

ENVIRONMENTAL REPORT



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ACRONYMS AND ABBREVIATIONS

ASL	Above sea level
BC Act	<i>Biodiversity Conservation Act 2016 (NSW)</i>
BCD	Biodiversity Conservation Division, formerly OEH
BFPL	Bush Fire Prone Land
EEC	Endangered ecological community – as defined under relevant law applying to the proposal
EPBC Act	<i>Environmental Protection and Biodiversity Conservation Act 1999 (Cwth)</i>
FM Act	<i>Fisheries Management Act 1994 (NSW)</i>
ha	hectares
KFH	Key Fish Habitat
km	kilometres
m	Metres
NSW	New South Wales
OEH	(NSW) Office of Environment and Heritage, now BCD
sp/spp	Species/multiple species

1. INTRODUCTION

A. PURPOSE OF THIS REPORT

NGH Environmental was commissioned by Austin Goodfellow to undertake a high level Environmental Assessment for the rezoning of land for a proposed subdivision on Lot 6 Dp1056285, the Coolawin property at Gundaroo, NSW (Figure 1).

The area of investigation is approximately 18 ha, on the north western boundary of the village Gundaroo. The area is bounded by Gundaroo Road on the east, Coolawin homestead area on the north, a paddock fenceline near the Yass River on the west and the village property boundary on the south.

The draft proposal is to develop this area into 5 large lots (Figure 3).

This report documents the environmental values of the study area, including biodiversity, water and soil values and bushfire hazard. It makes recommendations regarding further detailed assessment and mitigation strategies, where relevant.

B. SITE LOCATION AND HISTORY

The study area (Figure 1) is located immediately north of the village of Gundaroo, NSW. The study area is bounded by Gundaroo Road to the east, the Coolawin driveway to the north, a property boundary fence and neighbouring residential lots to the south and the Yass River to the west. The locality is characterised by a mix of rural residential and agricultural land parcels.

The study area is located adjacent to the floodplains of the Yass River, which occurs to the west and flows in a northerly direction. The study area has a long history of agricultural land use including pasture improvement, ploughing, cropping and stock grazing.

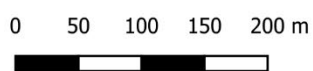
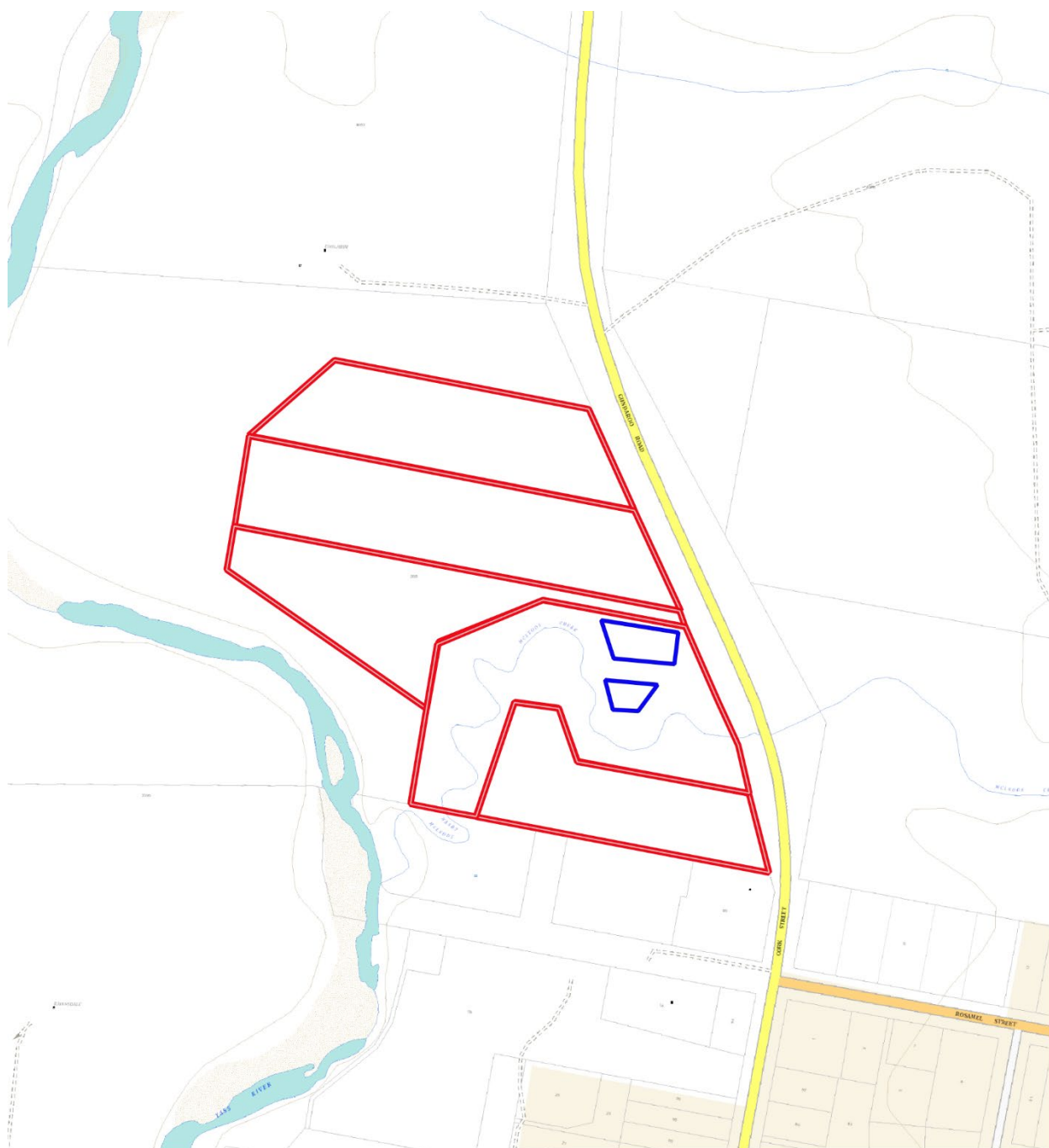
2. METHODOLOGY

