

Appendix H. Qualified desktop flora and fauna assessment



Prospect Hill EfW Project
Qualified Desktop Flora and Fauna Assessment

1 | 2

2 June 2020

Prospect Hill International Pty Ltd

A

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Executive Summary

This qualified desktop flora and fauna assessment considers potential statutory flora and fauna issues associated with the site of the proposed Prospect Hill Energy from Waste (EfW) Project at 164-200 McManus Road, Lara.

A range of flora and fauna data sets were reviewed, including the relevant Precinct Structure Plan (PSP) for the Geelong Ring Road Employment Precinct (GREP).

Desktop data reviewed from state and commonwealth agencies suggested a moderate likelihood of threatened species remaining in and around the site, however, a review of the relevant Native Vegetation Precinct Plan (NVPP) where it was determined that no native vegetation persisted on site, limits the likelihood of occurrence associated with most threatened species relevant to the area. A brief site assessment was undertaken to confirm the results of the desktop assessment against site attributes, particularly any habitat remaining, given the level of modification and disturbance the site has been subject to in recent times. This assessment found there to be no habitat remaining likely to be utilised by threatened species, and that, as reported in the PSP Native Vegetation Assessment, no native vegetation remains on site.

It is noted the site has been largely cleared since approvals were granted under the PSP process by City of Greater Geelong, resulting in the majority of habitat being removed from the site. Although a threatened species assessment was not conducted as part of the NVPP, there is some potential that a small number of threatened species may persist in the areas not subject to disturbance, particularly around the periphery of the site, although these areas are likely subject to various degradation issues.

Important note about your report

Information from the desktop assessment is only as reliable as the data available and in the case of the VBA the number of surveys previously undertaken (i.e. an area where many surveys have been taken in the past, will, most likely, have a more extensive list of species than areas where very little survey work has been undertaken). The accuracy of past surveys is also variable and point locations can be out by up to 1 km.

In addition to the number of previous surveys undertaken, there are other reasons why species, including threatened species, may not have previously been recorded. For example, at the time of historical site visits some plant species may not have been visible above the ground or flowering and therefore not identified as being present within the area surveyed. Also, the data collected is likely to consist of opportunistic observations only, and, therefore, listed fauna species moving in and out of the area may not have been observed or recorded. Similarly, many fauna species are cryptic, nocturnal and well-hidden such that their presence can only be detected through detailed targeted assessment methods. Hence on species that can be readily identified at that time, heard or have distinctive signs, such as tracks, scats, diggings are those most likely to be recorded.

The EPBC Act is undergoing a review that commenced in October 2019. Any changes to the applicable legislation and agreements may affect the outcomes of this report.

The FFG Act Amendment Bill 2019 has passed through Victorian Parliament with amendments taking effect on 1 June 2020. This report has been prepared based on the current requirements of the Act and these may change prior to the construction of the project.

Spatial data layers assessed were the most current available at the time of the assessment. Any changes to these layers may require the outcomes of this document to be updated.

2. Method

This report was compiled based on a desktop assessment and with a brief field qualification, as described in the following sections.

2.1 Desktop assessment

The desktop assessment involved a review of the following databases administered by the Victorian Department of Environment, Land, Water and Planning (DELWP) and Commonwealth Department of Agriculture, Water and the Environment (DAWE):

- Native Vegetation Mapping (DELWP, 2020a) – This database comprises large-scale modelling and classification of native vegetation across Victoria. Information in the database includes modelled presence of native vegetation, modelled extent of Ecological Vegetation Classes (EVC) as of 2005, Strategic Biodiversity Score (indicative of the contribution of the area to Victoria’s biodiversity values) and modelled condition of vegetation present.
- Victorian Biodiversity Atlas (VBA) (DELWP, 2020b) – This database comprises historical records of flora and fauna species from across Victoria. Records are added opportunistically, as flora and fauna surveys are conducted within Victoria for a variety of purposes. The mapping of flora and fauna distribution and determination of species’ habitat preferences is an ongoing process. Records from a 5 km buffer of the project area have been assessed for this report.
- Protected Matters Search Tool (PMST) (DAWE, 2020) – The PMST highlights any Matters of National Environmental Significance (MNES) relevant to the *Environment Protection and Biodiversity Conservation (EPBC) Act 1999* that are likely to occur within an area. Records from a 5 km buffer of the project area have been assessed for this report.
- Relevant Aerial Imagery – Aerial imagery allows for high level habitat conditions to be assessed.
- Background documentation associated with the Precinct Structure Plan process and accompanying Native Vegetation Precinct Plan (Ecology Partners, 2011).

An assessment of the likelihood of threatened species and ecological communities occurring within and adjacent to the project area was then undertaken for species identified as potentially occurring during the database and literature searches. This assessment was based on the species’ / communities’ preferred habitat in comparison to the habitat available at the site, and the frequency, timing and location of previous recordings. This assessment focussed on species and ecological communities currently listed on Victoria’s Advisory Lists of Threatened Species (VicAdv) (DEPI, 2013), or those listed under the *Flora and Fauna Guarantee Act 1988* (FFG Act) or EPBC Act. The criteria used for assessing likelihood of occurrence are described in Table 2.1 and Table 2.2.

A summary of the likelihood of occurrence assessment is provided in Section Table 2.1

Table 2.1 : Criteria for determining the likelihood of threatened species being present within the project assessment area.

Likelihood	Criteria
High	<ul style="list-style-type: none"> ▪ Recent records of species from DELWP databases ▪ Review of aerial photography indicates potential habitat within the project area ▪ Review of habitat and distribution literature indicates the site is appropriate for this species.
Moderate	<ul style="list-style-type: none"> ▪ Historic records of species from DELWP databases ▪ Review of habitat distribution literature indicates the project area is appropriate for this species ▪ Review of aerial photography indicates limited habitat within the project area.
Low	<ul style="list-style-type: none"> ▪ Species has not been previously recorded within DELWP database ▪ Review of aerial photography indicates that no available habitat within the project area ▪ Review of literature regarding habitat and distribution indicates the project area is unlikely to be utilised by this species.

Table 2.2 : Criteria for determining the likelihood of threatened ecological communities being present within the project assessment area

Likelihood	Criteria
High	<ul style="list-style-type: none"> Mapping by DELWP indicates the EVCs likely to be present at the site are of a similar composition to the threatened ecological community Review of aerial photography indicates that native vegetation is likely to be present at the site Review of literature and general knowledge of vegetation in the area indicates the site is appropriate for this threatened ecological community.
Moderate	<ul style="list-style-type: none"> Mapping by DELWP indicates the EVCs likely to be present at the site are of a similar composition to the threatened ecological community It is difficult to determine from aerial photography whether the community is present, such as grassland communities Review of literature and general knowledge of vegetation in the area indicates the project area is suitable for this threatened ecological community.
Low	<ul style="list-style-type: none"> Mapping by DELWP indicates the EVCs likely to be present at the site are not of similar composition to the threatened ecological community Review of aerial photography indicates that no native vegetation is likely present Review of literature and general knowledge of vegetation in the area indicates that the threatened ecological community is unlikely to be present at the project area.

2.1.1 Site assessment

A brief site assessment was undertaken on the 29th of May to consider the desktop results derived from the state and federal databases detailed above, considered against the specific habitat features currently evident at the site. It is acknowledged site modification and disturbance that has occurred in recent times is not reflected in some of the data results provided, particularly site condition and native vegetation attributes presented in DELWP data.

2.1.2 Relevant legislation and policies

A brief summary of the legislation and policies referred to throughout the document is provided below in Table 2.3.

Table 2.3: Relevant legislation

Policy/legislation	Description	Project action
Commonwealth		
Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act)	<p>The EPBC Act has significant implications for natural resource and environmental management in Australia. This Act provides for the listing of threatened species, threatened ecological communities and key threatening processes. It also relates to actions likely to have a significant impact on Matters of National Environmental Significance (MNES), including</p> <ul style="list-style-type: none"> World Heritage Sites National Heritage Places Ramsar Wetlands Nationally threatened species and ecological communities Migratory species Commonwealth marine areas Nuclear actions the Great Barrier Reef Marine Park 	<p>Determine whether MNES are likely to be 'significantly' impacted by the proposed works.</p> <p>Recommend further assessment as required, such as targeted surveys. Where MNES may be impacted recommend mitigation measures to avoid and reduce impact. If impact cannot be avoided the project will need to be referred to the Commonwealth Department of Agriculture, Water and the Environment (DAWE).</p>

Policy/legislation	Description	Project action
	<ul style="list-style-type: none"> a water resource, in relation to coal seam gas development or large coal mining development 	
State		
<p>Environment Effects Act 1978 (EE Act)</p>	<p>The EE Act provides for the assessment of actions that are capable of having a significant environmental effect. Actions that may have a significant environmental effect should be referred to the Victorian Minister for Planning, who decides if an Environmental Effects Statement (EES) is required.</p> <p>An EES may be required where:</p> <ul style="list-style-type: none"> 10 ha or more native vegetation is being cleared There is a likelihood of regionally or state significant adverse environmental effects There is a need for an integrated assessment of social and economic effects of a project or relevant alternatives Normal statutory processes would not provide a sufficiently comprehensive, integrated and transparent assessment <p>This Act also allows an applicant to write to the Secretary of the Victorian Department of Environment Land Water and Planning (DELWP) to confirm no EES is required.</p>	<p>Determine whether the extent of removal of native vegetation and habitat for threatened species of state significance will trigger the need for a referral under the EE Act.</p> <p>Recommend further assessment where required, such as targeted surveys.</p> <p>If a trigger for EES is met, recommend mitigation measures to avoid and reduce impact.</p> <p>If impact cannot be avoided an EES referral will need to be submitted.</p>
<p>Flora and Fauna Guarantee Act 1988 (FFG Act)</p>	<p>The FFG Act provides a framework for biodiversity conservation in Victoria.</p> <p>Threatened species and communities of flora and fauna, as well as threatening processes, are Listed under this Act. A number of non-threatened flora species are also listed as protected under this Act. A Permit to Take is required to remove these species from public land.</p>	<p>Determine if Listed flora or fauna species are likely to be affected or threatening processes resultant of the proposed works.</p> <p>Recommend further assessment where required, such as target surveys.</p> <p>Where Listed flora and fauna species are identified or threatening processes likely, recommend mitigation measures to avoid and reduce impact.</p> <p>If Listed flora and fauna species are to be removed, a Permit to Take may need to be obtained.</p>
<p>DELWP Victorian Advisory Lists (VicAdv)</p>	<p>The DELWP Victorian Advisory Lists (VicAdv) are not a statutory list of threatened species, but rather list species for which conservation management is recommended by DELWP. The VicAdv lists are comprised of:</p> <ul style="list-style-type: none"> the Advisory List of Rare or Threatened Plants in Victoria – 2014 (DEPI 2014) the Advisory List of Threatened Vertebrate Fauna in Victoria – 2013 (DEPI 2013), and the Advisory List of Threatened Invertebrate Fauna in Victoria – 2009 (DSE 2009). <p>The presence, or likely presence, of a species listed on the VicAdv lists is used to determine whether species specific habitat is required to be offset.</p>	<p>Determine if species present are listed on the VicAdv lists and likely to be affected by the proposed works within the project area.</p> <p>Recommend further assessment where required, such as targeted surveys. Where listed flora and fauna species are identified, recommend mitigation measures to avoid and reduce impacts. If listed flora and fauna species are to be impacted an offset will be prescribed for the project area that incorporates habitat for the affected species.</p>
<p>Planning and Environment Act 1987 (P&E Act)</p>	<p>Applications to remove, destroy, or lop native vegetation in Victoria usually invoke Clause 52.17 of the Victorian Planning Provisions which is given authority through this</p>	<p>Determine if any planning overlays occur which require a permit for vegetation removal.</p>

Policy/legislation	Description	Project action
	<p>Act. Certain overlays within the planning scheme (e.g. Environmental Significance Overlays) may modify the permit requirements for the removal of native vegetation. A range of exemptions may apply.</p> <p>Where a Precinct Structure Plan has been endorsed for an area, vegetation impacts are governed under Clause 52.16 of the P&E Act where the relevant council endorses development and offsets are managed through a relevant Vegetation Precinct Plan (NVPP). Permits to remove native vegetation are still required, however offsets are managed through the VMP process.</p>	<p>Determine whether native vegetation is present and will be impacted by the project, requiring permitting, and consider whether exemptions may apply.</p> <p>Review relevant PSP (Geelong Ring Road Employment Precinct (GREP) for any specified offset requirement.</p>
<p>Guidelines for the removal, destruction or lopping of native vegetation (the Guidelines)</p>	<p>If native vegetation is to be impacted, a permit will be required from the approval authority and the appropriate offset requirements identified and obtained.</p>	
<p>Catchment and Land Protection Act 1994 (CaLP Act)</p>	<p>The CaLP Act defines requirements to:</p> <ul style="list-style-type: none"> ▪ Avoid land degradation ▪ Conserve soil ▪ Protect water resources ▪ Eradicate and prevent the spread and establishment of noxious weed and pest animal species. <p>This Act defines four categories of noxious weeds: State Prohibited Weeds, Regionally Prohibited Weeds, Regionally Controlled Weeds and Restricted Weeds. Noxious weeds species and the category they are placed in is specific to individual CMA regions Determine whether pest plant or animal species are present within the project area.</p>	<p>Recommend mitigation measures to control pest plant and animal species and to prevent increase in the population of the species as a result of the project.</p>

