



NGH



Ecological Assessment

Anakie Solar Farm

October 2022

Project Number: 21-425



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Acronyms and abbreviations

Item	Definition
ASL	Above sea level
AWS	Automatic weather station
BOM	Australian Bureau of Meteorology
CaLP Act	<i>Catchment and Land Protection Act, 1994</i>
CEMP	Construction environmental management plan
Cwth	Commonwealth
CWD	Coarse Woody Debris
DELWP	Department of Environment, Land, Water and Planning
DoEE	(Cwth) Department of the Environment and Energy
DSE	Department of Sustainability and Environment
EPBC Act	(Cwth) <i>Environment Protection and Biodiversity Conservation Act 1999</i>
ESD	Ecologically Sustainable Development
EVC	Ecological Vegetation Community
FFG	<i>Flora and Fauna Guarantee Act, 1988</i>
ha	hectares
km	kilometres
m	Metres
MNES	Matters of National Environmental Significance
P&E Act	<i>Planning and Environment Act, 1987</i>
sp/spp	Species/multiple species
The guidelines	Guidelines for the removal, destruction or lopping of native vegetation
VBA	Victorian Biodiversity Atlas
VQA	Vegetation Quality Assessment

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Executive Summary

BNRG Renewables Ltd and BL Anakie Solar Nominees are proposing the installation of a Sub-5 Mega Watt (MW) battery supported solar farm at 1435-1475 Ballan Road Anakie 3213 (Lot 6 TP434281).

The study area is located approximately 12 kms to the north-east of Geelong, Victoria. The study area encompasses one parcel (Lot 6 TP434281) and is located in the Greater Geelong City Local Government Area (LGA).

The study area is 44.41 ha, the development site is 11.07 ha

The zones and overlays are listed below.

- The property is completely covered by an Environmental Significance – ESO4 overlay.
- The property is completely covered by Designated Bushfire Prone Area overlay.

Under ESO4 no land and environmental management plan has been completed as a part of ecology assessment. This will be required as part of the planning permit application to meet the requirements of the Geelong Planning Scheme. However, the proposed native vegetation impacts will be offset and weed and pest animal management will occur as part of ongoing management for the development site. If approval for this project is supported the landscape plan may be able to address the requirements for this plan.

This ecological assessment addresses the planning permit application triggers under Clause 52.17 of the *Planning and Environment Act, 1987*. Under this Clause, there is a planning permit trigger for the removal, destruction or lopping of native vegetation.

A site assessment was completed on 15 December 2021 by an accredited NGH Senior Ecologist. The results of the site assessment determined 0.071 ha of EVC 55_61 Plains Grassy Woodland and one large tree was present within the Development Footprint. This native vegetation will need to be offset as per the requirements of Clause 52.17.

The following offset requirements needed in the offset strategy:

- General offset amount – 0.014 General Habitat Units
- Vicinity - Corangamite Catchment Management Authority (CMA) or Greater Geelong City Council
- Minimum strategic biodiversity value score – 0.288
- Large trees -1

If a permit is granted, a third party offset is to be secured, the next steps involves contacting Vegetation Link to enter into a purchase agreement.

There is no planning permit trigger or offset requirements for the planted trees and shrubs in the Development Footprint.

The threatened entities assessment included the study area and determined the following:

- *Environmental Protection and Biodiversity Conservation Act 1999 (EPBC Act)* Grassy Eucalypt Woodland in Victorian Volcanic Plains is present in the study area.
- The *Flora and Fauna Guarantee Act, 1988 (FFG Act)* listed vegetation community Western Basalt Plains (River Red Gum) Grassy Woodland is present on site.
- All FFG and EPBC listed flora species were determined to have a low likelihood to occur on site. The proposed development footprint will have minimal impact of threatened flora.

- Golden Sun Moth (*Synemon plana*) listed as Vulnerable under the *FFG Act* and Critically Endangered *EPBC Act* has a low-moderate likelihood of occurring on site. However, steps have been undertaken to avoid and minimise impacts to this species and the proposed native vegetation removal will have a negligible impact on these species.
- A habitat assessment for Striped Legless Lizard and Pink-tailed Worm Lizard was undertaken. The results of the survey results determined these species have a low likelihood of occurring on site.
- All other listed FFG and EPBC fauna species has a low likelihood of occurring on site.
- No further targeted survey will be required.

Any impact to EPBC Grassy Eucalypt Woodland in Victorian Volcanic Plains may require a EPBC referral. No areas of EPBC Grassy Eucalypt Woodland occur within the Development Footprint therefore there will be no requirement for an EPBC referral.

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1. Introduction

NGH Pty Ltd has been engaged by BNRG Renewables Ltd and BL Anakie Solar Nominees to undertake an ecological assessment for the proposed solar farm at 1435-1475 Ballan Road Anakie 3213 (Lot 6 TP434281) installation of a Sub-5 Mega Watt (MW) battery supported solar farm. This ecological assessment will form part of the Appendix of the planning report.

The purpose of this ecological assessment includes addressing the following information:

- Undertake a desktop search of threatened species and communities listed under the *Flora and Fauna Guarantee Act, 1988 (FFG)* and the *Environmental Protection and Biodiversity Conservation Act 1999 (EPBC)*
- Undertake a desktop assessment of the EVC modelling and aerial imagery to determine if there is any native vegetation within the defined Study Area.
- Determine any legislative requirements based on the assessments results background search results and EVC determination.
- Determine if any planning permit requirements are triggered under the *Planning and Environment Act, 1987* under Clause 52.17 – native vegetation.
- Undertake a site assessment to determine the extent of native vegetation and complete a habitat hectares assessment.
- Summarise findings in an Ecological Report including areas of native vegetation that will be impacted in the Development Footprint.
- Determine any offset requirements.

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1.1 Locality

The study area is located approximately 12 kms to the north-east of Geelong, Victoria. The study area encompasses one parcel (Lot 6 TP434281) and is located in the Greater Geelong City Local Government Area (LGA).

The property is located directly west of Ballan Road and contains a rural dwelling. The study area is located in a rural landscape and it utilised for agricultural production.

The surrounding properties are small rural blocks with a mix of grazing and cropping. There are poultry farms to the north. The locality and landscape is suitable for a solar farm due to road access, minimal native vegetation impacts and located in a regional landscape that does not have a high number of dwellings and located in an area on a site with low visibility.

Figure 1-1 shows the study area.

1.1.1 Bioregion

Bioregions are determined by climate, geomorphology, soils and vegetation to classify the environment at a landscape scale (DELWP, 2021). Victoria has 28 bioregions.

The study area is located in the Victorian Volcanic Plain (VVP) Bioregion (DELWP, 2021). The geology in this bioregion is detailed by DELWP, 2021 as '*dominated by Cainozoic volcanic deposits*', these deposits form '*an extensive flat to undulating basaltic plain with stony rises, old lava flows,*

numerous volcanic cones and old eruption points...dotted with shallow lakes both salt and freshwater.'

(DELWP, 2021) define the soils in this bioregion as typically 'reddish-brown to black loams and clays, fertile, high in available phosphorous with dark saline around lake margins. Soil and vegetation types vary across the bioregion:

- Red friable earth and acidic texture contrast (ferrosols and Kurosols) on higher fertile plains supporting plains grassy woodland and grassland ecosystems.
- Calcareous sodic texture contrast soils grading to yellow acidic earths (chromosols and sodosols to dermosols) on intermediate rises supporting knoll shrublands, plains grassy woodland and plains grassy wetland ecosystems.
- Volcanic outcropping on stony rises with stony earths (dermosols and tenosols) supporting foothill forest ecosystems. '

1.1.2 Native vegetation in the locality

The main Ecological Vegetation Classes in the VVP Bioregion in this location are EVC 132 Plains Grassland and EVC 55 Plains Grassy Woodland. Both of these EVCs have been extensively cleared for agriculture. These two EVCs are highly fragmented and scattered from Geelong to western Victoria. Remnant patches can be found on road reserves and private land. The nearest reserves from the study area are the Brisbane Ranges National Park, You Yangs Regional Park and two smaller reserves at Bannockburn and Serendip Sanctuary.

The native vegetation on site is a representation of EVC 55 in a modified state, where scattered Eucalypts remain and a mix of native and exotic grassy understorey is present. The road reserve and the area selected for the proposed Solar Farm cover mainly exotic vegetation. There are planted rows of trees that include Australian native and exotic trees.

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1.1.3 Waterways and wetlands

There are no ephemeral drainage lines/gullies or wetlands located within or flowing through the study area.

A range of wetland formations occur in the VVP bioregion including salt marshes, permanent and intermittent freshwater and saline/brackish lakes, permanent freshwater ponds and marshes and inland subterranean karst wetlands. River, creek and drainage systems occur throughout the region with an annual rainfall of 450-840mm.

1.2 Development proposal

The proposed solar farm is located in the northern part of Lot 6 TP434281.

This ecological assessment addresses the planning permit application, which is an application for the removal, destruction or lopping of native vegetation in Lot 6 TP434281.

The property boundary of Lot 6 TP434281 is study area for the proposed development. The study area is 44.41 ha, the Development Footprint is 11.07 ha. The aerial imagery shows planted vegetation in rows and scattered across the study area.

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1.2.1 Site selection

The site assessment in December 2021 mapped and recorded native vegetation across the study area. The results of the vegetation present on the site followed the three-step approach to avoid and minimise impacts on native vegetation as much as possible within the study area. The following was determined:

- The solar farm layout was located in areas dominated by exotic vegetation
- Areas covered by native grasses were divided between two separate habitat zones based on percentage cover as follows:
 - 25-50% native grass cover. These areas qualify as the FFG listed community *Western Basalt Plains (River Red Gum) Grassy Woodland* in the form of EVC 55_61 (Habitat zone 1). Habitat Zone 1a-1k is highly modified with evidence of pasture improvement and continuous grazing. The shrub and Eucalypt layer is largely absent.
 - >50% cover where the grass cover qualifies as EPBC Act listed *Grassy Eucalypt Woodland of the Victorian Volcanic Plain* which includes Habitat Zones 2a-2d
- Further considerations included habitat assessment for Golden Sun Moth
- The road reserve is dominated by exotic vegetation and there are no impacts to native vegetation to connect the proposed Solar Farm to the existing grid connection. This connection also allows access to meet CFA requirements without impacting native vegetation.
- The internal fence design and layout has been considered as part of the native vegetation impact assessment.

The native vegetation impacts have been minimised to 0.071 hectares. This native vegetation has been offset.

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Figure 1-1 Location Map

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2. Legislative Requirements

This section details the legislative requirements in relation to the assessment of the proposal. Table 2-1 details the legislation and the section of the report that addresses the legislation.

Table 2-1 Legislation requirements for the assessment of the proposal

Legislation	Requirements	Section of this Report
<i>Commonwealth Environment Protection and Biodiversity Conservation Act, 1999 (EPBC)</i>	Matters of National Environmental Significance for threatened entities and RAMSAR wetlands	Section 5.5
<i>Victorian Planning and Environment Act, 1987 (P&E)</i>	Municipal Planning Schemes including Planning Zones and Overlays Clause 52.17 – Native Vegetation	Section 2.2
<i>Victorian Flora and Fauna Guarantee Amendment Act, 2019 (formerly Flora and Fauna Guarantee Act 1988) (FFGA)</i>	Listed threatened species and communities, provision of Habitat Conservation Orders for critical habitat associated with listed species/communities, and management of listed threatening processes.	Section 2.3
<i>Victorian Wildlife Act 1975</i>	Protection of native fauna	Section 2.4
<i>Victorian Catchment and Land Protection Act 1994 (CaLP Act)</i>	Declared noxious weeds and pest species	Section 2.5

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2.1 Legislation

2.2 Planning and Environment Act, 1987

The *Planning and Environment Act* (P&E Act) was introduced in 1987. The purpose of this act is to establish a framework for planning the use, development, and protection of land in Victoria in the present and long-term interests of all Victorians. Each municipality has a Local Planning Scheme setting out policies and clauses specific to zones and overlays that relate to an area or parcel of land. The study area is in the Greater Geelong City Planning Scheme.

The zones and overlays are listed below.

- The property is completely covered by an Environmental Significance – ESO4 overlay.
- The property is completely covered by Designated Bushfire Prone Area overlay.

Other relevant overlays include a Heritage – HO overlay directly south of Lot 6 TP434281 in the adjacent lot.

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2.2.1 Native vegetation assessment pathway

The Development Footprint is located in assessment pathway Locations 1. The native vegetation guidelines (DELWP 2017) identify assessment pathways as basic, intermediate, and detailed and these are divided into three location categories across the state of Victoria. These assessment pathways are determined to reduce overall impacts to Victoria’s biodiversity. Table 3 (p. 19 of the guidelines; DELWP 2017) shows the assessment pathway and location category thresholds below. Less than 0.5 hectares is proposed to be removed alongside one large tree; therefore an intermediate assessment is required.

Table 2-2 Planning permit thresholds for native vegetation removal (Source: Table 3 from the Guidelines; DELWP 2017)

Extent of native vegetation	Location category		
	Location 1	Location 2	Location 3
Less than 0.5 hectares and not including any large trees	Basic	Intermediate	Detailed
Less than 0.5 hectares and including one or more large trees	Intermediate	Intermediate	Detailed
0.5 hectares or more	Detailed	Detailed	Detailed

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2.2.2 Requirements of Clause 52-17

The requirements to remove native vegetation in Victoria must consider the following criteria in Table 2-3.

These criteria are addressed in Section 5.

Table 2-3 Planning permit requirements for native vegetation removal.

Criteria
Has the assessment pathway and reason for the assessment pathway been determined? Has the location category of the native vegetation proposed to be removed identified?
A description of the native vegetation to be removed
Maps showing the native vegetation
The offset requirement determined in accordance with section 5 of the Guidelines.
Topographic and land information relating to the native vegetation to be removed, showing ridges, crests and hilltops, wetlands and waterways, slopes of more than 20 percent, drainage lines, low lying areas, saline discharge areas, and areas of existing erosion, as appropriate.
Recent, dated photographs of the native vegetation.
Details of any other native vegetation approved to be removed, or that was removed without the required approvals, on the same property or on contiguous land in the same ownership as the applicant, in the five year period before the application for a permit is lodged.
An avoid and minimise statement. The statement describes any efforts to avoid the removal of and minimise the impacts on the biodiversity and other values of native vegetation, and how these efforts focussed on areas of native vegetation that have the most value.

