

**Paul Kelly & Associates  
Ecological Services**

**Flora and Fauna Assessment**  
641 - 659 Bellarine Highway, Leopold

13<sup>th</sup> December 2011  
Prepared by Paul Kelly and Associates

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## 1 Introduction

Paul Kelly and Associates were commissioned by ERM Australia to provide a report on the ecological values for the proposed rezoning of 641 - 659 Bellarine Highway, Leopold to facilitate development of the Leopold sub-regional centre.

### 1.1 Study Site

The study area consists of two discrete parcels of land, divided by Clifton Road through the centre. The entire site covers 12.7 hectares.

The smaller property located west of Clifton Road consists of cleared agricultural land and is currently grazed by eight stock horses. A residence is located in the south western corner.

The larger property east of Clifton Road is also cleared agricultural land but was ungrazed. A small dam occurs in the south east corner and a residential property is located in the north east.

The grazing pressure on both paddocks appears to have been light for a considerable period; this has created a grassy sward dominated by mature plants.

The majority of this site is predominately flat and slightly undulating. The overstorey in both properties is dominated by planted exotics including Sugar Gums *Eucalyptus cladocalyx*. Both properties contain isolated scattered remnant River Red Gums *Eucalyptus camaldulensis*. The understorey across both sites is dominated by weeds and pasture grasses, isolated plants of native grasses occur in both sites however the property to the west contains a higher cover of scattered native species. Refer to Appendix 1 – Site Map.

The subject sites occurs within the Otway Plain Bioregion. The site is within the Greater Geelong local government area.

The entire site is zoned Farming (FZ), with no Planning overlays.

### 1.2 Objectives

The purpose of this assessment is to:

- Interrogate and analyse a range of biological databases and relevant references to provide a list of flora and fauna or their habitat that is or are potentially present on the site;
- Carry out an assessment of the quality of the vegetation of the site and record and map the location of any significant species located including large trees;
- Map the limits of any remnant patches of native vegetation on the site;
- Classify the vegetation on the site in accordance with DSE (2006) ie Modified Treeless Vegetation, Scattered Tree or remnant patches of native vegetation;

- Provide recommendations for any further targeted assessments for any significant flora and fauna likely to be present as revealed during database analysis and site assessment; and
- Prepare a report and map of the findings of this assessment.

---

## 2 Methods

### 2.1 Literature and Database Review

Several databases and reports were interrogated and reviewed, these include;

- Flora and Fauna records within 2 km radius of the study area held in the Atls of Victorian Wildlife, Flora Information System and Biodiversity Interactive Maps, a state-wide database maintained by the Department of Sustainability and Environment (DSE) (DSE 2011):
- Department of Sustainability Environment Water Population and Communities Protected Matters Database (DSEWPaC) (DSEWPC 2011), using a 5 km radius search area:
- Ecological Vegetation Class modelling of the study area (both extant and pre-1750) (DSE 2011)

#### 2.1.1 Field Survey

The study area was assessed on 23rd November 2011.

#### 2.1.2 Limitations

The field survey provides a comprehensive assessment of the flora and fauna habitat as observed at the time. The survey is considered to be a sample of the flora and fauna values of the entire site. When the survey results are combined with our comprehensive literature and database search and our knowledge of the ecology and biology of the vicinity, it is considered that this report will provide an assessment that is fit for purpose.

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## 3 Results

### 3.1 Flora

#### 3.1.1 Database assessment

The majority of the site is highly modified from the modelled 1750 pre-European Ecological Vegetation Classes (EVC). The 2005 DSE vegetation maps indicate the area is largely devoid of the extant EVC (DSE 20011b). The pre-1750 (DSE 2011a) indigenous vegetation of the site is mapped as being EVC 55 Plains Grassy Woodland (DSE 2011d).

Planted exotic and native overstorey species occur around the house block of the western properties and scattered through the eastern paddock. Remnant River Red Gums *Eucalyptus camaldulensis* remain in the eastern paddock, and immediately adjacent to the boundary of the western paddock, with one located in the centre of the subject site. (Refer to Table 1 – Scattered Trees and Appendix 1 – Site Map)

### 3.1.2 Field Assessment

The location of each scattered tree was recorded using a Trimble GPS and the diameter at breast height (DBH) of each tree was measured. **Table 3-1** lists these results.