3. Desktop Result

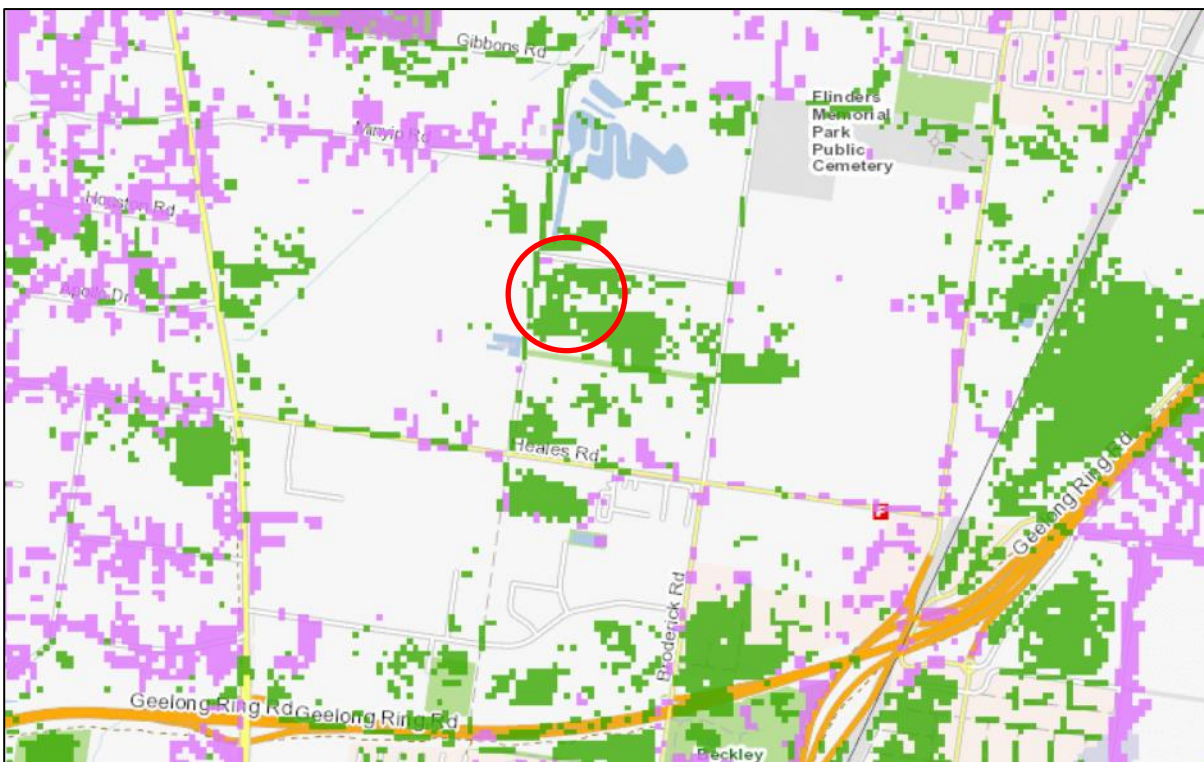
The following section reviews desktop biodiversity data sourced from relevant Commonwealth and State environmental agencies relevant to the proposed site.

3.1 Native Vegetation

The site occurs in a highly fragmented and modified environment, where historical land use in the form of agriculture (cropping and grazing) and more recent urban/industrial development have significantly altered the landscape.

Figure 3.1 is a modelled vegetation cover produced in 2010. It shows native vegetation persisted on site at this time.

Figure 3.1: Native vegetation extent (DELWP, 2010)



3.1.1 Ecological Vegetation Class (EVC)

The type of native vegetation can be determined from DELWPs Ecological Vegetation Class (EVC) modelling (DSE, 2005). The native vegetation modelled as occurring above, is mapped as Plains Grassland. All other EVCs in a 5km radius can be seen as being remote from the site. DELWP prepared EVC mapping for Victoria in 2005. Figure 3.2 below shows the EVC modelled to occur within and around the site with the location of EVCs discussed in Table 3.1.

Figure 3.2: EVC modelling

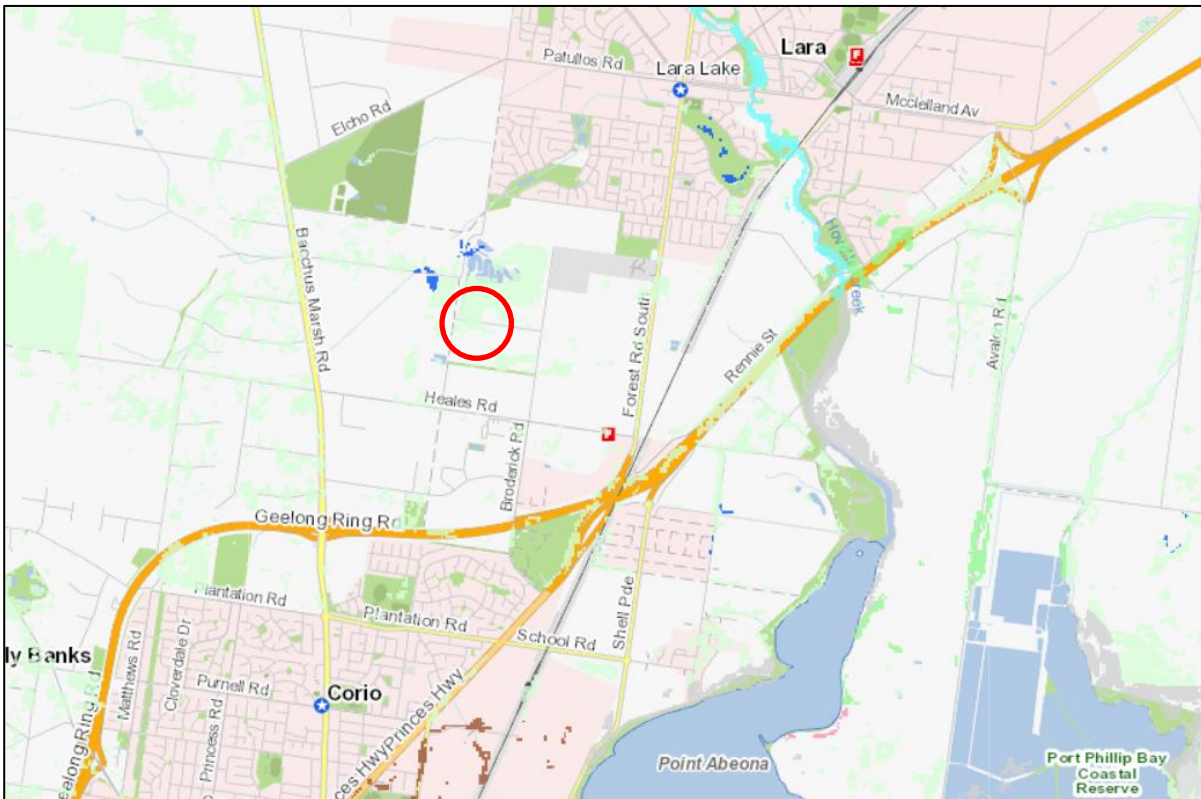


Table 3.1: EVCs mapped within 5 km of the project site (DELWP, 2005)

EVC No.	EVC Name	Bioregion	Bioregional Conservation Status	General Location	Extent of Impact
68	Creekline Grassy Woodland	VVP	Endangered	Associated with the fresh water environment of Hovell’s Creek to the north east.	A review of the endorsed PSP and NVPP indicate no impact to native vegetation on site and no approval requirements relate to the property.
132	Plains Grassland	VVP	Endangered	Small isolated patches indicated across the local area.	
175	Grassy Woodland	VVP	Endangered	Associated with retained native vegetation in parkland south of the Geelong Ring Road.	
691	Aquatic Herbland / Plains Sedgy wetland Mosaic	VVP	Endangered	Associated with the brackish to fresh water environment of Hovell’s Creek to the north east.	

3.1.2 Listed Ecological Communities (FFG Act)

The FFG Act lists a number of threatened ecological communities throughout Victoria that are considered to be rare and/or threatened. Table 3.2 provides detail on FFG communities that are considered relevant to the study area. It is noted that the FFG Act currently does not apply to private land, so these risks only apply to road reservations or any public land in the vicinity of the site.

Table 3.2: FFG threatened ecological communities likely to occur in the area

Listed FFG Community	Analogue	Likely Occurrence	Potential Impact
Western (Basalt) Plains Grasslands Community	EVC 132 Plains Grassland	DELWP mapping has the analogous EVC occurring over a large portion of the site. May occur within road reserves and roadsides in eastern portion of the alignment	None as no native vegetation remains on project site
Western Basalt Plains (River Red Gum) Grassy Woodland	EVC 55 Plains Grassy Woodland and derived grasslands	Small remnants appear to occur south of the Geelong Ring Road. This community transitions into the grassland community.	None as no native vegetation remains on project site

3.1.3 Threatened Ecological Communities (EPBC)

Threatened Ecological Communities listed under the EPBC Act are modelled to occur in the vicinity of site. The following table (Table 3.3) below.

Table 3.3: Threatened ecological communities modelled to occur in vicinity (5km) of site.

EPBC Threatened Ecological Community	Status (EPBC Act)	Modelled Nature of Occurrence	Analogue	Likelihood of Occurrence	Likelihood of Significant Impact
Grassy Eucalypt Woodland of the Victorian Volcanic Plain	Critically Endangered	Community known to occur within area	EVC 55 Plains Grassy Woodland	Small remnants appear to occur south of the Geelong Ring Road and remote from site.	Low – TEC unlikely to be present
Natural Temperate Grassland of the Victorian Volcanic Plain	Critically Endangered	Community may occur within area	EVC 55 Plains Grassy Woodland and derived grasslands	May occur within road reserves and roadsides with some large patches previously mapped within the site.	Low – TEC unlikely to be present
Seasonal Herbaceous Wetlands (Freshwater) of the Temperate Lowland Plains	Critically Endangered	Community likely to occur within area	Several seasonal wetland EVC relate to the EPBC listed community	Cryptic community may occur in shallow depressions in the vicinity of the site. Community difficult to confirm outside of late winter inundation events.	Low - Possibly occurs in and around site in seasonally damp areas.
Subtropical and Temperate Coastal Saltmarsh	Vulnerable	Community likely to occur within area	EVC 9 Coastal Saltmarsh	Community does not occur away from tidal marine/estuarine influences. Community likely present on Hovell's Creek to the north east.	Low - Unlikely to occur with the general vicinity of the site.
White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland	Critically Endangered	Community likely to occur within area	EVC 55 Plains Grassy Woodland EVC 175 Grassy Woodland	Out of range, community occurs north of the Great Divide.	Low - Unlikely to occur with the general vicinity of the site.

3.1.4 Native Vegetation Preprint Plan

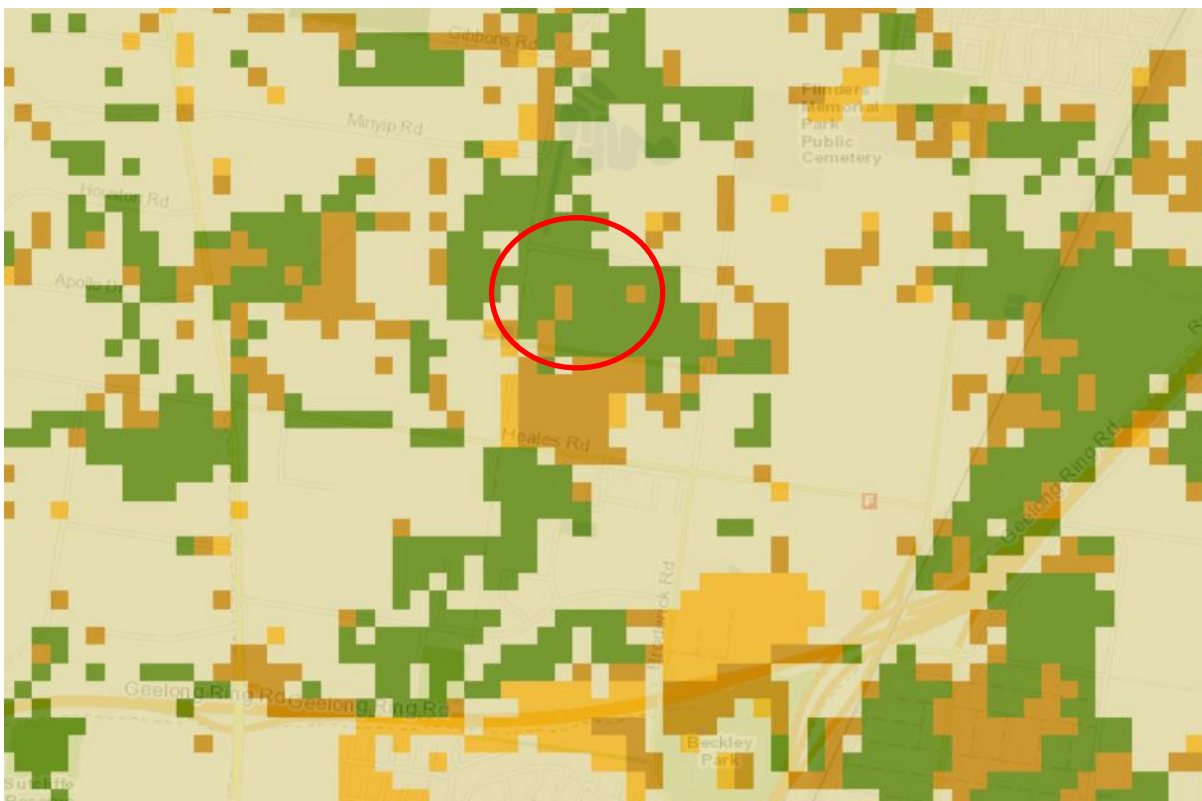
Ecology Partners developed a Native Vegetation Precinct Plan for the Geelong Ring Road Employment Precinct (Ecology Partner's, 2011), mapping remaining native vegetation on all properties within the PSP area.