Criteria

A copy of any Property Vegetation Plan contained within an agreement made pursuant to section 69 of the *Conservation, Forests and Lands Act 1987* that applies to the native vegetation to be removed

Where the removal of native vegetation is to create defensible space, a written statement explaining why the removal of native vegetation is necessary. This is not required when the creation of defensible space is in conjunction with an application under the Bushfire Management Overlay.

If the application is under Clause 52.16, a statement that explains how the proposal responds to the Native Vegetation Precinct Plan considerations at decision guideline 6.

An offset statement explaining that an offset that meets the offset requirements for the native vegetation to be removed has been identified and how it will be secured.

A site assessment report of the native vegetation to be removed, completed by an accredited native vegetation assessor.

Information about impacts on rare or threatened species habitat.

2.2.3 Zoning

The study area is in Farming (FZ) zone. The purpose of this Zone is to:

- To implement the Municipal Planning Strategy and the Planning Policy Framework.
- To provide for the use of land for agriculture.
- To encourage the retention of productive agricultural land.
- To ensure that non-agricultural uses, including dwellings, do not adversely affect the use of land for agriculture.
- To encourage the retention of employment and population to support rural communities.
- To encourage use and development of land based on comprehensive and sustainable land management practices and infrastructure provision.
- To provide for the use and development of land for the specific purposes identified in a schedule to this zone.

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A planning report will be submitted to the Department of Environment, Land Water and Planning (DELWP) which will address the objectives of this zone and this ecology assessment does not need to address any permit triggers for this zone.

2.2.4 Environmental Significance Overlay (ESO4)

The Environmental Significance Overlay (ESO4) relates to the Grasslands within the Werribee Plains Hinterland.

The purpose of this overlay is to:

- To prevent a decline in the extent and quality of native vegetation and native fauna habitat of the Victorian Volcanic Plain.
- To enhance the environmental and landscape values of the area.
- To avoid the fragmentation of contiguous areas of native vegetation or native fauna habitat.
- To ensure that any use, development or management of the land is compatible with the long-term conservation, maintenance and enhancement of the grasslands.
- To avoid the destruction of habitat for native fauna resulting from the modification of landform and disturbance of surface soils and rocks.

- To enable areas of environmental significance, due to their native vegetation or habitat values, to be identified.

An application must be accompanied by:

- A description of any proposed disturbance of surface soil or rocks associated with the proposal.
- The total extent of vegetation on the property and the extent of native vegetation proposed to be removed, lopped or destroyed.
- A description of the steps that have been taken to avoid and minimise the removal of native vegetation including the practicality of alternative options which do not require removal of the native vegetation.

An application must also be accompanied by, as appropriate:

- A flora and fauna assessment of the land prepared by a suitably qualified and experienced person to the satisfaction of the responsible authority. The assessment must include:
 - A flora and fauna survey.
 - A habitat hectare assessment.
 - Identification of the vegetation and habitat significance of the property.
 - A description of the effect of the proposed development in relation to other areas of native vegetation or native fauna habitat, including any proposed conservation reserves, streams and waterways.
- A land and environmental management plan prepared by a suitably qualified person identifying, as appropriate:
 - Any proposals for revegetation, including proposed species, and ground stabilisation.
 - How any vegetation removal will be offset (an offset plan), in accordance with Victoria's Native Vegetation Management: A Framework For Action (Department of Natural Resources and Environment 2002).
 - Weed management, including species to be targeted and proposed management techniques.
 - Pest animal management, including species to be targeted and proposed management techniques.

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A Flora and Fauna assessment has been completed for development site. There is native vegetation on the property and the offset calculation provided aims to meet the requirements of the Planning and Environment Act 1987 and this also meets the first part of this application requirement.

No land and environmental management plan has been completed as a part of ecology assessment. This will be required as part of the planning permit application to meet the requirements of the Greater Geelong Planning Scheme. However, the proposed native vegetation impacts will be offset and weed and pest animal management will occur as part of ongoing management for the development site. If approval for this project is supported the landscape plan may be able to address the requirements for this plan including the following:

- *Revegetation, including proposed species, and ground stabilisation.*
- *Weed management, including species to be targeted and proposed management techniques.*

- *Pest animal management, including species to be targeted and proposed management techniques.*

2.2.5 Bushfire Prone Area

The assessment and requirements for development in a bushfire prone area will be discussed in other specialist reports and are not assessed as part of this ecology report.

2.3 Flora and Fauna Guarantee Act 1988

The flora and fauna conservation and management objectives of the *Flora and Fauna Guarantee Act 1988* (FFG) are:

- a) to guarantee that all taxa of Victoria's flora and fauna, other than taxa specified in the excluded list, can persist, and improve in the wild and retain their capacity to adapt to environmental changes; and
- b) to prevent taxa and communities of flora and fauna from becoming threatened and to recover threatened taxa and communities so their conservation status improves; and
- c) to protect, conserve, restore and enhance biodiversity, including -
 - a. flora and fauna and their habitats; and
 - b. genetic diversity; and
 - c. ecological communities; and
 - d. ecological processes; and
- d) to identify and mitigate the impacts of potentially threatening processes to address the important underlying causes of biodiversity decline, and
- e) to ensure the use of biodiversity as a natural resource is ecologically sustainable; and
- f) to identify and conserve areas of Victoria in respect of which critical habitat determinations are made.

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An FFG listed vegetation community occurs on site. The FFG community is the Grassy Eucalypt Woodland of the Victorian Volcanic Plain. Threatened entities are discussed further in Section 5.

2.4 Wildlife Act 1975

Under the *Wildlife Act 1975* all native wildlife is protected in Victoria. It is an offence to kill, take, control or harm wildlife under the *Wildlife Act 1975*. It is also an offence to use poisons to kill, destroy or take wildlife. Severe penalties (including imprisonment and fines) apply to those found guilty of an offence under the *Wildlife Act*.

It is unlikely a wildlife permit will be required. If the proposal is approved the impact will be on wildlife habitat and not wildlife. If any wildlife is located within the habitat proposed for clearing; fauna salvage and relocation of such wildlife may be required as part of the planning permit. Any handling of wildlife must be undertaken by qualified wildlife handlers to ensure no wildlife are injured as a result of the proposed works.

2.5 Catchment and Land Protection Act, 1994

Under the *Catchment and Land Protection Act, 1994* (CaLP Act), control of declared noxious weeds and pest animals will be ongoing management requirement prior, during and post construction. Weed and pest animal management should consider best practice methods.

A weed management plan should consider any new and emerging weeds and any necessary prevention methods.

The weeds and pest animals recorded during the site assessment are addressed in Section 5.4.

2.6 Declared noxious weeds

In Victoria, the CaLP Act separates noxious weeds into four categories (Agriculture Victoria, 2020). The CaLP Act defines four categories of noxious weeds as:

- State Prohibited Weeds.
- Regionally Prohibited Weeds.
- Regionally Controlled Weeds.
- Restricted Weeds.

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2.6.1 State prohibited weeds

State Prohibited Weeds may not occur in Victoria or any known infestations are very small. The Victorian Government is responsible for eradicating State Prohibited Weeds and all known infestations should be eradicated. These weeds are considered a significant threat if introduced (Agriculture Victoria, 2020).

2.6.2 Regionally prohibited weeds

Regionally prohibited weeds are capable of spreading across a region and the aim should be to eradicate them. Regionally prohibited weeds are not widely distributed so landowners must take all reasonable steps to eradicate these weeds to prevent them spreading further. Landowners (including public authorities) are responsible for the eradication of these weeds on their land (Agriculture Victoria, 2020).

2.6.3 Regionally controlled weeds

These regionally controlled weeds are usually widespread and highly invasive. Landowners need to take all reasonable steps to prevent the growth and spread of regionally controlled weeds on their land (Agriculture Victoria, 2020).

2.6.4 Restricted weeds

Restricted weeds cannot be traded, and this includes plants, seeds or propagules or contaminants. Restricted weeds are at risk of spreading within Victoria or other States or Territories of Australia. It is a landowner's responsibility to prevent the spread of these weeds (Agriculture Victoria, 2020).

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3. Purpose of this assessment

The proposal must meet the requirements under Clause 52.17 – Native Vegetation under the P&E Act. This ecological assessment addresses the native vegetation requirements and threatened entities under this Clause.

3.1 Assessment pathway for proposal

As outlined in Section 2.2.1 the Development Footprint is located in assessment pathway Location 1 and Location 2. The assessment pathway was determined to be detailed due to:

- < 0.5 hectares and 1 large tree

A detailed assessment was undertaken that included a habitat hectares assessment by an accredited assessor (VQA).

The risk assessment pathway is shown in Figure 3-1.

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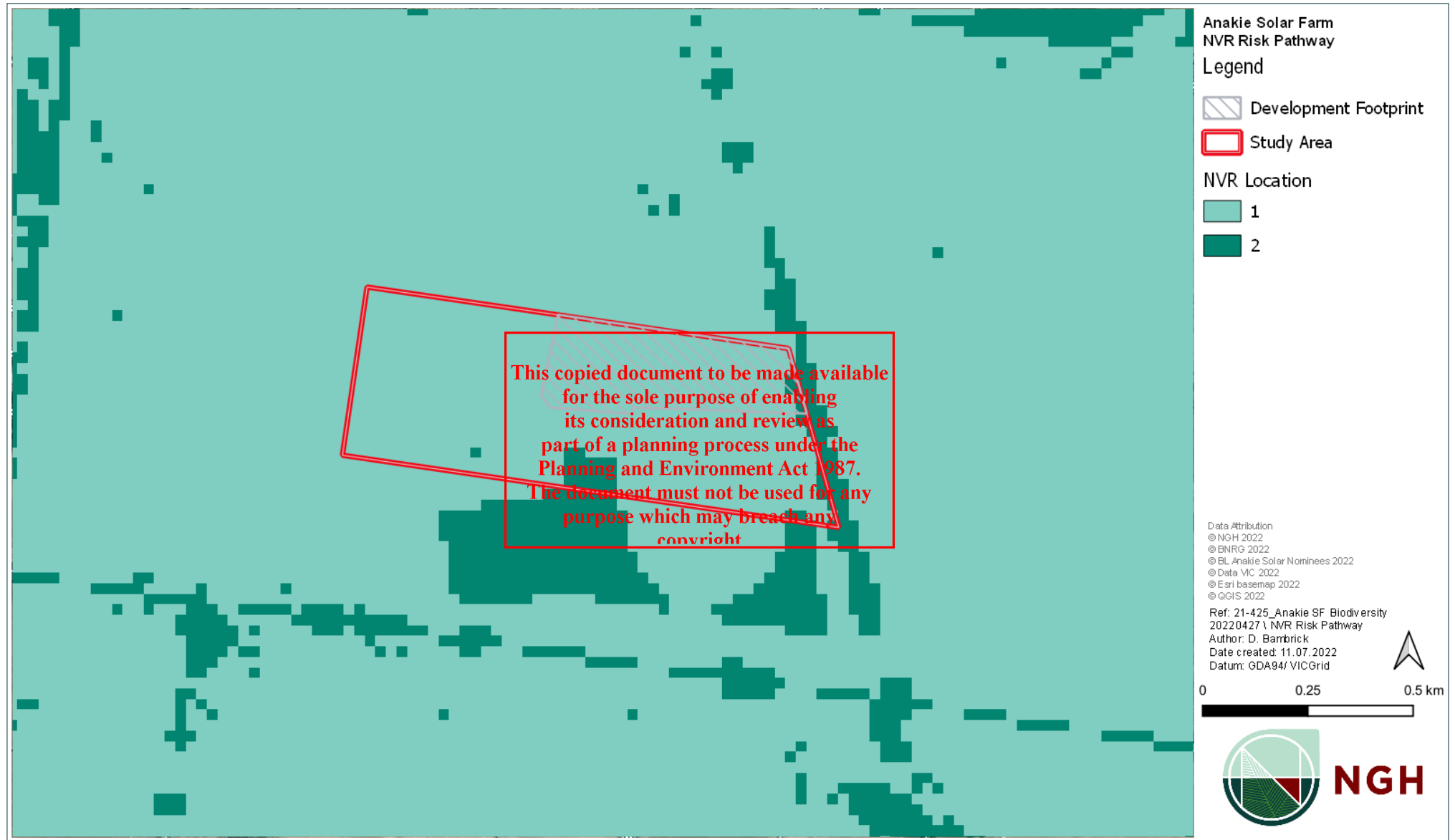


Figure 3-1. Risk Assessment Pathway

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4. Methods

4.1 Desktop searches

The background searches included:

- A desktop search for threatened species using the Victorian Biodiversity Atlas (VBA). The VBA search included the study area and a buffer area of 5 km.
- An assessment of the threatened communities (FFG listed)
- A Matters of National Significance (MNES) desktop search with a 10 km buffer for nationally threatened flora, fauna and vegetation communities.

4.1.1 Assessment of threatened species and vegetation communities

Based on the background search results, the likelihood of occurrence (Table 4-1) is a broad way to categorise the likelihood of threatened flora and fauna presence based on the MNES results, VBA records and habitat features observed on site.

Table 4-1 Likelihood of threatened species being observed on site.

Likelihood of Occurrence	Reasoning
Low	Considered unlikely to occur due to older records, unsuitable or degraded habitat.
Moderate	Potential habitat occurs on site. Low record numbers or species not recorded in the area for many years. Considered that the species may occur infrequently.
High	Important habitat occurs onsite (i.e., nesting sites, suitable habitat).
Recorded	Recorded on site previously or observed on site during assessment.

4.2 Site assessment

The site assessment was completed by a NGH Senior Accredited Ecologist, on 15th December 2021. An additional site assessment was completed by a NGH Senior Ecologist on the 14th – 15th June 2022 to conduct a habitat assessment of the EPBC Act listed Ecological Communities for the Golden Sun Moth (*Synemon plana*), Pink-tailed Worm Lizard (*Aprasia parapulchella*), and Striped Legless Lizard (*Delma impar*). The site assessment method and results are outlined in the following sections.

