapidae	*Acanthophis antarcticus*	common death adder		V		1
animals	reptiles	Elapidae	*Hemiaspis damelii*	grey snake		E		2
animals	reptiles	Pygopodidae	*Delma torquata*	collared delma		V	V	5
animals	reptiles	Typhlopidae	*Anilios insperatus*	Fassifern blind snake		CR		1/1

CODES

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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).

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This number is output as 999 if it equals or exceeds this value.

ATTACHMENT B

Atlas of Living Australia Swift Parrot Records

species	vernacular	year	month	day	Locality	Location	decimalLat	decimalLon	geodeticDa	coordinate	identifi_3	occurrence
Lathamus discolor	Swift Parrot	2019	6	30	Ipswich	Spring Lake Springfield	-27.66722	152.91861	EPSG:4326			URN:catalog:CLO:EBIRD:OBS1151378810
Lathamus discolor	Swift Parrot	2002	6	10	Brisbane	Mt Coot-tha Botanic Gardens	-27.476044	152.97731	EPSG:4326			URN:catalog:CLO:EBIRD:OBS163545844
Lathamus discolor	Swift Parrot	2004	7	2	Brisbane	Glen Frew St, Kenmore	-27.517141	152.94101	EPSG:4326			URN:catalog:CLO:EBIRD:OBS206497989
Lathamus discolor	Swift Parrot	2002	6	10	Brisbane	Mt Coot-tha Reserve	-27.47186	152.95122	EPSG:4326			URN:catalog:CLO:EBIRD:OBS226518225
Lathamus discolor	Swift Parrot	2012	7	29	Ipswich	Pine Mountain Bush Reserve	-27.544683	152.70726	EPSG:4326			URN:catalog:CLO:EBIRD:OBS266306045
Lathamus discolor	Swift Parrot	2014	8	5	Logan	Gould Adams Park (Kingston)	-27.663637	153.12108	EPSG:4326			URN:catalog:CLO:EBIRD:OBS266419772
Lathamus discolor	Swift Parrot	2014	8	7	Logan	Gould Adams Park (Kingston)	-27.663637	153.12108	EPSG:4326			URN:catalog:CLO:EBIRD:OBS266685755
Lathamus discolor	Swift Parrot	2014	8	12	Logan	Gould Adams Park (Kingston)	-27.663637	153.12108	EPSG:4326			URN:catalog:CLO:EBIRD:OBS267333859
Lathamus discolor	Swift Parrot	2014	8	17	Logan	Gould Adams Park (Kingston)	-27.664469	153.12054	EPSG:4326			URN:catalog:CLO:EBIRD:OBS267983333
Lathamus discolor	Swift Parrot	2014	8	17	Logan	Gould Adams Park (Kingston)	-27.664469	153.12054	EPSG:4326			URN:catalog:CLO:EBIRD:OBS268049635
Lathamus discolor	Swift Parrot	2014	8	17	Logan	Gould Adams Park (Kingston)	-27.663637	153.12108	EPSG:4326			URN:catalog:CLO:EBIRD:OBS268449382
Lathamus discolor	Swift Parrot	2014	8	10	Logan	Gould Adams Park (Kingston)	-27.663637	153.12108	EPSG:4326			URN:catalog:CLO:EBIRD:OBS268489379
Lathamus discolor	Swift Parrot	2014	9	2	Logan	Gould Adams Park (Kingston)	-27.663637	153.12108	EPSG:4326			URN:catalog:CLO:EBIRD:OBS306445106
Lathamus discolor	Swift Parrot	2014	9	7	Logan	Gould Adams Park (Kingston)	-27.663637	153.12108	EPSG:4326			URN:catalog:CLO:EBIRD:OBS421447403
Lathamus discolor	Swift Parrot	2014	9	7	Logan	Gould Adams Park (Kingston)	-27.663637	153.12108	EPSG:4326			URN:catalog:CLO:EBIRD:OBS421606142
Lathamus discolor	Swift Parrot	2014	8	8	Logan	Gould Adams Park (Kingston)	-27.663637	153.12108	EPSG:4326			URN:catalog:CLO:EBIRD:OBS443214133
Lathamus discolor	Swift Parrot	2014	8	10	Logan	Gould Adams Park (Kingston)	-27.663637	153.12108	EPSG:4326			URN:catalog:CLO:EBIRD:OBS558292739
Lathamus discolor	Swift Parrot	2002	7	13	Brisbane	Bowman Park (Bardon)	-27.45813	152.97803	EPSG:4326			URN:catalog:CLO:EBIRD:OBS575458834
Lathamus discolor	Swift Parrot	2002	7	13	Brisbane	Bowman Park (Bardon)	-27.45813	152.97803	EPSG:4326			URN:catalog:CLO:EBIRD:OBS575495369
Lathamus discolor	Swift Parrot	2014	8	28	Logan	Brisbane Kingston Scrubby Creek Gould Adams Park	-27.663622	153.1208	EPSG:4326			URN:catalog:CLO:EBIRD:OBS632119335
Lathamus discolor	Swift Parrot	2019	6	30	Ipswich	Lakeside Avenue Park (Springfield Lakes)	-27.667343	152.92172	EPSG:4326			URN:catalog:CLO:EBIRD:OBS780394124
Lathamus discolor	Swift Parrot	2019	6	30	Ipswich	Lakeside Avenue Park (Springfield Lakes)	-27.667343	152.92172	EPSG:4326			URN:catalog:CLO:EBIRD:OBS780396509
Lathamus discolor	Swift Parrot	2019	6	30	Ipswich	3 Spring Avenue, Springfield Lakes AU-QLD (-27.6685,152.9207)	-27.66854	152.92068	EPSG:4326			URN:catalog:CLO:EBIRD:OBS780397063
Lathamus discolor	Swift Parrot	2019	6	30	Ipswich	Spring Lake Springfield	-27.66722	152.91861	EPSG:4326			URN:catalog:CLO:EBIRD:OBS780419843
Lathamus discolor	Swift Parrot	2019	6	30	Ipswich	Spring Lake Springfield	-27.66722	152.91861	EPSG:4326			URN:catalog:CLO:EBIRD:OBS780752711
Lathamus discolor	Swift Parrot	2019	6	30	Ipswich	Spring Lake Springfield	-27.66722	152.91861	EPSG:4326			URN:catalog:CLO:EBIRD:OBS780798053
Lathamus discolor	Swift Parrot	2014	8	12	Logan	Gould Adams Park (Kingston)	-27.663637	153.12108	EPSG:4326			URN:catalog:CLO:EBIRD_AU:OBS1161839774
Lathamus discolor	Swift Parrot	2014	8	10	Logan	Gould Adams Park (Kingston)	-27.663637	153.12108	EPSG:4326			URN:catalog:CLO:EBIRD_AU:OBS1224471766
Lathamus discolor	Swift Parrot	2002	6	15	Brisbane	Bardon	-27.46296	152.97972	EPSG:4326			URN:catalog:CLO:EBIRD_AU:OBS228845150
Lathamus discolor	Swift Parrot	2014	8	4	Logan	Gould Adams Park (Kingston)	-27.663637	153.12108	EPSG:4326			URN:catalog:CLO:EBIRD_AU:OBS266285594
Lathamus discolor	Swift Parrot	2014	8	5	Logan	Gould Adams Park (Kingston)	-27.663637	153.12108	EPSG:4326			URN:catalog:CLO:EBIRD_AU:OBS266436888
Lathamus discolor	Swift Parrot	2014	8	5	Logan	Gould Adams Park (Kingston)	-27.663637	153.12108	EPSG:4326			URN:catalog:CLO:EBIRD_AU:OBS266442164
Lathamus discolor	Swift Parrot	2014	8	7	Logan	Gould Adams Park (Kingston)	-27.663637	153.12108	EPSG:4326			URN:catalog:CLO:EBIRD_AU:OBS266683218
Lathamus discolor	Swift Parrot	2014	8	7	Logan	Gould Adams Park (Kingston)	-27.663637	153.12108	EPSG:4326			URN:catalog:CLO:EBIRD_AU:OBS266688824
Lathamus discolor	Swift Parrot	2014	8	7	Logan	Gould Adams Park (Kingston)	-27.663637	153.12108	EPSG:4326			URN:catalog:CLO:EBIRD_AU:OBS266788404
Lathamus discolor	Swift Parrot	2014	8	7	Logan	Gould Adams Park (Kingston)	-27.663637	153.12108	EPSG:4326			URN:catalog:CLO:EBIRD_AU:OBS266800629
Lathamus discolor	Swift Parrot	2014	8	9	Logan	Gould Adams Park (Kingston)	-27.663637	153.12108	EPSG:4326			URN:catalog:CLO:EBIRD_AU:OBS266891915
Lathamus discolor	Swift Parrot	2014	8	9	Logan	Gould Adams Park (Kingston)	-27.663637	153.12108	EPSG:4326			URN:catalog:CLO:EBIRD_AU:OBS266892118
Lathamus discolor	Swift Parrot	2014	8	9	Logan	Gould Adams Park (Kingston)	-27.663637	153.12108	EPSG:4326			URN:catalog:CLO:EBIRD_AU:OBS266911529
Lathamus discolor	Swift Parrot	2014	8	9	Logan	Gould Adams Park (Kingston)	-27.663637	153.12108	EPSG:4326			URN:catalog:CLO:EBIRD_AU:OBS266914217
Lathamus discolor	Swift Parrot	2014	8	10	Logan	Gould Adams Park (Kingston)	-27.663637	153.12108	EPSG:4326			URN:catalog:CLO:EBIRD_AU:OBS267042935
Lathamus discolor	Swift Parrot	2014	8	7	Logan	Gould Adams Park (Kingston)	-27.663637	153.12108	EPSG:4326			URN:catalog:CLO:EBIRD_AU:OBS267132726
Lathamus discolor	Swift Parrot	2014	8	11	Logan	Gould Adams Park (Kingston)	-27.663637	153.12108	EPSG:4326			URN:catalog:CLO:EBIRD_AU:OBS267170856
Lathamus discolor	Swift Parrot	2014	8	10	Logan	Gould Adams Park (Kingston)	-27.663637	153.12108	EPSG:4326			URN:catalog:CLO:EBIRD_AU:OBS267433419
Lathamus discolor	Swift Parrot	2014	8	17	Logan	Gould Adams Park (Kingston)	-27.663637	153.12108	EPSG:4326			URN:catalog:CLO:EBIRD_AU:OBS268145180
Lathamus discolor	Swift Parrot	2014	8	7	Logan	Gould Adams Park (Kingston)	-27.663637	153.12108	EPSG:4326			URN:catalog:CLO:EBIRD_AU:OBS268380583
Lathamus discolor	Swift Parrot	2014	8	10	Logan	Gould Adams Park (Kingston)	-27.663637	153.12108	EPSG:4326			URN:catalog:CLO:EBIRD_AU:OBS268387472
Lathamus discolor	Swift Parrot	2014	8	9	Logan	Gould Adams Park (Kingston)	-27.663637	153.12108	EPSG:4326			URN:catalog:CLO:EBIRD_AU:OBS268437519
Lathamus discolor	Swift Parrot	2014	8	7	Logan	Gould Adams Park (Kingston)	-27.663637	153.12108	EPSG:4326			URN:catalog:CLO:EBIRD_AU:OBS268439661
Lathamus discolor	Swift Parrot	2014	8	21	Logan	Gould Adams Park (Kingston)	-27.663637	153.12108	EPSG:4326			URN:catalog:CLO:EBIRD_AU:OBS268691111
Lathamus discolor	Swift Parrot	2014	8	5	Logan	Gould Adams Park (Kingston)	-27.663637	153.12108	EPSG:4326			URN:catalog:CLO:EBIRD_AU:OBS268691392
Lathamus discolor	Swift Parrot	2014	8	12	Logan	Gould Adams Park (Kingston)	-27.663637	153.12108	EPSG:4326			URN:catalog:CLO:EBIRD_AU:OBS269351031
Lathamus discolor	Swift Parrot	2014	8	10	Logan	Gould Adams Park (Kingston)	-27.663637	153.12108	EPSG:4326			URN:catalog:CLO:EBIRD_AU:OBS269468413
Lathamus discolor	Swift Parrot	2014	8	31	Logan	Gould Adams Park (Kingston)	-27.663637	153.12108	EPSG:4326			URN:catalog:CLO:EBIRD_AU:OBS269729567
Lathamus discolor	Swift Parrot	2014	8	24	Logan	Gould Adams Park (Kingston)	-27.663637	153.12108	EPSG:4326			URN:catalog:CLO:EBIRD_AU:OBS269881258
Lathamus discolor	Swift Parrot	2014	9	2	Logan	Gould Adams Park (Kingston)	-27.663637	153.12108	EPSG:4326			URN:catalog:CLO:EBIRD_AU:OBS270061076
Lathamus discolor	Swift Parrot	2014	9	3	Logan	Gould Adams Park (Kingston)	-27.663637	153.12108	EPSG:4326			URN:catalog:CLO:EBIRD_AU:OBS270571480
Lathamus discolor	Swift Parrot	2014	8	24	Logan	Gould Adams Park (Kingston)	-27.663637	153.12108	EPSG:4326			URN:catalog:CLO:EBIRD_AU:OBS295722860
Lathamus discolor	Swift Parrot	2014	8	25	Logan	Gould Adams Park (Kingston)	-27.663637	153.12108	EPSG:4326			URN:catalog:CLO:EBIRD_AU:OBS302727465
Lathamus discolor	Swift Parrot	2014	8	8	Logan	Gould Adams Park (Kingston)	-27.663637	153.12108	EPSG:4326			URN:catalog:CLO:EBIRD_AU:OBS398770521
Lathamus discolor	Swift Parrot	2014	8	8	Logan	Gould Adams Park (Kingston)	-27.663637	153.12108	EPSG:4326			URN:catalog:CLO:EBIRD_AU:OBS560229734
Lathamus discolor	Swift Parrot	2019	6	30	Ipswich	Lakeside Avenue Park (Springfield Lakes)	-27.667343	152.92172	EPSG:4326			URN:catalog:CLO:EBIRD_AU:OBS780354582
Lathamus discolor	Swift Parrot	2019	6	30	Ipswich	Lakeside Avenue Park (Springfield Lakes)	-27.667343	152.92172	EPSG:4326			URN:catalog:CLO:EBIRD_AU:OBS780384977
Lathamus discolor	Swift Parrot	2019	6	30	Ipswich	Lakeside Avenue Park (Springfield Lakes)	-27.667343	152.92172	EPSG:4326			URN:catalog:CLO:EBIRD_AU:OBS780387382
Lathamus discolor	Swift Parrot	2019	6	30	Ipswich	Spring Lake Springfield	-27.66722	152.91861	EPSG:4326			URN:catalog:CLO:EBIRD_AU:OBS780402509
Lathamus discolor	Swift Parrot	2019	6	30	Ipswich	Lakeside Avenue Park (Springfield Lakes)	-27.667343	152.92172	EPSG:4326			URN:catalog:CLO:EBIRD_AU:OBS780412142
Lathamus discolor	Swift Parrot	2019	6	30	Ipswich	Lakeside Avenue Park (Springfield Lakes)	-27.667343	152.92172	EPSG:4326			URN:catalog:CLO:EBIRD_AU:OBS780678183
Lathamus discolor	Swift Parrot	2019	6	30		locality withheld	-27.67000002	152.92	EPSG:4326	50		urn:catalog:NSW Dept of Planning, Industry and Environment:BioNet Atlas of NSW Wildlife:SJJSI1122845
Lathamus discolor	Swift Parrot	2019	6	30		locality withheld	-27.67000002	152.92	EPSG:4326	50		urn:catalog:NSW Dept of Planning, Industry and Environment:BioNet Atlas of NSW Wildlife:SJJSI1122846
Lathamus discolor	Swift Parrot	2019	6	30		locality withheld	-27.67000002	152.92	EPSG:4326	50		urn:catalog:NSW Dept of Planning, Industry and Environment:BioNet Atlas of NSW Wildlife:SJJSI1122847
Lathamus discolor	Swift Parrot	2019	6	30		locality withheld	-27.67000002	152.92	EPSG:4326	50		urn:catalog:NSW Dept of Planning, Industry and Environment:BioNet Atlas of NSW Wildlife:SJJSI1122848
Lathamus discolor	Swift Parrot	2019	6	30		locality withheld	-27.67000002	152.92	EPSG:4326	50		urn:catalog:NSW Dept of Planning, Industry and Environment:BioNet Atlas of NSW Wildlife:SJJSI1122849
Lathamus discolor	Swift Parrot	2019	6	30		locality withheld	-27.67000002	152.92	EPSG:4326	50		urn:catalog:NSW Dept of Planning, Industry and Environment:BioNet Atlas of NSW Wildlife:SJJSI1122850
Lathamus discolor	Swift Parrot	2019	6	30		locality withheld	-27.67000002	152.92	EPSG:4326	50		urn:catalog:NSW Dept of Planning, Industry and Environment:BioNet Atlas of NSW Wildlife:SJJSI1122851
Lathamus discolor	Swift Parrot	2019	6	30		locality withheld	-27.67000002	152.92	EPSG:4326	50		urn:catalog:NSW Dept of Planning, Industry and Environment:BioNet Atlas of NSW Wildlife:SJJSI1122852
Lathamus discolor	Swift Parrot	1991	5	25		jones road, bellbird park	-27.640071	152.87607	EPSG:4326	1300	Unconfirmed	urn:catalog:QGov:DES:WildNet:1005011
Lathamus discolor	Swift Parrot	1983	6	3		Wynnum	-27.435903	153.171897	EPSG:4326	1800	Unconfirmed	urn:catalog:QGov:DES:WildNet:2462582
Lathamus discolor	Swift Parrot	1987	6	26		Queensport, Brisbane	-27.448403	153.101065	EPSG:4326	1800	Unconfirmed	urn:catalog:QGov:DES:WildNet:2463653
Lathamus discolor	Swift Parrot	1992	6	19		Brookfield	-27.494238	152.913568	EPSG:4326	1800	Unconfirmed	urn:catalog:QGov:DES:WildNet:2465160
Lathamus discolor	Swift Parrot	1992	7	8		Kenmore	-27.519238	152.938568	EPSG:4326	1800	Unconfirmed	urn:catalog:QGov:DES:WildNet:2465164
Lathamus discolor	Swift Parrot	1983	5	15		Atkinson's Dam	-27.440075	152.438576	EPSG:4326	1800	Unconfirmed	urn:catalog:QGov:DES:WildNet:2466690
Lathamus discolor	Swift Parrot	1983	6	3		Wynnum	-27.435903	153.171897	EPSG:4326	1800	Unconfirmed	urn:catalog:QGov:DES:WildNet:2466691
Lathamus discolor	Swift Parrot	1987	6	26		Queensport, Brisbane	-27.448403	153.101065	EPSG:4326	1800	Unconfirmed	urn:catalog:QGov:DES:WildNet:2468385
Lathamus discolor	Swift Parrot	1988	1	1		Dawsons, Logan Reserve area	-27.728958	153.102456	EPSG:4326	450	Unconfirmed	urn:catalog:QGov:DES:WildNet:3660885
Lathamus discolor	Swift Parrot	1990	1	1		Lake Clarendon-Atkinsons Lagoon area, Lockyer Valley	-27.47063	152.401077	EPSG:4326	7000	Unconfirmed	urn:catalog:QGov:DES:WildNet:3670664
Lathamus discolor	Swift Parrot	2002	7	10		Bowman Park, Bardon	-27.459167	152.978611	EPSG:4326	100	Unconfirmed	urn:catalog:QGov:DES:WildNet:3984704
Lathamus discolor	Swift Parrot	2002	6	8		Bowman Park, adjacent to David Avenue, Bardon, SEQ.	-27.459558	152.978541	EPSG:4326	100	Verified	urn:catalog:QGov:DES:WildNet:4981688

species	vernacular	year	month	day	Locality	Location	decimalLat	decimalLon	geodeticDa	coordinate	identifi_3	occurrence
Lathamus discolor	Swift Parrot	2002	7	14		Bowman Park, corner of Chiswick Road and Cecil Road, Bardon, SEQ.	-27.459558	152.978541	EPSG:4326	100	Verified	urn:catalog:QGov:DES:WildNet:4981695
Lathamus discolor	Swift Parrot	2004	6	10		10 Strathspey Street, Kenmore, SEQ.	-27.518447	152.941792	EPSG:4326	50	Verified	urn:catalog:QGov:DES:WildNet:4981700
Lathamus discolor	Swift Parrot	2004	6	10		Kenmore South State School, at oval and adjacent Actiivities Hall and Preschool, Kenmore, SEQ.	-27.517558	152.943403	EPSG:4326	100	Verified	urn:catalog:QGov:DES:WildNet:4981701
Lathamus discolor	Swift Parrot	2004	6	12		Eastern end of Glen Frew Street, at corner of St David Street, Kenmore, SEQ.	-27.517391	152.942347	EPSG:4326	50	Verified	urn:catalog:QGov:DES:WildNet:4981706
Lathamus discolor	Swift Parrot	2004	6	13		Kenmore South State School, at oval and adjacent Actiivities Hall and Preschool, Kenmore, SEQ.	-27.517558	152.943403	EPSG:4326	100	Verified	urn:catalog:QGov:DES:WildNet:4981707
Lathamus discolor	Swift Parrot	2007	6	3		Kersley Road, about 100m from intersection with Kenmore Road, Kenmore, SEQ.	-27.519639	152.941917	EPSG:4326	50	Verified	urn:catalog:QGov:DES:WildNet:4981708
Lathamus discolor	Swift Parrot	2002	6	21		Kersley Road, about 100m from intersection with Kenmore Road, Kenmore, SEQ.	-27.519639	152.941917	EPSG:4326	50	Verified	urn:catalog:QGov:DES:WildNet:4981721
Lathamus discolor	Swift Parrot	2002	7	10		10 Strathspey Street, Kenmore, SEQ.	-27.518447	152.941792	EPSG:4326	50	Verified	urn:catalog:QGov:DES:WildNet:4981723
Lathamus discolor	Swift Parrot	2002	6	15		Kenmore South State School, at oval and adjacent Actiivities Hall and Preschool, Kenmore, SEQ.	-27.517558	152.943403	EPSG:4326	100	Verified	urn:catalog:QGov:DES:WildNet:4981724
Lathamus discolor	Swift Parrot	2017	6	3		45 Akuna Street, Kenmore, SEQ.	-27.510889	152.950944	EPSG:4326	50	Confirmed	urn:catalog:QGov:DES:WildNet:6553530
Lathamus discolor	Swift Parrot	1992	6	20		LAKE CLARENDON, NEAR DAM WALL.	-27.523408	152.359411	EPSG:4326	1300	Unconfirmed	urn:catalog:QGov:DES:WildNet:903729
Lathamus discolor	Swift Parrot	1994	7	27		University of Qld - Gatton campus	-27.556742	152.342745	EPSG:4326	1300	Unconfirmed	urn:catalog:QGov:DES:WildNet:951959
Lathamus discolor	Swift Parrot	2010	6	6		3 flew from the road side of Greenwood Lakes across the road into the GMTA	-27.66391702	152.996721	EPSG:4326	250		
Lathamus discolor	Swift Parrot	2014	8	29		In a tall Gum-topped Box along the creek to the west of the carpark at Gould Adams Park	-27.66363802	153.121073	EPSG:4326	100		

ATTACHMENT C

Remnant and Regrowth REs where
Queensland Blue Gum is dominant or subdominant

Table C-1: Extent of remnant REs with Queensland blue gum as a dominant or sub-dominant canopy species

RE	Short description	Extent (ha)
12.3.3	*Eucalyptus tereticornis* woodland on Quaternary alluvium	1,228.16
12.3.6	*Melaleuca quinquenervia* +/- *Eucalyptus tereticornis, Lophostemon suaveolens, Corymbia intermedia* open forest on coastal alluvial plains	505.24
12.3.7	*Eucalyptus tereticornis, Casuarina cunninghamiana* subsp. *cunninghamiana* +/- *Melaleuca* spp. fringing woodland	2,244.42
12.3.11	*Eucalyptus tereticornis* +/- *Eucalyptus siderophloia, Corymbia intermedia* open forest on alluvial plains usually near coast	1,655.27
12.3.19	*Eucalyptus moluccana* and/or *Eucalyptus tereticornis* and *E. crebra* open forest to woodland, with a sparse to mid-dense understorey of Melaleuca irbyana on alluvial plains	195.46
12.3.20	*Melaleuca quinquenervia, Casuarina glauca* +/- Eucalyptus tereticornis, E. siderophloia open forest on low coastal alluvial plains	10.40
12.5.2	*Corymbia intermedia, Eucalyptus tereticornis* open forest on remnant Tertiary surfaces, usually near coast. Usually, deep red soils	47.00
12.8.14	*Eucalyptus eugenioides, E. biturbinata, E. melliodora* +/- *E. tereticornis*, Corymbia intermedia open forest on Cainozoic igneous rocks	3.27
12.8.16	*Eucalyptus crebra* +/- *E. melliodora, E. tereticornis* woodland on Cainozoic igneous rocks	263.43
12.8.17	*Eucalyptus melanophloia* +/- *E. crebra, E. tereticornis, Corymbia tessellaris* woodland on Cainozoic igneous rocks	684.77
12.9-10.27	*Corymbia citriodora* subsp. *variegata* and/or *E. moluccana, E. tereticornis, E. crebra* open forest with Melaleuca irbyana understorey on sedimentary rocks	321.57
12.9-10.7	*Eucalyptus crebra* +/- *E. tereticornis, Corymbia tessellaris, Angophora* spp., *E. melanophloia* woodland on sedimentary rocks	4,329.29
12.11.14	*Eucalyptus crebra, E. tereticornis, Corymbia intermedia* woodland on metamorphics +/- interbedded volcanics	84.60
12.11.9	*Eucalyptus tereticornis* subsp. *tereticornis* or *E. tereticornis* subsp. *basaltica* open forest on metamorphics +/- interbedded volcanics. Usually higher altitudes	40.92
12.12.12	*Eucalyptus tereticornis*, *Corymbia intermedia, E. crebra* +/- *Lophostemon suaveolens* woodland on Mesozoic to Proterozoic igneous rocks	179.25
12.12.23	*Eucalyptus tereticornis* subsp. *tereticornis* or *E. tereticornis* subsp. *basaltica* +/- *E. eugenioides* woodland to open forest on crests, upper slopes and elevated valleys and plains on Mesozoic to Proterozoic igneous rocks	344.18
	Total	**12,137.25**

Table C-2: Extent of regrowth REs with Queensland blue gum as a dominant or sub-dominant canopy species

RE	Short description	Extent (ha)
12.3.3	*Eucalyptus tereticornis* woodland on Quaternary alluvium	2,617.47
12.3.6	*Melaleuca quinquenervia* +/- *Eucalyptus tereticornis, Lophostemon suaveolens, Corymbia intermedia* open forest on coastal alluvial plains	0
12.3.7	*Eucalyptus tereticornis, Casuarina cunninghamiana* subsp. *cunninghamiana* +/- *Melaleuca* spp. fringing woodland	1,197.19
12.3.11	*Eucalyptus tereticornis* +/- *Eucalyptus siderophloia, Corymbia intermedia* open forest on alluvial plains usually near coast	603.36
12.3.19	*Eucalyptus moluccana* and/or *Eucalyptus tereticornis* and *E. crebra* open forest to woodland, with a sparse to mid-dense understorey of Melaleuca irbyana on alluvial plains	414.16
12.3.20	*Melaleuca quinquenervia, Casuarina glauca* +/- Eucalyptus tereticornis, E. siderophloia open forest on low coastal alluvial plains	3.56
12.5.2	*Corymbia intermedia, Eucalyptus tereticornis* open forest on remnant Tertiary surfaces, usually near coast. Usually, deep red soils	29.14
12.8.14	*Eucalyptus eugenioides, E. biturbinata, E. melliodora* +/- *E. tereticornis*, Corymbia intermedia open forest on Cainozoic igneous rocks	0.40
12.8.16	*Eucalyptus crebra* +/- *E. melliodora, E. tereticornis* woodland on Cainozoic igneous rocks	164.45
12.8.17	*Eucalyptus melanophloia* +/- *E. crebra, E. tereticornis, Corymbia tessellaris* woodland on Cainozoic igneous rocks	952.73
12.9-10.27	*Corymbia citriodora* subsp. *variegata* and/or *E. moluccana, E. tereticornis, E. crebra* open forest with Melaleuca irbyana understorey on sedimentary rocks	922.31
12.9-10.7	*Eucalyptus crebra* +/- *E. tereticornis, Corymbia tessellaris, Angophora* spp., *E. melanophloia* woodland on sedimentary rocks	5,273.75
12.11.14	*Eucalyptus crebra, E. tereticornis, Corymbia intermedia* woodland on metamorphics +/- interbedded volcanics	72.93
12.11.9	*Eucalyptus tereticornis* subsp. *tereticornis* or *E. tereticornis* subsp. *basaltica* open forest on metamorphics +/- interbedded volcanics. Usually higher altitudes	1.79
12.12.12	*Eucalyptus tereticornis*, *Corymbia intermedia, E. crebra* +/- *Lophostemon suaveolens* woodland on Mesozoic to Proterozoic igneous rocks	198.87
12.12.23	*Eucalyptus tereticornis* subsp. *tereticornis* or *E. tereticornis* subsp. *basaltica* +/- *E. eugenioides* woodland to open forest on crests, upper slopes and elevated valleys and plains on Mesozoic to Proterozoic igneous rocks	61.94
	Total	**12,514.04**

ATTACHMENT D

Correspondence from Dr Steve Debus

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- Fauna surveys
- Ecology of birds
- Impact assessment
- Review & editorial
- Bibliographical

15 September 2022

Swift Parrot Assessment, Ripley View

I refer to the Swift Parrot Significant Impact Assessment by 28 South Environmental for the proposed Ripley View development, and the relevant documents with which I have been supplied, including site and context mapping.

I have surveyed Swift Parrots in NSW for 15 years, and have been involved in similar development cases in coastal NSW (Central Coast).

I agree with and support the 28 South assessment, particularly the nine criteria under the Significant Impact Guidelines as required for nationally Endangered or Critically Endangered species under the EPBC Act (Matters of National Environmental Significance).