No native vegetation was mapped within the project site, 164-200 McManus Road, Lara.

3.1.5 Habitat

Site vegetation attributes and other features (wetland, rocky areas) have an important bearing on the habitat offered in a particular area. Figure 3.3 below shows the expected biodiversity values associated with the vicinity of the project site. Green indicates high scores grading to through yellow to brown for low scores. The desktop data suggests the site to have had high biodiversity values, as further considered through the site assessment below.

Figure 3.3: Strategic biodiversity score (DEWLP, 2020)



3.1.6 Site Assessment

A brief site assessment was undertaken to review habitat present on site against desktop data collated. The assessment confirmed the site was highly disturbed and modified through recent site works involving the clearing and levelling of the site and removal of vegetation present. The site has subsequently been used as a refuse dumping ground with dry fill (dirt, bitumen, gravel, rock) deposited across much of the site. Remaining vegetation is largely dominated by weed species.

3.2 Threatened Species

A number of threatened species records have previously been recorded within a 10 km buffer of the site. Although forty-three species have previously been recorded, it is generally considered a low number given the landscape, and likely reflects the limited number of surveys previously undertaken and their results fed into the Victorian Biodiversity Atlas.

Table 3.4 provides a summary of the species recorded, while a desktop assessment was undertaken of the records in Table 3.4.

Table 3.4: Total threatened species recorded

Life Form	Total Recorded	FFG Act	EPBC Act
Birds	37	19	9
Insects	2	2	1
Mammals	2	1	1
Plants	16	5	5
Reptiles	2	1	1
Total	59	28	17

Table 3.5: Threatened flora previously recorded (DELWP, 2020)

Scientific Name	Common Name	Status	Habitat	Records	Last Recorded	Likelihood of Occurrence	Likelihood of a Significant Impact
<i>Atriplex paludosa</i> subsp. <i>paludosa</i>	Marsh Saltbush	VicAdv. Rare	Locally common on the fringes of coastal and near coastal saltmarshes west from Wilsons Promontory. (Walsh and Entwisle 1996)	1	1980	Low – estuarine species possible in local saline areas. Nearest estuarine environment 4 km to the SE.	Low – Species unlikely to occur in the local area.
<i>Avicennia marina</i> subsp. <i>australasica</i>	Grey Mangrove	VicAdv. Rare	Locally common on tidal mudflats, (bays, estuaries and creek mouths) from the western half of Port Phillip Bay to corner inlet. (Gray and Knight 2001)	3	2003	Low – estuarine species possible in local saline areas. Nearest estuarine environment 4 km to the SE.	Low – Relevant habitat to support species not apparent in close proximity to the site.
<i>Comesperma polygaloides</i>	Small Milkwort	FFG VicAdv. Vulnerable	Occasional on heavier soils (clays, alluvium) supporting grassland and grassy woodland communities in central and south western areas. (Walsh and Entwisle 1999)	1	1923	Low – Species unlikely to persist in local grassland remnants given lack of required ecological processes, particularly fire.	Low – Species unlikely to persist in the local area.
<i>Diuris basaltica</i>	Small Golden Moths	EPBC Endangered FFG VicAdv. Endangered	Plains Grassland on Victorian Basalt Plains. Known from records in Laverton and Altona. Flowers Sep.-Oct. (Gray and Knight 2001)	1	1998	Low – Species unlikely to persist in local grassland remnants given lack of required ecological processes, particularly fire.	Low – Species unlikely to persist in the local area.
<i>Eucalyptus leucoxylon</i> subsp. <i>connata</i>	Melbourne Yellow-gum	VicAdv. Vulnerable	The main concentration of <i>E. leucoxylon</i> subsp. <i>connata</i> is in the Brisbane Ranges between Bacchus March and Geelong, where it grows on skeletal soils. Also grows on skeletal soils at Long Forest between Bacchus Marsh and Melton, and at Studley Park at Kew (in Melbourne) where it grows on soil derived from Silurian sandstone (RBGV 2018).	2	2011	Low – No trees are evident in the review of aerial imagery. Specific soil environment required not apparent in the area.	Low – Species unlikely to occur in the local area.
<i>Lachnagrostis robusta</i>	Salt Blown-grass	VicAdv. Rare	Occurs around margins of salt lakes and saline depressions mostly across the Volcanic Plain, with eastern outliers near Tooradin and Seaspray and a few sites west of the Grampians (Douglas, Natimuk areas) (RBGV 2016).	1	1997	Low – estuarine species possible in local saline areas. Nearest estuarine environment 4 km to the SE.	Low – Relevant habitat to support species not apparent in close proximity to the site.
<i>Maireana aphylla</i>	Leafless Bluebush	VicAdv.	Rare, occurring on heavy cracking clays and alluvium associated with flood prone sites, considered locally extinct in areas south of	3	2018	Low – Unlikely to remain in the study area given widescale habitat	Low – Species unlikely to persist in the local area.

Scientific Name	Common Name	Status	Habitat	Records	Last Recorded	Likelihood of Occurrence	Likelihood of a Significant Impact
		Poorly Known	Melbourne, existing records from the north of the state. (Walsh and Entwisle 1996)			modification associated with recent development.	
<i>Pimelea spinescens</i> subsp. <i>spinescens</i>	Spiny Rice-flower	EPBC Critically Endangered FFG VicAdv. Endangered	Grows in grassland, open shrubland and occasionally woodland, often on basalt-derived soils. Mostly west of Melbourne (to near Horsham), but extending as far north as Echuca (RBGV 2017).	2	2013	Low - Unlikely to remain in the study area given widescale habitat modification associated with recent development.	Low - Species unlikely to persist in the local area.
<i>Podolepis linearifolia</i>	Basalt Podolepis	VicAdv. Endangered	Usually grows on heavy clay soils in grasslands but also recorded for grassy woodlands, open forests and around swamps. Flowers Sep.–Dec. (RBGV 2018)	1	1923	Low - Unlikely to remain in the study area given widescale habitat modification associated with recent development.	Low – Species unlikely to persist in the local area.
<i>Potamogeton australiensis</i>	Thin Pondweed	VicAdv. Poorly Known	Occurs in still or slowly flowing fresh water, in heathland swamps and creeks, on muddy substrate (Walsh and Entwisle 1994).	1	1923	Low – No aquatic habitat present in close vicinity of site.	Low – Relevant habitat to support species not apparent in close proximity to the site.
<i>Prasophyllum spicatum</i>	Dense Leek-orchid	EPBC Vulnerable VicAdv. Endangered	Localised across southern Victoria in coastal heathland and near-coastal heathy forest on sandy soils (RBGV 2015).	6	1934	Low - Coastal species possible in areas with a greater marine influence.	Low – Relevant habitat to support species not apparent in close proximity to the site.
<i>Rutidosia leptorhynchoides</i>	Button Wrinklewort	EPBC Endangered FFG VicAdv. Endangered	In Victoria confined to basaltic grasslands between Rokewood and Melbourne where endangered due to loss of habitat (formerly occurring as far west as Casterton, and on the Gippsland Plain near Newry) (RBGV 2015).	1	1923	Low - Species habitat not apparent in the immediate vicinity of the site.	Low – Relevant habitat to support species not apparent in close proximity to the site.
<i>Rytidosperma richardsonii</i>	Straw Wallaby-grass	VicAdv. Vulnerable	Recorded from grassy woodlands in a few localities in north-east Victoria (e.g. Barnawartha, Dookie, Rutherglen, Springhurst and Yarrowonga). The type specimen of this species was from a plant propagated from wild-collected seed purportedly from Werribee (RBGV 2019).	1	1961	Low – Evidently the species may have occurred in the area but is no longer considered relevant to the site.	Low – Species unlikely to persist in the local area.

Scientific Name	Common Name	Status	Habitat	Records	Last Recorded	Likelihood of Occurrence	Likelihood of a Significant Impact
<i>Senecio macrocarpus</i>	Large-headed Fireweed	EPBC Vulnerable FFG VicAdv. Endangered	In Victoria largely confined to remnant Themeda grasslands on loamy clay soils derived from basalt from near Melbourne west to Skipton area. Also known from auriferous ground near Stawell. Formerly recorded from near Horsham and Casterton, but apparently long extinct from these areas (Walsh and Entwisle 1999).	1	1998	Moderate – Species may persist in small degraded grassland remnants on roadsides and potentially the site periphery.	Low – Recent site modification would have removed the species if it persisted in the vicinity of the site.
<i>Thelymitra gregaria</i>	Basalt Sun-orchid	FFG VicAdv. Endangered	Endemic to Victoria where found in tussock grassland on red-brown loams derived from basalt (RBGV 2015)..	1	1925	Low – Species unlikely to persist in local grassland remnants given lack of required ecological processes, particularly fire.	Low – Species unlikely to persist in the local area.
<i>Tripogonella loliiformis</i>	Rye Beetle-grass	VicAdv. Rare	An uncommon grass of scattered occurrence throughout the state, including rocky areas and the Basalt Plain. (Walsh and Entwisle 1994)	2	1998	Low - Species unlikely to persist in local grassland remnants given lack of required ecological processes, particularly fire.	Low – Species unlikely to persist in the local area.

Table 3.6: Threatened fauna previously recorded (DELWP, 2020)

Scientific Name	Common Name	Status	Habitat	Records	Last Recorded	Likelihood of Occurrence	Likelihood of a Significant Impact
Birds							
<i>Actitis hypoleucos</i>	Common Sandpiper	VicAdv. Vulnerable	Shallow, pebbly, muddy or sandy edges of rivers and streams, coastal to far inland; dams, lakes, sewage ponds; margins of tidal rivers; waterways in mangroves or saltmarsh; mudflats; rocky or sandy beaches; causeways, riverside lawns, drains, street gutters (Pizzey and Knight 2012)	1	1990	Low – Species generally associated with aquatic or estuarine habitat.	Low – Suitable habitat not present in the immediate vicinity of site, therefore the species is unlikely to be present.
<i>Anseranas semipalmata</i>	Magpie Goose	FFG VicAdv. Near Threatened	Large seasonal wetlands and well-vegetated dams with rushes and sedges, wet grasslands, floodplains. (Pizzey and Knight 2012)	8	2018	Low – Wetland species, no wetlands occur within the immediate vicinity of the site.	Low – Suitable habitat not present in the immediate vicinity of site, therefore the species is unlikely to be present.

Scientific Name	Common Name	Status	Habitat	Records	Last Recorded	Likelihood of Occurrence	Likelihood of a Significant Impact
<i>Ardea alba</i>	Great Egret	FFG VicAdv. Vulnerable	Shallows of rivers, estuaries, tidal mudflats, freshwater wetlands; sewage ponds, irrigation areas, larger dams etc. (Pizzey and Knight 2012)	108	2019	Low - Wetland species, no wetlands occur within the immediate vicinity of the site.	Low – Suitable habitat not present in the immediate vicinity of site, therefore the species is unlikely to be present.
<i>Ardea intermedia plumifera</i>	Plumed Egret	FFG VicAdv. Endangered	Freshwater wetlands, pastures and croplands, tidal mudflats, floodplains. (Pizzey and Knight 2012)	1	1977	Low - Species generally associated with aquatic or estuarine habitat.	Low – Suitable habitat not present in the immediate vicinity of site, therefore the species is unlikely to be present.
<i>Arenaria interpres</i>	Ruddy Turnstone	VicAdv. Vulnerable	Ocean coasts with exposed rock, stony, sandy or shelly beaches, mudflats. Occasionally inland on shallow waters, sewage ponds, saltfields, open or ploughed ground. (Pizzey and Knight 2012)	1	2016	Low - Species generally associated with aquatic or estuarine habitat.	Low – Suitable habitat not present in the immediate vicinity of site, therefore the species is unlikely to be present.
<i>Aythya australis</i>	Hardhead	VicAdv. Vulnerable	Deep, permanent wetlands, large open waters, brackish coastal swamps, farm dams, ornamental lakes, sewage ponds. (Pizzey and Knight 2012)	28	2018	Low - Wetland species, no wetlands occur within the immediate vicinity of the site.	Low – Suitable habitat not present in the immediate vicinity of site, therefore the species is unlikely to be present.
<i>Biziura lobata</i>	Musk Duck	VicAdv. Vulnerable	Well-vegetated swamps, wetlands, both brackish and fresh, lakes, reservoirs, shallow bays, inlets; occasionally at sea. (Pizzey and Knight 2012)	13	2018	Low - Wetland species, no wetlands occur within the immediate vicinity of the site.	Low – Suitable habitat not present in the immediate vicinity of site, therefore the species is unlikely to be present.
<i>Botaurus poiciloptilus</i>	Australasian Bittern	EPBC Endangered FFG VicAdv. Endangered	Narrow habitat preferences, preferring shallow, vegetated freshwater or brackish swamps. (Pizzey and Knight 2012)	1	1990	Low - Wetland species, no wetlands occur within the immediate vicinity of the site.	Low – Suitable habitat not present in the immediate vicinity of site, therefore the species is unlikely to be present.
<i>Calidris canutus</i>	Red Knot	EPBC Endangered VicAdv.	Tidal mudflats, sandflats, beaches, saltmarshes, flooded pastures, ploughed lands. (Pizzey and Knight 2012)	1	1981	Low - Species generally associated with aquatic or estuarine habitat.	Low – Suitable habitat not present in the immediate vicinity of site, therefore the species is unlikely to be present.

