



**Legend**

- Study Area
- Search Area

Migratory fauna

- 0168; Latham's Snipe
- 0226; White-bellied Sea-Eagle
- 0334; White-throated Needletail
- 0335; Fork-tailed Swift
- 0362; Rufous Fantail
- 0373; Black-faced Monarch
- 0603; Regent Honeyeater
- 0977; Cattle Egret
- 8712; Eastern Great Egret

Figure 5: Migratory Fauna within 5km of the Study Area

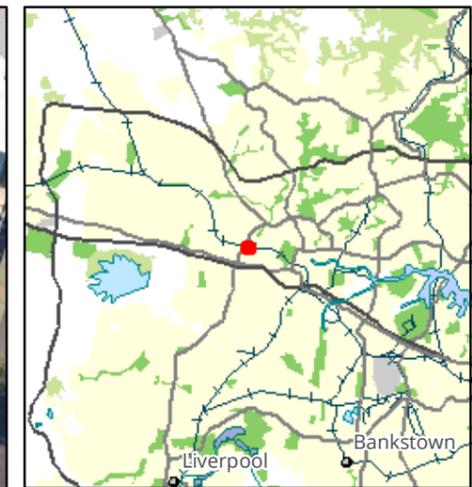
0 350 700 1,050 1,400 1,750  
Metres

Scale: 1:35,000 @ A3  
Coordinate System: GDA 1994 MGA Zone 55



Ballarat, Brisbane, Canberra, Melbourne, Sydney, Wangaratta & Wollongong

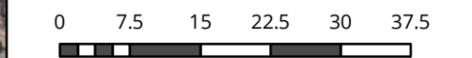
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Checked by: BW, Drawn by: JMS, Last edited by: jshepherd  
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**Legend**

- Study area
- ▲ Trees
- Vegetation Patches

Figure 6: Vegetation types within Wentworthville Station Study Area



Metres  
 Scale: 1:757 @ A3  
 Coordinate System: GDA 1994 MGA Zone 56

**biosis**

Biosis Pty Ltd

Ballarat, Brisbane, Canberra, Melbourne,  
 Newcastle, Sydney, Wangaratta & Wollongong

Matter: 19160  
 Date: 06 November 2014,  
 Checked by: BW, Drawn by: JMS, Last edited by: jshepherd  
 Location: P:\19100s\19160\Mapping\19160\_F6\_Veg

### 3.2.3 Description of fauna habitat within the study area

A few larger, mature trees and shrubs with fauna habitat value remain in the study area. These comprise the Grey Gum and the adjacent large Bottlebrushes which can provide nectar resources, and some of the larger Camphor Laurel trees which can develop hollows suitable for use by Common Brush-tail Possums and other fauna. However no hollows were detected.

The ramps, steps and concourses do not contain suitable cracks or holes that could be used by fauna species such as micro-bats or birds.

No fauna species were observed within the study area during the site inspection in October 2014. However during a previous site inspection by Biosis in 2013, the study area was found to support a small assemblage of native and exotic fauna species, including Rainbow Lorikeet, Red Wattlebird and Noisy Miner, which have adapted to modified urban environments.

Due to the limited habitat available and lack of connectivity to other areas of habitat, overall fauna diversity is expected to be low. The threatened Grey-headed Flying-fox and Little Lorikeet may visit the study area to forage on the Grey Gum and Bottlebrushes when flowering and some threatened micro-bat species may forage while flying over the study area.

### 3.2.4 Condition of the vegetation and presence of weeds

The vegetation and fauna habitat throughout the majority of the study area has been modified by a long history of disturbances which have resulted in clearance of vegetation and invasion by exotic trees and by noxious and environmental weeds in the ground and shrub layer. Some parts of the study area have been treated as a garden or landscape area with a monoculture (small memorial area) or as regularly spaced plantings (north side footpath area and various other parts of the study area).

Environmental weeds recorded within the study area, that are declared under the *Noxious Weeds Act 1993* (NW Act) in the Holroyd or Parramatta City Council Control Areas together with the legal requirements for their control are listed in Table 2.

**Table 2: Declared Noxious Weeds in the study area and their legal control requirements**

Scientific Name	Common Name	Class	Legal Requirements
<b><i>Cestrum parqui</i></b>	Green Cestrum	3	<i>The plant must be fully and continuously suppressed and destroyed and the plant must not be sold, propagated or knowingly distributed.</i>
<b><i>Lantana camara</i></b>	Lantana	4	<i>The growth of the plant must be managed in a manner that continuously inhibits the ability of the plant to spread and the plant must not be sold, propagated or knowingly distributed.</i>
<b><i>Ligustrum sinense</i></b>	Small-leaved Privet	4	<i>The growth of the plant must be managed in a manner that continuously inhibits the ability of the plant to spread and the plant must not be sold, propagated or knowingly distributed.</i>
<b><i>Ligustrum lucidum</i></b>	Large-leaved Privet	4	<i>The growth of the plant must be managed in a manner that continuously inhibits the ability of the plant to spread and the plant must not be sold, propagated or knowingly distributed.</i>

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## **Notes**

Further explanations of the relevant control classes and classifications are as follows:

Class 3 – Regionally Controlled Weeds: Plants that pose a potentially serious threat to primary production or the environment of a region to which the order applies, are not widely distributed in the area and are likely to spread in the area or to another area.

Class 4 – Locally Controlled Weeds: Plants that pose a potentially serious threat to primary production, the environment or human health, are widely distributed in an area to which the order applies and are likely to spread in the area or to another area. The local control authority is Holroyd City Council or Parramatta City Council.

Class 5 – Notifiable Weeds: Plants that are likely, by their sale or the sale of their seeds or movement within the State or an area of the State, to spread in the State or outside the State. There are no requirements to control existing plants of Class 5 weeds. However, the weeds are "notifiable" and a range of restrictions on their sale and movement exists.

WoNS – Weeds of National Significance

Apart from declared noxious species, a number of common environmental weed species were recorded within the study area but none were present at high abundance apart from Lantana. Environmental weed species of note included: Lantana *Lantana camara*, Cobbler's Pegs *Bidens pilosa*, Moth Vine *Araujia sericifera*, Tree of Heaven *Ailanthus altissima*, Ochna *Ochna serrulata*, Paddy's Lucerne *Sida rhombifolia* and a number of exotic herbs and perennial grasses.

### 3.3 Significant species

#### 3.3.1 EPBC Act & TSC Act listed species

Lists of significant species recorded or predicted to occur within 5 km of the study area are provided in Appendix 1 (flora) and Appendix 2 fauna). An assessment of the likelihood of these species occurring in the study area and an indication of where they may occur within the study area (i.e. which habitats or features of relevance to the species) is included. A summary of those species recorded or with a medium or higher likelihood of occurring in the study area is provided in Table 3.

**Table 3: Summary of threatened species with potential to occur in the study area**

Species name	Section of the study area providing habitat
<b>EPBC Act listed species</b>	
<b>Grey-headed Flying-fox</b>	Potential nocturnal foraging habitat during flowering period of large Grey Gum at base of stairs on the northern side of rail corridor.
<b>TSC Act listed species</b>	
<b>Grey-headed Flying-fox</b>	Potential nocturnal foraging habitat during flowering period of large Grey Gum at base of stairs on the northern side of rail corridor.
<b>Eastern Bentwing Bat</b>	May potentially forage while flying over the study area. May periodically roost in any culverts under the road or rail corridor near the study area
<b>East Coast Freetail-bat</b>	May potentially forage while flying over the study area.
<b>Little Lorikeet</b>	Potential diurnal foraging habitat during flowering period of large Grey Gum and planted Bottlebrushes at base of stairs on the northern side of rail corridor.

### 3.4 Threatened ecological communities

No threatened ecological communities, listed under either the NSW TSC Act or the Commonwealth EPBC Act, occur within the study area. While there is a small patch of vegetation containing a remnant tree species of a TEC, the very small size of this area; its configuration with a very high edge to area ratio; and its isolation from other patches of natural vegetation, means that it is unlikely to ever regenerate to become a viable representation of a TEC, even with assisted natural regeneration.

### 3.5 Further survey recommendations

No additional flora or fauna surveys are recommended. The surveys carried out for this assessment are considered to be adequate for the purpose and sufficient to account for any threatened species or ecological communities that occur or have potential to occur within the study area.

## 4. Biodiversity Legislation and Government Policy

This section provides an assessment of the proposal against key biodiversity legislation and government policy.

Where available, links to further information are provided. This section does not describe the legislation and policy in detail and guidance provided here does not constitute legal advice.

Figure 7 shows the layout of the Wentworthville Railway Station Accessibility Upgrade Proposal.

### 4.1 Commonwealth

#### 4.1.1 Cwlth Environment Protection and Biodiversity Conservation Act 1999

The EPBC Act applies to developments and associated activities that have the potential to significantly impact on Matters of National Environmental Significance (NES) protected under the Act. The EPBC Act Protected Matters Report is provided in Appendix 5.

Matters of National Environmental Significance relevant to the proposal are summarised in Table 4. It includes an assessment against the EPBC Act policy statements published by the Australian Government which provide guidance on the practical application of EPBC Act including.

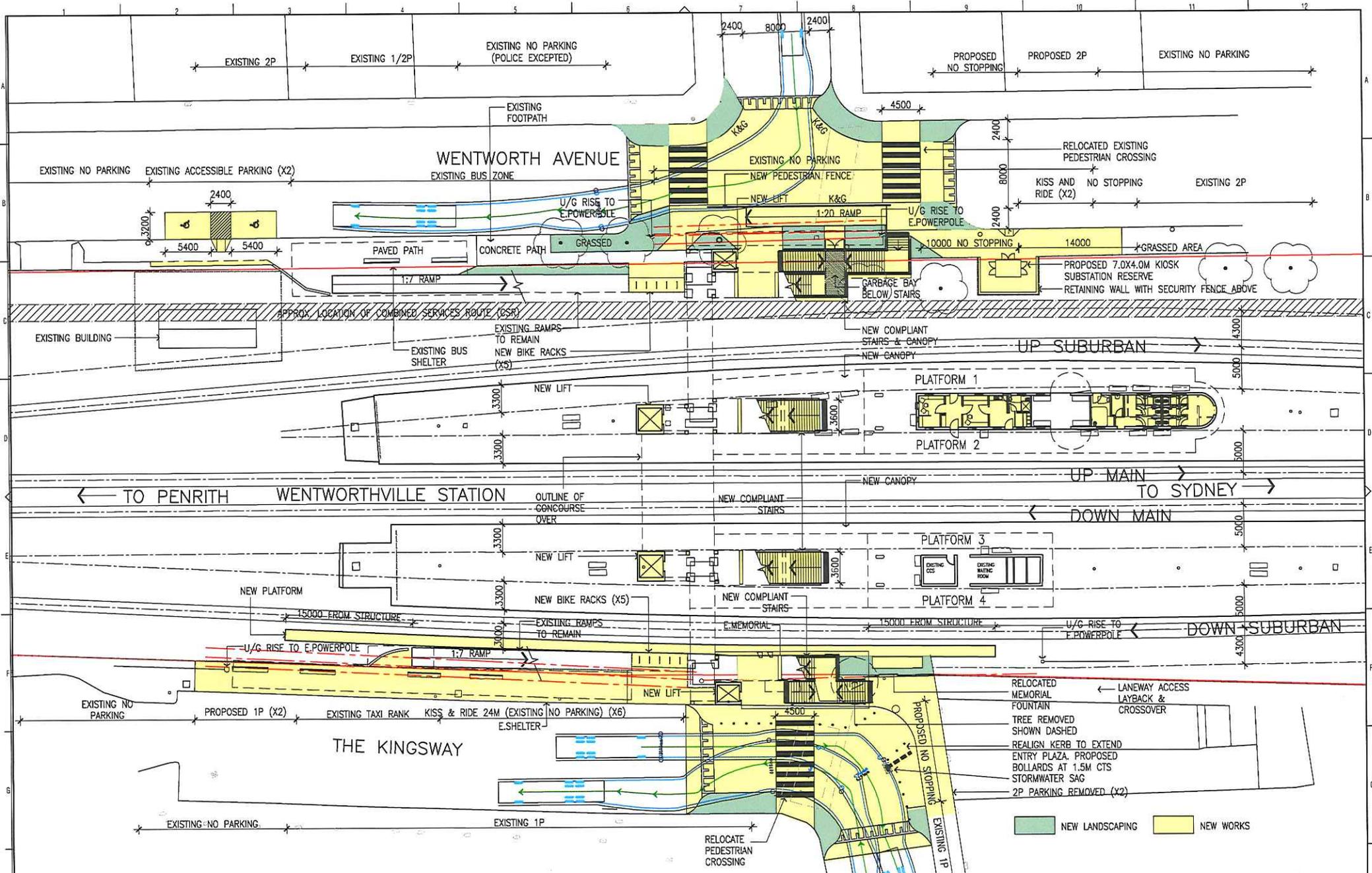
**Table 4: Assessment of the proposal against the EPBC Act**

Matter of NES	Project specifics	Assessment against Guidelines
<b>Threatened species and ecological communities</b>	32 threatened species (15 flora and 17 fauna) and 8 Threatened Ecological Communities have been recorded or predicted to occur in the project search area. The likelihood of these species occurring in the study area is assessed in Appendix 1 (flora) and Appendix 2 (fauna).	None of the Threatened Ecological Communities listed under the EPBC Act is present within the study area.  Only one of these species, the Grey-headed Flying-fox is likely to occur. As part of the proposal, it is proposed to remove this area of potential foraging habitat. However, this minor loss of foraging habitat is unlikely to significantly impact this species.
<b>Migratory species</b>	30 migratory species have been recorded or predicted to occur in the project search area (Appendix A2.2).	None of the species are expected to utilise the study area.
<b>Wetlands of international importance (Ramsar sites).</b>	The study area does not drain directly into a Ramsar site.	