The weather and climate statistics recorded from the Sheoaks weather station (Station number 087168), around 5km from the survey site, for the date of the survey are detailed in Figure 4-1.

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Sheoaks, Victoria																						
December 2021 Daily Weather Observations																						
Date	Day	Temps		Rain	Evap	Sun	Max wind gust			9 am			3 pm									
		Min	Max				Dir	Spd	Time	Temp	RH	Cld	Dir	Spd	MSLP	Temp	RH	Cld	Dir	Spd	MSLP	
		°C	°C				mm	mm	hours	km/h	local	°C	%	g th	km/h	hPa	°C	%	g th	km/h	hPa	
15	We	11.9	18.1	0			ESE	19	15:55		13.6	93		SSE	4	1013.8	16.6	74		ESE	11	1014.5

Sheoaks, Victoria																						
June 2022 Daily Weather Observations																						
Date	Day	Temps		Rain	Evap	Sun	Max wind gust			9 am			3 pm									
		Min	Max				Dir	Spd	Time	Temp	RH	Cld	Dir	Spd	MSLP	Temp	RH	Cld	Dir	Spd	MSLP	
		°C	°C				mm	mm	hours	km/h	local	°C	%	g th	km/h	hPa	°C	%	g th	km/h	hPa	
14	Tu	4.0	11.7	0			NNW	65	23:45		5.7	96		N	2	1021.9	10.0	67		N	17	1018.0
15	We	5.7	12.5	0			NNW	70	00:01		9.6	73		N	30	1012.0	11.2	77		NNW	24	1010.1

Figure 4-1 Weather and climate data site assessment

4.2.1 Flora

The flora survey was completed on foot. The flora survey includes using the random meander method as well as the habitat hectares methodology. The entire study area was assessed (as required under Clause 52.17 – Native Vegetation), to determine patches of native vegetation, scattered trees and any revegetation areas.

Further information about the native vegetation assessment methods is included in each section below.

Native vegetation assessment

The native vegetation assessment was undertaken based on the Guidelines of Clause 52.17 of the P&E Act for the removal, destruction or lopping, of native vegetation, (DELWP, 2017). The guidelines state native vegetation is assessed to ensure it meets the following criteria:

- An area of vegetation where at least 25 per cent of the total perennial understorey plant cover is native; or
- Any area with three or more native canopy trees where the drip line of each tree touches the drip line of at least one other tree, forming a continuous canopy; or
- Any mapped wetland included in the current wetlands map, available in Department of Environment, Land, Water and Planning (DELWP) systems and tools.

During the site assessment, the habitat hectare method was applied to any native vegetation patch determined to have greater than 25% perennial ground cover.

Results of the assessment are described in Section 5.

Scattered and large trees within a habitat zone

Based upon the criteria in the guidelines (DELWP, 2017), a scattered tree is defined as a tree that is indigenous to the area which is:

- A native canopy tree (large or small in size) that does not form part of a patch; or

- A large, scattered tree that is greater than or equal to the diameter at breast height (DBH) as determined by the EVC benchmark.

All large trees within a habitat zone were recorded where the tree was greater than the EVC benchmark DBH. All stags (dead canopy trees) were recorded if they were greater than 40 cm DBH. Within the habitat zone, only tree stags that are greater than the EVC benchmark DBH are recorded.

For each scattered tree, large tree or stag the following information was recorded:

- Plant species identified (including scientific and common name).
- Location recorded using a handheld GPS.
- DBH measured and recorded.
- Tree health.
- Presence of habitat features such as hollows or nests.

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4.2.2 Ecological Vegetation Classes (EVC)

The vegetation communities found in the Victorian Volcanic Plain Bioregion are termed Ecological Vegetation Classes (EVCs). These EVCs were mapped by the Victorian Government based on landscape attributes to determine the pre-European native vegetation extent (DSE, 2004). Each Bioregion consists of a number of EVCs. Each EVC has pre-determined benchmarks which are used in the habitat hectare assessment to determine the site condition score.

The Ecological Vegetation Classes identified in the study area are in Section 5.1.1.

4.2.3 EVC Conservation Status

Each EVC has a Bioregional Conservation Status based on the extent cleared or remaining since European settlement. Table 4-2 lists the criteria for the conservation status for Ecological Vegetation Classes (DELWP, 2021).

The conservation status for each EVC found onsite is listed in Section 4.2.3.

Table 4-2 Criteria for the conservation status for Ecological Vegetation Classes (DELWP, 2021)

Category	Status Code	Criteria
Presumed Extinct	X	Probably no longer present in the bioregion (the accuracy of this assumption is limited by the use of remotely - sensed 1:100 000 scale woody vegetation cover mapping to determine depletion - grassland, open woodland and wetland types are particularly affected).
Endangered	E	Contracted to less than 10% of former range; OR Less than 10% pre-European extent remains; OR Combination of depletion, degradation, current threats and rarity is comparable overall to the above: <ul style="list-style-type: none"> • 10 to 30% pre-European extent remains and severely degraded over a majority of this area; or

Category	Status Code	Criteria
		<ul style="list-style-type: none"> naturally restricted EVC reduced to 30% or less of former range and moderately degraded over a majority of this area; or rare EVC cleared and/or moderately degraded over a majority of former area.
Vulnerable	V	10 to 30% pre-European extent remains; OR Combination of depletion, degradation, current threats and rarity is comparable overall to the above: <ul style="list-style-type: none"> greater than 30% and up to 50% pre-European extent remains and moderately degraded over a majority of this area; or greater than 50% pre-European extent remains and severely degraded over a majority of this area; or naturally restricted EVC where greater than 30% pre-European extent remains and moderately degraded over a majority of this area; or rare EVC cleared and/or moderately degraded over a minority of former area.
Depleted	D	Greater than 30% and up to 50% pre-European extent remains; OR Combination of depletion, degradation and current threats is comparable overall to the above; and: <div style="border: 2px solid red; padding: 5px; margin: 5px 0;"> <p style="color: red; text-align: center; font-weight: bold;">This copied document to be made available for the sole purpose of enabling its consideration and review as part of a planning process under the Planning and Environment Act 1987. The document must not be used for any purpose which may breach any copyright</p> </div> <ul style="list-style-type: none"> greater than 50% pre-European extent remains and moderately degraded over a majority of this area.
Rare	R	Rare EVC (as defined by geographic occurrence) but neither depleted, degraded nor currently threatened to an extent that would qualify as Endangered, Vulnerable or Depleted. <div style="border: 2px solid red; padding: 5px; margin: 5px 0;"> <p style="color: red; text-align: center; font-weight: bold;">The document must not be used for any purpose which may breach any copyright</p> </div>
Least Concern	LC	Greater than 50% pre-European extent remains and subject too little to no degradation over a majority of this area.

4.2.4 Habitat hectares methodology

The habitat hectare methodology compares the EVC benchmark with site attributes and landscape components to determine the vegetation site condition (DELWP, 2017b).

Each area defined as native vegetation, where the perennial ground cover is more than 25% or three or more canopy trees driplines touch forming a canopy, a habitat hectares assessment is required to be undertaken. These areas are defined as habitat zones and are identified throughout the study area. The habitat zones are divided by similarities in their habitat components and vegetation condition.

The habitat hectares results are included in Section 5.1.3.

4.3 Fauna

During the initial site assessment, incidental fauna observations were recorded. These observations included habitat features observed on site such hollows, logs and rocky areas as well fauna activity

such as sightings, scats, burrows, and warrens. No targeted surveys were undertaken as a part of this ecological assessment. Pest animal activity or sightings were included in this assessment.

During the additional second site assessment specific habitat requirements for three threatened species were assessed with any other fauna observations recorded. Details to specific habitat requirement assessment is outlined in further detail in section 4.3.1.

4.3.1 Threatened Fauna Habitat Assessment

A additional survey for threatened fauna habitat was undertaken to assess the extent of specific habitat within the project area. This assessment provides the basis to the need to undertake any additional targeted fauna surveys. Habitat requirements for each species are outlined below in Table 4-3.

Table 4-3 Threatened fauna habitat assessment requirements.

Species	Preferred habitat requirements
Pink-tailed Worm Lizard	<p>Assessment focus on location of preferred habitat requirements included:</p> <ul style="list-style-type: none"> • Areas containing native grasses dominated by Kangaroo Grass <i>Themeda australis</i> • areas preferred native grasses interspersed/intersected by rocky outcropping and/or scattered patches of partially embedded rocks
Striped Legless Lizard	<p>Assessment focus on the location of preferred habitat requirements included:</p> <ul style="list-style-type: none"> • Areas that are dominated by tussock forming native grasses • Areas that contain some surface rock that may be partially embedded • Areas of soil type that provide cracking soil refugia
Golden Sun Moth	<p>Assessment focus on the location of preferred habitat requirements included:</p> <ul style="list-style-type: none"> • Areas containing high proportion of tussock forming Wallaby Grass <i>Rytidosperma sp.</i>, Speargrass <i>Austrostipa sp.</i>, Kangaroo Grass <i>Themeda australis</i>, or secondary exotic tussock forming Chilean Needle Grass <i>Nasella neesiana</i>. • Areas with tussock forming grasses with a distinct existing inter tussock spacing.

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4.4 Mapping

Assessment features were mapped on site using a Samsung Android Geographic Information System (GIS) device through use of 'QField' a GIS collection program. ESRI aerial imagery base map was utilised for the field assessment. All data layers were sourced from the layers publicly available from the Victorian Government or provided from the client. Mapping accuracy is within 3 metres. All layers collected were georeferenced to Geographic Datum of Australia (GDA) 94 VICGrid.

5. Results

The results of the site assessment are summarised below.

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5.1 Flora

5.1.1 Ecological Vegetation Classes (EVCs) on site

The EVC on site was EVC 55_61 Plains Grassy Woodland. The description of this EVC in the Victorian Volcanic Plain bioregion is described by (DSE, 2004) as ‘An open, eucalypt woodland to 15 m tall. Occupies poorly drained, fertile soils on flat or gently undulating plains at low elevations. The understorey consists of a few sparse shrubs over a species-rich grassy and herbaceous ground layer. This variant occupies areas receiving approximately 500 – 700 mm annual rainfall.’

Habitat Zone 1a-1k

This habitat zone is comprised of several small areas (HZ1a-HZ1k) of EVC 55_61 Plains Grassy Woodland covering 5.27 ha within the study area. These habitat zones are recolonising native grasses interspersed with exotic pasture grasses. The native grass cover within this zone was between 25-50%. There is an absence of trees, shrubs, recruitment, and logs.

The zone was dominated by Wallaby Grasses (*Rytidosperma* sp.), Speargrass (*Austrostipa* sp.), Dock (*Rumex* sp.), Windmill Grass (*Chloris truncata*), Stonoblog (*Crassula sieberiana*), Wood Sorrel (*Oxalis perennans*). Exotic species identified within this zone included – Clover (**Trifolium repens.*), Rat Tail Fescue (**Vulpia* sp.), Ryegrass (*Lolium perenne.*), Catsear (**Hypochaeris radicata*), Barley Grass (**Hordeum marmum*), Cocksfoot (**Dactylis glomerata*), Sow thistle (**Sonchus oleraceus*) and Giant Brome (**Bromus diandrus*).



Figure 5-1. EVC 55_61 Plains Grassy Woodland.

Habitat 2a-2d

This habitat zone is comprised of three areas (HZ2a – HZ2d) of EVC 55_61 Plains Grassy Woodland covering 13.5 ha. These habitat zones are native grasses interspersed with exotic pasture grasses. The native grass cover within this zone was >50%. There were 2 River Red Gums (*Eucalyptus camaldulensis*), some stags and large logs scattered throughout these areas. There was absence of recruitment and shrubs.

The native grasses and herbs included Wallaby Grasses (*Rytidosperma sp.*), Speargrass (*Austrostipa sp.*), Dock (*Rumex sp.*), Windmill Grass (*Chloris truncata*), Stonecrop (*Crassula sieberiana*), Wood Sorrel (*Oxalis perennans*), Kidney Weed (*Dichondra repens*) and Common Everlasting (*Chrysocephalum apiculatum*). Exotic species identified within this zone included – Clover (**Trifolium repens.*), Rat Tail Fescue (**Vulpia sp.*), Ryegrass (**Lolium perenne.*), Catsear (**Hypochaeris radicata*), Barley Grass (**Hordeum marinum*), Cocksfoot (**Dactylis glomerata*), Sow thistle (**Sonchus oleraceus*) and Giant Brome (**Bromus diandrus*).



Figure 5-2. EVC 55_61 Plains Grassy Woodland.

A flora species list from the site assessment can be found in Appendix A.

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5.1.2 Large scattered trees

One large scattered tree is located within the Development Footprint. The large tree is a stag (dead tree) with a DBH of 129cm. The large tree is hollow bearing containing 1 large, 1 medium and 1 small hollow. The large tree would be impacted by the proposed works and therefore, requires an offset.

There were several scattered trees across the study area. However, through detailed design these were avoided by the proposal Solar Farm.



Figure 5-3. Large tree stag in Development Footprint.

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5.1.3 Habitat hectare results

Table 5-1 presents the habitat hectare results for habitat zone 1 and 2.

Table 5-1 Habitat hectare scores for habitat zones 1 and 2.

Habitat Components	Score	Habitat Zone 1a-1k	Habitat Zone 2a-2d
Site Condition Score			
EVC		55_61	55_61
Large Trees	10	0	0
Tree Canopy Cover	5	0	0
Understorey	25	5	5
Lack of Weeds	15	6	9
Recruitment	10	0	0
Organic Litter	5	3	3
Logs	5	0	5
Standardiser	1	1	1
Site Condition Score Total		14	22
Landscape Context Score			
Patch Size	10	1	1
Neighbourhood	10	0	0
Distance to Core Area	5	1	1
Final Habitat Score		16	24
Percentile Score		0.16	0.24
Area (hectares) Study Area		5.27	13.5
Area (ha) Development Footprint		0.001	0.00

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5.1.4 Planted Vegetation

Planted vegetation was identified to the across the study area. The planted vegetation was Sugar Gum (*Eucalyptus cladocalyx*), Radiata Pine (*Pinus Radiata*), Peppercorn (*Schinus molle*), Spotted Gum (*Corymbia maculata*) and mixed native and exotic shelter belts between the dwelling and the historic shearing shed.