An inspection of the study area was undertaken by Alana Gordijn (Environmental Consultant) on 31st May 2016. The study area was traversed on foot. The aims of the site inspection were to record:

- Vegetation types and condition
- Weeds and disturbance
- Fauna habitat types and quality
- Incidental sightings of fauna
- Soil and water values
- Bushfire risks

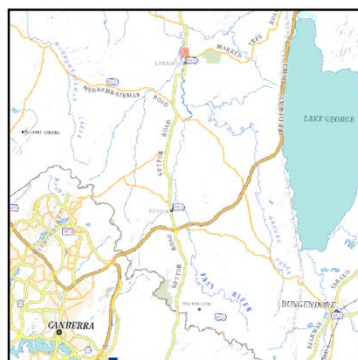
No targeted flora or fauna surveys were undertaken.

The length of McLeods Creek erosion gully was traversed on foot to observe the overall condition of the creek including the type and condition of vegetation cover, soil disturbances and erosion hazards. Observations were also made regarding the type of work that would likely be required to achieve stabilisation and rehabilitation of the Creek.



- Study area
- Building Envelopes

Data Attribution
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 BV © OEH 2020
 Basemap © NSW LPI 2020



Ref: 16-045_coolawin \ Project Area
 Author: J Tearle
 Date created: 14.04.2020
 Datum: GDA94 / MGA zone 55





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Figure 1 The study area



0 50 100 150 m

 Proposed subdivision
 Building Envelopes

Data Attribution
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Ref: 16-045_coolawin \ Proposed subdivision
 Author: J Tearle
 Date created: 14.04.2020
 Datum: GDA94 / MGA zone 55



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Figure 2 The subdivision proposed

3. EXISTING ENVIRONMENT

A. CURRENT LAND USE

A large cropped paddock covers the northern portion of the study area (Figure 3). The paddock has recently been ploughed and cropped. The southern portion of the study area (Figure 4) has been heavily grazed in the past, however it does not contain any stock at present.

B. LANDFORM & TOPOGRAPHY

The study area is situated adjacent to the floodplain of the Yass River, which is located to the west. The Yass Valley is characterised as an area of floodplain, varying in width up to two kilometres. The terrain includes the floodplain, numerous permanent and ephemeral creeks and is bounded by rolling, gently undulating hills. Within the valley floor, the floodplain is particularly characterised by the presence of terraces, with the older terraces extending some distance from the Yass River.

C. SOIL AND WATER VALUES

The study area is within the Gundaroo soil landscape, as defined by Jenkins (2000). The Gundaroo unit is characterised by a narrow floodplain and associated terraces with a low local relief (<30m) and low slope gradients. The streams are generally deeply incised and there is no outcropping bedrock present. Land and soil capability mapping indicates that the study area has moderate to severe soil limitations (OEH, 2016).

Soils within the cropped paddock have a long history of disturbance and modification through ploughing, cropping and possibly fertiliser application. Three distinct elevated river terraces occur within the cropped paddock which are comprised of a reddish brown sandy loam. The paddock currently contains crops and no evidence of active erosion was observed within the paddock.



Figure 3 Cropped paddock



Figure 4 Paddock containing improved pasture, formerly grazed by stock

The ephemeral McLeods Creek meanders through the southern end of the study area, adjoining the Yass River near the south western corner of the property. McLeods Creek may carry significant volumes of water through the study area to the Yass River during high rainfall events, as evidenced by the deep and incised erosion gully. Alternatively, given upstream damming, this may be evidence of historic flows. Current observations suggest that

under normal conditions, the Creek would remain dry with few or no free standing pools of water. There were no pools of water observed within the creek at the time of the site inspection.

The gully generally has a depth of 0.5 - 1.5 metres below the adjacent flats, but was found to be approximately 2 metres deep in places. Soils on the gully banks are exposed and are at risk of further erosion. In the past, unimpeded livestock access into and out of McLeods Creek has exacerbated the exposure and subsequent erosion of the creek banks. The gully presents a risk of sedimentation of the Yass River.



Figure 5 Erosion gully, eastern side of study area



Figure 6 Erosion gully, facing towards Yass River



Figure 7 Erosion gully, native aquatic flora in creek channel



Figure 8 Exposed banks of erosion gully

D. BIODIVERSITY VALUES

i. Vegetation communities

The majority of the study area comprises a recently cropped paddock which has a history of regular ploughing, cultivation and possibly fertiliser application. Vegetation across the remaining southern portion of the study area has also been highly modified. The existing vegetation is sparse due to stock. As a result, the study area is dominated by exotic pasture species including Phalaris (*Phalaris aquatic*), Cocksfoot (*Dactylis glomerata*) and Fescue (*Vulpia spp.*). While native species occur, they have been selectively grazed and are a minor component.