On the basis of criteria outlined in the relevant *Significant Impact Guidelines* (DoE, 2013) it is considered unlikely that a significant impact on a Matter of National Environmental Significance would result from the proposed action. Therefore Biosis does not believe that referral of the proposal to the Commonwealth DoE pursuant to the EPBC Act is warranted in this case. However, Transport for NSW may choose to refer the

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proposed action to the Australian Government Minister for the Environment to determine whether the action requires approval under the EPBC Act.



- RELOCATED MEMORIAL FOUNTAIN
- TREE REMOVED SHOWN DASHED
- REALIGN KERB TO EXTEND ENTRY PLAZA. PROPOSED BOLLARDS AT 1.5M CTS
- STORMWATER SAG
- 2P PARKING REMOVED (X2)
- NEW LANDSCAPING
- NEW WORKS

REV.	BY	DATE	DESCRIPTION	APPD.
3	MR 140113		GEN. UPDATE: TEXT, LANDSCAPING AND SUBSTATION ADDED	HN
2	MR 140107		GEN. UPDATE: BOLLARDS AND FENCING	HN
1	MR 131220		GEN. UPDATE: LANDSCAPING AND SUBSTATION	RW

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**CLIENT**  
NSW Government  
Transport for NSW

**SERVICE PROVIDERS**  
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**NSW Transport RailCorp**

**WENTWORTHVILLE**

PLATFORM PLAN OPTION 2.1  
1:200 @ A1 / 1:400 @ A3

FILE No.	SHEET	OF	A1
STATUS:	DRG No.	SKA002	

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 Plot Date: 24/01/14 - 16:41

## 4.2 State

### 4.2.1 Threatened Species Conservation Act 1995

The TSC Act provides for the protection and conservation of biodiversity in NSW through the listing of threatened species, populations and communities; key threatening processes; and critical habitat for threatened species, populations and communities.

The only native vegetation within the study area comprises individual trees most of which are planted cultivars or are not indigenous to the area. The only locally indigenous vegetation within the study area is the large Grey Gum at the base of the stairs on the northern side of the rail corridor.

No threatened flora or fauna species, population or ecological community was detected within the study area, however the Grey Gum and adjacent Bottlebrushes near the existing stairs on the north side of the rail corridor provide a small amount of potential foraging habitat for the threatened species Grey-headed Flying-fox and Little Lorikeet and the Grey Gum may provide a small amount of potential roosting habitat for the East Coast Freetail-bat. The significance of potential impacts from the proposal on these species is discussed in section 4.2.2.1 and Table 5.

Habitat critical to the survival of an endangered or critically endangered species, population or ecological community can be identified under the TSC Act and listed on the Register of Critical Habitat kept by the OEH. The study area does not contain declared 'critical habitat'.

Potentially relevant Key Threatening processes also require consideration and assessment in the 7-part test. There are currently 37 key threatening processes listed under the TSC Act. None is relevant to the study area or proposal.

### 4.2.2 Environmental Planning and Assessment Act 1979

The EP&A Act was enacted to encourage the proper consideration and management of impacts of proposed development or land-use changes on the environment (both natural and built) and the community. The Act is administered by the NSW Department of Planning and Infrastructure

Sections of the EP&A Act of primary relevance to the natural environment are considered further below in relation to the proposal

#### 4.2.2.1 Assessment of Significance (Section 5A)

Section 5A of the EP&A Act requires proponents and consent authorities to consider if a development will have a significant effect on threatened species, populations or communities listed under the TSC Act and FM Act. Section 5A (and Section 9A of the TSC Act) outlines seven factors that must be taken into account in an Assessment of Significance (known as a "7-part test"). Where any Assessment of Significance determines that a development will result in a significant effect to a threatened species, population or community a Species Impact Statement (SIS) is required.

Of the 20 threatened flora species and 29 threatened fauna species listed under the TSC Act and previously recorded within the search area, four fauna species are considered to have some potential to occur within the study area.

Table 5 summarises the potential for the proposed development to have a significant effect on the threatened flora and fauna species, populations or communities deemed to have a medium or greater

likelihood of occurrence within the study area (refer to Section 3.3.1) and determines the need for an Assessment of Significance under Part 5A of the EP&A Act.

While there will be a minor loss of potential foraging habitat for the Grey-headed Flying-fox and Little Lorikeet, and a minor loss of possible roosting habitat for the East Coast Freetail Bat as a result of the removal of the large Grey Gum and associated large Bottlebrushes, these losses are so minor as to not require a formal Impact Assessment.

**Table 5: Potential for impacts on threatened species listed on the TSC Act**

Name	EPBC Act	TSC Act	FM Act	Habitat Values within study area	Potential Impacts on Threatened Species			Impact Assessment Required?
					Adversely affect stages of the lifecycle of the species?	Loss or disturbance of limiting foraging or breeding resources?	Fragmentation of limiting habitat?	
<b>Flora species</b>	None likely to occur							
<b>Fauna species</b>								
<b>Eastern Bentwing Bat</b> <i>Miniopterus schreibersii oceanensis</i>	-	V	-	May forage while flying over the study area.	No	No	No	No
<b>East Coast Freetail-bat</b> <i>Mormopterus (Micronomus) norfolkensis</i>	-	V	-	May forage while flying over the study area and potentially roost under bark on the large Grey Gum	No	No	No	No
<b>Grey-headed Flying-fox</b> <i>Pteropus poliocephalus</i>	V	V	-	May forage on large Grey Gum during flowering period	No	No	No	No
<b>Little Lorikeet</b> <i>Glossopsitta pusilla</i>	-	V	-	May forage on large Grey Gum and adjacent Bottlebrushes	No	No	No	No

Name	EPBC Act	TSC Act	FM Act	Habitat Values within study area	Potential Impacts on Threatened Species			Impact Assessment Required?
					Adversely affect stages of the lifecycle of the species?	Loss or disturbance of limiting foraging or breeding resources?	Fragmentation of limiting habitat?	
				during flowering period				
<b>Populations</b>	<b>None present</b>							
<b>Communities</b>	<b>None present</b>							

**Notes to table:**

**EPBC Act:**

E - Endangered  
V - Vulnerable

**TSC Act:**

E1 – Endangered (Part 1, Schedule 1)  
E4A – Critically Endangered (Part 4, Schedule 1a)  
V – Vulnerable (Part 1, Schedule 2)

#### 4.2.2.2 State Environmental Planning Policies (Part 3 Division 2)

State Environmental Planning Policies (SEPPs) outline policy objectives relevant to state wide issues. SEPPs potentially relevant to the current development are:

##### SEPP No. 44 Koala Habitat Protection

SEPP 44 applies to areas of native vegetation greater than one hectare and in local government areas listed in Schedule 1 to the SEPP. One tree of one Koala feed tree species, Grey Gum *Eucalyptus punctata*, as listed under SEPP No. 44, occurs within the study area. It is proposed to be removed. Since the vegetated area to be cleared is far less than one hectare, SEPP 44 does not apply to this proposal.

#### 4.2.3 Noxious Weeds Act 1993

The NW Act was enacted to provide for the identification, classification and control of noxious weeds. Plants declared as noxious weeds are currently listed under Weed Control Order No. 28 Declaring Certain Plants to be Noxious Weeds published in the New South Wales Government Gazette No. 97 (Department of Premier and Cabinet 2011).

Four weed species listed as noxious within the Parramatta Local Government Area were identified within the study area comprising; Green Cestrum, Lantana, Large-leaved Privet and Small-leaved Privet. These species are listed in Table 4 and should be managed in accordance with the NW Act.

An occupier (other than a public authority or a local control authority) must take all reasonable steps to eradicate state prohibited weeds and comply with the requirements in the NW Act for a notifiable weed for restricted plants.

It is expected that in line with best practice and the TfNSW commitment to environmental protection, due consideration will be given to the presence of noxious weeds within the clearing and disturbance areas. This

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means disposing of removed noxious weed material appropriately and taking precautions to ensure that the proposed works do not result in their spread into new habitats. See recommendations in Section 5.

The potential for spread of any of these species should be ameliorated by implementation of a weed management protocol that comprises the separate removal from the clearing area of vegetation containing weed species and the disposal of such vegetation at a waste management facility. Invasion of exotic perennial grasses, and exotic vines and scramblers into native communities are also listed as key threatening processes under the TSC Act.

## 5. Potential Ecological Impacts and Recommendations

This section identifies the potential implications of proposed development on the ecological values of the study area and includes recommendations to assist TfNSW to minimise impacts on biodiversity.

**Table 6: Potential implications of the proposal and recommendations to minimise ecological impact during construction and operation**

Ecological feature	Implications of development	Recommendations
<b>Native vegetation and other vegetation including trees and general fauna habitat</b>	No native vegetation is present. No threatened flora species, flora population or ecological community is present.	No Action required.
	The permanent removal of narrow strips of highly disturbed vegetation comprising environmental weeds and planted garden areas in order to construct various new facilities.	See recommendations in Weeds section below.
	Removal of two large Mediterranean Cypress trees on the southern side of the rail corridor for construction of new stairs.	If removal unavoidable, then offsets for two medium trees in accordance with TfNSW Vegetation Offsets Guide will apply.
	Large Grey Gum and adjacent large Bottlebrushes at base of steps on northern side of rail corridor will potentially be removed for construction of new stairs and one large Brush Box on the footpath may also be removed for construction of the new lift. As discussed in sections 4.1 and 4.2, while the Grey Gum and Bottlebrushes provide a small amount of potential habitat for three threatened fauna species, no significant impact on the habitat of any viable local population for any threatened fauna species is likely to occur.	If removal unavoidable, then offsets for medium trees in accordance with TfNSW Vegetation Offsets Guide will apply to the Grey Gum and the Brush Box.
	Based on the plans supplied, two Brush Box trees to be retained on the footpath, northern side of rail corridor, could potentially also be impacted.	Protect trees from indirect impacts during construction by erection of protective fencing. Seek advice from arborist if excavation near these trees exposes large roots.
<b>Hollow-bearing trees</b>	None present	No Action required
<b>Weeds</b>	Degradation of habitat quality within and adjacent to the impact areas due to	Prepare and adopt a weed management protocol as part of a general vegetation

Ecological feature	Implications of development	Recommendations
	proliferation and spread of noxious and environmental weeds.	management strategy. Adhere to legal requirements or established procedures for removal and control of noxious or environmental weeds.

## References

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Biosis (2013), Wentworthville Working Papers 1 and 2, prepared for Cardno Pty Ltd, September 2013

DoE (2013). *Matters of National Environmental Significance. Significant impact guidelines 1.1. Environment Protection and Biodiversity Conservation Act 1999*. Department of the Environment, Australian Government, Canberra.

Keith, D. (2004). *Ocean Shores to desert dunes: the native vegetation of New South Wales and the ACT*. NSW Department of Environment & Conservation, Hurstville.

NSW Scientific Committee (2009). *Final Determination to list Cumberland Plain Woodland in the Sydney Basin Bioregion as a Critically Endangered Ecological Community*. Department of Environment & Conservation (NSW).

Royal Botanic Gardens and Domain Trust (2014). PlantNET - The Plant Information Network System of The Royal Botanic Gardens and Domain Trust, Sydney, Australia <http://plantnet.rbgsyd.nsw.gov.au>.

New South Wales National Parks and Wildlife Service (2002). *Interpretation Guidelines for the Native Vegetation Maps of the Cumberland Plain, Western Sydney*, Final Edition NSW NPWS, Hurstville.

## Appendices

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## Appendix 1: Flora Results

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Notes to tables:

<p><b>EPBC Act:</b></p> <p>E - Endangered</p> <p>V - Vulnerable</p>	<p><b>TSC Act:</b></p> <p>E1 – Endangered (Part 1, Schedule 1)</p> <p>V – Vulnerable (Part 1, Schedule 2)</p>
	<p><b>Noxious weed status:</b></p> <p>N3 Regionally controlled weeds (Class 3)</p> <p>N4 Locally controlled weeds (Class 4)</p> <p>N5 Notifiable weeds (Class 5)</p> <p>W Weed of National Significance (WoNS)</p> <p>*exotic species</p>

## A1.1 Threatened flora species

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The following table includes a list of the significant flora species that have potential to occur within the study area. The list of species is sourced from the Atlas of NSW Wildlife and the Protected Matters Search Tool (DoE; accessed on 28.10.14 – Appendix 4).

The habitat descriptions are compiled primarily from OEH Threatened Species Information:

<http://www.threatenedspecies.environment.nsw.gov.au/tsprofile/>

with additional information from Harden (1990, 1992, 1993, 2002); PlantNet <http://plantnet.rbgsyd.nsw.gov.au>; OEH Atlas of NSW Wildlife, Final Determinations for listed species and other sources as cited.