Scientific Name	Common Name	Status	Habitat	Records	Last Recorded	Likelihood of Occurrence	Likelihood of a Significant Impact
		Endangered					
<i>Calidris ferruginea</i>	Curlew Sandpiper	EPBC Critically Endangered FFG VicAdv. Endangered	Tidal mudflats; saltmarsh, saltfields; fresh, brackish or saline wetlands; sewage ponds. (Pizzey and Knight 2012)	2	2017	Low - Species generally associated with aquatic or estuarine habitat.	Low - Suitable habitat not present in the immediate vicinity of site, therefore the species is unlikely to be present.
<i>Ceyx azureus</i>	Azure Kingfisher	VicAdv. Near Threatened	Root-festooned banks of fresh or tidal creeks, rivers and streams in rainforest, lakes, swamps, estuaries, mangroves. (Pizzey and Knight 2012)	1	1981	Low - Generally associated with waterways, may range out over adjoining areas. Site remote from water ways.	Low - Suitable habitat not present in the immediate vicinity of site, therefore the species is unlikely to be present.
<i>Chlidonias hybrida</i>	Whiskered Tern	VicAdv. Near Threatened	Vegetated and open wetlands; brackish, saline lakes; saltfields, irrigated lands, sewage ponds; occasionally offshore. (Pizzey and Knight 2012)	27	2018	Low - Species generally associated with aquatic or estuarine habitat.	Low - Suitable habitat not present in the immediate vicinity of site, therefore the species is unlikely to be present.
<i>Chlidonias leucopterus</i>	White-winged Black Tern	VicAdv. Near Threatened	large wetlands, coastal and inland; saltfields, sewage ponds, estuaries and coastal waters. (Pizzey and Knight 2012)	1	1977	Low - Species generally associated with aquatic or estuarine habitat.	Low - Suitable habitat not present in the immediate vicinity of site, therefore the species is unlikely to be present.
<i>Circus assimilis</i>	Spotted Harrier	VicAdv. Near Threatened	Grassy plains, crops and stubblefields; bluebush, saltbush, spinifex associations; scrublands, mallee, heathlands; open, grassy woodlands. (Pizzey and Knight 2012)	29	2019	High - Species likely to hunt over the study site, with large home ranges associated with the predator.	Low - Specific nesting/breeding habitat not present.
<i>Climacteris picumnus</i>	Brown Treecreeper	VicAdv. Near Threatened	Drier forests/woodlands/scrubs, with fallen branches; particularly River Red Gum lined water courses. (Pizzey and Knight 2012)	1	1969	Low - Associated with woodland habitats which are not present in the vicinity of the site.	Low - Suitable habitat not present in the immediate vicinity of site, therefore the species is unlikely to be present.

Scientific Name	Common Name	Status	Habitat	Records	Last Recorded	Likelihood of Occurrence	Likelihood of a Significant Impact
<i>Dromaius novaehollandiae</i>	Emu	VicAdv. Near Threatened	Found in plains, scrublands, open woodlands, coastal heaths, alpine pastures, semi-deserts, margins of lakes, pastoral and cereal growing areas. Mostly absent from closely settled parts, common in pastoral and cropping regions, state forests and national parks (Pizzey and Knight 2012).	8	2019	Low – Local area becoming increasingly fragmented with recent development.	Low –
<i>Egretta garzetta</i>	Little Egret	EPBC Endangered VicAdv. Endangered	Tidal mudflats, saltmarshes, mangroves, freshwater wetlands, sewage ponds. (Pizzey and Knight 2012)	86	2019	Low - Wetland species, no wetlands occur within the immediate vicinity of the site.	Low – Suitable habitat not present in the immediate vicinity of site, therefore the species is unlikely to be present.
<i>Falco subniger</i>	Black Falcon	FFG VicAdv. Vulnerable	Plains, grasslands, foothills, timbered watercourses, wetland environs; crops; occasionally over towns and cities. (Pizzey and Knight 2012)	8	2018	High – Species likely to hunt over the study site, with large home ranges associated with the predator.	Low - Specific nesting/breeding habitat not present.
<i>Gallinago hardwickii</i>	Latham's Snipe	VicAdv. Near Threatened	Freshwater or brackish wetlands, preferring to be close to protective vegetation cover. (Pizzey and Knight 2012)	75	2019	Low - Wetland species, no wetlands occur within the immediate vicinity of the site.	Low – Suitable habitat not present in the immediate vicinity of site, therefore the species is unlikely to be present.
<i>Haliaeetus leucogaster</i>	White-bellied Sea-Eagle	FFG VicAdv. Vulnerable	Coasts, inlands, estuaries, inlets, large rivers, inland lakes, reservoirs. (Pizzey and Knight 2012)	3	2018	High – Species likely to hunt over the study site, with large home ranges associated with the predator.	Low - Specific nesting/breeding habitat not present.
<i>Hirundapus caudacutus</i>	White-throated Needletail	EPBC Vulnerable FFG VicAdv. Vulnerable	Airspace over forests, woodlands, farmlands, plains, lakes, coasts, towns, feeding companies frequency patrol back and forward along favoured hilltops and timbered ranges. (Pizzey and Knight 2012)	3	1981	Moderate – Species likely to over fly the site, however, unlikely to make land fall.	Low – Suitable habitat not present in the immediate vicinity of site, therefore the species is unlikely to be present.

Scientific Name	Common Name	Status	Habitat	Records	Last Recorded	Likelihood of Occurrence	Likelihood of a Significant Impact
<i>Hydroprogne caspia</i>	Caspian Tern	FFG VicAdv. Near Threatened	Coastal, offshore waters, beaches, mudflats, estuaries, larger rivers, reservoirs and lakes. (Pizzey and Knight 2012)	13	2018	Low - Species generally associated with aquatic or estuarine habitat.	Low – Suitable habitat not present in the immediate vicinity of site, therefore the species is unlikely to be present.
<i>Ixobrychus dubius</i>	Australian Little Bittern	FFG VicAdv. Endangered	Dense reedbeds in freshwater swamps, lakes and rivers; tussocks in wetland areas. (Pizzey and Knight 2012)	1	1970	Low - Wetland species, no wetlands occur within the immediate vicinity of the site.	Low – Suitable habitat not present in the immediate vicinity of site, therefore the species is unlikely to be present.
<i>Larus pacificus</i>	Pacific Gull	VicAdv. Near Threatened	Coasts, bays, offshore islands, coastal farmland, swamps, garbage tips; some follow rivers inland. (Pizzey and Knight 2012)	86	2019	Low - Species generally associated with aquatic or estuarine habitat.	Low – Suitable habitat not present in the immediate vicinity of site, therefore the species is unlikely to be present.
<i>Lathamus discolor</i>	Swift Parrot	EPBC Critically Endangered FFG VicAdv. Endangered	Open grassy woodland, with dead trees, near permanent water and forested hills, coastal heaths, pastures with exotic grasses, weeds, roadsides, orchards. (Pizzey and Knight 2012)	1	1998	Low – Species annual migration to the Box Ironbark forests to the north may result in the species flying through the area. There are no habitat features the species is likely to utilise in the area.	Low – Suitable habitat not present in the immediate vicinity of site, therefore the species is unlikely to be present.
<i>Lewinia pectoralis</i>	Lewin's Rail	VicAdv. Vulnerable FFG	Swamp woodlands, rushes, reeds, rank grass in swamps, creeks, paddocks; wet heaths. (Pizzey and Knight 2012)	1	1990	Low - Wetland species, no wetlands occur within the immediate vicinity of the site.	Low – Suitable habitat not present in the immediate vicinity of site, therefore the species is unlikely to be present.
<i>Neophema chrysogaster</i>	Orange-bellied Parrot	EPBC Critically Endangered FFG VicAdv.	On mainland prefers small islands, peninsulas in coastal areas; with saltmarsh plants; coastal pastures, golf courses, crops of millet and sunflowers; dunes, beaches. Tasmania prefers button-grass; sedges on wet peat plains and eucalypt woodland on margin (Pizzey and Knight 2012)	1	1977	Low - Species generally associated with aquatic or estuarine habitat.	Low – Suitable habitat not present in the immediate vicinity of site, therefore the species is unlikely to be present.

Scientific Name	Common Name	Status	Habitat	Records	Last Recorded	Likelihood of Occurrence	Likelihood of a Significant Impact
		Critically Endangered					
<i>Ninox connivens</i>	Barking Owl	FFG VicAdv. Endangered	Open forests, woodlands, dense scrubs, foothills, river red gums, other large trees near water courses, penetrating otherwise open country, and paperbark woodlands. (Pizzey and Knight 2012)	1	1969	High – Species likely to hunt over the study site, with large home ranges associated with the predator.	Low - Specific nesting/breeding habitat not present.
<i>Ninox strenua</i>	Powerful Owl	FFG VicAdv. Vulnerable	Pairs occupy a large, probably permanent, home range in mountain forests, gullies and forest margins, sparser hilly woodlands, coastal forests, woodlands, scrubs, exotic pine plantations, large trees in private/public gardens, some in cities. (Pizzey and Knight 2012)	1	1969	High – Species likely to hunt over the study site, with large home ranges associated with the predator.	Low - Specific nesting/breeding habitat not present.
<i>Numenius madagascariensis</i>	Eastern Curlew	EPBC Critically Endangered FFG VicAdv. Vulnerable	Estuaries, tidal mudflats, sandspits, saltmarshes, mangroves; occasionally fresh or brackish lakes; bare grasslands near water. (Pizzey and Knight 2012)	3	1992	Low - Species generally associated with aquatic or estuarine habitat.	Low – Suitable habitat not present in the immediate vicinity of site, therefore the species is unlikely to be present.
<i>Nycticorax caledonicus</i>	Nankeen Night-Heron	VicAdv. Near Threatened	Shallow margins of rivers, wetlands, mangrove-lined estuaries, offshore islands, floodwaters, garden trees. (Pizzey and Knight 2012)	5	1999	Low - Wetland species, no wetlands occur within the immediate vicinity of the site.	Low – Suitable habitat not present in the immediate vicinity of site, therefore the species is unlikely to be present.
<i>Oxyura australis</i>	Blue-billed Duck	FFG VicAdv. Endangered	Found on temperate, fresh to saline, terrestrial wetlands including sewerage ponds, rivers, salt lakes and salt pans. Preferring deep, permanent open water within or near dense vegetation. (Pizzey and Knight 2012)	2	2013	Low - Wetland species, no wetlands occur within the immediate vicinity of the site.	Low – Suitable habitat not present in the immediate vicinity of site, therefore the species is unlikely to be present.
<i>Phalacrocorax fuscescens</i>	Black-faced Cormorant	VicAdv. Near Threatened	Coastal waters: islands, larger bays, deep inlets; ashore mostly on isolated rock-stacks, remote rocky headlands; seldom on beaches. (Pizzey and Knight 2012)	3	2019	Low - Species generally associated with aquatic or estuarine habitat.	Low – Suitable habitat not present in the immediate vicinity of site, therefore the species is unlikely to be present.

Scientific Name	Common Name	Status	Habitat	Records	Last Recorded	Likelihood of Occurrence	Likelihood of a Significant Impact
<i>Phalacrocorax varius</i>	Pied Cormorant	VicAdv. Near Threatened	Coastal waters with sloping shorelines; estuaries, bays, tidal inlets, large inland lakes and rivers, irrigation ponds, coastal mangroves and offshore islands. (Pizzey and Knight 2012)	98	2019	Low - Species generally associated with aquatic or estuarine habitat.	Low - Suitable habitat not present in the immediate vicinity of site, therefore the species is unlikely to be present.
<i>Platalea regia</i>	Royal Spoonbill	VicAdv. Near Threatened	Larger shallow waters, inland and coastal, well-vegetated shallow freshwater wetlands, saltfields, mangroves, islands, farm dams occasionally. (Pizzey and Knight 2012)	101	2019	Low - Species generally associated with aquatic or estuarine habitat.	Low - Suitable habitat not present in the immediate vicinity of site, therefore the species is unlikely to be present.
<i>Plegadis falcinellus</i>	Glossy Ibis	VicAdv. Near Threatened	Well vegetated wetlands, wet pastures, rice fields, floodwaters, floodplains, brackish or occasionally saline wetlands, mangroves, mudflats; occasionally dry grasslands. (Pizzey and Knight 2012)	1	1991	Low - Wetland species, no wetlands occur within the immediate vicinity of the site.	Low - Suitable habitat not present in the immediate vicinity of site, therefore the species is unlikely to be present.
<i>Spatula rhynchotis</i>	Australasian Shoveler	VicAdv. Vulnerable	Larger waters, fresh and saline lakes, well-vegetated freshwater wetlands, coastal inlets, sewage ponds, floodwaters. (Pizzey and Knight 2012)	2	1991	Low - Wetland species, no wetlands occur within the immediate vicinity of the site.	Low - Suitable habitat not present in the immediate vicinity of site, therefore the species is unlikely to be present.
<i>Sternula albifrons</i>	Little Tern	FFG VicAdv. Vulnerable	Coastal waters, bays, inlets, saline or brackish lakes, saltfields, sewerage ponds near coast. (Pizzey and Knight 2012)	7	2018	Low - Species generally associated with aquatic or estuarine habitat.	Low - Suitable habitat not present in the immediate vicinity of site, therefore the species is unlikely to be present.
<i>Sternula nereis</i>	Fairy Tern	EPBC Vulnerable FFG VicAdv. Endangered	Coastal waters, bays, inlets, saline or brackish lakes, saltfields, sewerage ponds near coast. Breeds Sept-Jan in single pairs to large colonies on beaches, islands, rock platforms from north of Broome to eastern Victoria/NSW border; much lesser numbers in south (Pizzey and Knight 2012)	11	2018	Low - Species generally associated with aquatic or estuarine habitat.	Low - Suitable habitat not present in the immediate vicinity of site, therefore the species is unlikely to be present.
<i>Stictonetta naevosa</i>	Freckled Duck	FFG VicAdv. Endangered	Large, well vegetated swamps; in dry periods moves to open lakes. (Pizzey and Knight 2012)	8	2014	Low - Wetland species, no wetlands occur within the immediate vicinity of the site.	Low - Suitable habitat not present in the immediate vicinity of site, therefore the species is unlikely to be present.