The McLeods Creek erosion gully contain a mixture of native and exotic species. The base of the gully is well vegetated and dominated by Phalaris. Pinrush (*Juncus effusus*) is also common within low-lying and wetter areas. There are no trees occurring within the study area, except for three exotic Hawthorn (*Crataegus monogyna*) trees which occur within McLeods Creek. No shrubs occur within the study area, native or exotic.

The site does not contain any Endangered Ecological Communities listed under either the NSW *Biodiversity Conservation Act (BC Act)* or the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act).

ii. Weeds

The study area contains a variety of weeds, including:

- Serrated Tussock (*Nassella trichotoma*) – listed as a Class 4 noxious weed within the Southern Slopes local control authority area
- Scotch Thistle (*Onopordum acanthium*)
- Three Hawthorn trees located in McLeods Creek
- Fleabane (*Conzya spp.*).

The majority of the study area is highly disturbed. The cropped paddock has experienced a long history of disturbance by machinery through ploughing, cropping and harvesting. The southern portion of the study area contains a number of tracks which traverse the paddock that have been formed by livestock movement.



Figure 9 Hawthorn tree on edge of McLeods Creek

iii. Habitat values

Two general fauna habitat types were observed within the study area, neither were in good condition:

- Exotic grassland that could provide habitat for birds, insects and reptiles.
- Moist vegetated areas within McLeods Creek which may provide habitat for frogs during or following rainfall events. The creek is mapped as Key Fish Habitat although is highly degraded and not continuous.

The study area does not contain any critical habitat listed under the BC Act 2016 or the EPBC Act 1999.

iv. Fauna observations

Highly mobile species and species tolerant of disturbance would be most likely to utilise the site. The following bird species were seen flying over the site:

- A pair of Crimson Rosellas (*Platycercus elegans*)
- A pair of Red-rumped Parrots (*Psephotus haematonotus*)
- A Currawong (*Strepera versicolor*)

These bird species would be common in the surrounding farmland and peri-urban areas of the Yass Valley. The study area would not provide any important habitat for these species, which are highly mobile.

Calls of the Common Eastern Froglet (*Crinia signifera*) were heard from an area within McLeods Creek, downstream of the study area. This species would be common within aquatic and moist environments in and around the study area.

v. Potential for threatened species or populations

A search of the NSW Wildlife Atlas threatened species records was undertaken for a 10 kilometre radius around the study area (updated in March 2020). A search of the EPBC Protected Matters Search Tool was also undertaken (updated in March 2020) to ascertain which Commonwealth listed threatened species could potentially occur within, or in the vicinity of the study area. The full results of the threatened species searches are included at Appendix A.

The database search results indicate that a range of threatened species have the potential to occur within the study area or in the vicinity of the study area.

- Several threatened flora species were returned from the searches as having the potential to occur within the vicinity of the study area. Given the level of disturbance within the study area, including cropping, pasture improvement and intense livestock grazing, it is considered unlikely that threatened flora species would occur within the study area. Hoary Sun ray is disturbance tolerant but highly conspicuous and was not observed.
- While woodland bird species may occur from time to time, the lack of trees or shrubs would preclude most from occupying the study area. While they may fly over or visit the site from time to time, the study area provides no important habitat for any of the threatened bird species listed. Riparian lines are often movement corridors however, given the habitat structure, this is not considered important habitat.
- Similarly, the absence of any trees, shrubs or other refuge habitat in the study area also precludes the occurrence of the threatened mammals. The site contains no habitat for the Greater Glider, Koala, Eastern Bentwing-bat or the Grey headed Flying-fox. There is no habitat for the Spot-tailed Quoll within the study area or within any areas surrounding the study area.
- One threatened fish species was returned in the searches. McLeods Creek is mapped as Key Fish Habitat. However, given that the creek only experiences intermittent flows following heavy rainfall events, the creek does not provide habitat for the Macquarie Perch (*Macquaria australasica*) which is typically found in clear, deep waters. Further, the creek is understood to be dammed upstream.
- Three threatened frog species were returned in the searches, including the Green and Golden Bell Frog (*Litoria aurea*), the Yellow-spotted Tree Frog (*Litoria castanea*) and the Southern Bell Frog (*Litoria raniformis*). The habitat requirements for the Yellow-spotted Tree Frog include large permanent ponds or slow flowing 'chain-of-ponds' streams with abundant vegetation such as bullrushes and aquatic vegetation. This habitat does not occur within the study area. The Green and Golden Bell Frog is unlikely to occur within the study area, as their preferred habitats always contain plenty of vegetation in and around water. In NSW, the Southern Bell Frog is usually found in or around permanent or impermanent

swamps dominated by black box-lignum-nitre goosefoot, lignum-typha and river red gums or in billabongs along floodplains. At the time of the inspection, McLeods creek contained no water within the study area. Furthermore, aquatic vegetation within the creek is relatively sparse. The aquatic habitat within the study area is degraded and not considered likely to support any of these frog species.

The study area is unlikely to provide important habitat for any threatened species. There are no endangered populations listed for the area that could be affected by the proposal.

E. BUSH FIRE HAZARD

Bush fire prone land (BFPL) is land that has been identified by local council which can support a bush fire or is subject to bush fire attack. BFPL maps are prepared by local council and certified by the Commissioner of the NSW RFS. Yass Valley Council has mapped BFPL within the Yass Valley LGA, which is classified as follows:

- Vegetation Category 1 (coloured orange on the BFPL map): This is the most hazardous vegetation category and contains the most dense vegetation;
- Vegetation Category 2 (coloured yellow on the BFPL map): Smaller, isolated and less-dense pockets of vegetation that are of a lesser hazard than Vegetation Category 1; and
- Vegetation Buffer (coloured red on the BFPL map): These areas adjoin either Vegetation category 1 (with a 100m buffer) or Vegetation Category 2 (with a 30m buffer).