### Notes to table:

**EPBC Act:**

E - Endangered

V - Vulnerable

**TSC Act:**

E1 – Endangered (Part 1, Schedule 1)

V – Vulnerable (Part 1, Schedule 2)

**Table 7: Threatened flora species recorded or predicted to occur within 5 km of the study area**

Scientific Name	Common Name	EPBC Act	TSC Act	Most Recent Record	Likelihood of Occurrence	Rationale for Likelihood	Habitat Description
<i>Acacia pubescens</i>	Downy Wattle	VU	V	2010/#	unlikely	The species was not observed in the study area	<p><i>Acacia pubescens</i> is found in Sydney Metropolitan, and Hawkesbury/Nepean Catchment Management Region, with concentrated populations around the Bankstown-Fairfield-Rookwood area and the Pitt Town area, with outliers occurring at Barden Ridge, Oakdale and Mountain Lagoon.</p> <p>It occurs on alluviums, shales and at the intergrade between shales and sandstones. The soils are characteristically gravelly soils, often with ironstone. The species occurs in open woodland and forest, in a variety of plant communities, including Cooks River/ Castlereagh Ironbark Forest, Shale/ Gravel Transition Forest and Cumberland Plain Woodland. Flowers from August to October. The pods mature in October to December.</p>

Scientific Name	Common Name	EPBC Act	TSC Act	Most Recent Record	Likelihood of Occurrence	Rationale for Likelihood	Habitat Description
<i>Allocasuarina glareicola</i>		EN	E1	#	Unlikely	The species was not observed in the study area	<p>Found in the Hawkesbury/Nepean and Sydney Metropolitan Catchment Authority Regions. Primarily restricted to the Richmond (NW Cumberland Plain) district, but with an outlier population found at Voyager Point, Liverpool.</p> <p>Grows in Castlereagh woodland on lateritic soil. Also found in Dry Sclerophyll forest/Woodland. Associated species include <i>Eucalyptus parramattensis</i>, <i>Eucalyptus fibrosa</i>, <i>Angophora bakeri</i>, <i>Eucalyptus sclerophylla</i> and <i>Melaleuca decora</i>. Common associated understorey species include <i>Melaleuca nodosa</i>, <i>Hakea dactyloides</i>, <i>Hakea sericea</i>, <i>Dillwynia tenuifolia</i>, <i>Micromyrtus minutiflora</i>, <i>Acacia elongata</i>, <i>Acacia brownei</i>, <i>Themeda australis</i> and <i>Xanthorrhoea minor</i>.</p>

Scientific Name	Common Name	EPBC Act	TSC Act	Most Recent Record	Likelihood of Occurrence	Rationale for Likelihood	Habitat Description
<b><i>Asterolasia elegans</i></b>		EN	E1	#	Unlikely	The species was not observed in the study area	Occurs north of Sydney, in the Baulkham Hills, Hawkesbury and Hornsby local government areas. Also likely to occur in the western part of Gosford LGA. Known from only six populations in the catchments of the Colo and Hawkesbury Rivers, only one of which is wholly within a conservation reserve. Found in sheltered forests on mid- to lower slopes and valleys which support sheltered forest on Hawkesbury Sandstone. The canopy at known sites includes <i>Syncarpia glomulifera</i> , <i>Angophora costata</i> , <i>Eucalyptus piperita</i> , <i>Allocasuarina torulosa</i> and <i>Ceratopetalum gummiferum</i> . The species is considered to be fire sensitive and reliant on seed germination after disturbance to maintain populations. A soil seedbank appears to be established by this species, so for a number of years following fire or other disturbance the species may not be apparent, but be present only as seed in the soil. The size of the seedbank depends not only on the amount of seed contributed by mature plants each season, but on the level of dormancy of the seed which can vary from year to year. The longevity of each crop of seed in the soil is perhaps 5 - 10 years.
<b><i>Callistemon linearifolius</i></b>	Netted Bottle Brush		V	2008	Unlikely	The species was not observed in the study area	Occurs chiefly from Georges River to the Hawkesbury River where it grows in dry sclerophyll forest, open forest, scrubland or woodland on sandstone. Found in damp places, usually in gullies (Robinson, 1994

Scientific Name	Common Name	EPBC Act	TSC Act	Most Recent Record	Likelihood of Occurrence	Rationale for Likelihood	Habitat Description
<b><i>Cryptostylis hunteriana</i></b>	Leafless Tongue Orchid	VU	V	#	Unlikely	Disturbance is too high.	<p>This species typically grows in swamp-heath on sandy soils chiefly in coastal districts but has also been recorded on steep bare hillsides. Within the Central Coast bioregion, this species has been recorded within Coastal Plains Smooth-barked Apple Woodland and Coastal Plains Scribbly Gum Woodland. This species does not appear to have well defined habitat preferences and is known from a range of communities, including swamp-heath and woodland. The larger populations typically occur in woodland dominated by <i>Eucalyptus sclerophylla</i>, <i>E. sieberi</i>, <i>Corymbia gummifera</i> and <i>Allocasuarina littoralis</i>; appears to prefer open areas in the understorey of this community and is often found in association with the <i>Cryptostylus subulata</i>.</p> <p>It occurs in the following Catchment Management Regions Hawkesbury/Nepean, Hunter/Central Rivers, Northern Rivers and Southern Rivers. Inconsistent flowering times Dec-February; Jan-February (in Victoria)</p>
<b><i>Epacris purpurascens</i> var. <i>purpurascens</i></b>			V	2005	Unlikely	The species was not observed in the study area	Located in the Hawkesbury/Nepean, Hunter/Central Rivers/and Sydney Metropolitan catchment authority region - from Gosford in the north, to Narrabeen in the east, Silverdale in the west and Avon Dam vicinity in the South.

Scientific Name	Common Name	EPBC Act	TSC Act	Most Recent Record	Likelihood of Occurrence	Rationale for Likelihood	Habitat Description
<i>Eucalyptus nicholii</i>	Narrow-leaved Black Peppermint	VU	V	2006	Unlikely	The species was not observed in the study area	This species is widely planted as an urban street tree and in gardens but is quite rare in the wild. It is confined to the New England Tablelands of NSW, where it occurs from Nundle to north of Tenterfield, largely on private property. Grows in dry grassy woodland, on shallow and infertile soils, mainly on granite.
<i>Genoplesium baueri</i>	Bauer's Midge Orchid		V	#	Unlikely	No suitable habitat	This terrestrial orchid species grows in open sclerophyll forest or moss gardens on sandstone. Typically the habitat is a drier heathy forest. The species has been recorded from locations between Nowra and Pit
<i>Grammitis stenophylla</i>	Narrow-leaf Finger Fern		E1	1859	Unlikely	Habitat is not suitable	Occurs in eastern NSW in the Sydney Metropolitan, Hawkesbury/Nepean, and Northern Rivers Catchment. It has been found on the south, central and north coasts and as far west as Mount Kaputar National Park near Narrabri.

Scientific Name	Common Name	EPBC Act	TSC Act	Most Recent Record	Likelihood of Occurrence	Rationale for Likelihood	Habitat Description
<b><i>Marsdenia viridiflora subsp. viridiflora</i></b>	Native Pear		E2	2008	Unlikely	The species was not observed in the study area	This species has a wide distribution in subcoastal and southern Queensland but has been recorded rarely in NSW and from a disjunct occurrence near Sydney where it occurs as very scattered plants in areas of remnant vegetation. Grows in woodland and scrub and is typically found in Sydney Turpentine Ironbark Forest. Grows in vine thickets and open shale woodland. Recent records are from Prospect, Bankstown, Smithfield, Cabramatta Creek and St Marys. Previously known north from Razorback Range.
<b><i>Pelargonium sp. Striatellum (G.W.Carr 10345)</i></b>	Omeo Stork's Bill	EN		#	Unlikely	Habitat is not suitable	<i>Pelargonium sp. Striatellum</i> (G.W.Carr 10345) is a tufted perennial herb. It has a basal leaf rosette and leafy flowering stems which grow to 15 cm tall, with fleshy and often extensively branched rhizomes giving rise to individual plants (ramets) in clonal colonies. The species is known to occur in habitat usually located just above the high water level of irregularly inundated or ephemeral lakes. During dry periods, the species is known to colonise exposed lake beds. <i>Pelargonium sp. Striatellum</i> (G.W.Carr 10345) occurs within the South Eastern Highlands and South East Corner IBRA Bioregions and the Hawkesbury-Nepean, Murrumbidgee, Southern Rivers and North East Natural Resource Management Regions.

Scientific Name	Common Name	EPBC Act	TSC Act	Most Recent Record	Likelihood of Occurrence	Rationale for Likelihood	Habitat Description
<i>Persoonia nutans</i>	Nodding Geebung	EN	E1	2008/#	Unlikely	The species was not observed in the study area	Occurs in Hawkesbury/Nepean and Sydney Metropolitan Catchment. Restricted to the Cumberland Plain between Richmond in the north and Macquarie Fields in the south. Core distribution occurs within the Penrith LGA, and to a lesser extent, Hawkesbury LGA. Small populations also occur in the Liverpool, Campbelltown, Bankstown and Blacktown LGAs. Confined to aeolian and alluvial sediments and occurs in a range of sclerophyll forest and woodland vegetation communities with the majority of individuals occurring within Agnes Banks Woodland or Castlereagh Scribbly Gum Woodland. <i>P. nutans</i> also occurs on Shale/Gravel Transition Forest and Cooks River Castlereagh Ironbark Forest. In Castlereagh Scribbly Gum Woodlands it is found in open woodland with dominant overstorey species being <i>Angophora bakeri</i> , <i>Eucalyptus sclerophylla</i> and <i>Melaleuca decora</i> . The Agnes Banks Woodlands have a similar array of tree species, with the addition of <i>Banksia serrata</i> and <i>Banksia aemula</i> . <i>Persoonia nutans</i> is found on the Agnes Banks and Berkshire Park soil landscapes. Drainage appears to influence the distribution of <i>P. nutans</i> as the species is more common on the deeper sands at Agnes Banks. At other locations on the Cumberland Plain it occurs on low rises as opposed to swales or other low lying areas.

Scientific Name	Common Name	EPBC Act	TSC Act	Most Recent Record	Likelihood of Occurrence	Rationale for Likelihood	Habitat Description
<i>Pimelea curviflora</i> var. <i>curviflora</i>		VU	V	2008/#	Unlikely	The species was not observed in the study area	<p>Occurring in Hawkesbury/Nepean and Sydney Metropolitan Catchment Authority Areas. Confined to the coastal area of Sydney between northern Sydney in the south and Maroota in the north-west.</p> <p>Occurs on lateritic soils and shale-sandstone transition soils on ridge tops in woodland. Associated with Dry Sclerophyll forests and Coastal valley grassy woodlands.</p> <p>Has an inconspicuous cryptic habit as it is fine and scraggly and often grows amongst dense grasses and sedges. It may not always be visible at a site as it appears to survive for some time without any foliage after fire or grazing, relying on energy reserves in its tuberous roots.</p> <p>Flowers October to May.</p>

Scientific Name	Common Name	EPBC Act	TSC Act	Most Recent Record	Likelihood of Occurrence	Rationale for Likelihood	Habitat Description
<i>Pimelea spicata</i>	Spiked Rice-flower	EN	E1	2008/#	Unlikely	The species was not observed in the study area	<p>Once widespread on the Cumberland Plain, <i>Pimelea spicata</i> occurs in two disjunct areas, the Cumberland Plain and the Illawarra. Catchment areas are Hawkesbury/Nepean, Southern Rivers, and Sydney Metropolitan Catchment.</p> <p>In western Sydney, <i>P. spicata</i> occurs on an undulating topography of substrates derived from Wianamatta Shale in areas supporting, or that previously supported, the Cumberland Plain Woodland Vegetation Community. Associated species include: <i>Eucalyptus moluccana</i>, <i>E. tereticornis</i>, <i>E. crebra</i>, <i>Bursaria spinosa</i>, and <i>Themeda australis</i>.</p> <p>In the Illawarra region, <i>P. spicata</i> is found in open woodland and also in coastal grassland communities with emergent shrubs. Dominant species within the woodland habitat include <i>Eucalyptus tereticornis</i>, <i>E. eugenioides</i>, <i>Themeda australis</i>, and <i>Lomandra longifolia</i>.</p> <p>In the coastal Illawarra it occurs commonly in Coast Banksia open woodland with a more well developed shrub and grass understorey.</p> <p><i>Pimelea spicata</i> flowers sporadically throughout the year, with flowering likely to depend upon climatic conditions, particularly rainfall. Flowering times recorded for <i>P. spicata</i> vary. Rye (1990) noted flowering period as May - January; Benson and McDougall (2001) noted peak flowering period as March/ April.</p>

Scientific Name	Common Name	EPBC Act	TSC Act	Most Recent Record	Likelihood of Occurrence	Rationale for Likelihood	Habitat Description
<b><i>Pomaderris prunifolia</i></b>	Plum-leaf Pomaderris		E2	2008	Unlikely	The species was not observed in the study area	Known from only three sites within the listed local government areas, at Rydalmere, within Rookwood Cemetery and at The Crest of Bankstown. At Rydalmere it occurs along a road reserve near a creek, among grass species on sandstone. At Rookwood Cemetery it occurs in a small gully of degraded Cooks River / Castlereagh Ironbark Forest on shale soil.