Dr Stephen Debus
15/9/22

28ºS ENVIRONMENTAL

Appendix 17

Modified Habitat Quality Assessment for Koala at the Impact Site

IMPACT - Koala

Assessment Unit - Regional Ecosystem	IA AU 1 - Open Paddock - non-remnant (preclear RE 12.9-10.2)											IA AU 2 - Regrowth Open Forest - Regrowth RE 12.9-10.2									IA AU 3 - Queensland Blue Gum on Alluvial Flats - Remnant RE 12.3.3									Total average % benchmark	Total average score
Site Reference	Benchmark	MHQA Site 4 (VC4)			MHQA Site 5 (VC4)			MHQA Site 6 (VC4)			Average %	Average Score	Benchmark	MHQA Site 1 (VC2)			MHQA Site 3 (VC3)			Average %	Average Score	Benchmark	MHQA Site 2 (VC1)			MHQA Site 7 (VC1)			Average %	Average Score		
	12.9-10.2	Raw Data	% Benchm.	Score	Raw Data	% Benchm.	Score	Raw Data	% Benchm.	Score			12.9-10.2	Raw Data	% Benchmar	Score	Raw Data	% Benchmar	Score			12.3.3	Raw Data	% Benchm.	Score	Raw Data	% Benchm.	Score				
Recruitment of woody perennial species in EDL	100	3	75%	3.0	3	100	5.0	3.0	60%	3.0	80%	3.7	100	4	66%	3.0	3	38%	3.0	52%	3.0	100	7	7%	5.0	2	40%	3.0	24%	4.0	52%	3.6
Native plant species richness - trees	6	4	67%	2.5	3	50%	2.5	5.0	83%	2.5	67%	2.5	6	6	100%	5.0	8	133%	5.0	117%	5.0	5	7	140%	5.0	5	100%	5.0	120%	5.0	101%	4.2
Native plant species richness - shrubs	7	3	43%	2.5	6	86%	2.5	5.0	71%	2.5	67%	2.5	7	2	29%	2.5	0	0%	0.0	14%	1.3	5	1	20%	0.0	3	60%	2.5	40%	1.3	40%	1.7
Native plant species richness - grasses	7	5	71%	2.5	4	57%	2.5	6.0	86%	2.5	71%	2.5	7	5	71%	2.5	5	71%	2.5	71%	2.5	9	5	56%	2.5	6	67%	2.5	61%	2.5	68%	2.5
Native plant species richness - forbes	13	6	46%	2.5	6	46%	2.5	6.0	46%	2.5	46%	2.5	13	2	15%	0.0	11	85%	2.5	50%	1.3	25	3	12%	0.0	16	64%	2.5	38%	1.3	45%	1.7
Tree canopy height (average of emergent, canopy, sub-canopy)	16.5	26	158%	5.0	15.5	94%	5.0	12.5	76%	5.0	109%	5.0	16.5	15.8	96%	5.0	11.1	67%	3.0	82%	4.0	17	16.7	98%	5.0	19.5	115%	5.0	106%	5.0	99%	4.7
Tree canopy cover (average of emergent, canopy, sub-canopy)	42	54.7	130%	5.0	20.35	48%	2.0	18.4	44%	2.0	74%	3.0	42	36.8	88%	5.0	59.2	141%	5.0	114%	5.0	24	29.2	122%	5.0	41.3	172%	5.0	147%	5.0	112%	4.3
Shrub canopy cover	6	4.7	78%	5.0	2.9	48%	3.0	8.4	140%	5.0	89%	4.3	6	26.5	442%	3.0	15.9	265%	3.0	353%	3.0	4	54.2	1355%	3.0	7.1	178%	5.0	766%	4.0	403%	3.8
Native grass cover	21	1.2	6%	0.0	6	29%	1.0	1.2	6%	0.0	13%	0.3	21	2.4	11%	1.0	4.2	20%	1.0	16%	1.0	52	0	0%	0.0	6	12%	1.0	6%	0.5	12%	0.6
Organic litter	48	19	40%	3.0	17.4	36%	3.0	14.6	30%	3.0	35%	3.0	48	77	160%	5.0	64.2	134%	5.0	147%	5.0	20	53.8	269%	3.0	16	80%	5.0	175%	4.0	119%	4.0
Large trees (euc plus non-euc)	38	16	42%	5.0	10	26%	5.0	6.0	16%	5.0	28%	5.0	38	7	18%	5.0	4	11%	5.0	14%	5.0	14	6	43%	5.0	24	171%	15.0	107%	10.0	50%	6.7
Coarse woody debris	506	0	0%	0.0	0	0%	0.0	30.0	6%	0.0		0.0	506	270	53%	2.0	0	0%	0.0	27%	1.0	588	216	37%	2.0	530	90%	5.0	63%	3.5	45%	1.5
Non-native plant cover	0	60		0.0	90		0.0	90.0		0.0	0%	0.0	0	40		3.0	30		3.0	0%	3.0	0	55		0.0	80		0.0	0%	0.0	0%	1.0
Quality and availability of food and foraging habitat	N/A	5		10.0	1		5.0	5.0		10.0		8.3	N/A	10		10.0	10		10.0		10.0	N/A	10		10.0			10.0		10.0		9.4
Quality and availability of shelter	N/A	5		10.0	1		5.0	5.0		10.0		8.3	N/A	10		10.0	10		10.0		10.0	N/A	10		10.0			10.0		10.0		9.4
Site Condition Score				56			44			53		51.0				62			58		60.0				55.5			76.5		66.00		59.0
MAX Site Condition Score				*100*			*100*			*100*		*100*				*100*			*100*		*100*				*100*			*100*		*100*		*100*
Site Condition Score - out of 3				**1.68**			**1.32**			**1.59**		**1.53**				**1.86**			**1.74**		**1.8**				**1.67**			**2.30**		**1.98**		**1.77**
Site Context																																
Size of patch	92ha			5			5			5		5.0				5			5		5				5			5		5		5.0
Connectedness	38%			2			2			2		2.0				2			2		2				2			2		2		2.0
Context	20.20%			2			2			2		2.0				2			2		2				2			2		2		2.0
Ecological Corridors				0			0			0		0.0				0			0		0				0			0		0		0.0
Role of site location to species overall population in the state				5			5			5		5.0				5			5		5				5			5		5		5.0
Threats to the species				7			7			7		7.0				7			7		7				7			7		7		7.0
Species mobility capacity				7			7			7		7.0				10			10		10				10			10		10		9.0
Site Context Score				28			28			28		28.0				31			31		31				31			31		31		30.0
MAX Site Context Score				*56*			*56*			*56*		*56*				*56*			*56*		*56*				*56*			*56*		*56*		*56*
Site Context Score - out of 3				**1.50**			**1.50**			**1.50**		**1.50**				**1.66**			**1.66**		**1.66**				**1.66**			**1.66**		**1.66**		**1.61**

Species Stocking Rate (SSR)						**AU1**	**AU2**	**AU3**
Presence detected on or adjacent to site (neighbouring property with connecting habitat)	Score	0	5		10	10	10	10
		No	Yes - adjacent		Yes - on site			
Species usage of the site (habitat type & evidenced usage)	Score	0	5	10	15	15	15	15
		Not habitat	Dispersal	Foraging	Breeding			
Approximate density (per ha)	Score	0	10	20	30	10	10	10
		0%						
Role/importance of species population on site*	Score (*Total from supplementary table below*)	0	5	10	15	5	5	5
		0	5 - 15	20 - 35	40 - 45			
Total SRR score (out of 70)						40	40	40
SRR Score (out of 4)						2.29	2.29	2.29

***SSR Supplementary Table**				**AU1**	**AU2**	**AU3**
*Key source population for breeding	Score	0	10	0	0	0
		No	Yes/ Possibly			
*Key source population for dispersal	Score	0	5	5	5	5
		No	Yes/ Possibly			
*Necessary for maintaining genetic diversity	Score	0	15	0	0	0
		No	Yes/ Possibly			
*Near the limit of the species range	Score	0	15	0	0	0
		No	Yes			
Total for SSR Supplementary Table				**5**	**5**	**5**

Final habitat quality score (weighted)	**AU1**	**AU2**	**AU3**	**Average/Final**
Site Condition score (out of 3)	1.53	1.80	1.98	1.77
Site Context Score (out of 3)	1.50	1.66	1.66	1.61
Species Stocking Rate Score (out of 4)	2.29	2.29	2.29	2.29
Habitat Quality score (out of 10)	*5.32*	*5.75*	*5.93*	*5.66*
Assessment Unit area (ha) in disturbance footprint	20.53	12.61	5.26	38.40
Total impact area (ha) for this MNES	38.40	38.40	38.40	38.40
Size Weighting	0.53	0.33	0.14	1.00
Weighted Habitat Quality Score	***2.84***	***1.89***	***0.81***	***5.54***

Appendix 18

Alternative Habitat Quality Assessment Methodology for Grey-headed Flying-fox

APPENDIX I - Alternative Methodologies for HQA Scoring – Grey-headed flying-fox

I.1 - Background

The EPBC Environmental Offset Policy requires an Environmental Offset to deliver an overall conservation outcome. This outcome must maintain, protect and improve the viability of the environment affording habitat for an impacted matter. To this end, the DCCEEW must evaluate the viability of any proposed Environmental Offsets against the principles of the EPBC Environmental Offset Policy and support that the proposal meets the intended overall conservation outcomes sought.

The DCCEEW have developed numerous tools to assist with assessing how a proposed Environmental Offset may achieve this. Central to these tools is the EPBC Environmental Offsets Calculator which relies upon transparent and scientifically robust metrics to measure habitat quality at both an Impact Area (**IA**) and Offset Receiving Site (**ORS**). To determine the suitability of an Environmental Offset, it is important to first understand the quality of both, by way of ecological and environmental data collation and analysis. To this end, the Modified Habitat Quality Assessment (**MHQA**) method was developed by the DCCEEW to provide a scientifically robust and efficient approach to derive Habitat Quality Scores (**HQS**) for input into the EPBC Environmental Offset Calculator. HQS methods play an important role in this assessment process, by quantifying three (3) core indicators being: the Site Condition, Site Context and Site Species Stocking Rates (a final score between 0 – 10) for a protected matter at both an IA and ORS.

To achieve a final standardised score out of 10, the three core indicators above are each assigned a % weighting. Standard weightings are traditionally applied as a one size fits all application of relative importance being:

- **Site Condition (Weighting 30%);**
- **Site Context (Weighting 30%); and**
- **Species Stocking Rate (Weighting 40%)**

The *Queensland Government Guide to Determining Terrestrial Habitat Quality: A toolkit for assessing land based offsets under the Queensland Environmental Offsets Policy (Version 1.2)* was the basis to determine HQS methodology over the IA and the ORS. This methodology collects relevant ecological data for Assessment Units defined over an IA and ORS. Assessment Units are defined areas within an IA or ORS which share similar ecological conditions and attributes (e.g. cleared paddocks, regrowth or remnant areas)

Once manually collected, these attributes are included as numerical metrics placed into the 'Site Condition' component MHQA. This data is reviewed against known benchmarks for remnant (pre-clearing) data for the individual RE's or habitats which are a key benchmark for a species (for example, the cleared paddocks are be assessed against the benchmarks for the known pre-clearing RE mapping to provide a comparison ensuring that the best available HQS is set as a benchmark for assessment purposes) and assigned a score relative to benchmark attribute. All scores are totalled and measured against the benchmark total (being the highest possible HQS). For the purposes of this Assessment, being for Grey-headed flying-fox, it must be assumed that the best available HQS includes a site which supports or is adjoining an important flying-fox camp as a highest possible score. This must be assumed as a key element of assessment for Grey-headed flying-fox are camp locations being a one of three elements that are critical to the survival of the species (National Recovery Plan).

Following this input, other factors of the Assessment Unit are subject to analysis being: 'Site Context' as well as how an IA or ORS might support a particular matter (species or communities) through assessment of 'Site Species Stocking Rate'.

I.2 Requirement for Alternate Methodologies

While it is acknowledged that bio-condition surveys capture important on-ground metrics of an Assessment Unit holistically, some metrics are not entirely relevant to certain matters while equally other metrics are more relevant in their significance. For example, and of relevance to this Project, the Grey-headed flying-fox has markedly different habitat and resource requirements to small terrestrial species (e.g. fossorial skinks or Dasyurids). This is exemplified in the published literature prepare by Eby and Law (2008) which focuses on how important the flowering efficacy, production and biological timing of flowering are critical for the persistence of Grey-headed flying-foxes along the eastern coast of Australia; while, the National Recovery Plan further highlights roosts and foraging resources within 20 km of them are critical. It is also important to not, this species forages across all landscape typologies relative to the proportion of the habitat type (Westcott et al. 2015).

As such, consideration of specific metrics being assigned an alternate scoring application (higher or lower score in the overall attributes) or weighting within the MHQA must be considered (e.g. increased or decreased in their line itemised score within the MHQA). Alternate scoring methodologies or amendments to the weighting should be inline with the DCCEEW's 'How to use the Offset Assessment Guide' and 'Environmental Offsets Policy' while utilising key elements of the relevant matters SPRAT, Conservation Advice/ Recovery Plan and published scientific literature.

I.2.1 Site Condition

Site Condition is assessed via the collection of data for 15 definable ecological attributes within an Assessment Unit. These are compared to the known parameters of the pre-clearing Regional Ecosystem attributes outlined within the *Bio-Condition Benchmarks for Regional Ecosystem Condition Assessment* documentation prepared by the Queensland Herbarium. Each attribute is collected and weighted to standardise relative importance on general bio-condition of an Assessment Unit to achieve a score out of 100[1]. Table 3 of the MHQA Guide outlines this weighting of relevant attributes which is shown in **Inset 1** below.

Assessment Unit - Regional Ecosystem	pen Forest
Site Reference	Maximu
Site Condition	m Score
Large trees (euc plus non-euc)	15
Tree canopy height (average of emergent, canopy, sub-canopy)	5
Recruitment of woody perennial species in EDL	5
Tree canopy cover (average of emergent, canopy, sub-canopy)	5
Shrub canopy cover	5
Coarse woody debris	5
Native plant species richness - trees	5
Native plant species richness - shrubs	5
Native plant species richness - grasses	5
Native plant species richness - forbes	5
Non-native plant cover	10
Native grass cover	5
Organic litter	5
Quality and availability of food and habitat required for foraging	10
Quality and availability of habitat required for shelter and breeding	10
MAX Site Condition Score	*100*
Score for sampling site	
Score for assessment unit	
Area-weighted score for assessment unit	
Score for the site	
(converted to) **Site Condition Score - out of 3**	

Inset 1: The assessable attributes and weightings for deriving the final BioCondition score (Standardised Sheet)

I.2.2 Alternative Condition Scoring Methods

As previously noted, some matters being assessed may not have reliance or requirements for one or numerous of the above definable ecological attributes. While an ecological attribute may not provide direct utility to a matter, it can have a bearing on the quality of others, most notably the directly measurable attributes 1 through 13 (with Quality assessments items 14 & 15, being quantitative from numerous metrics of attributes 1 through 13 and Site Context data – refer Site Context section).

For the proposes of this Preliminary Documentation Report, it is sought to proposed and utilise an alternative HSQ methodologies and alternate weightings for the assessment of Grey-headed flying-fox.

[1] Scoring for specific attributes not relevant to a Matter can be weighted to 0 to better reflect the condition and/ or context for a species (e.g. breeding habitat for migratory species whom do not breed in the impact/ offset region).

I.2.3 Core Indicator Weightings

The Grey-headed flying-fox is a highly vagile, flying mammal that gregariously roosts in large camps, often with other flying-fox species (e.g. black flying-fox). Grey-headed Flying-foxes forage in all habitat types and do so roughly in proportion to their representation in the landscape (Westcott *et al*. 2015). As such, the ecological condition of a site is likely to be of greater significance to this species in urban context than its ability to support higher densities of individuals (species stocking rate).

This is of particular note given their wide ranging nightly foraging movements (mean nightly foraging distance of 10.9 km – Westcott, *el al* 2015) through landscapes with a variety of native habitats with important flowering species (habitat critical to the survival), supplemented by urban landscaping inflorescence and large fruiting trees such as mangos and figs (while not identified as habitat critical the survival of the species, it is acknowledged in Nation Recovery Plan and scientific literature, urban landscaping, gardens and fruit trees are used as foraging resources). A sites availability of foraging resources, most importantly, prolifically flowering winter and spring flowering/fruiting native trees is a key component of habitat critical to the survival of the species. As such, Site Condition is proposed to greater weighting to an assessment sites overall HQS. **As noted previously, the current Site Condition Score is weighted to 30%. It is proposed, for the purpose of this assessment, the Site Condition Score be weighted to 40% to increase its scale of importance for this matter.**

Further, metrics within the Site Condition scoring of greater significance to the Site Condition score should be increased to reflect their importance. More detail on this is provided in the Site Condition scoring sections below.

The Site Context remains of relative importance to the Grey-headed flying-fox; however, the urban and peri-urban landscape supported throughout much of the South-east Queensland region dictates that a sites context is not as significant to the survival of grey-headed flying-fox in relativity to a sites condition. **As such, it is proposed to retain the traditional weighting of Site Context at 30%**. A sites proximity to important roosts and the quality and availability of food and foraging resources in the landscaping is however, of significance; as such, alternate scoring methodologies within the Site Context scoring is proposed to reflect the importance of a *role of sites location to species overall population in the state*.

While Species Stocking Rate is of lesser relevance, it's intended scoring purpose remains relevant insofar as this assessment still considers the actual presence of the matter based on surveys and known records of the matter and the actual presence of important habitat, thus remaining relevant and an important consideration, however, less so than Site Condition. In

lieu of this increase, **it is proposed Species Stocking Rate be retained at 30% given its lesser comparative relevance to Site Condition in this instance.**

I.3 Site Condition Scoring Amendments

Given GHFF use of both IA and ORS is likely limited to foraging, the availability of foraging resources, timing of foraging resources and proximity to GHFF populations are the focal points of the HQS; however, roosts and proximity to them remain an important consideration.

Regarding Site Condition scoring for Grey-headed flying-fox, it is proposed to **retain all initial 13 ecological attributes** and their attribute scores. Each attribute contributes to a specific Assessment Units ecosystem functionality and its enduring quality. While course woody debris or organic litter may not be an attribute that directly constitutes important foraging resources, they contribute to the condition and quality of an ecosystem function. Similarly weeds may negatively impact an ecosystem function by reducing the availability of foraging resources and regeneration of same. As such, it is proposed to alter the weighting of the qualitative metrics given their significance to Grey-headed flying-fox in this assessment, being:

- *Quality and availability of food and foraging habitat (traditional score weighting 10/100); and*
- *Quality and availability of shelter (traditional score weighting 10/100).*

To better reflect attributes that are of greater significance to the Grey-headed flying-fox, it is important understand what is key elements for habitat that are critical to the survival of the Grey-headed flying-fox. The National Recovery Plan defines this as:

> *Where the existence of these important winter and spring flowering vegetation communities[2] is verified in the field, they are considered habitat critical to the survival of the Grey-headed Flying-fox. Back yard fruit trees, orchards or non-native trees that may be used for foraging are not considered to be habitat critical to the survival of the Grey-Headed Flying-Fox.*
>
> *Habitat critical to the survival of the Grey-headed Flying-fox may also be vegetation communities not containing the above tree species but which:*
>
> - *contain native species that are known to be productive as foraging habitat during the final weeks of gestation, and during the weeks of birth, lactation and conception (August to May)*

[2] Refer species lists of important flowering trees in: Eby and Law 2008; Eby 2016; Eby et al., 2019

- *contain native species used for foraging and occur within 20 km of a nationally important camp as identified on the Department's interactive flying-fox web viewer, or*
- *contain native and or exotic species used for roosting at the site of a nationally important Grey-Headed Flying-Fox camp1 as identified on the Department's interactive flying-fox web viewer.*

These three key biological and ecological elements can be readily measures from Site Condition metrics and Site Context assessments. By providing more detailed assessment around foraging habitat quality and availability; and increasing its relative importance by virtue of an increased score weighting as an attribute, overall scoring is clearly more reflective of a sites importance and role to Grey-headed flying-fox. This metrics is repeatable, transparent and aligns with the DCCEEW 'How to use the Offset Assessment Guide' and 'Environmental Offsets Policy'.

I.3.1 Quality and availability of food and foraging habitat of the site scoring

A key piece of contemporary research and literature is the Eby & Law (2008) paper *Ranking the feeding habitats of Grey-headed flying foxes for conservation management*. This has been central to understanding the significance of foraging habitat, particularly species and their flowering efficacy and biological timing of flowering. This has been subsequently utilised to develop a scaled and coherent scoring methodology for five key metrics based on on-ground bio-condition data or geo-spatial calculations. The below outlines each metric and applies a score suite for each to provide a new total score of 80.

Table A16-1 Grey-headed flying-fox foraging habitat within the site

Abundance of Category B and C mapping within the site (per MU)	Score
Category X	5
Field Validated Regrowth Vegetation	10
Field Validated Remnant Vegetation	20
Total Score	/20

Table A16-2 Canopy species richness score	
Diversity of Grey-headed flying-fox canopy species categories	Score
No Grey-headed flying-fox canopy species	0
1 – 3 Grey-headed flying-fox canopy species	5
4 – 6 Grey-headed flying fox canopy species	10
>6 Grey-headed flying-fox canopy species	20
Total Score	/20

Table A16-3 Grey-headed flying-fox flower score (average) score	
Quality of Grey-headed flying-fox flowering score categories	Score
0.01 - 0.25	2
0.26 – 0.50	5
0.51 - 0.75	8
0.76 – 1.00	10
Total Score	/10

Table A16-4 Grey-headed flying-fox timing of biological scoring	
Timing of flowering of Grey-headed flying-fox foraging resource categories	Score
Food shortages	2.5
Pregnancy and birthing	1.5
Lactation	1.5
Mating and conception	1.5
Migration paths	1.5
Fruit industries	1.5
Total Score	/10

Table A16-5 Grey-headed flying-fox foraging habitat trees	
Quality of foraging habitat trees (trees>0.65 wt p*r) categories	Score
0 Significant Grey-headed flying-fox foraging trees	0
1-3 Significant Grey-headed flying-fox foraging trees	5
4-6 Significant Grey-headed flying-fox foraging trees	10
>.6 Significant Grey-headed flying-fox foraging trees	20
Total Score	/20

The total maximum score of the above attributes comes to 80, bringing the total score of Quality and availability of food and foraging habitat to 80 of a total Site Condition Score of 180 (being 44.4% of the scoring factor).

I.3.2 Quality and availability of shelter of the Site scoring

As defined within the National Recovery Plan, Lunney and Moon 1997 and Hall 2002; one of the key factors critical to the survival of the Grey-headed flying-fox is vegetation (native and exotic) used for active roosting. It is important to consider the relevance of a site with regard to temporal roosting habitat at the time of any assessment. The purpose of the MHQA is to provide a HQS for input into the EPBC Act Offset Calculator. The quality and availability of shelter metrics should be an important consideration and not weighted out of consideration due to a lack of active roosts within or on the fringing boundaries of a Site.

In considering this, the inclusion and significance of shelter habitat to the assessment of a HQS for a site cannot simply be removed. To capture this, a Site supporting a nationally important Grey-headed flying-fox camp or other flying fox camp on the National Flying-fox monitoring viewer would be high in its significance to the species (meeting a full benchmark score), while those adjoining or immediately adjoining/ connected to the camp area would be of moderate significance; and those removed from known camps would be of lesser significance from a roosting perspective. Removal or zero weighting this attribute would simultaneously have all the benefits or advantages of two conflicting options or choices for HQS. As such, it is proposed that an alternative scoring methodology be applied to this attribute to recognise the importance of active, nationally important camps to a site. The below outlines the proposed scoring inputs for this attribute.

Table A16-6 Grey-headed flying-fox quality of shelter	
Sites quality of shelter category	Score
No Grey-headed flying-fox nationally important or other flying-fox camps on site or within 1 km	0
Grey-headed flying-fox nationally important or other flying-fox camps within 1 km	10
Grey-headed flying-fox nationally important or other flying-fox camp on site	20
Total Score	/20

The total maximum score of the above attributes comes to 20, bringing the total score of Quality and availability of food and foraging habitat to 20 of a total Site Condition Score of 180 (being 11.1% of the scoring factor).

Secondary impacts (IA) or benefits (ORS) arising from a proposed Action or its constituent Offset should be considered in the overall MHQA; however, this attribute or metric is not relevant to the quality of shelter habitat at the site and is captured in the 'Threats to the species' component of the MHQA.

Assessment Unit - Regional Ecosystem
Site Reference
Recruitment of woody perennial species in EDL
Native plant species richness - trees
Native plant species richness - shrubs
Native plant species richness - grasses
Native plant species richness - forbes
Tree canopy height (average of emergent, canopy, sub-canopy)
Tree canopy cover (average of emergent, canopy, sub-canopy)
Shrub canopy cover
Native grass cover
Organic litter
Large trees (euc plus non-euc)
Coarse woody debris
Non-native plant cover
Quality and availability of food and foraging habitat (increase weighting 80)
Based on Eby + Law Foraging Quality Scoring - refer to Attached Table)
Quality and availability of shelter (increase weight to 20 - refer to Attachment X)
Site Condition Score
MAX Site Condition Score
Site Condition Score - out of 4 (refer to Attachment X)

Inset 2: The assessable attributes and weightings for deriving the final BioCondition score (yellow highlighted cells indicate alternate methodologies for scoring)

I.4 Context Score Scoring Amendments

Traditional Site Context scoring is assessed via the assessment of each Assessment Unit's relativity to four attributes being: *Patch Size*, *Connectedness, Context, Ecological Corridors, Role of site location to species overall population in the state, Threats to the species and Species mobility capacity.* Each attribute is spatially and contextually reviewed and weighted to standardise relative importance to achieve a score out of 56.

Site Context
Size of patch
Connectedness
Context
Ecological Corridors
Role of site location to species overall population in the state
Threats to the species
Species mobility capacity
Site Context Score
MAX Site Context Score
Site Context Score - out of 3

Inset 2: MHQA Context Score

Regarding Site Context, scoring for Grey-headed flying-fox, it is proposed to retain known, measurable and transparent attributes that are reliant on spatial data sets such as Qld Government Regulated Vegetation and High Value Regrowth Vegetation Mapping and Biodiversity Planning Mapping. **As such, it is proposed to retain the initial four (4) attributes methods and scoring applications**.

With regard to the quantitative assessments, being: Role of site location to species overall population in the state; and Threats to the species. A more detailed and data focused methodology has been applied and scoring amendments proposed to reflect their importance to Grey-headed flying-fox and its biological/ ecological values. These two attributes are derived from Table 4 (Species Habitat Index) of *Qld Governments Guide to determining terrestrial habitat quality Version 1.2*. This document provides guidance on how each of the Species Habitat Index attributes should be considered. This has been applied in the context of the SPRAT, National Recovery Plan and relevant scientific literature. With regard to species mobility and Site Context, the Grey-headed flying-fox is well known to be vagile and wide

ranging. The *Qld Governments Guide to determining terrestrial habitat quality Version 1.2* outlines that the species mobility capacity *should be measured in consideration of the presence and severity of factors that would contribute to a reduction in the mobility of the species. For example, when a barrier to movement is created within or between habitats that is likely to result in a long-term reduction in genetic fitness or access to important resources*.

Given the highly mobile and adaptability of the species to urban areas, barriers to movement between habitats are minimal. The number of camps in urban areas has increased in recent years, particularly in urban areas of Qld and NSW where some are now continuously occupied (Birt et al. 1998, Hall 2002, Richards 2002, van der Ree et al. 2006, Mo et al. 2020). This trend has been associated with an increase in the density and diversity of food trees in the gardens and streetscapes of cities like Brisbane, Sydney and Melbourne, together with increasing pressures on Grey-headed Flying-foxes in non-urban landscapes from reductions in the availability of native forage and increasing competition from Black Flying-foxes (Birt et al. 1998, Hall and Richards 2000, Parry-Jones and Augee 2001, Hall 2002, McDonald-Madden et al. 2005). Given the increase in Grey-headed flying-fox presence in urban areas, species mobility is not considered to materially be a metric that is relevant to the ultimate HQS; however, consideration of this metric at a broad scale is still of relevance similar to traditional approaches to the MHQA. **It is proposed to retain its traditional weighting.**

I.4.1 Role of site location to species overall population in the state scoring

As noted previously, when considering an attributes importance to Grey-headed flying-fox within a Site and surrounds, deferral to the key elements of what is considered habitat critical to the survival of the species. Which in summary are: vegetation communities that support native flowering species known to provide resources during the winter and spring bottlenecking periods; foraging resources within 25 km[3] of a nationally important camp; or contain vegetation used for roosting of a nationally important camp.

These three key attributes can be readily assessed utilised to provide a transparent, repeatable and scientifically robust method for assessing the role of a site's location to species overall population in the state. To asses these three attributes, spatial analysis for:

- nationally important camps within 25 km,
- foraging resources within 25 km buffer to the Site (% cover); and
- foraging resources within the site (% cover).

[3] A 25 km radius has been a precautionary approach as a buffer to the 20 km noted in the National Recovery Plan.

I.4.2 Importance of Camps to a site's location scoring

As outlined in the Site Context Scoring attribute for quality of shelter habitat, Grey-headed flying-fox is heavily reliant on camp sites. Camps provide resting habitat, sites of social interactions and refuge for animals during significant phases of their annual cycle, such as birth, lactation and conception (Parry-Jones and Augee 1992, Parry-Jones and Augee 2001). Camps are used as day refuges by animals that forage in surrounding areas over several weeks, as maternity camps, and as short-term stopover sites by migrating animals (Eby 1991, Eby 1995, Tidemann and Nelson 2004).

While camps might not be located on or proximal to a site, Grey-headed Flying-foxes forage in all habitat types and do so roughly in proportion to their representation in the landscape (Westcott et al. 2015). The National Recovery Plan notes that native habitats within 20 km of a nationally important camp form a component of habitat critical to the survival of the species.

Therefore, a site's location in relation to nationally important camps is critical to consider in applying a weighted metric to a site's locational role to the overall population in the state. To this end, it is proposed that spatial analysis is used for a metric in the development of to understand the role of the site in relativity to the overall population based on the abundance of nationally important Grey-headed flying-fox camps and other flying fox camps within 25 km.

