

Appendix G





SSD13_6281 Ref:DB15-07-01

1 July 2015

The Secretary
Department of Planning and Environment
GPO Box 39
SYDNEY NSW 2001

Attention: Mr David Mooney

Dear Mr Mooney

PROPOSED DENILIQUIN ETHANOL PLANT SSD 13_6281

Deniliquin Council owns the land comprising of part Lot 234 and Lot 272 DP756325 situated at 234 Barham Road Deniliquin NSW 2710.

Deniliquin Council consents to the lodgement of the Major Project Application to the Department of Planning and Environment in respect to the proposed development as described in the documents comprising the Deniliquin Proposed Ethanol Plant SSD 13_6281 as prepared by AECOM.

The Ethanol Plant project has been endorsed in principle by the Deniliquin Council and they have also accepted that any treated wastewater not consumed within the plant processes may be returned to the Deniliquin Council Water re-use scheme situated on the part Lot 234 DP756325 adjacent to the proposed plant.

Should you require further information, please contact Des Bilske, General Manager on 03 5898 3040.

Yours sincerely

DES BILSKE

GENERAL MANAGER



DENILIQUIN COUNCIL
Achievement through Action

All correspondence to be directed to the General Manager

Civic Centre Civic Place PO Box 270 DENILIQUIN NSW 2710

Telephone 03 5898 3000

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Email council@deniliquin.nsw.gov.au

Website www.deniliquin.nsw.gov.au

ABN 90 513 847 629



"Matunda"

100 Leetham Road,

Deniliquin,

NSW 2710

Landowner's Consent

As the registered owners of the subject property at 100 Leetham Road, Deniliquin (described as Lot 273 on DP 756325), we consent to the lodgement of the Dongmun Greentec Deniliquin Ethanol Plant State Significant Development application to the Department of Planning and Environment.

Signature 1 Mo. To knan	Signature 2 Shuray waren
Name ANNE - LOUISE TROOM	Name MURRAY TROTTMAN
Date// - 7. / 5	Date//- 7 - / 5











EPBC Act Protected Matters Report

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

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

Information is available about <u>Environment Assessments</u> and the EPBC Act including significance guidelines, forms and application process details.

Report created: 13/05/15 10:24:17

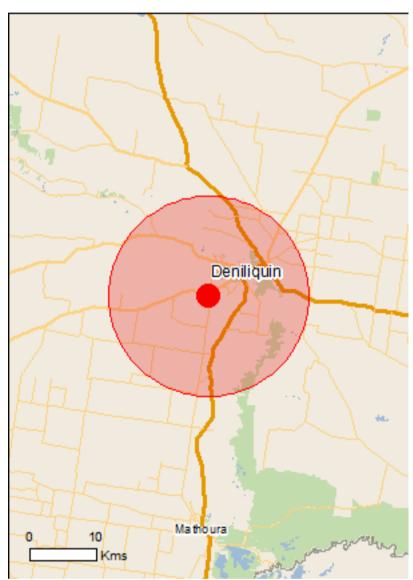
Summary

Details

Matters of NES
Other Matters Protected by the EPBC Act
Extra Information

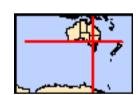
Caveat

<u>Acknowledgements</u>



This map may contain data which are ©Commonwealth of Australia (Geoscience Australia), ©PSMA 2010

Coordinates
Buffer: 15.0Km



Summary

Matters of National Environmental Significance

This part of the report summarises the matters of national environmental significance that may occur in, or may relate to, the area you nominated. Further information is available in the detail part of the report, which can be accessed by scrolling or following the links below. If you are proposing to undertake an activity that may have a significant impact on one or more matters of national environmental significance then you should consider the <u>Administrative Guidelines on Significance</u>.

World Heritage Properties:	None
National Heritage Places:	None
Wetlands of International Importance:	4
Great Barrier Reef Marine Park:	None
Commonwealth Marine Area:	None
Listed Threatened Ecological Communities:	6
Listed Threatened Species:	17
Listed Migratory Species:	10

Other Matters Protected by the EPBC Act

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

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

A <u>permit</u> may be required for activities in or on a Commonwealth area that may affect a member of a listed threatened species or ecological community, a member of a listed migratory species, whales and other cetaceans, or a member of a listed marine species.

Commonwealth Land:	2
Commonwealth Heritage Places:	None
Listed Marine Species:	11
Whales and Other Cetaceans:	None
Critical Habitats:	None
Commonwealth Reserves Terrestrial:	None
Commonwealth Reserves Marine:	None

Extra Information

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

State and Territory Reserves:	2
Regional Forest Agreements:	None
Invasive Species:	27
Nationally Important Wetlands:	1
Key Ecological Features (Marine)	None

Details

Matters of National Environmental Significance

Wetlands of International Importance (Ramsar)	[Resource Information]
Name	Proximity
Banrock station wetland complex	Upstream from Ramsar
Coorong and lakes alexandrina and albert	Upstream from Ramsar
Nsw central murray state forests	Within Ramsar site
Riverland	Upstream from Ramsar

Listed Threatened Ecological Communities

[Resource Information]

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

Name	Status	Type of Presence
Buloke Woodlands of the Riverina and Murray-Darling	Endangered	Community may occur
<u>Depression Bioregions</u>		within area
Grey Box (Eucalyptus microcarpa) Grassy Woodlands	Endangered	Community likely to occur within area
and Derived Native Grasslands of South-eastern Australia		within area
Natural Grasslands of the Murray Valley Plains	Critically Endangered	Community likely to occur within area
Seasonal Herbaceous Wetlands (Freshwater) of the Temperate Lowland Plains	Critically Endangered	Community likely to occur within area
Weeping Myall Woodlands	Endangered	Community likely to occur within area
White Box-Yellow Box-Blakely's Red Gum Grassy	Critically Endangered	Community likely to occur
Woodland and Derived Native Grassland	, ,	within area
Listed Threatened Species		[Resource Information]
Name	Status	Type of Presence
Birds		
Anthochaera phrygia		
Regent Honeyeater [82338]	Endangered	Species or species habitat known to occur within area
Botaurus poiciloptilus		
Australasian Bittern [1001]	Endangered	Species or species habitat
		known to occur within area
Lathamus discolor		
Swift Parrot [744]	Endangered	Species or species habitat
		likely to occur within area
Pedionomus torquatus		
Plains-wanderer [906]	Vulnerable	Species or species habitat known to occur within area
		Known to occur within area
Polytelis swainsonii		
Superb Parrot [738]	Vulnerable	Breeding known to occur
		within area
Rostratula australis		
Australian Painted Snipe [77037]	Endangered	Species or species habitat
		likely to occur within area
Fish		
Bidyanus bidyanus		
Silver Perch, Bidyan [76155]	Critically Endangered	Species or species

Name	Status	Type of Presence
		habitat known to occur
Craterocephalus fluviatilis		within area
Murray Hardyhead [56791]	Endangered	Species or species habitat
		may occur within area
Maccullochella peelii		
Murray Cod [66633]	Vulnerable	Species or species habitat
	· · · · · · · · · · · · · · · · · · ·	may occur within area
Maggueria quetrologica		
Macquaria australasica Macquarie Perch [66632]	Endangered	Species or species habitat
Macquarie i crom [00002]	Lindarigoroa	may occur within area
_		·
Frogs Litoria raniformis		
Growling Grass Frog, Southern Bell Frog, Green and	Vulnerable	Species or species habitat
Golden Frog, Warty Swamp Frog [1828]	Vulliciable	likely to occur within area
		·
Mammals Nyotophilus corboni		
Nyctophilus corbeni South-eastern Long-eared Bat [83395]	Vulnerable	Species or species habitat
Coulin-eastern Long-eared Dat [00000]	Vulliciable	may occur within area
		·
Phascolarctos cinereus (combined populations of Qld, I	•	Consider an america habitat
Koala (combined populations of Queensland, New South Wales and the Australian Capital Territory)	Vulnerable	Species or species habitat known to occur within area
[85104]		Known to oodar within area
Plants		
Austrostipa metatoris	\/ln a rable	Charles ar anasias habitat
[66704]	Vulnerable	Species or species habitat may occur within area
		may occar within area
Austrostipa wakoolica		
[66623]	Endangered	Species or species habitat
		likely to occur within area
Caladenia tensa		
Greencomb Spider-orchid, Rigid Spider-orchid [24390]	Endangered	Species or species habitat
		may occur within area
Swainsona murrayana		
Slender Darling-pea, Slender Swainson, Murray	Vulnerable	Species or species habitat
Swainson-pea [6765]		likely to occur within area
Listed Migratory Species		[Resource Information]
* Species is listed under a different scientific name on the		•
Name Migratory Marine Birds	Threatened	Type of Presence
Migratory Marine Birds <u>Apus pacificus</u>		
Fork-tailed Swift [678]		Species or species habitat
		likely to occur within area
Migratory Tarractrial Chasins		
Migratory Terrestrial Species Haliaeetus leucogaster		
White-bellied Sea-Eagle [943]		Species or species habitat
		known to occur within area
Limin denine con de cuture		
Hirundapus caudacutus White-throated Needletail [682]		Species or species habitat
White-timoated Needletan [002]		may occur within area
		•
Merops ornatus Deiaham Dea anter [070]		On anima and a late of
Rainbow Bee-eater [670]		Species or species habitat
		may occur within area
Myiagra cyanoleuca		
Satin Flycatcher [612]		Species or species habitat
		may occur within area
Migratory Wetlands Species		

Name	Threatened	Type of Presence
Ardea alba		
Great Egret, White Egret [59541]		Breeding known to occur within area
<u>Ardea ibis</u>		
Cattle Egret [59542]		Species or species habitat may occur within area
Gallinago hardwickii		
Latham's Snipe, Japanese Snipe [863]		Species or species habitat may occur within area
Pandion cristatus		
Eastern Osprey [82411]		Species or species habitat may occur within area
Rostratula benghalensis (sensu lato)		
Painted Snipe [889]	Endangered*	Species or species habitat likely to occur within area

Other Matters Protected by the EPBC Act

Myiagra cyanoleuca

Satin Flycatcher [612]

Commonwealth Land [Resource Information]

The Commonwealth area listed below may indicate the presence of Commonwealth land in this vicinity. Due to

The Commonwealth area listed below may indicate the presence of Commonwealth land in this vicinity. Due to the unreliability of the data source, all proposals should be checked as to whether it impacts on a Commonwealth area, before making a definitive decision. Contact the State or Territory government land department for further information.			
Name			
Commonwealth Land - Australian Postal Commis Commonwealth Land - Australian Telecommunic			
Listed Marine Species		[Resource Information]	
* Species is listed under a different scientific nam	ne on the EPBC Act - Threat	ened Species list.	
Name	Threatened	Type of Presence	
Birds			
Apus pacificus			
Fork-tailed Swift [678]		Species or species habitat likely to occur within area	
Ardea alba			
Great Egret, White Egret [59541]		Breeding known to occur within area	
Ardea ibis			
Cattle Egret [59542]		Species or species habitat may occur within area	
Gallinago hardwickii			
Latham's Snipe, Japanese Snipe [863]		Species or species habitat may occur within area	
Haliaeetus leucogaster			
White-bellied Sea-Eagle [943]		Species or species habitat known to occur within area	
Hirundapus caudacutus			
White-throated Needletail [682]		Species or species habitat may occur within area	
<u>Lathamus discolor</u>			
Swift Parrot [744]	Endangered	Species or species habitat likely to occur within area	
Merops ornatus			
Rainbow Bee-eater [670]		Species or species habitat may occur within area	

Species or species habitat may occur within

Name	Threatened	Type of Presence
Pandion haliaetus		area
Osprey [952]		Species or species habitat may occur within area
Rostratula benghalensis (sensu lato)		
Painted Snipe [889]	Endangered*	Species or species habitat likely to occur within area

Extra Information

State and Territory Reserves	[Resource Information]
Name	State
Murray Valley	NSW
Murray Valley	NSW
Invasive Species	[Resource Information]

Weeds reported here are the 20 species of national significance (WoNS), along with other introduced plants that are considered by the States and Territories to pose a particularly significant threat to biodiversity. The following feral animals are reported: Goat, Red Fox, Cat, Rabbit, Pig, Water Buffalo and Cane Toad. Maps from Landscape Health Project, National Land and Water Resouces Audit, 2001.

	,	
Name	Status	Type of Presence
Birds		
Acridotheres tristis		
Common Myna, Indian Myna [387]		Species or species habitat likely to occur within area
Alauda arvensis		
Skylark [656]		Species or species habitat likely to occur within area
Anas platyrhynchos		
Mallard [974]		Species or species habitat likely to occur within area
Carduelis carduelis		
European Goldfinch [403]		Species or species habitat likely to occur within area
Columba livia		
Rock Pigeon, Rock Dove, Domestic Pigeon [803]		Species or species habitat likely to occur within area
Passer domesticus		
House Sparrow [405]		Species or species habitat likely to occur within area
Passer montanus		
Eurasian Tree Sparrow [406]		Species or species habitat likely to occur within area
Pycnonotus jocosus		
Red-whiskered Bulbul [631]		Species or species habitat likely to occur within area
Streptopelia chinensis		
Spotted Turtle-Dove [780]		Species or species habitat likely to occur within area

Name	Status	Type of Presence
Sturnus vulgaris Common Starling [389]		Species or species habitat likely to occur within area
Turdus merula Common Blackbird, Eurasian Blackbird [596]		Species or species habitat likely to occur within area
Mammals		
Bos taurus Domestic Cattle [16]		Species or species habitat likely to occur within area
Canis lupus familiaris Domestic Dog [82654]		Species or species habitat likely to occur within area
Felis catus Cat, House Cat, Domestic Cat [19]		Species or species habitat likely to occur within area
Feral deer Feral deer species in Australia [85733]		Species or species habitat likely to occur within area
Lepus capensis Brown Hare [127]		Species or species habitat likely to occur within area
Mus musculus House Mouse [120]		Species or species habitat likely to occur within area
Oryctolagus cuniculus Rabbit, European Rabbit [128]		Species or species habitat likely to occur within area
Rattus rattus Black Rat, Ship Rat [84]		Species or species habitat likely to occur within area
Sus scrofa Pig [6]		Species or species habitat likely to occur within area
Vulpes vulpes Red Fox, Fox [18]		Species or species habitat likely to occur within area
Plants		
Asparagus asparagoides Bridal Creeper, Bridal Veil Creeper, Smilax, Florist's Smilax, Smilax Asparagus [22473]		Species or species habitat likely to occur within area
Eichhornia crassipes Water Hyacinth, Water Orchid, Nile Lily [13466]		Species or species habitat likely to occur within area
Lycium ferocissimum African Boxthorn, Boxthorn [19235]		Species or species habitat likely to occur within area
Rubus fruticosus aggregate Blackberry, European Blackberry [68406]		Species or species habitat likely to occur within area
Sagittaria platyphylla Delta Arrowhead, Arrowhead, Slender Arrowhead [68483]		Species or species habitat likely to occur within area
Salix spp. except S.babylonica, S.x calodendron & S.x Willows except Weeping Willow, Pussy Willow and Sterile Pussy Willow [68497]	reichardtii	Species or species habitat likely to occur

Name	Status	Type of Presence
		within area
Nationally Important Wetlands		[Resource Information]
Name		State
Millewa Forest		NSW

Caveat

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

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

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

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

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

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

- migratory and
- marine

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

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

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

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

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

Coordinates

-35.5584 144.9077

Acknowledgements

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

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

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

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

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Department of the Environment

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Canberra ACT 2601 Australia

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Threatened Flora Search Results from the Atlas of Living Australia - 10 km radius from the Project site

Matched Scientific Name	Status	Vernacular Name - matched	geodetic [La	titude - processed	Longitude - processed	Year - parsed	Data Resource Name
Brachyscome papillosa	V	Mossgiel Daisy		-35.5167	144.95	1949	Australia's Virtual Herbarium
Lepidium monoplocoides	E	Winged Peppercress		-35.5333	144.95	1945	Australia's Virtual Herbarium
Lepidium monoplocoides	E	Winged Peppercress	GDA94	-35.54717682	144.8825858	1945	OEH Atlas of NSW Wildlife
Maireana cheelii	V	Chariot Wheels		-35.5167	144.95	1947	Australia's Virtual Herbarium
Maireana cheelii	V	Chariot Wheels	AGD84	-35.532012	144.93437	1935	Australia's Virtual Herbarium
Maireana cheelii	V	Chariot Wheels	AGD84	-35.532012	144.967703	1935	Australia's Virtual Herbarium
Maireana cheelii	V	Chariot Wheels		-35.52	144.95	1935	Australia's Virtual Herbarium
Swainsona murrayana	V	Slender Darling Pea		-35.53	144.97	1973	Australia's Virtual Herbarium
Swainsona murrayana	V	Slender Darling Pea	GDA94	-35.54717682	144.8825858	1973	OEH Atlas of NSW Wildlife
Swainsona murrayana	V	Slender Darling Pea		-35.5833	145		Australia's Virtual Herbarium
Swainsona sericea	V	Silky Swainson-pea		-35.5333	144.9333	1973	Australia's Virtual Herbarium
Swainsona sericea	V	Silky Swainson-pea		-35.53	144.97	1973	Australia's Virtual Herbarium
Swainsona sericea	V	Silky Swainson-pea		-35.52	144.95	1945	Australia's Virtual Herbarium

Threatened Fauna Search Results from the Atlas of Living Australia - 10 km radius from Project site

Matched Scientific Name		Class - matched		Latitude - proces L	ongitude - proces Year	•	Data Resource Name
Antechinomys laniger	E	MAMMALIA	GDA94	-35.53180693	144.967951		OEH Atlas of NSW Wildlife
Anthochaera (Xanthomyza) phrygia	CE	AVES	GDA94	-35.53131116	144.9696176		OEH Atlas of NSW Wildlife
Anthochaera (Xanthomyza) phrygia	CE	AVES	GDA94	-35.53798506	144.9627879	1992	OEH Atlas of NSW Wildlife
Ardeotis australis	Е	AVES		-35.583336	144.91667	2005	New South Wales Bird Atlasser
Ardeotis australis	E	AVES	WGS84/GDA94	-35.55	144.95	2005	BirdLife Australia, Birdata
Ardeotis australis	Е	AVES	GDA94	-35.56488842	144.9488817		OEH Atlas of NSW Wildlife
Botaurus poiciloptilus	E	AVES	GDA94	-35.49580779	144.9459358	2005	OEH Atlas of NSW Wildlife
Botaurus poiciloptilus	E	AVES	GDA94	-35.49416164	144.9472284		OEH Atlas of NSW Wildlife
Botaurus poiciloptilus	E	AVES	GDA94	-35.53180436	144.9512874		OEH Atlas of NSW Wildlife
Botaurus poiciloptilus	E	AVES	GDA94	-35.49445224	144.9473533		OEH Atlas of NSW Wildlife
Botaurus poiciloptilus	E	AVES	EPSG:4326	-35.58333	144.91666	2012	Eremaea eBird
Botaurus poiciloptilus	Е	AVES	EPSG:4326	-35.52999	144.95773	1993	Eremaea eBird
Botaurus poiciloptilus	Е	AVES		-35.6	144.9		Historical Bird Atlas
Botaurus poiciloptilus	Е	AVES	EPSG:4326	-35.5024002	144.9817657		Eremaea eBird
Botaurus poiciloptilus	Е	AVES	EPSG:4326	-35.5389314	144.9865723	2004	Eremaea eBird
Botaurus poiciloptilus	Е	AVES	EPSG:4326	-35.4992933	144.9627955	2005	Eremaea eBird
Burhinus (Burhinus) grallarius	Е	AVES	GDA94	-35.50561592	144.8816821	2008	OEH Atlas of NSW Wildlife
Burhinus (Burhinus) grallarius	Е	AVES	GDA94	-35.64285392	144.9058536	2008	OEH Atlas of NSW Wildlife
Burhinus (Burhinus) grallarius	Е	AVES	GDA94	-35.49977178	144.8828722	2008	OEH Atlas of NSW Wildlife
Burhinus (Burhinus) grallarius	Е	AVES	EPSG:4326	-35.48415	144.8846	1955	Eremaea eBird
Burhinus (Burhinus) grallarius	Е	AVES	EPSG:4326	-35.51098	144.91619	1955	Eremaea eBird
Burhinus (Burhinus) grallarius	Е	AVES	GDA94	-35.599741	144.9899211	1989	OEH Atlas of NSW Wildlife
Burhinus (Burhinus) grallarius	Е	AVES		-35.58	144.91	1980	First Bird Atlas
Calidris (Erolia) ferruginea	Е	AVES		-35.5281749	144.9608231		GBIF records
Certhionyx (Certhionyx) variegatus	V	AVES		-35.543567	144.9592245	2002	GBIF records
Certhionyx (Certhionyx) variegatus	V	AVES	EPSG:4326	-35.52725	144.98283	2002	Eremaea eBird
Circus assimilis	V	AVES	EPSG:4326	-35.6099341	144.8938751	2011	Eremaea eBird
Circus assimilis	V	AVES	GDA94	-35.56366007	144.955461	2011	OEH Atlas of NSW Wildlife
Climacteris (Climacteris) picumnus victoriae	V	AVES	GDA94	-35.56476579	145.0041024	2005	OEH Atlas of NSW Wildlife
Climacteris (Climacteris) picumnus victoriae	V	AVES	GDA94	-35.53175368	144.968107	2005	OEH Atlas of NSW Wildlife
Climacteris (Climacteris) picumnus victoriae	V	AVES	GDA94	-35.53726978	144.973835	2005	OEH Atlas of NSW Wildlife
Climacteris (Climacteris) picumnus victoriae	V	AVES	GDA94	-35.55466094	144.9761333	2005	OEH Atlas of NSW Wildlife
Climacteris (Climacteris) picumnus victoriae	V	AVES	GDA94	-35.53645326	144.9833656	2008	OEH Atlas of NSW Wildlife
Climacteris (Climacteris) picumnus victoriae	V	AVES	GDA94	-35.55366904	144.9847849	2008	OEH Atlas of NSW Wildlife
Climacteris (Climacteris) picumnus victoriae	V	AVES	GDA94	-35.53210082	144.9687478	2009	OEH Atlas of NSW Wildlife
Climacteris (Climacteris) picumnus victoriae	V	AVES	GDA94	-35.5241548	144.9653298	2009	OEH Atlas of NSW Wildlife
Climacteris (Climacteris) picumnus victoriae	V	AVES	GDA94	-35.55379492	144.9846933	2005	OEH Atlas of NSW Wildlife
Climacteris (Climacteris) picumnus victoriae	V	AVES	GDA94	-35.51839257	144.9625886	2004	OEH Atlas of NSW Wildlife
Climacteris (Climacteris) picumnus victoriae	V	AVES	GDA94	-35.53134124	144.9675988	2004	OEH Atlas of NSW Wildlife
Climacteris (Climacteris) picumnus victoriae	V	AVES	GDA94	-35.53082558	144.9685602	2005	OEH Atlas of NSW Wildlife

Matched Scientific Name	Status	Class - matched	geodetic Datum	Latitude - proces L	ongitude - proces Year	- parsed	Data Resource Name
Climacteris (Climacteris) picumnus victoriae	V	AVES	GDA94	-35.53974996	144.9605374	1994	OEH Atlas of NSW Wildlife
Climacteris (Climacteris) picumnus victoriae	V	AVES	GDA94	-35.51952196	144.9638061	1993	OEH Atlas of NSW Wildlife
Climacteris (Climacteris) picumnus victoriae	V	AVES	GDA94	-35.54471209	144.9859902	2005	OEH Atlas of NSW Wildlife
Daphoenositta (Neositta) chrysoptera	V	AVES	AGD84/66	-35.53278	144.9656	2007	BirdLife Australia, Birdata
Daphoenositta (Neositta) chrysoptera	V	AVES		-35.50834	144.968	2006	BirdLife Australia, Birdata
Daphoenositta (Neositta) chrysoptera	V	AVES	AGD84/66	-35.52889	144.9658	2001	BirdLife Australia, Birdata
Daphoenositta (Neositta) chrysoptera	V	AVES	EPSG:4326	-35.52119	144.96813	2012	Eremaea eBird
Daphoenositta (Neositta) chrysoptera	V	AVES	EPSG:4326	-35.5457058	144.9833107	2013	Eremaea eBird
Daphoenositta (Neositta) chrysoptera	V	AVES	WGS84/GDA94	-35.53333	144.9667	2006	BirdLife Australia, Birdata
Daphoenositta (Neositta) chrysoptera	V	AVES	GDA94	-35.61042596	144.997105	2005	OEH Atlas of NSW Wildlife
Epthianura (Epthianura) albifrons	V	AVES		-35.55333	144.9442	2007	BirdLife Australia, Birdata
Epthianura (Epthianura) albifrons	V	AVES		-35.533	144.944	2007	GBIF records
Glossopsitta porphyrocephala	V	AVES	EPSG:4326	-35.53	144.97	2013	Eremaea eBird
Glossopsitta porphyrocephala	V	AVES	EPSG:4326	-35.54	144.98	2007	Eremaea eBird
Glossopsitta porphyrocephala	V	AVES	EPSG:4326	-35.53	144.96	2013	Eremaea eBird
Glossopsitta pusilla	V	AVES	EPSG:4326	-35.54479	144.9821	2007	Eremaea eBird
Grantiella picta	V	AVES	GDA94	-35.60347405	144.9975544	1989	OEH Atlas of NSW Wildlife
Grantiella picta	V	AVES	EPSG:4326	-35.5589961	144.9567498	2005	Eremaea eBird
Grus (Mathewsia) rubicunda	V	AVES	WGS84	-35.52	144.93	1969	Museum Victoria provider for O
Grus (Mathewsia) rubicunda	V	AVES	GDA94	-35.57130893	144.8094831		OEH Atlas of NSW Wildlife
Hieraaetus (Hieraaetus) morphnoides	V	AVES	EPSG:4326	-35.5366	144.93933	2014	Eremaea eBird
Hieraaetus (Hieraaetus) morphnoides	V	AVES		-35.6	144.85	1982	Australian National Wildlife Coll
Hieraaetus (Hieraaetus) morphnoides	V	AVES	EPSG:4326	-35.52853	144.96865	2014	Eremaea eBird
Hieraaetus (Hieraaetus) morphnoides	V	AVES	EPSG:4326	-35.531923	144.9680436	2013	Eremaea eBird
Hieraaetus (Hieraaetus) morphnoides	V	AVES	EPSG:4326	-35.533379	144.97096	2013	Eremaea eBird
Hieraaetus (Hieraaetus) morphnoides	V	AVES	EPSG:4326	-35.528565	144.968474	2013	Eremaea eBird
Hieraaetus (Hieraaetus) morphnoides	V	AVES	WGS84/GDA94	-35.5288887	144.9686127	2012	BirdLife Australia, Birdata
Hieraaetus (Hieraaetus) morphnoides	V	AVES	GDA94	-35.54847816	144.9679465		OEH Atlas of NSW Wildlife
Melanodryas (Melanodryas) cucullata cucullata	V	AVES	GDA94	-35.58637141	144.9990841	1989	OEH Atlas of NSW Wildlife
Neophema (Neophema) pulchella	V	AVES	GDA94	-35.54	144.99	1998	OEH Atlas of NSW Wildlife
Ninox (Hieracoglaux) connivens	V	AVES	GDA94	-35.49	144.89	1993	OEH Atlas of NSW Wildlife
Oxyura australis	V	AVES	GDA94	-35.53687325	144.9417403	2005	OEH Atlas of NSW Wildlife
Pachycephala (Timixos) inornata	V	AVES	EPSG:4326	-35.5448677	144.9823666	2005	Eremaea eBird
Pedionomus torquatus	Е	AVES	GDA94	-35.56511632	144.9324978	2011	OEH Atlas of NSW Wildlife
Pedionomus torquatus	Е	AVES	GDA94	-35.5647642	144.9361477	2011	OEH Atlas of NSW Wildlife
Petroica (Littlera) phoenicea	V	AVES		-35.51667	144.9833	2005	BirdLife Australia, Birdata
Petroica (Littlera) phoenicea	V	AVES	WGS84/GDA94	-35.54805	144.9903		BirdLife Australia, Birdata
Polytelis swainsonii	V	AVES		-35.6	145		BirdLife Australia, Birdata
Polytelis swainsonii	V	AVES	GDA94	-35.6	144.92		OEH Atlas of NSW Wildlife
Polytelis swainsonii	V	AVES	GDA94	-35.62	144.87	_	Victorian Biodiversity Atlas
Polytelis swainsonii	V	AVES	EPSG:4326	-35.53	144.94		Eremaea eBird
Pomatostomus (Pomatostomus) temporalis tem	pV	AVES	GDA94	-35.52078412	144.986357		OEH Atlas of NSW Wildlife