**Table 3-1 – Scattered Trees Onsite**

Tree Number	Common Name	Scientific Name	DBH (cm)	VLOT, LOT, MOT, ST
1	River Red Gum	<i>Eucalyptus camaldulensis</i>	34	ST
2	River Red Gum	<i>Eucalyptus camaldulensis</i>	32	ST
3	River Red Gum	<i>Eucalyptus camaldulensis</i>	55	ST
4	River Red Gum	<i>Eucalyptus camaldulensis</i>	46	ST
5	River Red Gum	<i>Eucalyptus camaldulensis</i>	<60	ST
6	River Red Gum	<i>Eucalyptus camaldulensis</i>	<60	ST
7	River Red Gum	<i>Eucalyptus camaldulensis</i>	<60	ST
8	River Red Gum	<i>Eucalyptus camaldulensis</i>	<60	ST
9	River Red Gum	<i>Eucalyptus camaldulensis</i>	65	MOT

\* VLOT – Very Large Old Tree (> 120 cm), LOT – Large Old Tree (80cm – 119cm) , MOT – Medium Old Tree (60cm-79cm), ST – Small Tree (<60cm).

The total number of Scattered Trees onsite is 1 MOT and 8 ST all River Red Gums.

The remainder of the vegetation across the site is highly modified secondary grassland and appears to have been cultivated, probably for pasture improvement, at some time in the past.

The majority of the site is now dominated by exotic species including: Cocksfoot *Dactylis glomerata*, Phalaris *Phalaris aquatica*, Rye grass *Lolium spp*, Prairie Grass *Bromus catharticus*, Couch *Cynodon dactylon*, Barley grass *Hordeum sp*, Yorkshire Fog *Holcus lanatus*, Squirrel-tail Fescue *Vulpia bromoides*, Scarlet pimpernel *Anagallis arvensis*, Carpetweed *Galenia pubescens*, Other weedy plants include Chilean Needle Grass, *Nassella neesiana*, Onion grass *Romulea*

*rosea*, Capeweed *Arctotheca calendula*, Ribwort *Plantago lanceolata*, Wild oats *Avena fatua* and Boxthorn *Lycium ferocissimum*.

These species are characteristic of areas which have undergone continued agricultural disturbance. Small isolated patches of Chilean Needle grass *Nassella neesiana* are located across the western paddock.

Scattered native species recorded on the site included Wallaby grass *Austrodanthonia spp*, Spear Grass *Austrostipa spp*, and Weeping Grass *Microlaena stipoides*.

The dam in the eastern paddock contained no fringing vegetation and was very turbid. Isolated plants of Austral rush *Juncus australis* were recorded in a low lying but dry area of the eastern paddock

### 3.1.3 **Net Gain assessment**

The majority of the vegetation on the site is considered to be Degraded Treeless Vegetation. No remnant patches (DSE 2007) of native vegetation were located on the subject site hence Net Gain will only apply if the scattered trees are removed.

Tree protection and recruitment is the DSE preferred method of providing offsets for the removal of scattered trees.

Table 3-2 lists the gain targets (offsets) using the Tree Protection and recruitment option if all the Scattered Trees are removed.

**Table 3-2 - Gain targets for clearing scattered trees (Protection & Recruitment Option)**

Target No. [1]	Bioregion	Pre-1750 EVC #: Name	Conservation Significance	Tree Size	# Trees to be removed	Tree protection [2]		OR	Recruit [3]	
						Multiplier	Offset Total		Multiplier	Offset Total
1	OP	55 PGW	High	VLOT	0				30	0
2	OP	55 PGW	High	LOT	0				20	0
3	OP	55 PGW	High	MOT	1	2	4		20	20
4	OP	55 PGW	High	ST	8	N/A	N/A		*	240
<b>TOTAL number of plants to be recruited</b>										260

\*(PPWPNVP 2006) Replacement ratio's for individual trees smaller than medium old trees (Figure 7)

### 3.1.4 Flora Significance Assessment

Table 3-3 lists those species of plants or their habitat recorded on the EPBC database and the Flora Information System (Viridans 2011a) within 5 km of the site

**Table 3-3 Significant plant species recorded within 5km of the subject site**

Species Name	Common Name	Likelihood of presence
Glycine latrobeana	Clover Glycine	Unlikely, habitat highly modified
Pimelea spinescens	Plains Rice Flower	Unlikely, habitat highly modified
Prasophyllum frenchii	Maroon Leek Orchid	Unlikely, habitat highly modified
Thelymitra epipactoides	Metallic Sun-orchid	Unlikely, habitat highly modified
Xerochrysum palustre	Swamp Everlasting	Unlikely, habitat highly modified

None of these species were observed during field investigations or recorded in the near vicinity on public databases. The likelihood of these species being present is low due to the highly modified condition of the vegetation.

## 3.2 Fauna

### 3.2.1 Desktop Assessment

The EPBC search identified a list of those species of animals or their habitat recorded on the database and the Atlas of Victorian Wildlife (Viridans 2011a) within 5 km of the site.