The Spotted Gum (*Corymbia maculata*) is planted on boundary of Ballan-Geelong Road (inside the fence boundary). A section of this will be impacted for the entrance to the proposed Solar Farm, however no offset is required for this vegetation removal.

The remaining planted vegetation will not be impacted by the proposed Solar Farm and therefore, do not require offset.

The planted vegetation is shown in Figure 5-4.

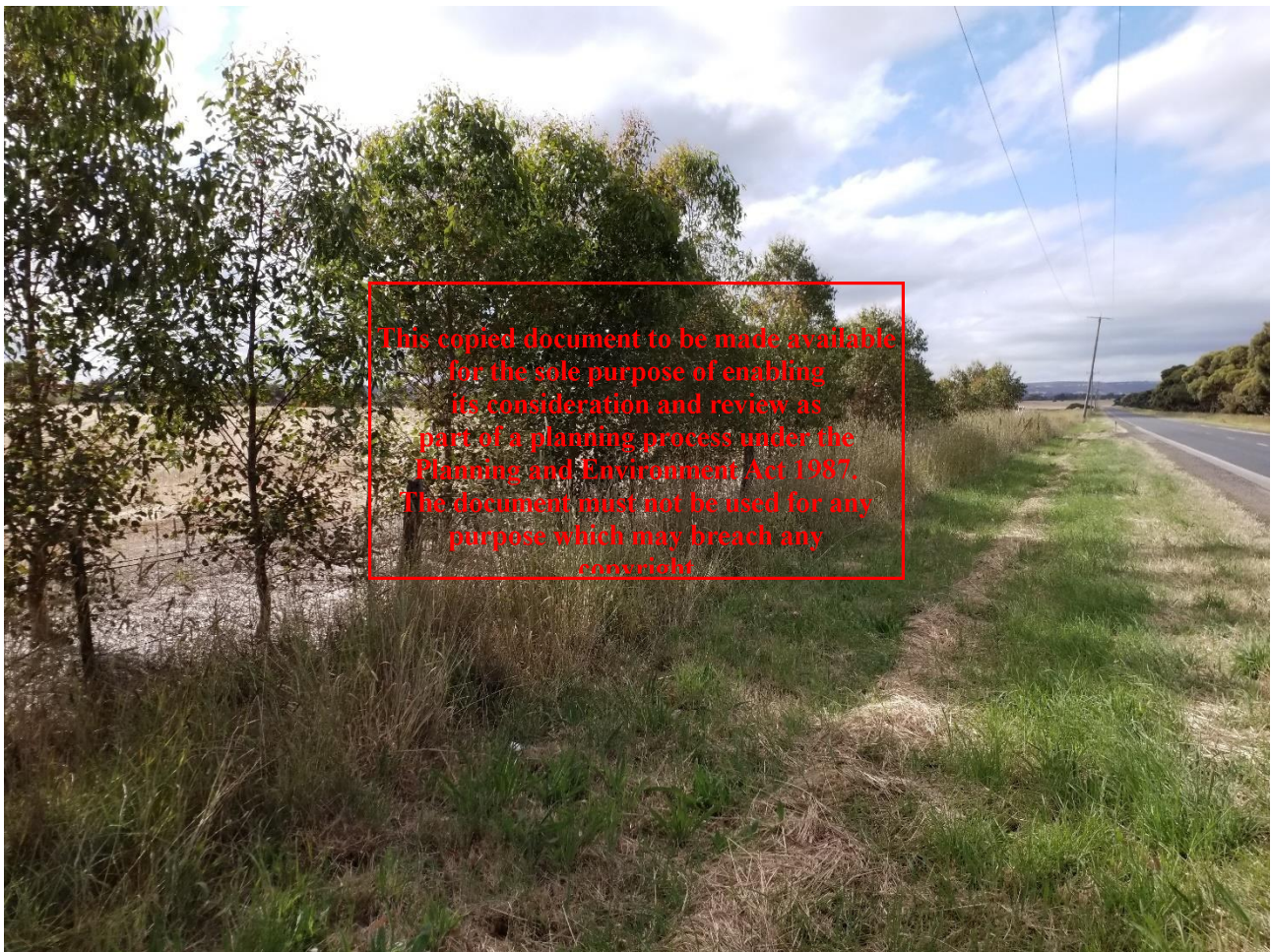


Figure 5-4. Planted Eucalypts on boundary of Geelong Ballan Road.

5.1.5 Exotic pasture grasses

Majority of the Development Footprint was comprised of exotic vegetation, where the existing Development Footprint has been utilised for grazing of livestock. The exotic vegetation occurs in the form of grassland and was dominated by Cocksfoot (**Dactylis glomerata*), Barley Grass (**Hordeum sp.*), Giant Brome (**Bromus diandrus*) and Ryegrass (**Lolium perenne*). Less than 25% of this area was identified as containing native species. Some native species including Wallaby Grasses (*Rytidosperma sp.*) and Spear grass (*Austrostipa sp.*) occurred in low densities.



Figure 5-5. Exotic pastures.

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Figure 5-6. Vegetation in the study area

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5.1.6 Threatened Flora

No threatened flora were identified during the site assessment. However, due to the season, climatic conditions and timing of the site assessment, not all threatened flora species may have been present or identifiable.

A list detailing all flora species identified during the site assessment is located within Appendix A. It is important to note that, to determine a comprehensive flora list for the Development Footprint, multiple surveys over different seasons, climatic conditions and timeframes throughout the year would be required.

5.1.7 Threatened flora records

A search of the Victorian Biodiversity Atlas found seven flora within 5kms of the proposal area. These were:

- Fragrant Saltbush *Rhagodia parabolica* FFG – Vulnerable
- Giant Honey-myrtle *Melaleuca armillaris subsp. Armillaris* FFG – Endangered
- Gum-barked Bundy *Eucalyptus gonicalyx subsp. laxa* FFG – Endangered
- Melbourne Yellow-Gum *Eucalyptus leucoxydon subsp. connata* FFG – Endangered
- Snowy Mint-Bush *Prostanthera inversa var. nivea* FFG – Vulnerable
- Swamp Bush-pea *Pultanea weindorferi* FFG – Endangered
- Velvet Daisy-bush *Olearia panhosa subsp. cardiophylla* FFG – Endangered
- Wiry Bossiaea *Bossiaea cordigera* FFG – Endangered

A search of the EPBC Act Protected Matters Search Tool (PMST) with a 5km buffer from the proposal area would find an additional 17 threatened flora species with the potential to occur within the proposal area.

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An assessment of threatened flora species was completed within Appendix B.

5.2 Threatened communities

Each EVC has a bioregional conservation status. Within the Victorian Volcanic Plain bioregion, EVC 55_61 Plains Grassy Woodland is listed as Endangered.

The FFG listed community *Western Basalt Plains (River Red Gum) Grassy Woodland* occurred on site in the form of EVC 55_61 Habitat zones 1 and 2. Habitat Zone 1a-1k is highly modified with evidence of pasture improvement and continuous grazing. The shrub and Eucalypt layer is largely absent. Habitat zones 2a-2d contained 1 River Red Gum *Eucalyptus camaldulensis* higher cover of native grasses (>50%). There was evidence of historic Eucalypt cover with stags and large logs.

Any areas impacted by this proposal will be offset and this is covered in Section 6.

Habitat Zones 2a-2d are likely to form part of the EPBC Act listed *Grassy Eucalypt Woodland of the Victorian Volcanic Plain*. The EPBC assessment is covered in more detail in Section 5.5.1.

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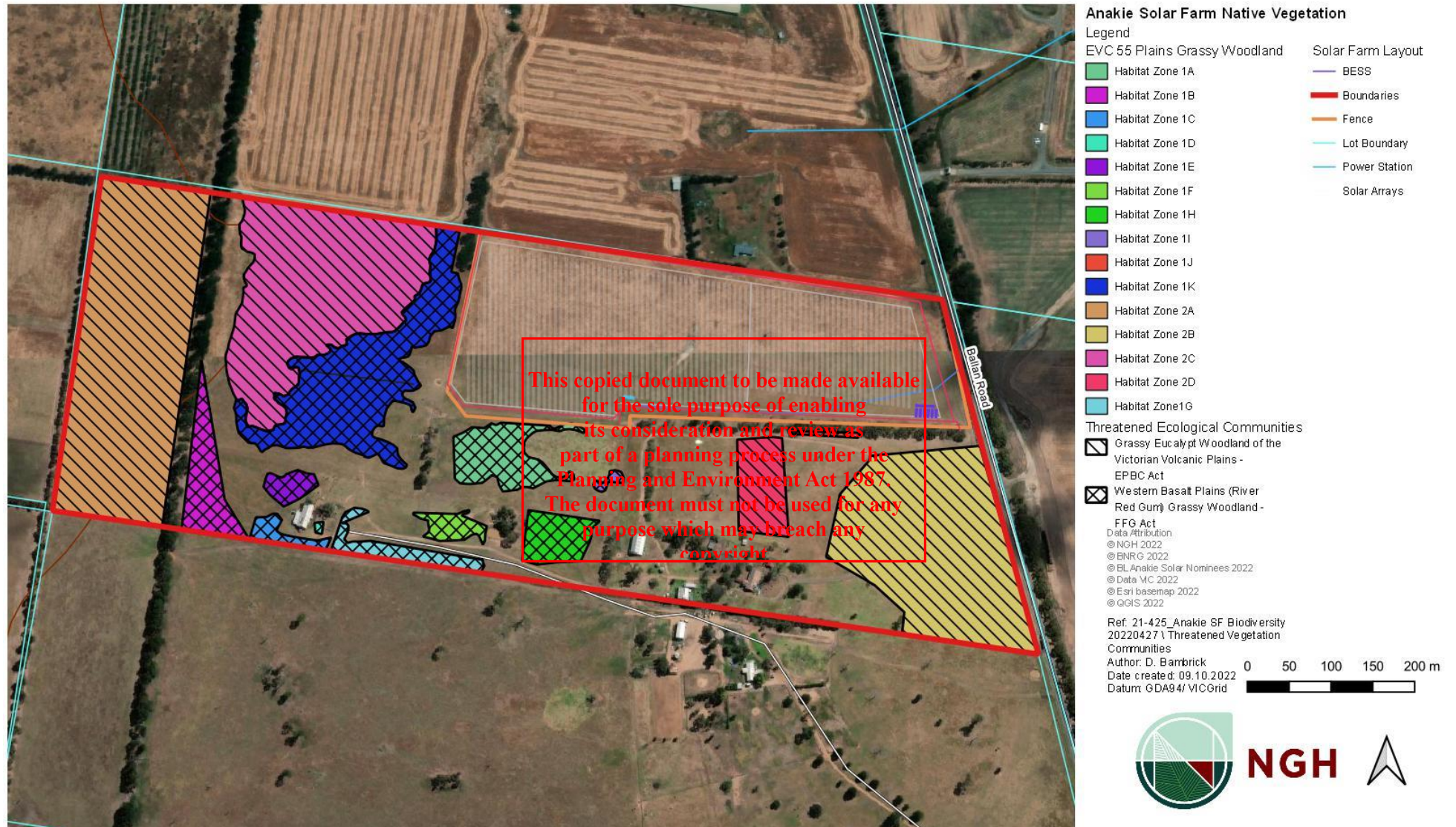


Figure 5-7 Threatened Communities within the Study Area

5.3 Fauna

Seven avian species were observed during the site assessment. The results of the incidental fauna observations, collected whilst on site, are listed in the Table 5-2 below.

Table 5-2 Incidental fauna observed during site visit.

Scientific Name	Common Name	Status
<i>Threskiornis spinicollis</i>	Straw-necked Ibis	Least Concern
<i>Corvus sp.</i>	Raven	Least Concern
<i>Cacatua galerita</i>	Sulphur-crested Cockatoo	Least Concern
<i>Eolophus roseicapilla</i>	Galah	Least Concern
<i>Anthochaera carunculata</i>	Red Wattlebird	Least Concern
<i>Rhipidura leucophrys</i>	Willy Wagtail	Least Concern
<i>Gymnorhina tibicen</i>	Australian Magpie	Least Concern

5.3.1 Fauna habitat features

Within the Development Footprint, the following fauna habitat features were identified:

- Native grassland
- Exotic grassland
- Depressions
- Rocky habitat (very limited natural areas – small number artificial created rock piles)
- Fallen timber and hollow logs
- Stag (dead) hollow-bearing tree (HBT)
- Planted native woodland

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Native and exotic grasslands provide foraging resources for fauna species. Native grasses hold a higher foraging resource value for fauna species than exotic grasses.

Depressions can be seen within the satellite imagery; these areas can retain water during prolonged wet periods or seasonal downfalls. Depressions, when retaining water can provide drinking resources for most fauna species, breeding resources for amphibious species and foraging resources for wetland birds.

Rocky habitat provides a heat source for reptile species, as well as shelter and foraging locations. Many reptile species are dependent on or frequently utilise rocky habitat.

Fallen timber and hollow logs are utilised for foraging by a range of fauna species including ground foraging birds and reptiles. Fallen timber provides habitat for invertebrate species which are a key foraging resource for many fauna species. Hollow logs are used for shelter and breeding by fauna species.

Tree hollows are cavities formed in the trunk or branches of a live or dead tree. Hollows usually take a long time to form, and in particular, large hollows may only occur in very large, old trees

(100 – 150 years plus in age). Hollow-bearing trees provide resources for wildlife for foraging, shelter, roosting and nesting. However, trees which contain hollows are particularly important for those species of animals, including many threatened species, which specifically require such hollows for shelter and nesting. These animals are termed 'hollow-dependent' in that they require hollows as a key component of their habitat either on a daily or seasonal basis (DoEE, 2007).

Planted woodland provides foraging and breeding resources for woodland species. Planted woodland aids in re-connecting patches of remnant woodland, increasing connectivity within the landscape. Many species, especially birds, utilise woodland for nesting. Eucalyptus trees, provide nectar when in flower. Insect species, such as lerps, are known to occur on these trees and are utilised for foraging by many bird species. Sap of eucalyptus trees is used as a foraging resource by mammal species such as gliders and possums. Depending upon the preferred tree species leaves are a food source for Koalas.