Scientific Name	Common Name	EPBC Act	TSC Act	Most Recent Record	Likelihood of Occurrence	Rationale for Likelihood	Habitat Description
<b><i>Pterostylis gibbosa</i></b>	Illawarra Greenhood	EN	E1	#	Unlikely	Habitat is too disturbed	<p>Known from a small number of populations in the Hunter region, the Illawarra region and the Shoalhaven region. It is apparently extinct in western Sydney which is the area where it was first collected (1803).</p> <p>All known populations grow in open forest or woodland, on flat or gently sloping land with poor drainage. In the Illawarra region, the species grows in woodland dominated by <i>Eucalyptus tereticornis</i>, <i>E. longifolia</i> and <i>Melaleuca decora</i>. Near Nowra, the species grows in an open forest of <i>Corymbia maculata</i>, <i>E.tereticornis</i> and <i>E. paniculata</i>. In the Hunter region, the species grows in open woodland dominated by <i>E. crebra</i>, Forest Red Gum and <i>Callitris endlicherii</i>.</p> <p>The Illawarra Greenhood is a deciduous orchid that is only visible above the ground between late summer and spring, and only when soil moisture levels can sustain its growth. The leaf rosette grows from an underground tuber in late summer, followed by the flower stem in winter. The Illawarra Greenhood can survive occasional burning and grazing because of its capacity to reshoot from an underground tuber.</p>

Scientific Name	Common Name	EPBC Act	TSC Act	Most Recent Record	Likelihood of Occurrence	Rationale for Likelihood	Habitat Description
<b><i>Pterostylis saxicola</i></b>	Sydney Plains Greenhood	EN	E1	#	Unlikely	Habitat is not suitable and very disturbed	<p>Restricted to western Sydney between Freemans Reach in the north and Picton in the south (Hawkesbury/Nepean and Sydney Metropolitan Catchment).</p> <p>Most commonly found growing in small pockets of shallow soil in depressions on sandstone rock shelves above cliff lines. The vegetation communities above the shelves where <i>Pterostylis saxicola</i> occurs are sclerophyll forest or woodland on shale/sandstone transition soils or shale soils.</p> <p>All species of <i>Pterostylis</i> are deciduous and die back to fleshy, rounded underground tuberoids.</p> <p>The time of emergence and withering has not been recorded for this species, however flowering occurs from October to December and may vary due to climatic conditions. The above ground parts of the plant wither and die following seed dispersal and the plant persists as a tuberoid until the next year.</p>
<b><i>Streblus pendulinus</i></b>	Whalebone Tree	EN		#	Unlikely	Habitat is not suitable	<p>The species is found in warmer rainforests, chiefly along watercourses. The altitudinal range is from near sea level to 800 m above sea level. The species grows in well developed rainforest, gallery forest and drier, more seasonal rainforest).</p>

Scientific Name	Common Name	EPBC Act	TSC Act	Most Recent Record	Likelihood of Occurrence	Rationale for Likelihood	Habitat Description
<i>Syzygium paniculatum</i>	Magenta Lilly Pilly	VU	E1	2003/#	Unlikely	The species was not observed in the study area	Subtropical and littoral rainforest on sandy soils or stabilised dunes near the sea. Found only in NSW, in a narrow, linear coastal strip from Bulahdelah to Conjola State Forest. On the south coast the Magenta Lilly Pilly occurs on grey soils over sandstone, restricted mainly to remnant stands of littoral (coastal) rainforest. On the central coast Magenta Lilly Pilly occurs on gravels, sands, silts and clays in riverside gallery rainforests and remnant littoral rainforest communities. The species occurs in the following Catchment Authority Regions - Hunter/Central Rivers, Hawkesbury/Nepean, Sydney Metropolitan, and Southern Rivers.
<i>Thesium australe</i>	Austral Toadflax	VU	V	#	Unlikely	The species was not observed in the study area. Habitat unlikely to be suitable.	Found in very small to large populations scattered across eastern NSW, along the coast, and from the Northern to Southern Tablelands. <i>Thesium australe</i> is a root parasite that takes water and some nutrient from other plants, especially Kangaroo Grass. It is often found in damp sites in association with <i>Themeda australis</i> , but also found on other grass species at inland sites. Occurs on clay soils in grassy woodlands or coastal headlands.
<i>Triplarina imbricata</i>	Creek Triplarina	EN	E1	2008	Unlikely	The species was not observed in the study area. Unsuitable habitat.	Found only in a few locations in the ranges south-west of Glenreagh and near Tabulam in north-east NSW. Also dubiously recorded from Parramatta (before 1810). Habitat is along watercourses in low open forest with

Scientific Name	Common Name	EPBC Act	TSC Act	Most Recent Record	Likelihood of Occurrence	Rationale for Likelihood	Habitat Description
							Water Gum.

**Table 8: Threatened Ecological Communities recorded or predicted to occur in the study area**

Threatened Ecological Community Name	TSC Act	EPBC Act	Likelihood of Occurrence
<i>Agnes Banks Woodland in the Sydney Basin Bioregion</i>	E3	-	Low
<i>Blue Gum High Forest in the Sydney Basin Bioregion</i>	E4B	CE	Low
<i>Blue Mountains Shale Cap Forest in the Sydney Basin Bioregion</i>	E3	CE	Low
<i>Castlereagh Scribbly Gum Woodland in the Sydney Basin Bioregion</i>	V2	-	Low
<i>Cooks River/Castlereagh Ironbark Forest in the Sydney Basin Bioregion</i>	E3	-	Low
<i>Cumberland Plain Woodland in the Sydney Basin Bioregion</i>	E4B	CE	Low/Moderate
<i>Freshwater Wetlands on Coastal Floodplains of the New South Wales North Coast, Sydney Basin and South East Corner Bioregions</i>	E3	-	Low
<i>Moist Shale Woodland in the Sydney Basin Bioregion</i>	E3	CE	Low
<i>River-Flat Eucalypt Forest on Coastal Floodplains of the New South Wales North Coast, Sydney Basin and South East Corner Bioregions</i>	E3	-	Low/Moderate
<i>Shale Gravel Transition Forest in the Sydney Basin Bioregion</i>	E3	CE	Low
<i>Shale/Sandstone Transition Forest</i>	E3	E	Low/Moderate
<i>Southern Sydney sheltered forest on transitional sandstone soils in the Sydney Basin Bioregion</i>	E3	-	Low

Threatened Ecological Community Name	TSC Act	EPBC Act	Likelihood of Occurrence
<i>Swamp Oak Floodplain Forest of the New South Wales North Coast, Sydney Basin and South East Corner Bioregions</i>	E3	-	Low
<i>Swamp Sclerophyll Forest on Coastal Floodplains of the New South Wales North Coast, Sydney Basin and South East Corner Bioregions</i>	E3	-	Low
<i>Sydney Turpentine-Ironbark Forest</i>	E3	CE	Low
<i>Western Sydney Dry Rainforest in the Sydney Basin Bioregion</i>	E3	CE	Low

## Appendix 2: Fauna Results

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Below is a list of fauna species recorded from the study area during the present assessment and a list of significant fauna species recorded or predicted to occur within 5km of the study area.

### Notes to tables:

**EPBC Act:**

EX - Extinct  
CR - Critically Endangered  
EN - Endangered  
VU - Vulnerable  
CD - Conservation dependent

**TSC Act:**

C1 – critically endangered  
E1 – endangered (Part 1, Schedule 1)  
E2 – endangered (Part 2, Schedule 1)  
E4 – presumed extinct (Part 4, Schedule 1)  
V1 – vulnerable (Part 1, Schedule 2)

\* - introduced species

Fauna species in these tables are listed in alphabetical order within their taxonomic group.

## A2.1 Significant fauna species

The following table includes a list of the significant fauna species that have potential to occur within the study area. The list of species is sourced from the Atlas of NSW Wildlife, and the Protected Matters Search Tool (DoE; accessed on 28.10.14 – Appendix 4).

The most recent record relates to:

- # species predicted to occur by the DoE database (not recorded on other databases)
- ## species predicted to occur based on natural distributional range and suitable habitat despite lack of records in the databases searched
- Year recorded on databases listed above

The following references have been consulted to compile the habitat descriptions above: Australian Museum Fact Sheets; Barrett et al. 2003; Churchill, 1998; Clayton et al., 2006; Cogger, 1995; OEH Threatened Species Profiles; Morcombe, 2000; Strahan, 1995.

**Table 9: Threatened fauna species recorded or predicted to occur within 5 km of the study area**

Scientific Name	Common Name	EPBC Act	TSC Act	Most Recent Record	Likelihood of Occurrence	Rationale for Likelihood	Habitat Description
<b>Birds</b>							
<i>Botaurus poiciloptilus</i>	Australasian Bittern	EN	E1	#	unlikely	Habitat not suitable	The Australasian Bittern is distributed across south-eastern Australia. Often found in terrestrial and estuarine wetlands, generally where there is permanent water with tall, dense vegetation including <i>Typha spp.</i> and <i>Eleocharis spp.</i> Typically this bird forages at night on frogs, fish and invertebrates, and remains inconspicuous during the day. The breeding season extends from October to January with nests being built amongst dense vegetation on a flattened platform of reeds.

Scientific Name	Common Name	EPBC Act	TSC Act	Most Recent Record	Likelihood of Occurrence	Rationale for Likelihood	Habitat Description
<i>Daphoenositta chrysoptera</i>	Varied Sittella		V	2013	unlikely	Habitat not suitable	The Varied Sittella is a sedentary species which inhabits a wide variety of dry eucalypt forests and woodlands, usually with either shrubby understorey or grassy ground cover or both, in all climatic zones of Australia. Usually inhabit areas with rough-barked trees, such as stringybarks or ironbarks, but also in mallee and acacia woodlands, paperbarks or mature Eucalypts. The Varied Sittella feeds on arthropods gleaned from bark, small branches and twigs. It builds a cup-shaped nest of plant fibres and cobweb in an upright tree fork high in the living tree canopy, and often re-uses the same fork or tree in successive years.
<i>Dasyornis brachypterus</i>	Eastern Bristlebird	EN	E1	#	unlikely	Habitat not suitable	Found in coastal woodlands, dense scrub and heathlands, particularly where it borders taller woodlands.
<i>Diomedea exulans antipodensis</i>	Antipodean Albatross	VU	V	#	unlikely	Habitat not suitable	A marine pelagic species rarely visiting Australia.
<i>Falco subniger</i>	Black Falcon		V	1991	unlikely	Habitat not suitable	Mainly occur in woodlands and open country where can hunt. Often associated with swamps, rivers and wetlands. Nest in tall trees along watercourses.

Scientific Name	Common Name	EPBC Act	TSC Act	Most Recent Record	Likelihood of Occurrence	Rationale for Likelihood	Habitat Description
<i>Glossopsitta pusilla</i>	Little Lorikeet		V	2011	moderate	No breeding habitat present and only a few trees and shrubs providing nectar for foraging	Distributed in forests and woodlands from the coast to the western slopes of the Great Dividing Range in NSW, extending westwards to the vicinity of Albury, Parkes, Dubbo and Narrabri. Mostly occur in dry, open eucalypt forests and woodlands. They feed primarily on nectar and pollen in the tree canopy. Nest hollows are located at heights of between 2 m and 15 m, mostly in living, smooth-barked eucalypts. Most breeding records come from the western slopes.
<i>Hieraaetus morphnoides</i>	Little Eagle		V	2009	unlikely	Habitat not suitable	The Little Eagle is most abundant in lightly timbered areas with open areas nearby providing an abundance of prey species. It has often been recorded foraging in grasslands, crops, treeless dune fields, and recently logged areas. The Little Eagle nests in tall living trees within farmland, woodland and forests.

Scientific Name	Common Name	EPBC Act	TSC Act	Most Recent Record	Likelihood of Occurrence	Rationale for Likelihood	Habitat Description
<b><i>Lathamus discolor</i></b>	Swift Parrot	EN	E1	2014/#	unlikely	Habitat not suitable	The Swift Parrot occurs in woodlands and forests of NSW from May to August, where it feeds on eucalypt nectar, pollen and associated insects. The Swift Parrot is dependent on flowering resources across a wide range of habitats in its wintering grounds in NSW. Favoured feed trees include winter flowering species such as Swamp Mahogany <i>Eucalyptus robusta</i> , Spotted Gum <i>Corymbia maculata</i> , Red Bloodwood <i>C. gummifera</i> , Mugga Ironbark <i>E. sideroxylon</i> , and White Box <i>E. albens</i> . Commonly used lerp infested trees include Grey Box <i>E. microcarpa</i> , Grey Box <i>E. moluccana</i> and Blackbutt <i>E. pilularis</i> . This species is migratory, breeding in Tasmania and also nomadic, moving about in response to changing food availability.
<b><i>Ninox connivens</i></b>	Barking Owl		V	1996	unlikely	Habitat not suitable	Generally found in open forests, woodlands, swamp woodlands and dense scrub. Can also be found in the foothills and timber along watercourses in otherwise open country. Territories are typically 2000 ha in NSW habitats.

Scientific Name	Common Name	EPBC Act	TSC Act	Most Recent Record	Likelihood of Occurrence	Rationale for Likelihood	Habitat Description
<b><i>Ninox strenua</i></b>	Powerful Owl		V	2012	unlikely	Habitat not suitable	The Powerful Owl occupies wet and dry eucalypt forests and rainforests. It may inhabit both un-logged and lightly logged forests as well as undisturbed forests where it usually roosts on the limbs of dense trees in gully areas. Large mature trees with hollows at least 0.5 m deep are required for nesting. Tree hollows are particularly important for the Powerful Owl because a large proportion of the diet is made up of hollow-dependent arboreal marsupials. Nest trees for this species are usually emergent with a diameter at breast height of at least 100 cm. It has a large home range of between 450 and 1450 ha.
<b><i>Petroica boodang</i></b>	Scarlet Robin		V	2006	unlikely	Habitat not suitable	During the breeding season the Scarlet Robin is found in eucalypt forests and temperate woodlands, often on ridges and slopes. During autumn and winter it moves to more open and cleared areas. It has dispersive or locally migratory seasonal movements. The Scarlet Robin forages amongst logs and woody debris for insects which make up the majority of its diet. The nest is an open cup of plant fibres and cobwebs, sited in the fork of a tree (often a dead branch in a live tree, or in a dead tree or shrub) which is usually more than 2 m above the ground. It is conspicuous in open and suburban habitats.
<b><i>Polytelis swainsonii</i></b>	Superb Parrot	VU	V	1984	unlikely	Habitat not suitable	Found mainly in open, tall riparian River Red Gum forest or woodland. Often found in farmland including grazing land with patches of remnant vegetation.