Scientific Name	Common Name	Status	Habitat	Records	Last Recorded	Likelihood of Occurrence	Likelihood of a Significant Impact
<i>Tringa nebularia</i>	Common Greenshank	VicAdv. Vulnerable	Mudflats, estuaries, saltmarshes, margins of lakes; wetlands, claypans, fresh and saline; commercial saltfields and sewage ponds. (Pizzey and Knight 2012)	6	2014	Low – Species generally associated with aquatic or estuarine habitat.	Low – Suitable habitat not present in the immediate vicinity of site, therefore the species is unlikely to be present.
Insects							
<i>Hesperilla flavescens</i>	Yellow Sedge-skipper Butterfly	FFG VicAdv. Vulnerable	Poorly understood species thought to be associated with coastal areas containing stands of <i>Gahnia filum</i> (Coleman, 2000)	1	1988	Low – Relevant habitat not present in the wider vicinity of the site.	Low – Species unlikely to be present.
<i>Synemon plana</i>	Golden Sun Moth	EPBC Critically Endangered FFG VicAdv. Critically Endangered	Native temperate grassland and open grassy woodlands, may also be found in degraded grasslands dominated by exotic Chilean Needlegrass (DAWE 2020a)	2	2017	Moderate – Local area subject to habitat loss, with recent development removing specific tussocked grassland habitat.	Low – the small areas of remaining tussocked grass is composed of exotic species and the extent remaining is considered too small to support a population.
Mammals							
<i>Perameles gunnii</i>	Eastern Barred Bandicoot	FFG EPBC Vulnerable	Extinct in the wild and occurs in small reintroduced populations in southern Victoria. Previously it occurred across the Victorian Volcanic Plains. During the day it rests in a grass nest. It feeds on earthworms, insects, bulbs, tubers and fungi throughout the night (DAWE 2020b)	15	1977	Low – Local area becoming increasingly fragmented with recent development limiting the chances of the species persisting. Species assumed to be locally extinct.	Low – Species unlikely to be present.
<i>Sminthopsis crassicaudata</i>	Fat-tailed Dunnart	VicAdv. Near Threatened	Open woodland, low shrublands of saltbush and bluebush, tussock grasslands on clay or sandy soils, gibber plain and farmlands. (Van Dyck and Strahan 2008)	1	1972	Low – Local area becoming increasingly fragmented with recent development.	Low – Species unlikely to be present.

Scientific Name	Common Name	Status	Habitat	Records	Last Recorded	Likelihood of Occurrence	Likelihood of a Significant Impact
Reptiles							
<i>Delma impar</i>	Striped Legless Lizard	EPBC Vulnerable FFG VicAdv. Vulnerable	Intact native grassland areas, usually in or around stony rise country or deeply cracked earth. (Cogger 2014)	1	1992	Moderate – While the local area becoming increasingly fragmented with recent development removing much of the specific tussocked grassland habitat, the cryptic species may remain in exotic grassland habitat.	Low – Species unlikely to be present.
<i>Pseudemoia pagenstecheri</i>	Tussock Skink	VicAdv. Vulnerable	Tussock grasslands with few or no trees from highlands in ne Victoria to low-altitude basalt plains of sthn Vic (Wilson and Swan 2008)	2	2017	Low – Local area becoming increasingly fragmented with recent development removing specific tussocked grassland habitat.	Low – Species unlikely to be present.

3.2.1 Threatened Species (PMST)

The Protected Matters Search Tool (PMST) models Commonwealth listed threatened species and communities within the 5 km search area. Given the modelled nature of the result, many species related to marine (Port Philip, Limeburners Bay and Corio Bay) are included in the result, picking up a number of albatross, turtle, whale and shark species. These are obviously not relevant to the site and are given a 'Low' likelihood of occurrence accordingly. Many other species are grassland specialists that have been heavily impacted by land use change (hence listing) and have limited potential to remain in the local area and specifically the site, given the lack of habitat present. There are however a small number of listed species that have a cryptic ecology and may remain in the modified landscape as discussed below.

The PMST results are assessed in Appendix A, with most of the sixty-one resulting species considered to have a Low likelihood of occurrence. Seven species are considered to have a moderate likelihood of occurrence in the immediate vicinity of the site and are listed in Table 3.7 below.

Table 3.7: PMST species considered with moderate likelihood of occurrence

Species	EPBC Status	Rationale	Likelihood of a Significant Impact
Amphibian			
<i>Litoria raniformis</i> Growling Grass Frog	Vulnerable	Species occurs in and around drainage lines and seasonally wet areas. The site retains some connectivity to such environments, particularly in the north western corner of the site. Species has not been recorded in local area.	Unlikely given site modification and disturbance. Limited habitat observed on site.
Invertebrate			
<i>Synemon plana</i> Golden Sun Moth	Critically Endangered	Highly cryptic species that may persist or establish in areas of degraded and/or exotic grassland retaining <i>Rytidosperma</i> and/or <i>Nassella</i> species. Tussocked grassland areas are evident within the aerial photography.	Unlikely given site modification and disturbance. Limited habitat observed on site.
Plants			
<i>Dianella amoena</i> Matted Flax-lily	Endangered	Species that may persist in otherwise disturbed environments. Species has not been recorded in local area.	Unlikely given site modification and disturbance.
<i>Lachnagrostis adamsonii</i> Adamson's Blown-grass	Endangered	Species that may persist in otherwise disturbed environments, particularly where saline drainage concentrates.	Unlikely given site modification and disturbance.
<i>Pimelea spinescens</i> subsp. <i>spinescens</i> Plains Rice-flower	Critically Endangered	Species that may persist in otherwise disturbed environments.	Unlikely given site modification and disturbance.
<i>Senecio macrocarpus</i> Large-fruit Fireweed	Vulnerable	Species that may persist in otherwise disturbed environments.	Unlikely given site modification and disturbance.
Reptiles			

Species	EPBC Status	Rationale	Likelihood of a Significant Impact
<p><i>Delma impar</i> Striped Legless Lizard</p>	<p>Vulnerable</p>	<p>Highly cryptic species that may persist or establish in areas of degraded and/or exotic grassland retaining <i>Rytidosperma</i> and/or <i>Nassella</i> species. Tussocked grassland areas are evident within the aerial photography.</p>	<p>Unlikely given site modification and disturbance.</p>

4. Assessment

Based on the Preliminary assessment undertaken, an understanding of potential approval requirements and further assessment works are outlined in Table 4.1. It is important to note that the site has been significantly disturbed and modified following the approval of the Geelong Ring Road Employment Precinct Plan, so results obtained through the review or relevant data bases need to be considered in relation to recent site activities.

Based on the design information currently available and the site attributes identified through this assessment, there are no threatened flora and fauna risks relevant to the site given lack of remaining habitat. Native vegetation was not identified on site during the recent site assessment or recorded in the preparation of the relevant Precinct Structure Plan (Ecology Partners, 2011). The site was found to be largely covered in fill dumped after the vegetation cover was removed and the site levelled, with the majority of surface rock (basalt) outcrops having been removed in recent years. Vegetation present was largely composed of weed species including, but not limited to:

- Serrated Tussock (*Nassella trichotoma*);
- Toowoomba Canary-grass (*Phalaris aquatica*);
- Mustard (*Brassica* spp.);
- Scotch Thistle (*Onopordum acanthium*);
- Artichoke Thistle (*Cynara cardunculus* subsp. *flavescens*);
- Variegated Thistle (*Silybum marianum*);
- Plantain (*Plantago lanceolate*);
- Oat (*Avena* spp.);
- Chilean Needle-grass (*Nassella neesiana*);
- African Boxthorn (*Lycium ferocissimum*);
- Couch (*Cynodon dactylon* var. *dactylon*);
- Soursob (*Oxalis pes-caprae*);
- Paterson's curse (*Echium plantagineum*);
- Galenia (*Galenia* spp.); and
- Rye grass (*Lolium perenne*).

Consideration of the potential risks to the project based on the current design are further detailed in Table 4.1 below.

Table 4.1: Preliminary assessment

Policy/legislation	Project Risk	Further Requirement
Commonwealth		
Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act)	<p><u>Threatened Ecological Communities</u></p> <p>Potential for three threatened ecological communities to occur on site.</p> <ul style="list-style-type: none"> • Natural Temperate Grassland of the Victorian Volcanic Plain • Grassy Woodlands and derived Grasslands of the Victorian Volcanic Plain • Seasonal Herbaceous Wetlands (Freshwater) of the Temperate Lowland Plains <p>Vegetation mapping undertaken by DELWP indicate the presence of the synonymous plains grassland EVC across much of the site.</p> <p>The NVPP endorsed by GGCC indicated no native vegetation remains.</p> <p><u>Threatened Species</u></p> <p>Potential for three EPBC listed species to occur on the VVP:</p>	<p><u>Threatened Ecological Communities</u></p> <p>It is considered unlikely that the EPBC listed Grassland communities remain on site given recent site clearing activities.</p> <p><u>Threatened Species</u></p> <p>Both the Golden Sun Moth and Striped Legless Lizard are known from the area and both species can inhabit relatively degraded sites as long as the structural tussock element of grasses (which can be weed) persist. An assessment of specific site character suggests the small area of potential habitat identified through the desktop assessment (aerial photography interpretation) was unlikely to support the grassland species given the structure and species composition of species present.</p>

Policy/legislation	Project Risk	Further Requirement
	<ul style="list-style-type: none"> Golden Sun Moth Striped Legless lizard Spiny Rice Flower 	
State		
Environment Effects Act 1978 (EE Act)	The proposal was considered against relevant EES triggers as they relate to flora and fauna: <u>Native vegetation clearance</u> <ul style="list-style-type: none"> No native vegetation is reported to occur within the project footprint. Refer Section 3.1 <u>Threatened species</u> <ul style="list-style-type: none"> The project will not lead to the long-term loss of a significant proportion of known remaining habitat or population of a threatened species within Victoria. <u>Wetlands</u> <ul style="list-style-type: none"> The site is remote from significant wetlands and Ramsar sites <u>Aquatic, estuarine or marine impacts</u> <ul style="list-style-type: none"> The project is remote from these systems so will not have extensive or major effects on the health or biodiversity. 	No ecological triggers for an EES are met by the project.
Flora and Fauna Guarantee Act 1988 (FFG Act)	The project does not involve public lands, so the FFG Act is not invoked.	No FFG permits are considered relevant for the project given land tenure.
DELWP Victorian Advisory Lists (VicAdv)	The Victorian Advisory list is considered as part of the threatened species triggers for the EES requirement and as potential specific credits should native vegetation permits be considered for threatened species habitat removal.	No Victorian Advisory listed species are considered relevant to the project.
Planning and Environment Act 1987 (P&E Act) Guidelines for the removal, destruction or lopping of native vegetation (the Guidelines)	The site occurs within the Geelong Ring Road Employment Precinct, where a Native Vegetation Precinct Structure Plan has been endorsed by Council under Clause 52.16 of the P&E Act. No native vegetation was identified on site in the NVPP and no retention areas occur on site.	No further assessment or approvals required.
Catchment and Land Protection Act 1994 (CaLP Act)	Noxious weed management considerations will need to be applied to the project.	Project EMP required to included weed management for protection to meet CaLP Act requirements.

5. Conclusion and recommendations

The desktop assessment was undertaken for the proposed Prospect Hill EfW Project at 164-200 McManus Road, Lara.

The data base review found a number of issues pertaining to native vegetation and threatened species on site, however, more recent reporting, particularly that associated with the development of the Geelong Ring Road Precinct Structure Plan, and the accompanying Native Vegetation Precinct Plan had determined that native vegetation did not persist on site. Obvious site development has been undertaken further compromising the likelihood of significant statutory issues relating to flora and fauna.

A brief habitat assessment was undertaken to determine the need for any further targeted threatened species assessments. This found the site to be substantially modified and disturbed and habitat present was considered unsuitable for any of the threatened species considered as potential relevant to the site through the desktop data review,

This report concludes there are no statutory ecological issues relevant to the site.