As shown in Figure 10, the study area contains no BFPL and does not adjoin any BFPL. The bush fire protection measures outlined in the NSW Rural Fire Service publication *Planning for Bush Fire Protection* (2019) would not apply to development in the study area.

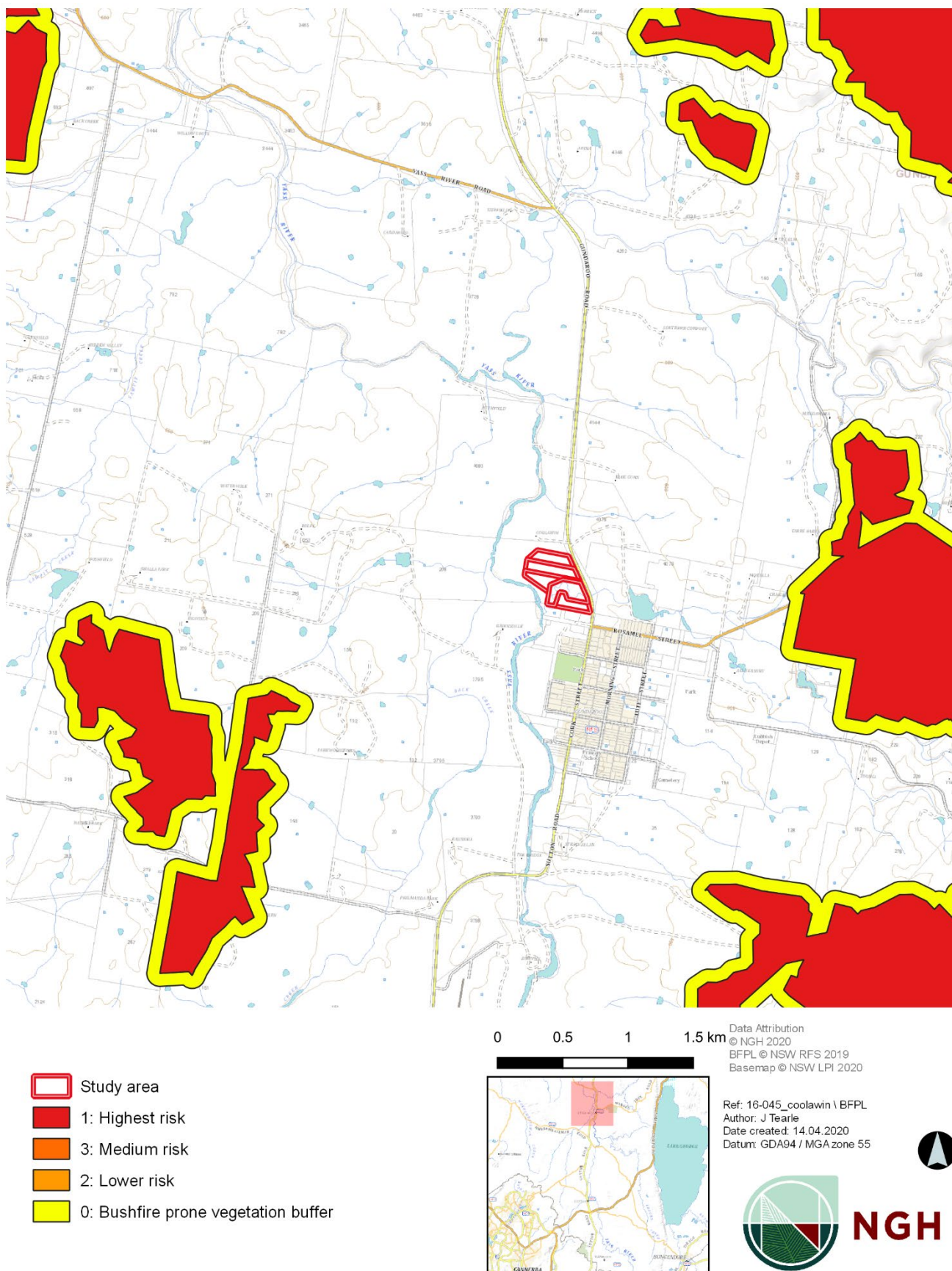


Figure 10 Bushfire prone land

4. CONSIDERATION OF THE BC ACT

A Biodiversity Assessment Methodology (BAM) assessment, pursuant to the *Biodiversity Conservation Act 2016*, is now required for Part 4 developments that trigger the NSW Biodiversity Offsets Scheme (BOS). In terms of BOS triggers and the subject site:

- Native vegetation clearing:
 - Your minimum lot size under the Yass Valley Local Environmental Plan 2013, Amendment No. 2 is 40 ha. The BOS native vegetation clearing threshold for this lot size is: 1 ha. Clearing native vegetation (including native ground cover) 1 ha or greater is a trigger for the BOS. For subdivisions, the total area of the subdivision is usually used, unless development envelopes and protected areas are defined as part of the development application.

We note that the northern three lots are cropped (refer Figure 2) and would not trigger this area threshold. The southern two lots may retain some native species however, in these lots building envelopes are designated that are in total well under the 1 ha trigger ($0.1 + 0.21 = 0.31$ ha). Even considering additional access tracks to these envelopes, it is considered that the native vegetation clearing will not trigger the clearing threshold for the proposed development.