The exotic and native plantation and scattered trees provide some opportunistic feeding and roosting habitat for some native species of fauna but provide minor nesting opportunity due to the absence of hollows and relatively juvenile trees.

**Table 3-4 Significant fauna species recorded within 5km of the subject site**

Species Name	Common Name	Likelihood of presence
Lathamus discolor	Swift Parrot	Unlikely, habitat highly modified
Litoria raniformis	Growling Grass Frog	Unlikely, habitat highly modified
Delma impar	Striped Legless Lizard	Unlikely, habitat highly modified

### 3.2.2 **Field Assessment:**

No EPBC or FFG listed fauna species were observed during field investigations, and none are expected to be onsite as the habitat onsite is not considered to be the preferred habitat for any species.

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## 4 **Legislative Requirements**

### 4.1 **Environment Protection and Biodiversity Conservation (EPBC) Act**

The site is located within the vicinity of a listed Wetland of International significance: Port Phillip Bay {Western Shore line & Bellarine}. The development is quite distant from the Ramsar site and as such it is not expected to have a detrimental impact on the wetland particularly if water sensitive urban design techniques are incorporated into the development design.

EPBC listed Nationally significant Flora and Fauna species (or their habitat) are potentially present within 5km of the site including migratory bird species (see Section 3.2.1). but the development is not expected to have a significant detrimental impact on these species due to the highly modified quality of the vegetation of the site(Appendix 2- EPBC Report).

Two threatened ecological communities were listed (Appendix 2) as likely to occur within the area: Grassy Eucalypt Woodland and Natural Temperate Grassland of the Victorian Volcanic Plain Bioregion. The subject site does not contain either threatened ecological community as the site is highly modified and not within the Victorian Volcanic Plain Bioregion.

### 4.2 **Planning and Environment Act 1987**

A planning permit from the City of Greater Geelong is required to remove, destroy or lop any native vegetation as part of any proposed works.

A planning permit is required for the removal of native vegetation. The permit application must demonstrate the Net Gain Trinity of:

1. To avoid adverse impacts, particularly through vegetation clearance.
2. If impacts cannot be avoided, to minimise impacts through appropriate consideration in the planning process and expert input to project design or management.
3. Identify appropriate offset plan.

The site does not contain any remnant patches of native vegetation but does however contain dispersed plants of native grass and 9 (nine) scattered indigenous trees. The quality of the vegetation on the site is highly variable. As such the site is considered to be secondary grassland or degraded treeless vegetation.

In order to demonstrate Net Gain, the development design should endeavour to retain the scattered trees where practical. It is considered however that all the trees are immature and do not make a significant contribution to achieving a sustainable biodiversity conservation outcome. A more sustainable conservation outcome could be achieved by removing the immature scattered trees and offsetting them as part of the landscape plan for the development where they are likely to be retained in the landscape.

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**5 Conclusion**

Targeted assessments for significant flora and fauna are not considered to be warranted given the highly modified habitats occurring on the site and the unlikely presence of any significant species or communities of flora or fauna on the site.

The vegetation of the site is highly modified and considered to be secondary grassland consequently is defined as Degraded Treeless Vegetation (DSE 2007).

The nine scattered trees are considered to be the main ecological asset present. The retention of the scattered trees will provide marginal habitat mostly for itinerant and or common species of fauna. It is recommended that the recruitment of 300 new plants to the site will appropriately offset the removal of the one (1) indigenous MOT and 8 small indigenous trees.

No flora and fauna of conservation significance was recorded on the site at the time of the assessment. Given that the site is heavily modified, it is unlikely that habitat exists on the site to support such species.

It is not expected that a referral to the DSEWPac under the EPBC Act will be warranted.

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**6**            **References**

DNRE 2002 Victoria's Native Vegetation Management: A Framework for Action.  
Department of Natural Resources and Environment: East Melbourne.

DSE 2007 Native Vegetation – Guide for assessment of referred planning permit  
applications April 2007.

DSE 2011a pre 1750 EVC Website –  
[http://nremap-sc.nre.vic.gov.au/MapShare.v2/imf.jsp?site=bim\\_external](http://nremap-sc.nre.vic.gov.au/MapShare.v2/imf.jsp?site=bim_external)

DSE 2011b 2005 EVC mapping website  
[http://nremap-sc.nre.vic.gov.au/MapShare.v2/imf.jsp?site=bim\\_external](http://nremap-sc.nre.vic.gov.au/MapShare.v2/imf.jsp?site=bim_external)

DSE 2011c EVC55 Plains Grassy Woodland, Otway Plains Bioregion.  
Department of Sustainability and Environment, Melbourne, Victoria.

Viridans 2011a Flora /Viridians Biological Databases: Brighton East.