6. References

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Appendix A. Protected Matters Search Tool Report



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: 23/04/20 16:32:10

[Summary](#)

[Details](#)

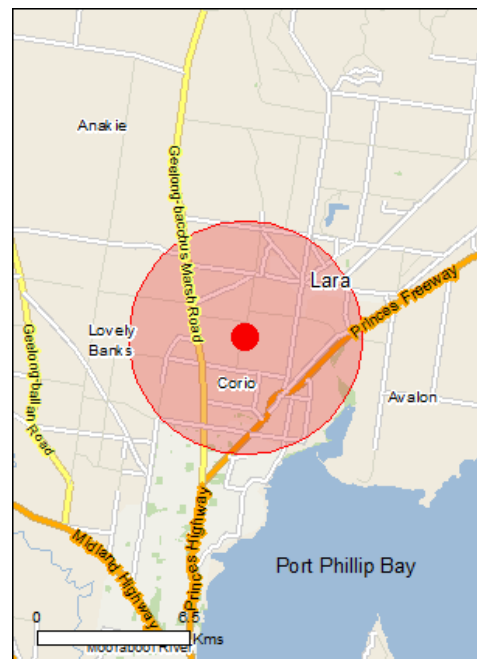
[Matters of NES](#)

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

[Extra Information](#)

[Caveat](#)

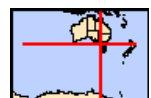
[Acknowledgements](#)



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

Buffer: 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](#).

World Heritage Properties:	None
National Heritage Places:	None
Wetlands of International Importance:	1
Great Barrier Reef Marine Park:	None
Commonwealth Marine Area:	None
Listed Threatened Ecological Communities:	5
Listed Threatened Species:	61
Listed Migratory Species:	60

Other Matters Protected by the EPBC Act

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

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

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

Commonwealth Land:	None
Commonwealth Heritage Places:	None
Listed Marine Species:	71
Whales and Other Cetaceans:	7
Critical Habitats:	None
Commonwealth Reserves Terrestrial:	None
Australian Marine Parks:	None

Extra Information

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

State and Territory Reserves:	2
Regional Forest Agreements:	1
Invasive Species:	34
Nationally Important Wetlands:	1
Key Ecological Features (Marine)	None

Details

Matters of National Environmental Significance

Wetlands of International Importance (Ramsar)	[Resource Information]
Name	Proximity
Port phillip bay (western shoreline) and bellarine peninsula	Within Ramsar site

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
Grassy Eucalypt Woodland of the Victorian Volcanic Plain	Critically Endangered	Community known to occur within area
Natural Temperate Grassland of the Victorian Volcanic Plain	Critically Endangered	Community likely to occur within area
Seasonal Herbaceous Wetlands (Freshwater) of the Temperate Lowland Plains	Critically Endangered	Community likely to occur within area
Subtropical and Temperate Coastal Saltmarsh	Vulnerable	Community likely to occur within area
White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland	Critically Endangered	Community likely to occur within area

Listed Threatened Species [Resource Information]

Name	Status	Type of Presence
Birds		
Anthochaera phrygia Regent Honeyeater [82338]	Critically Endangered	Foraging, feeding or related behaviour may occur within area
Botaurus poiciloptilus Australasian Bittern [1001]	Endangered	Species or species habitat known to occur within area
Calidris canutus Red Knot, Knot [855]	Endangered	Species or species habitat known to occur within area
Calidris ferruginea Curlew Sandpiper [856]	Critically Endangered	Species or species habitat known to occur within area
Calidris tenuirostris Great Knot [862]	Critically Endangered	Species or species habitat known to occur within area
Charadrius leschenaultii Greater Sand Plover, Large Sand Plover [877]	Vulnerable	Species or species habitat known to occur within area
Charadrius mongolus Lesser Sand Plover, Mongolian Plover [879]	Endangered	Species or species habitat known to occur within area
Diomedea antipodensis Antipodean Albatross [64458]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area

Name	Status	Type of Presence
Diomedea epomophora Southern Royal Albatross [89221]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Diomedea exulans Wandering Albatross [89223]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Diomedea sanfordi Northern Royal Albatross [64456]	Endangered	Foraging, feeding or related behaviour likely to occur within area
Grantiella picta Painted Honeyeater [470]	Vulnerable	Species or species habitat known to occur within area
Hirundapus caudacutus White-throated Needletail [682]	Vulnerable	Species or species habitat likely to occur within area
Lathamus discolor Swift Parrot [744]	Critically Endangered	Species or species habitat known to occur within area
Limosa lapponica baueri Bar-tailed Godwit (baueri), Western Alaskan Bar-tailed Godwit [86380]	Vulnerable	Species or species habitat known to occur within area
Limosa lapponica menzbieri Northern Siberian Bar-tailed Godwit, Bar-tailed Godwit (menzbieri) [86432]	Critically Endangered	Species or species habitat may occur within area
Macronectes giganteus Southern Giant-Petrel, Southern Giant Petrel [1060]	Endangered	Species or species habitat may occur within area
Macronectes halli Northern Giant Petrel [1061]	Vulnerable	Species or species habitat may occur within area
Neophema chrysogaster Orange-bellied Parrot [747]	Critically Endangered	Migration route likely to occur within area
Numenius madagascariensis Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat known to occur within area
Pachyptila turtur subantarctica Fairy Prion (southern) [64445]	Vulnerable	Species or species habitat known to occur within area
Pedionomus torquatus Plains-wanderer [906]	Critically Endangered	Species or species habitat likely to occur within area
Phoebastria fusca Sooty Albatross [1075]	Vulnerable	Species or species habitat likely to occur within area
Pterodroma leucoptera leucoptera Gould's Petrel, Australian Gould's Petrel [26033]	Endangered	Species or species habitat may occur within area
Rostratula australis Australian Painted Snipe [77037]	Endangered	Species or species habitat known to occur within area
Sternula nereis nereis Australian Fairy Tern [82950]	Vulnerable	Species or species habitat known to occur within area
Thalassarche bulleri Buller's Albatross, Pacific Albatross [64460]	Vulnerable	Species or species

Name	Status	Type of Presence
Thalassarche bulleri_platei Northern Buller's Albatross, Pacific Albatross [82273]	Vulnerable	habitat may occur within area Species or species habitat may occur within area
Thalassarche cauta_cauta Shy Albatross [82345]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche cauta_steady White-capped Albatross [82344]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche chrysostoma Grey-headed Albatross [66491]	Endangered	Species or species habitat may occur within area
Thalassarche impavida Campbell Albatross, Campbell Black-browed Albatross [64459]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche melanophris Black-browed Albatross [66472]	Vulnerable	Species or species habitat may occur within area
Thalassarche salvini Salvin's Albatross [64463]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thinornis rubricollis_rubricollis Hooded Plover (eastern) [66726]	Vulnerable	Species or species habitat likely 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 likely to occur within area
Frogs		
Litoria raniformis Growling Grass Frog, Southern Bell Frog, Green and Golden Frog, Warty Swamp Frog, Golden Bell Frog [1828]	Vulnerable	Species or species habitat known to occur within area
Insects		
Synemon plana Golden Sun Moth [25234]	Critically Endangered	Species or species habitat known to occur within area
Mammals		
Eubalaena australis Southern Right Whale [40]	Endangered	Species or species habitat known to occur within area
Megaptera novaeangliae Humpback Whale [38]	Vulnerable	Species or species habitat may occur within area
Pteropus poliocephalus Grey-headed Flying-fox [186]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Plants		
Amphibromus fluitans River Swamp Wallaby-grass, Floating Swamp Wallaby-grass [19215]	Vulnerable	Species or species habitat likely to occur within area

Name	Status	Type of Presence
Dianella amoena Matted Flax-lily [64886]	Endangered	Species or species habitat may occur within area
Diuris basaltica Small Golden Moths Orchid, Early Golden Moths [64654]	Endangered	Species or species habitat may occur within area
Dodonaea procumbens Trailing Hop-bush [12149]	Vulnerable	Species or species habitat may occur within area
Glycine latrobeana Clover Glycine, Purple Clover [13910]	Vulnerable	Species or species habitat likely to occur within area
Lachnagrostis adamsonii Adamson's Blown-grass, Adamson's Blowngrass [76211]	Endangered	Species or species habitat may occur within area
Leucochrysum albicans var. tricolor Hoary Sunray, Grassland Paper-daisy [56204]	Endangered	Species or species habitat likely to occur within area
Pimelea spinescens subsp. spinescens Plains Rice-flower, Spiny Rice-flower, Prickly Pimelea [21980]	Critically Endangered	Species or species habitat known to 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
Pterostylis cucullata Leafy Greenhood [15459]	Vulnerable	Species or species habitat may occur within area
Rutidosia leptorrhynchoides Button Wrinklewort [7384]	Endangered	Species or species habitat likely to occur within area
Senecio macrocarpus Large-fruit Fireweed, Large-fruit Groundsel [16333]	Vulnerable	Species or species habitat likely to occur within area
Xerochrysum palustre Swamp Everlasting, Swamp Paper Daisy [76215]	Vulnerable	Species or species habitat may occur within area
Reptiles		
Caretta caretta Loggerhead Turtle [1763]	Endangered	Species or species habitat known to occur within area
Chelonia mydas Green Turtle [1765]	Vulnerable	Foraging, feeding or related behaviour known to occur within area
Delma impar Striped Legless Lizard, Striped Snake-lizard [1649]	Vulnerable	Species or species habitat known to occur within area
Dermochelys coriacea Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Species or species habitat known to occur within area
Tympanocryptis pinguicollis Grassland Earless Dragon [66727]	Endangered	Species or species habitat may occur within area
Sharks		
Carcharodon carcharias White Shark, Great White Shark [64470]	Vulnerable	Species or species habitat known to occur

Name	Status	Type of Presence within area
Listed Migratory Species		[Resource Information]
* Species is listed under a different scientific name on the EPBC Act - Threatened Species list.		
Name	Threatened	Type of Presence
Migratory Marine Birds		
Anous stolidus		
Common Noddy [825]		Species or species habitat likely to occur within area
Apus pacificus		
Fork-tailed Swift [678]		Species or species habitat likely to occur within area
Ardenna carneipes		
Flesh-footed Shearwater, Flesh-footed Shearwater [82404]		Foraging, feeding or related behaviour likely to occur within area
Ardenna grisea		
Sooty Shearwater [82651]		Species or species habitat may occur within area
Diomedea antipodensis		
Antipodean Albatross [64458]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Diomedea epomophora		
Southern Royal Albatross [89221]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Diomedea exulans		
Wandering Albatross [89223]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Diomedea sanfordi		
Northern Royal Albatross [64456]	Endangered	Foraging, feeding or related behaviour likely to occur within area
Macronectes giganteus		
Southern Giant-Petrel, Southern Giant Petrel [1060]	Endangered	Species or species habitat may occur within area
Macronectes halli		
Northern Giant Petrel [1061]	Vulnerable	Species or species habitat may occur within area
Phoebetria fusca		
Sooty Albatross [1075]	Vulnerable	Species or species habitat likely to occur within area
Sternula albifrons		
Little Tern [82849]		Species or species habitat may occur within area
Thalassarche bulleri		
Buller's Albatross, Pacific Albatross [64460]	Vulnerable	Species or species habitat may occur within area
Thalassarche cauta		
Shy Albatross [89224]	Vulnerable*	Foraging, feeding or related behaviour likely to occur within area
Thalassarche chrysostoma		
Grey-headed Albatross [66491]	Endangered	Species or species habitat may occur within area
Thalassarche impavida		
Campbell Albatross, Campbell Black-browed Albatross [64459]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche melanophris		
Black-browed Albatross [66472]	Vulnerable	Species or species habitat may occur within

Name	Threatened	Type of Presence area
Thalassarche salvini Salvin's Albatross [64463]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche steadi White-capped Albatross [64462]	Vulnerable*	Foraging, feeding or related behaviour likely to occur within area
Migratory Marine Species		
Balaena glacialis australis Southern Right Whale [75529]	Endangered*	Species or species habitat known to occur within area
Caperea marginata Pygmy Right Whale [39]		Species or species habitat may occur within area
Carcharodon carcharias White Shark, Great White Shark [64470]	Vulnerable	Species or species habitat known to occur within area
Caretta caretta Loggerhead Turtle [1763]	Endangered	Species or species habitat known to occur within area
Chelonia mydas Green Turtle [1765]	Vulnerable	Foraging, feeding or related behaviour known to occur within area
Dermochelys coriacea Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Species or species habitat known to occur within area
Lagenorhynchus obscurus Dusky Dolphin [43]		Species or species habitat may occur within area
Lamna nasus Porbeagle, Mackerel Shark [83288]		Species or species habitat likely to occur within area
Megaptera novaeangliae Humpback Whale [38]	Vulnerable	Species or species habitat may occur within area
Migratory Terrestrial Species		
Hirundapus caudacutus White-throated Needletail [682]	Vulnerable	Species or species habitat likely to occur within area
Monarcha melanopsis Black-faced Monarch [609]		Species or species habitat likely to occur within area
Motacilla flava Yellow Wagtail [644]		Species or species habitat likely to occur within area
Myiagra cyanoleuca Satin Flycatcher [612]		Species or species habitat known to occur within area
Rhipidura rufifrons Rufous Fantail [592]		Species or species habitat known to occur within area
Migratory Wetlands Species		
Actitis hypoleucos Common Sandpiper [59309]		Species or species habitat known to occur within area