Matched Scientific Name	Status	Class - matched	geodetic Datum	Latitude - proces L	ongitude - proces Year -	parsed	Data Resource Name
Pomatostomus (Pomatostomus) temporalis temp	. V	AVES	GDA94	-35.52032459	144.9870885	2008	OEH Atlas of NSW Wildlife
Stagonopleura (Stagonopleura) guttata	V	AVES		-35.54611	144.9836	2005	BirdLife Australia, Birdata
Stictonetta naevosa	V	AVES	AGD84/66	-35.53722	144.9403	2005	BirdLife Australia, Birdata
Stictonetta naevosa	V	AVES	WGS84/GDA94	-35.53695	144.9389	2005	BirdLife Australia, Birdata
Stictonetta naevosa	V	AVES	GDA94	-35.48631272	144.8935529	1993	OEH Atlas of NSW Wildlife

Threatened Fauna Search Results from the BioNet Search - 20 km radius from the Project site

ClassName	ScientificName	CommonName	NSWStatus	CommStatus	DateLast	Zone		Easting	Northing	Accuracy	
Aves	Oxyura australis	Blue-billed Duck	V,P		31/10/2005		55	313402	6065469	100	
Aves	Stictonetta naevosa	Freckled Duck	V,P		1/11/1993		55	308913			
Aves	Stictonetta naevosa	Freckled Duck	V,P		20/04/2005		55	313402			
Aves	Stictonetta naevosa	Freckled Duck	V,P		2/06/2005		55	313402			
Aves	Botaurus poiciloptilus	Australasian Bittern	E1,P	E	31/01/1992		55	314256			
Aves	Botaurus poiciloptilus	Australasian Bittern	E1,P	E	28/11/1992		55	314256			
Aves	Botaurus poiciloptilus	Australasian Bittern	E1,P	E	31/12/2002		55	313813			
	Botaurus poiciloptilus	Australasian Bittern	E1,P	E	31/12/2002		55	313688			
Aves		Australasian Bittern	E1,P	E	31/12/2007		55	313801	6070032		
Aves	Botaurus poiciloptilus		E1,P	E	31/12/2008		55	313801	6070217		
Aves	Botaurus poiciloptilus	Australasian Bittern	,	E			55				
Aves	Botaurus poiciloptilus	Australasian Bittern	E1,P	E	31/12/2005			313688			
Aves	Circus assimilis	Spotted Harrier	V,P		7/12/1991		55	308608			
Aves	Circus assimilis	Spotted Harrier	V,P		7/12/1991		55	308608			
Aves	Circus assimilis	Spotted Harrier	V,P		9/12/2011		55	314708			
Aves	Hieraaetus morphnoides	Little Eagle	V,P		30/06/1994		55	315113			
Aves	Hieraaetus morphnoides	Little Eagle	V,P		31/12/2002		55	313813			
Aves	Hieraaetus morphnoides	Little Eagle	V,P		14/12/1996		55	315805		100	
Aves	Hieraaetus morphnoides	Little Eagle	V,P		31/12/2008		55	313801	6070217		
Aves	Hieraaetus morphnoides	Little Eagle	V,P		17/04/2009		55	315840			
Aves	Hieraaetus morphnoides	Little Eagle	V,P		31/12/2009		55	313801	6070217		
Aves	Hieraaetus morphnoides	Little Eagle	V,P		31/12/1995		55	313813			
Aves	Hieraaetus morphnoides	Little Eagle	V,P		31/12/1998		55	313813			
Aves	Lophoictinia isura	Square-tailed Kite	V,P,3		29/01/1983		55	314135	6066247	10000	
Aves	Falco hypoleucos	Grey Falcon	E1,P,2		31/12/1955		55	318602	6069668	10000	
Aves	Falco subniger	Black Falcon	V,P		10/09/1992		55	311713	6069285	100	
Aves	Falco subniger	Black Falcon	V,P		30/06/1994		55	315113	6065185	100	
Aves	Falco subniger	Black Falcon	V,P		28/11/1992		55	314913	6065285	1000	
Aves	Falco subniger	Black Falcon	V,P		31/12/2002		55	313813	6070185	100	
Aves	Falco subniger	Black Falcon	V,P		31/12/2006		55	313688	6070032	100	
Aves	Falco subniger	Black Falcon	V,P		15/04/2005		55	308177	6051292	100	
Aves	Falco subniger	Black Falcon	V,P		31/12/2007		55	313688			
Aves	Falco subniger	Black Falcon	V,P		31/12/2008		55	313801	6070217		
Aves	Falco subniger	Black Falcon	V,P		31/12/2009		55	313801	6070217		
Aves	Falco subniger	Black Falcon	V,P		31/12/1999		55	313813			
Aves	Falco subniger	Black Falcon	V,P		31/12/2003		55	313813			
Aves	Falco subniger	Black Falcon	V,P		22/11/2004		55	304008		100	
Aves	Falco subniger	Black Falcon	V,P		31/12/2004		55	313801	6070217		
Aves	Grus rubicunda	Brolga	V,P		22/09/2008		55	301495			

ClassName	ScientificName	CommonName	NSWStatus	CommStatus	DateLast	Zone		Easting	Northing	Accuracy	
Aves	Ardeotis australis	Australian Bustard	E1,P		22/04/2005		55	314114	6062374	. 10	
Aves	Burhinus grallarius	Bush Stone-curlew	E1,P		18/11/1991		55	315653	6071626	100	
Aves	Burhinus grallarius	Bush Stone-curlew	E1,P		18/11/1991		55	315653	6071626	100	
Aves	Burhinus grallarius	Bush Stone-curlew	E1,P		23/04/2008		55	307882	6068821	200	
Aves	Burhinus grallarius	Bush Stone-curlew	E1,P		23/04/2008		55	310399	6053643	200	
Aves	Burhinus grallarius	Bush Stone-curlew	E1,P		23/04/2008		55	307976	6069471	200	
Aves	Burhinus grallarius	Bush Stone-curlew	E1,P		11/06/1989		55	317913	6058585	100	
Aves	Pedionomus torquatus	Plains-wanderer	E1,P	V	23/04/2011		55	312630	6062318	15	
Aves	Pedionomus torquatus	Plains-wanderer	E1,P	V	23/04/2011		55	312960	6062364	15	
Aves	Rostratula australis	Australian Painted Snipe	E1,P	E	8/02/1992		55	314256	6066049	10000	
Aves	Lophochroa leadbeateri	Major Mitchell's Cockato	V,P,2		30/12/1995		55	309530	6069479	100	
Aves	Glossopsitta porphyrocep	ha Purple-crowned Lorikeet	t V,P,3		2/11/2010		55	316878	6065193	10	
Aves	Glossopsitta porphyrocep	ha Purple-crowned Lorikeet	t V,P,3		6/11/2010		55	316878	6065193	10	
Aves	Neophema pulchella	Turquoise Parrot	V,P,3		31/08/1997		55	317785	6065212	100	
Aves	Neophema pulchella	Turquoise Parrot	V,P,3		24/07/1998		55	317785	6065212	100	
Aves	Polytelis swainsonii	Superb Parrot	V,P,3	V	2/09/2008		55	310862	6049531	10	
Aves	Polytelis swainsonii	Superb Parrot	V,P,3	V	18/10/2008		55	311579			
Aves	Polytelis swainsonii	Superb Parrot	V,P,3	V	4/11/2008		55	310909	6047312	50	
Aves	Polytelis swainsonii	Superb Parrot	V,P,3	V	30/07/2004		55	314066	6069574	100	
Aves	Polytelis swainsonii	Superb Parrot	V,P,3	V	22/07/2004		55	314973	6069593	100	
Aves	Polytelis swainsonii	Superb Parrot	V,P,3	V	22/06/2004		55	314066	6069574	100	
Aves	Polytelis swainsonii	Superb Parrot	V,P,3	V	6/09/2009		55	315949	6066284	50	
Aves	Polytelis swainsonii	Superb Parrot	V,P,3	V	12/09/2009		55	311814	6047331	100	
Aves	Polytelis swainsonii	Superb Parrot	V,P,3	V	11/10/2010		55	310744	6055077	10	
Aves	Polytelis swainsonii	Superb Parrot	V,P,3	V	30/10/2010		55	310838	6050640	100	
Aves	Polytelis swainsonii	Superb Parrot	V,P,3	V	2/12/2010		55	311579	6058424	10	
Aves	Polytelis swainsonii	Superb Parrot	V,P,3	V	10/12/2010		55	310720	6056187	10	
Aves	Polytelis swainsonii	Superb Parrot	V,P,3	V	18/04/1981		55	314135	6066247	10000	
Aves	Polytelis swainsonii	Superb Parrot	V,P,3	V	15/08/1995		55	314043	6070684	1000	
Aves	Polytelis swainsonii	Superb Parrot	V,P,3	V	19/11/1993		55	315019	6067375	100	
Aves	Polytelis swainsonii	Superb Parrot	V,P,3	V	22/11/1993		55	314528	6047388	100	
Aves	Polytelis swainsonii	Superb Parrot	V,P,3	V	26/11/1993		55	314528	6047388	100	
Aves	Polytelis swainsonii	Superb Parrot	V,P,3	V	26/11/1993		55	314505	6048498	100	
Aves	Polytelis swainsonii	Superb Parrot	V,P,3	V	26/11/1993		55	314505	6048498	100	
Aves	Polytelis swainsonii	Superb Parrot	V,P,3	V	9/09/2001		55	314043	6070684	100	
Aves	Polytelis swainsonii	Superb Parrot	V,P,3	V	11/10/2006		55	315949	6066284	100	
Aves	Polytelis swainsonii	Superb Parrot	V,P,3	V	13/10/2006		55	315949	6066284	100	
Aves	Polytelis swainsonii	Superb Parrot	V,P,3	V	6/11/2006		55	315949	6066284	100	
Aves	Polytelis swainsonii	Superb Parrot	V,P,3	V	31/12/2006		55	314066			
Aves	Polytelis swainsonii	Superb Parrot	V,P,3	V	27/09/2004		55	309838	6055058	100	
Aves	Polytelis swainsonii	Superb Parrot	V,P,3	V	15/04/2005		55	309838	6055058	100	

ClassName	ScientificName	CommonName	NSWStatus	CommStatus	DateLast	Zone		Easting	Northing	Accuracy	
Aves	Polytelis swainsonii	Superb Parrot	V,P,3	V	13/11/2003		55	313530	6051807	100	
Aves	Polytelis swainsonii	Superb Parrot	V,P,3	V	15/04/2005		55	316901	6064084	100	
Aves	Polytelis swainsonii	Superb Parrot	V,P,3	V	31/12/2007		55	314066	6069574	100	
Aves	Polytelis swainsonii	Superb Parrot	V,P,3	V	31/12/2008		55	314043	6070684	100	
Aves	Polytelis swainsonii	Superb Parrot	V,P,3	V	17/04/2009		55	315949	6066284	500	
Aves	Polytelis swainsonii	Superb Parrot	V,P,3	V	31/12/2009		55	314043	6070684	100	
Aves	Polytelis swainsonii	Superb Parrot	V,P,3	V	12/07/2011		55	311579	6058424	30	
Aves	Polytelis swainsonii	Superb Parrot	V,P,3	V	15/09/2011		55	310885	6048421	100	
Aves	Polytelis swainsonii	Superb Parrot	V,P,3	V	15/09/2011		55	310744	6055077	100	
Aves	Polytelis swainsonii	Superb Parrot	V,P,3	V	1/11/2011		55	310838	6050640	20	
Aves	Polytelis swainsonii	Superb Parrot	V,P,3	V	14/11/2011		55	310838	6050640	20	
Aves	Polytelis swainsonii	Superb Parrot	V,P,3	V	17/11/2011		55	310838	6050640	20	
Aves	Polytelis swainsonii	Superb Parrot	V,P,3	V	23/11/2011		55	310814	6051749	20	
Aves	Polytelis swainsonii	Superb Parrot	V,P,3	V	22/01/1998		55	314043	6070684	100	
Aves	Polytelis swainsonii	Superb Parrot	V,P,3	V	19/08/2000		55	314043	6070684	100	
Aves	Polytelis swainsonii	Superb Parrot	V,P,3	V	31/12/1995		55	314043	6070684	1000	
Aves	Polytelis swainsonii	Superb Parrot	V,P,3	V	31/12/1997		55	314043	6070684	1000	
Aves	Polytelis swainsonii	Superb Parrot	V,P,3	V	31/12/2003		55	314043	6070684	1000	
Aves	Polytelis swainsonii	Superb Parrot	V,P,3	V	31/12/2004		55	314043	6070684	100	
Aves	Polytelis swainsonii	Superb Parrot	V,P,3	V	5/12/2004		55	314436	6051826	100	
Aves	Polytelis swainsonii	Superb Parrot	V,P,3	V	1/11/2003		55	313530	6051807	100	
Aves	Polytelis swainsonii	Superb Parrot	V,P,3	V	1/11/2003		55	313530	6051807	100	
Aves	Polytelis swainsonii	Superb Parrot	V,P,3	V	1/11/2003		55	313530	6051807	100	
Aves	Polytelis swainsonii	Superb Parrot	V,P,3	V	1/11/2003		55	313530	6051807	100	
Aves	Polytelis swainsonii	Superb Parrot	V,P,3	V	1/11/2003		55	313530	6051807	100	
Aves	Polytelis swainsonii	Superb Parrot	V,P,3	V	1/11/1996		55	314505	6048498	100	
Aves	Polytelis swainsonii	Superb Parrot	V,P,3	V	30/09/2005		55	318849	6057465	100	
Aves	Polytelis swainsonii	Superb Parrot	V,P,3	V	30/06/2006		55	314505	6048498	10	
Aves	Polytelis swainsonii	Superb Parrot	V,P,3	V	30/06/2006		55	313530	6051807	10	
Aves	Polytelis swainsonii	Superb Parrot	V,P,3	V	30/06/2006		55	313530	6051807	10	
Aves	Polytelis swainsonii	Superb Parrot	V,P,3	V	30/06/2006		55	314436	6051826	10	
Aves	Polytelis swainsonii	Superb Parrot	V,P,3	V	30/06/2006		55	313530	6051807	10	
Aves	Polytelis swainsonii	Superb Parrot	V,P,3	V	30/06/2006		55	313530	6051807	10	
Aves	Polytelis swainsonii	Superb Parrot	V,P,3	V	16/10/2007		55	313530	6051807	10	
Aves	Polytelis swainsonii	Superb Parrot	V,P,3	V	16/10/2007		55	313530	6051807	10	
Aves	Polytelis swainsonii	Superb Parrot	V,P,3	V	31/10/2007		55	312649			
Aves	Polytelis swainsonii	Superb Parrot	V,P,3	V	6/11/2007		55	314482		10	
Aves	Polytelis swainsonii	Superb Parrot	V,P,3	V	30/10/2007		55	313554	6050697	10	
Aves	Polytelis swainsonii	Superb Parrot	V,P,3	V	31/10/2007		55	312625	6051788	10	
Aves	Polytelis swainsonii	Superb Parrot	V,P,3	V	16/10/2007		55	313530	6051807	10	
Aves	Ninox connivens	Barking Owl	V,P,3		31/12/1992		55	314135			

ClassName	ScientificName	CommonName	NSWStatus	CommStatus	DateLast	Zone	-	Easting	Northing	Accuracy	
Aves	Ninox connivens	Barking Owl	V,P,3		27/08/1992		55	317785	6065212	100	
Aves	Ninox connivens	Barking Owl	V,P,3		13/02/1993		55	315065	6065156	1000	
Aves	Ninox connivens	Barking Owl	V,P,3		1/11/1993		55	308600	6070569	1000	
Aves	Ninox connivens	Barking Owl	V,P,3		31/12/1991		55	315065	6065156	1000	
Aves	Ninox connivens	Barking Owl	V,P,3		22/11/1998		55	315042	6066265	100	
Aves	Ninox connivens	Barking Owl	V,P,3		30/09/1992		55	314135	6066247	10000	
Aves	Tyto novaehollandiae	Masked Owl	V,P,3		31/01/1955		55	315065	6065156	1000	
Aves	Climacteris picumnus victo	or Brown Treecreeper (e	as V,P		30/06/1994		55	315113	6065185	100	
Aves	Climacteris picumnus victo	or Brown Treecreeper (e	as V,P		10/06/1989		55	317913	6058585	100	
Aves	Climacteris picumnus victo	or Brown Treecreeper (e	as V,P		19/11/1993		55	315363	6067435	100	
Aves	Climacteris picumnus victo	or Brown Treecreeper (e	as V,P		22/11/1993		55	314913	6047535	100	
Aves	Climacteris picumnus victo	or Brown Treecreeper (e	as V,P		26/11/1993		55	314713	6047585	100	
Aves	Climacteris picumnus victo	or Brown Treecreeper (e	as V,P		26/11/1993		55	314613	6048035	100	
Aves	Climacteris picumnus victo	or Brown Treecreeper (e	as V,P		26/11/1993		55	314413	6048410	100	
Aves	Climacteris picumnus victo	or Brown Treecreeper (e	as V,P		31/12/2002		55	313813	6070185	100	
Aves	Climacteris picumnus victo	or Brown Treecreeper (e	as V,P		16/02/2005		55	319119	6062491	100	
Aves	Climacteris picumnus victo	or Brown Treecreeper (e	as V,P		17/03/2005		55	301761	6070492	100	
Aves	Climacteris picumnus victo	or Brown Treecreeper (e	as V,P		8/02/2005		55	315781	6066086	100	
Aves	Climacteris picumnus victo	or Brown Treecreeper (e	as V,P		13/11/2003		55	313521	6051495	100	
Aves	Climacteris picumnus victo	or Brown Treecreeper (e	as V,P		23/12/2004		55	316313	6065485	1000	
Aves	Climacteris picumnus victo	or Brown Treecreeper (e	as V,P		19/02/2005		55	316313	6065485	1000	
Aves	Climacteris picumnus victo	or Brown Treecreeper (e	as V,P		9/04/2005		55	316313	6065485	1000	
Aves	Climacteris picumnus victo	or Brown Treecreeper (e	as V,P		15/04/2005		55	317335	6063672	100	
Aves	Climacteris picumnus victo	or Brown Treecreeper (e	as V,P		6/05/2005		55	316561	6063560	100	
Aves	Climacteris picumnus victo	or Brown Treecreeper (e	as V,P		26/06/2005		55	315820	6066190	100	
Aves	Climacteris picumnus victo	or Brown Treecreeper (e	as V,P		14/09/2005		55	315820	6066190	100	
Aves	Climacteris picumnus victo	or Brown Treecreeper (e	as V,P		27/09/2005		55	317432	6064682	100	
Aves	Climacteris picumnus victo	or Brown Treecreeper (e	as V,P		5/04/2008		55	317175	6065593	100	
Aves	Climacteris picumnus victo	or Brown Treecreeper (e	as V,P		5/04/2008		55	317343	6063686	100	
Aves	Climacteris picumnus victo	or Brown Treecreeper (e	as V,P		17/04/2009		55	315840	6066049	500	
Aves	Climacteris picumnus victo	or Brown Treecreeper (e	as V,P		17/04/2009		55	315512	6066924	100	
Aves	Climacteris picumnus victo	or Brown Treecreeper (e	as V,P		27/08/2004		55	315250	6067558	100	
Aves	Climacteris picumnus victo	or Brown Treecreeper (e	as V,P		27/08/2004		55	315734		100	
Aves	Anthochaera phrygia	Regent Honeyeater	E4A,P	E	28/09/1992		55	315313	6065385	100	
Aves	Anthochaera phrygia	Regent Honeyeater	E4A,P	Е	29/10/2006		55	315917	6066138	100	
Aves	Certhionyx variegatus	Pied Honeyeater	V,P		31/12/2006		55	313688	6070032	100	
Aves	Epthianura albifrons	White-fronted Chat	V,P		30/06/1994		55	315113			
Aves	Grantiella picta	Painted Honeyeater	V,P		26/01/1992		55	314256	6066049	10000	
Aves	Grantiella picta	Painted Honeyeater	V,P		11/06/1989		55	318613			
Aves	Pomatostomus temporalis		r ((V,P		24/11/2008		55	317411	6067337		
Aves	Pomatostomus temporalis				30/06/1994		55	315113	6065185		
	•	-	•								