5.3.2 Threatened fauna records

A search of the Victorian Biodiversity Atlas found, there were 17 species that were either recorded within 5km of the study area or are likely to occur in the locality. All these species were avian and included one migratory bird.

Of these 17 threatened fauna species, it was determined that three threatened fauna species have a low-moderate likelihood of being impacted by the proposal based on the habitat suitability on site and the surrounding cropped paddocks. Further habitat assessment was undertaken on site by an NGH Senior Ecologist and the results are outlined below.

No fauna species were considered moderate or high likelihood of occurring on site. No threatened fauna species were recorded during the site assessment.

The likelihood of all threatened fauna species occurring at the site is evaluated in Appendix B.

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5.3.3 Threatened Fauna Habitat Survey Results

An assessment was completed on the 14th-15th June 2022 to determine potential habitat for Golden Sun Moth, Pink-tailed Worm Lizard and Striped Legless Lizard in areas identified as EVC 55_61 Plains Grassy Woodland in the area surrounding the Development Footprint.

The habitat assessment was undertaken to ensure any threat for these three species was identified and steps to avoid or minimise any unnecessary any impacts to these species.

The threatened fauna habitat areas identified correspond with habitat zones of EVC 55 shown as Habitat Zones 1a, 1k and 2c in Figure 5-7 in the immediate vicinity of the proposed development footprint.

Pink-tailed Worm Lizard (PtWL)

The additional site assessment for the PtWL found no areas of Kangaroo dominated native grassland and/or area of native grassland interspersed with naturally occurring rock outcrop or partially embedded patches of surface rock. Only individual fully embedded surface rocks were located in the northwest section of the study area outside the current proposal development footprint.

No suitable habitat exists for the Pink-tailed Worm Lizard within the proposed development footprint therefore no PtWL habitat would be impacted.

Striped Legless Lizard (SLL)

EVC 55 Habitat zone 2c (refer Figure 5-7) are considered by default as suitable habitat for the SLL, based on their higher proportional of native grasses. EVC 55 habitat zones 1a and 1k contain only minimum threshold of 25% native grasses that are heavily dominated by introduced pasture grass species. These areas are not considered to be SLL habitat. No suitable naturally/ or artificially partially buried rock was found within any the mapped habitat zones or within the development footprint. The only individual fully embedded surface rock occurred the northwest section of the study area outside the current proposal development footprint.

SLL habitat is only considered to be present in Habitat Zone 2c all of which have been avoided and are outside the proposed development footprint. No suitable habitat exists for the Striped Legless Lizard within the proposed development footprint therefore no SLL habitat would be impacted.

Golden Sun Moth (GSM)

Habitat Zone 2c (refer to Figure 5-7) was by default considered to be suitable habitat for the GSM based on the higher proportion of native grasses that contained both Wallaby Grass *Rytidosperma sp.* and Speargrass *Austrostipa sp.* Habitat zones 1a and 1k were found to be only marginal habitat for the Golden Sun Moth given their minimum 25% cover of native grasses (primarily Wallaby Grass (*Rytidosperma sp.*) with no inter-tussock spacing and dominated by annual pasture grass species. Only 0.001 ha (i.e., 6m²) of mapped Golden Sun Moth marginal habitat within Habitat Zone 1a would be impacted.

The GSM has not been recorded within or in immediate vicinity of the study area. Further Targeted surveys for the Golden Sun Moth are not required. Significant changes to detailed design has been able to avoid all identified suitable and marginal habitat for the Golden Sun Moth with the exception of a very small 0.001 ha (6m²) area of marginal habitat that will be impacted. This very small area did not register any potential impact or offset requirement in the NVR report (refer to Appendix D). Similarly, marginal habitat was attributed to areas that, while they may have contained 25% of native grasses (mostly regenerated Wallaby Grass (*Rytidosperma sp.*)) with no inter-tussock spacing the area of 6m² of marginal habitat could not support a population of Golden Sun Moth.

5.3.4 Further targeted surveys

No further targeted surveys for threatened fauna area required. The area that met the threshold for the EBPC listed community by default represents suitable habitat for Golden Sun Moth, Pink-tailed Legless Lizard and Striped Legless Lizard. The proposal has avoided any impact to this area therefore no target surveys for these species are required.

5.4 Declared weeds and pest animals

5.4.1 Noxious weeds identified on site

The noxious weeds found on site are listed in Table 5-3.

Table 5-3 Declared noxious weeds in the study area.

Scientific Name	Common Name	Status
<i>Hypericum perforatum</i>	St Johns Wort	Regionally Controlled
<i>Marrubium vulgare</i>	Horehound	Regionally Controlled

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<i>Carthamus lanatus</i>	Saffron Thistle	Regionally Controlled
<i>Cirsium vulgare</i>	Spear thistle	Restricted
<i>Nassella trichotoma</i>	Serrated Tussock	Regionally Controlled
<i>Nassella neesiana</i>	Chilean Needle Grass	Restricted

5.4.2 Declared pest animals

There was no evidence of declared pest animals observed on site. However, it is likely that the Red Fox (*Vulpes vulpes*) and European Rabbit (*Oryctolagus cuniculus*) are present within the area.

5.5 Matters of National Environmental Significance

Under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act), actions that have, or are likely to have, a significant impact on a Matter of National Environmental Significance require approval from the Australian Government Minister for the Environment (the Minister). The Minister will decide whether assessment and approval is required under the EPBC Act.

The nine matters of national environmental significance protected under the EPBC Act are:

- a) world heritage properties
- b) national heritage places
- c) wetlands of international importance (listed under the Ramsar Convention)
- d) listed threatened species and ecological communities
- e) migratory species protected under international agreements
- f) Commonwealth marine areas
- g) the Great Barrier Reef Marine Park
- h) nuclear actions (including uranium mines)
- i) a water resource, in relation to coal seam gas development and large coal mining development

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The matter relevant to the site is (d) listed threatened species and ecological communities. These matters are discussed below.

5.5.1 Threatened communities

There were five threatened ecological communities identified in the Matters of National Significance search. These communities are listed in Table 5-4 below.

Table 5-4 MNES search results for Threatened Communities

Community Name	Threatened Status	Occurrence	Study Area	Development Footprint
Grassy Eucalypt Woodland of the Victorian Volcanic Plain	CE	Community known to occur within area	Present in the study area. See Figure 5-7.	Absent

White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland	CE	Community likely to occur within area	Absent	Absent
Natural Temperate Grassland of the Victorian Volcanic Plain	CE	Community likely to occur within area	Absent	Absent
Seasonal Herbaceous Wetlands (Freshwater) of the Temperate Lowland Plains	CE	Community likely to occur within area	Absent	Absent

5.5.2 Further survey work

If any EPBC vegetation communities are proposed to be impacted an EPBC referral may be required. The proposed design does not impact any area of EPBC Act listed vegetation community therefore does not require an EPBC referral.

5.5.3 RAMSAR wetlands

The Port Phillip Bay (western shoreline) and Bellarine Peninsula RAMSAR wetland is identified within the PMST report as 'within 10km' of the proposal area. This RAMSAR site is not within the 5km search of the proposed works.

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5.5.4 Threatened flora

The MNES search shows there were 17 flora species found within the 5 km buffer. None of these species were recorded on site. One species, the Matted Flax lily *Dianella amoena*, was determined to have a low-moderate likelihood of occurring on site.

5.5.5 Threatened fauna

From the MNES search results, the following records of nationally threatened fauna are:

- Birds – 13
- Fish – 3
- Amphibians – 1
- Invertebrates – 1
- Mammals – 3
- Reptiles – 3
- Migratory – 12

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Three EPBC Act listed species (Striped Legless Lizard, Golden Sun Moth and Pink-tailed Legless Lizard) were determined to have a potential habitat as occurring on site. The findings of this survey results are outlined in 5.3.3. Habitat for these species is restricted to the western section of EPBC listed community and is not impacted by the proposal. Golden Sun Moth was determined to be the only fauna species with a low-moderate likelihood of occurring on site.

Appendix B includes the likelihood of these species occurring within the study area. All other MNES fauna species are considered to have a low likelihood of being impacted by the proposal.

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6. Proposed native vegetation removal

6.1 Proposed native vegetation assessment pathway

The native vegetation impact assessment determines the offset requirements for the vegetation loss that cannot be avoided or minimised due to the proposed development. Table 6-1 outlines the assessment pathway for the native vegetation impacts to meet the requirements of Clause 52.17 for a planning permit application.

Table 6-1 Planning permit requirements for native vegetation removal

Criteria	Assessment Pathway		Scattered trees or large trees in a patch	Report Section
	Basic/ Intermediate Pathway	Detailed Pathway		
Has the assessment pathway and reason for the assessment pathway been determined? Has the location category of the native vegetation proposed to be removed been identified?	Location is 1 and 2, <0.5ha is to be removed and one large tree.	No	N/A	This section
A description of the native vegetation to be removed	Yes	N/A	N/A	Section 5.1
Maps showing the native vegetation	Yes	N/A	N/A	Section 5.1
The offset requirement determined in accordance with section 5 of the Guidelines.	Yes	N/A	N/A	Section 6.4
Topographic and land information relating to the native vegetation to be removed, showing ridges, crests and hilltops, wetlands and waterways, slopes of more than 20 percent, drainage lines, low lying areas, saline discharge areas, and areas of existing erosion, as appropriate.	Yes	N/A	N/A	Figure 1-1
Recent, dated photographs of the native vegetation.	Yes	N/A	N/A	Section 5.1
Details of any other native vegetation approved to be removed, or that was removed without the required approvals, on the same property or on contiguous land in the same ownership as the applicant, in the five year period before the application for a permit is lodged.	No recent planning permit application to remove of native vegetation	No recent planning permit application to remove of native vegetation	No recent planning permit application to remove of native vegetation	NA
An avoid and minimise statement. The statement describes any efforts to avoid the removal of and minimise the impacts on the biodiversity and other values of native vegetation, and how these efforts focussed on areas of native vegetation that have the most value.	Yes	N/A	N/A	Section 6.2
A copy of any Property Vegetation Plan contained within an agreement made pursuant to section 69 of the <i>Conservation, Forests and Lands Act 1987</i> that applies to the native vegetation to be removed	N/A	N/A	N/A	N/A

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Criteria	Assessment Pathway		Scattered trees or large trees in a patch	Report Section
	Basic/ Intermediate Pathway	Detailed Pathway		
Where the removal of native vegetation is to create defensible space, a written statement explaining why the removal of native vegetation is necessary. This is not required when the creation of defensible space is in conjunction with an application under the Bushfire Management Overlay.	N/A	N/A	N/A	N/A
If the application is under Clause 52.16, a statement that explains how the proposal responds to the Native Vegetation Precinct Plan considerations at decision guideline 6.	N/A	N/A	N/A	N/A
An offset statement explaining that an offset that meets the offset requirements for the native vegetation to be removed has been identified and how it will be secured.	Yes	N/A	N/A	Section 6.4
A site assessment report of the native vegetation to be removed, completed by an accredited native vegetation assessor.	Yes	N/A	N/A	This report
Information about impacts on rare or threatened species habitat.	Yes	N/A	N/A	Section 5

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6.2 Avoid and minimise statement

Steps to avoid and minimise unnecessary impacts on native vegetation within the study area include:

- The proposed Development Footprint was modified and reduced to avoid native vegetation.
- The impact area is confined to the Development Footprint. This includes all areas within the 'project fence line' and access road to the 'project fence line'.
- The boundary plantings will be retained.
- 'Extent of Works' fencing during construction or erect signage to say 'no-go zones' tree protection areas.
- Mitigation measures to minimise the biodiversity loss includes:
 - Take steps necessary to avoid harm or injury to wildlife.
 - Fauna salvage prior to tree removal.
 - A suitably qualified ecologist or wildlife handler on site during tree removal or removal of the vegetation, habitat features (e.g., logs and rocky habitat), and HBT.
 - Two-factor HBT removal protocol to be established.
 - Implement an unexpected threatened species find protocol prior to and during construction works.

6.3 Native vegetation removal report

The impacted native vegetation includes 0.001 hectares for the proposed installation of a Sub-5 Mega Watt (MW) battery supported solar farm.

A native vegetation removal report was completed on 13/07/2022. As this is a detailed assessment, the native vegetation removal report must be submitted to DELWP using scenario testing software called EnSym. DELWP release the Native Vegetation Removal Report which provided the following assessment pathway information in Table 6-2 and the offset requirements in Table 6-3.

The information provided in Table 6-3 outlines the offset requirements for the offset strategy. The offset strategy is discussed in the next section.

Figure 6-1 shows the native vegetation proposed to be removed.

Table 6-2 Assessment pathway

Assessment Pathway	Basic Assessment Pathway
Extent of native vegetation removal	0.071 (hectares)
Extent of past removal	0 (hectares)
Extent of proposed removal	0.071 (hectares)
Number of large trees	1
Location category	Location 1

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Table 6-3 Offset Requirements

Offset Items	Offset Requirements
General offset amount	0.014 General Habitat Units
Vicinity	Corangamite Catchment Management Authority (CMA) or Greater Geelong City Council
Minimum strategic biodiversity value score	0.288
Large trees	1

6.4 Offset strategy

As part of the planning permit application, evidence must be shown to the responsible authority that steps have been undertaken to ensure an offset is secured. Offsets for native vegetation removal in Victoria can be secured in two ways - first party offset or a third-party offset. The first party offset involves setting up the offset on private property i.e., the same property where the proposed removal is occurring. The requirements are outlined in Section 6.4.1.

Third party offsets are purchased through a broker and this is outlined in Section 6.4.2.

6.4.1 First party offsets

No first party offset will be undertaken for this proposal.

6.4.2 Third party offsets

A third party offset can be purchased through a credited broker (in the form of a third offset quote) and provided to the responsible authority as part of a planning permit application.

As identified in Table 6-3 the offset requirements for 0.014 General Habitat Units must be located in the Corangamite Catchment Management Authority (CMA) or Greater Geelong City Council and have a minimum strategic biodiversity value score of 0.288.