A 25 km buffer using the site as a centroid has been applied to a base map illustrating the location of nationally important Grey-headed flying-fox camps and other flying-fox camps. This clearly illustrates a sites relevance to camps and their abundance in the 25 km radius around the Site. Scoring indices for this assessment are shown below:

Table A16-7 Grey-headed flying-fox nationally important camps and flying-fox camps

Abundance of flying-fox camps with a Level 3 or greater Grey-headed flying-fox camp in the last 2 years	Score
<1 active > Level 3 Grey-headed flying-fox camps	0
1-5 active > Level 3 Grey-headed flying-fox camps	2
6> active > Level 3 Grey-headed flying-fox camps	5
1 or more nationally important Grey-headed flying-fox camps (noted in National Recovery Plan as Critical to the survival of the species).	10
Total Score	/10

The total maximum score of the above attributes comes to 10. This score will form 33.3% of the total score for a role of site location to species overall population in the state.

I.4.3 Foraging resources within 25 km buffer to the Stie (% cover) scoring

An analysis of the important foraging habitat within the surrounding landscape to a site is an important consideration when reviewing the role of the site's location to the species overall population in the State. To ensure this is transparent, measurable and readily repeatable, a review of the Qld Governments Regulated Vegetation and High Value Regrowth mapping overlays within a 20 km radius to the Site[4] (excluding remnant overlays that don't support foraging habitat e.g. marine plant communities).

A 25 km buffer using the site as a centroid has been applied to a base map illustrating the extent of Category B, Category C and Category X. This clearly illustrates a sites relevance to mapped native vegetation communities and their abundance in the 25 km radius around the Site. Scoring indices for this assessment are shown below:

Table A16-8 Grey-headed flying-fox foraging habitat in proximity to the site

Abundance of Category B and C mapping within 25 km of the site	Score
<25% Category B and C mapping	0
26-50% Category B and C mapping	2
51-75% Category B and C mapping	5
>76% Category B and C mapping	10
Total Score	/10

The total maximum score of the above attributes comes to 10. This score will form 33.3% of the total score for a role of site location to species overall population in the state.

Foraging resources within the Stie (% cover) scoring

An analysis of the important foraging habitat within the site is an important consideration when reviewing the role of the site's location to the species overall population in the State. To ensure this is transparent, measurable and readily repeatable, a review of the Qld Governments Regulated Vegetation and High Value Regrowth mapping overlays within the Site (excluding remnant overlays that don't support foraging habitat e.g. marine plants).

[4] Noting that most terrestrial Regulation Vegetation supports at least one or more important foraging species for Grey-headed flying-fox, so the conservative approach of including all non-marine communities has been assigned.

An analysis of the extent of Category B, Category C and Category X[5] has been undertaken to determine the foraging habitat available within the Site. This clearly illustrates the area of available foraging for Grey-headed flying-fox. Scoring indices for this assessment are shown below:

Table A16-9 Grey-headed flying-fox foraging habitat within the site	
Abundance of Category B and C mapping within the site	Score
<25% Category B and C mapping	0
26-50% Category B and C mapping	2
51-75% Category B and C mapping	5
>76% Category B and C mapping	10
Total Score	/10

The total maximum score of the above attributes comes to 10. This score will form 33.3% of the total score for a role of site location to species overall population in the state.

The total maximum score of all the three above attributes comes to 30, bringing the total score of role of site location to species overall population in the state to 30 of a total Site Context Score of 86 (being 35% of the scoring factor).

[5] If canopy mapping and/ or tree mapping is available at both the IA and ORS, this can be used as a more accurate model for the extent of foraging resource both within and outside of regulated vegetation mapping.

I.4.4 Threats to species scoring

The Grey-headed flying-fox is suspectable to a wide variety of threats. However, many threats listed are not relevant to the Grey-headed flying-fox in the urban context of South-eastern Queensland, particularly coast fringing areas. The SPRAT and National Recovery Plan note the following threats:

- Biological factors
- Habitat loss and fragmentation
- Exploitation
- Competition and hybridisation
- Pollutants, electrocution and pathogens
- Camp disturbance
- Mortality in commercial fruit crops
- Heat stress
- Entanglement in netting and barbed wire fencing
- Climate change
- Bushfire
- Electrocution on powerlines
- Public misunderstanding of disease risk

Of the above 13 noted threats, only a small number are applicable and tangibly measurable as threat to the species in South-east Queensland. Elements such as exploitation, mortality in commercial fruit crops, heat stress, biological factors, competition and hybridisation, entanglement in netting and barbed wire fencing, electrocution on powerlines or public misunderstanding of disease are not applicable in South-east Queensland or don't have readily measurable metrics/ data within available literature defining or ranking them. As such, the only readily reliable and tangible threats that can have surrogate metrics applied to them are Habitat Fragmentation and Camp Disturbance.

I.4.5 Habitat Fragmentation scoring

Similar to the assessment of 'available foraging resources in proximity to the site', an analysis of the important foraging habitat within the surrounding landscape; is an important consideration when reviewing the role of the sites location to the species overall population in the State. To ensure this is transparent, measurable and readily repeatable, a review of the Qld Governments Regulated Vegetation and High Value Regrowth mapping overlays within a 25 km radius to the Site (excluding remnant overlays that don't support foraging habitat e.g. marine plants).

A 25 km buffer using the site as a centroid has been applied to a base map illustrating the extent of Category B, Category C and Category X[6]. This clearly illustrates a sites relevance to

[6] Noting that most terrestrial Regulation Vegetation supports at least one or more important foraging species for Grey-headed flying-fox, so the conservative approach of including all non-marine communities has been assigned.

mapped native vegetation communities and their abundance in the 25 km radius around the Site. Scoring indices for this assessment are shown below:

Table A16-10 Grey-headed flying-fox habitat fragmentation in proximity to Site	
Abundance of Category B and C mapping within 25 km of the site	Score
<25% Category B and C mapping – Highly fragmentated, largely urban or large pastural areas	0
26-50% Category B and C mapping – moderately fragmented, peri urban and coastal fringes	5
51-75% Category B and C mapping - peri urban rural landscape	10
>75% Category B and C mapping – highly intact areas (proximate national parks/state forests).	15
Total Score	/15

The total maximum score of the above attributes comes to 15. This score will form 50% of the total score for threats to species.

I.4.6 Camp Disturbance

Conflict between people and Grey-headed Flying-foxes is an ongoing problem that particularly affects camps in coastal areas (Smith 2002, Tidemann 2002, West 2002). The number of camps in urban areas has increased in recent years, particularly in urban areas of Qld and NSW where some are now continuously occupied (Birt et al. 1998, Hall 2002, Richards 2002, van der Ree et al. 2006, Mo et al. 2020).

This trend has been associated with an increase in the density and diversity of food trees in the gardens and streetscapes of cities like Brisbane, Sydney and Melbourne, together with increasing pressures on Grey-headed Flying-foxes in non-urban landscapes from reductions in the availability of native forage and increasing competition from Black Flying-foxes (Birt et al. 1998, Hall and Richards 2000, Parry-Jones and Augee 2001, Hall 2002, McDonald-Madden et al. 2005).

Common issues with flying-fox camps in urban areas contributes to increased conflict between human activities, negative perceptions (disease), public nuisance complaints (e.g. odour and noise). This can result in active, unsolicited disturbances by members of the public, harassment, deliberate destruction of roost sites, attempts to disperse camps; which can lead

to increased stress levels, camp lifting during diurnal periods, individual or camp displacement and loss of roosting habitat. How an IA might contribute to threats on camps is directly linked to its proximity to a camp. The more proximal a site to a camp, the higher the likelihood a development or use will:

- Increase the number of people residing or working near a camp. This increase the potential for:
    - Camp lifting through human presence (recreation/ maintenance of adjoining open space areas)
    - Public nuisance complaints about odour/noise. Potentially resulting in council management measures being applied to camps
    - Deliberate unsolicited disturbances to camps to elicit dispersal
    - The loss of roost habitat through clearing for the establishment of service infrastructure (new sewer, water, roads, electricity) and recreational embellishments.

As such, the proximity of a IA is tangibly linked to potential secondary impacts of increased human presence. While ORS are unlikely to be proximal to dense urban settings, this remains an important initial metric based on it's current use (e.g. if used as an active farm or rural production use with employees/ vehicles, and proximal to a flying-fox it presents similar threats (likely to include other threats such as barbed wire fences and netting) would persist). Importantly the intent of an ORS would be to reduce those threats over time.

A 1 km buffer using the site as a centroid has been applied to a base map illustrating the location of nationally important Grey-headed flying-fox camps and other flying-fox camps. This clearly illustrates a sites relevance to camps and their abundance in the 1 km radius around the Site. As an IA or ORS becomes more distance the likelihood of camp disturbances from secondary impacts significant decreases as nuisance issues such as noise and odour significant decrease with distance, equality the routes of human recreation become more dispersed from a source site and infrastructure from a development is likely to have found collocation within an immediate radius of the Site. Scoring indices for this assessment are shown below:

Table A16-11 Grey-headed flying-fox nationally important camps and flying-fox camps

Abundance of flying-fox camps with a Level 3 or greater Grey-headed flying-fox camp in the last 2 years	Score
<1 active > Level 3 Grey-headed flying-fox camps	0
1-5 active > Level 3 Grey-headed flying-fox camps	5

6-10 active > Level 3 Grey-headed flying-fox camps	10
1 or more nationally important Grey-headed flying-fox camps (noted in National Recovery Plan as Critical to the survival of the species).	15
Total Score	/15

The total maximum score of the above attributes comes to 15. This score will form 50% of the total score for a role of threats to species overall population in the state.

The total maximum score of all the two above attributes comes to 30, bringing the total score of fragmentation to 30 of a total Site Context Score of 86 (being 35% of the scoring factor).

Site Context
Size of patch
Connectedness
Context
Ecological Corridors
Role of site location to species overall population in the state increase weight to 30) See attached Table for Scoring Methods Threats to the species (increase weight to 30) See attached Table for Scoring Methods
Species mobility capacity
Site Context Score *MAX Site Context Score /100* **Site Context Score - out of 3**

Inset 2: MHQA Site Context Scoring (yellow highlighted cells note alternate methodology)

I.5 Species Stocking Rate

Regarding Species Stocking Rate scoring for Grey-headed flying-fox, it is proposed to **retain all ecological attributes** and their attribute scores. These remain tangible, measurable and repeatable metrics that are robust and relevant the presence of the matter (Grey-headed flying-fox) or the presence of habitat critical to the survival of the matter. One attribute however does not currently have any common measurable metric assigned to it, being: *Approximate density (per ha)*.

As previously noted, the Grey-headed flying-fox is a highly vagile, flying mammal that gregariously roosts in large camps, often with other flying-fox species (e.g. black flying-fox). Grey-headed Flying-foxes forage in all habitat types and do so roughly in proportion to their representation in the landscape (Westcott *et al*. 2015). As such, the ecological condition of a site is of greater significance to this species than its ability to support higher densities of individuals (species stocking rate).

As surrogate for species stocking rates, carrying capacity of a site can be simplistically assessed through the number of important camps coupled in proximity to a site coupled with the volume of important foraging resources found within the site. Important resources can be measured through the percentage (%) of available quality foraging resources over a site through detailed tree survey mapping or as a surrogate, the area of Category B, C and X Regulated Vegetation/ High Value Regrowth[7]. This would see a site's Species Stocking Rate score increase with the weighted combination of higher foraging resource availability and the abundance Grey-headed flying-fox camps. Similarly, scores would decrease with a lower abundance of both available foraging resources and camps. Below outlines the scoring applicable to each attribute to achieve

I.5.1 Importance of Camps to a site's location scoring

A 25 km buffer using the site as a centroid has been applied to a base map illustrating the location of nationally important Grey-headed flying-fox camps and other flying-fox camps. This clearly illustrates a sites relevance to camps and their abundance in the 25 km radius around the Site. Scoring indices for this assessment are shown below:

[7] If canopy mapping and/ or tree mapping is available at both the IA and ORS, this can be used as a more accurate model for the extent of foraging resource both within and outside of regulated vegetation mapping.

Table A16-12 Grey-headed flying-fox nationally important camps and flying-fox camps	
Abundance of flying-fox camps with a Level 3 or greater Grey-headed flying-fox camp in the last 2 years	Score
<1 active > Level 3 Grey-headed flying-fox camps	0
1-5 active > Level 3 Grey-headed flying-fox camps	5
6-10 active > Level 3 Grey-headed flying-fox camps	10
1 or more nationally important Grey-headed flying-fox camps (noted in National Recovery Plan as Critical to the survival of the species).	15
Total Score	/15

The total maximum score of the above attributes comes to 15. This score will form 50% of the total score for a role of threats to species overall population in the state.

I.5.2 Foraging resources within the Stie (% cover) scoring

An analysis of the important foraging habitat within the site is an important consideration when reviewing the sites ability to support Grey-headed flying-foxes during their nightly foraging activities. To ensure this is transparent, measurable and readily repeatable, a review of the Qld Governments Regulated Vegetation and High Value Regrowth mapping overlays mapped over a Site (excluding remnant overlays that don't support foraging habitat e.g. marine plants).

An analysis of the extent of Category B, Category C and Category X[8] has been undertaken to determine the foraging habitat available within the Site. This clearly illustrates the area of available foraging for Grey-headed flying-fox. Scoring indices for this assessment are shown below:

[8] If canopy mapping and/ or tree mapping is available at both the IA and ORS, this can be used as a more accurate model for the extent of foraging resource both within and outside of regulated vegetation mapping.

Table A16-13 Grey-headed flying-fox foraging habitat within the site	
Abundance of Category B and C mapping within the site (per MU)	Score
Category X	5
Field Validated Regrowth Vegetation	10
Field Validated Remnant Vegetation	15
Total Score	/15

The total maximum score of the above attributes comes to 30. This score will form 50% of the total score for threats to species.

The total maximum score of all the two above attributes comes to 30, retaining the total maximum score of Approximate Density as 30.

Species Stocking Rate (SSR)						Score assigned
Presence detected on or adjacent to site (neighbouring property with connecting habitat)	Score	0	5		10	10
		No	Yes - adjacent		Yes - on site	
Species usage of the site (habitat type & evidenced usage)	Score	0	5	10	15	10
		Not habitat	Dispersal	Foraging	Breeding	
Approximate density (per ha) (based on percentage of foraging habitat within Site)	Score	0	5-10 (10)	11-20 (20)	21-30 (30)	20
		0%	low	med	high	
Role/importance of species population on site*	Score (*Total from*)	0	5	10	15	5
		0	5 - 15	20 - 35	40 - 45	
Total SRR score (out of 70)						45
SRR Score (out of 3)						1.93

*SSR Supplementary Table				Score assigned
*Key source population for breeding	Score	0	10	0
		No	Yes/ Possibly	
*Key source population for dispersal	Score	0	5	5
		No	Yes/ Possibly	
*Necessary for maintaining genetic diversity	Score	0	15	0
		No	Yes/ Possibly	
*Near the limit of the species range	Score	0	15	0
		No	Yes	
	Total for SSR Supplementary Table			**5**

Inset 3: MHQA Species Stocking Rate Scoring (yellow highlighted cells note alternate methodology)

28ºS ENVIRONMENTAL

Appendix 19

Modified Habitat Quality Assessment for Grey-headed Flying-fox at the Impact Site

IMPACT - Grey headed flying fox Baseline

Assessment Unit - Regional Ecosystem	IA AU 1 - Open Paddock - non-remnant (preclear RE 12.9-10.2)											IA AU 2 - Regrowth Open Forest - Regrowth RE 12.9-10.2									IA AU 3 - Queensland Blue Gum on Alluvial Flats - Remnant RE 12.3.3									Total average % benchmark	Total average score
Site Reference	Benchmark	MHQA Site 4 (VC4)			MHQA Site 5 (VC4)			MHQA Site 6 (VC4)			Average % benchmark	Average Score	Benchmark	MHQA Site 1 (VC2)			MHQA Site 3 (VC3)			Average % benchmark	Average Score	Benchmark	MHQA Site 2 (VC1)			MHQA Site 7 (VC1)			Average % benchmark	Average Score		
	12.9-10.2	Raw Data	% Benchma	Score	Raw Data	% Benchma	Score	Raw Data	% Benchma	Score			12.9-10.2	Raw Data	% Benchma	Score	Raw Data	% Benchma	Score			12.3.3	Raw Data	% Benchma	Score	Raw Data	% Benchma	Score				
Recruitment of woody perennial species in EDL	100	3	75%	3.0	3	100	5.0	3.0	60%	3.0	80%	3.7	100	4	66%	3.0	3	38%	3.0	52%	3.0	100	7	7%	5.0	2	40%	3.0	24%	4.0	52%	3.6
Native plant species richness - trees	6	4	67%	2.5	3	50%	2.5	5.0	83%	2.5	67%	2.5	6	6	100%	5.0	8	133%	5.0	117%	5.0	5	7	140%	5.0	5	100%	5.0	120%	5.0	101%	4.2
Native plant species richness - shrubs	7	3	43%	2.5	6	86%	2.5	5.0	71%	2.5	67%	2.5	7	2	29%	2.5	0	0%	0.0	14%	1.3	5	1	20%	0.0	3	60%	2.5	40%	1.3	40%	1.7
Native plant species richness - grasses	7	5	71%	2.5	4	57%	2.5	6.0	86%	2.5	71%	2.5	7	5	71%	2.5	5	71%	2.5	71%	2.5	9	5	56%	2.5	6	67%	2.5	61%	2.5	68%	2.5
Native plant species richness - forbes	13	6	46%	2.5	6	46%	2.5	6.0	46%	2.5	46%	2.5	13	2	15%	0.0	11	85%	2.5	50%	1.3	25	3	12%	0.0	16	64%	2.5	38%	1.3	45%	1.7
Tree canopy height (average of emergent, canopy, sub-canopy)	16.5	26	158%	5.0	15.5	94%	5.0	12.5	76%	5.0	109%	5.0	16.5	15.8	96%	5.0	11.1	67%	3.0	82%	4.0	17	16.7	98%	5.0	19.5	115%	5.0	106%	5.0	99%	4.7
Tree canopy cover (average of emergent, canopy, sub-canopy)	42	54.7	130%	5.0	20.35	48%	2.0	18.4	44%	2.0	74%	3.0	42	36.8	88%	5.0	59.2	141%	5.0	114%	5.0	24	29.2	122%	5.0	41.3	172%	5.0	147%	5.0	112%	4.3
Shrub canopy cover	6	4.7	78%	5.0	2.9	48%	3.0	8.4	140%	5.0	89%	4.3	6	26.5	442%	3.0	15.9	265%	3.0	353%	3.0	4	54.2	1355%	3.0	7.1	178%	5.0	766%	4.0	403%	3.8
Native grass cover	21	1.2	6%	0.0	6	29%	1.0	1.2	6%	0.0	13%	0.3	21	2.4	11%	1.0	4.2	20%	1.0	16%	1.0	52	0	0%	0.0	6	12%	1.0	6%	0.5	12%	0.6
Organic litter	48	19	40%	3.0	17.4	36%	3.0	14.6	30%	3.0	35%	3.0	48	77	160%	5.0	64.2	134%	5.0	147%	5.0	20	53.8	269%	3.0	16	80%	5.0	175%	4.0	119%	4.0
Large trees (euc plus non-euc)	38	16	42%	5.0	10	26%	5.0	6.0	16%	5.0	28%	5.0	38	7	18%	5.0	4	11%	5.0	14%	5.0	14	6	43%	5.0	24	171%	15.0	107%	10.0	50%	6.7
Coarse woody debris	506	0	0%	0.0	0	0%	0.0	30.0	6%	0.0		0.0	506	270	53%	2.0	0	0%	0.0	27%	1.0	588	216	37%	2.0	530	90%	5.0	63%	3.5	45%	1.5
Non-native plant cover	0	60		0.0	90		0.0	90.0		0.0		0.0	0	40		3.0	30		3.0		3.0	0	55		0.0	80		0.0	0%	0.0	0%	1.0
Quality and availability of food and foraging habitat (/80) Alternative Scoring Method Supplimentary Data	80	48		48.0	40		40.0	35.0		35.0		41.0	80	30		30.0	35		35.0		32.5	80	30		30.0	27		27.0		28.5		34.0
Quality and availability of shelter (20) Alternative Scoring Method Supplimentary Data	20	0		0.0	0		0.0	0.0		0.0		0.0	20	0		0.0	0		0.0		0.0	20	0		0.0	0		0.0		0.0		0.0
Site Condition Score				84			74			68		75.3				72			73		72.5				65.5			83.5		74.50		74.1
MAX Site Condition Score				*180*			*180*			*180*		*180*				*180*			*180*		*180*				*180*			*180*		*180*		*180*
Site Condition Score - out of 4				**1.87**			**1.64**			**1.51**		**1.67**				**1.60**			**1.62**		**1.61**				**1.46**			**1.86**		**1.66**		**1.65**
Site Context																																
Size of patch	92ha			5			5			5		5.0				5			5		5				5			5		5		5.0
Connectedness	38%			2			2			2		2.0				2			2		2				2			2		2		2.0
Context	20.20%			2			2			2		2.0				2			2		2				2			2		2		2.0
Ecological Corridors				0			0			0		0.0				0			0		0				0			0		0		0.0
Role of site location to species overall population in the state Alternative Scoring Method Supplimentary Data	30	14		14	14		14	14		14		14.0	30	14		14	14		14		14	30	14		14	14		14		14		14.0
Threats to the species Alternative Scoring Method Supplimentary Data	30	5		5	5		5	5		5		5.0	30	5		5	5		5		5	30	5		5	5		5		5		5.0
Species mobility capacity				7			7			7		7.0				10			10		10				10			10		10		9.0
Site Context Score				35			35			35		35.0				38			38		38				38			38		38		37.0
MAX Site Context Score	*96*			*96*			*96*			*96*		*96*				*96*			*96*		*96*				*96*			*96*		*96*		*96*
Site Context Score - out of 3				**1.09**			**1.09**			**1.09**		**1.09**				**1.19**			**1.19**		**1.19**				**1.19**			**1.19**		**1.19**		**1.16**

Species Stocking Rate (SSR)							**AU1**	**AU2**	**AU3**
Presence detected on or adjacent to site (neighbouring property with connecting habitat)	Score	0	5		10		10	10	10
		No	Yes - adjacent		Yes - on site				
Species usage of the site (habitat type & evidenced usage)	Score	0	5	10	15		15	15	15
		Not habitat	Dispersal	Foraging	Breeding				
Approximate density (per ha) ***Alternative Scoring Method Supplimentary Data***	Score	0	10	20	30		20	20	20
		0%							
Role/importance of species population on site*	Score (*Total from supplementary table below*)	0	5	10		15	5	5	5
		0	5 - 15	20 - 35		40 - 45			
Total SRR score (out of 70)							50	50	50
SRR Score (out of 3)							2.14	2.14	2.14

***SSR Supplementary Table**				**AU1**	**AU2**	**AU3**
*Key source population for breeding	Score	0	10	0	0	0
		No	Yes/ Possibly			
*Key source population for dispersal	Score	0	5	5	5	5
		No	Yes/ Possibly			
*Necessary for maintaining genetic diversity	Score	0	15	0	0	0
		No	Yes/ Possibly			
*Near the limit of the species range	Score	0	15	0	0	0
		No	Yes			
Total for SSR Supplementary Table				**5**	**5**	**5**

Final habitat quality score (weighted)	**AU1**	**AU2**	**AU3**	**Average/Final**
Site Condition score (out of 4)	1.67	1.61	1.66	1.65
Site Context Score (out of 3)	1.09	1.19	1.19	1.16
Species Stocking Rate Score (out of 3)	2.14	2.14	2.14	2.14
Habitat Quality score (out of 10)	*4.91*	*4.94*	*4.99*	*4.95*
Assessment Unit area (ha) in disturbance footprint	20.53	12.61	4.78	37.92
Total impact area (ha) for this MNES	37.92	37.92	37.92	37.92
Size Weighting	0.54	0.33	0.13	1.00
Weighted Habitat Quality Score	***2.66***	***1.64***	***0.63***	***4.93***

Appendix 20

Modified Habitat Quality Assessment for Greater Glider at the Impact Site

Alternative Scoring Method Supplimentary Data

SITE CONDITION ATTRIBUTE SCORING DATA

Quality and availability of food and foraging habitat of the site scoring (Foraging within Site + Diversity of Foraging + Quality of flowering + Biological Timing + Quality of Foraging)

Table A16-1 Vegetation condition score (Fill Cell Attribute Yellow and Assign Score out of /20)

Vegetation categories	Score Category	Assessment Unit 1			Assessment Unit 2		Assessment Unit 3	
		MHQA 4	MHQA 5	MHQA 6	MHQA 1	MHQA 3	MHQA 2	MHQA 7
Category X	5	5	5	5	5	5	5	5
Field Validated Regrowth	10	10	10	10	10	10	10	10
Field Validated Remnant	20	20	20	20	20	20	20	20
Total Score	/20	**20**	**10**	**10**	**5**	**5**	**5**	**5**

Table A16-2 Canopy species richness score

Diversity of Grey-headed flying-fox canopy species categories	Score	Assessment Unit 1			Assessment Unit 2		Assessment Unit 3	
		MHQA 4	MHQA 5	MHQA 6	MHQA 1	MHQA 3	MHQA 2	MHQA 7
No Grey-headed flying-fox canopy species	0	0	0	0	0	0	0	0
1 – 3 Grey-headed flying-fox canopy species	5	5	5	5	5	5	5	5
4 – 6 Grey-headed flying fox canopy species	10	10	10	10	10	10	10	10
>6 Grey-headed flying-fox canopy species	20	20	20	20	20	20	20	20
Total Score	/20	**5**	**5**	**5**	**5**	**10**	**5**	**5**

Table A16-3 Grey-headed flying-fox flower score (average) score

Quality of Grey-headed flying-fox flowering score categories	Score	Assessment Unit 1			Assessment Unit 2		Assessment Unit 3	
		MHQA 4	MHQA 5	MHQA 6	MHQA 1	MHQA 3	MHQA 2	MHQA 7
0.01 - 0.25	2	2	2	2	2	2	2	2
0.26 – 0.50	5	5	5	5	5	5	5	5
0.51 - 0.75	8	8	8	8	8	8	8	8
0.76 – 1.00	10	10	10	10	10	10	10	10
Total Score	/10	**8**	**10**	**5**	**5**	**5**	**5**	**2**

Table A16-4 Grey-headed flying-fox timing of biological scoring

Timing of flowering of Grey-headed flying-fox foraging resource categories	Score	Assessment Unit 1			Assessment Unit 2		Assessment Unit 3	
		MHQA 4	MHQA 5	MHQA 6	MHQA 1	MHQA 3	MHQA 2	MHQA 7
Food shortages	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
Pregnancy and birthing	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
Lactation	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
Mating and conception	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5

Migration paths	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
Fruit industries	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
Total Score	/10	**10**	**10**	**10**	**10**	**10**	**10**	**10**

Table A16-5 Grey-headed flying-fox foraging habitat trees

Quality of foraging habitat trees (trees>0.65 wt p*r) categories	Score	Assessment Unit 1			Assessment Unit 2		Assessment Unit 3	
		MHQA 4	MHQA 5	MHQA 6	MHQA 1	MHQA 3	MHQA 2	MHQA 7
0 Significant Grey-headed flying-fox foraging trees	0	0	0	0	0	0	0	0
1-3 Significant Grey-headed flying-fox foraging trees	5	5	5	5	5	5	5	5
4-6 Significant Grey-headed flying-fox foraging trees	10	10	10	10	10	10	10	10
>.6 Significant Grey-headed flying-fox foraging trees	20	20	20	20	20	20	20	20
Total Score	/20	**5**	**5**	**5**	**5**	**5**	**5**	**5**
	Total Score /80	48	40	35	30	35	30	27

Quality and availability of shelter of the Site scoring (porimity to cmaps)

Table A16-6 Grey-headed flying-fox quality of shelter

Site's quality of shelter category	Score	Assessment Unit 1			Assessment Unit 2		Assessment Unit 3	
		MHQA 4	MHQA 5	MHQA 6	MHQA 1	MHQA 3	MHQA 2	MHQA 7
No Grey-headed flying-fox nationally important or other flying-fox camps on site or within 1 km	0	0	0	0	0	0	0	0
Grey-headed flying-fox nationally important or other flying-fox camps within 1 km	10	10	10	10	10	10	10	10
Grey-headed flying-fox nationally important or other flying-fox camp on site	20	20	20	20	20	20	20	20
Total Score	/20	0	0	0	0	0	0	0
	Total Score /20	**0**	**0**	**0**	**0**	**0**	**0**	**0**

SITE CONTEXT ATTRIBUTE SCORING DATA

ROLE OF SITE LOCATION TO SPECIES OVERALL POPULATION IN THE STATE (Camps within 20km + Foraging within 20km + Foraging within Site)

Table A16-7 Grey-headed flying-fox nationally important camps and flying-fox camps within 25km of the Site

Abundance of flying-fox camps with a Level 3 or greater Grey-headed flying-fox camp in the last 2 years	Score	Assessment Unit 1			Assessment Unit 2		Assessment Unit 3	
		MHQA 4	MHQA 5	MHQA 6	MHQA 1	MHQA 3	MHQA 2	MHQA 7
<1 active > Level 3 Grey-headed flying-fox camps	0	0	0	0	0	0	0	0
1-5 active > Level 3 Grey-headed flying-fox camps	2	2	2	2	2	2	2	2
6> active > Level 3 Grey-headed flying-fox camps	5	5	5	5	5	5	5	5
1 or more nationally important Grey-headed flying-fox camps (noted in National Recovery Plan as Critical to the survival of the species).	10	10	10	10	10	10	10	10
Total Score	/10	**10**	**10**	**10**	**10**	**10**	**10**	**10**

Table A16-8 Grey-headed flying-fox foraging habitat in proximity to the Site

Abundance of Category B and C mapping within 25 km of the site	Score	Assessment Unit 1	Assessment Unit 2	Assessment Unit 3

		MHQA 4	MHQA 5	MHQA 6	MHQA 1	MHQA 3	MHQA 2	MHQA 7
<25% Category B and C mapping	0	0	0	0	0	0	0	0
26-50% Category B and C mapping	2	2	2	2	2	2	2	2
51-75% Category B and C mapping	5	5	5	5	5	5	5	5
>76% Category B and C mapping	10	10	10	10	10	10	10	10
Total Score	/10	**2**	**2**	**2**	**2**	**2**	**2**	**2**

Table A16-9 Grey-headed flying-fox foraging habitat within the Site

Abundance of Category B and C mapping within the site	Score	**Assessment Unit 1**			**Assessment Unit 2**		**Assessment Unit 3**	
		MHQA 4	MHQA 5	MHQA 6	MHQA 1	MHQA 3	MHQA 2	MHQA 7
<25% Category B and C mapping	0	0	0	0	0	0	0	0
26-50% Category B and C mapping	2	2	2	2	2	2	2	2
51-75% Category B and C mapping	5	5	5	5	5	5	5	5
>76% Category B and C mapping	10	10	10	10	10	10	10	10
Total Score	/10	2	2	2	2	2	2	2
	Total Score /30	**14**	**14**	**14**	**14**	**14**	**14**	**14**