Aves	ClassName	ScientificName	CommonName	NSWStatus	CommStatus	DateLast	Zone	Ea	asting	Northing	Accuracy	
Aves	Aves	Pomatostomus temporalis	t Grey-crowned Babbler ((•V,P		31/12/2000		55	313813	6070185	100	
Aves	Aves	Pomatostomus temporalis	t Grey-crowned Babbler ((•V,P		31/12/2006		55	313688	6070032	100	
Aves	Aves	Pomatostomus temporalis	t Grey-crowned Babbler ((•V,P		10/02/2005		55	319987	6071209	100	
Aves Pomatostomus temporalis t Grey-crowned Babbler (V,P 31/12/2008 55 313868 607/0032 100	Aves	Pomatostomus temporalis	t Grey-crowned Babbler ((•V,P		17/03/2005		55	301761	6070492	100	
Aves Pomatostomus temporalis I Grey-crowned Babbler (IV.P.) 31/12/2008 55 313801 6070217 100 Aves Pomatostomus temporalis I Grey-crowned Babbler (IV.P.) 31/12/2005 55 317477 6067389 100 Aves Pomatostomus temporalis I Grey-crowned Babbler (IV.P.) 31/12/1996 55 313813 6070185 1000 Aves Pomatostomus temporalis I Grey-crowned Babbler (IV.P.) 31/12/1999 55 313813 6070185 1000 Aves Pomatostomus temporalis I Grey-crowned Babbler (IV.P.) 31/12/1995 55 313813 6070185 1000 Aves Pomatostomus temporalis I Grey-crowned Babbler (IV.P.) 31/12/2003 55 313813 6070185 1000 Aves Pomatostomus temporalis I Grey-crowned Babbler (IV.P.) 31/12/2003 55 313813 6070185 1000 Aves Pomatostomus temporalis I Grey-crowned Babbler (IV.P.) 31/12/2003 55 313813 6070185 1000 Aves Daphoenositita chrysoptera Varied Sittella V.P. 11/06/1989 55 317813	Aves	Pomatostomus temporalis	t Grey-crowned Babbler ((ŧV,P		27/09/2005		55	317432	6064682	100	
Aves Pomatostomus temporalis I Grey-crowned Babbler (iV,P) 3/12/2008 55 317477 6067389 100 Aves Pomatostomus temporalis I Grey-crowned Babbler (iV,P) 31/12/1996 55 313813 6070185 1000 Aves Pomatostomus temporalis I Grey-crowned Babbler (iV,P) 31/12/1999 55 313813 6070185 1000 Aves Pomatostomus temporalis I Grey-crowned Babbler (iV,P) 31/12/1995 55 313813 6070185 1000 Aves Pomatostomus temporalis I Grey-crowned Babbler (iV,P) 31/12/2003 55 313813 6070185 1000 Aves Pomatostomus temporalis I Grey-crowned Babbler (iV,P) 31/12/2004 55 313813 6070185 1000 Aves Pomatostomus temporalis I Grey-crowned Babbler (iV,P) 31/12/2004 55 313813 6070185 1000 Aves Pomatostomus temporalis I Grey-crowned Babbler (iV,P) 31/12/2004 55 313813 6070185 100 Aves Daphoenositita chrysoptera Varied Sittella V,P 80/22/2005 55 315813 607	Aves	Pomatostomus temporalis	t Grey-crowned Babbler ((ŧV,P		31/12/2007		55	313688	6070032	100	
Aves Pomatostomus temporalis I Grey-crowned Babbler (IV.P) 31/12/2005 55 313688 6070032 100 Aves Pomatostomus temporalis I Grey-crowned Babbler (IV.P) 31/12/1999 55 313813 6070185 1000 Aves Pomatostomus temporalis I Grey-crowned Babbler (IV.P) 31/12/1995 55 313813 6070185 1000 Aves Pomatostomus temporalis I Grey-crowned Babbler (IV.P) 31/12/2003 55 313813 6070185 1000 Aves Pomatostomus temporalis I Grey-crowned Babbler (IV.P) 31/12/2004 55 313813 6070185 1000 Aves Pomatostomus temporalis I Grey-crowned Babbler (IV.P) 31/12/2004 55 313813 6070185 1000 Aves Pomatostomus temporalis I Grey-crowned Babbler (IV.P) 31/12/2004 55 313813 6070185 1000 Aves Daphoenositta chrysoptera Varied Sittella V.P 31/12/1998 55 317813 6050185 100 Aves Daphoenositta chrysoptera Varied Sittella V.P 6/05/2005 55 316561	Aves	Pomatostomus temporalis	t Grey-crowned Babbler ((ŧV,P		31/12/2008		55	313801	6070217	100	
Aves Pomatostomus temporalis t Grey-crowned Babbler (vV,P 31/12/1996 55 313813 6070185 1000 Aves Pomatostomus temporalis t Grey-crowned Babbler (vV,P 31/12/1999 55 313813 6070185 1000 Aves Pomatostomus temporalis t Grey-crowned Babbler (vV,P 31/12/2003 55 313813 6070185 1000 Aves Pomatostomus temporalis t Grey-crowned Babbler (vV,P 31/12/2004 55 313801 607017 100 Aves Pomatostomus temporalis t Grey-crowned Babbler (vV,P 31/12/2004 55 313801 6070217 100 Aves Pomatostomus temporalis t Grey-crowned Babbler (vV,P 31/12/2004 55 313801 607017 100 Aves Daphoenositta chrysoptera Varied Sittella V,P 31/12/2098 55 317913 6058585 100 Aves Daphoenositta chrysoptera Varied Sittella V,P 8/02/2005 55 315820 6066190 100 Aves Daphoenositta chrysoptera Varied Sittella V,P 14/09/2005 55 315820 <	Aves	Pomatostomus temporalis	t Grey-crowned Babbler ((ŧV,P		3/12/2008		55	317477	6067389	100	
Aves Pomatostomus temporalis t Grey-crowned Babbler (IV,P) 31/12/1999 55 313813 6070185 1000 Aves Pomatostomus temporalis t Grey-crowned Babbler (IV,P) 31/12/1995 55 313813 6070185 1000 Aves Pomatostomus temporalis t Grey-crowned Babbler (IV,P) 31/12/2004 55 313813 6070185 1000 Aves Pomatostomus temporalis t Grey-crowned Babbler (IV,P) 31/12/1998 55 313813 6070185 100 Aves Pomatostomus temporalis t Grey-crowned Babbler (IV,P) 31/12/1998 55 313813 6070185 100 Aves Daphoenositta chrysoptera Varied Sittella V,P 11/06/1989 55 317813 6070185 100 Aves Daphoenositta chrysoptera Varied Sittella V,P 8/02/2005 55 316561 6063560 100 Aves Daphoenositta chrysoptera Varied Sittella V,P 4/09/2005 55 315820 6066190 100 Aves Daphoenositta chrysoptera Varied Sittella V,P 5/04/2008 55 317717	Aves	Pomatostomus temporalis	t Grey-crowned Babbler ((ŧV,P		31/12/2005		55	313688	6070032	100	
Aves Pomatostomus temporalis I Grey-crowned Babbler (IV,P) 31/12/1995 55 313813 6070185 1000 Aves Pomatostomus temporalis I Grey-crowned Babbler (IV,P) 31/12/2004 55 313813 6070185 1000 Aves Pomatostomus temporalis I Grey-crowned Babbler (IV,P) 31/12/1998 55 313813 6070185 100 Aves Daphoenositta chrysoptera Varied Sittella V,P 31/12/1998 55 313813 6070185 100 Aves Daphoenositta chrysoptera Varied Sittella V,P 8/02/2005 55 315781 6066086 100 Aves Daphoenositta chrysoptera Varied Sittella V,P 8/02/2005 55 316561 6063560 100 Aves Daphoenositta chrysoptera Varied Sittella V,P 14/09/2005 55 315820 6066190 100 Aves Daphoenositta chrysoptera Varied Sittella V,P 5/04/2008 55 313801 6070217 100 Aves Daphoenositta chrysoptera Varied Sittella V,P 31/12/2008 55	Aves	Pomatostomus temporalis	t Grey-crowned Babbler ((ŧV,P		31/12/1996		55	313813	6070185	1000	
Aves Pomatostomus temporalis t Grey-crowned Babbler (tV,P) 31/12/2003 55 313813 6070185 1000 Aves Pomatostomus temporalis t Grey-crowned Babbler (tV,P) 31/12/2004 55 313801 6070217 100 Aves Pomatostomus temporalis t Grey-crowned Babbler (tV,P) 31/12/1998 55 313813 6070185 100 Aves Daphoenositta chrysoptera Varied Sittella V,P 11/06/1989 55 317913 6058585 100 Aves Daphoenositta chrysoptera Varied Sittella V,P 8/02/2005 55 315781 6066086 100 Aves Daphoenositta chrysoptera Varied Sittella V,P 6/05/2005 55 315820 6066190 100 Aves Daphoenositta chrysoptera Varied Sittella V,P 14/09/2005 55 315820 6066190 100 Aves Daphoenositta chrysoptera Varied Sittella V,P 31/12/2008 55 317175 6065593 100 Aves Daphoenositta chrysoptera Varied Sittella V,P 31/12/2008 55	Aves	Pomatostomus temporalis	t Grey-crowned Babbler ((ŧV,P		31/12/1999		55	313813	6070185	1000	
Aves Pomatostomus temporalis t Grey-crowned Babbler (i V, P 31/12/2004 55 313801 6070217 100 Aves Pomatostomus temporalis t Grey-crowned Babbler (i V, P 31/12/1998 55 313813 6070185 100 Aves Daphoenositta chrysoptera Varied Sittella V, P 8/02/2005 55 317913 6058585 100 Aves Daphoenositta chrysoptera Varied Sittella V, P 8/02/2005 55 316561 6063560 100 Aves Daphoenositta chrysoptera Varied Sittella V, P 6/05/2005 55 316561 6063560 100 Aves Daphoenositta chrysoptera Varied Sittella V, P 14/09/2005 55 315820 6066190 100 Aves Daphoenositta chrysoptera Varied Sittella V, P 5/04/2008 55 317175 6065593 100 Aves Daphoenositta chrysoptera Varied Sittella V, P 30/04/2008 55 318518 607413 100 Aves Daphoenositta chrysoptera Varied Sittella V, P 30/06/1994	Aves	Pomatostomus temporalis	t Grey-crowned Babbler ((ŧV,P		31/12/1995		55	313813	6070185	1000	
Aves Pomatostomus temporalis t Grey-crowned Babbler (tV,P) 31/12/1998 55 313813 6070185 100 Aves Daphoenositta chrysoptera Varied Sittella V,P 11/06/1989 55 317913 6058585 100 Aves Daphoenositta chrysoptera Varied Sittella V,P 8/02/2005 55 315781 6066086 100 Aves Daphoenositta chrysoptera Varied Sittella V,P 6/05/2005 55 315820 6066190 100 Aves Daphoenositta chrysoptera Varied Sittella V,P 14/09/2005 55 315820 6066190 100 Aves Daphoenositta chrysoptera Varied Sittella V,P 5/04/2008 55 317175 6065593 100 Aves Daphoenositta chrysoptera Varied Sittella V,P 31/12/2008 55 31801 6070217 100 Aves Daphoenositta chrysoptera Varied Sittella V,P 30/09/2005 55 318588 6057413 100 Aves Melanodryas cucullata cuculoded Robin (south-eaV,P 30/06/1994 55 <td>Aves</td> <td>Pomatostomus temporalis</td> <td>t Grey-crowned Babbler (</td> <td>(ŧV,P</td> <td></td> <td>31/12/2003</td> <td></td> <td>55</td> <td>313813</td> <td>6070185</td> <td>1000</td> <td></td>	Aves	Pomatostomus temporalis	t Grey-crowned Babbler ((ŧV,P		31/12/2003		55	313813	6070185	1000	
Aves Daphoenositta chrysoptera Varied Sittella V,P 11/06/1989 55 317913 6058585 100 Aves Daphoenositta chrysoptera Varied Sittella V,P 8/02/2005 55 315781 6066086 100 Aves Daphoenositta chrysoptera Varied Sittella V,P 6/05/2005 55 316561 6063560 100 Aves Daphoenositta chrysoptera Varied Sittella V,P 14/09/2005 55 315820 6066190 100 Aves Daphoenositta chrysoptera Varied Sittella V,P 5/04/2008 55 317175 6065593 100 Aves Daphoenositta chrysoptera Varied Sittella V,P 31/12/2008 55 313801 6070217 100 Aves Daphoenositta chrysoptera Varied Sittella V,P 30/09/2005 55 318588 6057413 100 Aves Daphoenositta chrysoptera Varied Sittella V,P 30/06/1994 55 315133 6065185 100 Aves Melanodryas cucullata cuct Hooded Robin (south-ea V,P 30/06/1994	Aves	Pomatostomus temporalis	t Grey-crowned Babbler ((ŧV,P		31/12/2004		55	313801	6070217	100	
Aves Daphoenositta chrysoptera Varied Sittella V,P 8/02/2005 55 315781 6066086 100 Aves Daphoenositta chrysoptera Varied Sittella V,P 6/05/2005 55 316561 6063560 100 Aves Daphoenositta chrysoptera Varied Sittella V,P 14/09/2005 55 315820 6066190 100 Aves Daphoenositta chrysoptera Varied Sittella V,P 5/04/2008 55 317175 6065593 100 Aves Daphoenositta chrysoptera Varied Sittella V,P 31/12/2008 55 318588 6057413 100 Aves Daphoenositta chrysoptera Varied Sittella V,P 30/09/2005 55 318588 6057413 100 Aves Melanodryas cucullata cuct Hooded Robin (south-ea V,P 30/06/1994 55 315113 6065185 100 Aves Petroica boodang Scarlet Robin V,P 30/06/1994 55 318613 606085 100 Aves Petroica phoenicea Flame Robin V,P 11/06/1989	Aves	Pomatostomus temporalis	t Grey-crowned Babbler ((ŧV,P		31/12/1998		55	313813	6070185	100	
Aves Daphoenositta chrysoptera Varied Sittella V,P 6/05/2005 55 316561 6063560 100 Aves Daphoenositta chrysoptera Varied Sittella V,P 14/09/2005 55 315820 6066190 100 Aves Daphoenositta chrysoptera Varied Sittella V,P 5/04/2008 55 317175 6065593 100 Aves Daphoenositta chrysoptera Varied Sittella V,P 31/12/2008 55 318580 6067413 100 Aves Daphoenositta chrysoptera Varied Sittella V,P 30/09/2005 55 318588 6057413 100 Aves Melanodryas cucullata cuct Hooded Robin (south-ea V,P 30/06/1994 55 315113 6065185 100 Aves Melanodryas cucullata cuct Hooded Robin (south-ea V,P 12/06/1989 55 318713 606085 1000 Aves Petroica boodang Scarlet Robin V,P 30/06/1994 55 315113 6065185 100 Aves Petroica phoenicea Flame Robin V,P 11/06/1989	Aves	Daphoenositta chrysoptera	a Varied Sittella	V,P		11/06/1989		55	317913	6058585	100	
Aves Daphoenositta chrysoptera Varied Sittella V,P 14/09/2005 55 315820 6066190 100 Aves Daphoenositta chrysoptera Varied Sittella V,P 5/04/2008 55 317175 6065593 100 Aves Daphoenositta chrysoptera Varied Sittella V,P 31/12/2008 55 313801 6070217 100 Aves Daphoenositta chrysoptera Varied Sittella V,P 30/09/2005 55 318888 6057413 100 Aves Daphoenositta chrysoptera Varied Sittella V,P 30/09/2005 55 318588 6057413 100 Aves Melanodryas cucullata cuci Hooded Robin (south-ea V,P 30/06/1994 55 315113 6065185 100 Aves Melanodryas cucullata cuci Hooded Robin (south-ea V,P 12/06/1989 55 315113 606085 1000 Aves Petroica boodang Scarlet Robin V,P 30/06/1994 55 315113 606085 100 Aves Petroica phoenicea Flame Robin V,P 6/05/2005	Aves	Daphoenositta chrysoptera	a Varied Sittella	V,P		8/02/2005		55	315781	6066086	100	
Aves Daphoenositta chrysoptera Varied Sittella V,P 5/04/2008 55 317175 6065593 100 Aves Daphoenositta chrysoptera Varied Sittella V,P 31/12/2008 55 313801 6070217 100 Aves Daphoenositta chrysoptera Varied Sittella V,P 30/09/2005 55 318588 6057413 100 Aves Melanodryas cucullata cuct Hooded Robin (south-ea V,P 30/06/1994 55 318713 6065185 100 Aves Melanodryas cucullata cuct Hooded Robin (south-ea V,P 12/06/1989 55 318713 6065185 100 Aves Petroica boodang Scarlet Robin (v,P) 30/06/1994 55 318713 6065185 100 Aves Petroica phoenicea Flame Robin (v,P) 30/06/1994 55 318613 6058185 100 Aves Petroica phoenicea Flame Robin (v,P) 6/05/2005 55 316561 6063560 100 Aves Petroica phoenicea Flame Robin (v,P) 31/12/1995 55 313813	Aves	Daphoenositta chrysoptera	a Varied Sittella	V,P		6/05/2005		55	316561	6063560	100	
Aves Daphoenositta chrysoptera Varied Sittella V,P 31/12/2008 55 313801 6070217 100 Aves Daphoenositta chrysoptera Varied Sittella V,P 30/09/2005 55 318588 6057413 100 Aves Melanodryas cucullata cucı Hooded Robin (south-eaV,P 30/06/1994 55 315113 6065185 100 Aves Petroica boodang Scarlet Robin V,P 30/06/1994 55 315113 6065085 1000 Aves Petroica phoenicea Flame Robin V,P 30/06/1994 55 315113 6065185 100 Aves Petroica phoenicea Flame Robin V,P 30/06/1994 55 315113 6065185 100 Aves Petroica phoenicea Flame Robin V,P 11/06/1989 55 318613 6058185 100 Aves Petroica phoenicea Flame Robin V,P 31/12/2007 55 313813 6070185 100 Aves Petroica phoenicea Flame Robin V,P	Aves	Daphoenositta chrysoptera	a Varied Sittella	V,P		14/09/2005		55	315820	6066190	100	
Aves Daphoenositta chrysoptera Varied Sittella V,P 30/09/2005 55 318588 6057413 100 Aves Melanodryas cucullata cucu Hooded Robin (south-ea V,P 30/06/1994 55 315113 6065185 100 Aves Melanodryas cucullata cucu Hooded Robin (south-ea V,P 12/06/1989 55 318713 6060085 1000 Aves Petroica boodang Scarlet Robin V,P 30/06/1994 55 315113 6065185 100 Aves Petroica phoenicea Flame Robin V,P 11/06/1989 55 318613 6058185 100 Aves Petroica phoenicea Flame Robin V,P 6/05/2005 55 316561 6063560 100 Aves Petroica phoenicea Flame Robin V,P 31/12/2007 55 313813 6070032 100 Aves Petroica phoenicea Flame Robin V,P 31/12/1995 55 313813 6070185 100 Aves Stagonopleura guttata Diamond Firetail V,P<	Aves	Daphoenositta chrysoptera	a Varied Sittella	V,P		5/04/2008		55	317175	6065593	100	
Aves Melanodryas cucullata cuct Hooded Robin (south-ea V,P) 30/06/1994 55 315113 6065185 100 Aves Melanodryas cucullata cuct Hooded Robin (south-ea V,P) 12/06/1989 55 318713 6060085 1000 Aves Petroica boodang Scarlet Robin V,P 30/06/1994 55 315113 6065185 100 Aves Petroica phoenicea Flame Robin V,P 11/06/1989 55 318613 6058185 100 Aves Petroica phoenicea Flame Robin V,P 6/05/2005 55 316561 6063560 100 Aves Petroica phoenicea Flame Robin V,P 31/12/2007 55 313688 6070032 100 Aves Petroica phoenicea Flame Robin V,P 31/12/1995 55 313813 6070185 1000 Aves Petroica phoenicea Flame Robin V,P 31/12/1998 55 318713 6060085 1000 Aves Stagonopleura guttata Diamond Firetail	Aves	Daphoenositta chrysoptera	a Varied Sittella	V,P		31/12/2008		55	313801	6070217	100	
Aves Melanodryas cucullata cuct Hooded Robin (south-eaV,P) 12/06/1989 55 318713 6060085 1000 Aves Petroica boodang Scarlet Robin V,P 30/06/1994 55 315113 6065185 100 Aves Petroica phoenicea Flame Robin V,P 11/06/1989 55 318613 6058185 100 Aves Petroica phoenicea Flame Robin V,P 6/05/2005 55 316561 6063560 100 Aves Petroica phoenicea Flame Robin V,P 31/12/2007 55 313688 6070032 100 Aves Petroica phoenicea Flame Robin V,P 31/12/1995 55 313813 6070185 1000 Aves Petroica phoenicea Flame Robin V,P 31/12/1998 55 313813 6070185 100 Aves Stagonopleura guttata Diamond Firetail V,P 27/09/2005 55 317432 6064682 100 Mammalia Antechinomys laniger Kulta	Aves	Daphoenositta chrysoptera	a Varied Sittella	V,P		30/09/2005		55	318588	6057413	100	
Aves Petroica boodang Scarlet Robin V,P 30/06/1994 55 315113 6065185 100 Aves Petroica phoenicea Flame Robin V,P 11/06/1989 55 318613 6058185 100 Aves Petroica phoenicea Flame Robin V,P 6/05/2005 55 316561 6063560 100 Aves Petroica phoenicea Flame Robin V,P 31/12/2007 55 313688 6070032 100 Aves Petroica phoenicea Flame Robin V,P 31/12/1995 55 313813 6070185 1000 Aves Petroica phoenicea Flame Robin V,P 31/12/1995 55 313813 6070185 100 Aves Stagonopleura guttata Diamond Firetail V,P 12/06/1989 55 318713 6060085 1000 Aves Stagonopleura guttata Diamond Firetail V,P 27/09/2005 55 317432 6064682 100 Mammalia Phascogale tapoatafa	Aves	Melanodryas cucullata cuc	દા Hooded Robin (south-ea	aV,P		30/06/1994		55	315113	6065185	100	
Aves Petroica phoenicea Flame Robin V,P 11/06/1989 55 318613 6058185 100 Aves Petroica phoenicea Flame Robin V,P 6/05/2005 55 316561 6063560 100 Aves Petroica phoenicea Flame Robin V,P 31/12/2007 55 313688 6070032 100 Aves Petroica phoenicea Flame Robin V,P 31/12/1995 55 313813 6070185 1000 Aves Petroica phoenicea Flame Robin V,P 31/12/1998 55 313813 6070185 100 Aves Stagonopleura guttata Diamond Firetail V,P 12/06/1989 55 318713 6060085 1000 Aves Stagonopleura guttata Diamond Firetail V,P 27/09/2005 55 317432 6064682 100 Mammalia Antechinomys laniger Kultarr E1,P 01/01/1883 55 315767 6066080 100000 Mammalia Phascogale tap	Aves	Melanodryas cucullata cuc	દા Hooded Robin (south-ea	aV,P		12/06/1989		55	318713	6060085	1000	
Aves Petroica phoenicea Flame Robin V,P 6/05/2005 55 316561 6063560 100 Aves Petroica phoenicea Flame Robin V,P 31/12/2007 55 313688 6070032 100 Aves Petroica phoenicea Flame Robin V,P 31/12/1995 55 313813 6070185 100 Aves Petroica phoenicea Flame Robin V,P 31/12/1998 55 313813 6070185 100 Aves Stagonopleura guttata Diamond Firetail V,P 12/06/1989 55 318713 6060085 1000 Aves Stagonopleura guttata Diamond Firetail V,P 27/09/2005 55 317432 6064682 100 Mammalia Antechinomys laniger Kultarr E1,P 01/01/1883 55 315767 6066080 100000 Mammalia Phascogale tapoatafa Brush-tailed Phascogale V,P 11/06/1989 55 318613 6058185 100	Aves	Petroica boodang	Scarlet Robin	V,P		30/06/1994		55	315113	6065185	100	
Aves Petroica phoenicea Flame Robin V,P 31/12/2007 55 313688 6070032 100 Aves Petroica phoenicea Flame Robin V,P 31/12/1995 55 313813 6070185 100 Aves Petroica phoenicea Flame Robin V,P 31/12/1998 55 313813 6070185 100 Aves Stagonopleura guttata Diamond Firetail V,P 12/06/1989 55 318713 6060085 1000 Aves Stagonopleura guttata Diamond Firetail V,P 27/09/2005 55 317432 6064682 100 Mammalia Antechinomys laniger Kultarr E1,P 01/01/1883 55 315767 6066080 100000 Mammalia Phascogale tapoatafa Brush-tailed Phascogale V,P 11/06/1989 55 318613 6058185 100	Aves	Petroica phoenicea	Flame Robin	V,P		11/06/1989		55	318613	6058185	100	
Aves Petroica phoenicea Flame Robin V,P 31/12/1995 55 313813 6070185 1000 Aves Petroica phoenicea Flame Robin V,P 31/12/1998 55 313813 6070185 100 Aves Stagonopleura guttata Diamond Firetail V,P 12/06/1989 55 318713 6060085 1000 Aves Stagonopleura guttata Diamond Firetail V,P 27/09/2005 55 317432 6064682 100 Mammalia Antechinomys laniger Kultarr E1,P 01/01/1883 55 315767 6066080 100000 Mammalia Phascogale tapoatafa Brush-tailed Phascogale V,P 11/06/1989 55 318613 6058185 100	Aves	Petroica phoenicea	Flame Robin	V,P		6/05/2005		55	316561	6063560	100	
Aves Petroica phoenicea Flame Robin V,P 31/12/1998 55 313813 6070185 100 Aves Stagonopleura guttata Diamond Firetail V,P 12/06/1989 55 318713 6060085 1000 Aves Stagonopleura guttata Diamond Firetail V,P 27/09/2005 55 317432 6064682 100 Mammalia Antechinomys laniger Kultarr E1,P 01/01/1883 55 315767 6066080 100000 Mammalia Phascogale tapoatafa Brush-tailed Phascogale V,P 11/06/1989 55 318613 6058185 100	Aves	Petroica phoenicea	Flame Robin	V,P		31/12/2007		55	313688	6070032	100	
Aves Stagonopleura guttata Diamond Firetail V,P 12/06/1989 55 318713 6060085 1000 Aves Stagonopleura guttata Diamond Firetail V,P 27/09/2005 55 317432 6064682 100 Mammalia Antechinomys laniger Kultarr E1,P 01/01/1883 55 315767 6066080 100000 Mammalia Phascogale tapoatafa Brush-tailed Phascogale V,P 11/06/1989 55 318613 6058185 100	Aves	Petroica phoenicea	Flame Robin									
Aves Stagonopleura guttata Diamond Firetail V,P 27/09/2005 55 317432 6064682 100 Mammalia Antechinomys laniger Kultarr E1,P 01/01/1883 55 315767 6066080 100000 Mammalia Phascogale tapoatafa Brush-tailed Phascogale V,P 11/06/1989 55 318613 6058185 100	Aves	Petroica phoenicea	Flame Robin			31/12/1998		55	313813	6070185	100	
Mammalia Antechinomys laniger Kultarr E1,P 01/01/1883 55 315767 6066080 100000 Mammalia Phascogale tapoatafa Brush-tailed Phascogale V,P 11/06/1989 55 318613 6058185 100	Aves	Stagonopleura guttata	Diamond Firetail			12/06/1989			318713	6060085	1000	
Mammalia Phascogale tapoatafa Brush-tailed Phascogale V,P 11/06/1989 55 318613 6058185 100	Aves	Stagonopleura guttata	Diamond Firetail					55				
	Mammalia	Antechinomys laniger										
N	Mammalia	Phascogale tapoatafa	Brush-tailed Phascogale	eV,P		11/06/1989	'	55	318613	6058185	100	
	Mammalia	Phascolarctos cinereus	Koala	V,P	V	11/06/1989		55	318613	6058185		
Mammalia Lasiorhinus krefftii Northern Hairy-nosed W E4,P E 30/12/1884 55 315113 6066185 100000	Mammalia	Lasiorhinus krefftii	Northern Hairy-nosed W	√ E4,P		30/12/1884		55	315113	6066185	100000	
Mammalia Petrogale penicillata Brush-tailed Rock-wallat E1,P V 12/12/1911 55 315767 6066080 100000	Mammalia	Petrogale penicillata	Brush-tailed Rock-walla	kE1,P	V	12/12/1911		55	315767	6066080	100000	
Mammalia Nyctophilus corbeni Corben's Long-eared Ba V,P V 31/12/1988 55 314256 6066049 100000	Mammalia	Nyctophilus corbeni	Corben's Long-eared Ba	aV,P	V	31/12/1988		55	314256	6066049	100000	

Threatened Flora Search Results from the BioNet Search - 20 km radius from the Project site

FamilyName	ScientificName	CommonName	NSWStatus	CommStatus	DateFirst	Latitude_GDA94	Longitude_GDA94	Zone	Accuracy
Brassicaceae	Lepidium monoplocoides	Winged Peppercress	E1,P	E	1/12/1945	-35.54717682	144.8825858	55	1000
Chenopodiaceae	Maireana cheelii	Chariot Wheels	V,P	V	1/09/1935	-35.51514486	144.9512796	55	10000
Fabaceae (Faboideae)	Swainsona murrayana	Slender Darling Pea	V,P	V	1/11/1973	-35.54717682	144.8825858	55	1000
Fabaceae (Faboideae)	Swainsona murrayana	Slender Darling Pea	V,P	V	1/11/1973	-35.53181141	144.9679463	55	1000
Fabaceae (Faboideae)	Swainsona sericea	Silky Swainson-pea	V,P		1/11/1973	-35.53181141	144.9679463	55	25000
Fabaceae (Faboideae)	Swainsona sericea	Silky Swainson-pea	V,P		1/09/1945	-35.51514486	144.9512796	55	10000

Data from the BioNet Atlas of NSW Wildlife website, which holds records from a number of custodians. The data are only indicative and cannot be considered a comprehensive inventory, and may contain errors and omissions. Species listed under the Sensitive Species Data Policy may have their locations denatured (^ rounded to 0.1Ű; ^^ rounded to 0.01Ű). Copyright the State of NSW through the Office of Environment and Heritage. Search criteria: Public Report of all Valid Records of Entities in selected area [North: -35.47 West: 144.9 East: 145 South: -35.6] returned a total of Report generated on 13/05/2015 2:48 PM

		11 13/03/2013 2			_		New	•	
Kingdo m	Class	Family	Species Code	Scientific Name	Exo	Common Name	NSW status	Comm. status	Recor ds
Animalia	Amphibia	Myobatrachid ae	3131	Crinia parinsignifera		Eastern Sign-bearing Froglet	Р		4
Animalia	Amphibia	Myobatrachid ae	3134	Crinia signifera		Common Eastern Froglet	Р		5
Animalia	Amphibia	Myobatrachid ae	3058	Limnodynastes dumerilii		Eastern Banjo Frog	Р		7
Animalia	Amphibia	Myobatrachid ae	3059	Limnodynastes fletcheri		Long-thumbed Frog	Р		6
Animalia	Amphibia	Myobatrachid ae	3063	Limnodynastes tasmaniensis		Spotted Grass Frog	Р		10
Animalia	Amphibia	Hylidae	3204	Litoria peronii		Peron's Tree Frog	Р		8
Animalia	Reptilia	Gekkonidae	2126	Christinus marmoratus		Marbled Gecko	Р		3
Animalia	Reptilia	Gekkonidae	2076	Diplodactylus tessellatus		Tessellated Gecko	Р		3
Animalia	Reptilia	Gekkonidae	2092	Gehyra variegata		Tree Dtella	Р		6
Animalia	Reptilia	Pygopodidae	2160	Delma inornata		Patternless Delma	Р		1
Animalia	Reptilia	Pygopodidae	2911	Pygopus schraderi		Eastern Hooded Scaly-foot	Р		1
Animalia	Reptilia	Scincidae	5156	Cryptoblepharus australis		Inland Snake-eyed Skink	Р		11
Animalia	Reptilia	Scincidae	2519	Menetia greyii		Common Dwarf Skink	Р		2
Animalia	Reptilia	Scincidae	2526	Morethia boulengeri		South-eastern Morethia Skink	Р		9
Animalia	Reptilia	Scincidae	2580	Tiliqua scincoides		Eastern Blue-tongue	Р		4
Animalia	Reptilia	Agamidae	2177	Pogona barbata		Bearded Dragon	Р		9
Animalia		Varanidae	2271	Varanus gouldii		Gould's Goanna	Р		1
Animalia	Reptilia	Varanidae	2283	Varanus varius		Lace Monitor	Р		4
Animalia	·	Typhlopidae	2588	Ramphotyphlops bituberculatus		Prong-snouted Blind Snake	Р		1
Animalia	Reptilia	Typhlopidae	2603	Ramphotyphlops proximus		Proximus Blind Snake	Р		1
Animalia	Reptilia	Elapidae	2699	Pseudonaja textilis		Eastern Brown Snake			6
Animalia	Reptilia	Elapidae	2722	Suta suta		Curl Snake	Р		4
Animalia	Reptilia	Elapidae	2734	Vermicella		Bandy-bandy	P		1
Animalia	Aves	Casuariidae	0001	Dromaius novaehollandiae		Emu	Р		1
Animalia	Aves	Phasianidae	0009	Coturnix pectoralis		Stubble Quail	P		1
Animalia	Aves	Anatidae	0210	Anas castanea		Chestnut Teal	Р		2
Animalia	Aves	Anatidae	0211	Anas gracilis	*	Grey Teal	Р		21
Animalia	Aves	Anatidae	0948	Anas	•	Mallard Australasian Shoveler	_		1
Animalia Animalia	Aves Aves	Anatidae Anatidae	0212 0208	Anas rhynchotis Anas superciliosa		Pacific Black Duck	P P		2 43
Animalia		Anatidae	0208	·		Hardhead	P		
Animalia	Aves Aves	Anatidae	0215	Aythya australis Biziura lobata		Musk Duck	P		5 5
Animalia	Aves	Anatidae	0198	Cereopsis novaehollandiae		Cape Barren Goose	P		2
Animalia	Aves	Anatidae	0202	Chenonetta jubata		Australian Wood	Р		29
Animalia	Aves	Anatidae	0203	Cygnus atratus		Black Swan	P		3
Animalia	Aves	Anatidae	0205	Dendrocygna		Plumed Whistling-	P		6
Animalia	Aves	Anatidae	0213	Malacorhynchus membranaceus		Pink-eared Duck	Р		5