Scientific Name	Common Name	EPBC Act	TSC Act	Most Recent Record	Likelihood of Occurrence	Rationale for Likelihood	Habitat Description
							Breeds in hollow branches of tall Eucalypt trees within 9 km of feeding areas
<b>Mammals</b>							
<i>Chalinolobus dwyeri</i>	Large-eared Pied Bat	VU	V	2000/#	unlikely	Habitat not suitable	Occurs from the Queensland border to Ulladulla, with largest numbers from the sandstone escarpment country in the Sydney Basin and Hunter Valley. Primarily found in dry sclerophyll forests and woodlands, but also found in rainforest fringes and subalpine woodlands. Forages on small, flying insects below the forest canopy. Roosts in colonies of between three and 80 in caves, Fairy Martin nests and mines, and beneath rock overhangs, but usually less than 10 individuals. Likely that it hibernates during the cooler months. The only known existing maternity roost is in a sandstone cave near Coonabarabran.
<i>Dasyurus maculatus maculatus</i> (SE mainland population)	Spotted-tailed Quoll	EN	V	2012/#	unlikely	Habitat not suitable	Occurs along the east coast of Australia and the Great Dividing Range. Uses a range of habitats including sclerophyll forests and woodlands, coastal heathlands and rainforests. Occasional sightings have been made in open country, grazing lands, rocky outcrops and other treeless areas. Habitat requirements include suitable den sites, including hollow logs, rock crevices and caves, an abundance of food and an area of intact vegetation in which to forage. Seventy per cent of the diet is medium-sized mammals, and also feeds on invertebrates, reptiles and birds. Individuals require

Scientific Name	Common Name	EPBC Act	TSC Act	Most Recent Record	Likelihood of Occurrence	Rationale for Likelihood	Habitat Description
							large areas of relatively intact vegetation through which to forage. The home range of a female is between 180 and 1000 ha, while males have larger home ranges of between 2000 and 5000 ha. Breeding occurs from May to August.
<b><i>Falsistrellus tasmaniensis</i></b>	Eastern False Pipistrelle		V	2012	unlikely	Habitat not suitable	Distribution extending east of the Great Dividing Range throughout the coastal regions of NSW, from the Queensland border to the Victorian border. Prefers wet high-altitude sclerophyll and coastal mallee habitat, preferring wet forests with a dense understorey but being found in open forests at lower altitudes. Apparently hibernates in winter. Roosts in tree hollows and sometimes in buildings in colonies of between 3 and 80 individuals. Often change roosts every night. Forages for beetles, bugs and moths below or near the canopy in forests with an open structure, or along trails. Has a large foraging range, up to 136 ha. Records show movements of up to 12 km between roosting and foraging sites.

Scientific Name	Common Name	EPBC Act	TSC Act	Most Recent Record	Likelihood of Occurrence	Rationale for Likelihood	Habitat Description
<b><i>Miniopterus schreibersii oceanensis</i></b>	Eastern Bentwing-bat		V	2012	moderate	May forage over the study area but roosting resources appear to absent.	Occurs from Victoria to Queensland, on both sides of the Great Dividing Range. Forms large maternity roosts (up to 100,000 individuals) in caves and mines in spring and summer. Individuals may fly several hundred kilometres to their wintering sites where they roost in caves, culverts, buildings, and bridges. They occur in a broad range of habitats including rainforest, wet and dry sclerophyll forest, paperbark forest and open grasslands. Has a fast, direct flight and forages for flying insects (particularly moths) above the tree canopy and along waterways.
<b><i>Mormopterus norfolkensis</i></b>	East Coast Freetail-bat		V	2000	moderate	May forage in the study area but roosting resources are very limited.	Distribution extends east of the Great Dividing Range from southern Queensland to south of Sydney. Most records are from dry eucalypt forests and woodland. Individuals tend to forage in natural and artificial openings in forests, although it has also been caught foraging low over a rocky river within rainforest and wet sclerophyll forest habitats. The species generally roosts in hollow spouts of large mature eucalypts (including paddock trees), although individuals have been recorded roosting in the roof of a hut, in wall cavities, and under metal caps of telegraph poles. Foraging generally occurs within a few kilometres of roosting sites.

Scientific Name	Common Name	EPBC Act	TSC Act	Most Recent Record	Likelihood of Occurrence	Rationale for Likelihood	Habitat Description
<b><i>Myotis macropus</i></b>	Southern Myotis		V	2011	unlikely	Habitat not suitable	Scattered, mainly coastal distribution extending to South Australia along the Murray River. Roosts in caves, mines or tunnels, under bridges, in buildings, tree hollows, and even in dense foliage. Colonies occur close to water bodies, ranging from rainforest streams to large lakes and reservoirs. They catch aquatic insects and small fish with their large hind claws, and also catch flying insects.
<b><i>Perameles nasuta</i></b>	Long-nosed Bandicoot		E2	1974	unlikely	Habitat not suitable	The Long-nosed Bandicoot (inner west population) is found within the LGAs of Marrickville and Canada Bay and may extend into the surrounding LGAs of Canterbury, Ashfield and Leichardt. Individuals mostly shelter under older houses and buildings, and forage for invertebrates, plant roots, and hypogean fungi in parklands and back-yards. The population is threatened by collision with vehicles; predation by dogs, cats and foxes; renovation of old buildings preventing access to nest sites; removal of vegetation; and is at risk of extinction due to local fluctuations in mortality and fecundity.

Scientific Name	Common Name	EPBC Act	TSC Act	Most Recent Record	Likelihood of Occurrence	Rationale for Likelihood	Habitat Description
<b><i>Petrogale penicillata</i></b>	Brush-tailed Rock-wallaby	VU	E1	#	unlikely	Habitat not suitable	Occurs along the Great Dividing Range south to the Shoalhaven, and also occurs in the Warrumbungles and Mt Kaputar. Habitats range from rainforest to open woodland. It is found in areas with numerous ledges, caves and crevices, particularly where these have a northerly aspect. Individuals defend a specific rock shelter, emerging in the evening to forage on grasses and forbs, as well as browse in drier months. Home sizes range from 2-30 ha.
<b><i>Phascolarctos cinereus</i></b>	Koala	VU	V	#	unlikely	Although Grey Gums are a preferred feed tree for the Koala, the species is unlikely to use the study area due to the lack of connectivity with bushland.	Pittwater LGA and Hawks nest: In NSW the Koala mainly occurs on the central and north coasts with some populations in the western region. Koalas feed almost exclusively on eucalypt foliage, and their preferences vary regionally. Primary feed trees include <i>Eucalyptus robusta</i> , <i>E. tereticornis</i> , <i>E. punctata</i> , <i>E. haemostoma</i> and <i>E. signata</i> . They are solitary with varying home ranges. In high quality habitat home ranges may be 1-2 ha and overlap, while in semi-arid country they are usually discrete and around 100 ha.

Scientific Name	Common Name	EPBC Act	TSC Act	Most Recent Record	Likelihood of Occurrence	Rationale for Likelihood	Habitat Description
<i>Pseudomys novaehollandiae</i>	New Holland Mouse	VU		#	unlikely	Habitat not suitable	The New Holland Mouse currently has a disjunct, fragmented distribution across Tasmania, Victoria, New South Wales and Queensland. Across the species' range the New Holland Mouse is known to inhabit open heathlands, open woodlands with a heathland understorey, and vegetated sand dunes. The home range of the New Holland Mouse can range from 0.44 ha to 1.4 ha. The New Holland Mouse is a social animal, living predominantly in burrows shared with other individuals. The species is nocturnal and omnivorous, feeding on seeds, insects, leaves, flowers and fungi, and is therefore likely to play an important role in seed dispersal and fungal spore dispersal. It is likely that the species spends considerable time foraging above-ground for food, predisposing it to predation by native predators and introduced species. Breeding typically occurs between August and January, but can extend into autumn.
<i>Pteropus poliocephalus</i>	Grey-headed Flying-fox	VU	V	2012	moderate	Flying-foxes foraging in the local area may visit the Grey Gum during peak flowering times.	Occurs along the NSW coast, extending further inland in the north. This species is a canopy-feeding frugivore and nectivore of rainforests, open forests, woodlands, melaleuca swamps and banksia woodlands. Roosts in large colonies (camps), commonly in dense riparian vegetation. Bats commute daily to foraging areas, usually within 15 km of the day roost although some individuals may travel up to 70 km.

Scientific Name	Common Name	EPBC Act	TSC Act	Most Recent Record	Likelihood of Occurrence	Rationale for Likelihood	Habitat Description
<i>Scoteanax rueppellii</i>	Greater Broad-nosed Bat		V	2012	unlikely	Habitat not suitable	Occurs along the Great Dividing Range, generally at 500 m but up to 1200 m, and in coastal areas. Occurs in woodland and rainforest, but prefers open habitats or natural or human-made openings in wetter forests. Often hunts along creeks or river corridors. Flies slowly and directly at a height of 30 m or so to catch beetles and other large, flying insects. Also known to eat other bats and spiders. Roosts in hollow tree trunks and branches.
<b>Reptiles</b>							
<i>Hoplocephalus bungaroides</i>	Broad-headed Snake	VU	E1	#	unlikely	Habitat not suitable	Mainly occurs in association with communities occurring on Triassic sandstone within the Sydney Basin. Typically found among exposed sandstone outcrops with vegetation types ranging from woodland to heath. Within these habitats they generally use rock crevices and exfoliating rock during the cooler months and tree hollows during summer.
<b>Amphibians</b>							

Scientific Name	Common Name	EPBC Act	TSC Act	Most Recent Record	Likelihood of Occurrence	Rationale for Likelihood	Habitat Description
<i>Heleioporus australiacus</i>	Giant Burrowing Frog	VU	V	#	unlikely	Habitat not suitable	Prefers hanging swamps on sandstone shelves adjacent to perennial non-flooding creeks. Can also occur within shale outcrops within sandstone formations. Known from wet and dry forests and montane woodland in the southern part range. Individuals can be found around sandy creek banks or foraging along ridge-tops during or directly after heavy rain. Males often call from burrows located in sandy banks next to water. Spends the majority of its time in non-breeding habitat 20-250m from breeding sites.
<i>Litoria aurea</i>	Green and Golden Bell Frog	VU	E1	1999/#	unlikely	Habitat not suitable	Most existing locations for the species occur as small, coastal, or near coastal populations, with records occurring between south of Grafton and northern VIC. The species is found in marshes, dams and stream sides, particularly those containing bullrushes or spikerushes. Preferred habitat contains water bodies that are unshaded, are free of predatory fish, have a grassy area nearby and have diurnal sheltering sites nearby such as vegetation or rocks, although the species has also been recorded from highly disturbed areas including disused industrial sites, brick pits, landfill areas and cleared land. Breeding usually occurs in summer. Tadpoles, which take approximately 10-12 weeks to develop, feed on algae and other vegetative matter. Adults eat insects as well as other frogs, including juveniles of their own species.

Scientific Name	Common Name	EPBC Act	TSC Act	Most Recent Record	Likelihood of Occurrence	Rationale for Likelihood	Habitat Description
<i>Litoria raniformis</i>	Southern Bell Frog	VU	E1	#	unlikely	Habitat not suitable	In NSW the species is known to exist only in isolated populations in the Coleambally Irrigation Area, the Lowbidgee floodplain and around Lake Victoria. Usually found in or around permanent or ephemeral swamps or billabongs with an abundance of bulrushes and other emergent vegetation along floodplains and river valleys. They are also found in irrigated rice crops, particularly where there is no available natural habitat. Outside the breeding season animals disperse away from the water and take shelter beneath ground debris such as fallen timber and bark, rocks, grass clumps and in deep soil cracks.
<i>Mixophyes balbus</i>	Stuttering Frog	VU	E1	#	unlikely	Habitat not suitable	This species is usually associated with mountain streams, wet mountain forests and rainforests. It rarely moves very far from the banks of permanent forest streams, although it will forage on nearby forest floors. Eggs are deposited in leaf litter on the banks of streams and are washed into the water during heavy rains.
<b>Fish</b>							
<i>Epinephelus daemeli</i>	Black cod	VU		#	unlikely	Habitat not suitable	
<b>Molluscs</b>							

Scientific Name	Common Name	EPBC Act	TSC Act	Most Recent Record	Likelihood of Occurrence	Rationale for Likelihood	Habitat Description
<i>Meridolum corneovirens</i>	Cumberland Plain Land Snail		E1	2004	Unlikely	Study area contains very small and highly isolated patches of potential habitat that have been surrounded by roads for many years.	Most likely restricted to Cumberland Plain, Castlereagh Woodlands and boundaries between River-flat Forest and Cumberland Plain Woodland. It is normally found beneath logs, debris and amongst accumulated leaf and bark particularly at the base of trees. May also use soil cracks for refuge.

## A2.2 Migratory species (EPBC Act listed)

Includes records from the following sources:

- Atlas of NSW Wildlife (refer to Section 2.1).
- DoE Protected Matters Search (accessed on 28.10.14 - Appendix 4).
- Current survey.