Threats to species scoring (Fragmentation + Camp Disturbance)

Table A16-10 Grey-headed flying-fox habitat fragmentation in proximity to Site

Abundance of Category B and C mapping within 25 km of the site	Score	**Assessment Unit 1**			**Assessment Unit 2**		**Assessment Unit 3**	
		MHQA 4	MHQA 5	MHQA 6	MHQA 1	MHQA 3	MHQA 2	MHQA 7
<25% Category B and C mapping – Highly fragmentated, largely urban or large pastural areas	0	0	0	0	0	0	0	0
26-50% Category B and C mapping – moderately fragmented, peri urban and coastal fringes	5	5	5	5	5	5	5	5
51-75% Category B and C mapping - peri urban rural landscape	10	10	10	10	10	10	10	10
>75% Category B and C mapping – highly intact areas (proximate national parks/state forests).	15	15	15	15	15	15	15	15
Total Score	/15	**5**	**5**	**5**	**5**	**5**	**5**	**5**

Table A16-11 Grey-headed flying-fox nationally important camps and flying-fox camps within 1km of the Site

Abundance of flying-fox camps with a Level 3 or greater Grey-headed flying-fox camp in the last 2 years	Score	**Assessment Unit 1**			**Assessment Unit 2**		**Assessment Unit 3**	
		MHQA 4	MHQA 5	MHQA 6	MHQA 1	MHQA 3	MHQA 2	MHQA 7
<1 active > Level 3 Grey-headed flying-fox camps	0	0	0	0	0	0	0	0
1-5 active > Level 3 Grey-headed flying-fox camps	5	5	5	5	5	5	5	5
6-10 active > Level 3 Grey-headed flying-fox camps	10	10	10	10	10	10	10	10
1 or more nationally important Grey-headed flying-fox camps (noted in National Recovery Plan as Critical to the survival of the species).	15	15	15	15	15	15	15	15
Total Score	/15	**0**	**0**	**0**	**0**	**0**	**0**	**0**
	Total Score /30	**5**	**5**	**5**	**5**	**5**	**5**	**5**

SPECIES STOCKING RATE ATTRIBUTE SCORING DATA

Approximate Density (per ha) (Importance of Camps to Site's location + Foraging Resources (%) within Site)

Table A16-12 Grey-headed flying-fox nationally important camps and flying-fox camps within 25km of the Site								
Abundance of flying-fox camps with a Level 3 or greater Grey-headed flying-fox camp in the last 2 years	Score	Assessment Unit 1			Assessment Unit 2		Assessment Unit 3	
		MHQA 4	MHQA 5	MHQA 6	MHQA 1	MHQA 3	MHQA 2	MHQA 7
<1 active > Level 3 Grey-headed flying-fox camps	0	0	0	0	0	0	0	0
1-5 active > Level 3 Grey-headed flying-fox camps	5	5	5	5	5	5	5	5
6-10 active > Level 3 Grey-headed flying-fox camps	10	10	10	10	10	10	10	10
1 or more nationally important Grey-headed flying-fox camps (noted in National Recovery Plan as Critical to the survival of the species).	15	15	15	15	15	15	15	15
Total Score	/15	**15**	**15**	**15**	**15**	**15**	**15**	**15**

Table A16-13 Grey-headed flying-fox foraging habitat within the site								
Vegetation categories	Score Category	Assessment Unit 1			Assessment Unit 2		Assessment Unit 3	
		MHQA 4	MHQA 5	MHQA 6	MHQA 1	MHQA 3	MHQA 2	MHQA 7
Category X	5	5	5	5	5	5	5	5
Field Validated Regrowth	10	10	10	10	10	10	10	10
Field Validated Remnant	15	15	15	15	15	15	15	15
Total Score	/15	**5**	**5**	**5**	**10**	**15**	**10**	**15**
	Total Score /30	**20**	**20**	**20**	**25**	**30**	**25**	**30**

SITE CONDITION ATTRIBUTE SCORING DATA	Score	MHQA 4	MHQA 5	MHQA 6	MHQA 1	MHQA 3	MHQA 2	MHQA 7
Quality and availability of food and foraging habitat of the site scoring	/80	**48**	**40**	**35**	**30**	**35**	**30**	**27**
Quality and availability of shelter of the Site scoring	/20	**0**	**0**	**0**	**0**	**0**	**0**	**0**
SITE CONTEXT ATTRIBUTE SCORING DATA								
Role of site location to species overall population in the state	/30	**14**	**14**	**14**	**14**	**14**	**14**	**14**
Threats to species scoring	/30	**5**	**5**	**5**	**5**	**5**	**5**	**5**
SPECIES STOCKING RATE ATTRIBUTE SCORING DATA								
Approximate Density (Per Ha)	/30	**20**	**20**	**20**	**25**	**30**	**25**	**30**

Appendix 21

Economic Development Queensland Approval

Your reference
Our reference 10529/2019/PDA
Contact Officer Sandeep Nanjappa
Telephone (07) 3810 7267

City of Ipswich

Ipswich City Council

1 Nicholas Street
PO Box 191
IPSWICH QLD 4305

Phone (07) 3810 6666
Fax (07) 3810 6731
Email council@ipswich.qld.gov.au

Ipswich.qld.gov.au

CLAG Pty Ltd
C/- LandPartners Pty Ltd

Attn: Luke Butler
luke.butler@landpartners.com.au
CC:
Shane.Smith@landpartners.com.au

11 August 2021

Dear Sir/Madam

Re: Development Application - Approval

Application No: **10529/2019/PDA**

Proposal:
- **Reconfiguring a Lot - Five (5) Lots into Five Hundred and Twenty (520) Lots (consisting of 511 Residential lots, 1 future Child Care Centre lot, 1 Neighbourhood Recreation Park lot, 1 Linear Park Lot, 6 Drainage Reserve lots) and New Roads**
- **Material Change of use - Plan of Development (POD) for a House over Four Hundred and Seventy-Seven (477) Residential Lots and Multiple Residential over Thirty–Four (34) Residential Lots**

Property Location: **33-37 Fischer Road, FLINDERS VIEW QLD 4305,**
39-49 Fischer Road, FLINDERS VIEW QLD 4305,
61-89 Fischer Road, FLINDERS VIEW QLD 4305,
Lot 209 Melrose Drive, FLINDERS VIEW QLD 4305,
Lot 210 Melrose Drive, FLINDERS VIEW QLD 4305

I refer to the above development application which was decided on 11 August 2021.

Enclosed with this letter is the Decision Notice, including:
- Attachments A and B – MEDQ Delegate's Conditions
- Attachment D – Approved Plans
- Attachment E – State Interest response
- Appeal Rights

If you have any queries regarding this application, please contact Sandeep Nanjappa on the telephone number listed above.

Yours faithfully

Michael Simmons
DEVELOPMENT ASSESSMENT WEST MANAGER

CC:
pdadevelopmentassessment@dsdip.qld.gov.au
MEDQdelegations@dsdmip.qld.gov.au

Urban Utilities
development@urbanutilities.com.au

Our Reference 10529/2019/PDA
Contact Officer Sandeep Nanjappa
Telephone (07) 3810 7267

11 August 2021

DECISION NOTICE APPROVAL
(Given under section 89(2) of the *Economic Development Act 2012*)

Applicant details

Applicant name:	CLAG Pty Ltd C/- LandPartners Pty Ltd
Applicant contact details:	luke.butler@landpartners.com.au Shane.Smith@landpartners.com.au

Application details

Application number:	10529/2019/PDA
Application type:	Priority Development Area Reconfiguring a Lot and Material Change of Use
Description of proposed development:	▪ Reconfiguring a Lot - Five (5) Lots into Five Hundred and Twenty (520) Lots (consisting of 511 Residential lots, 1 future Child Care Centre lot, 1 Neighbourhood Recreation Park lot, 1 Linear Park Lot, 6 Drainage Reserve lots) and New Roads ▪ Material Change of Use - Plan of Development (POD) for a House over Four Hundred and Seventy-Seven (477) Residential Lots and Multiple Residential over Thirty–Four (34) Residential Lots
Date application received:	17 December 2019

Site details

Property location:	33-37 Fischer Road, FLINDERS VIEW QLD 4305, 39-49 Fischer Road, FLINDERS VIEW QLD 4305, 61-89 Fischer Road, FLINDERS VIEW QLD 4305, Lot 209 Melrose Drive, FLINDERS VIEW QLD 4305, Lot 210 Melrose Drive, FLINDERS VIEW QLD 4305
Real property description:	Lot 2 RP 906067 TO DEPTH 21.34M, Lot 211 RP 906067 TO DEPTH 21.34M, Lot 208 SL 11067 TO DEPTH 21.34M, Lot 209 SL 11067 TO DEPTH 21.34M, Lot 210 SL 9238 TO DEPTH 21.34M

Decision

Date of decision:	11 August 2021
Decision Authority:	Development Assessment West Manager

1. Decision Details:

Development	Approval Type	Decision	Currency Period
Priority Development Area Reconfiguring a Lot - Five (5) Lots into Five Hundred and Twenty (520) Lots (consisting of 511 Residential lots, 1 future Child Care Centre lot, 1 Neighbourhood Recreation Park lot, 1 Linear Park Lot and 6 Drainage Reserve lots) and New Roads	PDA Development Permit	Approved in full subject to the conditions set out in Attachment A	Ten (10) years
Material Change of use - Plan of Development (POD) for a House over Four Hundred and Seventy-Seven (477) Residential Lots and Multiple Residential over Thirty–Four (34) Residential Lots	PDA Development Permit	Approved in full subject to the conditions set out in Attachment B	Fifteen (15) years

2. Conditions of MEDQ Delegate (Ipswich City Council)

Refer to Attachments A & B for MEDQ Delegate's conditions.

3. Approved Plans Specifications and Drawings

The approved plans, specifications and drawings for this development approval are:

(a) The plans and documents referred to in the table below (including the amendments that are required to be made to those plans and documents); and

(b) Where the amended version of the plans and documents referred to in the table below have been approved by the MEDQ Delegate, the amended version of those plans and documents.

The plans referenced below are included as Attachment B of this decision notice.

APPROVED PLANS				
Reference No.	**Description & Revision No.**	**Prepared By**	**Date**	**Amendments Required**
Aspect of development: Reconfiguring a Lot - Five (5) Lots into Five Hundred and Twenty (520) Lots (consisting of 511 Residential lots, 1 future Child Care Centre lot, 1 Neighbourhood Recreation Park lot, 1 Linear Park Lot and 6 Drainage Reserve lots) and New Roads				
BRSS7261-000-61-19	Proposed Reconfiguration of Lots 208-209 on SL11067, Lot 210 on SL9238 and Lot 2 & 211 on RP906067	Land Partners	02 February 2021 and amended in red by ICC on 10 August 2021	Fischer Road land dedication and roadworks must be undertaken as part of Stage 4 as per Conditions 4(g) and

				25(a) - 25(b).
Aspect of development: Material Change of use - Plan of Development (POD) for a House over Four Hundred and Seventy-Seven (477) Residential Lots and Multiple Residential over Thirty–Four (34) Residential Lots				
BRSS7261-000-62-19, Sheet 1 of 13	Plan of Development Stages 1-13	Land Partners	02 February 2021 and amended in red by ICC on 3 June 2021	POD design requirements amended Fischer Road land dedication and roadworks must be undertaken as part of Stage 4 as per Conditions 4(g) and 25(a) - 25(b).
BRSS7261-000-62-19, Sheet 2 of 13	Plan of Development Stage 1	Land Partners	02 February 2021 and amended in red by ICC on 3 June 2021	POD design requirements amended
BRSS7261-000-62-19, Sheet 3 of 13	Plan of Development Stage 2	Land Partners	02 February 2021 and amended in red by ICC on 3 June 2021	POD design requirements amended
BRSS7261-000-62-19, Sheet 4 of 13	Plan of Development Stage 3	Land Partners	02 February 2021 and amended in red by ICC on 3 June 2021	POD design requirements amended
BRSS7261-000-62-19, Sheet 5 of 13	Plan of Development Stage 4	Land Partners	02 February 2021 and amended in red by ICC on 3 June 2021	POD design requirements amended
BRSS7261-000-62-19, Sheet 6 of 13	Plan of Development Stage 5	Land Partners	02 February 2021 and amended in red by ICC on 3 June 2021	POD design requirements amended
BRSS7261-000-62-19, Sheet 7 of 13	Plan of Development Stage 6	Land Partners	02 February 2021 and amended in red by ICC on 3 June 2021	POD design requirements amended
BRSS7261-000-62-19, Sheet 8 of 13	Plan of Development Stage 7	Land Partners	02 February 2021 and amended in red by ICC on 3 June 2021	POD design requirements amended

BRSS7261-000-62-19, Sheet 9 of 13	Plan of Development Stage 8	Land Partners	02 February 2021 and amended in red by ICC on 3 June 2021	POD design requirements amended
BRSS7261-000-62-19, Sheet 10 of 13	Plan of Development Stage 9	Land Partners	02 February 2021 and amended in red by ICC on 3 June 2021	POD design requirements amended Fischer Road land dedication and roadworks must be undertaken as part of Stage 4 as per Conditions 4(g) and 25(a) - 25(b).
BRSS7261-000-62-19, Sheet 11 of 13	Plan of Development Stage 10	Land Partners	02 February 2021 and amended in red by ICC on 3 June 2021	POD design requirements amended Fischer Road land dedication and roadworks must be undertaken as part of Stage 4 as per Conditions 4(g) and 25(a) - 25(b).
BRSS7261-000-62-19, Sheet 12 of 13	Plan of Development Stage 11	Land Partners	02 February 2021 and amended in red by ICC on 3 June 2021	POD design requirements amended Fischer Road land dedication and roadworks must be undertaken as part of Stage 4 as per Conditions 4(g) and 25(a) - 25(b).
BRSS7261-000-62-19, Sheet 13 of 13	Plan of Development Stage 12	Land Partners	02 February 2021 and amended in red by ICC on 3 June 2021	POD design requirements amended
BRSS7261-000-62-19, Sheet 14 of 14	Plan of Development Stage 13	Land Partners	02 February 2021 and amended in red by ICC on 3 June 2021	POD design requirements amended Fischer Road land dedication and roadworks must be

				undertaken as part of Stage 4 as per Conditions 4(g) and 25(a) - 25(b).
ENGINEERING DRAWINGS/PLANS **Aspect of development: Reconfiguring a Lot - Five (5) Lots into Five Hundred and Twenty (520) Lots (consisting of 511 Residential lots, 1 future Child Care Centre lot, 1 Neighbourhood Recreation Park lot, 1 Linear Park Lot and 6 Drainage Reserve lots) and New Roads**				
219002-DA-RW-801	Roadworks Details – Sheet 1, Revision P5	Urban Engineering Solutions	04 December 2021	Not applicable
219002-DA-RW-802	Roadworks Details – Sheet 2, Revision P6	Urban Engineering Solutions	27 January 2021	Not applicable
File Location: M1.226-06-Plan3	CLAG Pty Ltd Fischer Road, Flinders View, Plan 3: Constraints Plan	Taylor Mining Services Pty Ltd	10 December 2020	Not applicable
SPECIFICATIONS/DRAWINGS				
Reference No.	**Description & Revision No.**	**Prepared By**	**Date**	**Amendments Required**
Aspect of development: All				
2019/48	Desktop Mining Study at Fischer Road, Flinders View Original Report	Moreton Geotechnical Services Pty Ltd	10 July 2019	Not applicable
2019/48/02	Mining Issues at Fischer Road, Flinders View Report 2 – Review of Geophysical Study Report	Moreton Geotechnical Services Pty Ltd	21 October 2019	Not applicable
2019/48/03	Mining Issues at Fischer Road, Flinders View Report 3 – Closer Assessment of Potential Subsidence Impacts Across Part of Area 1	Moreton Geotechnical Services Pty Ltd	05 December 2019	Not applicable
2019/48/04	Mining Issues at Fischer Road, Flinders View Report 4	Moreton Geotechnical Services Pty Ltd	10 March 2019	Not applicable
2019/48/05	Mining Issues at Fischer Road, Flinders View	Moreton Geotechnical Services Pty	29 May 2020	Not applicable

	Report 5	Ltd		
2019/48/06 A	Mining Issues at Fischer Road, Flinders View – Response to Council's RFI – Report 6	Moreton Geotechnical Services Pty Ltd	10 December 2020	Not applicable
GE19.063.R1	Dispersive Soil Management Plan (DSMP): Ripley View Estate, 39-49 Fischer Road, Flinders View Revision: Original	Gallagher Environmental	20 August 2019	Not applicable
18BRT0428	Response to Council Further Information Request – Traffic Engineering Issues	TTM	10 February 2021	Refer Condition 25 'Roadworks - Compliance Assessment'
M64000_004_REP-001	Ripley View Estate: Stormwater Management Plan and Flood Impact Assessment, Revision 6	Engeny	04 February 2021	Not applicable
N/A	Ripley View FIR – response and updated SMP (Engeny email response)	Engeny	05 February 2021	Not applicable
A_127_HPS_001_PAC01_01RPT	Fischer Road Embankment Design Assessment over Fault Zone Geotechnical Advice Revision 0	Geo Inventions Consulting Services	25 September 2020	Not applicable
2018-079-PD-RMP	Rehabilitation Management Plan	28 South Environmental	09 December 2020	In accordance with Condition 28 'Rehabilitation'
2018-079-PD-VMP	Vegetation Management Plan	28 South Environmental	09 December 2020	In accordance with Condition 29 'Vegetation Retention – Drainage Corridor'
01666	Landscape Concept Design, Revision E	View Landscape Architecture	10 December 2020	Lot/road layout must in accordance with approved reconfiguration plan referred above.

19082	Bushfire Management Plan, Version Final V1	Land and Environment Consultants	12 December 2019	In accordance with Condition 31 'Bushfire Risk Management'.
SPECIFICATIONS/DRAWINGS Department of State Development, Infrastructure, Local Government and Planning (DSDILGP) (as refereed in EDQ State Interests Review response dated 9 July 2021)				
18BRT0428-07	Swanbank Road/Cunningham HWY Westbound Ramps Intersection – Roundabout Upgrade Concept, Revision A	TTM Consulting	8 October 2020	Not Applicable
18BRT0428-13	Swanbank Road/Fischer Road Intersection – Signalised Upgrade Concept Layout, Revision A	TTM Consulting	12 April 2021	Not Applicable
QB541-02-F05 R1	Residential Subdivision, 63 Fischer Road, Flinders View – Response to DSDMIP RFIs, Figure 4: Acoustic barriers – 2.3m, 3m, 6m high	Renzo Tonin & Associates	2 February 2021 and amended in red on 2 July 2021	Not Applicable
M64000_004_REP-001	Ripley View Estate Stormwater Management Plan and Flood Impact Assessment, Revision 6	Engeny Water Management	4 February 2021	Not Applicable
219002-DA-RW-101 to 219002-DA-RW-109	Roadworks Concept Layout Plans – Sheets 1 to 9, Revision P5	Urban Engineering Solutions	4 December 2020	Not Applicable
BRSS7261-000-61-19	Reconfiguration of Lots 208-209 on SL11067, Lot 210 on SL9238 and Lot 2 & 211 on RP906067	LandPartners	2 February 2021 and amended in Red on 2 February 2021 and 9 July 2021	Not Applicable

Note: Amended plans or documents must be submitted for endorsement by the MEDQ Delegate as identified in relevant conditions.

4. State Interest

The referral agencies for this application are:

State Interest	Address
Economic Development Queensland, Department of State Development, Tourism and Innovation	Email: pdadevelopmentassessment@dsdmip.qld.gov.au Ph: 07 3452 7437

Refer to Attachment E for State Interest conditions.

5. Preliminary Approval

Not applicable to this decision.

6. Further Development Permits

Further development permits, as required by the *Economic Development Act 2012,* must be obtained before the development can be carried out in respect of any material change of use, reconfiguring a lot, operational works, building works and plumbing works in relation to this approval prior to the *commencement of works/use and/or signing of the plan of subdivision* pursuant to the *Economic Development Act 2012*.

7. Environmental Authority

Not applicable to this decision.

8. Submissions

There was one (1) submission about the application received from the following submitters:

Name of principal submitter	Residential or business address	Electronic address (if provided)
Katherine Kingston	83 Melrose Drive, Flinders View	darrylpj@outlook.com

9. Currency period for the approval (section 100 of the *Economic Development Act 2012*)

The currency period for this approval is as outlined in part 1 – 'decision details' of this decision notice, starting the day the approval takes effect. Unless the currency period is extended by the MEDQ Delegate pursuant to section 101 of the *Economic Development Act 2012*, this development approval lapses in accordance with section 100 of the *Economic Development Act 2012.*

10. When approval lapses if development started but not completed— preliminary approval

Not applicable to this decision.

11. Infrastructure

The following trunk infrastructure is applicable to this development and is listed in the table below:

Trunk Infrastructure	Conditions
Water and Sewer	
Water and sewer infrastructure as identified on Water Supply Plan and Sewerage Map of Ripley Valley PDA Infrastructure Charging Offset Plan – June 2020	Condition 50 'Water Supply & Sewerage Infrastructure'.
Park	
One (1) Local Recreation Park {*referred as Lot 906 - Neighbourhood Recreation Park (Local Park) on the approval plan*}	Condition 20 'Local/Neighbourhood Recreation Park (proposed Lot 906)' and Condition 4(e) 'Subdivision Plan'
Local Linear Park {*referred as POS018 on Parks & Open Space Map of Ripley Valley PDA Infrastructure Charging Offset Plan – June 2020 and as Lot 907 - Linear Park on the approval plan}*	Condition 21 'Linear Park (proposed Lot 907)' and Condition 4(f) 'Subdivision Plan'
Transport	
Land dedication and part works for Ultimate Fischer Road and corresponding Ultimate Intersections (*referred as R005A/R005B on Road Map and R1004A/R1004B on the Intersections Map of Ripley Valley PDA Infrastructure Charging Offset Plan – June 2020*)	Condition 25 'Roadworks - Compliance Assessment' and Condition 4(g) 'Subdivision Plan'

Note:

1. Any works not specifically listed in the table above are not considered Trunk Infrastructure unless varied by the Ripley Valley PDA Infrastructure Charges Offset Plan or other applicable offset framework in effect at the time of lodging the provisional offset claim.

2. Consideration should be given to Advice Condition 22 'Trunk Infrastructure' of Attachment A in relation to provision of trunk infrastructure identified in documents/plans referred in Table above.

Attachment A
MEDQ Delegate's Conditions
File No: 10529/2019/PDA

Location: 33-37 Fischer Road, FLINDERS VIEW QLD 4305, 39-49 Fischer Road, FLINDERS VIEW QLD 4305, 61-89 Fischer Road, FLINDERS VIEW QLD 4305, Lot 209 Melrose Drive, FLINDERS VIEW QLD 4305, Lot 210 Melrose Drive, FLINDERS VIEW QLD 4305

Proposal: Area Reconfiguring a Lot - Five (5) Lots into Five Hundred and Twenty (520) Lots (consisting of 511 Residential lots, 1 future Child Care Centre lot, 1 Neighbourhood Recreation Park lot, 1 Linear Park Lot, 6 Drainage Reserve lots) and New Roads

MEDQ Delegate's (Ipswich City Council) Conditions ***Conditions applicable to this approval under the Economic Development Act 2012***		
No.	**Condition**	**The time by which the condition must be met, implemented or complied with**
1.	**Basis of Approval**	
	This approval incorporates as a condition, the applicant's common material for the application and adherence to all relevant Council Local Laws and/or the *Ripley Valley Priority Development Area Development Scheme* unless otherwise varied by this approval or varied by a condition of this approval. Note: Any variation in the development from that approved herein may constitute assessable development pursuant to the *Economic Development Act 2012*.	From the commencement of the construction of the development and at all times thereafter.
2.	**Minor Alterations**	
	Notwithstanding the requirements detailed in this approval, any other minor alterations accepted in writing by the MEDQ Delegate will suffice.	At all times after the approval is granted.
3.	**Rates in Arrears**	
	The applicant must pay any outstanding rates and other expenses as a charge against the land in accordance with the provisions of the *Planning Act 2016*.	Prior to the MEDQ Delegate signing the subdivision plan.
4.	**Subdivision Plan**	
(a)	The applicant must submit to the MEDQ Delegate a subdivision plan (and any associated easement documents) generally in accordance with the approved plans (including any amendments required) outlined in Part 3 'Approved Plans Specifications and Drawings' of this development permit.	In conjunction with the lodgement of the application to sign the relevant subdivision plan.

	Note: In the instance where Council is party to an easement, the documentation associated with that easement may be prepared by Council at the applicant's expense.	
(b)	The applicant must grant, free of cost to or compensation payable by Council, minimum 4.0m wide easements located centrally over proposed stormwater drains (375mm diameter or greater) and overland flow paths, where located within private property. Easements over the alignment of stormwater paths must be of sufficient width to encompass the overland flow from a storm event with an AEP of 1 %.	In conjunction with the lodgement of the application to sign the relevant subdivision plan.
(c)	The applicant must grant, free of cost or compensation payable by Council, an easement over all land (excluding that contained within approved open space or drainage land) that is below the storm event with an AEP of 1%.	In conjunction with the lodgement of the application to sign the relevant subdivision plan.
(d)	The land required for detention basins and bio-retention basins or equivalent must be dedicated as drainage reserve in favour of Council and not included within any other lot under separate ownership.	In conjunction with the lodgement of the application to sign the relevant subdivision plan.
(e)	The applicant must dedicate land for Local Recreation Park {r*eferred as Lot 906 -Neighbourhood Recreation Park (Local Park) on the approval plan}* in accordance with the endorsed compliance assessment as required by Condition 20 'Local/Neighbourhood Recreation Park (proposed Lot 906)'.	In conjunction with the lodgement of the application to sign subdivision plan for Stage 1.
(f)	The applicant must dedicate land for Linear Park {r*eferred as Lot 907 - Linear Park on the approval plan}* in accordance with the endorsed compliance assessment as required by Condition 21 'Linear Park (proposed Lot 907)'.	In conjunction with the lodgement of the application to sign subdivision plan for Stages 1, 2, 4, 8 and 10.
(g)	The applicant must grant land for future road purposes in order to provide road widening along the site frontage/s as below: <u>Land dedication for Ultimate Fischer Road and corresponding Ultimate Intersections:</u> In accordance with the 'Fischer Road Ultimate Configuration', drawing number 18BRT0428-01, Revision D, Sheets 1-4, prepared by TTM and dated 07 December 2020, and the Proposed Reconfiguration Plan, drawing number BRSS7261-000-61-19 prepared by Landpartners and dated 02 February 2021. N*ote: Credits may be applicable pursuant to the Infrastructure Charging Offset Plan.*	In conjunction with the lodgement of the application to sign subdivision plan for Stage 4.

(h)	The Subdivision Plan for lots within Stages 4 - 13 of this Development Approval must not be sealed until such time: (i) The road connection from the development site to the Cunningham Highway via Fischer Road is constructed to relevant Standards in accordance with the EDQ State Interests Review response dated 9 July 2021, and open to the public; Or (ii) An alternative arrangement agreed to in writing by the Department of Transport and Main Roads is implemented in accordance with the EDQ State Interests Review response dated 9 July 2021, and subject to demonstration (including traffic impact assessment report etc) to the MEDQ Delegate that such alternative arrangement will not adversely impact on other local road networks including Ripley Road.	At all times after the approval is granted.
(i)	The Subdivision Plan for proposed Lots 482-485, 495-498, 361-363 and 903 of this Development Approval must not be sealed prior to the completion of borehole remediation works as required by Condition 37 'Borehole Remediation'.	At all times after the approval is granted.

5.	**Stages for Reconfiguration**	
(a)	Unless otherwise approved in writing by the MEDQ Delegate, the applicant must construct the stages of the development sequentially in accordance with the approved plans outlined in Part 3 'Approved Plans Specifications and Drawings' of this development permit. *Note: Stages can be constructed and completed simultaneously if required.*	From the commencement of the construction of the development and at all times thereafter.
(b)	Unless otherwise approved in writing by the MEDQ Delegate each stage must be independently serviced by roads, water, sewer, stormwater, stormwater management systems and any other relevant utilities.	From the commencement of the construction of the development and at all times thereafter.

6.	**Contaminated Land**	
	The applicant must ensure all land to be dedicated to Council is not listed on either the Contaminated Land Register or the Environmental Management Register prior to dedication. In this regard the applicant is responsible for all works associated with the removal of any land to be dedicated to Council from these registers. The applicant must provide details to Council	

	demonstrating that the requirements of this condition have been met.	

7.	**Locality References**	
(a)	The applicant must ensure any place name, estate name or development name used in respect of this development in any form of advertising or communication (excluding a reference to a building, structure or the like and excluding minor, subsidiary signage within a development to Council's satisfaction) must specify the relevant, approved place name under the *Place Names Act 1994* and must comply with the following: (i) be in the same colour, background colour, typeface, font, font characteristics and character spacing as the place/estate/development name (ii) be in lettering at least 50% of the size of the place/estate/development name (iii) be in the same orientation as the place/estate/development name (iv) be in either title case or all in upper case.	At all times after the approval is granted.
(b)	The applicant must not at any time refer to the location of the site or the development, including the place or estate, as being located in Brisbane or a Brisbane suburb or in the metropolitan area or in the western suburbs (excluding the western suburbs of Ipswich as determined by Council in writing from time to time).	At all times after the approval is granted.

8.	**Hours of Construction**	
	Unless otherwise approved in writing by the MEDQ Delegate, construction works must only occur within the hours as defined in *Planning Scheme Policy 3 – General Works Part 5, Section 5.1.3.*	At all times during construction of the development.

9.	**Entry Walls or Features**	
(a)	The applicant must not construct entry walls or features on dedicated roads, parks or drainage land.	From the commencement of the construction of the development and at all times thereafter.
(b)	The applicant must ensure that entry walls or features are: (i) Fully contained on private property. (ii) Designed in accordance with Implementation Guideline No. 18 – Estate and Directional Signage of the *Ipswich Planning Scheme*.	From the commencement of the construction of the development and at all times thereafter.