A third party offset quote was obtained from Vegetation Link and this is included in Appendix F.

If approval is granted for the native vegetation removal, the third party offset quote must be secured and the credit extract provided to the responsible authority i.e., the credit extract is provided to the applicant once the quote has been purchased.

Further information about accredited credit brokers can be found here:

<https://www.environment.vic.gov.au/native-vegetation/native-vegetation/offsets-for-the-removal-of-native-vegetation/i-need-to-secure-an-offset>

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Figure 6-1. Native Vegetation Requiring Offset

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7. Mitigation measures

The following mitigation measures are recommended prior to construction to reduce impacts to biodiversity.

The mitigation measures include:

- The impact area is confined to the Development Footprint. This includes all areas within the 'project fence line' and access road to the 'project fence line'.
- No areas outside the Development Footprint will be impacted, including vehicle movements. Any increase to the Development Footprint would require re-assessment of offset impacts and ecological impacts.
- The boundary plantings will be retained.
- 'Extent of Works' fencing during construction or erect signage to say 'no-go zones' tree protection areas.
- Mitigation measures to minimise the biodiversity loss includes:
 - Take steps necessary to avoid harm or injury to wildlife.
 - Fauna salvage prior to tree removal.
 - A suitably qualified ecologist or wildlife handler on site during tree removal or removal of the vegetation, habitat features (e.g., logs and rocky habitat), and HBT.
- An unexpected threatened species finds protocol should be implemented. If a species is identified during the construction phase that is suspected of being a threatened species, all works would stop to allow assessment of the species by a suitability qualified person prior to continuation.
- No stockpile locations for imported material outside of the defined Development Footprint were identified as part of the assessment scope. No stockpiling of any materials would occur outside the Development Footprint.
- All machinery and plant equipment will be cleaned using a high-pressure washer (or other suitable device) prior to entering work sites.
 - Any exotic plant material containing seed heads, including topsoil containing weed propagules, will be disposed of at an appropriate waste management facility or otherwise properly treated to prevent weed spread.
- Herbicides will be used in accordance with the requirements on the label. Any person undertaking herbicide application will be trained to do so and have the proper certificate of completion/competency or statement of attainment issued by a registered training organisation.
- Any fallen timber encountered on site will be left in situ wherever possible or relocated to a suitable place nearby.
 - Fallen timber will not be 'pushed' into surrounding vegetation and would be 'lifted' and 'placed' to avoid unnecessary disturbance.
 - Any Coarse Woody Debris (CWD) created from the proposed works would be placed in surrounding vegetation.
 - Any CWD mulched would be spread thinly <100mm deep in surrounding vegetation.
- Erosion and run-off control works, as well as rehabilitation and stabilisation measures, would be undertaken where necessary.

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8. Conclusion

The proposed native vegetation removal requiring offsets includes 0.071 hectares of EVC 55_61 Plains Grassy Woodland for the proposed installation of a Sub-5 Mega Watt (MW) battery supported solar farm.

The following offset requirements needed in the offset strategy:

- General offset amount – 0.014 General Habitat Units
- Vicinity - Corangamite Catchment Management Authority (CMA) or Greater Geelong City Council
- Minimum strategic biodiversity value score – 0.288
- Large trees -1

If a permit is granted, the next step involves securing third party offset and contacting Vegetation Link to enter into a purchase agreement.

In consideration of the native vegetation removal mitigation measures should be considered during construction.

Under ESO4, no land and environmental management plan has been completed as a part of ecology assessment. Under this ESO, the proposed native vegetation impacts will be offset and weed and pest animal management will occur as part of ongoing management for the development site. If approval for this project is supported the landscape plan may be able to address the requirements for this plan.

There is currently no impact proposed to the EPBC Grassy Eucalypt Woodland in Victorian Volcanic Plains and therefore no EPBC referral is required.

At total of 0.001 ha of marginal habitat for the Golden Sun Moth would be impacted by the proposed works. No targeted survey for the Golden Sun Moth is required, however an unexpected finds protocol is to be implemented as part of the recommended mitigation measures. There is no further requirement recommended for targeted survey for either the Striped Legless Lizard and Pink-tailed Worm Lizard.

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Appendix A Flora Species List

E – Exotic; P- Planted, N – Native;

Scientific Name	Common Name	Status	CaLP weed listing status
<i>Eucalyptus camaldulensis</i>	River Red Gum	N	
<i>Crassula sieberiana</i>	Stonecrop	N	
<i>Dichondra repens</i>	Kidney Weed	N	
<i>Microlaena stipoides</i>	Weeping Grass	N	
<i>Nassella neesiana</i>	Chilean Needle Grass	E	Restricted
<i>Chrysocephalum apiculatum</i>	Common Everlasting	N	
<i>Hypochaeris radicata</i>	Catsear	E	
<i>Dactylis glomerata</i>	Cocks foot	E	
<i>Setaria sp.</i>	Bristle Grass	E	
<i>Bromus diandrus</i>	Giant Brome	E	
<i>Solanum nigrum</i>	Black Nightshade	E	
<i>Carthamus lanatus</i>	Saffron Thistle	E	Regionally Controlled
<i>Urtica dioica</i>	Stinging Nettle	E	
<i>Hypericum perforatum</i>	St John's Wort	E	Regionally Controlled
<i>Oxalis perennans</i>	Grassland Wood-sorrel	N	
<i>Rytidosperma sp.</i>	Wallaby Grass	N	
<i>Austrostipa sp.</i>	Spear Grass	N	
<i>Hordeum leporinum</i>	Barley grass	E	
<i>Cirsium vulgare</i>	Spear thistle	E	Restricted
<i>Sonchus oleraceus</i>	Sow thistle	E	
<i>Trifolium sp.</i>	Clover	E	
<i>Chloris truncata</i>	Windmill Grass	N	
<i>Rumex sp.</i>	Dock	N	
<i>Vulpia sp.</i>	Fescue	E	
<i>Lolium perennans</i>	Rye Grass	E	
<i>Marrubium vulgare</i>	Horehound	E	Regionally Controlled
<i>Nassella trichotoma</i>	Serrated Tussock	E	Regionally Controlled

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Appendix B Threatened Species

Presence of Habitat

Present	Potential or known foraging, roosting, nesting, refuge, movement corridor (including movement of genetic material) or other habitat is present within the study area
Marginal	Limited habitat with some features that may be used by species within the study area
Absent	No potential foraging, roosting, nesting or other habitat is present within the study area.

Likelihood of Occurrence

Low	It is unlikely that the species inhabits the study area and has not been recorded recently in the locality (10km). It may be an occasional visitor, but habitat similar to the study area is widely distributed in the local area, meaning that the species is not dependent (i.e., for breeding or important life cycle periods such as winter flowering resources) on available habitat. Specific habitat is not present in the study area, or the species are a non-cryptic perennial flora species that were specifically targeted by surveys and not recorded.
Moderate	Potential habitat is present in the study area. Species unlikely to maintain sedentary populations, however, may seasonally use resources within the study area opportunistically or during migration. The species is unlikely to be dependent (i.e., for breeding or important life cycle periods such as winter flowering resources) on habitat within the study area, or habitat is in a modified or degraded state. Includes cryptic flowering flora species that were not seasonally targeted by surveys and that have not been recorded.
High	It is highly likely that a species inhabits the study area and is dependent on identified suitable habitat (i.e., for breeding or important life cycle periods such as winter flowering resources), has been recorded recently in the locality (5km) and is known or likely to maintain resident populations in the study area. Also includes species known or likely to visit the study area during regular seasonal movements or migration.
Recorded	Species was recorded during the field investigations or has recorded previously

Impacts

Low	The proposal would not impact this species or its habitats.
Moderate	The proposal could impact this species or its habitats however the impacts are considered manageable such that no direct or indirect impacts are likely.
High	The proposal is likely to impact this species or its habitats.

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B.1 Threatened Flora

Scientific Name	Common Name	FFG Act	EPBC ACT	Habitat	No of Records	Presence of habitat	Likelihood of Occurrence	Possible Impact
Flora								
<i>Amphibromus fluitans</i>	Floating Swamp Wallaby-grass		V	Grows mostly in permanent swamps. The species needs wetlands which are at least moderately fertile, and which have some bare ground, conditions which are produced by seasonally fluctuating water levels. Habitats in south-western NSW include swamp margins in mud, dam, and tank beds in hard clay and in semi-dry mud of lagoons with <i>Potamogeton</i> and <i>Chamaeraphis</i> species. The species is virtually aquatic, often with only the flower heads above the water. It has been recorded recently in lagoons beside the Murray River near Cooks Lagoon (Shire of Greater Hume), Mungabarina Reserve, East Albury, at Ettamogah, Thurgoona (Charles Sturt University Campus), near Narrandera, and also further west along the Murray River near Mildura in Victoria. There is a recent record of this species near Laggan in Upper Lachlan Shire. It is also found in Victoria and in Tasmania.		Absent	Low Not recorded in the locality, no suitable habitat present.	Low
<i>Caladenia ornata</i>	Ornate Pink Fingers	E	V	Ornate Pink Fingers occurs sporadically at Portland, Cherrypool, Lake Lyness and Stawell in south west Victoria. This species also occurs in the south east of South Australia. It is known from approximately 500 individuals in 19 populations. This species occurs within the Glenelg Hopkins (Victoria) and South East (South Australia) Natural Resource Management Regions. Ornate Pink Fingers grow in heathlands, woodlands and heathy woodlands in seasonally moist sand and clay loams. This species has been previously recorded from Grampians National Park (NP), Little Desert NP, Lower Glenelg NP, Mt Richmond NP, Padthaway Conservation Park, Black Range State Park, Three Jacks Flora and Fauna Reserve and Deep Lead Nature Conservation Reserve.		Marginal	Low Not recorded in the locality, some marginal habitat present. Species not considered likely to occur.	Low
<i>Caladenia pumila</i>	Dwarf Spider-orchid	CE	CE	Two Dwarf Spider-orchid plants were found in a Parks Victoria reserve in the greater Geelong region in late 2009. In an attempt to protect the plants, their location is being kept confidential by the Victorian Government. Prior to 2009, the Dwarf Spider-orchid was considered extinct and had not been		Marginal	Low Not recorded in the locality, some marginal habitat present. Species not considered	Low

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Scientific Name	Common Name	FFG Act	EPBC ACT	Habitat	No of Records	Presence of habitat	Likelihood of Occurrence	Possible Impact
				observed since 1926. It was discovered in 1922 at Bannockburn, approximately 22 km north-west of Geelong, Victoria. It was very localised in its distribution, having been recorded from only one district in Victoria. Bishop's (1996) description of the species occurring, near Murtoa and west of Inglewood, is in error.			likely to occur.	
<i>Dodonaea procumbens</i>	Trailing Hopbush		V	Found in the dry areas of the Monaro, between Michelago and Dalgety. Here it occurs mostly in Natural Temperate Grassland or Snow Gum Eucalyptus pauciflora Woodland. Grows in open bare patches where there is little competition from other species. Found on sandy-clay soils, usually on or near vertically tilted shale outcrops. There is one population at Lake Bathurst (the northern-most occurrence of the species). Here it occurs in adjacent to the lake bed in grassland dominated by Corkscrew Grass <i>Austrostipa scabra</i> and Curly Sedge <i>Carex bichenoviana</i> . Also occurs in South Australia and Victoria.		Marginal	Low Not recorded in the locality, some marginal habitat present. Species not considered likely to occur.	Low
<i>Lepidium aschersonii</i>	Spiny Peppergrass	E	V	Found on ridges of gilgai clays dominated by Brigalow (<i>Acacia harpophylla</i>), Belah (<i>Casuarina cristata</i>), Buloke (<i>Allocasuarina luehmannii</i>) and Grey Box (<i>Eucalyptus microcarpa</i>). In the south has been recorded growing in Bull Mallee (<i>Eucalyptus behriana</i>). Often the understorey is dominated by introduced plants. The species grows as a component of the ground flora, in grey loamy clays. Vegetation structure varies from open to dense, with sparse grassy understorey and occasional heavy litter. Occurs in the marginal central-western slopes and north-western plains regions of NSW (and potentially the south western plains).		Marginal	Low Not recorded in the locality, some marginal habitat present. Species not considered likely to occur.	Low
<i>Lachnagrostis adamsonii</i>	Adamson's Blown grass	E	E	Adamson's Blown grass is endemic to south-west Victoria, from Clifton Springs near Geelong to near Coleraine (350 km west of Melbourne). The northernmost populations are at Gatum (20 km north-west of Cavendish), near Maroona (20 km north-east of Willaura), Lake Goldsmith (15 km south of Beaufort) and just south of Chepstowe. Southernmost populations are at Caramut, just north of Derrinallum and Lismore, and near Barunah (15 km west of Shelford). Adamson's Blown grass was previously known from 68		Present	Low Some species is mapped as occurring in south-west Victoria. Not recorded within the locality.	Low