**Table 10: Migratory fauna species recorded or predicted to occur within 5 km of the study area**

Scientific Name	Common Name	Most Recent Record
<b>Birds</b>		
<i>Anthochaera phrygia</i>	Regent Honeyeater	1968/#
<i>Apus pacificus</i>	Fork-tailed Swift	2006
<i>Ardea ibis</i>	Cattle Egret	2009
<i>Ardea modesta</i>	Eastern Great Egret	2010
<i>Diomedea epomophora epomophora</i>	Southern Royal Albatross	#
<i>Diomedea epomophora sanfordi</i>	Northern Royal Albatross	#
<i>Diomedea exulans (sensu lato)</i>	Wandering Albatross	#
<i>Diomedea exulans exulans</i>	Tristan Albatross	#
<i>Diomedea exulans gibsoni</i>	Gibson's Albatross	#
<i>Egretta sacra</i>	Eastern Reef Egret	2010
<i>Gallinago hardwickii</i>	Latham's Snipe	2007
<i>Haliaeetus leucogaster</i>	White-bellied Sea-Eagle	2009
<i>Hirundapus caudacutus</i>	White-throated Needletail	2012
<i>Macronectes giganteus</i>	Southern Giant Petrel	#
<i>Macronectes halli</i>	Northern Giant-Petrel	#
<i>Monarcha melanopsis</i>	Black-faced Monarch	2011
<i>Rhipidura rufifrons</i>	Rufous Fantail	2011
<i>Rostratula australis</i>	Australian Painted Snipe	#
<i>Thalassarche bulleri</i>	Buller's Albatross	#
<i>Thalassarche cauta cauta</i>	Shy Albatross	#
<i>Thalassarche cauta salvini</i>	Salvin's Albatross	#
<i>Thalassarche cauta steadi</i>	White-capped Albatross	#

Scientific Name	Common Name	Most Recent Record
<i>Thalassarche eremita</i>	Chatham Albatross	#
<i>Thalassarche melanophris</i>	Black-browed Albatross	#
<i>Thalassarche melanophris impavida</i>	Campbell albatross	#
<b>Reptiles</b>		
<i>Caretta caretta</i>	Loggerhead Turtle	#
<i>Chelonia mydas</i>	Green Turtle	#
<i>Dermochelys coriacea</i>	Leathery Turtle	#
<i>Eretmochelys imbricata</i>	Hawksbill Turtle	#
<i>Natator depressus</i>	Flatback Turtle	#

# denotes species predicted to occur by the DoE database (not recorded on other databases)

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## Appendix 3: Photographs of Ecological Features

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### NORTHERN SIDE OF RAIL CORRIDOR



**Plate 1 Looking north-east from platform showing Grey Gum, row of Bottlebrushes and large Camphor Laurel in distance**



**Plate 2 Looking north-east from western end of platform showing three Brush Boxes on footpath & large Grey Gum and large Camphor Laurel in the distance**



**Plate 3 Looking north-west from the western end of the platform**



**Plate 4 Camphor Laurel and Lantana thicket north-east of platforms**

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**SOUTHERN SIDE OF RAIL CORRIDOR**



**Plate 5 Pair of large Mediterranean Cypress trees at base of stairs**



**Plate 6 Dietes garden bed at Memorial**



**Plate 7 Row of Black Locust trees**



**Plate 8 Camphor Laurels near roundabout**



**Plate 9 Camphor Laurels and Lantana east of the stairs at start of lane**



**Plate 10 Vine growth on RailCorp fence adjacent to lane**

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## Appendix 4: EPBC Act Protected Matters Report

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# 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.

Report created: 28/10/14 14:19:21

[Summary](#)

[Details](#)

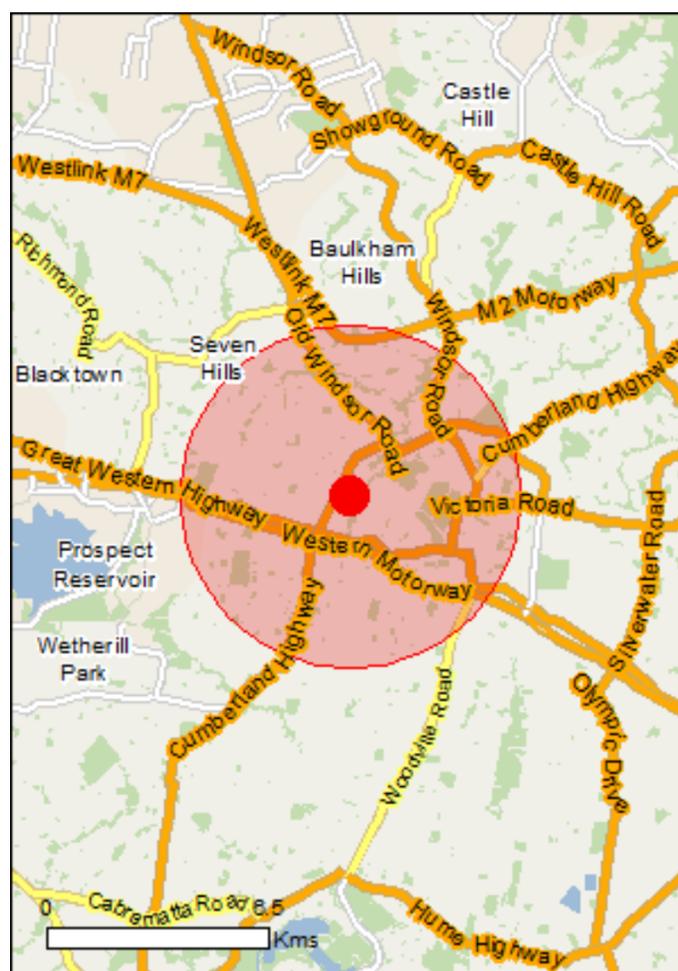
[Matters of NES](#)

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

[Extra Information](#)

[Caveat](#)

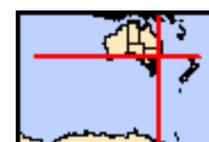
[Acknowledgements](#)



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

[Coordinates](#)

Buffer: 5.0Km



# 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](#).

<a href="#">World Heritage Properties:</a>	2
<a href="#">National Heritage Places:</a>	2
<a href="#">Wetlands of International Importance:</a>	None
<a href="#">Great Barrier Reef Marine Park:</a>	None
<a href="#">Commonwealth Marine Areas:</a>	None
<a href="#">Listed Threatened Ecological Communities:</a>	4
<a href="#">Listed Threatened Species:</a>	51
<a href="#">Listed Migratory Species:</a>	33

## Other Matters Protected by the EPBC Act

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

The EPBC Act protects the environment on Commonwealth land, the environment from the actions taken on Commonwealth land, and the environment from actions taken by Commonwealth agencies. As [heritage values](#) of a place are part of the 'environment', these aspects of the EPBC Act protect the Commonwealth Heritage values of a Commonwealth Heritage place and the heritage values of a place on the Register of the National Estate.

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

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

<a href="#">Commonwealth Land:</a>	15
<a href="#">Commonwealth Heritage Places:</a>	2
<a href="#">Listed Marine Species:</a>	34
<a href="#">Whales and Other Cetaceans:</a>	None
<a href="#">Critical Habitats:</a>	None
<a href="#">Commonwealth Reserves Terrestrial:</a>	None
<a href="#">Commonwealth Reserves Marine</a>	None

## Extra Information

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

<a href="#">Place on the RNE:</a>	93
<a href="#">State and Territory Reserves:</a>	None
<a href="#">Regional Forest Agreements:</a>	None
<a href="#">Invasive Species:</a>	53
<a href="#">Nationally Important Wetlands:</a>	None
<a href="#">Key Ecological Features (Marine)</a>	None

## Details

### Matters of National Environmental Significance

#### World Heritage Properties [\[ Resource Information \]](#)

Name	State	Status
<a href="#">Australian Convict Sites (Old Government House and Domain Buffer Zone)</a>	NSW	Declared property
<a href="#">Australian Convict Sites (Old Government House and Domain)</a>	NSW	Declared property

#### National Heritage Properties [\[ Resource Information \]](#)

Name	State	Status
Historic		
<a href="#">Old Government House and the Government Domain</a>	NSW	Listed place
<a href="#">Former Female Factory Parramatta</a>	NSW	Nominated place

#### 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
<a href="#">Cumberland Plain Shale Woodlands and Shale-Gravel Transition Forest</a>	Critically Endangered	Community likely to occur within area
<a href="#">Shale/Sandstone Transition Forest</a>	Endangered	Community likely to occur within area
<a href="#">Turpentine-Ironbark Forest in the Sydney Basin Bioregion</a>	Critically Endangered	Community likely to occur within area
<a href="#">Western Sydney Dry Rainforest and Moist Woodland on Shale</a>	Critically Endangered	Community may occur within area

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

Name	Status	Type of Presence
Birds		
<a href="#">Anthochaera phrygia</a> Regent Honeyeater [82338]	Endangered	Foraging, feeding or related behaviour likely to occur within area
<a href="#">Botaurus poiciloptilus</a> Australasian Bittern [1001]	Endangered	Species or species habitat known to occur within area
<a href="#">Dasyornis brachypterus</a> Eastern Bristlebird [533]	Endangered	Species or species habitat may occur within area
<a href="#">Diomedea epomophora epomophora</a> Southern Royal Albatross [25996]	Vulnerable	Species or species habitat likely to occur within area

Name	Status	Type of Presence
<a href="#">Diomedea epomophora sanfordi</a> Northern Royal Albatross [82331]	Endangered	Species or species habitat likely to occur within area
<a href="#">Diomedea exulans antipodensis</a> Antipodean Albatross [82269]	Vulnerable	Species or species habitat likely to occur within area
<a href="#">Diomedea exulans exulans</a> Tristan Albatross [82337]	Endangered	Species or species habitat may occur within area
<a href="#">Diomedea exulans gibsoni</a> Gibson's Albatross [82271]	Vulnerable	Species or species habitat likely to occur within area
<a href="#">Diomedea exulans (sensu lato)</a> Wandering Albatross [1073]	Vulnerable	Species or species habitat likely to occur within area
<a href="#">Lathamus discolor</a> Swift Parrot [744]	Endangered	Species or species habitat likely to occur within area
<a href="#">Macronectes giganteus</a> Southern Giant-Petrel [1060]	Endangered	Species or species habitat may occur within area
<a href="#">Macronectes halli</a> Northern Giant-Petrel [1061]	Vulnerable	Species or species habitat may occur within area
<a href="#">Rostratula australis</a> Australian Painted Snipe [77037]	Endangered	Species or species habitat likely to occur within area
<a href="#">Thalassarche bulleri</a> Buller's Albatross, Pacific Albatross [64460]	Vulnerable	Species or species habitat may occur within area
<a href="#">Thalassarche cauta cauta</a> Shy Albatross, Tasmanian Shy Albatross [82345]	Vulnerable	Species or species habitat likely to occur within area
<a href="#">Thalassarche cauta salvini</a> Salvin's Albatross [82343]	Vulnerable	Species or species habitat likely to occur within area
<a href="#">Thalassarche cauta steadi</a> White-capped Albatross [82344]	Vulnerable	Species or species habitat likely to occur within area
<a href="#">Thalassarche eremita</a> Chatham Albatross [64457]	Endangered	Species or species habitat likely to occur within area
<a href="#">Thalassarche melanophris</a> Black-browed Albatross [66472]	Vulnerable	Species or species habitat may occur within area
<a href="#">Thalassarche melanophris impavida</a> Campbell Albatross [82449]	Vulnerable	Species or species habitat may occur within area
<b>Fish</b>		
<a href="#">Epinephelus daemeli</a> Black Rockcod, Black Cod, Saddled Rockcod [68449]	Vulnerable	Species or species habitat likely to occur within area
<b>Frogs</b>		
<a href="#">Heleioporus australiacus</a> Giant Burrowing Frog [1973]	Vulnerable	Species or species habitat likely to occur

Name	Status	Type of Presence within area
<a href="#">Litoria aurea</a> Green and Golden Bell Frog [1870]	Vulnerable	Species or species habitat likely to occur within area
<a href="#">Litoria raniformis</a> Growling Grass Frog, Southern Bell Frog, Green and Golden Frog, Warty Swamp Frog [1828]	Vulnerable	Species or species habitat may occur within area
<a href="#">Mixophyes balbus</a> Stuttering Frog, Southern Barred Frog (in Victoria) [1942]	Vulnerable	Species or species habitat likely to occur within area
<b>Mammals</b>		
<a href="#">Chalinolobus dwyeri</a> Large-eared Pied Bat, Large Pied Bat [183]	Vulnerable	Species or species habitat known to occur within area
<a href="#">Dasyurus maculatus maculatus (SE mainland population)</a> Spot-tailed Quoll, Spotted-tail Quoll, Tiger Quoll (southeastern mainland population) [75184]	Endangered	Species or species habitat known to occur within area
<a href="#">Petrogale penicillata</a> Brush-tailed Rock-wallaby [225]	Vulnerable	Species or species habitat may occur within area
<a href="#">Phascolarctos cinereus (combined populations of Qld, NSW and the ACT)</a> Koala (combined populations of Queensland, New South Wales and the Australian Capital Territory) [85104]	Vulnerable	Species or species habitat likely to occur within area
<a href="#">Pseudomys novaehollandiae</a> New Holland Mouse, Pookila [96]	Vulnerable	Species or species habitat likely to occur within area
<a href="#">Pteropus poliocephalus</a> Grey-headed Flying-fox [186]	Vulnerable	Roosting known to occur within area
<b>Plants</b>		
<a href="#">Acacia pubescens</a> Downy Wattle, Hairy Stemmed Wattle [18800]	Vulnerable	Species or species habitat likely to occur within area
<a href="#">Allocasuarina glareicola</a> [21932]	Endangered	Species or species habitat may occur within area
<a href="#">Asterolasia elegans</a> [56780]	Endangered	Species or species habitat may occur within area
<a href="#">Cryptostylis hunteriana</a> Leafless Tongue-orchid [19533]	Vulnerable	Species or species habitat may occur within area
<a href="#">Genoplesium baueri</a> Yellow Gnat-orchid [7528]	Endangered	Species or species habitat known to occur within area
<a href="#">Pelargonium sp. Striatellum (G.W.Carr 10345)</a> Omeo Stork's-bill [84065]	Endangered	Species or species habitat may occur within area
<a href="#">Persoonia nutans</a> Nodding Geebung [18119]	Endangered	Species or species habitat likely to occur within area
<a href="#">Pimelea curviflora var. curviflora</a> [4182]	Vulnerable	Species or species habitat known to occur within area
<a href="#">Pimelea spicata</a> Spiked Rice-flower [20834]	Endangered	Species or species habitat known to occur within area