Viridans 2011b Fauna DSE/Viridians Biological Databases: Brighton East.

## **Appendix 1 Site Map**



## **Appendix 2 EPBC Report**



Australian Government

Department of Sustainability, Environment,  
Water, Population and Communities

# EPBC Act Protected Matters Report: Coordinates

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 about the EPBC Act including significance guidelines, forms and application process details can be found at <http://www.environment.gov.au/epbc/assessmentsapprovals/index.html>

**Report created: 11/10/11 16:24:14**

## [Summary](#)

## [Details](#)

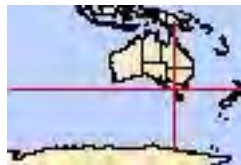
[Matters of NES](#)

[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: 1.0Km

# 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 - see <http://www.environment.gov.au/epbc/assessmentsapprovals/guidelines/index.html>.

<a href="#">World Heritage Properties:</a>	None
<a href="#">National Heritage Places:</a>	None
<a href="#">Wetlands of International Significance (Ramsar Wetlands):</a>	1
<a href="#">Great Barrier Reef Marine Park:</a>	None
<a href="#">Commonwealth Marine Areas:</a>	None
<a href="#">Threatened Ecological Communities:</a>	2
<a href="#">Threatened Species:</a>	19
<a href="#">Migratory Species:</a>	14

## 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. Information on the new heritage laws can be found at <http://www.environment.gov.au/heritage/index.html>

Please note that the current dataset on Commonwealth land is not complete. Further information on Commonwealth land would need to be obtained from relevant sources including Commonwealth agencies, local agencies, and land tenure maps.

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. Information on EPBC Act permit requirements and application forms can be found at <http://www.environment.gov.au/epbc/permits/index.html>.

<a href="#">Commonwealth Lands:</a>	None
<a href="#">Commonwealth Heritage Places:</a>	None
<a href="#">Listed Marine Species:</a>	12
<a href="#">Whales and Other Cetaceans:</a>	None

<a href="#">Critical Habitats:</a>	None
<a href="#">Commonwealth Reserves:</a>	None

## Report Summary for 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>	1
<a href="#">State and Territory Reserves:</a>	None
<a href="#">Regional Forest Agreements:</a>	1
<a href="#">Invasive Species:</a>	13
<a href="#">Nationally Important Wetlands:</a>	None

## Details

### Matters of National Environmental Significance

#### Wetlands of International Significance (RAMSAR Sites) [\[ Resource Information \]](#)

Name	Proximity
<a href="#">Port Phillip bay (western shoreline) and Bellarine</a>	Within 10km of Ramsar site

#### 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="#">Grassy Eucalypt Woodland of the Victorian Volcanic Plain</a>	Critically Endangered	Community likely to occur within area
<a href="#">Natural Temperate Grassland of the Victorian Volcanic Plain</a>	Critically Endangered	Community may occur within area

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

Name	Status	Type of Presence
<b>BIRDS</b>		
<a href="#">Anthochaera phrygia</a>		
Regent Honeyeater [82338]	Endangered	Species or species habitat may occur within area
<a href="#">Botaurus poiciloptilus</a>		
Australasian Bittern [1001]	Endangered	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="#">Neophema chrysogaster</a>		
Orange-bellied Parrot [747]	Critically Endangered	Species or species habitat likely to occur within area
<a href="#">Rostratula australis</a>		
Australian Painted Snipe [77037]	Vulnerable	Species or species habitat may occur within area

[Sternula nereis nereis](#)

Fairy Tern (Australian) [82950] Vulnerable

Species or species habitat known to occur within area

**FISH**[Galaxiella pusilla](#)

Eastern Dwarf Galaxias, Dwarf Galaxias [56790] Vulnerable

Species or species habitat likely to occur within area

[Prototroctes maraena](#)

Australian Grayling [26179] Vulnerable

Species or species habitat may occur within area

**FROGS**[Litoria raniformis](#)

Growling Grass Frog, Southern Bell Frog, Green and Golden Frog, Warty Swamp Frog [1828] Vulnerable

Species or species habitat known to occur within area

**MAMMALS**[Dasyurus maculatus maculatus \(SE mainland population\)](#)

Spot-tailed Quoll, Spotted-tail Quoll, Tiger Quoll (southeastern mainland population) [75184] Endangered

Species or species habitat may occur within area

[Potorous tridactylus tridactylus](#)

Long-nosed Potoroo (SE mainland) [66645] Vulnerable

Species or species habitat may occur within area

[Pseudomys novaehollandiae](#)

New Holland Mouse [96] Vulnerable

Species or species habitat likely to occur within area

[Pteropus poliocephalus](#)