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Scientific Name	Common Name	FFG Act	EPBC ACT	Habitat	No of Records	Presence of habitat	Likelihood of Occurrence	Possible Impact
				locations but has declined or been lost from many locations since 1990. Over 90% of the species' locations occur on the Volcanic Plains in the south-west of Victoria. Highest concentrations of populations lie to the north-west of Cavendish, to the south of Glenthompson and Wickliffe, and in the Willaura/Maroona area. The extent of occurrence is approximately 15 000 km ² .				
<i>Leucochrysum albicans subsp. tricolor</i>	Hoary Sunray	E	E	Occurs in a wide variety of grassland, woodland, and forest habitats, generally on relatively heavy soils. Can occur in modified habitats such as semi-urban areas and roadsides. Highly dependent on the presence of bare ground for germination. Endemic to south-eastern Australia. In NSW it currently occurs on the Southern Tablelands adjacent areas in an area roughly bounded by Albury, Bega and Goulburn and volcanic plains grassland of western Victoria.		Marginal	Marginal Dese grassy paddock and habitat, no real bare ground present. Species not recorded in locality.	Low
<i>Pimelea spinescens subsp. spinescens</i>	Plains Rice-flower	CE	CE	Spiny rice-flower is endemic to Victoria, where it occurs in the central west to the east coast, with the highest concentrations in the Volcanic Plains, Victorian Midlands and Riverina IBRA (Interim Biogeographic Regionalisation for Australia) Bioregions. Based on entries in the spiny rice-flower state-wide database, approximately 88 000 plants are estimated to occur in 208 (and possibly up to 275) wild sites. Historically, the species was undoubtedly much more widespread and abundant within the region where it currently occurs. Populations are now substantially fragmented and depleted due to land clearance for settlement, industry and agriculture. Many populations consist of a small number of plants (55 percent of sites with population counts have fewer than 100 plants), with most occurring in tiny patches of remnant habitat (59 percent of sites with extent estimates are smaller than 1ha) such as on roadsides and rail easements. However, the spiny rice-flower database includes many old and imprecise records and these figures are likely to be an overestimate of the actual situation. Some large populations occur on private property where grazing impacts are high.		Marginal	Marginal No recorded in the locality, in other populations has been recorded in grazed paddocks.	Low
<i>Glycine latrobeana</i>	Clover Glycine	V	V	Occurs mainly in grassland and grassy woodland habitats, less often in dry forests, and rarely in heathland. Populations occur from sea level to c. 1,200 m. In Victoria, plants grow in a		Marginal	Marginal No recorded in the locality, some	Low

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Scientific Name	Common Name	FFG Act	EPBC ACT	Habitat	No of Records	Presence of habitat	Likelihood of Occurrence	Possible Impact
				range of soil types including alluvial soils, and those derived from sandstones, mudstones, granite, and basalt. Soils are usually clay but may have high loam content. Tasmanian populations occur on a well-drained basalt, dolerite, or sandstone substrates (Lynch 1994). The NSW population is in subalpine grassland (at about 1300 m asl).			marginal habitat present.	
<i>Lepidium hyssopifolium</i>	Aromatic Peppergrass	E	E	Known to have occurred in both woodland with a grassy understorey and in grassland, the species may be a disturbance opportunist, as it was discovered at the most recently discovered site (near Bungendore) following soil disturbance.		Marginal	Marginal No recorded in the locality, some marginal habitat present.	Low
<i>Thelymitra epipactoides</i>	Metallic Sun-orchid	E	E	Confined to a range of heathland communities usually near the coast. It is primarily located in sandy duplex soils which are waterlogged in winter and in which the pH varies between 5.6 and 7.5. Currently found in south-eastern South Australia and western Victoria.		Absent	Low No suitable habitat present likely to support this species, not recorded within the locality.	Low
<i>Xerochrysum palustre</i>	Swamp Everlasting	CE	V	Grows in swamps and bogs which are often dominated by heaths, and at the edges of bog margins on peaty soils, with a cover of shrubs on grasses within the Kooragang National Park and the eastern escarpment south of Badja. Also found in eastern Victoria.		Marginal	Low Some marginal e habitat present, not likely to support this species, not recorded within the locality.	Low
<i>Pterostylis cucullata</i>	Leafy Greenhood	E	V	In Victoria, important populations include 18 populations in the Alpine National Park, eight in Wilsons Promontory National Park, six in Mornington Peninsula National Park, and single populations in Cape Otway National Park, Eildon National Park, Mt Eccles and Point Nepean. Eight populations occur on private property (Cape Schank, Bridgewater Lakes, Cape Otway, Rye and Tootgarook), two on roadsides (unknown land tenure at Cape Schank and Cape Bridgewater) and three on unknown land tenure in the Strathbogie Ranges, Winkie Creek and Tootgarook. In Victoria, one population occurs in Belair National Park, one in Lobethal (Adelaide Hills Council) and one on private property at Cherry Gardens.		Absent	Low No suitable habitat present likely to support this species, not recorded within the locality.	Low

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Scientific Name	Common Name	FFG Act	EPBC ACT	Habitat	No of Records	Presence of habitat	Likelihood of Occurrence	Possible Impact
<i>Rutidosia leptorhynchoides</i>	Button Wrinklewort	E	E	Button Wrinklewort occurs in south-eastern Australia, from Goulburn in the Southern Tablelands of NSW to Wickliffe on the plains west of Melbourne, Victoria. The NSW and ACT populations are markedly disjunct from the Victorian populations. Evidence suggests that the species was formerly widespread in south-eastern NSW from near Michelago to near Goulburn. In Victoria the species occurred across the Victorian Volcanic Plain, north to Casterton and as far east as Newry in Gippsland but is now restricted to tiny refugia in the south-west, occurring on the outskirts of Melbourne, Bannockburn, Rokewood, Wickliffe and between Beaufort and Ararat. The species is not known to occur naturally in any conservation reserve in Victoria although it is sympathetically managed at the Yalla-y-Poora Recreation Reserve.		Present	Low Some Species is mapped as occurring in south-west Victoria. Not recorded within the locality.	Low
<i>Senecio macrocarpus</i>	Large-fruit Fireweed		V	In Victoria, Large-fruit Fireweed occurs most commonly in grasslands on red-brown earth soils. It may also occur in grassy woodlands and open woodlands.		Present	Marginal Outside of the mapped distribution of this species. No records in locality.	Low
<i>Dianella amoena</i>	Matted Flax-lily	CE	E	In Victoria, the Matted Flax-lily occurs most commonly in lowland grasslands, grassy woodlands, valley grassy forest and creek lines of herb-rich woodland. Typically, the species occurs on well drained to seasonally wet fertile sandy loams to heavy cracking clays derived from Silurian or Tertiary sediments, or from volcanic geology. Sites are dominated by a grassy understorey with Kangaroo Grass (<i>Themeda triandra</i>) and Blackwood (<i>Acacia melanoxylon</i>) as a common understorey tree. Other grass species present include Wallaby Grass (<i>Austrodanthonia racemosa</i> var. <i>racemosa</i>), Common Wheat Grass (<i>Elymus scaber</i> var. <i>scaber</i>), Weeping Grass (<i>Microlaena stipoides</i> var. <i>stipoides</i>), Common Tussock-grass (<i>Poa labillardierei</i>) and Grey Tussock-grass (<i>Poa sieberiana</i>). A tree canopy may not be present on basalt escarpments (e.g., Coburg, Merri Creek). In grassy woodland, where the Matted Flax-lily occurs, tree species include Snow Gum (<i>Eucalyptus pauciflora</i> subsp. <i>pauciflora</i>), Swamp Gum (<i>E. ovata</i>), River Red Gum (<i>E. camaldulensis</i>), Long-leaved Box (<i>E. goniocalyx</i>), Red Box (<i>E. polyanthemus</i> subsp. <i>vestita</i>),		Present	Low. Some suitable habitat present, not recorded within the locality, but within mapped distribution of species.	Low

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Scientific Name	Common Name	FFG Act	EPBC ACT	Habitat	No of Records	Presence of habitat	Likelihood of Occurrence	Possible Impact
				Red Stringy Bark (<i>E. macrorhyncha</i> subsp. <i>macrorhyncha</i>) and Yellow Box (<i>E. melliodora</i>). Most sites contain a high cover of introduced species such as Large Quaking Grass (<i>Briza maxima</i>), Yorkshire Fog Grass (<i>Holcus lanatus</i>), Cat's Ear (<i>Hypochaeris radicata</i>), Plantain (<i>Plantago lanceolata</i>), Onion Grass (<i>Romulea rosea</i>), Sweet Vernal Grass (<i>Anthoxanthum odoratum</i>), Cocksfoot (<i>Dactylis glomerata</i>), Little Quaking Grass (<i>Briza minor</i>), Phalaris (<i>Phalaris aquatica</i>), Paspalum (<i>Paspalum</i> spp.) and Bent grass (<i>Agrostis</i> spp.).				
<i>Rhagodia parabolica</i>	Fragrant Saltbush	V		Grows in poor soils of the semi-arid or areas of higher rainfall. Can Grow in rocky hillsides and creek banks.	2	Marginal	Low Species not recorded during the site assessment, habitat is marginal and not considered likely to occur on site although recorded within locality.	Low
<i>Eucalyptus goniocalyx subsp. laxa</i>	Gum-barked Bundy	E		<i>Eucalyptus goniocalyx</i> is a small to medium sized tree species found on tablelands and hills from the Northern Tablelands of New South Wales to central-western Victoria, also in South Australia in the Mt Lofty and Flinders Ranges, occurring as a mallee in the driest areas. A Victorian endemic abundant on Mount Arapiles and also occurring in the northern Grampians at Mount Zero, near Halls gap, the northern Serra Range, and Red Rock in the Victoria Range.	1	Marginal	Low Species not recorded during the site assessment, habitat is marginal and not considered likely to occur on site although recorded within locality.	Low
<i>Eucalyptus leucoxylon subsp. connata</i>	Melbourne Yellow Gum	E		This eucalypt species is found in Victoria, south-eastern South Australia and far south-western New South Wales. All six subspecies occur in Victoria. Broad habitat range. Grassy woodland on moderately fertile loamy or alluvial soils.	11	Marginal	Low Species not recorded during the site assessment, habitat is marginal and not	Low

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Scientific Name	Common Name	FFG Act	EPBC ACT	Habitat	No of Records	Presence of habitat	Likelihood of Occurrence	Possible Impact
							considered likely to occur on site although recorded within locality.	
<i>Prostanthera nivea var nivea</i>	Snowy Mint-bush	V		Grows in sclerophyll forest and woodland on rocky slopes and ridges, in shallow sandy soils; widespread.	1	Absent	Low Habitat not considered likely to support this species, recorded within the locality, however not expected to occur on site.	Low
<i>Pultenaea weindorferi</i>	Swamp Bush-pea	E		The Swamp Bush-pea (<i>Pultenaea weindorferi</i>) is a threatened shrub species, found in drainage lines and swamps around Kinglake and Bunyip. This species has had a spectacular response to the 2009 bushfires in 2009, with one patch of the bush area in Bunyip State Park now estimated to contain 250,000 plants.	1	Marginal	Low Species not recorded during the site assessment, habitat is marginal and not considered likely to occur on site although recorded within locality.	Low
<i>Olearia pannosa subsp cardiophylla</i>	Velvet Daisy-bush	E		Velvet Daisy-bush occurs in dry open forest, on shallow rocky soils where the mean annual rainfall ranges from 450 to 650 millimetres. Populations of the Velvet Daisy-bush have been found in Lowland Forest, Heathy Dry Forest and Grassy Dry Forest associated with Red Stringybark (<i>Eucalyptus macrorhyncha</i>), Messmate (<i>Eucalyptus obliqua</i>), Golden Wattle (<i>Acacia pycnantha</i>) and Austral Grass-tree (<i>Xanthorrhoea australis</i>). At Wedderburn, the Velvet Daisy-bush site is dominated by Blue Mallee (<i>Eucalyptus polybractea</i>), Broombush (<i>Melaleuca uncinata</i>), Wallowa (<i>Acacia euthycarpa</i>), and Rough Spear-grass (<i>Austrostipa scabra</i>), while the Rushworth site occurs in Grey Box (<i>Eucalyptus microcarpa</i>) / Red Ironbark (<i>Eucalyptus tricarpa</i>) open forest (Foreman unpub. data). The species is found on a range of surfaces and substrates from Ordovician slates and	1	Marginal	Low Species not recorded during the site assessment, habitat is marginal and not considered likely to occur on site although recorded within locality.	Low

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Scientific Name	Common Name	FFG Act	EPBC ACT	Habitat	No of Records	Presence of habitat	Likelihood of Occurrence	Possible Impact
				sandstones with sandy loam, silty loam or loamy topsoils, to Tertiary sediments with sand topsoils over sheet ironstone or topsoils of ironstone gravel.				
<i>Bossiaea cordigera</i>	Wiry Bossiaea	E		Moist well drained soils in heathy open forests. Frost tolerant. Semi shade. Rare in Victoria with few known populations within the Shire. Common in most of those sites. Wiry bossiaea grows in open forest, often in moist places and occurs between Portland and Healesville in southern Victoria.	1	Marginal	Low Species not recorded during the site assessment, habitat is marginal and not considered likely to occur on site although recorded within locality.	Low
<p style="color: red; font-weight: bold; margin: 0;">This copied document to be made available for the sole purpose of enabling its consideration and review as part of a planning process under the Planning and Environment Act 1987. The community is not being used for any purpose which may breach any law from Victoria.</p>								
Threatened Ecological Communities								
White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland			CE	White Box Yellow Box Blakely's Red Gum Woodland (commonly referred to as Box-Gum Woodland) is an open woodland community (sometimes not being used for any purpose which may breach any law from Victoria) in which the most obvious species are one or more of the following: White Box <i>Eucalyptus albens</i> , Yellow Box <i>E. melliodora</i> and Blakely's Red Gum <i>E. blakelyi</i> . Intact sites contain a high diversity of plant species, including the main tree species, additional tree species, some shrub species, several climbing plant species, many grasses, and a very high diversity of herbs. The community also includes a range of mammal, bird, reptile, frog, and invertebrate fauna species. Intact stands that contain diverse upper and mid-storey and ground layer are rare. The Australian Government listing of White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland is slightly different to the NSW listing. Areas that are part of the Australian Government listed ecological community must have either; an intact tree layer and predominately native ground layer; or an intact native ground layer with a high diversity of native plant species but no remaining tree layer. Box-Gum Woodland is found from the Queensland border in the north, to the Victorian border in the south. It occurs in the tablelands and		Absent	Absent No characteristic species present	Low