- Biodiversity values mapping:
 - The proposed development intersects areas mapped by OEH as 'Biodiversity Values Mapping' (Figure 11; Protected Riparian Land). Any native vegetation clearing in this mapped area will trigger the BOS.

We note that the BV mapping is entirely contained within one lot, which has building envelopes delineated and therefore that no native vegetation clearing in this area is proposed. To provide certainty we would recommend a stipulation be made in the development consent to the effect that no native vegetation clearing be undertaken within the BV mapping area (unless subject to a BOS assessment).

- Significant impact on listed flora or fauna:
 - A site inspection has determined it would be unlikely for the clearing to generate a significant impact on the basis of impacts to flora and fauna habitat. The proposal would not trigger this threshold for the proposed development.

Based on the above factors, an assessment in accordance with the BAM will not be required to support clearing of native vegetation for the proposed development.

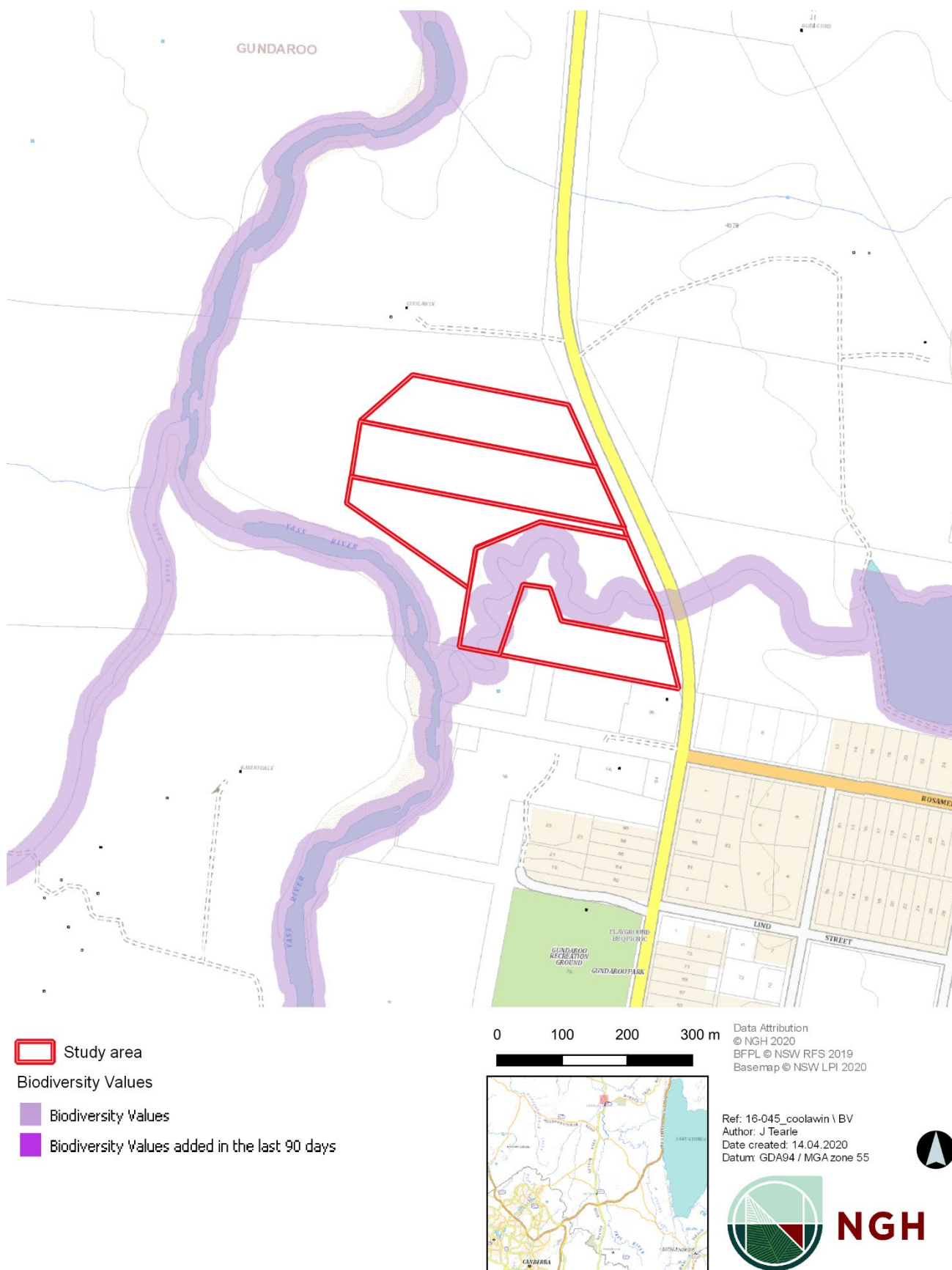


Figure 11 BV mapping; Protected Riparian Lands

4. CONCLUSION AND RECOMMENDATIONS

The study area is productive agricultural land, having been improved for pasture production. It presents a low constraint to development on the basis of environmental values and risks however:

1. Active erosion of McLeods Creek should be addressed to both preserve onsite resources and arrest ongoing sediment input into the broader catchment.
2. The BOS will not be triggered and an assessment in accordance with the BAM will be required so long as native vegetation clearing is restricted below 1 ha and no native vegetation clearing is undertaken in the BV mapping area indicated in figure 11

As part of the proposed development at the site, there are opportunities to undertake stabilisation and revegetation of the erosion gully to prevent or minimise erosion of McLeods Creek. Works required to achieve rehabilitation of the Creek would likely include:

- Reshaping the gully walls using earthmoving equipment to achieve slopes of less than 1:4 which will allow for establishment of vegetation cover.
- Rapid establishment of groundcover over exposed banks/batters, to achieve at least 70% cover.
- Establishment of more complex vegetation types within the creek to increase the filtration of water flowing through the study area e.g. additional planting of native grasses, sedges and rushes.
- Fencing stock out of McLeods Creek.