10.	**Road Naming**	
	The applicant must submit to Council a list of three (3) proposed road names and the corresponding name meanings for any new roads to be opened. If a theme is considered appropriate, an explanation of the theme is to be submitted at the same time. Council reserves the right to accept any or none of the proposed names.	In conjunction with the lodgement of a pre-construction certification that creates the related road.

11.	**Park Naming**	
	The applicant must submit to Council a list of three (3) proposed park names and the corresponding name meanings for any new park. Council reserves the right to accept any or none of the proposed names.	In conjunction with the lodgement of a development application for operational works that creates the related park.

12.	**Disposal of Cleared Vegetation**	
	The applicant must dispose of cleared vegetation in accordance with *Ipswich Planning Scheme Policy 3.*	From the commencement of works and at all times thereafter.

13.	**Municipal Charge**	
(a)	Unless a relevant infrastructure agreement provides to the contrary, pay to the MEDQ Delegate the Municipal Charge as set out in the Infrastructure Funding Framework (IFF) or the equivalent legislative infrastructure charging framework, as applicable (and indexed if relevant) at the time of payment.	As required by the IFF
(b)	The Municipal infrastructure is that set out in the ICOP including those elements of Municipal infrastructure set out in the conditions of this Approval.	As required by the IFF
(c)	Infrastructure Contributions carried out under Condition 13(b) above may be offset against the Municipal Charge in Condition 13(a) above in accordance with Infrastructure Funding Framework, Crediting and Offset Arrangements (IFFCOA) and Infrastructure Charging Offset Plan (ICOP).	As required by the IFF

14.	**State Charge**	
(a)	Unless a relevant infrastructure agreement provides to the contrary, pay to the MEDQ Delegate the State Charge as set out in the Infrastructure Funding Framework (IFF) or the equivalent legislative infrastructure charging framework, as applicable (and indexed if relevant) at the time of payment.	As required by the IFF
(b)	The State infrastructure is that set out in the ICOP including those elements of State Infrastructure set out in this Approval.	As required by the IFF
(c)	Infrastructure Contributions carried out under Condition 14(b) above may be offset against the State Charge in Condition 14(a) above in accordance with the	As required by the IFF

	Infrastructure Funding Framework, Crediting and Offset Arrangements (IFFCOA) and Infrastructure Charging Offset Plan (ICOP).	

15.	**Implementation Charge**	
(a)	Unless a relevant infrastructure agreement provides to the contrary, pay to the MEDQ Delegate the Implementation Charge as set out in the Infrastructure Funding Framework (IFF) or the equivalent legislative infrastructure charging framework, as applicable (and indexed if relevant) at the time of payment.	As required by the IFF
(b)	The Implementation works are those set out in the ICOP including those elements of Implementation charge set out in the conditions of this Approval.	As required by the IFF
(c)	Infrastructure Contributions carried out under Condition 15(b) above may be offset against the Implementation Charge in Condition 15(a) above in accordance with the Infrastructure Funding Framework, Crediting and Offset Arrangements (IFFCOA) and Infrastructure Charging Offset Plan (ICOP).	As required by the IFF

16.	**Sub-regional Charge**	
(a)	Unless a relevant infrastructure agreement provides to the contrary, pay to the MEDQ Delegate the Sub-regional Charge as set out in the Infrastructure Funding Framework (IFF) or the equivalent legislative infrastructure charging framework, as applicable (and indexed if relevant) at the time of payment.	As required by the IFF
(b)	The Implementation works are those set out in the ICOP including those elements of Sub-regional charge set out in the conditions of this Approval.	As required by the IFF
(c)	Infrastructure Contributions carried out under Condition 16(b) above may be offset against the Sub-regional Charge in Condition 16(a) above in accordance with the Infrastructure Funding Framework, Crediting and Offset Arrangements (IFFCOA) and Infrastructure Charging Offset Plan (ICOP).	As required by the IFF

17.	**Infrastructure Charges – Multiple Residential Development comprising 2 or more Dwelling Units on a Lot**	
	For any lots where Multiple Residential dwellings are to be constructed in accordance with the approved Plan of Development, the applicant must pay to the MEDQ Delegate infrastructure charges in accordance with the Infrastructure Funding Framework (IFF) and indexed to the date of payment.	Prior to the assessment manager signing the relevant subdivision plan.

18.	**Street lighting**	
(a)	The applicant must ensure any lighting along cycleways/pathways adjoining Linear Park/Waterway Corridor is designed to ensure no adverse impacts on local fauna.	Prior to the MEDQ Delegate signing the relevant subdivision plan.
(b)	The applicant must provide street lighting for external frontage roads (where upgrade works are required), all internal roads, cycleways and pathways for the proposed development.	Prior to the MEDQ Delegate signing the relevant subdivision plan.
(c)	Street lighting must be provided on the same side of the road as footpaths unless otherwise approved by the MEDQ Delegate.	Prior to the MEDQ Delegate signing the relevant subdivision plan.

Compliance Assessment

19.	**Compliance Assessment**	
(a)	Where a condition of this approval requires compliance assessment, compliance assessment is required in accordance with the timing set out in the conditions.	As required by relevant conditions of this approval.
(b)	Before compliance assessment will commence, payment for any applicable fees must accompany any request for compliance assessment. The fee is set out in the Economic Development Queensland's (or equivalent statutory assessing authority) Development Assessment Fees and Charges in force at the date of lodgement.	
(c)	The process and timeframes that apply to compliance assessment are: (i) The applicant submits plans and supporting information as required for compliance assessment; (ii) Within 20 business days – the MEDQ Delegate assesses the plans and supporting information and if not satisfied with the information as submitted – notifies the applicant accordingly.	
(d)	If the applicant is notified under Condition 19(c)(ii) above: (i) The information and plans addressing the concerns are to be re-submitted; (ii) Within a further 15 business days – the MEDQ Delegate assesses the re-submitted plans and supporting information and if not satisfied with the information as submitted – notifies the applicant accordingly.	

	If the applicant is notified at Condition 19(d)(ii) above, within 10 business days, the MEDQ Delegate and applicant will repeat steps at Condition 19(d)(i). At any time and upon utilizing Condition 19(c) at least once, if either party is not satisfied by the outcome of this process, that party can elect to enter into a mediation process with an independent mediator agreed to by both parties or if there is no agreement, nominated by the President for the time being of the Queensland Law Society Inc.	

20.	**Local/Neighbourhood Recreation Park (proposed Lot 906)**	
(a)	The applicant must submit to the MEDQ Delegate for compliance assessment a detailed park plan for the identified Recreation Parks, generally in accordance with the landscape plan/s outlined in Part 3 'Approved Plans Specifications and Drawings' of this Development Approval, which unless otherwise agreed to by the MEDQ Delegate, demonstrates compliance with the requirements of EDQ Guideline 12 – Park Planning and Design, and Ipswich City Council's Desired Standards of Service (Planning Scheme Policy 3). The detailed park plan must include: (i) All elements of the proposed park and the proposed interface between Recreation Park and the adjoining road reserve or lots. (ii) Include details of staging of landscaping works (if proposed). Unless otherwise determined in writing by the MEDQ Delegate, such staging must be generally in accordance with the staging identified on the approved plan/s outlined in Part 3 'Approved Plans Specifications and Drawings' of this Development Approval. *Note: Landscape works required by this condition do not include rehabilitation and associated works required by Condition 28 'Rehabilitation'.*	Prior to the commencement of any works associated with open space provisioning and embellishment.
(b)	Unless otherwise agreed to by the MEDQ Delegate, the applicant must embellish Recreation Parks in accordance with the approved detailed park plan required by Condition 20(a) above, EDQ Guideline 12 – Park Planning and Design, Ipswich City Council's Desired Standards of Service (Planning Scheme Policy 3), and to Council's construction standards.	Prior to the MEDQ Delegate signing the relevant subdivision plan.
(c)	The applicant must submit to the MEDQ Delegate certification from an AILA qualified landscape architect that the works associated with the Recreation Parks have been constructed in accordance with Conditions	Prior to the MEDQ Delegate signing the relevant subdivision plan.

	20(a) and 20(c) above.	

21.	**Linear Park (proposed Lot 907)**	
(a)	The applicant must submit to the MEDQ Delegate for compliance assessment a detailed park plan for the identified Linear Park, generally in accordance with the landscape plan/s outlined in Part 3 'Approved Plans Specifications and Drawings' of this Development Approval, which unless otherwise agreed to by the MEDQ Delegate, demonstrates compliance with the requirements of EDQ Guideline 12 – Park Planning and Design, and Ipswich City Council's Desired Standards of Service (Planning Scheme Policy 3). The detailed park plan must include all elements of the proposed park and the proposed interface between Recreation Park and the adjoining road reserve or lots.	Prior to the commencement of any works associated with open space provisioning and embellishment.
(b)	Unless otherwise agreed to by the MEDQ Delegate, the applicant must embellish the Linear Park in accordance with the approved detailed park plan required by Condition 21(a) above, EDQ Guideline 12 – Park Planning and Design, Ipswich City Council's Desired Standards of Service (Planning Scheme Policy 3), and to Council's construction standards.	Prior to the MEDQ Delegate signing the relevant subdivision plan.
(c)	The applicant must submit to the MEDQ Delegate certification from an AILA qualified landscape architect that the works associated with the Linear Park have been constructed in accordance with Conditions 21(a) and 21(b) above.	Prior to the MEDQ Delegate signing the relevant subdivision plan.

22.	**Streetscape Works**	
(a)	The applicant must submit to the MEDQ Delegate for compliance assessment, Streetscape Works plans for the development certified by a registered Landscape Architect detailing proposed works in accordance with the *Ipswich Streetscape Design Guideline 2013* and the following requirements: (i) Landscape plan/s outlined in Part 3 'Approved Plans Specifications and Drawings' of this Development Approval. (ii) Screen/buffer planting on the western side of proposed Lots 185-205 and the northern side of proposed Lots 390-397. The Screen/buffer planting must incorporate low-maintenance species and must assist in softening the visual dominance of the retaining wall and fencing required by Condition 23 'Retaining Walls and Fencing'.	Prior to the commencement of any streetscape related works on the site.

	(iii) Design treatment (footpath, landscape, fencing, and lighting etc incorporating CPTED principles) or the Pedestrian Pathway/Links as identified on Landscape plan/s outlined in Part 3 'Approved Plans Specifications and Drawings' of this Development Approval. (iv) Show appropriate pavement treatments including finished surface levels, cross-falls and longitudinal grades. (v) Streetscaping must be provided at a density of one (1) tree per allotment or one (1) per twenty (20) metres of road frontage, whichever is the lesser. (vi) Provide street tree locations and species, including common and botanical names, height and spread at maturity, ground preparation works and monthly maintenance plan. (vii) Identify road uses adjacent to the kerbing (e.g. public transport stops, parking bays, No Standing zones etc). (viii) Show the location of services within the road reserve. *Note: Plant/tree species must be in accordance with the Ipswich City Council Street Tree Strategy or equivalent. Root intrusive trees must not be planted in the road reserve.*	
(b)	The applicant must construct streetscape works in accordance with the approved 'Streetscape Works plans' required by Condition 22(a) above, and to Council's construction standards.	Prior to the MEDQ Delegate signing the relevant subdivision plan.
(c)	The applicant must submit to the MEDQ Delegate certification from an AILA qualified landscape architect that the works have been constructed in accordance with Conditions 22(a) and 22(b) above.	Prior to the MEDQ Delegate signing the relevant subdivision plan.

23.	**Retaining Walls and Fencing**	
(a)	The applicant must submit to the MEDQ Delegate for compliance assessment, detailed plan/s certified by a registered Landscape Architect detailing that the proposed retaining walls and fencing works incorporate	Prior to the commencement of any earthworks on the site.

	the following: (i) Retaining walls within and/or between residential lots must be maximum height of 3.0m, and where the height of the wall exceeds 1.5m, the wall must be tiered with a minimum 1.0m wide horizontal bench. (ii) Retaining walls adjoining/facing road reserve/other public spaces that are visible from public right of way must incorporate material/finish/painting and landscape treatment to add contrast, minimise repetition and to improve the overall visual appearance of the retaining wall. (iii) Retaining walls associated with proposed residential lots must be located entirely within the associated residential lots. (iv) Unless otherwise determined in writing by the MEDQ Delegate, retaining walls must not be located within existing/future road reserves. (v) Provide a fence/s generally in accordance with Landscape plan/s outlined in Part 3 'Approved Plans Specifications and Drawings' of this Development Approval. The fence must incorporate CPTED principles and utilise high quality design, materials and finishes to provide visual interest, and low-maintenance materials. (vi) Acoustic barrier walls required in accordance with Condition 30 'Acoustic Design Management' and Department of State Development, Tourism and Innovation (DSDTI) Condition 54 'State-controlled Road – Road Traffic Noise' must incorporate high quality material/finish/painting treatment to improve the overall visual appearance of the acoustic barrier wall.	
(b)	The applicant must carry out retaining walls and fencing works in accordance with the approved plan/s required at Condition 23(a) above.	Prior to the MEDQ Delegate signing the relevant subdivision plan.
(c)	The applicant must submit to the MEDQ Delegate certification from an AILA qualified landscape architect that the works have been constructed in accordance with Conditions 23(a) and 23(b) above.	Prior to the MEDQ Delegate signing the relevant subdivision plan.

24.	**Footpath Plan**	
	The applicant must submit to MEDQ Delegate for compliance assessment a Footpath Plan. The footpath plan must demonstrate provision of footpath for all proposed street/roads in accordance with EDQ Guideline 6 (February 2019) and ensure pedestrian connectivity within the development.	Prior to the submission of documents for pre-construction certification for the relevant stage.

25.	**Roadworks - Compliance Assessment**	
Fischer Road		
(a)	The applicant must submit to the MEDQ Delegate for compliance assessment, detailed engineering design and construction drawings certified by a RPEQ experienced in road and intersection design for both interim and ultimate upgrades of the frontage works along Fischer Road which incorporate the intersection of Fischer Road and the East/West connector road, and the intersection of Fischer Road and Boyland Way. The engineering design and construction drawings must be generally in accordance with the following: (i) **For interim upgrade design,** TTM's Dwg No: 18BRT0428-02 titled 'Fischer Road Interim Configuration' (sheets 1-4), Revision E, and dated 25 January 2021 subject to the following modifications: 1. The interim design must be amended to include the ultimate concrete footpath/cycle track on the western side of Fischer Road extending along the full frontage of all lots subject to this development approval. The applicant must also provide detailed design for either: a) The ultimate concrete footpath/cycle track along the frontage of Lot 5 RP845600 (noting that this outcome will require liaison with the Lot 5 landowner and dedication of land from this lot that does not currently form part of this approval); or b) A minimum 1.5m wide interim concrete pathway which runs along the frontage of	Prior to the issue of pre-construction certification for the Stage 4 of the development.

	the existing Lot 5 RP845600 boundary. 2. Provide details for the interface between the newly constructed interim road design into the existing road to the north of the development site; and 3. Provide detailed design for the 2.5m wide shared concrete pathway on the eastern side of Fischer Road including detailed design for the interface between the Fischer Road reserve and properties on the eastern side of Fischer Road. Owners' consent must be obtained to undertake any works within adjacent/affected properties (inclusive of driveway modifications). If owners' consent cannot be obtained, the applicant must redesign the Fischer Road upgrade with adjustment of the vertical alignment such that there is no encroachment into adjoining/private lots. (ii) **For ultimate design**, TTM's Dwg No: 18BRT0428-01 titled 'Fischer Road Ultimate Configuration' (sheets 1-4), Revision E, and dated 25 January 2021 and including detailed earthworks design for the interface between Fischer Road and properties on the eastern side of Fischer Road.	
(b)	Unless otherwise agreed to by the MEDQ Delegate, the applicant must construct frontage street roadworks along Fischer Road to the **interim** design generally in accordance with approved design/drawings as required by Condition 25(a)(i) above.	Prior to the MEDQ Delegate signing the subdivision plan for Stage 4.
Josie Street		
(c)	The applicant must submit to the MEDQ Delegate for compliance assessment, detailed engineering design and construction drawings certified by an RPEQ experienced in road and intersection design for the frontage works along Josie Street to a Neighbourhood Connector Street standard which incorporate the horizontal curve between Josie Street and the East/West Connector Road. The engineering design and construction drawings must be generally in accordance with the following: (i) EDQ PDA Guideline No.06 Street and Movement Network, February 2019;	Prior to the issue of pre-construction certification for the relevant stage of the development.

	(ii) Drawing Number 219002-DA-RW-802, Revision P6, Titled 'Roadworks Details – Sheet 2', 'Typical Neighbourhood Connector Street Widening Section', prepared by Urban Engineering Solutions and dated 27 January 2021; and (iii) Drawing Number 18BRT0428-09, Revision B, titled 'Josie Street/East-West Road Intersection – Preliminary Functional Layout Plan', prepared by TTM, and dated 25 January 2021.	
(d)	The applicant must construct frontage street roadworks along Josie Street in accordance with approved design/drawings as required by Condition 25(c) above.	Prior to the MEDQ Delegate signing the relevant subdivision plan.
Josie Street/Boyland Way/Carpenter Drive Intersection		
(e)	The applicant must submit to the MEDQ Delegate for compliance assessment, detailed engineering design and construction drawings certified by an RPEQ experienced in road and intersection design for the roundabout intersection at Josie Street/Boyland Way/Carpenter Drive. The engineering design and construction drawings must be generally in accordance with the following: ▪ Drawing number 18BRT0428-04, Revision C, titled 'Boyland Way/Josie Street Intersection – Preliminary Functional Layout Plan' prepared by TTM and dated 25 January 2021.	Prior to the issue of pre-construction certification for the relevant stage of the development.
(f)	The applicant must construct the roundabout intersection at Josie Street/Boyland Way/Carpenter Drive in accordance with approved design/drawings as required by Condition 25(e) above.	Prior to the MEDQ Delegate signing the relevant subdivision plan.
Boyland Way – Western Section		
(g)	The applicant must submit to the MEDQ Delegate for compliance assessment, the detailed engineering design and construction drawings certified by an RPEQ experienced in road and intersection design for the frontage works along the section of Boyland Way to the West of the drainage corridor which incorporate the intersections of Boyland Way and the proposed site access. The engineering design and construction drawings must be generally in accordance with EDQ PDA Guideline No.06 Street and Movement Network, February 2019, Neighbourhood Access Street standard and Drawing Number 219002-DA-RW-802, Revision P6, Titled 'Roadworks Details – Sheet 2', Section 'Typical Neighbourhood Access Street (7.5m) Cross Section', prepared by Urban Engineering Solutions and dated 27 January 2021.	Prior to the issue of pre-construction certification for the relevant stage of the development.

(h)	The applicant must construct frontage street roadworks along the western section of Boyland Way in accordance with approved design/drawings as required by Condition 25(g) above.	Prior to the MEDQ Delegate signing the relevant subdivision plan.
Boyland Way – Eastern Section		
(i)	The applicant must submit to the MEDQ Delegate for compliance assessment, the detailed engineering design and construction drawings certified by an RPEQ experienced in road and intersection design for the frontage works along the section of Boyland Way to the East of the drainage corridor which incorporate the intersections of Boyland Way and the proposed site access. The engineering design and construction drawings must be generally in accordance with the following: ▪ Drawing Number 219002-DA-RW-801, Revision P5, Titled 'Road Works Details – Sheet 1', 'Typical Neighbourhood Connector Street (11.2m) Interim Cross Section', prepared by urban Engineering Solutions and dated 04 December 2020.	Prior to the issue of pre-construction certification for the relevant stage of the development.
(j)	The applicant must construct frontage street roadworks along the eastern section of Boyland Way in accordance with approved design/drawings as required by Condition 25(i) above.	Prior to the MEDQ Delegate signing the relevant subdivision plan.
East/West Connector Road (in Stage 4)		
(k)	The applicant must submit to the MEDQ Delegate for compliance assessment, the detailed engineering design and construction drawings certified by an RPEQ experienced in road and intersection design for the East/West Connector road to a Neighbourhood Connector Street standard and which incorporates the roundabout intersection. The engineering design and construction drawings must be generally in accordance with the following: (i) Drawing number 18BRT0428-02, Revision E, titled 'Fischer Road Interim Configuration' prepared by TTM, and dated 25 January 2021; (ii) Drawing Number 219002-DA-RW-801, Revision P5, Titled 'Roadworks Details – Sheet 1', 'Typical Neighbourhood Connector Street (11.2m) Ultimate Cross Section', prepared by Urban Engineering Solutions and dated 27 January 2021; and (iii) The road crossing section of the East/West Connector Road must be structurally designed to	Prior to the issue of pre-construction certification for the relevant stage of the development.

	withstand the potential mining subsidence effects as outlined in the Mining Reports listed in Part 3 'Approved Plans Specifications and Drawings' of this Development Approval.	
(l)	The applicant must construct roadworks for the East West Connector Road in accordance with approved design/drawings as required by Condition 25(k) above.	Prior to the MEDQ Delegate signing the relevant subdivision plan.
(m)	The applicant must submit to the MEDQ Delegate certification (structural) that the East/West Connector road has been designed and constructed to withstand the potential mining subsidence effects as outlined in the Mining Reports listed in part 3 of this development permit and in accordance with the 'Fischer Road Embankment Design Assessment over Fault Zone' geotechnical advice report prepared by Geo Inventions Consulting Services, Revision 0 and dated 25 September 2020.	Prior to the MEDQ Delegate signing the relevant subdivision plan.
(n)	The applicant must submit to the MEDQ delegate a plan which clearly indicates the section of East/West Connector Road which is within the zone of influence of the Feldspar Fault.	Prior to the issue of pre-construction certification for the relevant stage of the development.
(o)	The applicant must undertake all maintenance related to any mining subsidence along the section of the East/West Connector Road which lies within the zone of influence of the Feldspar Fault in accordance with the approved plan as required by Condition 25(n) above.	Until the MEDQ Delegate accepts Stage 8 of the development as off-maintenance.
Footpaths		
(p)	The applicant must submit to the MEDQ Delegate the detailed design and construction drawings certified by RPEQ for the footpaths servicing the development generally in accordance with the approved Footpath Plan required by Condition 24 'Footpath Plan' of this approval.	Prior to the issue of pre-construction certification for the relevant stage of the development.
(q)	The applicant must construct footpaths for the development in accordance with approved design/drawings required by Condition 25(p) above.	Prior to the MEDQ Delegate signing the relevant subdivision plan.

26.	**Earthworks**	
(a)	The applicant must submit to the MEDQ Delegate for compliance assessment detailed design for earthworks.	Prior to the issue of pre-construction certification for relevant stage of the development.
(b)	The applicant must submit to the MEDQ Delegate for compliance assessment the detailed earthworks design for the infill of the existing dam located over proposed Lots 373 372, 371, 370, and 369.	Prior to the issue of pre-construction certification for relevant stage of the development.

(c)	The applicant must construct earthworks in accordance with the approved design as required by Conditions 26(a) and 26(b) above.	Prior to the MEDQ Delegate signing the relevant subdivision plan.

27.	**Geomorphic Assessment**	
	The applicant must submit for compliance assessment an amended Geomorphic Assessment prepared by a Hydro-biologist that clearly details the locations and extent of works to achieve a largely soft engineered solution (minimising hardening of the waterway) to the waterway stability within the north western riparian corridor. The report must address, but not be limited to the following: (a) Existing or potential future instability features such as erosion, head cuts etc.; (b) Effects of existing vegetation and of any possible removal and or modification of same; (c) Proposed fill material for rehabilitation and the types of fill material recommended and where it should be sourced from; (d) Identification of retained and removed vegetation within north western waterway; (e) Investigation of potential failures due to the development footprint or stormwater influence; (f) Detailed designs for remedial measures minimising hardening and ensuring a planted vegetative outcome consistent with Condition 28 'Rehabilitation'; and (g) Identification of any risk of erosion or bank failure following flood/ storm events, including recommendations as to appropriate setbacks from the top of bank of the river for the purposes of slope stability and geomorphic change.	Prior to the issue of pre-construction certification.

28.	**Rehabilitation**	
(a)	The applicant must rehabilitate the entirety of the Waterway Corridors/Linear Park shown on the approved plans listed in Part 3 'Approved Plans Specifications and Drawings' of this Development Approval, to a stable natural bushland setting	Prior to the detention basins being on-line and out falling to the waterway.

	consistent with the regional ecosystems mapped on site and in accordance with the approved Rehabilitation Management Plan as per Condition 28(b) below.	
(b)	The applicant must submit for compliance assessment an amended Rehabilitation Management Plan which identifies the works within the Waterway Corridors/Linear Park that is guided by the Geomorphic Assessment required by Condition 27 'Geomorphic Assessment' of this approval and include, but not limited to the following: (i) The design for all the waterway corridors must be generally in accordance with Ipswich City Council's "Riparian Corridor Revegetation Guideline" and "Waterway and Channel Rehabilitation Guideline", as well as locally relevant design guidance such as the Brisbane City Council "Natural Channel Design Guidelines". (ii) Stormwater outfalls location, direction and velocities from the development must be located in accordance with Condition 27 'Geomorphic Assessment' to ensure no new, or exacerbate existing, erosion or sediment movement in the waterway. Any eroded or otherwise degraded areas must be remediated and no evidence of active erosion present. (iii) All declared weeds, environmental weeds, exotic pests and rubbish must be removed from the site. Where appropriate a staged rehabilitation approach must be adopted to ensure that any habitat values provided by the exotic species is gradually replaced by native plants. (iv) Include measurable targets and Milestones and how they will be monitored and delivered in conjunction with the stages of plan seal.	Prior to the issue of pre-construction certification.
(c)	The applicant must install temporary protection fencing approved in writing by the MEDQ Delegate to define the rehabilitation area at the extent of approved earthworks.	Prior to the pre-start meeting.
(d)	The applicant must carry out the works outlined in the approved Rehabilitation Management Plan as per Condition 28(b) above.	Prior to or in conjunction with the commencement of bulk earthworks for Stage 1.
(e)	The applicant must submit to the MEDQ Delegate for review the monthly monitoring reports (inclusive of photo point monitoring) identifying achievement of the milestones identified in Condition 28(b) above in accordance with the civil stages of development.	Prior to the MEDQ Delegate signing the relevant subdivision plans.

29.	**Vegetation Retention – Drainage corridor**	
(a)	The applicant must submit to the MEDQ Delegate for compliance assessment an amended Vegetation Management Plan that reassesses the retention of trees within the waterway corridors where the location of the sewer is micro sited to avoid large habitat trees.	Prior to the issue of pre-construction certification for the relevant stage.
(b)	Unless otherwise approved in writing by the MEDQ Delegate the applicant must retain native trees within areas of Local/Linear Park and Drainage Corridor generally in accordance with the amended Vegetation Management Plan required by Condition 29(a) above.	Prior to the issue of pre-construction certification for the relevant stage and until the works are accepted off-maintenance
(c)	Trees identified to be retained by Condition 29(a) above must be appropriately protected from impact of construction works as prescribed by a Level 5 arboricultural consultant, and in accordance with AS4970:2009 *Protection of Trees on Development sites.*	From the commencement of works and until the works are accepted off-maintenance
(d)	The applicant must submit to the MEDQ Delegate a report, prepared by a Level 5 arborist required by Condition 29(c) above, outlining: (i) The extent of arboricultural treatment undertaken on trees to be protected and retained as detailed within this approval; (ii) Confirmation that all trees to be retained have been reinspected during and following completion of the works and are considered to be safe for the surrounding use; and (iii) Any further necessary works required prior to dedication and acceptance of the land on which the trees are located off maintenance.	Prior to the acceptance of the works on-maintenance
(e)	The applicant must submit to the MEDQ Delegate a report, prepared by a Level 5 arborist required by Condition 29(c) above, outlining the trees retained in Condition 29(a) above have been inspected and all works required identified in Condition 29(c) above have been undertaken and no further mitigation is required.	Prior to the acceptance of the drainage linear open space off-maintenance

30.	**Acoustic Design Management**	
(a)	The applicant must submit to the MEDQ delegate for compliance assessment a revised Noise Impact Assessment Report (NIA) that consolidates all the information submitted during the assessment process into one (1) document. The report must clearly identify location of acoustic barriers, lots affected by noise and the mitigation required for each lot to achieve noise reduction design and siting features detailing compliance with internal noise criteria outlined in	Prior to or in conjunction with the first subsequent application under this approval

	AS/NZS 2107:2016.	
(b)	The applicant must construct acoustic barriers in accordance with theNoise Impact Assessment Report required by Condition 30(a) above.	Prior to the MEDQ Delegate signing the relevant subdivision plan
(c)	The applicant must provide all prospective purchasers of the lots identified in the revised NIA required Condition 30(a) above with a copy of the approved Noise Impact Assessment Report.	In conjunction with the signing of a contract of sale.
(d)	The applicant must submit to the MEDQ Delegate certification from an appropriately qualified acoustic professional demonstrating that the acoustic barriers required in Condition 30(b) above incorporates relevant noise reduction design features to achieve compliance with an approved NIA.	Prior to the MEDQ Delegate signing the relevant subdivision plan.

31.	**Bushfire Risk Management**	
(a)	The applicant must submit to the MEDQ delegate for compliance assessment a revised Bushfire Management Plan (BMP) identifying the necessary mitigation measures/practices. The BMP must be generally in accordance with 'Bushfire Management Plan', Report 19082, Version Final V1, prepared by Land and Environment Consultants and dated 12 December 2019, and reflect the latest approved development layout.	Prior to or in conjunction with the first subsequent application under this approval.
(b)	The applicant must implement all mitigation measures/practices recommended in the approved Bushfire Management Plan (BMP) required by Condition 31(a) above.	Prior to the MEDQ Delegate signing the relevant subdivision plan, and at all times thereafter.
(c)	The applicant must provide all prospective purchasers of all/any affected lots identified in the approved BMP required by Condition 31(a) above, with a copy of the approved BMP required by Condition 31(a) above.	In conjunction with the signing of a contract of sale.
(d)	The applicant must submit to the MEDQ Delegate certification from a suitably qualified bush fire consultant demonstrating that Condition 31(b) above has been complied with.	Prior to the MEDQ Delegate signing the relevant subdivision plan.

Design Standards and Certifications

32.	**Roadworks**	
(a)	The applicant must design and construct all the internal roads and footpaths to service all proposed allotments in accordance with the EDQ PDA Guideline No.06 Street and Movement Network, February 2019.	Prior to the MEDQ Delegate signing the relevant subdivision plan.
(b)	The applicant must provide all roads and lot layouts in order to achieve compliance with Ipswich City Council waste collection requirements.	Prior to the MEDQ Delegate signing the relevant subdivision plan.