Name	Threatened	Type of Presence
Arenaria interpres Ruddy Turnstone [872]		Species or species habitat known to occur within area
Calidris acuminata Sharp-tailed Sandpiper [874]		Species or species habitat known to occur within area
Calidris canutus Red Knot, Knot [855]	Endangered	Species or species habitat known to occur within area
Calidris ferruginea Curlew Sandpiper [856]	Critically Endangered	Species or species habitat known to occur within area
Calidris melanotos Pectoral Sandpiper [858]		Species or species habitat likely to occur within area
Calidris ruficollis Red-necked Stint [860]		Species or species habitat known to occur within area
Calidris subminuta Long-toed Stint [861]		Species or species habitat known to occur within area
Calidris tenuirostris Great Knot [862]	Critically Endangered	Species or species habitat known to occur within area
Charadrius bicinctus Double-banded Plover [895]		Species or species habitat known to occur within area
Charadrius leschenaultii Greater Sand Plover, Large Sand Plover [877]	Vulnerable	Species or species habitat known to occur within area
Charadrius mongolus Lesser Sand Plover, Mongolian Plover [879]	Endangered	Species or species habitat known to occur within area
Gallinago hardwickii Latham's Snipe, Japanese Snipe [863]		Species or species habitat known to occur within area
Limicola falcinellus Broad-billed Sandpiper [842]		Species or species habitat known to occur within area
Limosa lapponica Bar-tailed Godwit [844]		Species or species habitat known to occur within area
Limosa limosa Black-tailed Godwit [845]		Species or species habitat known to occur within area
Numenius madagascariensis Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat known to occur within area
Pandion haliaetus Osprey [952]		Species or species habitat likely to occur within area
Phalaropus lobatus Red-necked Phalarope [838]		Species or species habitat known to occur within area

Name	Threatened	Type of Presence
Philomachus pugnax Ruff (Reeve) [850]		Species or species habitat known to occur within area
Pluvialis fulva Pacific Golden Plover [25545]		Species or species habitat known to occur within area
Pluvialis squatarola Grey Plover [865]		Species or species habitat known to occur within area
Tringa brevipes Grey-tailed Tattler [851]		Species or species habitat known to occur within area
Tringa glareola Wood Sandpiper [829]		Species or species habitat known to occur within area
Tringa nebularia Common Greenshank, Greenshank [832]		Species or species habitat known to occur within area
Tringa stagnatilis Marsh Sandpiper, Little Greenshank [833]		Species or species habitat known to occur within area
Xenus cinereus Terek Sandpiper [59300]		Species or species habitat known to occur within area

Other Matters Protected by the EPBC Act

Listed Marine Species		[Resource Information]
* Species is listed under a different scientific name on the EPBC Act - Threatened Species list.		
Name	Threatened	Type of Presence
Birds		
Actitis hypoleucos Common Sandpiper [59309]		Species or species habitat known to occur within area
Anous stolidus Common Noddy [825]		Species or species habitat likely to occur within area
Apus pacificus Fork-tailed Swift [678]		Species or species habitat likely to occur within area
Ardea alba Great Egret, White Egret [59541]		Species or species habitat known to occur within area
Ardea ibis Cattle Egret [59542]		Species or species habitat may occur within area
Arenaria interpres Ruddy Turnstone [872]		Species or species habitat known to occur within area
Calidris acuminata Sharp-tailed Sandpiper [874]		Species or species habitat known to occur within area

Name	Threatened	Type of Presence
Calidris canutus Red Knot, Knot [855]	Endangered	Species or species habitat known to occur within area
Calidris ferruginea Curlew Sandpiper [856]	Critically Endangered	Species or species habitat known to occur within area
Calidris melanotos Pectoral Sandpiper [858]		Species or species habitat likely to occur within area
Calidris ruficollis Red-necked Stint [860]		Species or species habitat known to occur within area
Calidris subminuta Long-toed Stint [861]		Species or species habitat known to occur within area
Calidris tenuirostris Great Knot [862]	Critically Endangered	Species or species habitat known to occur within area
Charadrius bicinctus Double-banded Plover [895]		Species or species habitat known to occur within area
Charadrius leschenaultii Greater Sand Plover, Large Sand Plover [877]	Vulnerable	Species or species habitat known to occur within area
Charadrius mongolus Lesser Sand Plover, Mongolian Plover [879]	Endangered	Species or species habitat known to occur within area
Charadrius ruficapillus Red-capped Plover [881]		Species or species habitat known to occur within area
Chrysococcyx osculans Black-eared Cuckoo [705]		Species or species habitat known to occur within area
Diomedea antipodensis Antipodean Albatross [64458]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Diomedea epomophora Southern Royal Albatross [89221]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Diomedea exulans Wandering Albatross [89223]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Diomedea sanfordi Northern Royal Albatross [64456]	Endangered	Foraging, feeding or related behaviour likely to occur within area
Gallinago hardwickii Latham's Snipe, Japanese Snipe [863]		Species or species habitat known to occur within area
Haliaeetus leucogaster White-bellied Sea-Eagle [943]		Species or species habitat known to occur within area
Heteroscelus brevipes Grey-tailed Tattler [59311]		Species or species habitat known to occur within area

Name	Threatened	Type of Presence
Himantopus himantopus Pied Stilt, Black-winged Stilt [870]		Species or species habitat known to occur within area
Hirundapus caudacutus White-throated Needletail [682]	Vulnerable	Species or species habitat likely to occur within area
Lathamus discolor Swift Parrot [744]	Critically Endangered	Species or species habitat known to occur within area
Limicola falcinellus Broad-billed Sandpiper [842]		Species or species habitat known to occur within area
Limosa lapponica Bar-tailed Godwit [844]		Species or species habitat known to occur within area
Limosa limosa Black-tailed Godwit [845]		Species or species habitat known to occur within area
Macronectes giganteus Southern Giant-Petrel, Southern Giant Petrel [1060]	Endangered	Species or species habitat may occur within area
Macronectes halli Northern Giant Petrel [1061]	Vulnerable	Species or species habitat may occur within area
Merops ornatus Rainbow Bee-eater [670]		Species or species habitat may occur within area
Monarcha melanopsis Black-faced Monarch [609]		Species or species habitat likely to occur within area
Motacilla flava Yellow Wagtail [644]		Species or species habitat likely to occur within area
Myiagra cyanoleuca Satin Flycatcher [612]		Species or species habitat known to occur within area
Neophema chrysogaster Orange-bellied Parrot [747]	Critically Endangered	Migration route likely to occur within area
Numenius madagascariensis Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat known to occur within area
Pachyptila turtur Fairy Prion [1066]		Species or species habitat known to occur within area
Pandion haliaetus Osprey [952]		Species or species habitat likely to occur within area
Phalaropus lobatus Red-necked Phalarope [838]		Species or species habitat known to occur within area
Philomachus pugnax Ruff (Reeve) [850]		Species or species habitat known to occur within area
Phoebastria fusca Sooty Albatross [1075]	Vulnerable	Species or species

Name	Threatened	Type of Presence
Pluvialis fulva Pacific Golden Plover [25545]		habitat likely to occur within area Species or species habitat known to occur within area
Pluvialis squatarola Grey Plover [865]		Species or species habitat known to occur within area
Puffinus carneipes Flesh-footed Shearwater, Fleshy-footed Shearwater [1043]		Foraging, feeding or related behaviour likely to occur within area
Puffinus griseus Sooty Shearwater [1024]		Species or species habitat may occur within area
Recurvirostra novaehollandiae Red-necked Avocet [871]		Species or species habitat known to occur within area
Rhipidura rufifrons Rufous Fantail [592]		Species or species habitat known to occur within area
Rostratula benghalensis (sensu lato) Painted Snipe [889]	Endangered*	Species or species habitat known to occur within area
Sterna albifrons Little Tern [813]		Species or species habitat may occur within area
Stiltia isabella Australian Pratincole [818]		Species or species habitat known to occur within area
Thalassarche bulleri Buller's Albatross, Pacific Albatross [64460]	Vulnerable	Species or species habitat may occur within area
Thalassarche cauta Shy Albatross [89224]	Vulnerable*	Foraging, feeding or related behaviour likely to occur within area
Thalassarche chrysostoma Grey-headed Albatross [66491]	Endangered	Species or species habitat may occur within area
Thalassarche impavida Campbell Albatross, Campbell Black-browed Albatross [64459]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche melanophris Black-browed Albatross [66472]	Vulnerable	Species or species habitat may occur within area
Thalassarche salvini Salvin's Albatross [64463]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche sp. nov. Pacific Albatross [66511]	Vulnerable*	Species or species habitat may occur within area
Thalassarche steadi White-capped Albatross [64462]	Vulnerable*	Foraging, feeding or related behaviour likely to occur within area
Thinornis rubricollis rubricollis Hooded Plover (eastern) [66726]	Vulnerable	Species or species habitat likely to occur

Name	Threatened	Type of Presence within area
Tringa glareola Wood Sandpiper [829]		Species or species habitat known to occur within area
Tringa nebularia Common Greenshank, Greenshank [832]		Species or species habitat known to occur within area
Tringa stagnatilis Marsh Sandpiper, Little Greenshank [833]		Species or species habitat known to occur within area
Xenus cinereus Terek Sandpiper [59300]		Species or species habitat known to occur within area

Mammals

Arctocephalus forsteri Long-nosed Fur-seal, New Zealand Fur-seal [20]		Species or species habitat may occur within area
Arctocephalus pusillus Australian Fur-seal, Australo-African Fur-seal [21]		Species or species habitat may occur within area

Reptiles

Caretta caretta Loggerhead Turtle [1763]	Endangered	Species or species habitat known to occur within area
Chelonia mydas Green Turtle [1765]	Vulnerable	Foraging, feeding or related behaviour known to occur within area
Dermochelys coriacea Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Species or species habitat known to occur within area

Whales and other Cetaceans

Name	Status	Type of Presence
[Resource Information]		
Mammals		
Caperea marginata Pygmy Right Whale [39]		Species or species habitat may occur within area
Delphinus delphis Common Dolphin, Short-beaked Common Dolphin [60]		Species or species habitat may occur within area
Eubalaena australis Southern Right Whale [40]	Endangered	Species or species habitat known to occur within area
Lagenorhynchus obscurus Dusky Dolphin [43]		Species or species habitat may occur within area
Megaptera novaeangliae Humpback Whale [38]	Vulnerable	Species or species habitat may occur within area
Tursiops aduncus Indian Ocean Bottlenose Dolphin, Spotted Bottlenose Dolphin [68418]		Species or species habitat likely to occur within area
Tursiops truncatus s. str. Bottlenose Dolphin [68417]		Species or species habitat may occur within area

Extra Information

State and Territory Reserves [\[Resource Information \]](#)

Name	State
Limeburners Lagoon (Hovells Creek) F.F.R	VIC
Serendip Wetlands Education Facility	VIC

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

Note that all areas with completed RFAs have been included.

Name	State
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
Birds		
Acridotheres tristis Common Myna, Indian Myna [387]		Species or species habitat likely to occur within area
Alauda arvensis Skylark [656]		Species or species habitat likely to occur within area
Anas platyrhynchos Mallard [974]		Species or species habitat likely to occur within area
Carduelis carduelis European Goldfinch [403]		Species or species habitat likely to occur within area
Carduelis chloris European Greenfinch [404]		Species or species habitat likely to occur within area
Columba livia Rock Pigeon, Rock Dove, Domestic Pigeon [803]		Species or species habitat likely to occur within area
Passer domesticus House Sparrow [405]		Species or species habitat likely to occur within area
Passer montanus Eurasian Tree Sparrow [406]		Species or species habitat likely to occur within area
Pycnonotus jocosus Red-whiskered Bulbul [631]		Species or species

Name	Status	Type of Presence
Streptopelia chinensis Spotted Turtle-Dove [780]		habitat likely to occur within area Species or species habitat likely to occur within area
Sturnus vulgaris Common Starling [389]		Species or species habitat likely to occur within area
Turdus merula Common Blackbird, Eurasian Blackbird [596]		Species or species habitat likely to occur within area
Turdus philomelos Song Thrush [597]		Species or species habitat likely to occur within area

Mammals

Canis lupus familiaris Domestic Dog [82654]		Species or species habitat likely to occur within area
Capra hircus Goat [2]		Species or species habitat likely to occur within area
Felis catus Cat, House Cat, Domestic Cat [19]		Species or species habitat likely to occur within area
Lepus capensis Brown Hare [127]		Species or species habitat likely to occur within area
Mus musculus House Mouse [120]		Species or species habitat likely to occur within area
Oryctolagus cuniculus Rabbit, European Rabbit [128]		Species or species habitat likely to occur within area
Rattus norvegicus Brown Rat, Norway Rat [83]		Species or species habitat likely to occur within area
Rattus rattus Black Rat, Ship Rat [84]		Species or species habitat likely to occur within area
Sus scrofa Pig [6]		Species or species habitat likely to occur within area
Vulpes vulpes Red Fox, Fox [18]		Species or species habitat likely to occur 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
Cenchrus ciliaris Buffel-grass, Black Buffel-grass [20213]		Species or species habitat may occur within area
Chrysanthemoides monilifera Bitou Bush, Boneseed [18983]		Species or species habitat may occur within area

Name	Status	Type of Presence
Chrysanthemoides monilifera subsp. monilifera Boneseed [16905]		Species or species habitat likely to occur within area
Lycium ferocissimum African Boxthorn, Boxthorn [19235]		Species or species habitat likely to 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 reichardtii Willows except Weeping Willow, Pussy Willow and Sterile Pussy Willow [68497]		Species or species habitat likely to occur within area
Solanum elaeagnifolium Silver Nightshade, Silver-leaved Nightshade, White Horse Nettle, Silver-leaf Nightshade, Tomato Weed, White Nightshade, Bull-nettle, Prairie-berry, Satansbos, Silver-leaf Bitter-apple, Silverleaf-nettle, Trompillo [12323] Ulex europaeus Gorse, Furze [7693]		Species or species habitat likely to occur within area

Nationally Important Wetlands		[Resource Information]
Name		State
Werribee-Avalon Area		VIC

Caveat

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

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

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

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

Threatened, migratory and marine species distributions have been derived through a variety of methods. Where distributions are well known and if time permits, maps are derived using either thematic spatial data (i.e. vegetation, soils, geology, elevation, aspect, terrain, etc) together with point locations and described habitat; or environmental modelling (MAXENT or BIOCLIM habitat modelling) using point locations and environmental data layers.