Kingdo m	Class	Family	Species Code	Scientific Name	Exo tic	Common Name	NSW status	Comm. status	Recor ds
Animalia	Aves	Anatidae	0216	Oxyura australis		Blue-billed Duck	V,P		1
Animalia	Aves	Anatidae	0214	Stictonetta		Freckled Duck	V,P		2
Animalia	Aves	Anatidae	0207	Tadorna		Australian Shelduck	Р		2
Animalia	Aves	Podicipedida e	0062	Poliocephalus poliocephalus		Hoary-headed Grebe	Р		5
Animalia	Aves	Podicipedida e	0061	Tachybaptus novaehollandiae		Australasian Grebe	Р		4
Animalia	Aves	Columbidae	0957	Columba livia	*	Rock Dove			15
Animalia	Aves	Columbidae	9931	Geopelia striata		Peaceful Dove	Р		17
Animalia	Aves	Columbidae	0043	Ocyphaps lophotes		Crested Pigeon	Р		17
Animalia	Aves	Columbidae	0034	Phaps chalcoptera		Common Bronzewing	Р		9
Animalia	Aves	Columbidae	0989	Streptopelia chinensis	*	Spotted Turtle-Dove			1
Animalia	Aves	Podargidae	0313	Podargus		Tawny Frogmouth	Р		5
Animalia	Aves	Caprimulgida e	0331	Eurostopodus argus		Spotted Nightjar	Р		1
Animalia	Aves	Aegothelidae	0317	Aegotheles		Australian Owlet-	Р		1
Animalia	Aves	Anhingidae	8731	Anhinga novaehollandiae		Australasian Darter	Р		6
Animalia	Aves	Phalacrocora cidae	0100	Microcarbo melanoleucos		Little Pied Cormorant	Р		14
Animalia	Aves	Phalacrocora cidae	0096	Phalacrocorax carbo		Great Cormorant	Р		6
Animalia	Aves	Phalacrocora cidae	0097	Phalacrocorax sulcirostris		Little Black Cormorant	Р		8
Animalia	Aves	Phalacrocora cidae	0099	Phalacrocorax varius		Pied Cormorant	Р		2
Animalia	Aves	Pelecanidae	0106	Pelecanus conspicillatus		Australian Pelican	Р		15
Animalia	Aves	Ardeidae	8712	Ardea modesta		Eastern Great Egret	Р		8
Animalia	Aves	Ardeidae	0189	Ardea pacifica		White-necked Heron	Р		10
Animalia	Aves	Ardeidae	0197	Botaurus		Australasian Bittern	E1,P	Е	7
Animalia	Aves	Ardeidae	0188	Egretta novaehollandiae		White-faced Heron	Р		23
Animalia	Aves	Ardeidae	8703	Ixobrychus dubius		Australian Little	Р		6
Animalia	Aves	Ardeidae	0192	Nycticorax caledonicus		Nankeen Night Heron	Р		2
Animalia	Aves	Threskiornithi dae	0182	Platalea flavipes		Yellow-billed Spoonbill	Р		11
Animalia	Aves	Threskiornithi dae	0181	Platalea regia		Royal Spoonbill	Р		3
Animalia	Aves	Threskiornithi dae	0178	Plegadis falcinellus		Glossy Ibis	Р	С	1
Animalia	Aves	Threskiornithi dae	0179	Threskiornis molucca		Australian White Ibis	Р		26
Animalia	Aves	Threskiornithi dae	0180	Threskiornis spinicollis		Straw-necked Ibis	Р		25
Animalia	Aves	Accipitridae	0222	Accipiter cirrocephalus		Collared Sparrowhawk	Р		3
Animalia	Aves	Accipitridae	0221	Accipiter fasciatus		Brown Goshawk	Р		2
Animalia	Aves	Accipitridae	0224	Aquila audax		Wedge-tailed Eagle	Р		6
Animalia	Aves	Accipitridae	0219	Circus		Swamp Harrier	Р		1
Animalia	Aves	Accipitridae	0218	Circus assimilis		Spotted Harrier	V,P		1
Animalia	Aves	Accipitridae	0232	Elanus axillaris		Black-shouldered Kite	P		9
Animalia	Aves	Accipitridae	0233	Elanus scriptus		Letter-winged Kite	P		1
Animalia	Aves	Accipitridae	0233	Haliaeetus leucogaster		White-bellied Sea- Eagle	P	С	6
Animalia	Aves	Accipitridae	0228	Haliastur		Whistling Kite	Р		15

Kingdo m	Class	Family	Species Code	Scientific Name	Exo tic	Common Name	NSW status	Comm. status	Recor ds
Animalia	Aves	Accipitridae	0225	Hieraaetus morphnoides		Little Eagle	V,P		8
Animalia	Aves	Accipitridae	0230	^Lophoictinia		Square-tailed Kite	V,P,3		1
Animalia	Aves	Accipitridae	0229	Milvus migrans		Black Kite	Ρ		18
Animalia	Aves	Falconidae	0239	Falco berigora		Brown Falcon	P		8
Animalia	Aves	Falconidae	0240	Falco cenchroides		Nankeen Kestrel	Р		14
Animalia	Aves	Falconidae	0236	^Falco hypoleucos		Grey Falcon	E1,P,2		1
Animalia	Aves	Falconidae	0235	Falco longipennis		Australian Hobby	Р		5
Animalia	Aves	Falconidae	0237	Falco peregrinus		Peregrine Falcon	Р		6
Animalia	Aves	Falconidae	0238	Falco subniger		Black Falcon	V,P		11
Animalia	Aves	Rallidae	0059	Fulica atra		Eurasian Coot	P		6
Animalia	Aves	Rallidae	0056	Gallinula tenebrosa		Dusky Moorhen	Р		13
Animalia	Aves	Rallidae	0046	Gallirallus philippensis		Buff-banded Rail	P		1
Animalia	Aves	Rallidae	0058	Porphyrio		Purple Swamphen	Р		6
Animalia	Aves	Rallidae	0049	Porzana fluminea		Australian Spotted Crake	Р		1
Animalia	Aves	Rallidae	0050	Porzana pusilla		Baillon's Crake	Р		1
Animalia	Aves	Rallidae	0051	Porzana tabuensis		Spotless Crake	P		1
Animalia	Aves	Rallidae	0055	Tribonyx ventralis		Black-tailed Native-	P		1
Animalia	Aves	Otididae	0176	Ardeotis australis		Australian Bustard	E1,P		1
Animalia	Aves	Burhinidae	0174	Burhinus grallarius		Bush Stone-curlew	E1,P		3
Animalia	Aves	Recurvirostri	0147	Cladorhynchus leucocephalus		Banded Stilt	Ρ		1
Animalia	Aves	Recurvirostri dae	0146	Himantopus himantopus		Black-winged Stilt	Р		1
Animalia	Aves	Recurvirostri dae	0148	Recurvirostra novaehollandiae		Red-necked Avocet	Р		1
Animalia	Aves	Charadriidae	0143	Charadrius ruficapillus		Red-capped Plover	Р		1
Animalia	Aves	Charadriidae	0144	Elseyornis		Black-fronted Dotterel	Р		4
Animalia	Aves	Charadriidae	0133	Vanellus miles		Masked Lapwing	Р		7
Animalia	Aves	Charadriidae	0135	Vanellus tricolor		Banded Lapwing	Р		2
Animalia	Aves	Pedionomida	0020	Pedionomus		Plains-wanderer	E1,P	V	2
		е		torquatus			,		
Animalia	Aves	Rostratulidae	0170	Rostratula australis		Australian Painted Snipe	E1,P	Е	1
Animalia	Aves	Scolopacidae	0168	Gallinago hardwickii		Latham's Snipe	Р	C,J,K	1
Animalia	Aves	Scolopacidae	0150	Numenius phaeopus		Whimbrel	Р	C,J,K	1
Animalia	Aves	Turnicidae	0019	Turnix pyrrhothorax		Red-chested Button- quail	Р		1
Animalia	Aves	Turnicidae	0014	Turnix varius		Painted Button-quail	Р		2
Animalia	Aves	Laridae	0125	Chroicocephalus novaehollandiae		Silver Gull	Р		2
Animalia	Aves	Cacatuidae	0269	Cacatua galerita		Sulphur-crested Cockatoo	Р		17
Animalia	Aves	Cacatuidae	0271	Cacatua sanguinea		Little Corella	Р		1
Animalia	Aves	Cacatuidae	8873	Cacatua sanguinea gymnopis			Р		1
Animalia	Aves	Cacatuidae	0272	Cacatua		Long-billed Corella	Р		39
Animalia	Aves	Cacatuidae	0273	Eolophus roseicapillus		Galah	Р		46
Animalia	Aves	Cacatuidae	8867	Eolophus roseicapillus			Р		1

Kingdo m	Class	Family	Species Code	Scientific Name	Exo tic	Common Name	NSW status	Comm. status	Recor ds
Animalia	Aves	Cacatuidae	0270	^Lophochroa leadbeateri		Major Mitchell's Cockatoo	V,P,2		1
Animalia	Aves	Cacatuidae	0274	Nymphicus hollandicus		Cockatiel	Р		7
Animalia	Aves	Psittacidae	0291	Barnardius zonarius barnardi		[Mallee Ringneck]	Р		2
Animalia	Aves	Psittacidae	0258	Glossopsitta concinna		Musk Lorikeet	Р		4
Animalia	Aves	Psittacidae	0259	^Glossopsitta porphyrocephala		Purple-crowned Lorikeet	V,P,3		2
Animalia	Aves	Psittacidae	0310	Melopsittacus undulatus		Budgerigar	Р		1
Animalia	Aves	Psittacidae	0302	^Neophema pulchella		Turquoise Parrot	V,P,3		2
Animalia	Aves	Psittacidae	0297	Northiella haematogaster		Blue Bonnet	Р		1
Animalia	Aves	Psittacidae	0282	Platycercus		Crimson Rosella	Р		2
Animalia	Aves	Psittacidae	0284	Platycercus elegans flaveolus		[Yellow Rosella]	Р		38
Animalia	Aves	Psittacidae	0288	Platycercus		Eastern Rosella	Р		23
Animalia	Aves	Psittacidae	0277	^Polytelis		Superb Parrot	V,P,3	V	23
Animalia	Aves	Psittacidae	0295	Psephotus haematonotus		Red-rumped Parrot	Р		28
Animalia	Aves	Cuculidae	0338	Cacomantis flabelliformis		Fan-tailed Cuckoo	Р		1
Animalia	Aves	Cuculidae	0337	Cacomantis		Pallid Cuckoo	Р		1
Animalia	Aves	Cuculidae	0342	Chalcites basalis		Horsfield's Bronze- Cuckoo	Р		4
Animalia	Aves	Strigidae	0246	^Ninox connivens		Barking Owl	V,P,3		6
Animalia	Aves	Strigidae	9922	Ninox novaeseelandiae		Southern Boobook	Р		4
Animalia	Aves	Tytonidae	9923	Tyto javanica		Eastern Barn Owl	Р		9
Animalia	Aves	Tytonidae	0250	^^Tyto novaehollandiae		Masked Owl	V,P,3		1
Animalia	Aves	Alcedinidae	0319	Ceyx azureus		Azure Kingfisher	Р		7
Animalia	Aves	Alcedinidae	0322	Dacelo novaeguineae		Laughing Kookaburra	Р		34
Animalia	Aves	Alcedinidae	0326	Todiramphus sanctus		Sacred Kingfisher	Р		10
Animalia	Aves	Meropidae	0329	Merops ornatus		Rainbow Bee-eater	Р	J	12
Animalia	Aves	Coraciidae	0318	Eurystomus orientalis		Dollarbird	Р		3
Animalia	Aves	Climacterida e	8127	Climacteris picumnus victoriae		Brown Treecreeper (eastern subspecies)	V,P		19
Animalia	Aves	Climacterida e	0558	Cormobates leucophaea		White-throated Treecreeper	Р		21
Animalia	Aves	Maluridae	0529	Malurus cyaneus		Superb Fairy-wren	Р		35
Animalia	Aves	Maluridae	0536	Malurus lamberti		Variegated Fairy-	Р		1
Animalia	Aves	Maluridae	0535	Malurus leucopterus		White-winged Fairy-wren	Р		1
Animalia	Aves	Maluridae	9038	Malurus sp.		Unidentified Fairy-	Р		1
Animalia	Aves	Acanthizidae	0486	Acanthiza chrysorrhoa		Yellow-rumped Thornbill	Р		28
Animalia	Aves	Acanthizidae	0470	Acanthiza lineata		Striated Thornbill	Р		7
Animalia	Aves	Acanthizidae	0471	Acanthiza nana		Yellow Thornbill	Р		26
Animalia	Aves	Acanthizidae	0475	Acanthiza pusilla		Brown Thornbill	Р		2
Animalia	Aves	Acanthizidae	0484	Acanthiza		Buff-rumped Thornbill	Р		7

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Animalia	Aves	Acanthizidae	0481	Acanthiza uropygialis		Chestnut-rumped Thornbill	Р		6
Animalia	Aves	Acanthizidae	0466	Aphelocephala leucopsis		Southern Whiteface	Р		2
Animalia	Aves	Acanthizidae	0463	Gerygone fusca		Western Gerygone	Р		14
Animalia	Aves	Acanthizidae	0488	Sericornis frontalis		White-browed Scrubwren	Р		10
Animalia	Aves	Acanthizidae	0465	Smicrornis brevirostris		Weebill	Р		34
Animalia	Aves	Pardalotidae	0565	Pardalotus		Spotted Pardalote	Р		13
Animalia	Aves	Pardalotidae	0976	Pardalotus striatus		Striated Pardalote	P		30
Animalia	Aves	Meliphagidae	0640	Acanthagenys rufogularis		Spiny-cheeked Honeyeater	Р		10
Animalia	Aves	Meliphagidae	0591	Acanthorhynchus tenuirostris		Eastern Spinebill	Р		1
Animalia	Aves	Meliphagidae	0638	Anthochaera carunculata		Red Wattlebird	Р		1
Animalia	Aves	Meliphagidae	0603	Anthochaera		Regent Honeyeater	E4A,P	Е	2
Animalia	Aves	Meliphagidae	0614	Caligavis chrysops		Yellow-faced Honeyeater	Р		1
Animalia	Aves	Meliphagidae	0602	Certhionyx variegatus		Pied Honeyeater	V,P		1
Animalia	Aves	Meliphagidae	0641	Entomyzon		Blue-faced	Р		17
Animalia	Aves	Meliphagidae	0448	Epthianura		White-fronted Chat	V,P		1
Animalia	Aves	Meliphagidae	0449	Epthianura tricolor		Crimson Chat	Р		1
Animalia	Aves	Meliphagidae	0598	Grantiella picta		Painted Honeyeater	V,P		1
Animalia	Aves	Meliphagidae	0613	Lichenostomus fuscus		Fuscous Honeyeater	Р		3
Animalia	Aves	Meliphagidae	0622	Lichenostomus ornatus		Yellow-plumed Honeyeater	Р		3
Animalia	Aves	Meliphagidae	0625	Lichenostomus penicillatus		White-plumed Honeyeater	Р		79
Animalia	Aves	Meliphagidae	0608	Lichenostomus virescens		Singing Honeyeater	Р		5
Animalia	Aves	Meliphagidae	0634	Manorina melanocephala		Noisy Miner	Р		17
Animalia	Aves	Meliphagidae	0583	Melithreptus brevirostris		Brown-headed Honeyeater	Р		18
Animalia	Aves	Meliphagidae	0578	Melithreptus Iunatus		White-naped Honeyeater	Р		2
Animalia	Aves	Meliphagidae	0646	Philemon citreogularis		Little Friarbird	Р		55
Animalia	Aves	Meliphagidae	0645	Philemon corniculatus		Noisy Friarbird	Р		24
Animalia	Aves	Meliphagidae	0585	Plectorhyncha lanceolata		Striped Honeyeater	Р		2
Animalia	Aves	Meliphagidae	0594	Purnella albifrons		White-fronted Honeyeater	Р		4
Animalia	Aves	Meliphagidae	0589	Sugomel niger		Black Honeyeater	Р		3
Animalia	Aves	Pomatostomi dae	8388	Pomatostomus temporalis temporalis		Grey-crowned Babbler (eastern subspecies)	V,P		15
Animalia	Aves	Neosittidae	0549	Daphoenositta chrysoptera		Varied Sittella	V,P		6
Animalia	Aves	Campephagi dae	0423	Coracina maxima		Ground Cuckoo- shrike	Р		4
Animalia	Aves	Campephagi dae	0424	Coracina novaehollandiae		Black-faced Cuckoo- shrike	Р		25

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Animalia	Aves	Campephagi dae	0425	Coracina papuensis		White-bellied Cuckoo- shrike	Р		1
Animalia	Aves	Campephagi dae	0430	Lalage sueurii		White-winged Triller	Р		4
Animalia	Aves	Pachycephali dae	0408	Colluricincla harmonica		Grey Shrike-thrush	Р		27
Animalia	Aves	Pachycephali dae	0416	Falcunculus frontatus		Eastern Shrike-tit	Р		2
Animalia	Aves	Pachycephali dae	0398	Pachycephala pectoralis		Golden Whistler	Р		7
Animalia	Aves	Pachycephali dae	0401	Pachycephala rufiventris		Rufous Whistler	Р		14
Animalia	Aves	Oriolidae	0671	Oriolus sagittatus		Olive-backed Oriole	Р		2
Animalia	Aves	Artamidae	0547	Artamus cyanopterus		Dusky Woodswallow	Р		3
Animalia	Aves	Artamidae	0543	Artamus leucorynchus		White-breasted Woodswallow	Р		4
Animalia	Aves	Artamidae	0544	Artamus		Masked	Р		4
Animalia	Aves	Artamidae	0545	Artamus superciliosus		White-browed Woodswallow	Р		4
Animalia	Aves	Artamidae	0700	Cracticus nigrogularis		Pied Butcherbird	Р		18
Animalia	Aves	Artamidae	0705	Cracticus tibicen		Australian Magpie	Р		38
Animalia	Aves	Artamidae	0702	Cracticus torquatus		Grey Butcherbird	Р		2
Animalia	Aves	Artamidae	0694	Strepera graculina		Pied Currawong	Р		15
Animalia	Aves	Rhipiduridae	0361	Rhipidura		Grey Fantail	Р		22
Animalia	Aves	Rhipiduridae	8447	Rhipidura albiscapa alisteri			Р		1
Animalia	Aves	Rhipiduridae	0364	Rhipidura		Willie Wagtail	Р		29
Animalia	Aves	Corvidae	0930	Corvus coronoides		Australian Raven	Р		25
Animalia	Aves	Corvidae	0954	Corvus mellori		Little Raven	Р		11
Animalia	Aves	Monarchidae	0415	Grallina		Magpie-lark	Р		31
Animalia	Aves	Monarchidae	9955	Myiagra inquieta		Restless Flycatcher	Р		9
Animalia	Aves	Monarchidae	0365	Myiagra rubecula		Leaden Flycatcher	Р		2
Animalia	Aves	Corcoracidae	0693	Corcorax melanorhamphos		White-winged Chough	Р		27
Animalia	Aves	Corcoracidae	0675	Struthidea cinerea		Apostlebird	Р		1
Animalia	Aves	Petroicidae	8367	Melanodryas cucullata cucullata		Hooded Robin (south- eastern form)	V,P		2
Animalia	Aves	Petroicidae	0377	Microeca fascinans		Jacky Winter	Р		5
Animalia	Aves	Petroicidae	0380	Petroica boodang		Scarlet Robin	V,P		1
Animalia	Aves	Petroicidae	0381	Petroica		Red-capped Robin	Р		10
Animalia	Aves	Petroicidae	0382	Petroica phoenicea		Flame Robin	V,P		4
Animalia	Aves	Cisticolidae	0525	Cisticola exilis		Golden-headed	Р		1
Animalia	Aves	Acrocephalid ae	0524	Acrocephalus australis		Australian Reed- Warbler	Р		16
Animalia	Aves	Acrocephalid ae	8584	Acrocephalus australis australis			Р		1
Animalia	Aves	Megaluridae	0509	Cincloramphus mathewsi		Rufous Songlark	Р		2
Animalia	Aves	Megaluridae	0522	Megalurus gramineus		Little Grassbird	Р		4
Animalia	Aves	Timaliidae	0574	Zosterops lateralis		Silvereye	Р		26
Animalia	Aves	Hirundinidae	0358	Cheramoeca leucosterna		White-backed Swallow	Р		6
Animalia	Aves	Hirundinidae	0357	Hirundo neoxena		Welcome Swallow	Р		25

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Animalia	Aves	Hirundinidae	0359	Petrochelidon nigricans		Tree Martin	Р		6
Animalia	Aves	Turdidae	0991	Turdus merula	*	Eurasian Blackbird			14
Animalia	Aves	Sturnidae	0998	Sturnus tristis	*	Common Myna			1
Animalia Animalia	Aves Aves	Sturnidae Nectariniidae	0999 0564	Sturnus vulgaris Dicaeum hirundinaceum	*	Common Starling Mistletoebird	Р		20 12
Animalia Animalia	Aves Aves	Estrildidae Estrildidae	0662 8621	Neochmia Neochmia temporalis		Red-browed Finch	P P		11 1
Animalia	Aves	Estrildidae	0652	Stagonopleura guttata		Diamond Firetail	V,P		2
Animalia	Aves	Estrildidae	0653	Taeniopygia		Zebra Finch	Р		6
Animalia	Aves	Passeridae	0995		*	House Sparrow			15
Animalia	Aves	Passeridae	0994	Passer montanus	*	Eurasian Tree			1
Animalia	Aves	Motacillidae	0647	Anthus novaeseelandiae		Australian Pipit	Р		1
	а	Ornithorhync hidae	1001	Ornithorhynchus anatinus		Platypus	Р		3
	а	Tachyglossid ae	1003	Tachyglossus aculeatus		Short-beaked Echidna	Р		1
	Mammali a	•	1043	Antechinomys laniger		Kultarr	E1,P		1
Animalia	Mammali a	Dasyuridae	1027	Antechinus flavipes		Yellow-footed Antechinus	Р		1
	Mammali	Dasyuridae	1061	Sminthopsis		Common Dunnart	Р		1
	а	Vombatidae	1169	Lasiorhinus krefftii		Northern Hairy-nosed Wombat	E4,P	E	1
	а	Pseudocheiri dae	1129	Pseudocheirus peregrinus		Common Ringtail Possum	Р		3
	а	Acrobatidae	1147	Acrobates pygmaeus		Feathertail Glider	Р		2
	а	Phalangerida e	1113	Trichosurus vulpecula		Common Brushtail Possum	Р		10
	а	Macropodida e	1265	Macropus giganteus		Eastern Grey Kangaroo	Р		5
	а	Macropodida e	1215	Petrogale penicillata		Brush-tailed Rock- wallaby	E1,P	V	1
	а	Macropodida e	1242	Wallabia bicolor		Swamp Wallaby	Р		1
	а	Pteropodidae	1281	Pteropus scapulatus		Little Red Flying-fox	Р		1
	Mammali a	Molossidae	1324	Austronomus australis		White-striped Freetail- bat	Р		5
	а	Molossidae	1326	Mormopterus planiceps		Little Mastiff-bat	Р		1
	а	Vespertilionid ae	1349	Chalinolobus gouldii		Gould's Wattled Bat	Р		1
	а	Vespertilionid ae	1351	Chalinolobus morio		Chocolate Wattled Bat	Р		1
	а	Vespertilionid ae	T315	Nyctophilus corbeni		Corben's Long-eared Bat	V,P	V	1
	а	Vespertilionid ae	1334	Nyctophilus gouldi		Gould's Long-eared Bat	Р		2
	а	Vespertilionid ae	1379	Vespadelus vulturnus		Little Forest Bat	Р		1
	Mammali	Muridae	1412	Mus musculus	*	House Mouse			2
Animalia	Mammali	Muridae	1408	Rattus rattus	*	Black Rat			2