33.	**Access**	
	Direct vehicular access to or from Fischer Road to the proposed lots adjoining Fischer road is prohibited.	Prior to the MEDQ Delegate signing the relevant subdivision plan and at all times thereafter.

34.	**Flooding**	
(a)	The applicant must provide minimum pad levels for all the proposed lots with 500mm minimum freeboard above the 1% AEP flood level except as noted by Condition 34(c) below.	Prior to the MEDQ Delegate signing the relevant subdivision plan.
(b)	Flood immunity for all existing lots on Melrose Drive must be maintained for all flood events up to and including the 1%AEP event and including inundation levels associated with increases to the 1% AEP flood level which results from design sensitivity analysis cases in accordance with QUDM, Implementation Guideline 24 of Ipswich Planning Scheme and in accordance with the Stormwater Management Plan and Flood Impact Assessment, Revision 6 prepared by Engeny, and dated 04 February 2021.	At all times after the approval is granted.
(c)	With the exception of proposed Lots 409 - 413, all pad levels must be immune to inundation levels associated with increases to the 1% AEP flood level which results from design sensitivity analysis cases in accordance with QUDM and Implementation Guideline 24 of Ipswich Planning Scheme. All future dwellings on proposed Lots 409 – 413 must have a minimum Finished Floor Level (FFL) of 33.95mAHD to maintain flood immunity in the 100% blockage sensitivity flooding case in accordance with the 'Ripley View FIR – Response and updated SMP' prepared by Engeny and dated 05 February 2021.	At all times after the approval is granted.
(d)	Submit to the MEDQ Delegate certification from a suitably qualified consultant that dwellings on proposed Lots 409 - 413, have been designed with a minimum Finished Floor Level (FFL) of 33.95m AHD in accordance with Condition 34(c) above.	Prior to issue of a Form 21 – Final inspection certificate, commencement of use or endorsement of building format plan, whichever is earlier.

35.	**Borehole Remediation**	
(a)	The applicant must accurately locate boreholes NS 279 and NS 289 and ensure that both boreholes are located outside of any proposed residential allotment. RPEQ signed copies of borehole location reports must be submitted to the MEDQ Delegate.	Prior to the issue of pre-construction certification for relevant stages of the development.
(b)	The applicant must undertake remediation works and capping for boreholes NS279, NS284 and NS289 in accordance with 'Mining Issues at Fischer Road,	Prior to the issue of pre-construction certification for relevant stages of the

	Flinders View – Response to Council's RFI – Report 6' prepared by Moreton Geotechnical Services Pty Ltd, dated 10 December 2020.	development.
(c)	The applicant must submit to the MEDQ Delegate a RPEQ design certification(s) stating that borehole remediation and capping for boreholes NS279, NS284 and NS289 has been designed and constructed in accordance with 'Mining Issues at Fischer Road, Flinders View – Response to Council's RFI – Report 6' prepared by Moreton Geotechnical Services Pty Ltd, dated 10 December 2020.	Prior to the commencement of any works on the relevant stage.

36.	**Mining Constraint**	
(a)	The applicant must provide all prospective purchasers of the Lots subject of this development approval with a copy of relevant mining reports outlined in Part 3 'Approved Plans Specifications and Drawings' of this Development Approval.	In conjunction with the signing of a contract of sale.
(b)	Construction on all lots must be undertaken in accordance with the recommendations of the relevant mining reports outlined in Part 3 'Approved Plans Specifications and Drawings' of this Development Approval.	At all times after the approval is granted.

37.	**Earthworks**	
(a)	The applicant must design all earthworks (including earth retaining structures) in accordance with Planning Scheme Policy 3 – General Works, Part 4 of the *Ipswich Planning Scheme*.	Prior to the issue of pre-construction certification for relevant stage.
(b)	The applicant must design all embankments and retaining walls against any potential change in ground conditions associated with the following but not limited to: (i) Natural changes in groundwater conditions; (ii) Design flood inundation levels; (iii) Malfunction of the stormwater drainage or subsoil drainage systems; and (iv) Mining subsidence.	In conjunction with the lodgement of pre-construction certification for the relevant stage.
(c)	The applicant must provide an RPEQ certified retaining wall subsoil drainage plan which indicates the locations to which the subsoil drainage outlets are to be connected and the maximum allowable spacing between drain outlets.	In conjunction with the lodgement of pre-construction certification for the relevant stage.

(d)	The applicant must implement all dispersive soil management measures generally in accordance with recommendations of the Dispersive Soils Management Plan (DSMP): Ripley View Estate, 39-49 Fischer Road, Flinders View, prepared by Gallagher Environmental, and dated 20 August 2019.	From the commencement of work until completion.
(e)	The applicant must construct all earthworks (including earth retaining structures) in accordance with approved design in accordance with Condition 37(a) - 37(d) above and Condition 26 'Earthworks' of this approval and Planning Scheme Policy 3 – General Works, Part 4 of the *Ipswich Planning Scheme*.	Prior to the MEDQ Delegate signing the relevant subdivision plan.

38.	**Stormwater Quantity Management**	
(a)	The applicant must provide all necessary internal and external stormwater drainage to service the development. Such drainage works (except for building gutters and downpipes) must be designed such that the overall drainage system caters for a storm event with an AEP of 1% and is designed in accordance with QUDM, Ipswich Planning Scheme Planning Scheme Policy 3 and Implementation Guideline 24, unless otherwise agreed by the MEDQ Delegate. In the case where the piped system is carrying part of the flow, the overland flow paths must be designed to cater for that flow which is represented by the difference between the predicted flow from the storm event with an AEP of 1% and the capacity of the pipe system.	Prior to the MEDQ Delegate signing the relevant subdivision plan.
(b)	The applicant must provide an allotment drainage system which is designed in accordance with QUDM and not less than Level III.	Prior to the MEDQ Delegate signing the relevant subdivision plan.
(c)	The applicant must submit to the MEDQ Delegate, the detailed engineering design and construction drawings certified by an RPEQ experienced in hydrologic and hydraulic engineering, for the infrastructure proposed for stormwater quantity management generally in accordance with the Stormwater Management Plan and Flood Impact Assessment, Revision 6 prepared by Engeny, and dated 04 February 2021.	Prior to the issue of pre-construction certification for Stage 6 of the development.
(d)	The applicant must construct all stormwater quantity management infrastructure as per the approved design in accordance with Condition 38(c) above.	Prior to the MEDQ Delegate signing the relevant subdivision plan.
(e)	The applicant must discharge stormwater runoff from the proposed development in accordance with the Stormwater Management Plan and Flood Impact Assessment, Revision 6 prepared by Engeny, and dated 04 February 2021.	Prior to the MEDQ Delegate signing the relevant subdivision plan and at all times thereafter.

(f)	The applicant must provide any external protection or rectification works where any external stormwater impacts occur as a result of the development, unless otherwise agreed in writing by the MEDQ Delegate.	Prior to the MEDQ Delegate signing the relevant subdivision plan.
(g)	The applicant must provide screen or external barriers/fencing in accordance with the approved safety audit recommendations as required by Condition 41(b) 'Design Standards' of this development approval.	Prior to the MEDQ Delegate signing the relevant subdivision plan.

39.	**Stormwater Quality Management**	
(a)	The applicant must achieve the water quality objectives outlined in Table 2.3.1 of Planning Scheme Policy 3 *General Works* of the *Ipswich Planning Scheme* prior to stormwater runoff discharging from the site.	Prior to the MEDQ Delegate signing the relevant subdivision plan.
(b)	In order to comply with Condition 39(a) above the applicant must construct stormwater basins generally in accordance with the Stormwater Management Plan (SMP) in Part 3 'Approved Plans Specifications and Drawings' of this Development Approval.	Prior to the MEDQ Delegate signing the relevant subdivision plan.
(c)	Unless otherwise approved in writing by the MEDQ Delegate, the applicant must construct stormwater infrastructure in conjunction with the adjoining Stages.	Prior to the MEDQ Delegate signing the relevant subdivision plan.
(d)	The applicant must submit to the MEDQ Delegate engineering design and construction drawings showing the final locations and cross-sections of stormwater infrastructure in accordance with the approved SQMP and section 2.3.5 of Planning Scheme Policy 3 General Works of the *Ipswich Planning Scheme* and the requirements of this Development Approval.	Prior to the issue of pre-construction certification for the relevant stage.
(e)	The drawings required by Condition 39(d) above must be certified by a Registered Professional Engineer of Queensland (RPEQ-Civil) and incorporate: (i) Bioretention basin works, outlets, and stabilisation downstream of outlets along with the adjacent channel design for the central drainage corridor, consistent with the amended geomorphology report and requirements of this development approval; (ii) Detailed staging plans for the delivery of the basins (and drainage corridor) consistent with Condition 39(c) above; (iii) Consistency with Condition 38 'Stormwater Quantity Management' endorsed by the MEDQ Delegate; and	Prior to the issue of pre-construction certification for the relevant stage

	(iv) Outfall design and velocities are to be consistent with the recommendations of the amended Geomorphic Assessment Report required by Condition 27 'Geomorphic Assessment' of this approval.	
(f)	The maintenance period for all stormwater infrastructure (including bioretention basins, vegetated stormwater outlet areas, and works to the central drainage corridor) is a minimum period of 24 months post establishment. *Note: Vegetation requires a minimum 12-week establishment period prior to acceptance on-maintenance.*	Prior to a request for acceptance of the works off-maintenance

40.	**Fauna Management Plan**	
(a)	The applicant must engage a spotter catcher licensed by the Department of Environment and Science under the *Nature Conservation Act 1992*, to assesses the site, supervise any vegetation removal and ensure that any native fauna (including native bees) has been identified, relocated and discouraged from returning prior to habitat disturbance.	Prior to the pre-start meeting for this approval.
(b)	The applicant must provide to the MEDQ Delegate the name, current license numbers and contact details for the spotter catcher mentioned at Condition 40(a) above engaged by the applicant to carry out the works.	Prior to the pre-start meeting for this approval.
(c)	The applicant must include the name, current license numbers and contact details for the spotter catcher on the development notification signage.	Prior to commencement of any construction and until works are accepted on maintenance.
(d)	The applicant must submit to the MEDQ Delegate a Pre-Clearance Fauna Management Plan undertaken by the spotter catcher mentioned at Condition 40(a) above.	Prior to the pre-start meeting for vegetation clearing.
(e)	The applicant must submit to the MEDQ Delegate a Post Vegetation Clearance Report prepared by the appointed spotter catcher mentioned at Condition 40(a) above detailing the following items: (i) Detailed catalogue of all native fauna identified pre and post vegetation clearing works including species taken from hollows or habitat elements, inclusive; of location, date, time, actions undertaken etc.; (ii) Documented preventative and remedial actions put in place to ensure no harm to the species;	Within five (5) business days of the completion of any stage of vegetation clearing works.

	(iii) Confirmation of compliance with the *EPBC Act* reference No: 2020/8615 and sequential clearing requirements of koala habitat trees in accordance with the *Nature Conservation Act 1992;* (iv) Confirmation no vegetation clearing works occurred without supervision from the spotter catcher; (v) Confirmation that any timber debris piles left for more than 12 hours were inspected by spotter catcher prior to mulching; and (vi) Detail a log of all species taken to a vet, wildlife hospital or equivalent for treatment as a consequence of injury following clearing works.	

41.	**Design Standards**	
(a)	The applicant must design all the municipal works in accordance with EDQ Guidelines, Planning Scheme Policy 3 – General Works and Implementation Guidelines 24 and 28 of the Ipswich Planning Scheme.	Prior to the issue of pre-construction certification for relevant stages.
(b)	The applicant must submit to the MEDQ Delegate a safety audit for the drainage infrastructure (inlet and outlet structures, basin etc.) and earth retaining structures which is certified by a RPEQ and prepared in accordance with AS/NZS ISO 31000:2009 'Risk Management – Principles and Guidelines' and QUDM.	
(c)	The applicant must design all municipal works in accordance with the Dispersive Soils Management Plan (DSMP): Ripley View Estate, 39-49 Fischer Road, Flinders View, prepared by Gallagher Environmental, and dated 20 August 2019.	
(d)	The applicant must design all municipal works in accordance with mining reports 1-6 as listed in Part 3 'Approved Plans Specifications and Drawings' of this Development Approval, prepared by Moreton Geotechnical services Pty. Ltd.	

42.	**Design Certifications**	
(a)	The applicant must submit to the MEDQ Delegate a RPEQ design certification(s) stating that all civil and associated works have been designed in accordance with Council's specifications, infrastructure design standards and this approval.	Prior to the commencement of any works on the subject site.

(b)	The applicant must submit to the MEDQ Delegate a RPEQ certification stating that all proposed works have been designed in accordance with the recommendations of the approved Stormwater Management Plan in accordance with Condition 38'Stormwater Quantity Management' and Condition 39 'Stormwater Quality Management' of this approval.	Prior to the commencement of any works on the subject site.
(c)	The applicant must submit to the MEDQ Delegate a RPEQ design certification(s) stating that all civil and associated works have been designed in accordance with the recommendations of Mining Reports 1-6, as listed in Part 3 'Approved Plans Specifications and Drawings' of this Development Approval, prepared by Moreton Geotechnical Service Pty. Ltd.	Prior to the commencement of any works on the subject site.

43.	**Certification Agreement**	
	The applicant must comply with all requirements and fulfil all responsibilities outlined in the DSDIP Certification Procedures Manual. No work is to commence until the certification documents and associated drawings and reports submitted by the project coordinator is acknowledged in writing by the MEDQ Delegate and accepted as complete.	Prior to the commencement of any works on the site.

44.	**Pre-Construction Certification**	
	The applicant must submit to the MEDQ Delegate, RPEQ design certification(s) stating that all civil and associated works have been designed in accordance with Council's specifications, infrastructure design standards, EDQ Guidelines and this approval. No work is to commence until the certification documents submitted by the project coordinator is acknowledged in writing by the MEDQ Delegate.	In conjunction with pre-construction certification lodgement.

45.	**Construction Management Plan**	
(a)	The applicant must prepare a site-based construction management plan that includes but is not limited to: (i) Provision for the management of traffic around and through the site during and outside of construction work hours; (ii) Provision for parking and delivery of materials during and outside of construction hours of work; (iii) Management of dust generated from the site	Prior to the commencement of any works on the site.

	during and outside construction hours; (iv) Management of sedimentation and erosion; (v) Management of contaminated soils (if required), including removal, treatment and replacement in accordance with site remediation plans prepared and approved specifically for the site; and (vi) The construction management plan must cover all aspects of construction and environmental management relating to the development. The construction management plan must be approved by the principal consultant overseeing and certifying the construction works.	
(b)	All works must be undertaken in accordance with the construction management plan which must be current and available on site at all times during the construction period.	At all times during construction of the development.

46.	**Completion Requirements**	
	Post-Construction Certification The applicant must submit to the MEDQ Delegate Post Construction (Practical Completion) Certification, approved forms and 'as constructed' plans including an asset register, certified by a RPEQ, that the plans are a true record of the works 'as constructed' are in accordance with the approved plans.	Prior to the MEDQ Delegate signing the relevant subdivision plan.

47.	**Erosion and Sediment Control**	
(a)	The applicant must provide sufficient grass (or equivalent) cover to prevent both rill and sheet erosion for all unpaved and disturbed areas.	Prior to the MEDQ Delegate signing the relevant subdivision plan.
(b)	The applicant must submit a construction phase Erosion and Sediment Control Plan prepared by an RPEQ or CPESC in accordance with the International Erosion and Sediment Control (IECA) Best Practice Erosion and Sediment Control (BPESC) document. This must include the required IECA soil sampling rates/depths, associated laboratory testing and the design basis of sediment basins and other control measures. The ESCP must be prepared in accordance with the recommendations of the Dispersive Soil Management Plan (DSMP): Ripley View Estate, 39-49 Fischer Road, Flinders View, prepared by Gallagher Environmental, and dated 20 August 2019.	Prior to the commencement of any works on the site for the relevant stage.

48.	**Further Works**	
(a)	The applicant must take due regard of all existing services when undertaking works associated with this development.	During the construction of the development and prior to commencement of use.
(b)	The applicant must alter any services when the relevant authority or MEDQ Delegate determines that works associated with this development has an impact upon any existing services.	During the construction of the development and prior to commencement of use.
(c)	The applicant must reinstate all disturbed verge and open space areas with turf (including provision of topsoil to minimum depth of 50mm).	Prior to commencement of use.

49.	**Utility Services**	
(a)	The applicant must connect each proposed lot to reticulated water supply, sewer infrastructure, underground electricity supply and telecommunication utilities. Where proposed allotments front existing overhead electricity or telecommunication service, these allotments may connect direct to such service subject to the approval and requirements of the service provider.	Prior to the MEDQ Delegate signing the relevant subdivision plan.
(b)	The applicant must provide written evidence (e.g. connection certificates) from each particular service provider stating either that the development has been connected to applicable utility service or has a current supply agreement.	Prior to the MEDQ Delegate signing the relevant subdivision plan.
(c)	The applicant must provide underground water services for the hatchet shaped allotments, together with stormwater pipes and conduits for electricity and telecommunications, installed for the full length of each respective access handle.	Prior to the MEDQ Delegate signing the relevant subdivision plan.
(d)	The telecommunication infrastructure must provide two (2) separate lead-in conduits for each 'multiple residential' allotment.	Prior to the MEDQ Delegate signing the relevant subdivision plan.

50.	**Water Supply & Sewerage Infrastructure**	
(a)	The applicant must design all water supply and sewerage infrastructure in accordance with the SEQ Water Supply and Sewerage, Design & Construction Code (SEQ WS&S D&C Codes).	Prior to the commencement of any works on the site.
(b)	The applicant must submit to the MEDQ Delegate a water supply and sewerage network analysis certified by a Registered Professional Engineer Queensland (RPEQ) and endorsed by QUU.	

(c)	The applicant must submit to the MEDQ Delegate detailed engineering drawings approved by Queensland Urban Utilities for water supply and sewerage reticulation system, certified by a Registered Professional Engineer of Queensland (RPEQ) generally in accordance with the endorsed QUU network analysis required by Condition50(b) above, and the SEQ Water Supply and Sewerage Design and Construction Guidelines.	
(d)	The applicant must construct all water and sewerage infrastructure to service the development in accordance with the SEQ Water Supply and Sewerage, Design & Construction Code (SEQ WS&S D&C Codes), and in accordance with the certified plans required at Condition 50(c) above.	Prior to the MEDQ Delegate signing the relevant subdivision plan.
(e)	The applicant must submit to the MEDQ Delegate "As Constructed" plans including an asset register and all test results required by QUU verified by a Registered Professional Engineer Queensland (RPEQ-Civil), certifying that the works have been completed in accordance with the certified plans required by Condition 50(c) above.	

Department of State Development, Tourism and Innovation (DSDTI)
These conditions relating to State Interests form part of this decision notice

No.	STATE INTEREST CONDITION	TIMING
State-controlled Road – Traffic Impacts, Road Traffic Noise, Stormwater & Flooding		
51.	**Swanbank Road and Cunningham Highway Interchange (West Bound Ramps)**	
	(a) Road upgrade works must be delivered to mitigate the road safety impacts of the development identified in the State-Controlled Roads Impact Assessment prepared TTM Consulting dated 7 December 2020, Reference 18BRT0428 Revision 4, specifically: (i) Undertake the upgrade of the Swanbank Road and Cunningham Highway Westbound Off-ramp intersection and Westbound On-ramp intersection to a dual-lane roundabout generally in accordance with Swanbank Road / Cunningham Hwy Westbound Ramps Intersection prepared by TTM Consulting Pty Ltd dated 8 October 2020 Drawing Number 18BRT0428-07 Revision A. (ii) The road upgrade works must be designed and constructed in accordance with latest version of the Road Planning and Design Manual, Department of Transport and Main Roads. (iii) Submit to the MEDQ delegate and EDQ Development Assessment a copy of the Certificate of Practical Completion for on-maintenance issued by the Department of Transport and Main Roads pursuant to the written approval for the works under section 33 of the *Transport Infrastructure Act 1994*. **OR** (b) Submit to the MEDQ delegate and EDQ Development Assessment supporting evidence that includes written agreement from the Department of Transport and Main Roads on alternative arrangements that have been implemented to mitigate the road safety impacts of the development on the state-controlled road identified in the State-Controlled Roads Impact Assessment prepared TTM Consulting dated 7 December 2020, Reference 18BRT0428 Revision 4. *Note: Please see advice statement for information regarding further approvals required under the Transport Infrastructure Act 1994.*	(a) & (b) Prior to submitting the plan of survey to the MEDQ delegate for approval for the relevant stage that connects the development to Fischer Road.

52.	**Swanbank Road and Cunningham Highway Interchange (West Bound Ramps)**	
	(a) Road upgrade works must be delivered to mitigate the road safety impacts of the development on the state-controlled road identified in the State-Controlled Roads Impact Assessment prepared TTM Consulting dated 7 December 2020, Reference 18BRT0428 Revision 4, specifically: (i) Undertake the installation of signal metering on the Swanbank Road western approach to the dual-lane roundabout, generally in accordance with Swanbank Road / Cunningham Hwy Westbound Ramps Intersection prepared by TTM Consulting Pty Ltd dated 8 October 2020 Drawing Number 18BRT0428-07 Revision A. (ii) The road upgrade works must be designed and constructed in accordance with the latest version of the Road Planning and Design Manual, Department of Transport and Main Roads. (iii) Submit to the MEDQ delegate and EDQ Development Assessment a copy of the Certificate of Practical Completion for on-maintenance issued by the Department of Transport and Main Roads pursuant to the written approval for the works under section 33 of the *Transport Infrastructure Act 1994.* **OR** (b) Submit to the MEDQ delegate and EDQ Development Assessment supporting evidence that includes that includes written agreement from the Department of Transport and Main Roads on alternative arrangements that have been implemented to mitigate the road safety impacts of the development on the state-controlled road identified in the State-Controlled Roads Impact Assessment prepared TTM Consulting dated 7 December 2020, Reference 18BRT0428 Revision 4. *Note: Please see advice statement for information regarding further approvals required under the Transport Infrastructure Act 1994.*	(a) & (b) Prior to submitting the plan of survey to the MEDQ delegate for approval for the relevant stage that includes the 413th Lot.

53.	**Swanbank Road and Fischer Road Intersection**	
	(a) Road upgrade works must be delivered to mitigate the road safety impacts of the development on the state-controlled road identified in Response to State Further Information Request – Traffic Engineering Issues prepared by TTM Consulting dated 11 May 2021, Reference	a) & (b) Prior to submitting the plan of survey to the MEDQ delegate for approval for the relevant stage that connects the

	18BRT0428, specifically: (i) Undertake the upgrade of the Swanbank Road and Fischer Road intersection to a signalised intersection generally in accordance with Swanbank Road / Fischer Road Intersection prepared by TTM Consulting Pty Ltd dated 12 April 2021 Drawing Number 18BRT0428-13 Revision A. (ii) Dedication of land as new road where required to deliver the upgrade works referred to in this condition. (iii) The road upgrade works must be designed and constructed in accordance with the latest version of the Road Planning and Design Manual, Department of Transport and Main Roads. (iv) Submit to the MEDQ delegate and EDQ Development Assessment a copy of the Certificate of Practical Completion for on-maintenance issued by the Department of Transport and Main Roads pursuant to the written approval for the works under section 33 of the *Transport Infrastructure Act 1994*. **OR** (b) Submit to the MEDQ delegate and EDQ Development Assessment supporting evidence that includes written agreement from the Department of Transport and Main Roads on alternative arrangements that have been implemented to mitigate the road safety impacts of the development on the state-controlled road identified in Response to State Further Information Request – Traffic Engineering Issues prepared by TTM Consulting dated 11 May 2021, Reference 18BRT0428.	development to Fischer Road.

54.	**State-controlled Road – Road Traffic Noise**	
	(a) Carry out the development generally in accordance with the report Residential Subdivision, 63 Fischer Road, Flinders View – Response to DSDMIP RFIs, prepared by Renzo Tonin & Associates dated 2 February 2021. In particular – (i) Construct noise barriers as shown on Figure 4: Acoustic barriers – 2.3m, 3m, 6m high as amended in red 02.07.2021; (ii) Points A to K are to be located wholly within the subject site;	(a) & (b) Prior to submitting the plan of survey to the MEDQ delegate for approval for the relevant stage and to be maintained at all times. (c) Prior to submitting the plan of survey to the MEDQ delegate for approval for the relevant stage.

	(iii) Points L to N and O to E are to be located wholly within the state-controlled road reserve with associated drainage and landscaping; and (iv) Building pads must not exceed the levels specified in Appendix E. (b) Noise barriers (including any footings, associated earth mounds and landscaping) to be designed and constructed generally in accordance with: (i) Chapter 7 – Integrated Noise Barrier Design of the Transport Noise Management Code of Practice: Volume 1 (Road Traffic Noise, Department of Transport and Main Roads, 2013; (ii) Technical Specification MRTS15 – Noise Fences, Department of Transport and Main Roads, 2019; and (iii) Standard Drawings Road Manual for Noise Fences. (c) Submit to the MEDQ delegate and EDQ Development Assessment, RPEQ certification with supporting documentation, demonstrating that the acoustic barriers have been designed and constructed in accordance with part (a) and (b) of this condition. *Note: Please see advice statement for information regarding further approvals required under the Transport Infrastructure Act 1994.*	

55.	**State-controlled Road – Stormwater & Flooding**	
	(a) The development must be carried out generally in accordance with the CLAG PTY LTD Ripley View Estate Stormwater Management Plan and Flood Impact Assessment prepared by Engeny Water Management dated 4 February 2021, Reference M64000_004_REP-001 Revision 6. (b) Submit to the MEDQ delegate and EDQ Development Assessment, RPEQ certification with supporting documentation, demonstrating that the development has been designed and constructed in accordance with part (a) of this condition.	(a) At all times (b) Prior to submitting the plan of survey to the MEDQ delegate for approval for the relevant stage.

Public Passenger Transport

56.	**Active Transport**	
	The development must provide the concrete pathways shown on the Roadworks Concept Layout Plans – Sheets 1 to 9, prepared by Urban Engineering Solutions, dated 4 December 2020, drawing numbers 219002-DA-RW-101 to 219002-DA-RW-109, revision P5.	Prior to submitting the plan of survey to the MEDQ delegate for approval for the relevant stage.

57.	**Potential Future Bus Route**	
	(a) The 'potential future bus route' shown on the Proposed Reconfiguration of Lots 208-209 on SL11067, Lot 210 on SL9238 and Lot 2 & 211 on RP906067, prepared by Land Partners, dated 02.02.2021, drawing BRSS7261-000-61-19, as amended in red 02.02.2021 and 09.07.2021, and any external roadworks on Fischer Road and/or South Station Road / Josie Street, must be designed and constructed to be in accordance with the following to accommodate a single unit rigid bus of 14.5m in length: • Department of Transport and Main Roads *Road Planning and Design Manual, 2nd Edition, Volume 3 – Guide to Road Design* (March 2016); • Department of Transport and Main Roads *Supplement to Austroads Guide to Road Design* (Parts 3, 4-4C and 6)*;* • *Austroads Guide to Road Design* (Parts 3, 4-4C and 6); • *Austroads Design Vehicles and Turning Path Templates;* • Department of Transport and Main Roads *Queensland Manual of Uniform Traffic Control Devices, Part 13 Local Area Traffic Management (March 2018);* and • Chapter 2 - Planning and Design, Section 2.3.2 Bus Route Infrastructure (page 6) of the Department of Transport and Main Roads *Public Transport Infrastructure Manual 2015.* (b) Submit to the MEDQ delegate and EDQ Development Assessment, RPEQ certification, including swept path assessments, demonstrating that the development has been designed and constructed in accordance with part (a) above of this condition. *Note that the bus route will need to accommodate 14.5m length buses for school bus routes.*	(a) & (b) Prior to submitting the plan of survey to the MEDQ delegate for approval for the relevant stage.

58.	**Bus Indent Bays**	
	(a) The applicant must provide three (3) pairs of bus indent bays as shown the Proposed Reconfiguration of Lots 208-209 on SL11067, Lot 210 on SL9238 and Lot 2 & 211 on RP906067, prepared by Land Partners, dated 02.02.2021, drawing BRSS7261-000-61-19, as amended in red 02.02.2021 and 09.07.2021: • On Fischer Road, south of the intersection with the new east-west Neighbourhood Connector Street; • Internal to the site on the potential future bus route; and • On South Station Road / Josie Street, south of the intersection with the new east-west Neighbourhood Connector Street. (b) Each bus indent bay required in part (a) of this condition must be located in accordance with Section 5.5 - Bus Stop Environment of Chapter 5 - Bus Stop Infrastructure (pages 15-21) of the *Public Transport Infrastructure Manual 2015* and the *Transport Operations (Road Use Management – Road Rules) Regulation 2009*, in particular stopping at intersections. (c) Each bus indent bay required in part (a) of this condition must be able to accommodate a single unit rigid bus of 12.5m in length in accordance with the following: *(i) Disability Standards for Accessible Public Transport 2002* made under subsection 31(1) of the *Disability Discrimination Act 1992;* (ii) the Department of Transport and Main Roads' TransLink *Public Transport Infrastructure Manual 2015*, in particular, ▪ Section 5.6.3.1 – 'Bus stop length requirements', 'Table 5.7: Minimum bus stop length requirements', and Table 5.4: 'Bus stop arrangements - Indented bus bay' of Chapter 5 – 'Bus stop infrastructure', in particular, a minimum bus bay width of 3m (excluding cycle lanes), bus bay length of 15m, taper in of 21m (1:7 kerb) and taper out of 15m (1:5 kerb); ▪ all mandatory bus stop components for an Intermediate Stop in Section 5.7 - 'Bus stop components' (pages 30-41) of Chapter 5 - 'Bus stop infrastructure', except for signage, seating and shelter; and	(a) – (e) Prior to submitting the plan of survey to the MEDQ delegate for approval for the relevant stage.

	▪ a hardstand area and boarding point in accordance with 'Intermediate Stop – Site Layout – With Indented Bus Bay', DRG 5-0022 of Appendix 5-B – 'Layout and technical drawings'. (d) The development must provide safe, direct and convenient pedestrian pathway access, including crossing arrangements, to and between each future bus stop. (e) Submit to the MEDQ delegate and EDQ Development Assessment, RPEQ certification with supporting documentation confirming that the development has been designed and constructed in accordance with parts (a) - (d) of this condition. *Note that future urban bus stops will cater for 12.5m length buses.*	

MEDQ Delegate's (Ipswich City Council) Advice

The following advice is offered for your information only and should not be viewed as mandatory conditions of this approval.