APPENDIX A THREATENED SPECIES SEARCHES

A.1 NSW 10km buffer, March 18, 20202

A.2 EPBC 10km buffer, March 18, 20202

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 0.1°; ^^ rounded to 0.01°). Copyright the State of NSW through the Office of Environment and Heritage. Search criteria : Public Report of all Valid Records of Threatened (listed on TSC Act 1995) or Commonwealth listed Entities in selected area [North: -34.96 West: 149.21 East: 149.31 South: -35.06] returned a total of 87 records of 11 species.

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Kingdom	Class	Family	Species Code	Scientific Name	Common Name	NSW status	Comm. status	Records
Animalia	Aves	Accipitridae	0225	<i>Hieraaetus morphnoides</i>	Little Eagle	V,P		1
Animalia	Aves	Cacatuidae	0268	^^ <i>Callocephalon fimbriatum</i>	Gang-gang Cockatoo	V,P,3		2
Animalia	Aves	Psittacidae	0277	^^ <i>Polytelis swainsonii</i>	Superb Parrot	V,P,3	V	11
Animalia	Aves	Climacteridae	8127	<i>Climacteris picumnus victoriae</i>	Brown Treecreeper (eastern subspecies)	V,P		1
Animalia	Aves	Meliphagidae	0603	<i>Anthochaera phrygia</i>	Regent Honeyeater	E4A,P	CE	2
Animalia	Aves	Neosittidae	0549	<i>Daphoenositta chrysoptera</i>	Varied Sittella	V,P		1
Animalia	Aves	Petroicidae	0380	<i>Petroica boodang</i>	Scarlet Robin	V,P		2
Animalia	Aves	Estrildidae	0652	<i>Stagonopleura guttata</i>	Diamond Firetail	V,P		1
Animalia	Mammalia	Vespertilionidae	1834	<i>Miniopterus schreibersii oceanensis</i>	Eastern Bentwing-bat	V,P		1
Animalia	Insecta	Castniidae	I003	<i>Synemon plana</i>	Golden Sun Moth	E1	CE	50
Plantae	Flora	Asteraceae	9071	<i>Leucochrysum albicans</i> var. <i>tricolor</i>	Hoary Sunray	P	E	15



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 [Environment Assessments](#) and the EPBC Act including significance guidelines, forms and application process details.

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[Summary](#)

[Details](#)

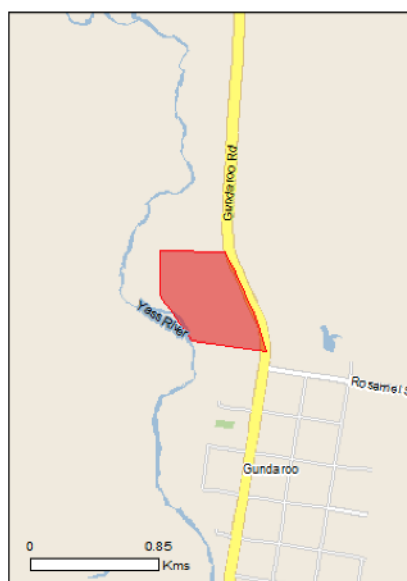
[Matters of NES](#)

[Other Matters Protected by the EPBC Act](#)

[Extra Information](#)

[Caveat](#)

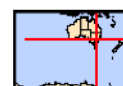
[Acknowledgements](#)



This map may contain data which are
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[Coordinates](#)

Buffer: 0.0Km



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 [Administrative Guidelines on Significance](#).

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:	2
Listed Threatened Species:	24
Listed Migratory Species:	11

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>

A [permit](#) may be required for activities in or on a Commonwealth area that may affect a member of a listed threatened species or ecological community, a member of a listed migratory species, whales and other cetaceans, or a member of a listed marine species.

Commonwealth Land:	None
Commonwealth Heritage Places:	None
Listed Marine Species:	14
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:	None
Regional Forest Agreements:	None
Invasive Species:	32
Nationally Important Wetlands:	None
Key Ecological Features (Marine):	None

Details

Matters of National Environmental Significance

Wetlands of International Importance (Ramsar)	[Resource Information]
Name	Proximity
Banrock station wetland complex	800 - 900km upstream
Hattah-kulkyne lakes	600 - 700km upstream
Riverland	700 - 800km upstream
The coorong, and lakes alexandrina and albert wetland	800 - 900km upstream

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
Natural Temperate Grassland of the South Eastern Highlands	Critically Endangered	Community likely to occur within area
White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland	Critically Endangered	Community may occur within area

Listed Threatened Species [\[Resource Information \]](#)