Grey-headed Flying-fox [186] Vulnerable

Species or species habitat likely to occur within area

**PLANTS**[Glycine latrobeana](#)

Clover Glycine, Purple Clover [13910] Vulnerable

Species or species habitat likely to occur within area

[Pimelea spinescens subsp. spinescens](#)

Plains Rice-flower, Spiny Rice-flower, Prickly Pimelea [21980] Critically Endangered

Species or species habitat may occur within area

[Prasophyllum frenchii](#)

Maroon Leek-orchid, Slaty Leek-orchid, Stout Leek-orchid, French's Leek-orchid, Swamp Leek-orchid [9704] Endangered

Species or species habitat likely to occur within area

[Thelymitra epipactoides](#)

Metallic Sun-orchid [11896] Endangered

Species or species habitat likely to occur within area

[Xerochrysum palustre](#)

Swamp Everlasting [76215] Vulnerable

Species or species habitat likely to occur within area

**REPTILES**[Delma impar](#)

Striped Legless Lizard [1649] Vulnerable

Species or species habitat likely to occur within area

**Migratory Species** **[ Resource Information ]**

Name	Status	Type of Presence
<b>Migratory Marine Birds</b>		
<a href="#">Apus pacificus</a> Fork-tailed Swift [678]		Species or species habitat may occur within area
<a href="#">Ardea alba</a> Great Egret, White Egret [59541]		Species or species habitat may occur within area
<a href="#">Ardea ibis</a> Cattle Egret [59542]		Species or species habitat may occur within area

**Migratory Terrestrial Species**

<a href="#">Haliaeetus leucogaster</a> White-bellied Sea-Eagle [943]		Species or species habitat likely to occur within area
<a href="#">Hirundapus caudacutus</a> White-throated Needletail [682]		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
<a href="#">Myiagra cyanoleuca</a> Satin Flycatcher [612]		Breeding likely to occur within area
<a href="#">Neophema chrysogaster</a> Orange-bellied Parrot [747]	Critically Endangered	Species or species habitat likely to occur within area
<a href="#">Rhipidura rufifrons</a> Rufous Fantail [592]		Breeding may occur within area
<a href="#">Xanthomyza phrygia</a> Regent Honeyeater [430]	Endangered*	Species or species habitat may occur within area

**Migratory Wetlands Species**

<a href="#">Ardea alba</a> Great Egret, White Egret [59541]		Species or species habitat may occur within area
<a href="#">Ardea ibis</a> Cattle Egret [59542]		Species or species habitat may 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 s. lat.</a> Painted Snipe [889]	Vulnerable*	Species or species habitat may occur within area

**Other Matters Protected by the EPBC Act****Listed Marine Species** **[ Resource Information ]**

Name	Status	Type of Presence
<b>Birds</b>		
<a href="#">Apus pacificus</a> Fork-tailed Swift [678]		Species or species habitat may occur within area
<a href="#">Ardea alba</a> Great Egret, White Egret [59541]		Species or species habitat may occur within area
<a href="#">Ardea ibis</a> Cattle Egret [59542]		Species or species habitat may occur within area
<a href="#">Gallinago hardwickii</a>		

Latham's Snipe, Japanese Snipe [863] <a href="#">Haliaeetus leucogaster</a>		Species or species habitat may occur within area
White-bellied Sea-Eagle [943]  <a href="#">Hirundapus caudacutus</a>		Species or species habitat likely to occur within area
White-throated Needletail [682] <a href="#">Lathamus discolor</a>		Species or species habitat may occur within area
Swift Parrot [744]	Endangered	Species or species habitat likely to occur within area
<a href="#">Merops ornatus</a>		
Rainbow Bee-eater [670] <a href="#">Myiagra cyanoleuca</a>		Species or species habitat may occur within area
Satin Flycatcher [612] <a href="#">Neophema chrysogaster</a>		Breeding likely to occur within area
Orange-bellied Parrot [747]	Critically Endangered	Species or species habitat likely to occur within area
<a href="#">Rhipidura rufifrons</a>		
Rufous Fantail [592] <a href="#">Rostratula benghalensis s. lat.</a>		Breeding may occur within area
Painted Snipe [889]	Vulnerable*	Species or species habitat may occur within area

## Extra Information

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

Note that not all Indigenous sites may be listed.

Name	Status
<b>Historic</b>	
<a href="#">St Marks Anglican Church VIC</a>	Registered

### Regional Forest Agreements [ [Resource Information](#) ]

Note that all areas with completed RFAs have been included.