1.	**Advertising Signage**
	Unless any advertising devices associated with the proposed use meets the exempt criteria set out in Schedule 9 of the Ipswich Planning Scheme 2006, such signage would require submission to Council of a code assessable development application for operational works – placing an advertising device on premises. Accompanied by the relevant assessment fee. For further information. Please contact the Planning and Regulatory Services Department on (07) 3810 6888.

2.	**Fire Ants**
(a)	In accordance with the Plant Protection Act 1989 and the Plant Protection Regulation 2002, a quarantine notice has been issued for the State of Queensland to prevent the spread of the Red Imported Fire Ant (ant species solenopsis invicta) and to eradicate it from the State.
(b)	It is the legal obligation of the land owner or any consultant or contractor employed by the land owner to report the presence or suspicion of Fire Ants to Biosecurity Queensland on 13 25 23 within 24 hours of becoming aware of the presence or suspicion, and to advise in writing within seven days to: Biosecurity Queensland Department of Agriculture, Forestry and Fisheries GPO Box 46 BRISBANE QLD 4001
(c)	It should be noted that the movement of Fire Ants is prohibited, unless under the conditions of an Inspectors Approval. More information can be obtained from the Department of Agriculture, Forestry and Fisheries website www.daff.qld.gov.au.

(d)	The land over which you have made a development application is within a suburb known to have Fire Ants and as such is within a "Restricted Area". The presence of Fire Ants on the site may affect the nature, form and extent of works permitted on the site. In view of this it will be necessary for you to contact the Department of Employment, Economic Development and Innovation to investigate the site and for you to implement any necessary matters required by that Department prior to the commencement of any works.

3.	**Local Government Regulation 2012**
	This property may be subject to the provision of Section 116 of the Local Government Regulation 2012. This section of the regulation limits any increase in rates to a predetermined percentage. In accordance with Council's budget and rating resolutions, if the property is sold or reconfigured in any way (eg subdivision, dedication or partial dedication, amalgamation) this benefit will no longer apply. For further information please contact the Ipswich City Council Customer Contact Centre on (07) 3810 6666.

4.	**Acronyms and Terms**
	Acronyms and terms used in this notice have the following meanings:
(a)	RPEQ - A Registered Professional Engineer of Queensland suitably qualified and experienced in the particular area of expertise required.
(b)	QUDM – The latest edition of the *Queensland Urban Drainage Manual*
(c)	MUTCD - *The Manual of Uniform Traffic Control Devices*, published by DTMR
(d)	QUU – Queensland Urban Utilities – trading name of the Central SEQ Distributor-Retailer Authority, providing water and wastewater services to Ipswich City under the *South-East Queensland Water (Distribution and Retail Restructuring) Act 2009*
(e)	DSMP – Dispersive Soil Management Plan which is prepared in accordance with Council Implementation Guideline # 28 and certified by RPEQ.
(f)	E&SCP – Erosion & Sediment Control Management Plan which is prepared in accordance with Council Planning Scheme Policy 3 and certified by RPEQ.
(g)	PSP 3 – Council Planning Scheme Policy 3
(h)	DTMR - Department of Transport and Main Roads
(i)	DES – Department of Environment and Science
(j)	DNRME – Department of Natural Resources, Mines and Energy
(k)	DSDIP – Department of State Development, Infrastructure and Planning
(l)	AEP – Annual Exceedance Probability - used to define flood frequency and severity
(m)	AHD - Australian Height Datum (m)
(n)	Internal works - works performed within private property and includes but is not limited to, earthworks, driveways and stormwater management systems.
(o)	External municipal works - works external to the development and located in dedicated public areas, for example existing road or drainage reserve, or private property not owned by the applicant.

5.	**Mining**
	The land to which this approval relates may have been worked by underground coal mining operations. Council, and its servants and agents, accept no liability or responsibility for any loss or damage to person or property of whatever nature or however caused as the direct or indirect consequence of the granting of the approval herein contained. Such approval has been granted at the request of the applicant and in reliance of information submitted by the applicant in support thereof.

6.	**Flooding**
	The subject site is located adjacent to a stormwater flow path. Council, and its servants and agents, accept no liability or responsibility for any loss or damage to person or property of whatever nature or however caused as the direct or indirect consequence of the granting of the approval herein contained. Such approval has been granted at the request of the applicant and in reliance of information submitted by the applicant in support thereof.

7.	**Easement Documentation**
	The documentation associated with easements may be prepared by the applicant in a form satisfactory to Council's city solicitor, or the applicant may submit easement plans, only where Council is party to the easements, to Council for the preparation of easement documents at the applicant's expense.

8.	**Bonds**
	Any bonding sought to be approved in relation to development will be considered in accordance with Planning Scheme Policy 3 of the *Ipswich Planning Scheme.* The Bond, Licence Deed and conditions of security payment can be found online at http://www.ipswichplanning.com.au/development-planning/development-planning-information. Council's preference is for bonds to be submitted by way of a Bank Guarantee.

9.	**Certification Procedures**
	The applicant must comply with all requirements and fulfil all responsibilities outlined in the DSDIP Certification Procedure Manual. No work is to commence until the applicable certification documents submitted by the applicant are acknowledged in writing by Ipswich City Council. For clarification, where any inconsistency or conflict exists between design standards and other relevant technical publications, Council standards and specifications must take precedence.

10.	**Operational Works Submission**
	The applicant must submit to the MEDQ Delegate all engineering drawings in accordance with the requirements of *Ipswich Planning Scheme Policy 2 – Information Local Government May Request*. The applicant must comply with all requirements and fulfil all responsibilities outlined in the DSDIP Certification Procedure Manual. No work is to commence until the applicable certification documents submitted by the applicant are acknowledged in writing by Ipswich City Council. For clarification, where any inconsistency or conflict exists between design standards and other relevant technical publications, Council standards and specifications must take precedence.

11.	**Proximity of Earthworks to Adjoining Property**
	Where earthworks, including retaining structures, are proposed within 3.0m of the property boundary or are likely to affect adjoining property owners, the applicant must notify the affected property owners in writing, and obtain written comments from them, as detailed in Part 12, Division 15 - Specific Outcome 19 and Note 12.15.4K of the *Ipswich Planning Scheme*. Written comments from the affected owners (or at least the supporting documentation of notification and consultation with the adjoining property owners to the Council's satisfaction) must be submitted to Council for consideration, in conjunction with any operational works application, compliance assessment application or in conjunction

	with the lodgement of preconstruction certification.

12.	**Portable Long Service Leave**
	Where the proposed works (civil and landscaping) are valued at $150,000 or more and match the definition of Building and Construction Industry, the *Building and Construction Industry (Portable Long Service Leave) Act 1991* requires that evidence of payment of the Portable Long Service Leave (QLeave) Levy be received by Council as a condition of issuing a development permit for building works, operational works and plumbing and drainage works applications, as defined under the *Sustainable Planning Act 2009*. If you require clarification in regard to the *Building and Construction Industry (Portable Long Service Leave) Act 1991*, you should contact QLeave on 1800 803 481 (free call) or (07) 3212 6855.

13.	**Easement Documentation**
	The documentation associated with easements may be prepared by the applicant in a form satisfactory to Council's city solicitor, or the applicant may submit easement plans, only where Council is party to the easements, to Council for the preparation of easement documents at the applicant's expense.

14.	**Telecommunication Conduit Infrastructure**
	The installation of telecommunication conduit and infrastructure is to be in accordance with the Communications Alliance publication titled *Fibre Ready Pit and Pipe Specifications for Real Estate Development Projects (Reference G645:2011)* or the Deployment of the NBN Co Conduit and Pit Network – Guidelines for Developers where it is triggered by the Australian Government policy on 'Fibre in new developments'.

15.	**Road Corridor Permit**
	The applicant is advised to seek approval from the Department of Transport and Main Roads under Sections 33 and 62 of the *Transport Infrastructure Act 1994* prior to undertaking any physical works within or adjacent to a boundary of a State-controlled road. These approvals are issued under the *Transport Infrastructure Act 1994* and constitute a separate process to seeking a Development Permit issued under the *Sustainable Planning Act 2009.* Please contact the Department of Transport and Main Roads Metropolitan office for further information via email: Metropolitan_Corridor_Management@tmr.qld.gov.au or telephone (07) 3066 6759.

16.	**Road Permit Application**
	The applicant is advised to seek a Road Permit approval from Ipswich City Council pursuant to Sections 69 and 75 of the *Local Government Act 2009* prior to undertaking any physical works within or adjacent to the boundary of the Council-controlled road. These approvals are issued under the *Local Government Act 2009* and constitute a separate process to seeking a Development Permit issued under the *Planning Act 2016*. Please contact the Ipswich City Council office for further information via email: council@ipswich.qld.gov.au or telephone (07) 3810 6666.

17.	**Engineering Analysis**
	A detailed engineering analysis of the calculations and drawings, submitted as part of the approval process, has not been undertaken by Council. Neither Council nor council engineers have professionally reviewed or accredited the engineering design and are relying on the expertise and certification of the applicant's RPEQ engineer.

18.	**Report Assessment**
	The applicant is advised that should Council require the submission of an amended report prior to the lodgement and/or in conjunction with any Operational Works development application, a fee will apply in accordance with the current Council Fees and Charges.

19.	**Other approvals and Matters of National Environmental Significance**
	Council is aware that vegetation clearing associated with this approval 10529/2019/PDA has been deemed a controlled action under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) EPBC reference 2020/8615. The applicant may be requested to provide to the MEDQ Delegate copies of the decision notice for the approvals prior to vegetation clearing commencing on site.

20.	**Matters of State Significance**
	The applicant is advised that clearing of native vegetation may be subject to the *Nature Conservation Act 1992* in relation to flora (Protected Plants) and fauna. In the event native fauna is present in the vegetation proposed to be cleared (including non-native vegetation) a spotter catcher may be required to remove and/or relocate the native fauna (i.e. Koalas, possums, glossy black cockatoos, bats etc.). Further information can be located on the Department of Environment and Science website in relation to wildlife permits: www.qld.gov.au/environment/plants-animals/wildlife-permits/ and protected plants: www.ehp.qld.gov.au/licences-permits/plants-animals/protected-plants/map-request.php.

21.	**Cultural Heritage**
(a)	Necessary approvals/permits from the relevant cultural/heritage entities including indigenous people/groups must be obtained in relation to the conservation of cultural/heritage values of the site.
(b)	The applicant must ensure that any development obligations pursuant to the provisions of the Aboriginal Cultural Heritage Act 2003, the Economic Development Act 2012 are complied with in respect to the proposed development. Applicants, developers and landowners have a duty of care under the legislation where items of cultural heritage significance are located, even if those items have not been previously recorded in a database. For more information, the applicant may seek information from the relevant Registered Aboriginal Cultural Heritage Body for the Ipswich Region, the cultural heritage database, or seek the advice of the Department of Aboriginal and Torres Strait Islander and Multicultural Affairs or equivalent.

22.	**Trunk Infrastructure**
	Pursuant to the Ripley Valley Infrastructure Charging Offset Plan (ICOP - June 2020) development over the subject site requires Water and sewer infrastructure (as identified on Water Supply Plan and Sewerage Map of Ripley Valley PDA ICOP – June 2020), Parks (referred as POS018 on Parks & Open Space Map of Ripley Valley PDA ICOP – June 2020 and local neighbourhood park) and Transport (land dedication and part works for ultimate Fischer Road and corresponding Ultimate Intersections - referred as R005A/R005B on Road Map and R1004A/R1004B on the Intersections Map of Ripley Valley PDA ICOP – June 2020) municipal trunk Infrastructure. It should be noted that Municipal infrastructure charges generated by the subject development may be below the total costs associated with the provision of ICOP identified trunk infrastructure. As such, there may be benefits in rationalizing provision of ICOP identified trunk infrastructure to avoid a scenario of the development being eligible for refund of costs associated with provision of trunk infrastructure. To facilitate this, the conditions of this approval incorporate flexibility for the MEDQ Delegate to rationalise provision of trunk infrastructure (if necessary) such that critical infrastructure (i.e. water and provision of parkland) is provided in conjunction with the development and non-critical infrastructure (i.e. the Fischer Road shared pathway and linear park embellishments) can be delivered in the future. It is noted that these non-criterial infrastructure works may be undertaken by others, pending the balancing of charges.

No.	STATE INTEREST ADVICE
Abbreviations and Definitions - For the purposes of interpreting the PDA development conditions identified by the State, the following list of abbreviations is utilised:	
EDQ Development Assessment means Economic Development Queensland of the Department of State Development, Infrastructure, Local Government and Planning.	
MEDQ means the Minister for Economic Development Queensland.	
MEDQ delegate means the Ipswich City Council.	

Further Approvals under the *Transport Infrastructure Act 1994*

23.	**Road works in the state-controlled road**
	Under sections 33 of the *Transport Infrastructure Act 1994*, written approval is required from the Department of Transport and Main Roads to carry out road works on a state-controlled road. Please contact the Department of Transport and Main Roads - Brisbane Metropolitan Office at Metropolitan.IDAS@tmr.qld.gov.au to make an application for road works approval. This approval must be obtained prior to commencing any works on the state-controlled road reserve. The approval process may require the approval of engineering designs of the proposed works, certified by a Registered Professional Engineer of Queensland (RPEQ). The road access works approval process takes time – please contact the Department of Transport and Main Roads as soon as possible to ensure that gaining approval does not delay construction and overall development scheduling.

24.	**Ancillary works and encroachments in the state-controlled road**
	Under Section 50 of the *Transport Infrastructure Act 1994*, written approval is required from the Department of Transport and Main Roads for any ancillary works and encroachments on a state-controlled road as per Schedule 1 of the *Transport Infrastructure (State-controlled Roads) Regulation 2017.* Please contact the Department of Transport and Main Roads - Brisbane Metropolitan Office at Metropolitan.IDAS@tmr.qld.gov.au to make an application for a Road Corridor Permit. This approval must be obtained prior to commencing any works on the state-controlled road reserve. The approval process may require the approval of engineering designs of the proposed works, certified by a Registered Professional Engineer of Queensland (RPEQ).

Further Advice

25.	**Road Traffic Noise - Detailed Design of Noise Barriers**
	As detailed design of the noise barriers is being progressed (particularly for those located in the state-controlled road reserve) consideration will need to be given to stormwater, drainage and flooding issues. Technical Specification MRTS15 requires that the detailed design of the noise barriers is submitted and approved by the Department of Transport and Main Roads prior to construction.

26.	**Bus Stop Design**
	The detailed design of the bus stops should be submitted to the TransLink Division of the Department of Transport and Main Roads for endorsement prior to construction or any works commencing. Please contact the TransLink Division on telephone number 07 3851 8700 or at bus_stops@translink.com.au. The Department of Transport and Main Roads, TransLink *Public Transport Infrastructure Manual May (PTIM) 2015* is available at: http://translink.com.au/about-translink/what-we-do/public-transport-planning.

Attachment B
MEDQ Delegate's Conditions
File No: 10529/2019/PDA

Location: 33-37 Fischer Road, FLINDERS VIEW QLD 4305, 39-49 Fischer Road, FLINDERS VIEW QLD 4305, 61-89 Fischer Road, FLINDERS VIEW QLD 4305, Lot 209 Melrose Drive, FLINDERS VIEW QLD 4305, Lot 210 Melrose Drive, FLINDERS VIEW QLD 4305

Proposal: Material Change of use - Plan of Development (POD) for a House over Four Hundred and Seventy-Seven (477) Residential Lots and Multiple Residential over Thirty–Four (34) Residential Lots

MEDQ Delegate (Ipswich City Council) Conditions ***Conditions applicable to this approval under the Economic Development Act 2012***		
No.	**Condition**	**The time by which the condition must be met, implemented or complied with**
1.	**Basis of Approval**	
	This approval incorporates as a condition, the applicant's common material (as defined in Schedule 24 – Dictionary of the *Planning Regulation 2017*) for the application and adherence to all relevant Council Local Laws and/or the Ipswich Planning Scheme (including Planning Scheme Policies) unless otherwise varied by this approval or varied by a condition of this approval. Note: Any variation in the development from that approved herein may constitute assessable development pursuant to the *Economic Development Act 2012*	From the commencement of the construction of dwellings on the respective lots and at all times thereafter.
2.	**Plan of Development (POD)**	
	All future development on the approved residential lots must be undertaken generally in accordance with the approved POD documents (including any amendments required) listed in Part 3 'Approved Plans Specifications and Drawings' of this Development Approval.	Prior to issuing of a Form 21 – final inspection certificate, or commencement of use, whichever is the earlier.
3.	**Multiple Residential Development – Detailed Design Documentation**	
(a)	Where Multiple Residential development is proposed pursuant to the approved Plan of Development, the following provisions apply.	At all times after the approval is granted.
(b)	Submit to the MEDQ Delegate for compliance assessment detailed design documentation for Multiple Residential development.	Prior to the issuing of building works approval
(c)	Detailed design documentation must detail the following: (i) Location	Prior to the issuing of building works approval

	(ii) Lot size and configuration (iii) Building Height (iv) Plot ratio, gross floor area and site cover (v) Number of dwelling units and bedrooms (vi) Interface with adjoining dwellings (vii) Building design including elevations and materials (viii) On-site parking and servicing arrangements (ix) Open space provision (x) Fencing and landscape treatment	
(d)	The development shown in the detailed design documentation will be assessed against the provisions of the approved Plan of Development (POD).	At all times after the approval is granted.

4.	**Bushfire Management**	
	All residential uses on all/any affected lots identified in the approved Bushfire Management Plan (BMP) required by Condition 31 'Bushfire Risk Management' of this approval, must be constructed to achieve all mitigation measures/practices recommended in the approved BMP required by Condition 31 'Bushfire Risk Management' of this approval.	Prior to issuing of a Form 21 – final inspection certificate, or commencement of use, whichever is the earlier.

5.	**Noise Management**	
(a)	All dwellings constructed on lots identified as being affected by noise in the revised Noise Impact Assessment Report (NIA) required by Condition 30 'Acoustic Design Management' of this approval, must incorporate noise reduction design requirements in accordance with approved NIA required by Condition 30(a) 'Acoustic Design Management 'of this approval.	From the commencement of the use and at all times thereafter.
(b)	The applicant must provide all prospective purchasers of the Lots identified in Condition 5(a) above with a copy of the approved NIA required by Condition 30(a) 'Acoustic Design Management 'of this approval.	In conjunction with the signing of a contract of sale.
(c)	The applicant must submit to the MEDQ Delegate certification from an appropriately qualified acoustic professional demonstrating that the design of dwellings on the Lots identified at Condition 5(a) above incorporate relevant noise reduction design features to achieve compliance with the approved NIA required by Condition 30(a) 'Acoustic Design Management 'of this approval.	Prior to issuing of a Form 21 – final inspection certificate, or commencement of use, whichever is the earlier.

6.	**Mining**	
(a)	The applicant must provide all prospective purchasers of the Lots subject of this development approval with a copy of relevant mining reports outlined in Part 3 'Approved Plans Specifications and Drawings' of this Development Approval.	In conjunction with the signing of a contract of sale.
(b)	All dwellings on lots subject of this development approval must be constructed in accordance with the recommendations of the relevant mining reports outlined in Part 3 'Approved Plans Specifications and Drawings' of this Development Approval.	From the commencement of the use and at all times thereafter.
(c)	The applicant must submit to the MEDQ Delegate certification from an appropriately qualified professional demonstrating that structures on all lots subject of this approval incorporate the appropriate foundation design for the corresponding development site 'Area' in accordance with document titled 'Mining Issues at Fischer Road, Flinders View – Response to Council's RFI – Report 6' prepared by Moreton Geotechnical Services Pty Ltd and dated 10 December 2020.	Prior to issue of a Form 21 – Final inspection certificate, commencement of use or endorsement of building format plan, whichever is earlier.

7.	**Access**	
	Direct vehicular access to or from Fischer Road to the proposed lots adjoining Fischer road is prohibited.	From the commencement of the use and at all times thereafter.

8.	**Flooding**	
(a)	All future dwellings on proposed Lots 409-413 must have a minimum Finished Floor Level (FFL) of 33.95mAHD to maintain flood immunity in the 100% blockage sensitivity flooding case in accordance with the 'Ripley View FIR – Response and	At all times after the approval is granted.

	updated SMP' prepared by Engeny and dated 05 February 2021.	
(b)	Submit to the MEDQ Delegate that dwellings on proposed Lots 409-413 have been designed with a minimum Finished Floor Level (FFL) of 33.95m AHD in accordance with Condition 8(a) above.	Prior to issue of a Form 21 – Final inspection certificate, commencement of use or endorsement of building format plan, whichever is earlier.

MEDQ Delegate (Ipswich City Council) Advice

The following advice is offered for your information only and should not be viewed as mandatory conditions of this approval.

1.	**Fire Ants**
(a)	In accordance with the *Biosecurity Act 2014* and the *Biosecurity Regulation 2016*, the State of Queensland has implemented movement controls in areas (Fire Ant Biosecurity Zones) of Queensland where the Red Imported Fire Ant (ant species *Solenopsis invicta*) has been detected.
(b)	It is a legal obligation to report any sighting or suspicion of Fire Ants within 24 hours to Biosecurity Queensland on 13 25 23 (24hrs). It should be noted that works involving movements of all materials associated with earthworks (import and export) within a fire ant biosecurity zone is subject to movement controls and failure to comply with the regulatory provisions is an offence under the Biosecurity Act 2014. The Fire Ant Biosecurity Zones, as well as general information can be viewed on the Department of Agriculture and Fisheries website www.daf.qld.gov.au/fireants.
(c)	The land over which you have made a development application is within a Fire Ant Biosecurity Zone. The presence of Fire Ants on the site may affect the nature, form and extent of works permitted on the site. In view of this it will be necessary for you to contact Biosecurity Queensland to investigate the site and for you to implement any necessary matters required prior to the commencement of any works.

2.	**Local Government Regulation 2012**
	This property may be subject to the provision of Section 116 of the Local Government Regulation 2012. This section of the regulation limits any increase in rates to a predetermined percentage. In accordance with Council's budget and rating resolutions, if the property is sold or reconfigured in any way (eg subdivision, dedication or partial dedication, amalgamation) this benefit will no longer apply. For further information please contact the Ipswich City Council Customer Contact Centre on (07) 3810 6666.

3.	**Flooding**
	The subject site is located adjacent to a stormwater flow path and in a flood affected area. Council, and its servants and agents, accept no liability or responsibility for any loss or damage to person or property of whatever nature or however caused as the direct or indirect consequence of the granting of the approval herein contained. Such approval has been granted at the request of the applicant and in reliance of information submitted by the applicant in support thereof.

4.	**Proximity of Earthworks to Adjoining Property**
	Where earthworks, including retaining structures, are proposed within 3.0m of the property boundary or are likely to affect adjoining property owners, the applicant must notify the affected property owners in writing, and obtain written comments from them, as detailed in Part 12, Division 15 - Specific Outcome 19 and Note 12.15.4K of the *Ipswich Planning Scheme*. Written comments from the affected owners (or at least the supporting documentation of notification and consultation with the adjoining property owners to the Council's satisfaction) must be submitted to Council for consideration

5.	**Portable Long Service Leave**
	Where the proposed works (civil and landscaping) are valued at $150,000 or more and match the definition of Building and Construction Industry, the *Building and Construction Industry (Portable Long Service Leave) Act 1991* requires that evidence of payment of the Portable Long Service Leave (QLeave) Levy be received by Council as a condition of issuing a development permit for building works, operational works and plumbing and drainage works applications, as defined under the *Sustainable Planning Act 2009*. If you require clarification in regard to the *Building and Construction Industry (Portable Long Service Leave) Act 1991*, you should contact QLeave on 1800 803 481 (free call) or (07) 3212 6855.

6.	**Report Assessment**
	The applicant is advised that should Council require the submission of an amended report prior to the lodgement and/or in conjunction with any Operational Works development application, a fee will apply in accordance with the current Council Fees and Charges.

7.	**Cultural Heritage**
(a)	Necessary approvals/permits from the relevant cultural/heritage entities including indigenous people/groups must be obtained in relation to the conservation of cultural/heritage values of the site.
(b)	The applicant must ensure that any development obligations pursuant to the provisions of the Aboriginal Cultural Heritage Act 2003, the Economic Development Act 2012 are complied with in respect to the proposed development. Applicants, developers and landowners have a duty of care under the legislation where items of cultural heritage significance are located, even if those items have not been previously recorded in a database. For more information, the applicant may seek information from the relevant Registered Aboriginal Cultural Heritage Body for the Ipswich Region, the cultural heritage database, or seek the advice of the Department of Aboriginal and Torres Strait Islander and Multicultural Affairs or equivalent.

Attachment C

APPEAL RIGHTS

The following are relevant extracts from the *Economic Development Act 2012*

Chapter 3, Part 4

90 Right of Appeal Against Particular Conditions

(1) This section applies if a PDA development condition includes a nominated assessing authority (the ***entity***).
(2) The person who made the relevant PDA development application may appeal to the Planning and Environment Court against MEDQ's decision to impose the condition.
(3) An appeal under subsection (2) must be started within 20 business days after the day the applicant is given notice of the decision.
(4) An appellant starts an appeal by lodging, with the registrar of the Planning and Environment Court, a written notice of appeal that –
  (a) is in the approved form; and
  (b) succinctly states the grounds of the appeal.
(5) The *Planning and Environmental Court Act 2016*, part 5 applies, with necessary changes, to the appeal as if—
  (a) the appeal were a Planning Act appeal under that Act; and
  (b) the entity were the only other party to the appeal.
(6) However—
  (a) the appellant must, as soon as practicable after giving the entity the notice of the appeal, give MEDQ a copy of the notice; and
  (b) MEDQ may, by lodging a notice of election with the registrar of the court, elect to become a party to the appeal.
  (7) MEDQ must give the other parties a copy of the notice of election as soon as practicable after it is lodged.

99 Application to Change PDA Development Approval

(1) A person may apply (the ***amendment application***) to MEDQ to change a PDA development approval.
(2) However, the amendment application may be made only if MEDQ is satisfied the change would not result in the relevant development being substantially different.
(3) Division 3 applies for the amendment application as if—
  (a) a reference in the division to a PDA development application were a reference to the amendment application; and
  (b) a reference in the division to a PDA development approval were a reference to a changed PDA development approval; and
  (c) a reference in the division to the granting of a PDA development approval were a reference to the making of the change.
(4) Despite subsection (3), section 84(2) to (6) applies for the amendment only in a circumstance mention in section 84(1)(c).

Queensland Government

Department of
State Development, Infrastructure, Local Government and Planning

Our ref: F20/424

Your ref: 10529/2019/PDA

9 July 2021

Sandeep Nanjappa
Senior Planner (Development)
Planning and Regulatory Services Department
Ipswich City Council
PO Box 191
IPSWICH QLD 4305

Email: sandeep.nanjappa@ipswich.qld.gov.au; development@ipswich.qld.gov.au

Dear Sandeep

RELEVANT STATE INTERESTS FOR A PDA DEVELOPMENT APPLICATION FOR A PDA DEVELOPMENT PERMIT FOR RECONFIGURING A LOT - FIVE (5) LOTS INTO FIVE HUNDRED AND TWENTY (520) LOTS (CONSISTING OF 511 RESIDENTIAL LOTS, 1 FUTURE CHILD CARE CENTRE LOT, 1 NEIGHBOURHOOD RECREATION PARK LOT, 1 LINEAR PARK LOT AND 6 DRAINAGE RESERVE LOTS) AND NEW ROADS AND MATERIAL CHANGE OF USE - PLAN OF DEVELOPMENT (POD) FOR A HOUSE OVER FOUR HUNDRED AND SEVENTY-SEVEN (477) RESIDENTIAL LOTS AND MULTIPLE RESIDENTIAL OVER THIRTY–FOUR (34) RESIDENTIAL LOTS AT 33-37, 39-49 AND 61-89 FISCHER ROAD, FLINDERS VIEW AND LOTS 209 AND 210 MELROSE DRIVE, FLINDERS VIEW DESCRIBED AS LOT 2 ON RP906067, LOT 211 ON RP906067, LOT 208 ON SL11067, LOT 209 ON SL11067 AND LOT 210 ON SL9238

Thank you for consulting with Economic Development Queensland (EDQ) about state interests relevant to the above PDA development application (the application).

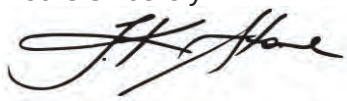
After undertaking an assessment of the application, EDQ advises that the enclosed conditions, advice and plans are appropriate to address relevant state interests if the local government delegate decides to approve the application.

EDQ advises that “no entity” should be nominated to be the nominated assessing authority for the enclosed conditions under s88(a) of *Economic Development Act 2012*.

This advice relates to the application as currently proposed. Should the application change via a response to an information request, further issues or a formal change made under s92 of the *Economic Development Act 2012*, another state interest check will be required to assess the changed proposal.

Should you have any queries in relation to this notice, please do not hesitate to contact Lyndy Rapson or Anita Torbey Fuller on 3452 7522 or at lyndy.rapson@dsdilgp.qld.gov.au or anita.torbeyfuller@dsdgilp.qld.gov.au .

Yours sincerely



Jeanine Stone
Director
Development Assessment
Economic Development Queensland

Encl: Conditions and/or advice to address state interests

Appendix A – Conditions/Advice/Plans

Abbreviations and Definitions	
For the purposes of interpreting the PDA development conditions identified by the State, the following list of abbreviations is utilised:	
1.	**EDQ Development Assessment** means Economic Development Queensland of the Department of State Development, Infrastructure, Local Government and Planning.
2.	**MEDQ** means the Minister for Economic Development Queensland.
3.	**MEDQ delegate** means the Ipswich City Council.