Name	Status	Type of Presence
Birds		
Anthochaera phrygia		
Regent Honeyeater [82338]	Critically Endangered	Species or species habitat likely to occur within area
Grantiella picta		
Painted Honeyeater [470]	Vulnerable	Species or species habitat likely to occur within area
Lathamus discolor		
Swift Parrot [744]	Critically Endangered	Species or species habitat may occur within area
Polytelis swainsonii		
Superb Parrot [738]	Vulnerable	Species or species habitat known to occur within area
Rostratula australis		
Australian Painted Snipe [77037]	Endangered	Species or species habitat may occur within area
Fish		
Maccullochella peelii		
Murray Cod [66633]	Vulnerable	Species or species habitat may occur within area
Macquaria australasica		
Macquarie Perch [66632]	Endangered	Species or species habitat may occur within area
Frogs		
Litoria aurea		
Green and Golden Bell Frog [1870]	Vulnerable	Species or species habitat may occur within area

Name	Status	Type of Presence
Litoria castanea Yellow-spotted Tree Frog, Yellow-spotted Bell Frog [1848]	Endangered	Species or species habitat likely to occur within area
Litoria raniformis Growling Grass Frog, Southern Bell Frog, Green and Golden Frog, Warty Swamp Frog [1828]	Vulnerable	Species or species habitat may occur within area
Insects		
Synemon plana Golden Sun Moth [25234]	Critically Endangered	Species or species habitat may occur within area
Mammals		
Dasyurus maculatus maculatus (SE mainland population) Spot-tailed Quoll, Spotted-tail Quoll, Tiger Quoll (southeastern mainland population) [75184]	Endangered	Species or species habitat may occur within area
Petauroides volans Greater Glider [254]	Vulnerable	Species or species habitat may occur within area
Phascolarctos cinereus (combined populations of Qld, NSW and the ACT) Koala (combined populations of Queensland, New South Wales and the Australian Capital Territory) [85104]	Vulnerable	Species or species habitat may occur within area
Pteropus poliocephalus Grey-headed Flying-fox [186]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Plants		
Eucalyptus aggregata Black Gum [20890]	Vulnerable	Species or species habitat may occur within area
Lepidium hyssopifolium Basalt Pepper-cress, Peppercress, Rubble Pepper-cress, Pepperweed [16542]	Endangered	Species or species habitat may occur within area
Leucochrysum albicans var. tricolor Hoary Sunray, Grassland Paper-daisy [56204]	Endangered	Species or species habitat likely to occur within area
Pelargonium sp. Striatellum (G.W.Carr 10345) Omeo Stork's-bill [84065]	Endangered	Species or species habitat may occur within area
Prasophyllum petilum Tarengo Leek Orchid [55144]	Endangered	Species or species habitat may occur within area
Prasophyllum sp. Wybong (C.Phelps ORG 5269) a leek-orchid [81964]	Critically Endangered	Species or species habitat may occur within area
Senecio macrocarpus Large-fruit Fireweed, Large-fruit Groundsel [16333]	Vulnerable	Species or species habitat likely to occur within area
Reptiles		
Aprasia parapulchella Pink-tailed Worm-lizard, Pink-tailed Legless Lizard [1665]	Vulnerable	Species or species habitat likely to occur within area
Delma impar Striped Legless Lizard [1649]	Vulnerable	Species or species habitat likely to occur within area
Listed Migratory Species		[Resource Information]
* Species is listed under a different scientific name on the EPBC Act - Threatened Species list.		
Name	Threatened	Type of Presence

Name	Threatened	Type of Presence
Migratory Marine Birds		
Apus pacificus		
Fork-tailed Swift [678]		Species or species habitat likely to occur within area
Migratory Terrestrial Species		
Hirundapus caudacutus		
White-throated Needletail [682]		Species or species habitat likely to occur within area
Merops ornatus		
Rainbow Bee-eater [670]		Species or species habitat may occur within area
Monarcha melanopsis		
Black-faced Monarch [609]		Species or species habitat likely to occur within area
Motacilla flava		
Yellow Wagtail [644]		Species or species habitat may occur within area
Myiagra cyanoleuca		
Satin Flycatcher [612]		Species or species habitat likely to occur within area
Rhipidura rufifrons		
Rufous Fantail [592]		Species or species habitat likely to occur within area
Migratory Wetlands Species		
Ardea alba		
Great Egret, White Egret [59541]		Species or species habitat likely 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
Pandion haliaetus		
Osprey [952]		Species or species habitat may occur within area

Other Matters Protected by the EPBC Act

Listed Marine Species	[Resource Information]	
* Species is listed under a different scientific name on the EPBC Act - Threatened Species list.		
Name	Threatened	Type of Presence
Birds		
Apus pacificus		
Fork-tailed Swift [678]		Species or species habitat likely to occur within area
Ardea alba		
Great Egret, White Egret [59541]		Species or species habitat likely 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

Name	Threatened	Type of Presence
Haliaeetus leucogaster White-bellied Sea-Eagle [943]		habitat may occur within area Species or species habitat likely to occur within area
Hirundapus caudacutus White-throated Needletail [682]		Species or species habitat likely to occur within area
Lathamus discolor Swift Parrot [744]	Critically Endangered	Species or species habitat may occur within area
Merops ornatus Rainbow Bee-eater [670]		Species or species habitat may occur within area
Monarcha melanopsis Black-faced Monarch [609]		Species or species habitat likely to occur within area
Motacilla flava Yellow Wagtail [644]		Species or species habitat may occur within area
Myiagra cyanoleuca Satin Flycatcher [612]		Species or species habitat likely to occur within area
Pandion haliaetus Osprey [952]		Species or species habitat may occur within area
Rhipidura rufifrons Rufous Fantail [592]		Species or species habitat likely to occur within area
Rostratula benghalensis (sensu lato) Painted Snipe [889]	Endangered*	Species or species habitat may occur within area

Extra Information

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 Resources Audit, 2001.