[West Victoria RFA, Victoria](#)

### Invasive Species [ [Resource Information](#) ]

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

Name	Status	Type of Presence
<b>Mammals</b>		
<a href="#">Capra hircus</a>		
Goat [2]		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="#">Oryctolagus cuniculus</a>		
Rabbit, European Rabbit [128]		Species or species habitat likely to occur within area
<a href="#">Sus scrofa</a>		
Pig [6]		Species or species habitat likely to occur within area

## [Vulpes vulpes](#)

Red Fox, Fox [18]

Species or species habitat likely to occur within area

## Plants

### [Asparagus asparagoides](#)

Bridal Creeper, Bridal Veil Creeper, Smilax, Florist's Smilax, Smilax Asparagus [22473]

Species or species habitat likely to occur within area

### [Chrysanthemoides monilifera](#)

Bitou Bush, Boneseed [18983]

Species or species habitat may occur within area

### [Lycium ferocissimum](#)

African Boxthorn, Boxthorn [19235]

Species or species habitat may occur within area

### [Nassella neesiana](#)

Chilean Needle grass [67699]

Species or species habitat likely to occur within area

### [Nassella trichotoma](#)

Serrated Tussock, Yass River Tussock, Yass Tussock, Nassella Tussock (NZ) [18884]

Species or species habitat likely to occur within area

### [Rubus fruticosus aggregate](#)

Blackberry, European Blackberry [68406]

Species or species habitat likely to occur within area

### [Salix spp. except S.babylonica, S.x calodendron & S.x reichardtiji](#)

Willows except Weeping Willow, Pussy Willow and Sterile Pussy Willow [68497]

Species or species habitat likely to occur within area

### [Ulex europaeus](#)

Gorse, Furze [7693]

Species or species habitat likely to occur within area

## 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.

## Coordinates

-38.18478 144.44673,-38.18181 144.44744,-38.18357 144.45618,-38.18682 144.45555,-38.18478 144.44673

## 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](#)
- Other groups and individuals

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

Please feel free to provide feedback via the [Contact Us](#) page.

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## Appendix 3 Flora Database Record

Just-a-Minute Plants - Regional List

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F	A	V	O	Scientific Name	Common Name	Recorded on site
				<i>Acacia implexa</i>	Lightwood	
				<i>Acacia mearnsii</i>	Black Wattle	
				<i>Acacia paradoxa</i>	Hedge Wattle	
				<i>Acacia pycnantha</i>	Golden Wattle	
				<i>Acaena agnipila</i>	Hairy Sheep's Burr	
				<i>Acaena echinata</i>	Sheep's Burr	
				<i>Acaena ovina</i>	Australian Sheep's Burr	
			*	<i>Allium vineale</i>	Crow Garlic	
				<i>Allocasuarina littoralis</i>	Black Sheoak	
				<i>Allocasuarina verticillata</i>	Drooping Sheoak	
			*	<i>Anagalis arvensis</i>	Scarlet Pimpernel	✓
			*	<i>Arctotheca calendula</i>	Cape Weed	✓
				<i>Arthropodium strictum</i>	Chocolate Lily	
			*	<i>Asparagus officinalis</i>	Asparagus	
				<i>Asperula conferta</i>	Common Woodruff	
			*	<i>Aster subulatus</i>	Aster-weed	
				<i>Austrodanthonia caespitosa</i>	Common Wallaby-grass	✓
				<i>Austrodanthonia duttoniana</i>	Brown-back Wallaby-grass	✓
				<i>Austrodanthonia spp</i>	Wallaby Grass	✓
				<i>Austrodanthonia racemosa</i> var. <i>racemosa</i>	Slender Wallaby-grass	
				<i>Austrostipa mollis</i>	Supple Spear-grass	
				<i>Austrostipa pubinodis</i>	Tall Spear-grass	
				<i>Austrostipa spp</i>	Spear Grass	✓
			*	<i>Avena fatua</i>	Wild Oats	✓
				<i>Bossiaea prostrata</i>	Creeping Bossiaea	
			*	<i>Briza maxima</i>	Large Quaking-grass	✓
			*	<i>Briza minor</i>	Lesser Quaking-grass	✓
			*	<i>Bromus catharticus</i>	Prarie Grass	✓