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	Mammali	Canidae	1532	Vulpes vulpes	*	Fox			3
Animalia	Mammali	Felidae	1536	Felis catus	*	Cat			1
	Mammali	Leporidae	1511	Lepus capensis	*	Brown Hare			5
Animalia	Mammali a	Leporidae	1510	Oryctolagus cuniculus	*	Rabbit			6
Animalia	Mammali	Equidae	1512	Equus caballus	*	Horse			1
Plantae	Flora	Aizoaceae	6381	Glinus lotoides		Hairy Carpet-weed			1
Plantae	Flora	Aizoaceae	7175	Glinus					1
Plantae	Flora	Aizoaceae	10540	Tetragonia moorei					1
Plantae	Flora	Aizoaceae	7680	Trianthema		Small Hogweed			1
Plantae	Flora	Aizoaceae	6504	Zaleya galericulata		Hogweed			1
Plantae	Flora	Alismataceae	1043	Alisma plantago- aquatica		Water Plantain			1
Plantae	Flora	Amaranthace ae	6478	Alternanthera denticulata		Lesser Joyweed			5
Plantae	Flora	Amaranthace ae	7191	Alternanthera pungens	*	Khaki Weed			1
Plantae	Flora	Amaranthace ae	1051	Amaranthus albus	*	Tumbleweed			2
Plantae	Flora	Amaranthace ae	1055	Amaranthus hybridus	*	Slim Amaranth			1
Plantae	Flora	Amaranthace ae	1062	Amaranthus retroflexus	*	Redroot Amaranth			1
Plantae	Flora	Amaranthace ae	1064	Amaranthus viridis	*	Green Amaranth			1
Plantae	Flora	Amaranthace ae	6599	Ptilotus exaltatus var. exaltatus		Tall Mulla Mulla	Р		1
Plantae	Flora	Amaranthace ae	8523	Ptilotus semilanatus		Lambs tails			2
Plantae	Flora	Amaranthace ae	7822	Ptilotus spathulatus f. spathulatus		Pussy-tails			1
Plantae	Flora	Anacardiace ae	1086	Schinus areira	*	Pepper Tree			1
Plantae	Flora	Apiaceae	1109	Daucus		Native Carrot			1
Plantae	Flora	Apiaceae	10681	Eryngium ovinum		Blue Devil			1
Plantae	Flora	Apiaceae	10871	Eryngium		Long Eryngium			1
Plantae	Flora	Apocynacea e	10204	Nerium oleander	*	Oleander			1
Plantae	Flora	Arecaceae	11354	Phoenix canariensis	*	Canary Island Date Palm			1
Plantae	Flora	Asparagacea e	3521	Asparagus officinalis	*	Asparagus			1
Plantae	Flora	Asteraceae	1273	Arctotheca	*	Capeweed			8
Plantae	Flora	Asteraceae	1280	Aster subulatus	*	Wild Aster			2
Plantae	Flora	Asteraceae	10401	Brachyscome basaltica var.		Swamp Daisy			1
Plantae	Flora	Asteraceae	1332	Calocephalus sonderi		Pale Beauty-heads			1
Plantae	Flora	Asteraceae	1340	Calotis erinacea		Tangled Burr-daisy			1
Plantae	Flora	Asteraceae	7929	Calotis scabiosifolia var.		g			1
Plantae	Flora	Asteraceae	1348	Calotis scapigera		Tufted Burr-daisy			2
Plantae	Flora	Asteraceae	1354	Carduus pycnocephalus	*	Slender Thistle			1
Plantae	Flora	Asteraceae	1362	Cassinia arcuata		Sifton Bush			1
Plantae	Flora	Asteraceae	1384	Centipeda cunninghamii		Common Sneezeweed			3

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Plantae	Flora	Asteraceae	14360	Centipeda minima subsp. minima		spreading sneezeweed			2
Plantae	Flora	Asteraceae	12718	Centipeda					1
Plantae	Flora	Asteraceae	8559	Chrysocephalum apiculatum		Common Everlasting			3
Plantae	Flora	Asteraceae	1400	Cirsium vulgare	*	Spear Thistle			7
Plantae	Flora	Asteraceae	1404	Conyza	*	Flaxleaf Fleabane			3
Plantae	Flora	Asteraceae	10442	Conyza	*	Tall fleabane			2
Plantae	Flora	Asteraceae	1412	Cotula australis		Common Cotula			1
Plantae	Flora	Asteraceae	1413	Cotula bipinnata	*	Ferny Cotula			4
Plantae	Flora	Asteraceae	8634	Craspedia		Common Billy-buttons	Р		1
Plantae	Flora	Asteraceae	1427	Cymbonotus preissianus		Austral Bear's Ear			1
Plantae	Flora	Asteraceae	1428	Cynara	*	Cardoon			1
Plantae	Flora	Asteraceae	1433	Dittrichia	*	Stinkwort			2
Plantae	Flora	Asteraceae	7903	Eclipta platyglossa		Yellow Twin-heads			1
Plantae	Flora	Asteraceae	12744	Eriochlamys squamata					2
Plantae	Flora	Asteraceae	9778	Helminthotheca echioides	*	Ox-tongue			2
Plantae	Flora	Asteraceae	1540	Hypochaeris glabra	*	Smooth Catsear			3
Plantae	Flora	Asteraceae	1542	Isoetopsis graminifolia		Grass Cushion			1
Plantae	Flora	Asteraceae	IXIL	lxiolaena spp.					1
Plantae	Flora	Asteraceae	1550	Lactuca serriola	*	Prickly Lettuce			1
Plantae	Flora	Asteraceae	12049	Leiocarpa panaetioides		Wooly Buttons			2
Plantae	Flora	Asteraceae	12105	Leiocarpa		Woolly Plover-daisy			1
Plantae	Flora	Asteraceae	10182	Leontodon taraxacoides subsp.	*	Lesser Hawkbit			2
Plantae	Flora	Asteraceae	11831	Leptorhynchos squamatus subsp. squamatus					3
Plantae	Flora	Asteraceae	9416	Millotia perpusilla		Tiny Bow-flower			1
Plantae	Flora	Asteraceae	1576	Myriocephalus rhizocephalus		Woolly-heads			1
Plantae	Flora	Asteraceae	1624	Parthenium hysterophorus	*	Parthenium Weed			1
Plantae	Flora	Asteraceae	10155	Pycnosorus chrysanthes		Golden Billy-buttons	Р		1
Plantae	Flora	Asteraceae	10163	Pycnosorus thompsonianus			Р		2
Plantae	Flora	Asteraceae	1641	Reichardia	*	False Sowthistle			1
Plantae	Flora	Asteraceae	14032	Rhaponticum	*	Creeping Knapweed			1
Plantae	Flora	Asteraceae	8919	Rhodanthe corymbiflora		Small White Sunray			2
Plantae	Flora	Asteraceae	9384	Rhodanthe		Pigmy Sunray			1
Plantae	Flora	Asteraceae	11159	Scorzonera	*				1
Plantae	Flora	Asteraceae	1675	Senecio quadridentatus		Cotton Fireweed			1
Plantae	Flora	Asteraceae	1676	Senecio		Tall Groundsel			2
Plantae	Flora	Asteraceae	1684		*	Variegated Thistle			1
Plantae	Flora	Asteraceae	1690	Sonchus oleraceus	*	Common Sowthistle			5
Plantae	Flora	Asteraceae	1698	Taraxacum	*	Dandelion			3
Plantae	Flora	Asteraceae	7786	Vittadinia cervicularis var.		A Fuzzweed			1
Plantae	Flora	Asteraceae	1711	Vittadinia cuneata		A Fuzzweed			2

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Plantae	Flora	Asteraceae	6992	Vittadinia cuneata var. hirsuta					1
Plantae	Flora	Asteraceae	7069	Vittadinia dissecta var. hirta					1
Plantae	Flora	Asteraceae	1714	Vittadinia gracilis		Woolly New Holland Daisy			2
Plantae	Flora	Asteraceae	1729	Xanthium	*	Bathurst Burr			2
Plantae	Flora	Asteraceae	11380	Xerochrysum viscosum		Sticky Everlasting			1
Plantae	Flora	Azollaceae	9260	Azolla filiculoides	*	Pacific Azolla			1
Plantae	Flora	Bignoniacea e	8688	Jacaranda mimosifolia		Jacaranda			1
Plantae	Flora	Boraginacea e	8707	Buglossoides arvensis	*	Sheepweed			1
Plantae	Flora	Boraginacea e	1751	Echium plantagineum	*	Patterson's Curse			9
Plantae	Flora	Boraginacea e	1761	Heliotropium europaeum	*	Potato Weed			1
Plantae	Flora	Boraginacea e	1772	Plagiobothrys canescens	*	Valley Popcorn Flower			1
Plantae	Flora	Brassicaceae	1790	Brassica tournefortii	*	Mediterranean Turnip			1
Plantae	Flora	Brassicaceae	1794	Capsella bursa- pastoris	*	Shepherd's Purse			1
Plantae	Flora	Brassicaceae	1810	Geococcus pusillus					1
Plantae	Flora	Brassicaceae	1817	Lepidium bonariense	*	Argentine Peppercress			2
Plantae	Flora	Brassicaceae	13998	Lepidium draba	*	Hoary Cress			1
Plantae	Flora	Brassicaceae	LEPI	Lepidium spp.	*	A Peppercress			1
Plantae	Flora	Brassicaceae	1835	Menkea australis		Fairy Spectacles			1
Plantae	Flora	Brassicaceae	1846	Rorippa laciniata					1
Plantae	Flora	Brassicaceae	RORI	Rorippa spp.	*				1
Plantae	Flora	Brassicaceae	1853	Sisymbrium irio	*	London Rocket			6
Plantae	Flora	Brassicaceae	1855	Sisymbrium orientale	*	Indian Hedge Mustard			2
Plantae	Flora	Callitrichacea e	1909	Callitriche stagnalis	*	Common Starwort			1
Plantae	Flora	Campanulac eae	1931	Wahlenbergia fluminalis		River Bluebell			7
Plantae	Flora	Campanulac eae	1933	Wahlenbergia gracilenta		Annual Bluebell			1
Plantae	Flora	Caryophyllac eae	1974	Paronychia brasiliana	*	Chilean Whitlow Wort, Brazilian			1
Plantae	Flora	Caryophyllac eae	1979	Polycarpon tetraphyllum	*	Four-leaved Allseed			1
Plantae	Flora	Caryophyllac eae	2002	Stellaria angustifolia		Swamp Starwort			2
Plantae	Flora	Caryophyllac eae	2006	Stellaria media	*	Common Chickweed			3
Plantae	Flora	Casuarinace ae	2013	Allocasuarina luehmannii		Bulloak			2

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m	Class	Family	Code	Scientific Name	tic	Common Name	status	status	ds
Plantae	Flora	Casuarinace ae	2018	Allocasuarina verticillata		Drooping Sheoak			2
Plantae	Flora	Casuarinace ae	9289	Casuarina pauper		Black Oak			1
Plantae	Flora	Chenopodiac eae	2056	Atriplex lindleyi		Eastern Flat-top Saltbush			2
Plantae	Flora	Chenopodiac eae	2066	Atriplex pseudocampanulat					2
Plantae	Flora	Chenopodiac eae	2070	Atriplex semibaccata		Creeping Saltbush			5
Plantae	Flora	Chenopodiac eae	2078	Atriplex vesicaria		Bladder Saltbush			1
Plantae	Flora	Chenopodiac eae	2084	Chenopodium album	*	Fat Hen			1
Plantae	Flora	Chenopodiac eae	6931	Chenopodium desertorum subsp. virosum					2
Plantae	Flora	Chenopodiac eae	2097	Chenopodium murale	*	Nettle-leaf Goosefoot			1
Plantae	Flora	Chenopodiac eae	2098	Chenopodium nitrariaceum		Nitre Goosefoot			1
Plantae	Flora	Chenopodiac eae	7294	Dysphania glomulifera subsp. glomulifera					1
Plantae	Flora	Chenopodiac eae	2111	Einadia nutans		Climbing Saltbush			8
Plantae	Flora	Chenopodiac eae	6481	Einadia nutans subsp. linifolia		Climbing Saltbush			2
Plantae	Flora	Chenopodiac eae	2114	Enchylaena tomentosa		Ruby Saltbush			2
Plantae	Flora	Chenopodiac eae	2124	Maireana cheelii		Chariot Wheels	V,P	V	1
Plantae	Flora	Chenopodiac eae	2127	Maireana decalvans		Black Cotton Bush			5
Plantae	Flora	Chenopodiac eae	2128	Maireana enchylaenoides		Wingless Fissure- weed			1
Plantae	Flora	Chenopodiac eae	2140	Maireana pentagona		Hairy Bluebush, Slender Fissure-weed			6
Plantae	Flora	Chenopodiac eae	2161	Rhagodia spinescens		Thorny Saltbush			1
Plantae	Flora	Chenopodiac eae	7923	Salsola kali var. kali		Buckbush			2
Plantae	Flora	Chenopodiac eae	11152	Salsola tragus		Buckbush,Soft Rolpoly, Saltwort			1
Plantae	Flora	Chenopodiac eae	2170	Sclerolaena birchii		Galvinized Burr			2
Plantae	Flora	Chenopodiac eae	2185	Sclerolaena muricata		Black Rolypoly			2
Plantae	Flora	Chenopodiac eae	7570	Sclerolaena muricata var.		Black Rolypoly			1
Plantae	Flora	Chenopodiac eae	7656	Sclerolaena muricata var.		Black Rolypoly			1
Plantae	Flora	Chenopodiac eae	12874	Sclerolaena sp. B					1
Plantae	Flora	Commelinac	10508	Tradescantia fluminensis	*	Wandering Jew			1
Plantae	Flora	Crassulacea	2237	Crassula colorata		Dense Stonecrop			4

Kingdo m	Class	Family	Species Code	Scientific Name	Exo tic	Common Name	NSW status	Comm. status	Recor ds
Plantae	Flora	Crassulacea e	7745	Crassula decumbens var. decumbens		Spreading Stonecrop			1
Plantae	Flora	Crassulacea e	2242	Crassula sieberiana		Australian Stonecrop			1
Plantae	Flora	Cucurbitacea e	9436	Citrullus lanatus var. lanatus	*	Wild Melon, Camel Melon,Bitter			1
Plantae	Flora	Cucurbitacea e	11072	Cucumis myriocarpus subsp. leptodermis	*	Paddy Melon			2
Plantae	Flora	Cucurbitacea e	2256	Ecballium elaterium	*	Squirting Cucumber			1
Plantae	Flora	Cucurbitacea e	2264	Zehneria micrantha		Desert Cucumber			1
Plantae	Flora	Cupressacea e	9634	Callitris gracilis subsp. murrayensis		Murray Pine			1
Plantae	Flora	Cyperaceae	2327	Carex inversa		Knob Sedge			5
Plantae	Flora	Cyperaceae	2337	Carex tereticaulis		Ŭ			2
Plantae	Flora	Cyperaceae	CYPE	Cyperus spp.					1
Plantae	Flora	Cyperaceae	2408	Eleocharis acuta					2
Plantae	Flora	Cyperaceae	2421	Eleocharis plana		Flat Spike-sedge			1
Plantae	Flora	Cyperaceae	2422	Eleocharis pusilla		riat opike-seage			2
				•		Cauchia Maad			
Plantae	Flora	Euphorbiace ae	8560	Chamaesyce drummondii		Caustic Weed			3
Plantae	Flora	Euphorbiace ae	2721	Euphorbia peplus	*	Petty Spurge			1
Plantae	Flora	Euphorbiace ae	6900	Euphorbia tannensis subsp.					1
Plantae	Flora	Fabaceae (Caesalpinioi deae)	14255	Senna artemisioides subsp. X coriacea					2
Plantae	Flora	Fabaceae (Caesalpinioi deae)	8494	Senna artemisioides subsp. zygophylla					1
Plantae	Flora	Fabaceae (Faboideae)	10674	Cullen tenax		Emu-foot			1
Plantae	Flora	Fabaceae (Faboideae)	2842	Dillwynia cinerascens					1
Plantae	Flora	Fabaceae (Faboideae)	2862	Glycyrrhiza acanthocarpa		Native Liquorice			3
Plantae	Flora	Fabaceae (Faboideae)	2906	Lotus australis		Australian Trefoil			1
Plantae	Flora	Fabaceae (Faboideae)	2922	Medicago polymorpha	*	Burr Medic			1
Plantae	Flora	Fabaceae (Faboideae)	2923	Medicago praecox	*	Small-leaved Burr Medic			2
Plantae	Flora	Fabaceae (Faboideae)	2924	Medicago sativa	*	Lucerne			1
Plantae	Flora	Fabaceae (Faboideae)	2926	Medicago truncatula	*	Barrel Medic			7
Plantae	Flora	Fabaceae (Faboideae)	3028	Robinia pseudoacacia	*	Black Locust			1
Plantae	Flora	Fabaceae (Faboideae)	3048	Swainsona murrayana		Slender Darling Pea	V,P	V	1
Plantae	Flora	Fabaceae (Faboideae)	8538	Swainsona sericea		Silky Swainson-pea	V,P		2
Plantae	Flora	Fabaceae (Faboideae)	3072	Trifolium angustifolium	*	Narrow-leaved Clover			2

Kingdo m	Class	Family	Species Code	Scientific Name	Exo tic	Common Name	NSW status	Comm. status	Recor ds
Plantae	Flora	Fabaceae (Faboideae)	3073	Trifolium arvense	*	Haresfoot Clover			3
Plantae	Flora	Fabaceae (Faboideae)	3083	Trifolium ornithopodioides	*	Birds-foot Trefoil			1
Plantae	Flora	Fabaceae (Faboideae)	TRIF	Trifolium spp.	*	A Clover			2
Plantae	Flora	Fabaceae (Faboideae)	3091	Trifolium tomentosum	*	Woolly Clover			2
Plantae	Flora	Fabaceae (Faboideae)	8794	Vicia sativa subsp. sativa	*	Common Vetch			1
Plantae	Flora	Fabaceae (Mimosoidea e)	3699	Acacia acinacea		Gold-dust Wattle			1
Plantae	Flora	Fabaceae (Mimosoidea e)	3710	Acacia baileyana		Cootamundra Wattle			1
Plantae	Flora	Fabaceae (Mimosoidea e)	3761	Acacia decora		Western Silver Wattle			1
Plantae	Flora	Fabaceae (Mimosoidea e)	3843	Acacia oswaldii		Miljee			1
Plantae	Flora	Fabaceae (Mimosoidea e)	3848	Acacia pendula		Boree			1
Plantae	Flora	Fabaceae (Mimosoidea e)	3872	Acacia salicina		Cooba			1
Plantae	Flora	Fumariaceae	9367	Fumaria muralis subsp. muralis	*	Wall Fumitory			1
Plantae	Flora	Geraniaceae	3141	Erodium cicutarium	*	Common Crowfoot			3
Plantae	Flora	Geraniaceae	3142	Erodium crinitum		Blue Crowfoot			1
Plantae	Flora	Geraniaceae	3145	Erodium	*	Musky Crowfoot			1
Plantae	Flora	Geraniaceae	EROI	Erodium spp.	*	Crowfoot			1
Plantae	Flora	Goodeniacea e	3181	Goodenia fascicularis		Mallee Goodenia			1
Plantae	Flora	Goodeniacea e	3183	Goodenia glauca		Pale Goodenia			1
Plantae	Flora	Goodeniacea e	3185	Goodenia gracilis					1
Plantae	Flora	Goodeniacea	3193	Goodenia pinnatifida		Scrambles Eggs			1
Plantae	Flora	Goodeniacea e	3216	Velleia paradoxa		Davide Danisant			1
Plantae	Flora	Haloragacea e	3249	Haloragis aspera		Rough Raspwort			1
Plantae	Flora	Haloragacea e	7455	Haloragis glauca f. glauca Myriophyllum caput		Cat-tail			2
Plantae	Flora	Haloragacea e Hydrocharita	7123	Myriophyllum caput medusae					1
Plantae Plantae	Flora Flora	Hydrocharita ceae Hypoxidacea	3269 7493	Elodea canadensis		Elodea Tiny Star			2
Plantae	Flora	e Iridaceae	10862	Hypoxis glabella var. glabella Moraea setifolia	*	Thread Iris			4
Plantae	Flora	Iridaceae	3304	Romulea minutiflora	*	Small-flowered Onion Grass			8

Kingdo m	Class	Family	Species Code	Scientific Name	Exo tic	Common Name	NSW status	Comm. status	Recor ds
Plantae	Flora	Iridaceae	7477	Romulea rosea var. australis	*	Onion Grass			1
Plantae	Flora	Juncaceae	3313	Juncus amabilis					4
Plantae	Flora	Juncaceae	3315	Juncus aridicola		Tussock Rush			2
Plantae	Flora	Juncaceae	3330	Juncus flavidus					1
Plantae	Flora	Juncaceae	3335	Juncus ingens		Giant Rush			1
Plantae	Flora	Juncaceae	3344	Juncus radula					1
Plantae	Flora	Juncaceae	JUNC	Juncus spp.		A Rush			4
Plantae	Flora	Juncaceae	3348	Juncus subsecundus		Finger Rush			2
Plantae	Flora	Lamiaceae	3371	Ajuga australis		Austral Bugle			1
Plantae	Flora	Lamiaceae	3381	Marrubium vulgare	*	White Horehound			3
Plantae	Flora	Lamiaceae	3383	Mentha australis		River Mint			1
Plantae	Flora	Lamiaceae	3384	Mentha diemenica		Slender Mint			2
Plantae	Flora	Lamiaceae	3387	Mentha		Native Pennyroyal			2
Plantae	Flora	Lamiaceae	3427	Prostanthera rotundifolia		Round-leaved Mint- bush			1
Plantae	Flora	Lamiaceae	3453	Teucrium racemosum		Grey Germander			4
Plantae	Flora	Lemnaceae	7689	Spirodela punctata					2
Plantae	Flora	Lobeliaceae	1922	Pratia concolor		Poison Pratia			1
Plantae	Flora	Lomandrace ae	6511	Lomandra filiformis subsp. coriacea		Wattle Matt-rush			1
Plantae	Flora	Lomandrace ae	LOMA	Lomandra spp.		Mat-rush			1
Plantae	Flora	Loranthacea e	7497	Amyema linophyllum subsp.					1
Plantae	Flora	Loranthacea e	3620	Muellerina eucalyptoides					1
Plantae	Flora	Lythraceae	3623	Lythrum		Hyssop Loosestrife			1
Plantae	Flora	Malvaceae	3657	Malva parviflora	*	Small-flowered			1
Plantae	Flora	Malvaceae	MALV	Malva spp.	*	Mallow			1
Plantae	Flora	Malvaceae	3664	Sida corrugata		Corrugated Sida			2
Plantae	Flora	Malvaceae	SIDA	Sida spp.	*	J			2
Plantae	Flora	Marsileaceae	8803	Marsilea drummondii		Common Nardoo			2
Plantae	Flora	Martyniaceae	8935	Ibicella lutea	*	Yellow-flowered Devil's Claw			1
Plantae	Flora	Myoporacea e	8602	Eremophila debilis		Amulla			3
Plantae	Flora	Myoporacea e	9442	Myoporum platycarpum subsp. platycarpum					1
Plantae	Flora	Myrtaceae	6360	Eucalyptus camaldulensis		River Red Gum			10
Plantae	Flora	Myrtaceae	4114	Eucalyptus largiflorens		Black Box			15
Plantae	Flora	Myrtaceae	4125	Eucalyptus melliodora		Yellow Box			2
Plantae	Flora	Myrtaceae	4127	Eucalyptus microcarpa		Western Grey Box			1
Plantae	Flora	Nyctaginace ae	6753	Boerhavia coccinea		Tarvine			2
Plantae	Flora	Nyctaginace ae	6841	Boerhavia dominii		Tarvine			2
Plantae	Flora	Onagraceae	4330	Epilobium					2
Plantae	Flora	Oxalidaceae	4613	Oxalis corniculata	*	Creeping Oxalis			1
Plantae	Flora	Oxalidaceae	4621	Oxalis perennans		1 3 - *****			8
				po.o.mano					_

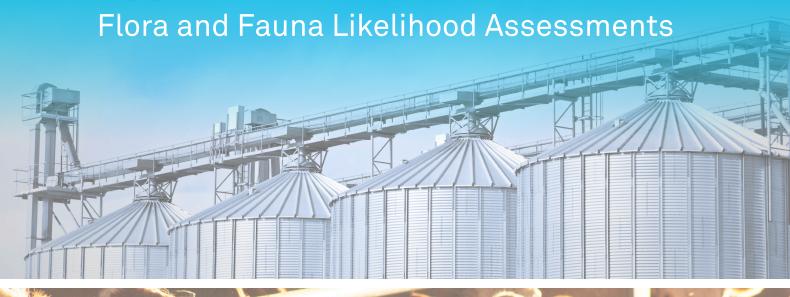
Kingdo m	Class	Family	Species Code	Scientific Name	Exo tic	Common Name	NSW status	Comm. status	Recor ds
Plantae	Flora	Oxalidaceae	4622	Oxalis pes-caprae	*	Soursob			2
Plantae	Flora	Papaveracea e	4637	Papaver dubium	*	Longhead Poppy			1
Plantae	Flora	Papaveracea e	4638	Papaver hybridum	*	Rough Poppy			2
Plantae	Flora	Phormiaceae	3542	Dianella revoluta		Blueberry Lily			1
Plantae	Flora	Phyllanthace ae	2748	Phyllanthus lacunarius					1
Plantae	Flora	Pittosporace ae	11202	Pittosporum angustifolium		Butterbush			1
Plantae	Flora	Plantaginace ae	6996	Plantago coronopus subsp.	*				1
Plantae	Flora	Plantaginace ae	4690	Plantago cunninghamii		Sago-weed			1
Plantae	Flora	Plantaginace ae	4691	Plantago debilis		Shade Plantain			1
Plantae	Flora	Plantaginace ae	4694	Plantago gaudichaudii		Narrow Plantain			1
Plantae	Flora	Poaceae	4735	Alopecurus geniculatus	*	Marsh Foxtail			1
Plantae	Flora	Poaceae	6842	Amphibromus nervosus		Swamp Wallaby Grass			2
Plantae	Flora	Poaceae	10384	Austrostipa aristiglumis		Plains Grass			1
Plantae	Flora	Poaceae	10376	Austrostipa nodosa		A Speargrass			2
Plantae	Flora	Poaceae	AUSO	Austrostipa spp.		A Speargrass			1
Plantae	Flora	Poaceae	4780	Avena fatua	*	Wild Oats			3
Plantae	Flora	Poaceae	AVEN	Avena spp.	*	Oats			1
Plantae	Flora	Poaceae	4804	Bromus arenarius		Sand Brome			1
Plantae	Flora	Poaceae	4806	Bromus diandrus	*	Great Brome			1
Plantae	Flora	Poaceae	4810	Bromus	*	Madrid Brome			1
Plantae	Flora	Poaceae	4813	Bromus rubens	*	Red Brome			1
Plantae	Flora	Poaceae	BROM	Bromus spp.	*	A Brome			2
Plantae	Flora	Poaceae	4833	Chloris truncata		Windmill Grass			2
Plantae	Flora	Poaceae	6540	Cynodon dactylon		Common Couch			1
Plantae	Flora	Poaceae	7178	Dactyloctenium radulans		Button Grass			1
Plantae	Flora	Poaceae	6937	Digitaria	*	Crab Grass			2
Plantae	Flora	Poaceae	4920	Diplachne fusca		Brown Beetle Grass			1
Plantae	Flora	Poaceae	7607	Echinochloa colona		Awnless Barnyard Grass			1
Plantae	Flora	Poaceae	4923	Echinochloa crus- galli	*	Barnyard Grass			1
Plantae	Flora	Poaceae	9330	Echinochloa esculenta	*	Japanese Millet			1
Plantae	Flora	Poaceae	6818	Echinochloa microstachya	*	Prickly Barnyard Grass			1
Plantae	Flora	Poaceae	4936	Ehrharta calycina	*	Perennial Veldtgrass			1
Plantae	Flora	Poaceae	4937	Ehrharta erecta	*	Panic Veldtgrass			1
Plantae	Flora	Poaceae	4938	Ehrharta longiflora	*	Annual Veldtgrass			2
Plantae	Flora	Poaceae	4940	Eleusine tristachya	*	Goose Grass			1
Plantae	Flora	Poaceae	4945	Enneapogon nigricans		Niggerheads			2
Plantae	Flora	Poaceae	6721	Enteropogon acicularis		Curly Windmill Grass			4
Plantae	Flora	Poaceae	6722	Enteropogon ramosus		Curly Windmill Grass			2