Name	Status	Type of Presence
Birds		
<i>Acridotheres tristis</i> Common Myna, Indian Myna [387]		Species or species habitat likely to occur within area
<i>Alauda arvensis</i> Skylark [656]		Species or species habitat likely to occur

Name	Status	Type of Presence
		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
Carduelis chloris European Greenfinch [404]		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
Streptopelia chinensis Spotted Turtle-Dove [780]		Species or species habitat likely to occur within area
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
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 norvegicus Brown Rat, Norway Rat [83]		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

Name	Status	Type of Presence within area
Plants		
Alternanthera philoxeroides Alligator Weed [11620]		Species or species habitat likely to occur within area
Cytisus scoparius Broom, English Broom, Scotch Broom, Common Broom, Scottish Broom, Spanish Broom [5934]		Species or species habitat likely to occur within area
Genista monspessulana Montpellier Broom, Cape Broom, Canary Broom, Common Broom, French Broom, Soft Broom [20126]		Species or species habitat likely to occur within area
Genista sp. X Genista monspessulana Broom [67538]		Species or species habitat may occur within area
Nassella neesiana Chilean Needle grass [67699]		Species or species habitat likely to occur within area
Nassella trichotoma Serrated Tussock, Yass River Tussock, Yass Tussock, Nassella Tussock (NZ) [18884]		Species or species habitat likely to occur within area
Pinus radiata Radiata Pine Monterey Pine, Insignis Pine, Wilding Pine [20780]		Species or species habitat may 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 reichardtii Willows except Weeping Willow, Pussy Willow and Sterile Pussy Willow [68497]		Species or species habitat likely to occur within area
Senecio madagascariensis Fireweed, Madagascar Ragwort, Madagascar Groundsel [2624]		Species or species habitat likely to occur within area
Ulex europaeus Gorse, Furze [7693]		Species or species habitat likely to occur within area

APPENDIX B SPECIES WITH POTENTIAL TO OCCUR

Species	NSW status	Commonwealth status
Flora		
Hoary Sunray <i>Leucochrysum albicans</i> var. <i>tricolor</i>	Not listed	Endangered
Black Gum <i>Eucalyptus aggregate</i>	Vulnerable	Vulnerable
Basalt peppercress <i>Lepidium hyssopifolium</i>	Endangered	Endangered
Omeo Storks-bill <i>Pelargonium</i> sp. <i>Striatellum</i>	Endangered	Endangered
Tarengo Leek Orchid <i>Prasophyllum petilum</i>	Endangered	Endangered
A leek orchid <i>Prasophyllum</i> sp. <i>Wybong</i>	Endangered	Critically Endangered
Large-fruit Fireweed <i>Senecio macrocarpus</i>	Not listed	Vulnerable
Fauna		
Birds		
Little Eagle <i>Hieraaetus morphnoides</i>	Vulnerable	Not listed
Gang-gang Cockatoo <i>Callocephalon fimbriatum</i>	Vulnerable	Not listed
Superb Parrot <i>Polytelis swainsonii</i>	Vulnerable	Vulnerable
Swift Parrot <i>Lathamus discolor</i>	Endangered	Critically Endangered
Brown Treecreeper <i>Climacteris picumnus victoriae</i>	Vulnerable	Not listed
Regent Honeyeater <i>Anthochaera phrygia</i>	Critically Endangered	Critically Endangered
Painted Honeyeater <i>Grantiella picta</i>	Vulnerable	Vulnerable
Varied Sittella <i>Daphoenositta chrysoptera</i>	Vulnerable	Not listed
Scarlet Robin <i>Petroica boodang</i>	Vulnerable	Not listed
Diamond Firetail <i>Stagonopleura guttata</i>	Vulnerable	Not listed

Australian Painted Snipe <i>Rostratula australis</i>	Endangered	Endangered
Mammals		
Spot-tailed Quoll <i>Dasyurus maculatus maculatus</i>	Vulnerable	Endangered
Greater Glider <i>Petauroides volans</i>	Not listed	Vulnerable
Koala (combined populations of Queensland, New South Wales and ACT) <i>Phascolarctos cinereus</i>	Vulnerable	Vulnerable
Grey-headed Flying-fox <i>Pteropus poliocephalus</i>	Vulnerable	Vulnerable
Eastern Bentwing-bat <i>Miniopterus schreibersii oceanensis</i>	Endangered	Not listed
Invertebrates		
Golden Sun Moth <i>Synemon plana</i>	Endangered	Critically Endangered
Amphibians		
Green and Golden Bell Frog <i>Litoria aurea</i>	Endangered	Vulnerable
Yellow-spotted Tree Frog <i>Litoria castanea</i>	Critically Endangered	Endangered
Southern Bell Frog <i>Litoria raniformis</i>	Endangered	Vulnerable
Reptiles		
Pink-tailed Worm-lizard <i>Aprasia parapulchella</i>	Vulnerable	Vulnerable
Striped Legless Lizard <i>Delma impar</i>	Vulnerable	Vulnerable
Fish		
Murray Cod <i>Maccullochella peelii</i>	Not listed	Vulnerable
Macquarie Perch <i>Macquaria australasica</i>	Endangered (Fisheries Management Act 1994)	Endangered