F	A	V	O	Scientific Name	Common Name	Recorded on site
				Burchardia umbellata	Milkmaids	
				Bursaria spinosa	Sweet Bursaria	
				Bursaria spinosa subsp. spinosa	Sweet Bursaria	
				Caesia calliantha	Blue Grass-lily	
				Calocephalus lacteus	Milky Beauty-heads	
				Carex breviculmis	Common Grass-sedge	
				Centella cordifolia	Centella	
				Centipeda cunninghamii	Common Sneezeweed	
			*	Cerastium glomeratum	Common Mouse-ear Chickweed	
				Chrysocephalum apiculatum	Common Everlasting	
			*	Cirsium vulgare	Spear Thistle	✓
				Convolvulus erubescens spp. agg.	Pink Bindweed	
			*	Coprosma repens	Mirror Bush	
			*	Crassula natans var. minus	Water Crassula	
				Cynodon dactylon	Couch	✓
			*	Cynodon dactylon var. dactylon	Couch	
			*	Dactylis glomerata	Cocksfoot	✓
				Daviesia latifolia	Hop Bitter-pea	
				Dianella revoluta s.l.	Black-anther Flax-lily	
				Dichondra repens	Kidney-weed	
				Dillwynia cinerascens	Grey Parrot-pea	
				Dillwynia glaberrima	Smooth Parrot-pea	
				Drosera peltata	Pale Sundew	
				Drosera peltata subsp. auriculata	Tall Sundew	
				Drosera whittakeri subsp. aberrans	Scented Sundew	
			*	Echium plantagineum	Paterson's Curse	
			*	Ehrharta longiflora	Annual Veldt-grass	✓
				Einadia nutans subsp. nutans	Nodding Saltbush	✓
				Elatine gratioloides	Waterwort	
				Eleocharis acuta	Common Spike-sedge	
				Epilobium billardierianum	Variable Willow-herb	
				Epilobium billardierianum	Smooth Willow-herb	

F	A	V	O	Scientific Name	Common Name	Recorded on site
				<i>Epilobium hirtigerum</i>	Hairy Willow-herb	
				<i>Eryngium ovinum</i>	Blue Devil	
				<i>Eucalyptus camaldulensis</i>	River Red-gum	✓
			#	<i>Eucalyptus leucoxylon</i>	Yellow Gum	
f		e		<i>Eucalyptus leucoxylon</i> subsp. <i>bellarinensis</i>	Bellarine Yellow-gum	
				<i>Eucalyptus ovata</i>	Swamp Gum	
				<i>Eucalyptus viminalis</i>	Manna Gum	
				<i>Exocarpos cupressiformis</i>	Cherry Ballart	
				<i>Ficinia nodosa</i>	Knobby Club-sedge	
			*	<i>Galenia pubescens</i>	Carpet Weed	✓
			*	<i>Genista linifolia</i>	Flax-leaf Broom	
				<i>Geranium potentilloides</i>	Soft Crane's-bill	
				<i>Geranium retrorsum</i>	Grassland Crane's-bill	
			*	<i>Gladiolus undulatus</i>	Wild Gladiolus	
				<i>Gonocarpus tetragynus</i>	Common Raspwort	
				<i>Goodenia pinnatifida</i>	Cut-leaf Goodenia	
				<i>Haloragis heterophylla</i>	Varied Raspwort	
		v		<i>Helichrysum</i> aff. <i>rutidolepis</i> (Lowland Swamps)	Pale Swamp Everlasting	
			*	<i>Helminthotheca echioides</i>	Ox-tongue	✓
				<i>Hemarthria uncinata</i> var. <i>uncinata</i>	Mat Grass	✓
				<i>Hibbertia sericea</i>	Silky Guinea-flower	
			*	<i>Holcus lanatus</i>	Yorkshire Fog	✓
			*	<i>Hordeum vulgare</i>	Barley Grass	✓
				<i>Hypericum gramineum</i>	Small St John's Wort	
			*	<i>Hypochoeris radicata</i>	Flatweed	✓
				<i>Hypoxis vaginata</i>	Yellow Star	
			*	<i>Isolepis hystrix</i>	Awned Club-sedge	
			*	<i>Isolepis levynsiana</i>	Tiny Flat-sedge	
				<i>Juncus amabilis</i>	Hollow Rush	
				<i>Juncus australis</i>	Austral rush	✓
				<i>Juncus bufonius</i>	Toad Rush	
				<i>Juncus flavidus</i>	Gold Rush	
				<i>Juncus holoschoenus</i>	Joint-leaf Rush	
				<i>Juncus pallidus</i>	Pale Rush	
				<i>Juncus subsecundus</i>	Finger Rush	✓