Kingdo m	Class	Family	Species Code	Scientific Name	Exo tic	Common Name	NSW status	Comm. status	Recor ds
Plantae	Flora	Poaceae	4952	Eragrostis curvula	*	African Lovegrass			1
Plantae	Flora	Poaceae	4955	Eragrostis elongata		Clustered Lovegrass			1
Plantae	Flora	Poaceae	4997	Glyceria declinata	*	Sweetgrass			1
Plantae	Flora	Poaceae	7871	Hemarthria uncinata var.					1
Plantae	Flora	Poaceae	5012	Hordeum	*	Barley Grass			5
Plantae	Flora	Poaceae	5013	Hordeum marinum	*	Sea Barley Grass			1
Plantae	Flora	Poaceae	HORD	Hordeum spp.	*	A Barley Grass			1
Plantae	Flora	Poaceae	11388	Lachnagrostis filiformis					1
Plantae	Flora	Poaceae	5032	Lolium perenne	*	Perennial Ryegrass			13
Plantae	Flora	Poaceae	5033	Lolium rigidum	*	Wimmera Ryegrass			2
Plantae	Flora	Poaceae	5055	Panicum effusum		Hairy Panic			2
Plantae	Flora	Poaceae	7773	Panicum laevinode		Pepper Grass			5
Plantae	Flora	Poaceae	5077	Paspalidium constrictum		Knottybutt Grass			1
Plantae	Flora	Poaceae	5082	Paspalidium jubiflorum		Warrego Grass			5
Plantae	Flora	Poaceae	5086	Paspalum	*	Paspalum			2
Plantae	Flora	Poaceae	5096	Pennisetum clandestinum	*	Kikuyu Grass			1
Plantae	Flora	Poaceae	5100	Pennisetum	*	Feathertop			1
Plantae	Flora	Poaceae	PHAA	Phalaris spp.	*				1
Plantae	Flora	Poaceae	5122	Poa bulbosa	*	Bulbous Poa			1
Plantae	Flora	Poaceae	5138	Poa pratensis	*	Kentucky Bluegrass			1
Plantae	Flora	Poaceae	5145	Polypogon monspeliensis	*	Annual Beardgrass			1
Plantae	Flora	Poaceae	5148	Pseudoraphis spinescens		Spiny Mudgrass			2
Plantae	Flora	Poaceae	7878	Rostraria cristata	*	Annual Cat's Tail			1
Plantae	Flora	Poaceae	14304	Rytidosperma bipartitum		Wallaby Grass			1
Plantae	Flora	Poaceae	14307	Rytidosperma duttonianum		Brown-back Wallaby Grass			1
Plantae	Flora	Poaceae	14309	Rytidosperma fulvum		Wallaby Grass			1
Plantae	Flora	Poaceae	14322	Rytidosperma setaceum		Small-flowered Wallaby-grass			4
Plantae	Flora	Poaceae	RYTI	Rytidosperma spp.					2
Plantae	Flora	Poaceae	5156	Schismus barbatus	*	Arabian Grass			1
Plantae	Flora	Poaceae	5169	Setaria verticillata	*	Whorled Pigeon			1
Plantae	Flora	Poaceae	5185	Stenotaphrum secundatum	*	Buffalo Grass			1
Plantae	Flora	Poaceae	5234	Triticum aestivum	*	Wheat			1
Plantae	Flora	Poaceae	5242	Vulpia myuros	*	Rat's Tail Fescue			1
Plantae	Flora	Poaceae	13475	Walwhalleya					1
Plantae	Flora	Polygonacea e	14542	Duma florulenta		Lignum			6
Plantae	Flora	Polygonacea e	14544	Duma horrida subsp. horrida					2
Plantae	Flora	Polygonacea e	7568	Persicaria decipiens		Slender Knotweed			1
Plantae	Flora	Polygonacea e	5281	Persicaria hydropiper		Water Pepper			2
Plantae	Flora	Polygonacea e	5285	Persicaria prostrata		Creeping Knotweed			3
Plantae	Flora	Polygonacea e	POLG	Polygonum spp.	*				2

Kingdo m	Class	Family	Species Code	Scientific Name	Exo tic	Common Name	NSW status	Comm. status	Recor ds
Plantae	Flora	Polygonacea e	5296	Rumex brownii		Swamp Dock			3
Plantae	Flora	Polygonacea e	5298	Rumex crispus	*	Curled Dock			2
Plantae	Flora	Polygonacea e	5304	Rumex tenax		Shiny Dock			4
Plantae	Flora	Pontederiace ae	5305	Eichhornia crassipes	*	Water Hyacinth			1
Plantae	Flora	Portulacacea e	5324	Portulaca oleracea		Pigweed			1
Plantae	Flora	Proteaceae	5344	Banksia marginata		Silver Banksia			1
Plantae	Flora	Proteaceae	5426	Hakea		Hooked Needlewood			2
Plantae	Flora	Ranunculace ae	5508	Ranunculus lappaceus		Common Buttercup			1
Plantae	Flora	Ranunculace ae	5511	Ranunculus muricatus	*	Sharp Buttercup			1
Plantae	Flora	Ranunculace ae	5516	Ranunculus pentandrus					1
Plantae	Flora	Ranunculace ae	5524	Ranunculus sceleratus	*	Celery Buttercup			1
Plantae	Flora	Ranunculace ae	5525	Ranunculus sessiliflorus		Small-flowered Buttercup			3
Plantae	Flora	Ranunculace ae	9640	Ranunculus sessiliflorus var. pilulifer		Common Buttercup			1
Plantae	Flora	Resedaceae	5530	Reseda luteola	*	Weld			1
Plantae	Flora	Rosaceae	5646	Rubus ulmifolius	*	Blackberry			1
Plantae	Flora	Rubiaceae	5653	Asperula conferta		Common Woodruff			2
Plantae	Flora	Rubiaceae	5679	Galium aparine	*	Goosegrass			1
Plantae	Flora	Santalaceae	5859	Exocarpos aphyllus		Leafless Ballart			2
Plantae	Flora	Scrophularia ceae	5982	Mimulus gracilis		Slender Monkey- flower			1
Plantae	Flora	Solanaceae	6034	Datura wrightii	*	Hairy Thornapple			2
Plantae	Flora	Solanaceae	6040	Lycium ferocissimum	*	African Boxthorn			3
Plantae	Flora	Solanaceae	14009	Physalis hederifolia	*	Sticky Cape			2
Plantae	Flora	Solanaceae	6081	Solanum esuriale		Quena			4
Plantae	Flora	Solanaceae	9211	Solanum	*	Apple of Sodom			1
Plantae	Flora	Solanaceae	6091	Solanum nigrum	*	Black-berry			3
Plantae	Flora	Solanaceae	6101	Solanum pseudocapsicum	*	Madeira Winter Cherry			1
Plantae	Flora	Tamaricacea e	11180	Tamarix ramosissima	*	Tamarisk			1
Plantae	Flora	Typhaceae	TYPH	Typha spp.	*				1
Plantae	Flora	Urticaceae	6238	Urtica urens	*	Small Nettle			2
Plantae	Flora	Verbenaceae	11134	Phyla canescens	*	Lippia			1
Plantae	Flora	Verbenaceae	6256	Verbena bonariensis	*	Purpletop			1
Plantae	Flora	Verbenaceae	10717	Verbena gaudichaudii		Verbena			1
Plantae	Flora	Verbenaceae	6259	Verbena officinalis	*	Common Verbena			2
Plantae	Flora	Zygophyllace ae	7655	Tribulus terrestris	*	Cat-head			3
Plantae	Flora	Zygophyllace ae	6357	Zygophyllum iodocarpum		Violet Twinleaf			1









Flora and fauna likelihood assessments

1.0 Flora, Fauna and Threatened Ecological Community Likelihood of Occurrence Assessments

The likelihood of occurrence assessments for threatened flora, fauna and ecological communities were based on:

- previous records of threatened species from the database searches
- habitat data collected during the field survey
- the current (known) distribution range of these species
- the presence and condition of suitable habitat occurring within the locality.

The criteria to assess the likelihood of threatened flora, fauna and migratory species is presented in Table 1.

Table 1 Likelihood assessment criteria

Likelihood	Assessment Criteria
Present	 Species observed within the Project Site or recently recorded. Preferred habitat is present within the Project Site.
High	 Species has been recently recorded within the Project Site or adjoining landscape. The Project site contains the species' preferred habitat and is likely to support a population of the species.
Moderate	 Species has not been recorded within the Project Site but previously recorded in the surrounding landscape. The Project Site contains the species' preferred habitat although generally it is in a poor or modified condition.
Low	 Species has not been recorded within the Project Site, and has not been observed in the surrounding landscape or at least not recently. Some habitat is present in the Project Site although it is generally of poor or modified condition. The species may infrequently visit the Project Site, or overfly the Project Site, but would not reside, roost or otherwise depend on habitats within the Project Site.
Unlikely	- Species has not been recorded within the Project Site or observed in the surrounding landscape, and there is no habitat available within the Project site to suggest the species may occur even on a temporary basis.

The likelihood assessments for threatened flora, fauna, and TECs are presented in Tables 2 – 4.

Table 2 Threatened flora likelihood assessment

Species	Life- Strategy ¹	Flowering	Distribution and Habitat	Image	Likelihood of Occurrence
ASTERACEAE					
Mossgiel Daisy Brachyscome papillosa TSC: Vulnerable EPBC: Vulnerable	P	June-Dec	Brachyscome papillosa has been recorded from Mossgiel to Urana, in south-western NSW, from sites at Jerilderia, Hay Plain, Willandra Lakes, and north to Ivanhoe. A western outlier occurs at Byrnedale Station, north of Menindee (TSSC, 2008a). This species is known to occur on clay soil plains in association with Atriplex vesicaria and Maireana aphylla, grasslands and in Eucalyptus macrocarpa – Callitris sp., woodlands (TSSC, 2008a).	(Australian National Botanic Gardens, 2015)	A record for this species has been recorded within the surrounding landscape, however the record date is from 1949 (ALA, 2015). Appropriate habitat for this species exist onsite, although it is in a 'Poor' condition.
BRASSICACEAE					
Winged Peppercress Lepidium monoplocoides TSC: Endangered EPBC: Endangered	A	Sept-Jan	Lepidium monoplocoides is distributed on the inland plains of south-eastern Australia, occurring from northern NSW to western Victoria (Mavromihalis, 2010a). This species occurs in open, sparsely vegetation sites on heavy clay, or clay-loam soil. Plant communities include grasslands, wetlands and floodplain woodlands, and chenopod shrublands dominated by Atriplex, Maireana and Nitraria. Lepidium monoplocoides occurs in association with a range of herbs and grasses including Rytidosperma spp., and Austrostipa spp. (Mavromihalis, 2010a).	(Mavromihalis, 2010a)	Project site has natural grassland on clay-loam soils. Grazing is a major threat to this species, as it is highly palatable; the grazing history of the site reduces the quality of habitat for this species. A record for this species has been identified within the area, however the record date is from 1945 (ALA, 2015).

Species	Life- Strategy ¹	Flowering	Distribution and Habitat	Image	Likelihood of Occurrence
CHENOPODIACEAE					
Chariot Wheels Maireana cheelii TSC: Vulnerable EPBC: Vulnerable	P		The current distribution of <i>Maireana cheelii</i> is in the western Riverina bioregion, between Hay and Deniliquin, extending as far west as Moulamein, and possibly as far east as Jerilderie and Morundah. It also occurs in north-west Victoria (Mavromihalis, 2010b). <i>Maireana cheelii</i> commonly occurs in chenopod and grassland communities on heavy clay soils. Common species include <i>Maireana pentagona</i> , <i>Maireana excavata</i> , <i>Nitraria billardierei</i> , <i>Austrostipa nodosa</i> , <i>Erodium crinitum</i> and <i>Hyalosperma semisterlie</i> . In NSW the species appears to favour heavier grey soil supporting <i>Atriplex vesicaria</i> . It often occur (Mavromihalis, 2010b)	(Mavromihalis, 2010b)	A majority of the site occurs on red clay-loam soils, which is not the favoured soil type for this species in NSW, and the common species co-occurring with this species are not present within the Project site. However records for this species have been identified within the area, however they were from the 1930 and 1940s (ALA, 2015).
FABACEAE	·	•			
Slender Darling Pea Swainsona murrayana TSC: Vulnerable EPBC: Vulnerable	P	Sept-Dec	Swainsona murrayana occurs from South Australia through south-west Victoria and central NSW to south east Queensland (DECC 2005, CPBR 2008 cited in (TSSC, 2008b). This species is found in grassland, herbland and open Black-box woodland in association with Maireana spp., Rytidosperma spp., and Austrostipa spp. It grows in heavy grey or brown clay loam, or red cracking clays (TSSC, 2008b).	Photo by David Parker	Appropriate habitat occurs within the Project site; however the condition of the habitat is 'Poor'. A record of this species has been located close to the Project site, however it was from 1973 (ALA, 2015).

Species	Life- Strategy ¹	Flowering	Distribution and Habitat	Image	Likelihood of Occurrence
FABACEAE					
Silky Swainson-pea Swainsona sericea TSC: Vulnerable	P	Sept-Nov	In NSW, Swainsona sericea has been recorded from the northern to the southern tablelands and further inland on the slopes and plains (OEH, 2015). Swainsona sericea is found in natural temperate grasslands, box-gum woodlands and sometimes in association with Callitris spp. Its habitat on the plains is unknown (OEH, 2015).	(Australian National Botanic Gardens, 2015)	Its habitat type on the plains is unknown. There are records for this species in the areas, however they are from the 1930s and 1970s (ALA, 2015).
ORCHIDACEAE	•	•			
Rigid Spider Orchid Caladenia tensa EPBC: Endangered	PG	Sept-Nov	Caladenia tensa is widespread in and surrounding the Little Western Desert in western Victoria, and known from southeast South Australia (Todd, 2000). This species is known to occur in Callitris pine/Yellow gum woodland and mallee on sands and sandy loams (Todd, 2000).	Photo by Glen Rudolph	Unlikely No appropriate habitat within the Project site. This this species has not been previously recorded from NSW.

Species	Life- Strategy ¹	Flowering	Distribution and Habitat	Image	Likelihood of Occurrence
POACEAE					
Spear Grass Austrostipa metatoris TSC: Vulnerable EPBC: Vulnerable	P	Flowers in response to rain (likely Sept-Nov)	Austrostipa metatoris occurs in NSW, along the Murray Valley near Balranald and the central-western slopes near Lake Cargelligo (TSSC, 2008c). This species grows in sandy areas of the Murray Valley, habitats including sandhills, sand ridges, undulating plains and flat open mallee country, with red to red-brown clay-loam to sandy-loam soils. Common species include Eucalyptus populnea, E. intertexta, Callitris glaucophylla, Casuarina cristata and Dodonaea viscosa (TSSC, 2008c). Note: opposite photo is of closely related species Austrostipa eremophila.	(Simon & Alfonso, 2011)	Unlikely No appropriate habitat within the Project site, and no records for the area.
Spear Grass Austrostipa wakoolica TSC: Endangered EPBC: Endangered	P	Flowers in response to rain (likely Sept-Nov)	Austrostipa wakoolica occurs within the floodplains of the Murray River tributaries of central-western and south-western NSW (TSSC, 2014). This species grows in open woodland on grey silty clay or sandy loam, in association with Callitris glaucophylla, Eucalyptus microcarpa, Eucalyptus populnea, Austrostipa eremophila, Austrodanthonia eriantha, Einadia nutans, Hyalosperma glutinosum subsp. glutinosum and Crassula species (TSSC, 2014)	(OEH, 2015)	Unlikely No appropriate habitat within the Project site, and no records for the area.

¹ Life Strategy: P=Perennial, PG = Perennial Geophyte, A = Annual

Table 3 Threatened and migratory fauna likelihood assessment

Species	EPBC Act	TSC Act status ¹	Ecology	Most recent record /PMST Results	Likelihood of Occurrence					
MAMMALS	MAMMALS									
Antechinomys laniger Kultarr		Е	Open arid, treeless plains and claypans, gibber, sandy desert (Menkhorst & Knight, 2004). Shelters in tree hollows or stumps, soil cracks, saltbush and spinifex tussocks and animal burrows (OEH, 2015).	Historic record from 1883 located 6 km from Project Site	Project Site does not support suitable habitat for this species.					
Lasiorhinus krefftii Northern Hairy-nosed Wombat	Е	Presumed Extinct in NSW	Once widespread in NSW. Deniliquin population believed to have become extinct in early 1900s (OEH, 2015).	Historic record from 1884 located 5.5 km from Project Site	Project Site does not support suitable habitat for this species.					
Nyctophilus corbeni South-eastern long- eared bat	V	V	The distribution of <i>Nyctophilus corbeni</i> includes south-eastern Australia primarily through the Murray-Darling Basin and the western slopes of the Great Dividing Range. The habitat of eastern long-eared bat comprises primarily a range of woodland vegetation types but also includes open forests and vine thickets (Churchill, 2008). This species is typically considered an "inland" species and is a bat of forests and woodlands, heavily dependent on tree hollow habitat in which it roosts (Churchill, 2008).	Species recorded within 20 km of site (1988) & PMST	Project Site does not support suitable habitat for this species.					
Petrogale penicillata Brush-tailed rock wallaby	V	Е	Inhabits rock piles and cliffs with numerous crevices and ledges in vegetation ranging from rainforest to dry sclerophyll forest.	Historic record within 25 km of the site (1911)	Unlikely Project Site does not support any habitat for this species.					
Phascogale tapoatafa Brush-tailed phascogale		V	Prefers open forest and woodland with sparse ground cover, but historically utilized habitats ranging from rainforest to the fringe of the mallee. Nests in tree hollows.	Species has been recorded within 8.5 km of the site (1989)	Project Site does not support suitable extensive woodland habitat for this species.					

Species	EPBC Act	TSC Act status ¹	Ecology	Most recent record /PMST Results	Likelihood of Occurrence					
MAMMALS	MAMMALS									
Phascolarctos cinereus Koala	V	V	Sclerophyll forest and woodland on foothill plains and riverine forests in central NSW and north-central Victoria (Menkhorst & Knight, 2004).	1989 & PMST	Project Site does not support suitable extensive woodland habitat for this species.					
BIRDS										
Anthochaera phrygia Regent honeyeater	E & Mi	CE	The range of the regent honeyeater previously extended throughout south eastern Australia, from Adelaide in South Australia to roughly Dalby in Queensland, and inland around 300 km to the western foothills of the Great Dividing Range (Garnett & Crowley, 2000; Menkhorst, 1999). The species no longer occurs in South Australia or western Victoria, and within its extant range, the regent honeyeater is patchily distributed, and occurs only at low densities (Oliver, 1998a). Regent honeyeaters are strongly associated with box-ironbark eucalypt associations, and appear to prefer wetter more fertile areas, such as broad river valleys, creek flats and lower slopes, within this vegetation community (Menkhorst, 1999). A large proportion of these forest types have been cleared for agriculture, leaving only patches of natural vegetation in a predominantly agricultural landscape. These remnants are frequently located on the least fertile sites and have been heavily harvested for timber in the past. Riparian sheoak (<i>Casuarina cunninghamiana</i>), and the associated mistletoe, also appears to be important, particularly in years when flowering is poor in the surrounding eucalypt woodlands (Oliver, 1998b).	PMST	Unlikely Project Site does not support suitable habitat for this species.					
Apus pacificus Fork-tailed swift	Mi		Aerial over a wide range of habitats, from inland to coast; spring-summer non-breeding migrant.	PMST	Low May fly over site occasionally.					

Species	EPBC Act	TSC Act status ¹	Ecology	Most recent record /PMST Results	Likelihood of Occurrence				
BIRDS	BIRDS								
Ardea alba Great egret	Mi		Freshwater and brackish wetlands and watercourses, intertidal mudflats, inland lakes, swamps and rivers; also farm dams, irrigation drainages and artificial wetlands.	PMST	May occasionally visit dam to north-east of site but no breeding habitat present.				
Ardea ibis Cattle egret	Mi		Freshwater wetlands and watercourses, pastures and croplands, especially where drainage is poor. Occasionally also tidal flats and estuaries.	PMST	May occasionally forage in pastures but no suitable breeding habitat present.				
Ardeotis australis Australian Bustard		E	Open grassland, grassy woodland, occasionally pastoral land and crops (Simpson, 2004). Occasional vagrants are still seen as far east as western slopes and riverine plain but breeding restricted to north-west NSW.	Species has been recorded within 1 km of the site (2008)	Low May very occasionally visit to forage in pastures.				
Botaurus poiciloptilus Australasian bittern	E	E	Occurs mainly in densely vegetated freshwater wetlands and, rarely, in estuaries or tidal wetlands. Favours wetlands with tall dense vegetation, where it forages in still, shallow water up to 0.3 m deep, often at the edges of pools or waterways, or from platforms or mats of vegetation over deep water. Prefers permanent and seasonal freshwater habitats, particularly those dominated by sedges, rushes and/or reeds (e.g. <i>Phragmites, Cyperus, Eleocharis, Juncus, Typha, Baumea, Bolboschoenus</i>) or cutting grass (<i>Gahnia</i>) growing over muddy or peaty substrate.	Species has been recorded within 20 km of the site (2009) & PMST	Unlikely Project Site does not support suitable habitat for this species.				

Species	EPBC Act	TSC Act	Ecology	Most recent record /PMST Results	Likelihood of Occurrence
BIRDS					
Burhinus grallarius Bush stone-curlew		E	Open forests and woodlands with a sparse grassy ground layer and fallen timber.	Species has been recorded within 2.5 km of the site (2008)	Project Site does not support extensive woodland habitat.
Calidris ferruginea Curlew Sandpiper		Е	Coast of NSW, especially Hunter estuary and occasionally Murray-Darling basin freshwater wetlands, and sometimes inland.	Species has been recorded within 5.5 km of the site (2005)	Unlikely Project Site does not support suitable habitat for this species.
Certhionyx variegates Pied honeyeater		V	Arid habitat, flowering shrubs, especially Mulga and mallee, spinifex and eucalypt woodlands. Feeds on nectar of emu-bushes, also mistletoes, saltbush berries, seeds and insects.	Species has been recorded within 7.5 km of the site (2006)	Unlikely Project Site does not support suitable habitat for this species.
Circus assimilis Spotted harrier		V	Open grassland, open grassy woodlands, crops, open shrublands and occasionally heathland or scrublands and foraging over open water.	Species has been recorded within 4 km of the site (2011)	Project Site habitat is unsuitable for breeding but species could hunt over dam to north-east of site.
Climacteris picumnus Brown treecreeper		V	Prefers open eucalypt woodland, often along watercourses and drainages, typically lacking a dense understorey but with substantial fallen timber and logs. Sometimes also margins of wooded areas. Forages on tree trunks and on or near ground.	Species has been recorded within 6 km of the site (2009)	Project Site does not support extensive woodland habitat.

Species	EPBC Act	TSC Act	Ecology	Most recent record /PMST Results	Likelihood of Occurrence
BIRDS					
Daphoenositta chrysoptera Varied Sittella		V	Sclerophyll forest, woodland, inhabits most of mainland Australia except treeless deserts and open grasslands (Simpson, 2004; OEH, 2015).	Species has been recorded within 7 km of the site (2013)	Unlikely Project Site does not support suitable habitat for this species.
Epthianura albifrons White-fronted Chat		V	Low vegetation in saline coastal and inland areas; crops (Simpson, 2004).	Species has been recorded within 3.5 km of the site (2007)	Project Site supports some foraging habitat but unlikely to support suitable nesting habitat.
Falco hypoleucos Grey falcon		Е	Lightly timbered plains, woodland and watercourses in arid areas; occasionally occurs nearer to coast as rare visitor.	Species has not been recorded within 10 km of the site since 1955	Unlikely Project Site does not support suitable habitat for this species.
Falco subniger Black Falcon		V	Woodland, scrub, shrubland and grasslands in arid and semi-arid zones (Simpson, 2004).	Species has been recorded within 7.5 km of the site (2009)	Low May fly over/hunt occasionally.
Gallinago hardwickii Latham's snipe	Mi		Wet grasslands and pastures, open and wooded swamps; spring-summer non-breeding migrant.	PMST	Unlikely Project Site does not support suitable habitat for this species.

Species	EPBC Act status ¹	TSC Act status ¹	Ecology	Most recent record /PMST Results	Likelihood of Occurrence
BIRDS					
Glossopsitta pusilla Little lorikeet		V	Tall open forest, woodland, orchards, parks and street trees (Simpson, 2004). Isolated flowering trees in open country also used.	Species has been recorded within 6.5 km of the site (2007)	Project Site does not support extensive woodland habitat.
Grantiella picta Painted honeyeater		V	Open box-ironbark forests, eucalypt and casuarina woodlands and well vegetated watercourses, particularly where trees are infested with mistletoe; mainly spring-summer migrant to south-eastern Australia.	Species has been recorded within 4.5 km of the site (2005)	Unlikely Project Site does not support suitable habitat for this species.
Glossopsitta porphyrocephala Purple-crowned lorikeet		V	Dry eucalypt forests, woodlands and shrublands and mallee, also parks and suburban gardens. In NSW it is uncommon with scattered records in box-ironbark woodlands, river red gums and mallee (OEH, 2015).	Species has been recorded within 5.5 km of the site (2013)	Species may occasionally forage in flowering box trees.
<i>Grus rubicunda</i> Brolga		V	Largely associated with ephemeral freshwater and brackish wetlands, grasslands, floodplains, irrigated pastures and saltmarsh.	Species has been recorded within 6.5 km of the site (2008)	Low Species may occasionally forage when areas periodically inundated.
Haliaeetus leucogaster White-bellied sea eagle	Mi		Occupies all coastal areas extending inland through main waterways, coastal islands, and coastal lakes and along some inland rivers. It forages primarily for fish over large areas of open water.	Species has been recorded within 6 km of the site (1979) & PMST	Unlikely Project Site does not support suitable habitat for this species.

Species	EPBC Act	TSC Act status ¹	Ecology	Most recent record /PMST Results	Likelihood of Occurrence
BIRDS					
Hieraaetus morphnoides Little eagle		V	Most open forest, woodland and scrub types; open agricultural landscapes (Simpson, 2004).	Species has been recorded within 3.5 km of the site (2014)	Low Species may hunt over Project Site
Hirundapus caudacutus White-throated needletail	Mi		Aerial, mainly eastern Australia often associated with coastal and mountain regions; spring-summer non-breeding migrant.	PMST	Unlikely Species may fly over site occasionally.
Lathamus discolor Swift parrot	E	Е	Breeds in Tasmania, late spring-summer; occurs as non-breeding migrant to mainland south-eastern Australia mainly autumn-early spring. Generally prefers Box-Ironbark forests and woodlands inland of the Great Dividing Range; sometimes other forests and woodlands in coastal and sub-coastal areas.	PMST	Species may occasionally forage in flowering box trees.
Lophochroa leadbeateri Major Mitchell's cockatoo		V	Singly, in pairs or small flocks in arid eucalypt, mulga, casuarina or native pine woodlands and shrublands of arid and semi-arid areas; occasionally in saltbush and grasslands adjacent to woodlands. Often near fresh water; require large hollow trees for breeding.	Species has been recorded within 6 km of the site (1995)	Project Site may support some foraging habitat but scattered trees not suitable for breeding.
Lophoictinia isura Square-tailed kite		V	Primarily found within 250 km of the coast and shows a preference for timbered watercourses. A canopy specialist, it primarily hunts over open forest, woodlands and mallee communities that are rich in passerines, especially honeyeaters, as well as over adjacent heaths and other low scrubby habitats and in wooded towns.	Species has been recorded within 5 km of the site (1983)	Unlikely Species may fly over site occasionally.