Where very little information is available for species or large number of maps are required in a short time-frame, maps are derived either from 0.04 or 0.02 decimal degree cells; by an automated process using polygon capture techniques (static two kilometre grid cells, alpha-hull and convex hull); or captured manually or by using topographic features (national park boundaries, islands, etc). In the early stages of the distribution mapping process (1999-early 2000s) distributions were defined by degree blocks, 100K or 250K map sheets to rapidly create distribution maps. More reliable distribution mapping methods are used to update these distributions as time permits.

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

-38.03987 144.37434

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:

- [-Office of Environment and Heritage, New South Wales](#)
- [-Department of Environment and Primary Industries, Victoria](#)
- [-Department of Primary Industries, Parks, Water and Environment, Tasmania](#)
- [-Department of Environment, Water and Natural Resources, South Australia](#)
- [-Department of Land and Resource Management, Northern Territory](#)
- [-Department of Environmental and Heritage Protection, Queensland](#)
- [-Department of Parks and Wildlife, Western Australia](#)
- [-Environment and Planning Directorate, ACT](#)
- [-Birdlife Australia](#)
- [-Australian Bird and Bat Banding Scheme](#)
- [-Australian National Wildlife Collection](#)
- [-Natural history museums of Australia](#)
- [-Museum Victoria](#)
- [-Australian Museum](#)
- [-South Australian 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, Canberra](#)
- [-University of New England](#)
- [-Ocean Biogeographic Information System](#)
- [-Australian Government, Department of Defence Forestry Corporation, NSW](#)
- [-Geoscience Australia](#)
- [-CSIRO](#)
- [-Australian Tropical Herbarium, Cairns](#)
- [-eBird Australia](#)
- [-Australian Government – Australian Antarctic Data Centre](#)
- [-Museum and Art Gallery of the Northern Territory](#)
- [-Australian Government National Environmental Science Program](#)
- [-Australian Institute of Marine Science](#)
- [-Reef Life Survey Australia](#)
- [-American Museum of Natural History](#)
- [-Queen Victoria Museum and Art Gallery, Inveresk, Tasmania](#)
- [-Tasmanian Museum and Art Gallery, Hobart, Tasmania](#)
- [-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.

Appendix B. PMST Threatened Species Assessment

Name	EPBC Status	Listing Advice	Likelihood of Impact
Birds			
<i>Anthochaera phrygia</i> Regent Honeyeater	Critically Endangered	Foraging, feeding or related behaviour may occur within area	Low – Habitat (woodland/forest) not present.
<i>Botaurus poiciloptilus</i> Australasian Bittern	Endangered	Species or species habitat known to occur within area	Low – Habitat (wetland) not present.
<i>Calidris canutus</i> Red Knot	Endangered	species or species habitat known to occur within area	Low – Habitat (coastal mud/sand flats) not present.
<i>Calidris ferruginea</i> Curlew Sandpiper	Critically Endangered	species or species habitat known to occur within area	Low – Habitat (coastal mud/sand flats) not present.
<i>Calidris tenuirostris</i> Great Knot	Critically Endangered	Species or species habitat known to occur within area	Low – Habitat (coastal mud/sand flats) not present.
<i>Charadrius leschenaultia</i> Greater Sand Plover	Vulnerable	Species or species habitat known to occur within area	Low – Habitat (coastal mud/sand flats) not present.
<i>Charadrius mongolus</i> Lesser Sand Plover	Endangered	Species or species habitat known to occur within area	Low – Habitat (coastal mud/sand flats) not present.
<i>Diomedea antipodensis</i> Antipodean Albatross	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	Low – Habitat (marine) not present.
<i>Diomedea epomophora</i> Southern Royal Albatross	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	Low – Habitat (marine) not present.
<i>Diomedea exulans</i> Wandering Albatross	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	Low – Habitat (marine) not present.
<i>Diomedea sanfordi</i> Northern Royal Albatross	Endangered	Foraging, feeding or related behaviour likely to occur within area	Low – Habitat (marine) not present.
<i>Grantiella picta</i> Painted Honeyeater	Vulnerable	Species or species habitat known to occur within area	Low – Habitat (woodland/forest) not present.
<i>Hirundapus caudacutus</i> White-throated Needletail	Vulnerable	Species or species habitat likely to occur within area	Low – Migratory visitor to Australian airspace, rarely lands.
<i>Lathamus discolor</i> Swift Parrot	Critically Endangered	Species or species habitat known to occur within area	Low – Habitat (woodland/forest) not present.
<i>Limosa lapponica baueri</i> Bar-tailed Godwit (baueri)	Vulnerable	Species or species habitat known to occur within area	Low – Habitat (coastal mud/sand flats) not present.
<i>Limosa lapponica menzbieri</i> Northern Siberian Bar-tailed Godwit	Critically Endangered	Species or species habitat may occur within area	Low – Habitat (coastal mud/sand flats) not present.
<i>Macronectes giganteus</i> Southern Giant-Petrel	Endangered	Species or species habitat may occur within area	Low – Habitat (marine) not present.

Name	EPBC Status	Listing Advice	Likelihood of Impact
<i>Macronectes halli</i> Northern Giant Petrel	Vulnerable	Species or species habitat may occur within area	Low – Habitat (marine) not present.
<i>Neophema chrysogaster</i> Orange-bellied Parrot	Critically Endangered	Migration route likely to occur within area	Low – Habitat (coastal salt marsh) not present.
<i>Numenius madagascariensis</i> Eastern Curlew	Critically Endangered	Species or species habitat known to occur within area	Low – Habitat (coastal mud/sand flats) not present.
<i>Pachyptila turtur subantarctica</i> Fairy Prion (southern)	Vulnerable	Species or species habitat known to occur within area	Low – Habitat (coastal mud/sand flats) not present.
<i>Pedionomus torquatus</i> Plains-wanderer	Critically Endangered	Species or species habitat likely to occur within area	Low – considered locally extinct.
<i>Phoebastria fusca</i> Sooty Albatross	Vulnerable	Species or species habitat likely to occur within area	Low – Habitat (marine) not present.
<i>Pterodroma leucoptera leucoptera</i> Gould's Petrel	Endangered	Species or species habitat may occur within area	Low – Habitat (marine) not present.
<i>Rostratula australis</i> Australian Painted Snipe	Endangered	Species or species habitat known to occur within area	Low – Habitat (coastal mud/sand flats) not present.
<i>Stemula nereis nereis</i> Australian Fairy Tern	Vulnerable	Species or species habitat known to occur within area	Low – Habitat (coastal mud/sand flats) not present.
<i>Thalassarche bulleri</i> Buller's Albatross	Vulnerable	Species or species habitat may occur within area	Low – Habitat (marine) not present.
<i>Thalassarche bulleri platei</i> Northern Buller's Albatross	Vulnerable	Species or species habitat may occur within area	Low – Habitat (marine) not present.
<i>Thalassarche cauta cauta</i> Shy Albatross	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	Low – Habitat (marine) not present.
<i>Thalassarche cauta steadi</i> White-capped Albatross	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	Low – Habitat (marine) not present.
<i>Thalassarche chrysostoma</i> Grey-headed Albatross	Endangered	Species or species habitat may occur within area	Low – Habitat (marine) not present.
<i>Thalassarche impavida</i> Campbell Albatross	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	Low – Habitat (marine) not present.
<i>Thalassarche melanophris</i> Black-browed Albatross	Vulnerable	Species or species habitat may occur within area	Low – Habitat (marine) not present.
<i>Thalassarche salvini</i> Salvin's Albatross	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	Low – Habitat (marine) not present.
<i>Thinornis rubricollis rubricollis</i>	Vulnerable	Species or species habitat likely to occur within area	Low – Habitat (coastal mud/sand flats) not present.

Name	EPBC Status	Listing Advice	Likelihood of Impact
Hooded Plover (eastern)			
Fish			
<i>Galaxiella pusilla</i> Eastern Dwarf Galaxias	Vulnerable	Species or species habitat likely to occur within area	Low – Habitat (aquatic/waterways) not present.
<i>Prototroctes maraena</i> Australian Grayling	Vulnerable	Species or species habitat likely to occur within area	Low – Habitat (suitable aquatic/waterways) not present.
Frogs			
<i>Litoria raniformis</i> Growling Grass Frog	Vulnerable	Species or species habitat known to occur within area	Moderate – May utilise local drains and damp areas for dispersal/foraging.
Insects			
<i>Synemon plana</i> Golden Sun Moth	Critically Endangered	Species or species habitat known to occur within area	Moderate – May utilise disturbed tussock grasslands (native or exotic).
Mammals			
<i>Eubalaena australis</i> Southern Right Whale	Endangered	Species or species habitat known to occur within area	Low – Habitat (marine) not present.
<i>Megaptera novaeangliae</i> Humpback Whale	Vulnerable	Species or species habitat may occur within area	Low – Habitat (marine) not present.
<i>Pteropus poliocephalus</i> Grey-headed Flying-fox	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	Low – Specie may occasionally overfly the site, but no feeding or roosting habitat present.
Plants			
<i>Amphibromus fluitans</i> River Swamp Wallaby-grass	Vulnerable	Species or species habitat likely to occur within area	Low – Species considered out of range.
<i>Dianella amoena</i> Matted Flax-lily	Endangered	Species or species habitat may occur within area	Moderate – May occur in disturbed tussock grasslands (native or exotic).
<i>Diuris basaltica</i> Small Golden Moths Orchid	Endangered	Species or species habitat may occur within area	Low – Species associated with native grasslands.
<i>Dodonaea procumbens</i> Trailing Hop-bush	Vulnerable	Species or species habitat may occur within area	Low – Species associated with native grasslands.
<i>Glycine latrobeana</i> Clover Glycine	Vulnerable	Species or species habitat likely to occur within area	Low – Species associated with native grasslands.
<i>Lachnagrostis adamsonii</i> Adamson's Blown-grass	Endangered	Species or species habitat may occur within area	Moderate – Species may be retained in local drainage channels/roadside drains/wet areas.
<i>Leucochrysum albicans</i> var. <i>tricolor</i> Hoary Sunray	Endangered	Species or species habitat likely to occur within area	Low – Species associated with native grasslands.

Name	EPBC Status	Listing Advice	Likelihood of Impact
<i>Pimelea spinescens</i> subsp. <i>spinescens</i> Plains Rice-flower	Critically Endangered	Species or species habitat known to occur within area	Moderate – May occur in disturbed tussock grasslands (native or exotic).
<i>Prasophyllum frenchii</i> Maroon Leek-orchid	Endangered	Species or species habitat likely to occur within area	Low – Species associated with native grasslands.
<i>Pterostylis cucullata</i> Leafy Greenhood	Vulnerable	Species or species habitat may occur within area	Low – Species associated with native grasslands.
<i>Rutidosis leptorrhynchoides</i> Button Wrinklewort	Endangered	Species or species habitat likely to occur within area	Low – Species associated with native grasslands.
<i>Senecio macrocarpus</i> Large-fruit Fireweed	Vulnerable	Species or species habitat likely to occur within area	Moderate – Species may persist in disturbed grasslands.
<i>Xerochrysum palustre</i> Swamp Everlasting	Vulnerable	Species or species habitat may occur within area	Low – Outside of current range.
Reptiles			
<i>Caretta caretta</i> Loggerhead Turtle	Endangered	Species or species habitat known to occur within area	Low – Habitat (marine) not present.
<i>Chelonia mydas</i> Green Turtle	Vulnerable	Foraging, feeding or related behaviour known to occur within area	Low – Habitat (marine) not present.
<i>Delma impar</i> Striped Legless Lizard	Vulnerable	Species or species habitat known to occur within area	Moderate – May occur in disturbed tussock grasslands (native or exotic).
<i>Dermochelys coriacea</i> Leatherback Turtle	Endangered	Species or species habitat known to occur within area	Low – Habitat (marine) not present.
<i>Tympanocryptis pinguicollis</i> Grassland Earless Dragon	Endangered	Species or species habitat may occur within area	Low – Thought to be locally extinct.
Sharks			
<i>Carcharodon Carcharias</i> Great White Shark	Vulnerable	Species or species habitat known to occur	Low – Habitat (marine) not present.