F	A	V	O	Scientific Name	Common Name	Recorded on site
				<i>Lachnagrostis filiformis</i>	Common Blown-grass	
			*	<i>Leontodon taraxacoides</i> subsp. <i>taraxacoides</i>	Hairy Hawkbit	
				<i>Lepidosperma curtisiae</i>	Little Sword-sedge	
				<i>Lepidosperma laterale</i>	Variable Sword-sedge	
				<i>Leptorhynchos squamatus</i>	Scaly Buttons	
				<i>Leptorhynchos tenuifolius</i>	Wiry Buttons	
			*	<i>Lolium perenne</i>	Perennial Rye-grass	✓
				<i>Lomandra filiformis</i>	Wattle Mat-rush	
				<i>Lomandra filiformis</i> subsp. <i>coriacea</i>	Wattle Mat-rush	
				<i>Lomandra longifolia</i>	Spiny-headed Mat-rush	
				<i>Lomandra longifolia</i> subsp. <i>longifolia</i>	Spiny-headed Mat-rush	
				<i>Lomandra micrantha</i>	Small-flower Mat-rush	
			*	<i>Lycium ferocissimum</i>	African Boxthorn	✓
				<i>Lythrum hyssopifolia</i>	Small Loosestrife	
			*	<i>Medicago polymorpha</i>	Burr Medic	✓
				<i>Microlaena stipoides</i> var. <i>stipoides</i>	Weeping Grass	✓
				<i>Muehlenbeckia adpressa</i>	Climbing Lignum	
			#	<i>Myoporum insulare</i>	Common Boobialla	
				<i>Myoporum</i> sp. 1	Sticky Boobialla	
			*	<i>Nassella neesiana</i>	Chilean Needle-grass	✓
			*	<i>Nassella trichotoma</i>	Serrated Tussock	✓
				<i>Notodanthonia semiannularis</i>	Wetland Wallaby-grass	
				<i>Oxalis exilis</i>	Shady Wood-sorrel	
				<i>Oxalis perennans</i>	Grassland Wood-sorrel	
			*	<i>Oxalis pes-caprae</i>	Soursob	
			*	<i>Oxalis purpurea</i>	Large-flower Wood-sorrel	
			*	<i>Parentucellia latifolia</i>	Red Bartsia	
			*	<i>Paspalum dilatatum</i>	Paspalum	✓
			*	<i>Phalaris aquatica</i>	Canary-grass	✓
			*	<i>Phalaris minor</i>	Lesser Canary-grass	
				<i>Pimelea glauca</i>	Smooth Rice-flower	
				<i>Pimelea humilis</i>	Common Rice-flower	
			*	<i>Pinus halepensis</i>	Aleppo Pine	
			#	<i>Pittosporum undulatum</i>	Sweet Pittosporum	

			*	Plantago coronopus	Buck's-horn Plantain	✓
<b>F</b>	<b>A</b>	<b>V</b>	<b>O</b>	<b>Scientific Name</b>	<b>Common Name</b>	<b>Recorded on site</b>
			*	Plantago lanceolata	Ribwort	✓
				Platylobium obtusangulum	Common Flat-pea	
				Poa labillardieri	Common Tussock-grass	
				Poa morrisii	Soft Tussock-grass	
				Poa rodwayi	Velvet Tussock-grass	
				Poa sieberiana	Grey Tussock-grass	
				Poa sieberiana var. sieb	Grey Tussock-grass	
				Ranunculus lappaceus	Australian Buttercup	
			*	Romulea rosea	Onion Grass	✓
			*	Rosa rubiginosa	Sweet Briar	✓
			*	Rumex conglomeratus	Clustered Dock	✓
				Schoenus apogon	Common Bog-sedge	
				Solenogyne dominii	Smooth Solenogyne	
			*	Sonchus asper	Rough Sow-thistle	✓
			*	Sonchus oleraceus	Common Sow-thistle	
			*	Sporobolus africanus	Rat-tail Grass	✓
				Stylidium graminifolium s.l.	Grass Triggerplant	
				Thelionema caespitosum	Tufted Lily	
				Themeda triandra	Kangaroo Grass	✓
			*	Tragopogon porrifolius	Salsify	
				Tricoryne elatior	Yellow Rush-lily	
			*	Trifolium angustifolium var. angustifolium	Narrow-leaf Clover	✓
			*	Trifolium dubium	Suckling Clover	
			*	Trifolium glomeratum	Cluster Clover	✓
			*	Trifolium repens var. repens	White Clover	
			*	Trifolium subterraneum	Subterranean Clover	✓
				Typha domingensis	Narrow-leaf Cumbungi	
			*	Ulex europaeus	Gorse	
				Veronica gracilis	Slender Speedwell	
			*	Vicia sativa	Common Vetch	
			*	Vicia sativa subsp. sativa	Common Vetch	
			*	Vulpia bromoides	Squirrel-tail Fescue	✓
				Wahlenbergia gracilis	Sprawling Bluebell	

F = Listed under Victorian Flora & Fauna Guarantee Act 1988

A = EPBC conservation significance (EXtinct, Critically Endangered, Endangered and Vulnerable)

V = Victorian Conservation significance (extingt; endangered, vulnerable, rare and Poorly known)

O = Origin (indigenous or \* exotic)