Name	Status	Type of Presence within area
<a href="#">Pterostylis gibbosa</a> Illawarra Greenhood, Rufa Greenhood, Pouched Greenhood [4562]	Endangered	Species or species habitat may occur within area
<a href="#">Pterostylis saxicola</a> Sydney Plains Greenhood [64537]	Endangered	Species or species habitat likely to occur within area
<a href="#">Streblus pendulinus</a> Siah's Backbone, Sia's Backbone, Isaac Wood [21618]	Endangered	Species or species habitat likely to occur within area
<a href="#">Syzygium paniculatum</a> Magenta Lilly Pilly, Magenta Cherry, Pocket-less Brush Cherry, Scrub Cherry, Creek Lilly Pilly, Brush Cherry [20307]	Vulnerable	Species or species habitat likely to occur within area
<a href="#">Thesium australe</a> Austral Toadflax, Toadflax [15202]	Vulnerable	Species or species habitat may occur within area
<b>Reptiles</b>		
<a href="#">Caretta caretta</a> Loggerhead Turtle [1763]	Endangered	Species or species habitat known to occur within area
<a href="#">Chelonia mydas</a> Green Turtle [1765]	Vulnerable	Species or species habitat known to occur within area
<a href="#">Dermochelys coriacea</a> Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Species or species habitat known to occur within area
<a href="#">Eretmochelys imbricata</a> Hawksbill Turtle [1766]	Vulnerable	Species or species habitat known to occur within area
<a href="#">Hoplocephalus bungaroides</a> Broad-headed Snake [1182]	Vulnerable	Species or species habitat likely to occur within area
<a href="#">Natator depressus</a> Flatback Turtle [59257]	Vulnerable	Species or species habitat known to occur within area
<b>Listed Migratory Species</b>		<b>[ <a href="#">Resource Information</a> ]</b>
* Species is listed under a different scientific name on the EPBC Act - Threatened Species list.		
Name	Threatened	Type of Presence
<b>Migratory Marine Birds</b>		
<a href="#">Apus pacificus</a> Fork-tailed Swift [678]		Species or species habitat likely to occur within area
<a href="#">Diomedea antipodensis</a> Antipodean Albatross [64458]	Vulnerable*	Species or species habitat likely to occur within area
<a href="#">Diomedea dabbenena</a> Tristan Albatross [66471]	Endangered*	Species or species habitat may occur within area
<a href="#">Diomedea epomophora (sensu stricto)</a> Southern Royal Albatross [1072]	Vulnerable*	Species or species habitat likely to occur within area
<a href="#">Diomedea exulans (sensu lato)</a> Wandering Albatross [1073]	Vulnerable	Species or species habitat likely to occur within area

Name	Threatened	Type of Presence
<a href="#">Diomedea gibsoni</a> Gibson's Albatross [64466]	Vulnerable*	Species or species habitat likely to occur within area
<a href="#">Diomedea sanfordi</a> Northern Royal Albatross [64456]	Endangered*	Species or species habitat likely to occur within area
<a href="#">Macronectes giganteus</a> Southern Giant-Petrel [1060]	Endangered	Species or species habitat may occur within area
<a href="#">Macronectes halli</a> Northern Giant-Petrel [1061]	Vulnerable	Species or species habitat may occur within area
<a href="#">Thalassarche bulleri</a> Buller's Albatross, Pacific Albatross [64460]	Vulnerable	Species or species habitat may occur within area
<a href="#">Thalassarche cauta (sensu stricto)</a> Shy Albatross, Tasmanian Shy Albatross [64697]	Vulnerable*	Species or species habitat likely to occur within area
<a href="#">Thalassarche eremita</a> Chatham Albatross [64457]	Endangered	Species or species habitat likely to occur within area
<a href="#">Thalassarche impavida</a> Campbell Albatross [64459]	Vulnerable*	Species or species habitat may occur within area
<a href="#">Thalassarche melanophris</a> Black-browed Albatross [66472]	Vulnerable	Species or species habitat may occur within area
<a href="#">Thalassarche salvini</a> Salvin's Albatross [64463]	Vulnerable*	Species or species habitat likely to occur within area
<a href="#">Thalassarche steadi</a> White-capped Albatross [64462]	Vulnerable*	Species or species habitat likely to occur within area
<b>Migratory Marine Species</b>		
<a href="#">Caretta caretta</a> Loggerhead Turtle [1763]	Endangered	Species or species habitat known to occur within area
<a href="#">Chelonia mydas</a> Green Turtle [1765]	Vulnerable	Species or species habitat known to occur within area
<a href="#">Dermochelys coriacea</a> Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Species or species habitat known to occur within area
<a href="#">Eretmochelys imbricata</a> Hawksbill Turtle [1766]	Vulnerable	Species or species habitat known to occur within area
<a href="#">Manta birostris</a> Giant Manta Ray, Chevron Manta Ray, Pacific Manta Ray, Pelagic Manta Ray, Oceanic Manta Ray [84995]		Species or species habitat may occur within area
<a href="#">Natator depressus</a> Flatback Turtle [59257]	Vulnerable	Species or species habitat known to occur within area
<b>Migratory Terrestrial Species</b>		
<a href="#">Haliaeetus leucogaster</a> White-bellied Sea-Eagle [943]		Species or species habitat known to occur

Name	Threatened	Type of Presence within area
<a href="#">Hirundapus caudacutus</a> White-throated Needletail [682]		Species or species habitat known to occur within area
<a href="#">Merops ornatus</a> Rainbow Bee-eater [670]		Species or species habitat may occur within area
<a href="#">Monarcha melanopsis</a> Black-faced Monarch [609]		Species or species habitat known to occur within area
<a href="#">Monarcha trivirgatus</a> Spectacled Monarch [610]		Species or species habitat may occur within area
<a href="#">Myiagra cyanoleuca</a> Satin Flycatcher [612]		Species or species habitat known to occur within area
<a href="#">Rhipidura rufifrons</a> Rufous Fantail [592]		Species or species habitat known to occur within area
<b>Migratory Wetlands Species</b>		
<a href="#">Ardea alba</a> Great Egret, White Egret [59541]		Species or species habitat known to occur within area
<a href="#">Ardea ibis</a> Cattle Egret [59542]		Species or species habitat likely to occur within area
<a href="#">Gallinago hardwickii</a> Latham's Snipe, Japanese Snipe [863]		Species or species habitat may occur within area
<a href="#">Rostratula benghalensis (sensu lato)</a> Painted Snipe [889]	Endangered*	Species or species habitat likely to occur within area

## Other Matters Protected by the EPBC Act

### Commonwealth Land [\[ Resource Information \]](#)

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 -
Commonwealth Land - Australian & Overseas Telecommunications Corporation
Commonwealth Land - Australian Postal Commission
Commonwealth Land - Australian Postal Corporation
Commonwealth Land - Australian Telecommunications Commission
Commonwealth Land - Australian Telecommunications Corporation
Commonwealth Land - Commonwealth Scientific & Industrial Research Organisation
Commonwealth Land - Defence Housing Authority
Commonwealth Land - Defence Service Homes Corporation
Commonwealth Land - Director of War Service Homes
Commonwealth Land - Reserve Bank of Australia
Commonwealth Land - Telstra Corporation Limited
Defence - 1/15 RNSWL - LANCER BARRACKS - PARRAMATTA
Defence - ADFRU PARRAMATTA
Defence - MERRYLANDS

### Commonwealth Heritage Places [\[ Resource Information \]](#)

Name	State	Status
Historic		

Name	State	Status
<a href="#">Lancer Barracks</a>	NSW	Listed place
<a href="#">Lancer Barracks Precinct</a>	NSW	Listed place

## 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
<b>Birds</b>		
<a href="#">Apus pacificus</a> Fork-tailed Swift [678]		Species or species habitat likely to occur within area
<a href="#">Ardea alba</a> Great Egret, White Egret [59541]		Species or species habitat known to occur within area
<a href="#">Ardea ibis</a> Cattle Egret [59542]		Species or species habitat likely to occur within area
<a href="#">Diomedea antipodensis</a> Antipodean Albatross [64458]	Vulnerable*	Species or species habitat likely to occur within area
<a href="#">Diomedea dabbenena</a> Tristan Albatross [66471]	Endangered*	Species or species habitat may occur within area
<a href="#">Diomedea epomophora (sensu stricto)</a> Southern Royal Albatross [1072]	Vulnerable*	Species or species habitat likely to occur within area
<a href="#">Diomedea exulans (sensu lato)</a> Wandering Albatross [1073]	Vulnerable	Species or species habitat likely to occur within area
<a href="#">Diomedea gibsoni</a> Gibson's Albatross [64466]	Vulnerable*	Species or species habitat likely to occur within area
<a href="#">Diomedea sanfordi</a> Northern Royal Albatross [64456]	Endangered*	Species or species habitat likely to occur within area
<a href="#">Gallinago hardwickii</a> Latham's Snipe, Japanese Snipe [863]		Species or species habitat may occur within area
<a href="#">Haliaeetus leucogaster</a> White-bellied Sea-Eagle [943]		Species or species habitat known to occur within area
<a href="#">Hirundapus caudacutus</a> White-throated Needletail [682]		Species or species habitat known to occur within area
<a href="#">Lathamus discolor</a> Swift Parrot [744]	Endangered	Species or species habitat likely to occur within area
<a href="#">Macronectes giganteus</a> Southern Giant-Petrel [1060]	Endangered	Species or species habitat may occur within area
<a href="#">Macronectes halli</a> Northern Giant-Petrel [1061]	Vulnerable	Species or species habitat may occur within area
<a href="#">Merops ornatus</a> Rainbow Bee-eater [670]		Species or species habitat may occur within area

Name	Threatened	Type of Presence
<a href="#">Monarcha melanopsis</a> Black-faced Monarch [609]		Species or species habitat known to occur within area
<a href="#">Monarcha trivirgatus</a> Spectacled Monarch [610]		Species or species habitat may occur within area
<a href="#">Myiagra cyanoleuca</a> Satin Flycatcher [612]		Species or species habitat known to occur within area
<a href="#">Pandion haliaetus</a> Osprey [952]		Species or species habitat likely to occur within area
<a href="#">Rhipidura rufifrons</a> Rufous Fantail [592]		Species or species habitat known to occur within area
<a href="#">Rostratula benghalensis (sensu lato)</a> Painted Snipe [889]	Endangered*	Species or species habitat likely to occur within area
<a href="#">Thalassarche bulleri</a> Buller's Albatross, Pacific Albatross [64460]	Vulnerable	Species or species habitat may occur within area
<a href="#">Thalassarche cauta (sensu stricto)</a> Shy Albatross, Tasmanian Shy Albatross [64697]	Vulnerable*	Species or species habitat likely to occur within area
<a href="#">Thalassarche eremita</a> Chatham Albatross [64457]	Endangered	Species or species habitat likely to occur within area
<a href="#">Thalassarche impavida</a> Campbell Albatross [64459]	Vulnerable*	Species or species habitat may occur within area
<a href="#">Thalassarche melanophris</a> Black-browed Albatross [66472]	Vulnerable	Species or species habitat may occur within area
<a href="#">Thalassarche salvini</a> Salvin's Albatross [64463]	Vulnerable*	Species or species habitat likely to occur within area
<a href="#">Thalassarche steadi</a> White-capped Albatross [64462]	Vulnerable*	Species or species habitat likely to occur within area
<b>Reptiles</b>		
<a href="#">Caretta caretta</a> Loggerhead Turtle [1763]	Endangered	Species or species habitat known to occur within area
<a href="#">Chelonia mydas</a> Green Turtle [1765]	Vulnerable	Species or species habitat known to occur within area
<a href="#">Dermochelys coriacea</a> Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Species or species habitat known to occur within area
<a href="#">Eretmochelys imbricata</a> Hawksbill Turtle [1766]	Vulnerable	Species or species habitat known to occur within area
<a href="#">Natator depressus</a> Flatback Turtle [59257]	Vulnerable	Species or species habitat known to occur within area

## Extra Information

### Places on the RNE [ [Resource Information](#) ]

Note that not all Indigenous sites may be listed.