Species	EPBC Act	TSC Act	Ecology	Most recent record /PMST Results	Likelihood of Occurrence
BIRDS					
Melanodryas cucullata cucullata Hooded robin		V	Lowlands and foothills. Inhabit a range of vegetation, particularly with fallen timber and logs, including open eucalypt forests and box-ironbark woodlands, mallee and mulga woodlands, cypress pine woodlands, mallee heaths with scattered trees and often clearings adjacent to woodlands and forests.	Species has been recorded within 8.5 km of the site (1994)	Unlikely Project Site does not support suitable habitat for this species.
Merops ornatus Rainbow bee-eater	Mi		Occur in many wooded habitats with an annual rainfall of less than 800 mm, often along vegetated watercourses and cuttings or banks along watercourses.	Species has been recorded within 6 km of the site (2005) & PMST	Unlikely Project Site does not support suitable habitat for this species.
Myiagra cyanoleuca Satin Flycatcher	Mi		Mainly in wet forests and dense woodlands, particularly with tall canopy of eucalypts with an understorey of tea-trees and wattles along streams. Seasonal visitor (mainly spring) to drier inland woodlands, coastal areas and occasionally gardens and parklands.	PMST	Unlikely Project Site does not support suitable habitat for this species.
Neophema pulchella Turquoise parrot		V	Inhabits arid to semi-arid areas within mallee and acacia (Mulga) scrublands/open woodlands with spinifex and saltbush ground covers. Occurs in both recently burnt and older growth mallee. Known to occur within the Murray Local Land Services (LLS) region.	Species has been recorded within 7.5 km of the site (1998)	Low Species may occasionally forage below box trees.
Ninox connivens Barking owl		V	Open forests and woodlands on lowlands and foothills, including box-ironbark forest, riparian woodlands and treed watercourses; occasionally wooded farmlands.	Species has been recorded within 5.5 km of the site (1998)	Unlikely Project Site does not support suitable habitat for this species.

Species	EPBC Act status ¹	TSC Act	Ecology	Most recent record /PMST Results	Likelihood of Occurrence
BIRDS					
Numenius phaeopus Whimbrel	Mi		Coastal lakes, estuaries, tidal mudflats and sandflats, mangroves and saltmarshes; occasionally fresh or brackish lakes near coast; mainly spring-summer non-breeding migrant.	Species has been recorded within 8 km of the site (1985)	Unlikely Project Site does not support suitable habitat for this species
Oxyura australis Blue-billed duck		V	Well vegetated freshwater swamps, large dams, lakes. Typically on more open waters in winter.	Species has been recorded within 3.5 km of the site (2005)	Species may occasionally visit dam to the north-east of Project Site in winter months.
Pachycephala inornata Gilberts whistler		V	Occurs in a range of NSW habitats with a dense shrub layer, especially mallee shrublands, but also box-ironbark woodlands, Cypress Pine, Belah woodlands and River red Gum woodlands along the Murray, Edwards and Wakool Rivers (OEH, 2015).	Species has been recorded within 7 km of the site (2005)	Unlikely Project Site does not support suitable habitat for this species
Pandion cristatus Eastern Osprey	Mi		Coastal areas.	PMST	Unlikely Project Site does not support suitable habitat for this species.
Pedionomus torquatus Plains-wanderer	V, -		Low, open native grasslands, typically with a short sward with extensive inter-tussock spaces and high diversity of small herbs; sometimes in unimproved pastures or crops. Most known local populations of this species occur in private native grasslands which have low-level grazing combined with some degree of exposed ground. This species is sensitive to disturbance and management of native habitat areas are considered critical to its persistence. Threatening processes that accompany human activity such as introduced predators are known to have a significant impact on the species.	Species has been recorded within 2.5 km of the site (2011) & PMST	Moderate Suitable habitat are present within the Project Site.

Species	EPBC Act	TSC Act status ¹	Ecology	Most recent record /PMST Results	Likelihood of Occurrence
BIRDS					
Petroica boodang Scarlet robin		V	Commonly found in eucalypt woodland and forest from sea level to 1000 m, particularly the more open habitats with grassy and shrubby understories.	Species has been recorded within 5 km of the site (1994)	Unlikely Project Site does not support suitable habitat for this species.
Petroica phoenicea Flame robin		V	Broad coastal band around the south-east corner of the Australian mainland, from southern Queensland to just west of the South Australian border. Cropped paddocks, parkland near woodland, nests in low open forests, roosts in dense scrub, citrus orchards and small flocks disperse in autumn-winter (Simpson & Day, 2004).	Species has been recorded within 7.5 km of the site (2007)	Species may occasionally forage in grasslands at edge of Project Site and near scattered mature trees with shrubs and fence lines.
Plegadis falcinellus Glossy ibis	Mi		Mainly margins of freshwater wetlands and nearby grasslands and pastures; sometimes estuaries and brackish lakes. Mainly spring-summer breeding migrant to south-eastern Australia.	Species recorded within 5 km of the site (1995)	Unlikely Project Site does not contain suitable habitat.
Polytelis swainsonii Superb parrot	V	V	River Red Gum, Black Box and other eucalypt woodlands and timbered watercourses; sometimes in pastures, stubbles, clearings and wooded farmland and often killed on roads when feeding on spilt grain.	Species has been recorded within 1.5 km of the site (2011) and PMST	Species may occasionally forage in flowering box trees but scattered trees in Project Site isolated from nearby open woodland areas.

Species	EPBC Act	TSC Act	Ecology	Most recent record /PMST Results	Likelihood of Occurrence
BIRDS					
Pomatostomus temporalis temporalis Grey-crowned babbler (eastern subspecies)		V	Inland open forests, woodlands and scrublands, particularly with an open shrub layer, little ground cover and plenty of fallen timber and leaf litter, including along roadsides and around better vegetated farms. Serious declines in settled areas of south-eastern Australia.	Species has been recorded within 8 km of the site (2008)	Unlikely Scattered trees isolated and not connected to roadside trees or open woodland areas making habitat unfavourable
Rostratula australis Australian painted snipe	E & Mi	E	This species is found in wet environments, either with mud or covered with water, which favour its primary food resources. The species is omnivorous, feeding on seeds, plant material and invertebrates. The decline of the Australian Painted Snipe appears to be linked to the loss of habitat and degradation of environmental attributes of preferred habitats (i.e. wetting/drying/flooding and littoral zone destruction) within the Murray Darling Basin which is thought to contain historic core breeding areas. Depending upon the localities of wetlands habitats, the species may temporarily use human altered environments for feeding. However these areas are unlikely to be utilised as breeding sites because of their size, presence of introduced predator pressure from foxes, cats, and dogs, and dynamics (ephemeral vs. permanent) of wetland for breeding purposes.	Species recorded within 4.5 km of the site (1992) & PMST.	Unlikely Project Site does not contain suitable habitat
Stagonopleura guttata Diamond firetail		V	Open grassy eucalypt or cypress pine woodlands, acacia shrublands and edges of farmland or grassland close to wooded or lightly timbered areas. Often in wooded areas close to watercourses.	Species has been recorded within 7 km of the site (2005)	Low Species may occasionally forage in grasslands at edge of Project Site and near scattered mature trees with shrubs and fencelines

Species	EPBC Act status ¹	TSC Act	Ecology	Most recent record /PMST Results	Likelihood of Occurrence
BIRDS					
Stictonetta naevosa Freckled duck		V	Large, well vegetated swamps and wetlands, including ephemeral open lakes when inundated.	Species has been recorded within 3.5 km of the site (2005)	Species may occasionally visit dam to the north-east of Project Site in non-breeding/drought periods
Tyto novaehollandiae Masked Owl		V	Inhabits forests, woodlands, timbered waterways and sometimes open country on the fringe of these areas. Also inhabit caves. Found in a band around coastal Australia, generally not more than 300 km inland.	Species has been recorded historically within 5 km of the site (1955)	Unlikely Project Site does not support suitable extensive woodland habitat for this species.
FISH					
Bidyanus bidyanus Silver Perch	CE		Rivers, lakes and reservoirs, preferring in or below fast-flowing waters and rapids/races and usually forming aggregations near the surface. Water temperatures ranging from 2°C to 35°C with optimal between 23-28°C.	PMST	Unlikely Project Site does not support suitable habitat for this species
Craterocephalus fluviatilis Murray hardyhead	V		Occurs in still and slow-flowing waters including billabongs, lakes and margins and backwaters of lowland rivers.	PMST	Unlikely Project Site does not support suitable habitat for this species

Species	EPBC Act status ¹	TSC Act status ¹	Ecology	Most recent record /PMST Results	Likelihood of Occurrence
FISH					
Maccullochella peelii peelii Murray cod	V		Small clear, rocky, upland streams with riffle and pool structure on the upper western slopes of the Great Dividing Range to large, meandering, slow flowing, often silty rivers in the alluvial lowland reaches of the Murray Darling Basin.	PMST	Unlikely Project Site does not support suitable habitat for this species
Macquaria australasica Macquarie Perch	E		Deep, rocky holes with considerable cover and flowing water over unsilted cobble and gravel substrate.	PMST	Project Site does not support suitable habitat for this species.
AMPHIBIANS					
Litoria raniformis Growling grass frog	V	E	Permanent lakes, swamps, dams, offline creek pools, and lagoons or very wet areas in woodland and shrubland; often in waterbodies with dense standing (e.g. Eleocharis., Juncus, Typha, Bolboschoenus) and floating vegetation (e.g. Triglochin, Potamogeton).	PMST	Project site does not support suitable breeding habitat, potential aquatic foraging habitat is present to the northeast and Project Site grasslands could act as terrestrial habitat.

¹ CE=Critically Endangered, E = Endangered, V = Vulnerable, Mi = Migratory

Table 4 Threatened Ecological Community likelihood assessment

Threatened Ecological Community	EPBC Act Status	Community Description	Likelihood of Occurrence
White box-yellow box-Blakely's red gum grassy woodland and derived native grassland.	Critically Endangered	White box-yellow box-Blakely's red gum community occurs as either woodland or derived grassland. The tree species white box (<i>Eucalyptus albens</i>), yellow box (<i>E. melliodora</i>) and Blakely's red gum (<i>E. blakelyi</i>) dominate the community where a tree layer occurs. Sites dominated by other tree species that do not have the above tree species as co-dominants are not considered part of the ecological community (TSSC, 2006). Intact sites contain a high diversity of plant species (> 400 spp.), with most of these being grass and herb species in the ground layer. The ground layer includes grasses, sedges, peas, daisies and lilies, with dominant grasses including Kangaroo grass (<i>Themeda australis</i>), snow grass (<i>Poa sieberiana</i>), wallaby grasses (<i>Rytidosperma</i> spp.), and spear-grasses (<i>Austrostipa</i> spp.) (TSSC, 2006).	Unlikely None of the dominant tree species defining the box gum woodland are, or were, present within the Project Site. In addition, where trees have been cleared (e.g. derived native grassland) the species diversity of the understorey has to be at least twelve native understorey species (forbs, shrubs, ferns, grasses), and at least one being an important species (e.g. kangaroo grass, orchids) (TSSC, 2006). The species richness of native species at the best site was eleven, and none of these species were important species. The derived grassland identified across the site is in a 'Poor' condition, and has been subjected to multiple past disturbances including grazing, cropping and irrigation.
Natural grasslands of the Murray Valley Plains	Critically Endangered	Natural grasslands of the Murray Valley plains are characterised by perennial tussock grasses of the species <i>Rytidosperma</i> spp., <i>Austrostipa</i> spp. and <i>Enteropogon ramosus</i> . A herbland/forbland may occur in areas where grasses are sparse, or grade into an open grassy shrubland with low chenopod shrubs (DSE 2004 cited in (TSSC, 2012a)). Perennial herbs include <i>Arthropodium</i> spp., <i>Bulbine</i> spp., <i>Calotis</i> spp., <i>Chrysocephalum</i> spp., <i>Ptilotus</i> spp., <i>Sida</i> spp. and <i>Swainsonii</i> spp. (TSSC, 2012a). Trees and large shrubs are absent or sparse (< 10% cover). Where trees and shrubs are present they may include umbrella wattle (<i>Acacia oswaldii</i>), weeping myall (<i>A. pendula</i>), buloke (<i>Allocasuarina luehmannii</i>) and <i>Eucalyptus</i> spp. (TSSC, 2012a).	Unlikely The grassland onsite is derived native grasslands, being formed after the clearing of a woody over storey. The Murray Valley Plains grassland is a natural grassland community, and not derived from other vegetation types (TSSC, 2012a). In addition, the grassland patch should contain at least as many, if not more, of the indicator species listed in 'Table A' of the listing advice, compared to the species in 'Table B' of the listing advice. Table B represents species more typical of derived native grasslands, than natural grasslands (TSSC, 2012a). The grassland sites within the Project Site identified only two species from Table A, and five species from Table B, therefore indicating the Project Site represents derived native grasslands.

Threatened Ecological Community	EPBC Act Status	Community Description	Likelihood of Occurrence
Seasonal Herbaceous wetlands (freshwater) of the temperate lowlands Plains	Critically Endangered	Seasonal herbaceous wetlands are generally treeless and dominated by a herbaceous ground layer, often with a large graminoid component. The species present are characteristic of wetter environments, and are typically absent or uncommon in adjoining dryland grasslands and woodlands. Typical species include <i>Amphibromus</i> spp., <i>Carex tereticaulis</i> , <i>Deyeuxia</i> spp., <i>Glyceria</i> spp., <i>Lachnagrostis</i> spp., <i>Poa labillardieri</i> and <i>Rytidosperma duttonianum</i> (TSSC, 2012b). Trees and shrubs are generally sparse, but when present are often confined to fringes, or occur as emergents within wetland. Larger woody species that may be present <i>include Eucalyptus camaldulensis</i> , <i>E. ovata</i> , <i>E. largiflorens</i> , <i>Allocasuarina luehmannii</i> or <i>Muehlenbeckia florulenta</i> (TSSC, 2012b).	Unlikely No seasonal herbaceous wetlands with the characteristics wetland species identified in the listing advice are present within the Project Site.
Buloke woodlands of the Riverina and Murray-Darling Depression Bioregions	Endangered	Buloke woodlands are generally characterised as woodland or open woodland with a well-developed ground stratum that is usually grassy, but also includes many subshrubs and herbs. Buloke woodlands are characterised by the buloke tree (<i>Allocasuarina luehmannii</i>), but slender pine and grey box may be structurally dominant (ESSS, 2000). The composition of the ground stratum varies considerably among component communities. Native grasses often include wallaby grasses, <i>Danthonia</i> spp., and spear grasses, <i>Stipa</i> spp. Exotic grasses, which are frequently abundant, include <i>Lolium rigidum</i> , and several <i>Bromus</i> spp. Native subshrubs and herbs may include <i>Einadia nutans</i> , <i>Senecio pinnatifolius</i> , <i>Sida corrugata</i> , <i>Vittadinia</i> spp., <i>Convolvulus remotus</i> , and <i>Maireana enchylaenoides</i> . Exotic herbs may include <i>Trifolium</i> spp., <i>Silene apetala</i> , <i>Chondrilla juncea</i> , and <i>Lepidium africanum</i> (ESSS, 2000).	Unlikely No buloke (Allocasuarina luehmannii) woodland is present within the Project Site.

Threatened Ecological Community	EPBC Act Status	Community Description	Likelihood of Occurrence
Grey Box (Eucalyptus microcarpa) grassy woodlands and derived native grasslands of South-eastern Australia	Endangered	Grey box (<i>Eucalyptus microcarpa</i>) grassy woodland community typically ranges from woodland to open forest community with a canopy dominated by <i>E. microcarpa</i> . Other canopy species that may be present include <i>Allocasuarina luehmannii</i> , <i>Callitris glaucophylla</i> , <i>Eucalyptus camaldulensis</i> , <i>E. conica</i> and <i>E. melliodora</i> (TSSC, 2010).	Unlikely Grey box (<i>Eucalyptus microcarpa</i>) is not present within the Project Site, which is the species that characterises this community.
		The understorey typically has a moderately dense to sparse shrub and ground layer of perennial and annual native forbs and graminoids, dominated by tussock grasses. Common ground layer species include <i>Austrodanthonia</i> spp., <i>Austrostipa</i> spp., <i>Elymus</i> spp., <i>Enteropogon</i> spp., <i>Dianella</i> spp. and <i>Lomandra</i> spp. Chenopods may also be present in the ground layer and include <i>Einadia hastata</i> , <i>E. nutans</i> subsp. <i>nutans</i> , <i>Enchylaena tomentosa</i> , <i>Maireana enchylaenoides</i> and <i>Sclerolaena diacantha</i> (TSSC, 2010).	
Weeping Myall Woodlands	Endangered	Weeping myall woodlands range from an open woodland to woodland (4-12 m) dominated by weeping myall (<i>Acacia pendula</i>), generally as monotypic stands. Other species that may occur include rosewood (<i>Alectryon oleifolius</i> subsp. <i>elongatus</i>); poplar box (<i>Eucalyptus populnea</i>); or black box (Eucalyptus largiflorens) (TSSC, 2008d).	Unlikely Weeping myall (<i>Acacia pendula</i>) is not present within the Project Site, which is the species that characterises this community.
		The understorey often includes an open layer of shrubs above an open ground layer of grasses and herbs, though the ecological community can exist naturally either as a shrubby or a grassy woodland. In the southern part of the distribution, chenopods, such as saltbushes, native cotton bushes, bluebushes, goosefoots and copperburrs, were originally an important component of the understorey. As chenopods are generally highly palatable, they have largely disappeared in areas that have been grazed by stock and/or feral animals for substantial periods of time (TSSC, 2008d).	

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Flora and fauna field survey results

1.0 Flora Field Sampling Methods

A flora field survey was undertaken by AECOM on the 1 and 2 June 2015 in accordance with the Office of Environment and Heritage (OEH) field survey methods. The purpose of this survey was to describe the terrestrial flora and vegetation within the Project Site. The site was traversed and the vegetation sampled at seven locations. Three detailed grassland sites were sampled, as well as two rapid grassland sites. A further two detailed woodland cover transects were established in each of the two woodland patches identified within the Project Site.

The three detailed grassland sites covered a plot area of 50 x 10 m, with 10, 1 m x 1m quadrats established along the tape at 5 m intervals to record species cover abundance. The following information was recorded at each of these sites:

- Site name and location using hand-held global positioning system (Global Positioning System [GPS])
- Photos
- Landform and soil descriptions
- Vegetation structural descriptions using modified Specht (1970)
- General site description, observed disturbance factors and vegetation condition
- List of all vascular flora species within the 50 x 10 m plot
- Cover % (Foliage Projective Cover) of species within the 10, 1 x 1 m plots (0.001 ha)
- Cover % for bare and litter within the 10, 1 x 1 m plots (0.001 ha).

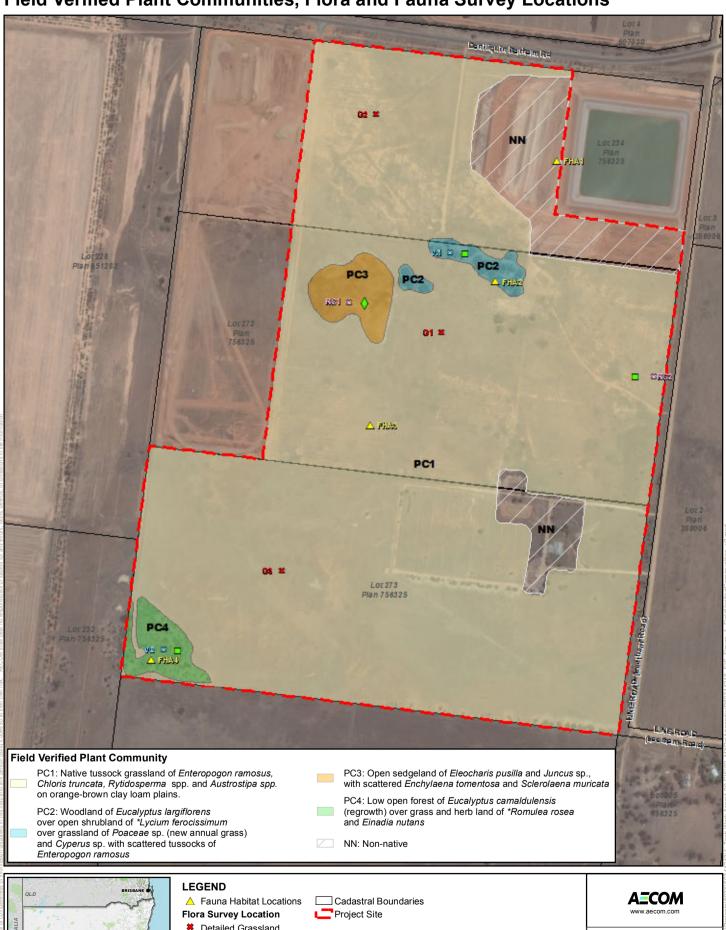
An additional two rapid grassland sites were undertaken within the grasslands, which did not involve setting up the 50 x 10 m plot, but was used to verify the plant community between detailed grassland sites. The same information was collected, however the site was plotless (covering an area of~ 15 m radius from the site centre point, also known as a relevé), and the cover values collected were a visual estimate, rather than from established quadrats.

The two detailed woodland sites covered a plot area of $50 \times 10 \text{ m}$, with five , $1 \times 1 \text{ m}$ quadrats established at 10 m intervals along the transect. The cover percentage of the overstorey strata (T1, T2, S1 etc.) was calculated using the line-intercept method. Cover percentage of the ground layer (Foliage Projective Cover) was recorded in the five, $1 \times 1 \text{ m}$ quadrats. The following information was recorded at the two woodland detailed plots:

- Site name and location (using hand-held GPS)
- Photos
- Landform and soil descriptions
- Vegetation structural descriptions using modified Specht (1970)
- General site description, observed disturbance factors and vegetation condition
- List of all vascular flora species within the 50 x 10 m plot
- Cover % of overstorey strata using the line-intercept method
- Cover % (Foliage Projective Cover) of ground cover species within the five, 1 x 1 m plots
- Cover % for bare and litter within the five. 1 x 1 m plots.

The field data collected at the seven flora sampling locations and the full flora species list is provided in Section 2.0. The location of the flora survey sites across the site is shown on Figure 1.

Field Verified Plant Communities, Flora and Fauna Survey Locations





■ Detailed Grassland

Rapid Grassland

Detailed Woodland

Weed Species

African Boxthorn

Bathurst Burr

Co. Ltd. 5. Environmental Data: AECOM, 2015



FIGURE 1

To interpret vegetation condition across the Project site, a predetermined rating scale was used (Table 1).

Table 1 The vegetation condition scale of Kaesehagen (1994)

Vegetation condition	Description
'Very Good to Excellent'	 80% to 100% native flora composition Vegetation structure intact or nearly so Cover/abundance of weeds <5% No or minimal signs of disturbance.
'Fair to Good'	 50% to 80% native flora composition Vegetation structure modified or nearly so Cover/abundance of weeds 5% to 20%, any number of individuals Minor signs of disturbance.
'Poor'	 20% to 50% native flora composition Vegetation structure completely modified or nearly so Cover/abundance of weeds 20% to 60%, any number of individuals Disturbance incidence high.
'Very Poor'	 0% to 20% native flora composition Vegetation structure disappeared Cover/abundance of weeds 60% to 100%, any number of individuals Disturbance incidence very high.

The plant taxonomy and nomenclature of flora species within this report follows that of the online Australian Plant Name Index (APNI) and the Australian Plant Census (APC) (CHAH, 2015).

Plant Community Mapping was undertaken at a scale of 1:10, 000 across the Project Site and communities were defined by interpolating aerial photography from the survey points.

Limitations

The survey was undertaken in early June (winter), which is not ideal timing for the identification of flora species within the Riverina district. Ideal timing is late winter, early spring, after sufficient rainfall for grass and herb species growth. As such, a likelihood of presence rating was assigned to each threatened flora species raised during the desktop assessment.

The entire site was accessible for the survey and was adequately covered as part of the current survey. As such survey coverage was not limited for this survey. The survey intensity was adequate for the site and the plant communities identified. The following survey intensity was achieved for the Project Site (Table 2).

Table 2 Survey Intensity for the Flora Survey

Plant Community	Plant Community Area	Survey Sites
PC1	101.1 ha	3 Detailed, 2 Rapid
PC2	1.3 ha	1 Detailed
PC3	2.2 ha	1 Rapid
PC4	1.8 ha	1 Detailed

2.0 Flora Field Results

A total of 39 flora species from 33 genera and 15 families were identified during the field survey undertaken in June 2015. The dominant plant families identified onsite were Poaceae (10 taxa), Chenopodiaceae (8 taxa) and Asteraceae (6 taxa). Of the 39 flora species identified, 28 were native species and 11 non-native (Table 3).

Table 3 Flora species recorded at the Deniliquin Project Site

Family	Status	Species	AECOM June 2015	NGH 2014
Asteraceae	*	Aster subulatus	Х	
	?	Asteraceae sp. (new growth)	Х	
		Calocephalus sonderi	Х	
	*	Cirsium vulgare		Х
	*	Conyza bonariensis	Х	
		Pseudognaphalium luteoalbum		Х
		Vittadinia cuneata	Х	Х
	* N	Xanthium spinosum	Х	
Boraginaceae	*	Echium plantagineum		Х
Brassicaceae	*	Lepidium africanum	Х	Х
Caryophyllaceae		Stellaria angustifolia		Х
Casuarinaceae		Allocasuarina luehmannii	Х	
Chenopodiaceae		Atriplex nummularia	Х	
		Chenopodium nitrariaceum		Х
		Dissocarpus paradoxa		Х
		Einadia nutans	Х	Х
		Enchylaena tomentosa	Х	
		Maireana brevifolia	Х	
		Rhagodia spinescens	Х	Х
		Salsola australis	Х	
		Sclerolaena birchii	Х	Х
		Sclerolaena muricata	Х	Х
Crassulaceae		Crassula sieberiana		Х
Cyperaceae		Cyperus sp.	Х	
		Eleocharis pusilla	Х	Х
Euphorbiaceae		Chamaesyce sp.	Х	
Fabaceae	*	Trifolium sp.	Х	
Iridaceae	*	Romulea rosea	Х	

Family	Status	Species	AECOM June 2015	NGH 2014
Juncaceae		Juncus sp.	X	Х
Lamiaceae	*	Marrubium vulgare	Х	
Marsileaceae		Marsilea drummondii	Х	Х
Myrtaceae		Eucalyptus camaldulensis	Х	Х
		Eucalyptus largiflorens	Х	Х
Oxalidaceae		Oxalis perennans	Х	Х
Poaceae		Austrostipa nodosa	Х	Х
		Austrostipa scabra	Х	Х
		Chloris truncata	Х	Х
		Enteropogon ramosus	Х	Х
	*	Hordeum leporinum	Х	
	*	Lolium rigidum	Х	
		Poaceae sp. (sterile, new growth)	Х	
		Rytidosperma duttoniana	Х	Х
		Rytidosperma eriantha		Х
		Rytidosperma sp. (sterile)	Х	
		Sporobolus caroli	Х	
Polygonaceae		Duma florulenta		Х
Rutaceae		Geijera parviflora		Х
Solanaceae	* N, WONS	Lycium ferocissimum	х	Х
		Solanum esuriale	Х	Х

^{* =} denotes an introduced species, N = Noxious weed, WONS = Weed of National Significance

The field datasheets are provided as Table 4.