Plans and Documents			
Plans and documents referred to in the recommended conditions are detailed in the following table:			
Approved plans and documents		**Number**	**Date**
1.	Swanbank Road / Cunningham HWY Westbound Ramps Intersection – Roundabout Upgrade Concept prepared by TTM Consulting	Drawing Number 18BRT0428-07 Revision A	8 October 2020
2.	Swanbank Road / Fischer Road Intersection – Signalised Upgrade Concept Layout	Drawing Number 18BRT0428-13 Revision A	12 April 2021
3.	Residential Subdivision, 63 Fischer Road, Flinders View – Response to DSDMIP RFIs, Figure 4: Acoustic barriers – 2.3m, 3m, 6m high prepared by Renzo Tonin & Associates	QB541-02-F05 R1	2 February 2021 Amended in Red 2 July 2021
4.	Ripley View Estate Stormwater Management Plan and Flood Impact Assessment prepared by Engeny Water Management	Reference M64000_004_REP-001 Revision 6	4 February 2021
5.	Roadworks Concept Layout Plans – Sheets 1 to 9, prepared by Urban Engineering Solutions	Drawing Numbers 219002-DA-RW-101 to 219002-DA-RW-109 Revision P5	4 December 2020
6.	Reconfiguration of Lots 208-209 on SL11067, Lot 210 on SL9238 and Lot 2 & 211 on RP906067 prepared by Land Partners	BRSS7261-000-61-19	2 February 2021 Amended in Red 2 February 2021 and 9 July 2021

No	Development Conditions	Timing
State-controlled Road – Traffic Impacts		
1.	**Swanbank Road and Cunningham Highway Interchange (West Bound Ramps)** (a) Road upgrade works must be delivered to mitigate the road safety impacts of the development identified in the State-Controlled Roads Impact Assessment prepared TTM Consulting dated 7 December 2020, Reference 18BRT0428 Revision 4, specifically: (i) Undertake the upgrade of the Swanbank Road and Cunningham Highway Westbound Off-ramp intersection and Westbound On-ramp intersection to a dual-lane roundabout generally in accordance with Swanbank Road / Cunningham Hwy Westbound Ramps Intersection prepared by TTM Consulting Pty Ltd dated 8 October 2020 Drawing Number 18BRT0428-07 Revision A. (ii) The road upgrade works must be designed and constructed in accordance with latest version of the Road Planning and Design Manual, Department of Transport and Main Roads. (iii) Submit to the MEDQ delegate and EDQ Development Assessment a copy of the Certificate of Practical Completion for on-maintenance issued by the Department of Transport and Main Roads pursuant to the written approval for the works under section 33 of the *Transport Infrastructure Act 1994*. **OR** (b) Submit to the MEDQ delegate and EDQ Development Assessment supporting evidence that includes written agreement from the Department of Transport and Main Roads on alternative arrangements that have been implemented to mitigate the road safety impacts of the development on the state-controlled road identified in the State-Controlled Roads Impact Assessment prepared TTM Consulting dated 7 December 2020, Reference 18BRT0428 Revision 4.***Please see advice statement for information regarding further approvals required under the Transport Infrastructure Act 1994.***	(a) & (b) Prior to submitting the plan of survey to the MEDQ delegate for approval for the relevant stage that connects the development to Fischer Road.

No	Development Conditions	Timing
2.	**Swanbank Road and Cunningham Highway Interchange (West Bound Ramps)** (a) Road upgrade works must be delivered to mitigate the road safety impacts of the development on the state-controlled road identified in the State-Controlled Roads Impact Assessment prepared by TTM Consulting dated 7 December 2020, Reference 18BRT0428 Revision 4, specifically: (i) Undertake the installation of signal metering on the Swanbank Road western approach to the dual-lane roundabout, generally in accordance with Swanbank Road / Cunningham Hwy Westbound Ramps Intersection prepared by TTM Consulting Pty Ltd dated 8 October 2020 Drawing Number 18BRT0428-07 Revision A. (ii) The road upgrade works must be designed and constructed in accordance with the latest version of the Road Planning and Design Manual, Department of Transport and Main Roads. (iii) Submit to the MEDQ delegate and EDQ Development Assessment a copy of the Certificate of Practical Completion for on-maintenance issued by the Department of Transport and Main Roads pursuant to the written approval for the works under section 33 of the *Transport Infrastructure Act 1994.* **OR** (b) Submit to the MEDQ delegate and EDQ Development Assessment supporting evidence that includes written agreement from the Department of Transport and Main Roads on alternative arrangements that have been implemented to mitigate the road safety impacts of the development on the state-controlled road identified in the State-Controlled Roads Impact Assessment prepared by TTM Consulting dated 7 December 2020, Reference 18BRT0428 Revision 4 ***Please see advice statement for information regarding further approvals required under the Transport Infrastructure Act 1994.***	(a)&(b) Prior to submitting the plan of survey to the MEDQ delegate for approval for the relevant stage that includes the 413th Lot.

No	Development Conditions	Timing
3.	**Swanbank Road and Fischer Road Intersection** (a) Road upgrade works must be delivered to mitigate the road safety impacts of the development on the state-controlled road identified in Response to State Further Information Request – Traffic Engineering Issues prepared by TTM Consulting dated 11 May 2021, Reference 18BRT0428, specifically: (i) Undertake the upgrade of the Swanbank Road and Fischer Road intersection to a signalised intersection generally in accordance with Swanbank Road / Fischer Road Intersection prepared by TTM Consulting Pty Ltd dated 12 April 2021 Drawing Number 18BRT0428-13 Revision A. (ii) Dedication of land as new road where required to deliver the upgrade works referred to in this condition. (iii) The road upgrade works must be designed and constructed in accordance with the latest version of the Road Planning and Design Manual, Department of Transport and Main Roads. (iv) Submit to the MEDQ delegate and EDQ Development Assessment a copy of the Certificate of Practical Completion for on-maintenance issued by the Department of Transport and Main Roads pursuant to the written approval for the works under section 33 of the *Transport Infrastructure Act 1994*. **OR** (b) Submit to the MEDQ delegate and EDQ Development Assessment supporting evidence that includes written agreement from the Department of Transport and Main Roads on alternative arrangements that have been implemented to mitigate the road safety impacts of the development on the state-controlled road identified in Response to State Further Information Request – Traffic Engineering Issues prepared by TTM Consulting dated 11 May 2021, Reference 18BRT0428.	(a)&(b) Prior to submitting the plan of survey to the MEDQ delegate for approval for the relevant stage that connects the development to Fischer Road.

No	Development Conditions	Timing
State-controlled Road – Road Traffic Nosie		
4.	(a) Carry out the development generally in accordance with the report Residential Subdivision, 63 Fischer Road, Flinders View – Response to DSDMIP RFIs, prepared by Renzo Tonin & Associates dated 2 February 2021. In particular – i. Construct noise barriers as shown on **Figure 4: Acoustic barriers – 2.3m, 3m, 6m high as amended in red 02.07.2021;** ii. Points A to K are to be located wholly within the subject site; iii. Points L to N and O to E are to be located wholly within the state-controlled road reserve with associated drainage and landscaping; and iv. Building pads must not exceed the levels specified in Appendix E. (b) Noise barriers (including any footings, associated earth mounds and landscaping) to be designed and constructed generally in accordance with: i. Chapter 7 – Integrated Noise Barrier Design of the Transport Noise Management Code of Practice: Volume 1 (Road Traffic Noise, Department of Transport and Main Roads, 2013; ii. Technical Specification MRTS15 – Noise Fences, Department of Transport and Main Roads, 2019; and iii. Standard Drawings Road Manual for Noise Fences. (c) Submit to the MEDQ delegate and EDQ Development Assessment, RPEQ certification with supporting documentation, demonstrating that the acoustic barriers have been designed and constructed in accordance with part (a) and (b) of this condition. ***Please see advice statement for information regarding further approvals required under the Transport Infrastructure Act 1994.***	(a) & (b) Prior to submitting the plan of survey to the MEDQ delegate for approval for the relevant stage and to be maintained at all times. (c) Prior to submitting the plan of survey to the MEDQ delegate for approval for the relevant stage.
State-controlled Road – Stormwater & Flooding		
5.	(a) The development must be carried out generally in accordance with the Ripley View Estate Stormwater Management Plan and Flood Impact Assessment prepared by Engeny Water Management dated 4	(a) At all times (b) Prior to submitting the plan of survey to the MEDQ delegate for

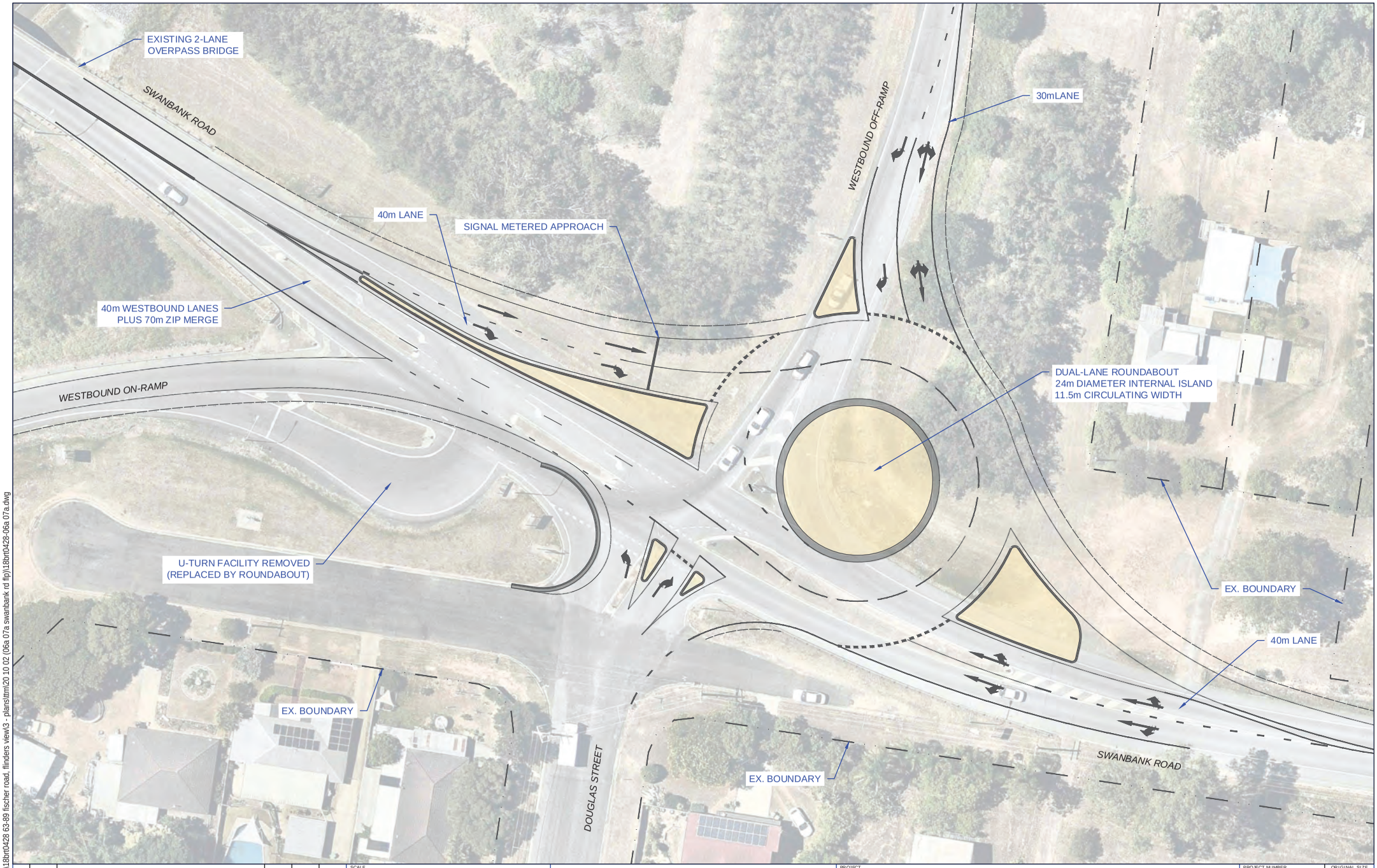
No	Development Conditions	Timing
	February 2021, Reference M64000_004_REP-001 Revision 6. (b) Submit to the MEDQ delegate and EDQ Development Assessment, RPEQ certification with supporting documentation, demonstrating that the development has been designed and constructed in accordance with part (a) of this condition.	approval for the relevant stage.
Public Passenger Transport		
6.	**Active Transport** The development must provide the concrete pathways shown on the Roadworks Concept Layout Plans – Sheets 1 to 9, prepared by Urban Engineering Solutions, dated 4 December 2020, drawing numbers 219002-DA-RW-101 to 219002-DA-RW-109, revision P5.	Prior to submitting the plan of survey to the MEDQ delegate for approval for the relevant stage.
7.	**Potential Future Bus Route** (a) The 'potential future bus route' shown on the Proposed Reconfiguration of Lots 208-209 on SL11067, Lot 210 on SL9238 and Lot 2 & 211 on RP906067, prepared by Land Partners, dated 02.02.2021, drawing BRSS7261-000-61-19, as amended in red 02.02.2021 and 09.07.2021, and any external roadworks on Fischer Road and/or South Station Road / Josie Street, must be designed and constructed to be in accordance with the following to accommodate a single unit rigid bus of 14.5m in length: • Department of Transport and Main Roads *Road Planning and Design Manual, 2nd Edition, Volume 3 – Guide to Road Design* (March 2016); • Department of Transport and Main Roads *Supplement to Austroads Guide to Road Design* (Parts 3, 4-4C and 6)*;* • *Austroads Guide to Road Design* (Parts 3, 4-4C and 6); • *Austroads Design Vehicles and Turning Path Templates;* • Department of Transport and Main Roads *Queensland Manual of Uniform Traffic Control Devices, Part 13 Local Area Traffic Management (March 2018);* and • Chapter 2 - Planning and Design, Section 2.3.2 Bus Route Infrastructure (page 6) of the Department of Transport and Main Roads *Public Transport Infrastructure Manual 2015.*	(a) & (b) Prior to submitting the plan of survey to the MEDQ delegate for approval for the relevant stage.

No	Development Conditions	Timing
	(b) Submit to the MEDQ delegate and EDQ Development Assessment, RPEQ certification, including swept path assessments, demonstrating that the development has been designed and constructed in accordance with part (a) of this condition. [Note to EDQ that the bus route will need to accommodate 14.5m length buses for school bus routes]	
8.	**Bus Indent Bays** (a) The applicant must provide three (3) pairs of bus indent bays as shown the Proposed Reconfiguration of Lots 208-209 on SL11067, Lot 210 on SL9238 and Lot 2 & 211 on RP906067, prepared by Land Partners, dated 02.02.2021, drawing BRSS7261-000-61-19, as amended in red 02.02.2021 and 09.07.2021: • On Fischer Road, south of the intersection with the new east-west Neighbourhood Connector Street; • Internal to the site on the potential future bus route; and • On South Station Road / Josie Street, south of the intersection with the new east-west Neighbourhood Connector Street. (b) Each bus indent bay required in part (a) of this condition must be located in accordance with Section 5.5 - Bus Stop Environment of Chapter 5 - Bus Stop Infrastructure (pages 15-21) of the *Public Transport Infrastructure Manual 2015* and the *Transport Operations (Road Use Management – Road Rules) Regulation 2009*, in particular stopping at intersections. (c) Each bus indent bay required in part (a) of this condition must be able to accommodate a single unit rigid bus of 12.5m in length in accordance with the following: • *Disability Standards for Accessible Public Transport 2002* made under subsection 31(1) of the *Disability Discrimination Act 1992;* • the Department of Transport and Main Roads' TransLink *Public Transport Infrastructure Manual 2015*, in particular, o Section 5.6.3.1 – 'Bus stop length requirements', 'Table 5.7: Minimum bus stop length requirements', and Table 5.4: 'Bus stop arrangements - Indented bus bay'	(a) – (e) Prior to submitting the plan of survey to the MEDQ delegate for approval for the relevant stage.

No	Development Conditions	Timing
	of Chapter 5 – 'Bus stop infrastructure', in particular, a minimum bus bay width of 3m (excluding cycle lanes), bus bay length of 15m, taper in of 21m (1:7 kerb) and taper out of 15m (1:5 kerb); o all mandatory bus stop components for an Intermediate Stop in Section 5.7 - 'Bus stop components' (pages 30-41) of Chapter 5 - 'Bus stop infrastructure', except for signage, seating and shelter; and o a hardstand area and boarding point in accordance with 'Intermediate Stop – Site Layout – With Indented Bus Bay', DRG 5-0022 of Appendix 5-B – 'Layout and technical drawings'. (d) The development must provide safe, direct and convenient pedestrian pathway access, including crossing arrangements, to and between each future bus stop. (e) Submit to the MEDQ delegate and EDQ Development Assessment, RPEQ certification with supporting documentation confirming that the development has been designed and constructed in accordance with parts (a) - (d) of this condition. [Note to EDQ that future urban bus stops will cater for 12.5m length buses].	

Advice Statements	
Further Approvals under the *Transport Infrastructure Act 1994*	
1.	**Road works in the state-controlled road** Under sections 33 of the *Transport Infrastructure Act 1994*, written approval is required from the Department of Transport and Main Roads to carry out road works on a state-controlled road. Please contact the Department of Transport and Main Roads - Brisbane Metropolitan Office at Metropolitan.IDAS@tmr.qld.gov.au to make an application for road works approval. This approval must be obtained prior to commencing any works on the state-controlled road reserve. The approval process may require the approval of engineering designs of the proposed works, certified by a Registered Professional Engineer of Queensland (RPEQ). The road access works approval process takes time – please contact the Department of Transport and Main Roads as soon as possible to ensure that gaining approval does not delay

No	Development Conditions	Timing
	construction and overall development scheduling.	
2.	**Ancillary works and encroachments in the state-controlled road** Under Section 50 of the *Transport Infrastructure Act 1994*, written approval is required from the Department of Transport and Main Roads for any ancillary works and encroachments on a state-controlled road as per Schedule 1 of the *Transport Infrastructure (State-controlled Roads) Regulation 2017.* Please contact the Department of Transport and Main Roads - Brisbane Metropolitan Office at Metropolitan.IDAS@tmr.qld.gov.au to make an application for a Road Corridor Permit. This approval must be obtained prior to commencing any works on the state-controlled road reserve. The approval process may require the approval of engineering designs of the proposed works, certified by a Registered Professional Engineer of Queensland (RPEQ).	
Further Advice		
3.	**Road Traffic Noise - Detailed Design of Noise Barriers** As detailed design of the noise barriers is being progressed (particularly for those located in the state-controlled road reserve) consideration will need to be given to stormwater, drainage and flooding issues. Technical Specification MRTS15 requires that the detailed design of the noise barriers is submitted and approved by the Department of Transport and Main Roads prior to construction.	
4.	**Bus Stop Design** The detailed design of the bus stops should be submitted to the TransLink Division of the Department of Transport and Main Roads for endorsement prior to construction or any works commencing. Please contact the TransLink Division on telephone number 07 3851 8700 or at bus_stops@translink.com.au. The Department of Transport and Main Roads, TransLink *Public Transport Infrastructure Manual May (PTIM) 2015* is available at: http://translink.com.au/about-translink/what-we-do/public-transport-planning.	



REV.	DATE	AMENDMENT DESCRIPTION	DRAWN	CHECKED	APPROVED
A	06-10-20	ORIGINAL	DG	DG	DG

SCALE 0 4 8 12 16 20m
SCALE 1:400 AT ORIGINAL SIZE

NORTH

CLIENT
CLAG PTY LTD

TTM CONSULTING PTY LTD
ABN 65 010 868 621
LEVEL 8, 369 Ann Street, BRISBANE, QLD, 4000
P.O. BOX 12015, BRISBANE, QLD, 4003
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PROJECT
37, 39-49 & 63 FISCHER RD & 3 MELROSE DR, FLINDERS VIEW

DRAWING TITLE
SWANBANK ROAD / CUNNINGHAM HWY WESTBOUND RAMPS INTERSECTION
ROUNDABOUT UPGRADE CONCEPT

PROJECT NUMBER	ORIGINAL SIZE
18BRT0428	A3
DRAWING NUMBER	REVISION
18BRT0428-07	A
DATE	SHEET
8 Oct 2020	1 OF 1

I:\synergy\projects\18brt\18brt0428 63-89 fischer road, flinders view\3 - plans\ttm\20 10 02 (06a 07a swanbank rd flip)\18brt0428-06a 07a.dwg

I:\synergy\projects\18brt\18brt0428 63-89 fischer road, flinders view\3 - plans\ttm\21 01 21 (11a 12a 13a) -swanbank road & fischer road intersection\18brt0428-13a (signals).dwg

REV.	DATE	AMENDMENT DESCRIPTION	DRAWN	CHECKED	APPROVED
A	12-04-21	ORIGINAL	DG	DG	DG

SCALE 0 10 20 30 40 50m
SCALE 1:1000 AT ORIGINAL SIZE

NORTH

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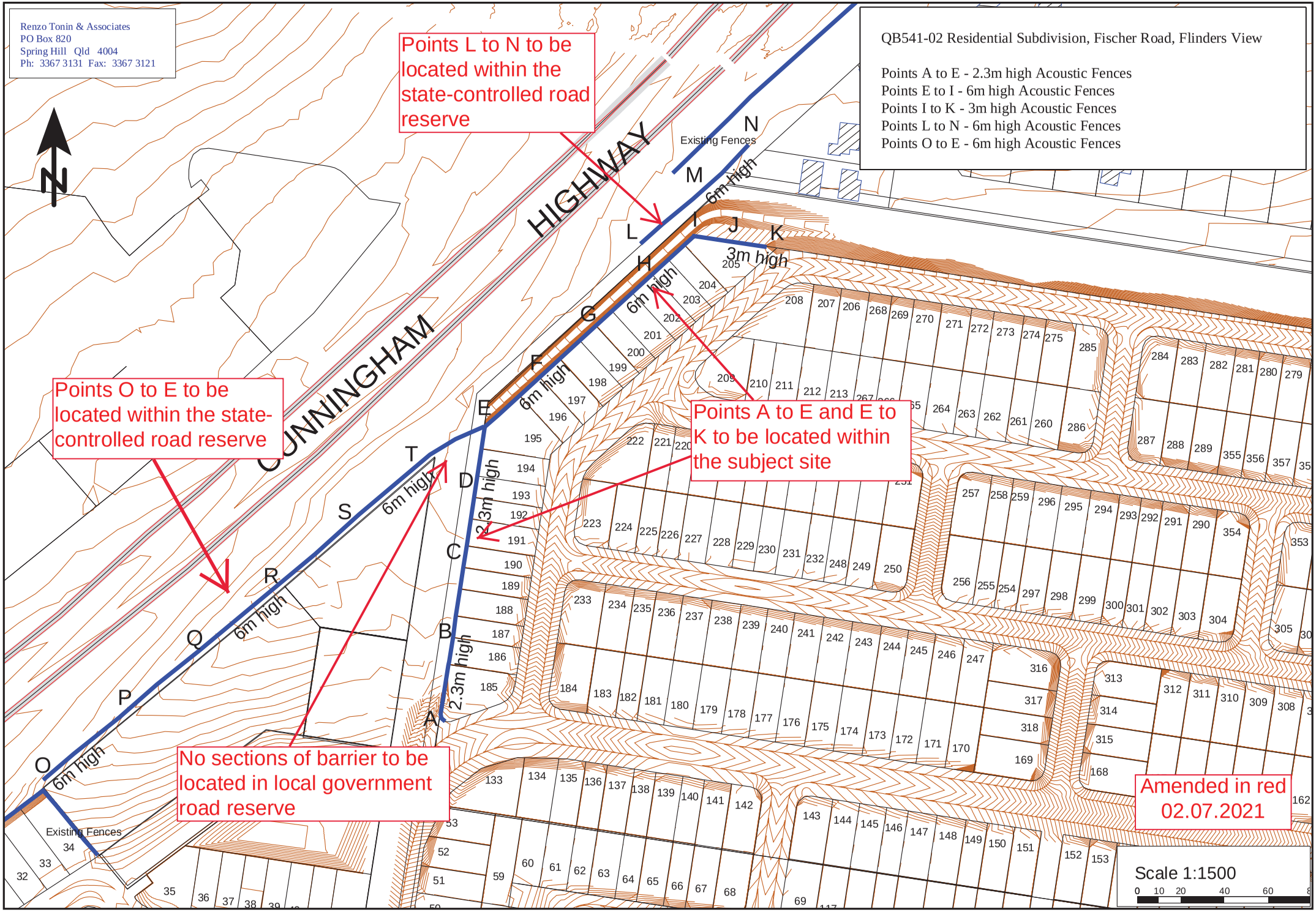
PROJECT
37, 39-49 & 63 FISCHER RD & 3 MELROSE DR, FLINDERS VIEW

DRAWING TITLE
SWANBANK ROAD / FISCHER ROAD INTERSECTION
SIGNALISED UPGRADE CONCEPT LAYOUT

PROJECT NUMBER	ORIGINAL SIZE
18BRT0428	A3
DRAWING NUMBER	REVISION
18BRT0428-13	A
DATE	SHEET
12 Apr 2021	1 OF 2


Renzo Tonin & Associates
PO Box 820
Spring Hill Qld 4004
Ph: 3367 3131 Fax: 3367 3121
QB541-02 Residential Subdivision, Fischer Road, Flinders View
Points A to E - 2.3m high Acoustic Fences
Points E to I - 6m high Acoustic Fences
Points I to K - 3m high Acoustic Fences
Points L to N - 6m high Acoustic Fences
Points O to E - 6m high Acoustic Fences
Points L to N to be located within the state-controlled road reserve
Points O to E to be located within the state-controlled road reserve
Points A to E and E to K to be located within the subject site
No sections of barrier to be located in local government road reserve
HIGHWAY
CUNNINGHAM
Existing Fences
6m high
3m high
2.3m high
Amended in red 02.07.2021
Scale 1:1500
0 10 20 40 60

STATISTICS	STAGES														
	1	2	3	4	5	6	7	8	9	10	11	12	13	TOTAL (SAL)
Stage Area	4.224ha	2.955ha	2.104ha	5.63ha	2.71ha	2.03ha	2.83ha	6.75ha	2.9ha	9.957ha	2.09ha	2.67ha	2690ha	47.119ha
Villa Lots 10m Wide	10	20	14	8	22	14	9	23	1	13	12	29	-	175
Courtyard Lots (1) 12.5m Wide	21	7	15	18	22	6	13	14	1	9	18	15	-	159
Courtyard Lots (2) 13.4m Wide	11	1	10	18	4	11	14	9	-	8	4	3	-	93
Traditional Lots 15m Wide	2	4	2	6	4	-	1	-	14	9	4	4	-	60
Multiple Residential Lot	4	9	2	3	3	4	6	1	-	1	-	1	-	34 (68)
Child Care Centre	-	-	-	-	-	-	-	-	-	-	-	-	1	1
Total Lots	48	41	43	53	55	35	43	47	16	40	38	52	1	512 (546)
Total Basins (Lots 901-905)	1	-	-	1	-	-	-	-	1	2	-	-	-	5
Basins 1 - 5 & Overland Flow Paths	.9745ha	-	-	.9360ha	.2920ha	.2410ha	.3564ha	.0960ha	.2030ha	.3880ha	-	-	-	3.487ha
Neighbourhood Recreation Park (Local Park)	0.5505ha	-	-	-	-	-	-	-	-	-	-	-	-	0.5505ha
Linear Park / Recreation Area	0.201ha	.4455ha	-	.234ha	-	-	-	4.212ha	-	8.965ha	-	-	-	12.0579ha
Road Widening	0.039ha	-	0.022ha	.0482ha	-	-	-	-	.1793ha	.1065ha	.1796ha	-	-	0.5742ha
Area of Roads (incl. Pathways)	9.65ha (Excludes Road Widening Fischer Road)													
Area of Lots, Roads & Local Park	20.858ha (lots) (excludes Child Care site) + 9.65ha (roads) + 0.5505ha (local park) = 31.058ha													

DENSITY CALCULATIONS

546 TITLES / 31.058ha (Area of Lots 20.858ha , Roads 9.65ha, & Local Park 0.5505ha) (excludes Child Care site) = Dwellings 17.5 dwgs / ha

LEGEND

- Site Boundary
- Stage Boundary
- Proposed Road Widening
- Borehole Locations
- 20m Investigation Area of Final Location of Boreholes
- DEVELOPED Q100 Flood Extent
- Sales Office & Carpark
- Builders Display Village Lots
- Exclusion Zone For Remnant Vegetation
- Endangered Remnant Vegetation
- Top Of Bank (engeny)
- 25m Offset to Top Of Bank (engeny)
- 10m Offset From Top Of Bank (engeny)
- PRE DEVELOPED Q100 Flood Extent
- Existing Acoustic Fence
- 5.3m High Acoustic Fence
- 6.5m High Acoustic Fence
- 2.3m High Acoustic Fence
- 3m High Acoustic Fence
- 5.5m High Acoustic Fence

6m High Acoustic Fence Amended in Red 9/07/2021

Amended in red 2/02/2021

NOTE: ALL DIMENSIONS AND AREAS ON THIS PLAN ARE SUBJECT TO SURVEY AND REQUIREMENTS FOR LODGEMENT OF SURVEY PLANS IN THE DEPARTMENT OF NATURAL RESOURCES, MINES AND ENERGY.

CLIENT

CLAG PTY LTD

PROJECT

PROPOSED RECONFIGURATION OF LOTS 208-209 ON SL11067, LOT 210 ON SL9238 AND LOT 2 & 211 ON RP906067
(63-89 FISCHER ROAD, RIPLEY)

LOCAL AUTHORITY

ECONOMIC DEVELOPMENT QUEENSLAND

NOTES

(i) This plan was prepared for the purpose and exclusive use of CLAG PTY LTD to accompany an application to ECONOMIC DEVELOPMENT QUEENSLAND for approval to reconfigure the land described in this plan and is not to be used for any other purpose or by any other person or corporation. LandPartners Pty Ltd accepts no responsibility for any loss or damage suffered howsoever arising to any person or corporation who may use or rely on this plan in contravention of the terms of this clause or clauses (ii),(iii) or (iv) hereof.

(ii) The contours shown in this plan are suitable only for the purposes of this application. The accuracy of the contours has not been verified and no reliance should be placed upon such contours for any other purpose other than the purpose of this application for reconfiguration.

(iii) The dimensions, areas, number of lots, size and location of improvements & flood information (if shown) are approximate only and may vary.

(iv) This plan may not be copied unless these notes are included.

LOCALITY DIAGRAM

SCALE BAR

0m 20 60 100m

SCALE 1:1500 @ A1

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LEVEL DATUM	AHD		
LEVEL ORIGIN	LIDAR		
CONTOUR INTERVAL	1m		
COMPUTER FILE	BRSS7261-000-60-19		
DRAWN	MIS	DATE	02/02/2021
CHECKED	SRS	DATE	02/02/2021
APPROVED	SRS	DATE	02/02/2021
UDN	BRSS7261-000-61-19		

SRS