Name	State	Status
<b>Natural</b>		
<a href="#">Parramatta and Lane Cove Rivers Landscapes</a>	NSW	Indicative Place
<b>Historic</b>		
<a href="#">Cumberland Hospital Landscape</a>	NSW	Indicative Place
<a href="#">Evesham</a>	NSW	Indicative Place
<a href="#">Former Engine Sheds</a>	NSW	Indicative Place
<a href="#">Granville Town Hall</a>	NSW	Indicative Place
<a href="#">House</a>	NSW	Indicative Place
<a href="#">House</a>	NSW	Indicative Place
<a href="#">House</a>	NSW	Indicative Place
<a href="#">House</a>	NSW	Indicative Place
<a href="#">Joyce Farmhouse</a>	NSW	Indicative Place
<a href="#">Lake Parramatta Dam</a>	NSW	Indicative Place
<a href="#">Lockerbie and Keswick</a>	NSW	Indicative Place
<a href="#">Mt Dorothy Reservoir</a>	NSW	Indicative Place
<a href="#">Pipehead</a>	NSW	Indicative Place
<a href="#">Pipehead to Potts Hill Water Supply</a>	NSW	Indicative Place
<a href="#">Police Station</a>	NSW	Indicative Place
<a href="#">Prince Alfred Park</a>	NSW	Indicative Place
<a href="#">Railway Bridge Pier and Abutment</a>	NSW	Indicative Place
<a href="#">Remnant Garden from Old Benevolent Society</a>	NSW	Indicative Place
<a href="#">St Andrews Uniting Church &amp; Halls</a>	NSW	Indicative Place
<a href="#">Sydney Woollen Mills</a>	NSW	Indicative Place
<a href="#">Vauxhall Inn</a>	NSW	Indicative Place
<a href="#">Willow Grove</a>	NSW	Indicative Place
<a href="#">Wistaria Gardens</a>	NSW	Indicative Place
<a href="#">Accommodation Block Spinal Range for Wards 2 and 3</a>	NSW	Registered
<a href="#">Administration Building</a>	NSW	Registered
<a href="#">All Saints Anglican Church, Grounds &amp; Trees</a>	NSW	Registered
<a href="#">All Saints Parochial School</a>	NSW	Registered
<a href="#">Auxiliary Buildings former Kings School</a>	NSW	Registered
<a href="#">Boer War Memorial</a>	NSW	Registered
<a href="#">Boorbri and Grounds</a>	NSW	Registered
<a href="#">Boundary Stone</a>	NSW	Registered
<a href="#">Brislington</a>	NSW	Registered
<a href="#">Burnside Homes</a>	NSW	Registered
<a href="#">CSIRO Division of Animal Production</a>	NSW	Registered
<a href="#">Catholic Cemetery</a>	NSW	Registered
<a href="#">Centennial Clock</a>	NSW	Registered
<a href="#">Central Block former Kings School</a>	NSW	Registered
<a href="#">Cottage</a>	NSW	Registered
<a href="#">Cottage</a>	NSW	Registered
<a href="#">Day Room for Wards 4 and 5 (former)</a>	NSW	Registered
<a href="#">Endrim</a>	NSW	Registered
<a href="#">Experiment Farm Cottage</a>	NSW	Registered
<a href="#">Girls Training School Precinct</a>	NSW	Registered

Name	State	Status
<a href="#">Governor Brisbanes Observatory Remnants</a>	NSW	Registered
<a href="#">Governors Bath House (former)</a>	NSW	Registered
<a href="#">Governors Dairy Cottage (former)</a>	NSW	Registered
<a href="#">Greystanes (Boothtown) Aqueduct</a>	NSW	Registered
<a href="#">Hambledon</a>	NSW	Registered
<a href="#">Harborne including Ground and Trees</a>	NSW	Registered
<a href="#">Headmasters Residence former Kings School</a>	NSW	Registered
<a href="#">Kia Ora (former)</a>	NSW	Registered
<a href="#">Kings School (former) Group</a>	NSW	Registered
<a href="#">Kitchen Block</a>	NSW	Registered
<a href="#">Lancer Barracks</a>	NSW	Registered
<a href="#">Lancer Barracks Precinct</a>	NSW	Registered
<a href="#">Lennox Bridge</a>	NSW	Registered
<a href="#">Lennox House and Outbuilding</a>	NSW	Registered
<a href="#">Macquarie Street Gatehouse</a>	NSW	Registered
<a href="#">Mays Hill Cemetery</a>	NSW	Registered
<a href="#">Norfolk House and Contemporary Outbuilding</a>	NSW	Registered
<a href="#">Obelisk</a>	NSW	Registered
<a href="#">Old Government House</a>	NSW	Registered
<a href="#">Parramatta Convalescent Home</a>	NSW	Registered
<a href="#">Parramatta Gaol (former)</a>	NSW	Registered
<a href="#">Parramatta Park</a>	NSW	Registered
<a href="#">Parramatta Park Gatehouse</a>	NSW	Registered
<a href="#">Parramatta Post Office (former)</a>	NSW	Registered
<a href="#">Parramatta Psychiatric Centre Precinct</a>	NSW	Registered
<a href="#">Perth House</a>	NSW	Registered
<a href="#">Public School (former) and Convict Wall</a>	NSW	Registered
<a href="#">River Terraces</a>	NSW	Registered
<a href="#">Roseneath Cottage</a>	NSW	Registered
<a href="#">Roxy Cinema</a>	NSW	Registered
<a href="#">Sandstone Buildings</a>	NSW	Registered
<a href="#">Sandstone Walls and Ha Ha</a>	NSW	Registered
<a href="#">Southern Gatehouse</a>	NSW	Registered
<a href="#">St Johns Anglican Provisonal Cathedral</a>	NSW	Registered
<a href="#">St Johns Cemetery and Boundary Wall</a>	NSW	Registered
<a href="#">St Patricks Catholic Cathedral &amp; Presbytery</a>	NSW	Registered
<a href="#">Town Hall</a>	NSW	Registered
<a href="#">Travellers Rest Inn</a>	NSW	Registered
<a href="#">Travellers Rest Inn Group</a>	NSW	Registered
<a href="#">Two Cannons</a>	NSW	Registered
<a href="#">Ward 1</a>	NSW	Registered
<a href="#">Ward 2 Courtyard Shelter Shed</a>	NSW	Registered
<a href="#">Ward 2 North Range</a>	NSW	Registered
<a href="#">Ward 4 North Range</a>	NSW	Registered
<a href="#">Ward 4 West Range</a>	NSW	Registered
<a href="#">Ward 5 North Range</a>	NSW	Registered
<a href="#">Ward 5 South Range (former)</a>	NSW	Registered
<a href="#">Wavertree including Grounds and Trees</a>	NSW	Registered
<a href="#">Western Gatehouse</a>	NSW	Registered

## 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
<b>Birds</b>		
<a href="#">Acridotheres tristis</a>		
Common Myna, Indian Myna [387]		Species or species habitat likely to occur within area

Name	Status	Type of Presence
<a href="#">Alauda arvensis</a> Skylark [656]		Species or species habitat likely to occur within area
<a href="#">Anas platyrhynchos</a> Mallard [974]		Species or species habitat likely to occur within area
<a href="#">Carduelis carduelis</a> European Goldfinch [403]		Species or species habitat likely to occur within area
<a href="#">Carduelis chloris</a> European Greenfinch [404]		Species or species habitat likely to occur within area
<a href="#">Columba livia</a> Rock Pigeon, Rock Dove, Domestic Pigeon [803]		Species or species habitat likely to occur within area
<a href="#">Lonchura punctulata</a> Nutmeg Mannikin [399]		Species or species habitat likely to occur within area
<a href="#">Passer domesticus</a> House Sparrow [405]		Species or species habitat likely to occur within area
<a href="#">Passer montanus</a> Eurasian Tree Sparrow [406]		Species or species habitat likely to occur within area
<a href="#">Pycnonotus jocosus</a> Red-whiskered Bulbul [631]		Species or species habitat likely to occur within area
<a href="#">Streptopelia chinensis</a> Spotted Turtle-Dove [780]		Species or species habitat likely to occur within area
<a href="#">Sturnus vulgaris</a> Common Starling [389]		Species or species habitat likely to occur within area
<a href="#">Turdus merula</a> Common Blackbird, Eurasian Blackbird [596]		Species or species habitat likely to occur within area
<b>Frogs</b>		
<a href="#">Rhinella marina</a> Cane Toad [83218]		Species or species habitat likely to occur within area
<b>Mammals</b>		
<a href="#">Bos taurus</a> Domestic Cattle [16]		Species or species habitat likely to occur within area
<a href="#">Canis lupus familiaris</a> Domestic Dog [82654]		Species or species habitat likely to occur within area
<a href="#">Felis catus</a> Cat, House Cat, Domestic Cat [19]		Species or species habitat likely to occur within area
<a href="#">Lepus capensis</a> Brown Hare [127]		Species or species habitat likely to occur within area
<a href="#">Mus musculus</a> House Mouse [120]		Species or species habitat likely to occur within area

Name	Status	Type of Presence
<a href="#">Oryctolagus cuniculus</a> Rabbit, European Rabbit [128]		within area  Species or species habitat likely to occur within area
<a href="#">Rattus norvegicus</a> Brown Rat, Norway Rat [83]		Species or species habitat likely to occur within area
<a href="#">Rattus rattus</a> Black Rat, Ship Rat [84]		Species or species habitat likely to occur within area
<a href="#">Vulpes vulpes</a> Red Fox, Fox [18]		Species or species habitat likely to occur within area
<b>Plants</b>		
<a href="#">Alternanthera philoxeroides</a> Alligator Weed [11620]		Species or species habitat likely to occur within area
<a href="#">Anredera cordifolia</a> Madeira Vine, Jalap, Lamb's-tail, Mignonette Vine, Anredera, Gulf Madeiravine, Heartleaf Madeiravine, Potato Vine [2643]		Species or species habitat likely to occur within area
<a href="#">Asparagus aethiopicus</a> Asparagus Fern, Ground Asparagus, Basket Fern, Sprengi's Fern, Bushy Asparagus, Emerald Asparagus [62425]		Species or species habitat likely to occur within area
<a href="#">Asparagus asparagoides</a> Bridal Creeper, Bridal Veil Creeper, Smilax, Florist's Smilax, Smilax Asparagus [22473]		Species or species habitat likely to occur within area
<a href="#">Asparagus plumosus</a> Climbing Asparagus-fern [48993]		Species or species habitat likely to occur within area
<a href="#">Asparagus scandens</a> Asparagus Fern, Climbing Asparagus Fern [23255]		Species or species habitat likely to occur within area
<a href="#">Cabomba caroliniana</a> Cabomba, Fanwort, Carolina Watershield, Fish Grass, Washington Grass, Watershield, Carolina Fanwort, Common Cabomba [5171]		Species or species habitat likely to occur within area
<a href="#">Chrysanthemoides monilifera</a> Bitou Bush, Boneseed [18983]		Species or species habitat may occur within area
<a href="#">Chrysanthemoides monilifera subsp. monilifera</a> Boneseed [16905]		Species or species habitat likely to occur within area
<a href="#">Chrysanthemoides monilifera subsp. rotundata</a> Bitou Bush [16332]		Species or species habitat likely to occur within area
<a href="#">Cytisus scoparius</a> Broom, English Broom, Scotch Broom, Common Broom, Scottish Broom, Spanish Broom [5934]		Species or species habitat likely to occur within area
<a href="#">Dolichandra unguis-cati</a> Cat's Claw Vine, Yellow Trumpet Vine, Cat's Claw Creeper, Funnel Creeper [85119]		Species or species habitat likely to occur within area
<a href="#">Eichhornia crassipes</a> Water Hyacinth, Water Orchid, Nile Lily [13466]		Species or species habitat likely to occur within area
<a href="#">Genista linifolia</a> Flax-leaved Broom, Mediterranean Broom, Flax Broom [2800]		Species or species habitat likely to occur

Name	Status	Type of Presence
<a href="#">Genista monspessulana</a> Montpellier Broom, Cape Broom, Canary Broom, Common Broom, French Broom, Soft Broom [20126]		within area Species or species habitat likely to occur within area
<a href="#">Genista sp. X Genista monspessulana</a> Broom [67538]		Species or species habitat may occur within area
<a href="#">Lantana camara</a> Lantana, Common Lantana, Kamara Lantana, Large-leaf Lantana, Pink Flowered Lantana, Red Flowered Lantana, Red-Flowered Sage, White Sage, Wild Sage [10892]		Species or species habitat likely to occur within area
<a href="#">Lycium ferocissimum</a> African Boxthorn, Boxthorn [19235]		Species or species habitat likely to occur within area
<a href="#">Nassella neesiana</a> Chilean Needle grass [67699]		Species or species habitat likely to occur within area
<a href="#">Nassella trichotoma</a> Serrated Tussock, Yass River Tussock, Yass Tussock, Nassella Tussock (NZ) [18884]		Species or species habitat likely to occur within area
<a href="#">Opuntia spp.</a> Prickly Pears [82753]		Species or species habitat likely to occur within area
<a href="#">Pinus radiata</a> Radiata Pine Monterey Pine, Insignis Pine, Wilding Pine [20780]		Species or species habitat may occur within area
<a href="#">Protasparagus plumosus</a> Climbing Asparagus-fern, Ferny Asparagus [11747]		Species or species habitat likely to occur within area
<a href="#">Rubus fruticosus aggregate</a> Blackberry, European Blackberry [68406]		Species or species habitat likely to occur within area
<a href="#">Sagittaria platyphylla</a> Delta Arrowhead, Arrowhead, Slender Arrowhead [68483]		Species or species habitat likely to occur within area
<a href="#">Salix spp. except S.babylonica, S.x calodendron &amp; S.x reichardtii</a> Willows except Weeping Willow, Pussy Willow and Sterile Pussy Willow [68497]		Species or species habitat likely to occur within area
<a href="#">Salvinia molesta</a> Salvinia, Giant Salvinia, Aquarium Watermoss, Kariba Weed [13665]		Species or species habitat likely to occur within area
<a href="#">Senecio madagascariensis</a> Fireweed, Madagascar Ragwort, Madagascar Groundsel [2624]		Species or species habitat likely to occur within area
<a href="#">Ulex europaeus</a> Gorse, Furze [7693]		Species or species habitat likely to occur within area
<b>Reptiles</b>		
<a href="#">Hemidactylus frenatus</a> Asian House Gecko [1708]		Species or species habitat likely to occur within area

# Coordinates

-33.80709 150.97251

## Caveat

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

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

# 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.