Table 4 Field data

Grassland Flora Site - DG1										
SITE INFORMATION										
Project	Deniliquin Ethanol EIS	Datum/Zone	GDA'94/	Grassland Condition	1					
Date	1/06/2015	Easting	m/E 0309992	Patch size	> 5 ha					
Site ID	DG1	Northing	m/N 6062772	Native dominated	Yes					
Observer	GT	Landform	Floodplain	TEC	No					
Plot size	50 x 10 m plot, with ten 1 x 1 m Quadrats (0.01 ha)	Soils	Orange-Brown Clay Loam							

VEGETATION STRUCTURAL DESCRIPTION

Tussock grassland of Enteropogon ramosus, Chloris truncata, *Lolium rigidum and Vittadinia cuneata on orange-brown clay loam floodplain.

GENERAL SITE COMMENTS/DISTURBANCE/VEGETATION CONDITION

Grassland is native species dominated, but has low species richness and a high percentage (20 %) of exotic grass and forb species. Area has been previously cleared of woodland vegetation and is grazed by rabbits and macropods.

VEGETATION FLORIST	ICS												
Species	Category	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	% Cover	% Category Cover
Enteropogon ramosus	Native Grass	10	25	10	20	10	30	15	15	20	20	17.5	
Rytidosperma sp. (sterile)	Native Grass	5						5			5	1.5	
Chloris truncata	Native Grass	15	10	20	30	15		15	20	10	10	14.5	
Sporobolus caroli	Native Grass							2				0.2	33.7
Vittadinia cuneata	Native Forb	5				1			3		2	1.1	
Solanum esuriale	Native Forb			2							1	0.3	
Marsilea drummondii	Native Forb					2						0.2	
Einadia nutans	Native Forb						5			5	3	1.3	2.9
*Lolium rigidum	Exotic Grass		10	15		15	10	5	10	10	5	8	
*Poaceae sp. (new growth)	Exotic Grass		5	7	5	8	15	10	10	10	5	7.5	15.5
Chamaesyce sp.	Exotic Forb	2					2					0.4	
*Romulea rosea	Exotic Forb	2	5	3	5	2	5	2	2	5	5	3.6	
*Trifolium sp.	Exotic Forb					5						0.5	4.5
Bare		20	15	10	10	10	15	15	20	15	20	15	15
Litter		41	30	33	30	32	18	31	20	25	24	28.4	28.4
Cryptogams													
Totals		100	100	100	100	100	100	100	100	100	100	100	100

Incidentals (within 50 x 10 m plot):

^{*}Lepidium africanum, Austrostipa scabra

Grassland Flora Site - DG2 SITE INFORMATION Deniliquin Ethanol EIS Datum/Zone GDA'94/ Project **Grassland Condition** 2/06/2015 **Easting** m/E 0309854 Date Patch size > 5 ha m/N 6063232 Site ID DG2 Northing Native dominated Yes Observer GT Landform Floodplain TEC No 50 x 10 m plot, with ten 1 x 1 m Quadrats Plot size (0.01 ha) Soils Orange-Brown Clay Loam

VEGETATION STRUCTURAL DESCRIPTION

VEGETATION FLORISTICS

Native tussock grassland of Enteropogon ramosus, Chloris truncata, Austrostipa scabra, Vittadinia cuneata and Einadia nutans on orange-brown clay loam floodplains.

GENERAL SITE COMMENTS/DISTURBANCE/VEGETATION CONDITION

Exotic Forb

20

10

20

10

5

12

10

Grassland is native species dominant, with patches of open bare ground in places. Native species richness is moderate in this patch, with a lower percentage cover (~14 %) of exotic species. Recent rain has caused a flush of new annual grass and forb species to sprout, however species cannot be identified. Area has been previously cleared of woodland vegetation, and is grazed by rabbits and macropods.

Q1 Q4 Species Category Q2 Q3 Q5 Q6 Q7 Q8 Q9 Q10 % Cover % Category Cover 5 15 Enteropogon ramosus Native Grass 25 20 15 15 15 11 5 5 Poaceae sp. (sterile) Native Grass 1 Chloris truncata Native Grass 30 12 9 9 10 10 13 10 10.3 Native Grass 10 15 20 10 20 5 12 Rytidosperma duttoniana 40 6.2 Native Grass 5 2 10 5 5 5 15 15 Austrostipa scabra 5 0.5 Rytidosperma sp. (sterile) Native Grass 41 Native Forb 2 2 5 5 5 5 2.5 Vittadinia cuneata 1 20 15 15 17.2 Native Forb 40 50 17 15 Einadia nutans 5 5 Marsilea drummondii Native Forb 1 2 0.2 Solanum esuriale Native Forb 0.5 Sclerolaena muricata Native Forb 5 21.4 *Lolium rigidum **Exotic Grass** 2 2 10 5 1.9 **Exotic Grass** 2 0.2 2.1 *Hordeum leporinum 5 2.7 Exotic Forb 3 2 5 2 10 *Salsola tragus 5 20 2.7 *Romulea rosea Exotic Forb 2 2 Exotic Forb 8 1 *Trifolium sp. 5 7 *? Arctotheca sp. Exotic Forb 5 10 10 10 4.7

15

10

5

0

30

15

5

10

10

25

30

*Lepidium africanus

Bare

Litter

11.6

15

8.7

0.5

15

8.7

Cryptogams		2									0.2	0.2
Total	100	100	100	100	100	100	100	100	100	100	100	100

Incidentals (within 50 x 10 m plot):

Atriplex nummularia, Enchylaena tomentosa, *Sclerolaena birchii

Grassland Flora Site - DG3										
SITE INFORMATION										
Project	Deniliquin Ethanol EIS	Datum/Zone	GDA'94/ 55 H	Grassland Condition						
Date	2/06/2015	Easting	m/E 309411	Patch size	> 5 ha					
Site ID	DG3	Northing	m/N 6062123	Native dominant	Yes					
Observer	GT	Landform	Floodplain	Grassland TEC	No					
Plot size	50 x 10 m plot, with ten 1 x 1 m Quadrats (0.01	Soils	Orange-Brown Clay Loam							
	ha)									

VEGETATION STRUCTURAL DESCRIPTION

Native tussock grassland of Enteropogon ramosus, Chloris truncata, Rytidosperma sp. and *Romulea rosea on orange-brown clay loam floodplain.

GENERAL SITE COMMENTS/DISTURBANCE/VEGETATION CONDITION

This grassland within the southern property has been moderately disturbed through the actions of clearing of the woodland, and sheep and cattle grazing. The property is currently stocked with sheep (low level grazing). Exotic species cover is ~17 %, with about 30 % bare ground.

VEGETATION FLORISTICS

Species	Category	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	% Cover	% Category Cover
Chloris truncata	Native Grass	10	20			5	5	15	5	15		7.5	
Enteropogon ramosus	Native Grass	20	20	20	25	25	5	10	5	5	10	14.5	
Sporobolus caroli	Native Grass					5						0.5	
Rytidosperma sp. (sterile)	Native Grass					5	10					1.5	
Austrostipa scabra	Native Grass						5	5	5	5		2	26
Vittadinia cuneata	Native Forb	5		2	5							1.2	
Einadia nutans	Native Forb				5			10		5	10	3	
Marsilea drummondii	Native Forb				5		5					1	
Enchylaena tomentosa	Native Forb							2				0.2	5.4
*Lolium rigidum	Exotic Grass	5	5	20		5	5					4	4
*Romulea rosea	Exotic Forb	20	10	5	15	5	15	10	10	10	5	10.5	
*Trifolium sp.	Exotic Forb			5				5				1	
*Salsola tragus	Exotic Forb								5	2	5	1.2	12.7
Bare		15	25	20	15	20	20	25	40	40	60	28	28
Litter		25	20	28	30	30	30	18	30	18	10	23.9	23.9
Cryptogams													
Total		100	100	100	100	100	100	100	100	100	100	100	100

Incidentals (within 50 x 10 m plot):

Maireana brevifolia

Flora Site - W1 SITE INFORMATION Deniliquin EIS Datum/Zone GDA'94/ Zone 55 H **Project** Date 1-Jun-15 m/E 310010 **Easting** m/N 6062940 Site ID W1 **Northing** Observer GT Landform Floodplain, slight depression Plot size 50 x 10 m Soils Orange-brown clay loam Patch size 170 x 50 m

VEGETATION STRUCTURAL DESCRIPTION

Woodland of Eucalyptus largiflorens over open shrubland of *Lycium ferocissimum over grassland of Poaceae sp. (new annual grass) and Cyperus sp., with scattered tussocks of Enteropogon ramosus.

GENERAL SITE COMMENTS/DISTURBANCE/VEGETATION CONDITION

Large Eucalyptus largiflorens trees (Basal area 24). Area under trees has been heavily grazed by rabbits.

SPECIES				
Species	Stratum	Height (m)	Stem count	Cove (%)*
Eucalyptus largiflorens	T1	12 to 15	5	48.6
Eucalyptus camaldulensis	T1	15	0	0
*Lycium ferocissimum	S1	2	4	0
*Lepidium africanum	G	<0.5	na	2.2
*Marrubium vulgare	G	<0.5	na	3
Enteropogon ramosus	G	<0.5	na	3
Poaceae sp. (new annual grass)	G	<0.5	na	48
Cyperus sp.	G	<0.5	na	11
Juncus sp.	G	<0.5	na	0.2
*Trifolium sp.	G	<0.5	na	1
*Salsola tragus	G	<0.5	na	0
Bare				1
Litter				30.6

*T1 and S1 cover layers used line-intercept method, G layers were recorded in 5 (1x1m) quadrats along the 50 m tape





Flora Site - W2 SITE INFORMATION Deniliquin EIS Datum/Zone GDA'94/ Zone 55 H **Project** Date 2-Jun-15 Easting m/E 310441 Site ID W2 m/N 6062678 **Northing** Observer GT Landform Floodplain Releve (~15 m radius from Plot size Soils Orange-brown loam centre) Patch size ~150 x 150 m

VEGETATION STRUCTURAL DESCRIPTION

Regrowth Eucalyptus camaldulensis woodland over grass and herbland.

GENERAL SITE COMMENTS/DISTURBANCE/VEGETATION CONDITION

Patch is heavily grazed by rabbits, macropods and livestock. Large rubbish dump within the middle of the patch, and undestorey has large presence fo *Romulea rosea*.

SPECIES

Species	Stratum	Height (m)	Stem count	Cover (%)*
Eucalyptus camaldulensis	T1	5 to 7		50
Enteropogon ramosus	G	< 0.5		5
*Romulea rosea	G	< 0.5		20
Einadia nutans	G	< 0.5		5
Sclerolaena muricata	G	< 0.5		3
Maireana brevifolia	G	< 0.5		3
*Lycium ferocissimum	G	< 1		0.5
Bare				40
Litter				10

*T1 and S1 cover layers used line-intercept method, G layers were recorded in 5 (1x1m) quadrats along the 50 m tape



Flora Site - RG1 SITE INFORMATION Deniliquin EIS Datum/Zone GDA'94/ Zone 55 H **Project** Date 1-Jun-15 Easting m/E 309796 m/N 6062835 Site ID RG1 **Northing** Observer GT Landform Floodplain, slight depression Releve (~ 15 m from Plot size Soils Grey coarse (sandy) cracking clay centrepoint) Patch size 50 x 50 m

VEGETATION STRUCTURAL DESCRIPTION

Open sedgeland of Eleocharis pusilla and Juncus sp., with scattered Enchylaena tomentosa and Sclerolaena muricata.

GENERAL SITE COMMENTS/DISTURBANCE/VEGETATION CONDITION

Small depression (~ 50 x 50 m) with grey coarse cracking clay, seasonally inundated. A number of weed species were recorded at this site, including the noxious weed Bathurst Burr (*Xanthium spinosum*).

SPECIES				
Species	Stratum	Height (m)	Stem count	Cover (%)*
Eleocharis pusilla	G	<0.5	na	25
Juncus sp.	G	<0.5	na	1
*Lepidium africanum	G	<0.5	na	1
*Hordeum leporinum	G	<0.5	na	5
Enchylaena tomentosa	G	<0.5	na	5
?Asteraceae sp.(new growth)	G	<0.5	na	2
Vittadinia cuneata	G	<0.5	na	2
*Xanthium spinosum	G	<0.5	na	1
* Lolium rigidum	G	<0.5	na	2
Sclerolaena muricata	G	<0.5	na	2
*Conyza bonariensis	G	<0.5	na	2
Enteropogon ramosus	G	<0.5	na	2
Bare				40
Litter				10

*Visual Estimate of cover



Flora Site - RG2 SITE INFORMATION Deniliquin EIS Datum/Zone GDA'94/ Zone 55 H Project Date 2-Jun-15 Easting m/E 310441 Site ID RG2 m/N 6062678 Northing Observer GT Landform Floodplain Plotless releve (~15 m radius Plot size Soils Orange-brown loam from centre) Patch size > 5 ha

VEGETATION STRUCTURAL DESCRIPTION

Tussock grassland of Austrostipa spp., Chloris truncata and Enteropogon ramosus on orange-brown loamy floodplain.

GENERAL SITE COMMENTS/DISTURBANCE/VEGETATION CONDITION

Grassland grazed by rabbits and macropods

SPECIES

Species	Stratum	Height (m)	Stem count	Cover (%)*
Austrostipa scabra	G	<0.5		10
Austrostipa nodosa	G	<0.5		5
Chloris truncata	G	<0.5		6
Enteropogon ramosus	G	<0.5		5
*Asteraceae sp. (new growth)	G	<0.5		10
*Salsola tragus	G	<0.5		5
Vittadinia cuneata	G	<0.5		5
*Lepidium africanum	G	<0.5		2
Rytidosperma sp.	G	<0.5		2
*Lycium ferocissimum	Incidentals			
Allocasuarina luehmannii	Incidentals			
Rhagodia spinescens	Incidentals			
Bare				40
Litter				10
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*Visual Estimate of cover





3.0 Fauna Field Sampling Methods and Results

A fauna survey was undertaken by a qualified fauna ecologist from AECOM on the 1 and 2 June 2015 in accordance with the Office of Environment and Heritage (OEH) field survey methods to the level of Habitat Assessment. No intensive fauna surveys were undertaken. Weather conditions during the field assessment were cool and dry (Table 5).

Table 5 Weather observations during the field assessment (Data from Deniliquin Airport)

Date	Max. Temp (°C)	Rainfall (mm)	Cloud (octas) at 3 pm	Wind speed at 3 pm (Km/Hr)
01 June 2015	12.4	0	5	28
02 June 2015	12.9	0	1	19

The survey was completed to characterise the fauna assemblages in the Project Site and the types of habitat available for threatened fauna. The survey was completed by walking and recording all vertebrate species encountered, using binoculars where necessary. All fauna observations were made visually or audibly and no animals were captured or handled.

Areas of interest identified as part of the desktop survey were visited and assessed on the ground for the presence of habitat for threatened fauna. Consideration was given to the quantity of suitable habitat for each threatened species within, and adjacent to, the Project site and its degree of connectivity to similar habitat. Areas of interest for habitat and its immediate surrounds were searched for general signs of fauna, such as nests, feathers, scats and the lifting of woody debris and loose rocks was undertaken to search for herpetofauna (reptiles and frogs) and small mammals.

The location of each area of interest for fauna was recorded and notes made on proposed mitigation to avoid or further reduce potential impacts. Fauna habitat assessments were undertaken at four locations. The following qualitative and quantitative data was collected at each site:

- General habitat description and vegetation type
- Habitat condition
- Dominant/characteristic flora species for each strata
- Abundance of particular habitat characteristics including:
 - Hollows of different size classes
 - Fallen logs of different size classes
 - Decorticating bark
 - Fine and course litter
 - Cryptogrammic crust
 - Soil cracks
 - Grass
 - Bare ground
 - Stones and boulders in different size classes
 - Termitaria
 - Dense shrubs.
- Weed species abundance and distribution
- Fire history
- Disturbance types and extent (e.g. fire, logging, grazing)
- Connectivity
- Land use
- General condition

- Animal sign (nests, shelters, diggings, scats, tracks, burrows, tree scratches and feeding scars, any other sign)
- Fauna observations.

Limitations

Due to the timing and duration of the field assessment, it was not possible to provide a definitive list of all species that occupy the Project Site. As such, a likelihood of presence rating was assigned to each threatened or migratory species raised during the desktop assessment.

4.0 Fauna Results

Four distinct fauna habitat areas were identified during the assessment, located at fauna sites FHA1-FHA4. Detailed habitat descriptions are provided in Table 6 and the location of the fauna sites are shown on Figure 1.

The Project Site is heavily degraded and is predominantly agricultural land used for grazing. Due to the historic clearance of large woody vegetation throughout the entire Project Site, ecological values were mostly confined to the grass and rush ground-layers and mature scattered trees.

Table 6 Fauna habitat within and adjacent to the Project Site

Fauna Assessment Site	Habitat type	Habitat Description and Fauna	Habitat Image
FHA1	Dam	FHA1 comprised an artificial, square-shaped farm reservoir with an offsite pumping station to the north-east (<i>top right image</i>). The waterbody was considered to be low quality for aquatic species such as frogs, fish and birds due to the general lack of wetland or aquatic vegetation. The bank margins were predominantly bare, with only saltbush and other low grasses and herbs on the low bank top. However, the open water provided roosting and foraging habitat for a number of common bird species including high numbers (100+) of grey teal (<i>Anas gracilis</i>), as well as black swan (<i>Cygnus atratus</i>), Australian shelduck (<i>Tadorna tadornoides</i>), Eurasian coot (<i>Fulica atra</i>) and masked lapwing (<i>Vanellus miles</i>). A swamp harrier (<i>Circus approximans</i>) was also observed flying and hunting over the water.	
		Fresh footprints of a potential bird and frog predator, European fox (<i>Vulpes vulpes</i>), were identified in bare soil on 02 June 2015 (<i>image bottom right</i>). The footprints comprised an adult and a juvenile fox, indicating that the pest species is breeding successfully in the local area and are likely to be impacting local small-medium sized ground-dwelling vertebrates.	
		Potential for Threatened Species: The reservoir could provide non-breeding habitat for the EPBC-Act listed growling grass frog (<i>Litoria raniformis</i>); however whilst the frog is predicted to occur in the area (OEH website, 2015) and there are local farm dams close by, it has not been recorded in the area (Bionet Atlas or ALA databases). The likelihood of growling grass frog occurring at the site was therefore considered to be 'low'. Threatened waterbirds such as the vulnerable TSC Act-listed blue-billed duck (<i>Oxyura australis</i>), freckled duck (<i>Stictonetta naevosa</i>), spotted Harrier (<i>Circus assimilis</i>) and EPBC Act-listed migratory great egret (<i>Ardea alba</i>) could utilise the reservoir on an occasional basis. However, no breeding or significant non-breeding habitat was considered to be present for these species and their likelihood of occurrence was considered to be 'low'.	

Fauna Assessment Site	Habitat type	Habitat Description and Fauna	Habitat Image
FHA2	Woodland	FHA2 was a highly degraded and fragmented patch of mature black box woodland (<i>image top right</i>), with an absence of native understorey species that had been replaced by occasional exotic African boxthorn. The trees were very large and showed frequent senescence with large and small hollows in standing and fallen dead wood (<i>image middle right</i>) suitable for sheltering birds, mammals and small reptiles. Coarse and fine litter debris from trees was frequent in the ground layer and provided food for birds, small mammals and insects. A large stick nest from a raptor was recorded high up in the fork of a mature tree (<i>image bottom right</i>) and numerous old mammalian bones were detected on the ground below the nest. It is likely that this nest is still active during the breeding season. The numerous spouts and hollows were observed to attract galahs (<i>Eolophus roseicapilla</i>), noisy miners (<i>Manorina melanocephala</i>) and European starlings (<i>Sturnus vulgaris</i>) for potential nest sites. The presence of abundant noisy miners is typical of fragmented woodlands where the species is able to out-compete smaller woodland birds and is likely to explain the low diversity of such birds recorded in this habitat. Vertical cracks and fissures in rotting tree trunks provide suitable habitat for cavity-roosting bats. Evidence of eastern grey kangaroo in the woodland habitat was observed in the form of scats and tracks; the species probably uses the trees for resting and shade during the daytime.	
		Two pest species were recorded in FHA2 comprising scats of European rabbit (Oryctolagus cuniculus) and European fox. A rabbit was also observed running into a burrow entrance located at the base of an over-mature black box tree. Feathers and wings of a crested pigeon were found on the ground and are likely to be feeding remains of European fox. The presence of exotic pests compounds impacts of native animal survivorship in the fragmented and degraded habitat through resource competition and further reduces its suitability for native species.	
		Potential for Threatened Species: Flowering black box would provide foraging habitat for various bird species, including the commonwealth threatened swift parrot (<i>Lathamus discolor</i>) and superb parrot (<i>Polytelis swainsonii</i>); however the resource would be limited. Despite suitable ecological features within the fragmented open woodland providing habitat for a number of common vertebrate species, the habitat does not provide significant habitat for any threatened fauna.	

Fauna Assessment Site	Habitat type	Habitat Description and Fauna	Habitat Image
FHA3	Grassland	FHA3 was recorded as a representative area of the wider grassland area within the Project Ste, including the wetter area in the central western edge comprising dense sedges and rushes and planted windrows near farm buildings. This habitat has been historically grazed and at the time of survey was observed to support a small number of sheep. The structure of the open tussock grassland and sedgeland was low-lying with occasional boxthorn and varying degrees of fine leaf litter and bare ground areas. The denser tussock areas provided suitable shelter and foraging habitat for small mammals, skinks ground-nesting birds and hunting raptors and insectivorous birds. The ground nesting Australian pipit (<i>Anthus novaeseelandiae</i>) was recorded in the grasslands, together with foraging Australian magpie (<i>Cracticus tibicen</i>), eastern rosella (<i>Platycercus eximius</i>), pied currawong (<i>Strepera graculina</i>), nankeen kestrel (<i>Falco cenchroides</i>), whistling kite (<i>Haliastur sphenurus</i>), black kite (<i>Milvus migrans</i>), wedge-tailed eagle (<i>Aquila audax</i>), welcome swallow (<i>Hirundo neoxena</i>) and white-backed swallow (<i>Cheramoeca leucosternus</i>).	
		Potential for Threatened Species: The areas of grassland with shorter swards and/or frequent bare ground were considered to support habitat suitable for the EPBC Act-listed plains wanderer (<i>Images to right</i>). The presence of records approximately 2.5 km from the Project Site in 2011 further supported the assessment that the species could be present in the Project Site. The likelihood of occurrence has therefore been evaluated as 'Moderate'.	

Fauna Assessment Site	Habitat type	Habitat Description and Fauna	Habitat Image
FHA4	Woodland	FHA4 was a patch of dense river red gum regrowth in the south-western corner of the Project Site. Trees were generally young or semi-matures that had been grazed below the canopy by cattle and sheep, resulting in a heavily eroded ground layer dominated by bare ground and occasional coarse woody debris. The habitat contained no understorey and ground cover was limited to scattered grasses and chenopods. In the far south-west of FHA4 there was a cleared area with frequent short grasses and small number of mature and over-mature river red gums that showed various stages of decay. The older trees provided the only real ecological value in FHA4 by providing foraging and roosting opportunities for arboreal and hollow-dwelling animals, such as parrots, possums and microbats. However, the fragmented and limited extent of the mature trees reduced the suitability of the microhabitats for fauna due to the general absence of connectivity and cover to similarly suitable habitat. Noisy miner, Willie wagtail and eastern rosella, birds adapted to modified environments, were the only species recorded in FHA4.	
		Potential for Threatened Species: Significant habitat for threatened species was not considered to be present in FHA4, although hollows could contain native species.	

A total of 31 fauna species were recorded during the field survey, including five mammals and 26 birds (Table 7). The fauna species recorded within the Project Site are those species that are capable of traversing and persisting within a modified agricultural landscape. Such species are necessarily tolerant of disturbance, and are typically common and widespread.

Table 7 Fauna species recorded at the Project Site in June 2015

Common Name	Species Name	EPBC Act	TSC Act (Endangered or vulnerable only)		
Mammals					
Eastern Grey kangaroo	Macropus giganteus*	-	-		
Brush-tailed possum	Trichosurus vulpecula*	-	-		
European fox#	Vulpes vulpes	-	-		
Sheep#	Ovis aries	-	-		
European rabbit#	Oryoctolagus cuniculus	1	-		
Birds					
Australian magpie	Cracticus tibicen	-	-		
Australian pipit	Anthus novaeseelandiae	-	-		
Australian raven	Corvus coronoides	-	-		
Australian shelduck	Tadorna tadornoides	-	-		
Black-faced cuckoo- shrike	Coracina novaehollandiae	-	-		
Black kite	Milvus migrans	-	-		
Black swan	Cygnus atratus	-	-		
Crested Pigeon	Ocyphaps lophotes				
Eastern rosella	Platycercus eximius	-	-		
Eurasian coot	Fulica atra	-	-		
European starling#	Sturnus vulgaris	-	-		
Galah	Eolophus roseicapilla	-	-		
Grey teal	Anas gracilis	-	-		
Magpie-lark	Grallina cyanoleuca	-	-		
Masked lapwing	Vanellus miles	-	-		
Nankeen kestrel	Falco cenchroides	-	-		
Noisy miner	Manorina melanocephala	-	-		
Pied butcherbird	Cracticus nigrogularis	-	-		
Pied currawong	Strepera graculina	-	-		
Straw-necked ibis	Threskiornis spinicollis	-	-		
Swamp Harrier	Circus approximans	-	-		
Wedge-tailed eagle	Aquila audax	-	-		
Welcome swallow	Hirundo neoxena	-	-		
White-backed swallow	Cheramoeca leucosternus	-	-		
Whistling kite	Haliastur sphenurus	-	-		
Willie wagtail	Rhipidura leucophrys	-	-		

Mi – Migratory, V – Vulnerable; *=identified by scats, #=introduced species

5.0 References

CHAH, 2015. Council of Heads of Australasian Herbaria. [Online] Available at: http://www.chah.gov.au/index.html [Accessed 2015].

Kaesehagen, D., 1994. Bushland Condition Mapping. Perth, Murdoch University.