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Scientific Name	Common Name	FFG Act	EPBC ACT	Habitat	No of Records	Presence of habitat	Likelihood of Occurrence	Possible Impact
				western slopes of NSW.				
Grassy Eucalypt Woodland of the Victorian Volcanic Plain			CE	The Grassy Eucalypt Woodland of the Victorian Volcanic Plain is a type of eucalypt woodland that is restricted to Quaternary basalt soils. It occurs on flat to gently undulating plains and associated stony knolls, generally at elevations up to 500 metres above sea level. The canopy is typically dominated by <i>Eucalyptus camaldulensis</i> (River Red Gum) though other eucalypt species may become prominent at wetter or drier sites. The understorey comprises a sparse shrub layer and a species-rich ground layer of grasses and herbs. The ecological community includes patches of derived grassland where the tree canopy is known to have been removed. But a native ground layer remains.		Present	Present EVC 55 present. Remnant River Red Gum with native grassland species present.	Low – the current design avoids all area of this threatened community.
Western Basalt Plains (River Red Gum) Grassy Woodland		Listed		This grassy woodland community has a clearly recognizable structure made up of an open canopy of River Red Gum (<i>Eucalyptus camaldulensis</i>), a middle layer chiefly of scattered wattles such as Golden Wattle (<i>Acacia pycnantha</i>) and Hedge Wattle (<i>A. paradoxa</i>) but including a few other shrubs as well, such as Tree Violet (<i>Hymenanthera dentata</i> = <i>Meliclytus dentatus</i>), and a ground layer dominated by grasses. In its least disturbed state, the ground layer is predominantly tussock grasses such as Common Tussock Grass (<i>Poa labillardierei</i> = <i>P. labillardierei</i> var. <i>labillardierei</i>) and Wallaby Grass (<i>Rytidosperma</i> spp.), together with Kangaroo Grass (<i>Themeda triandra</i>) and various forbs in the spaces between the tussocks. The composition of the ground layer varies from site to site, being heavily influenced locally by the amount of tree cover, soil characteristics and the site's grazing and fire histories. More disturbed sites have a high proportion of introduced grasses and forbs in the ground layer.		Present	Present EVC 55 present. Remnant River Red Gum with native grassland species present.	High -present in low condition, where 0.001 ha would be impacted. This patch of native vegetation will be offset.
Seasonal Herbaceous Wetlands (Freshwater) of the Temperate Lowland Plains			CE	Isolated, freshwater wetlands that are usually inundated on a seasonal basis through rainfall, then dry out, so surface water is not permanently present. They occur on the lowland plains of temperate south-eastern Australia and have a vegetation structure that is open, i.e., woody cover is absent to sparse, and the ground layer is dominated by herbs (grasses, sedges		Absent	Absent No characteristic species present	Low

Scientific Name	Common Name	FFG Act	EPBC ACT	Habitat	No of Records	Presence of habitat	Likelihood of Occurrence	Possible Impact
				and forbs).				
Natural Temperate Grassland of the Victorian Volcanic Plain			CE	This community is dominated by a ground layer of native tussock-forming perennial grasses interspersed with a variety of herbs. Large shrubs and trees are absent to sparse. The ecological community is limited to the basalt plain of Victoria that extends from Melbourne, west to about Hamilton. Usually dominated by one or more of the following native tussock-forming grasses: kangaroo grass (<i>Themeda triandra</i>), wallaby grasses (<i>Austrodanthonia spp.</i>), spear grasses (<i>Austrostipa spp.</i>) and/or tussock grasses (<i>Poa spp.</i>).		Absent	Absent No characteristic species present	Low

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B.2 Threatened Fauna

*Near threatened species are not currently listed under the FFG Act. However, do appear in threatened species searches but may be re-assessed at a later stage and their status under FFG changes.

Scientific Name	Common Name	FFG Act	EPBC ACT	Habitat	No of Records	Presence of habitat	Likelihood of Occurrence	Possible Impact
Aves								
<i>Actitis hypoleucos</i>	Common Sandpiper	V	M	<p>Found along all coastlines of Australia and in many areas inland. The population that migrates to Australia breeds in the Russian far east. Roost sites are typically on rocks or in roots or branches of vegetation, especially mangroves. The species utilises a wide range of coastal wetlands and some inland wetlands, with varying levels of salinity, and is mostly found around muddy margins on rocky shores and rarely on mudflats. The Common Sandpiper has been recorded in estuaries and deltas of streams, as well as on banks farther upstream, around lakes, pools, billabongs, reservoirs and clay pans, and occasionally pier jetties. The muddy margins utilised by the species are often narrow and may be steep. The species is often associated with mangroves, and sometimes found in areas of mud littered with rocks or snags. The species is known to perch on posts, jetties, moored boats, and other artificial structures, and to sometimes rest on mud or 'loaf' on rocks.</p>		Absent	Low No habitat present on site that would support this species.	Low
<i>Anthochaera phrygia</i>	Regent Honeyeater	CE	CE	<p>Inhabits dry open forest and woodland, particularly Box-Ironbark woodland, and riparian forests of River Sheoak, that inhabit woodlands that support a significantly high abundance and species richness of bird species, and have large numbers of mature trees, high canopy cover and abundance of mistletoes. Every few years non-breeding flocks are seen foraging in flowering coastal Swamp Mahogany and Spotted Gum forests, particularly on the central coast and occasionally on the upper north coast. Recently recorded in urban areas around Albury where woodlands tree species such as Mugga Ironbark and Yellow Box were planted</p>		Present	Marginal Some woodland habitat present, mostly in the form of planted eucalyptus.	Low Habitat to be removed is not considered likely to support this species. Pre-clear protocols would occur.

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				<p>20 years ago. A generalist forager, although mainly feeds on the nectar from a relatively small number of eucalypts that produce high volumes of nectar e.g., Mugga Ironbark, Yellow Box, White Box and Swamp Mahogany. Other tree species may be regionally important e.g., Lower Hunter Spotted Gum forests support regular breeding events. Flowering of associated species such as <i>Eucalyptus eugenioides</i> and other Stringybark species, and <i>E. fibrosa</i> can also contribute important nectar flows at times. Nectar and fruit from <i>Amyema miquelii</i>, <i>A. pendula</i> and <i>A. cambagei</i> are also utilised. When nectar is scarce, lerp and honeydew can comprise a large proportion of the diet. The species breeds between July and January in Box-Ironbark and other temperate woodlands and riparian gallery forest dominated by River Sheoak. Nests in horizontal branches or forks in tall eucalypt trees in the sand Sheoaks in NSW the distribution is very patchy and mainly confined to the two main breeding areas and surrounding fragmented woodlands.</p>				
<i>Apus pacificus</i>	Fork-tailed Swift	M	<p>The Fork-tailed Swift is almost exclusively aerial, flying from less than 1 m to at least 300 m above ground and probably much higher. In Australia, they mostly occur over inland plains but sometimes above foothills or in coastal areas. They often occur over cliffs and beaches and also over islands and sometimes well out to sea. They also occur over settled areas, including towns, urban areas, and cities. They mostly occur over dry or open habitats, including riparian woodland and tea-tree swamps, low scrub, heathland, or saltmarsh. They are also found at treeless grassland and sandplains covered with spinifex, open farmland, and inland and coastal sand-dunes. The sometimes occur above rainforests, wet sclerophyll forest or open forest or plantations of pines (Higgins 1999). They forage aerially, up to hundreds of metres above ground, but also less than 1 m above open areas or over water. They often occur in areas of updraughts, especially around cliffs. They are said to search along edges of low-pressure systems, which assist flight. Low-</p>	Absent	Low No habitat present on site that would support this species. Species is predominately aerial, preferring to utilise higher altitude habitat.	Low		

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				<p>flying Swifts are said to be precursors of unsettled weather, possibly because insect prey fly at a lower altitude when the air is humid and when the air density is low (Cameron 1952). They sometimes feed aerially among tree-tops in open forest (Higgins 1999). They probably roost aerially but are occasionally observed to land (Higgins 1999). They were once recorded roosting in trees, using a bare exposed branch emergent above the foliage (Newell 1930). Sometimes they loaf in the air, by allowing strong winds to support them (Boehm 1939). There have been rare records of loafing elsewhere including Swifts briefly resting on ground (Campbell 1900) and alighting on wire netting of a tennis court (Wheeler 1959). Once, one was seen attempting to land on the wall of a lighthouse (Scarff 1990).</p>				
<i>Botaurus poiciloptilus</i>	Australasian Bittern	CE	E	<p>Requires permanent freshwater wetlands with tall dense vegetation, particularly <i>Typha</i> spp. and <i>Eleocharis</i>. Hides during the day amongst dense reeds or sedges and returns at night to frogs, fish, yabbies and insects on snails. Feeding platforms may be constructed over deeper water from reeds trampled by the bird; platforms are often littered with prey remains. Breeding occurs in summer from October to January, nests are built in secluded places in densely vegetated wetlands on a platform of reeds; there are usually six olive-brown eggs to a clutch. Mainly found in shallow wetlands (less than 1 m deep) with dense growth of rushes or sedges.</p>		Absent	<p>Low No habitat present on site that would support this species.</p>	Low
<i>Calidris ferruginea</i>	Curlew Sandpiper	CE	CE	<p>Generally, occupies littoral and estuarine habitats, and in NSW is mainly found in intertidal mudflats of sheltered coasts. It also occurs in non-tidal swamps, lakes, and lagoons on the coast and sometimes inland. It forages in or at the edge of shallow water, occasionally on exposed algal mats or waterweed, or on banks of beach-cast seagrass or seaweed. Roosts on shingle, shell, or sand beaches; spits or islets on the coast or in wetlands; or sometimes in salt marsh, among beach-cast seaweed, or on rocky shores. Feeds on worms, molluscs, crustaceans, insects, and some seeds.</p>		Absent	<p>Low No habitat present on site that would support this species.</p>	Low

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				Distributed around most of the Australian coastline (including Tasmania). It occurs along the entire coast of NSW, particularly in the Hunter Estuary, and sometimes in freshwater wetlands in the Murray-Darling Basin. Inland records are probably mainly of birds pausing for a few days during migration.				
<i>Calidris melanotos</i>	Pectoral Sandpiper		M	In NSW, it is widespread, but scattered. Records exist east of the Great Divide, from Casino and Ballina, south to Ulladulla. West of the Great Divide, the species is widespread in the Riverina and Lower Western regions. The species is found at coastal lagoons, estuaries, bays, swamps, lakes, inundated grasslands, saltmarshes, river pools, creeks, floodplains, and artificial wetlands. The species is usually found in coastal or near coastal habitat but occasionally found further inland. It prefers wetlands that have open fringing mudflats and low, emergent, or fringing vegetation, such as grass or samphire. The species has also been recorded in swampland and riverina.		Absent	Low No habitat present on site that would support this species.	Low
<i>Circus assimilis</i>	Spotted Harrier	*Near threatened		Occurs in grassy open woodland including Acacia and mallee remnants, inland riparian woodland, grassland, and shrub steppe. It is found most commonly in native grassland but also occurs in agricultural land, foraging over open habitats including edges of inland wetlands. Builds a stick nest in a tree and lays eggs in spring (or sometimes autumn). Preys on terrestrial mammals (e.g., bandicoots, bettongs, and rodents), birds and reptile, occasionally insects and rarely carrion. Occurs throughout the Australian mainland, except in densely forested or wooded habitats of the coast, escarpment and ranges, and rarely in Tasmania.	1	Present	Marginal Some woodland habitat present, mostly in the form of planted eucalyptus. Species known to forage over farmland.	Low -Moderate Reduction of farmland foraging habitat would occur. Species recorded within the locality.
<i>Melanodryas cucullata</i>	Hooded Robin	V		Prefers lightly wooded country, usually open eucalypt woodland, acacia scrub and mallee, often in or near clearings or open areas. Requires structurally diverse habitats featuring mature eucalypts, saplings, some small shrubs and a ground layer of moderately tall native grasses. Perches on low dead stumps and fallen timber or on low-hanging branches. Territories range from	2	Present	Marginal Some woodland habitat present, mostly in the form of planted eucalyptus.	Low Habitat to be removed is not considered likely to support this species. Pre-clear protocols would

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				around 10 ha during the breeding season, to 30 ha in the non-breeding season. Nest is a small, neat cup of bark and grasses bound with webs, in a tree fork or crevice, from less than 1-5 m above the ground. Widespread across Australia, except for the driest deserts and the wetter coastal areas - northern and eastern coastal Queensland and Tasmania. Considered a sedentary species, but local seasonal movements are possible. The south-eastern form (subspecies <i>cucullata</i>) is found from Brisbane to Adelaide and throughout much of inland NSW, with the exception of the extreme north-west, where it is replaced by subspecies <i>picata</i> .				occur.
<i>Lewinia pectoralis</i>	Lewin's Rail	V		Coastal saltwater areas, also freshwater wetlands and swamps.	2	Absent	Low No habitat present on site that would support this species.	Low
<i>Lophochroa leadbeateri</i>	Pink Cockatoo	CE		Inhabits a wide range of treed and treeless inland habitats, always within easy reach of water. Feeds mostly on the ground, especially on the seeds of native and exotic melons and on the seeds of species of saltbush, watties and cypress pines. Normally found in pairs or small groups, though flocks of hundreds may be found where food is abundant. Nesting, in tree hollows, occurs throughout the second half of the year; nests are at least 1 km apart, with no more than one pair every 30 square kilometres. Found across the arid and semi-arid inland, from south-western Queensland, south to north-west Victoria, through most of South Australia, north into the south-west Northern Territory and across to the west coast between Shark Bay. In NSW it is found regularly as far east as about Bourke and Griffith, and sporadically further east.	1	Present	Low One HBT present with hollow suitable in size for this species. Species recorded in the locality. Local records for this species should be considered with caution given that it is so far out of their normal range and possibly an aviary escape.	Low
<i>Biziura lobata</i>	Musk Duck	V		Musk Duck lives in deep freshwater lagoons, with dense vegetation on shores and thick reed beds. After breeding season, this species may be found in more open waters, such as sheltered bays or estuaries	2	Absent	Low No habitat present on site that would support this species.	Low

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<i>Callocephalon fimbriatum</i>	Gang-gang Cockatoo		E	In spring and summer, generally found in tall mountain forests and woodlands, particularly in heavily timbered and mature wet sclerophyll forests. In autumn and winter, the species often moves to lower altitudes in drier more open eucalypt forests and woodlands, particularly box-gum and box-ironbark assemblages, or in dry forest in coastal areas and often found in urban areas. May also occur in sub-alpine Snow Gum (<i>Eucalyptus pauciflora</i>) woodland and occasionally in temperate rainforests. In NSW, it is distributed from the south-east coast to the Hunter region, inland to the Central Tablelands and south-west slopes, and regularly in the ACT. It is rare at the extremities of its range, with isolated records known from as far north as Coffs Harbour and as far west as Mudgee.		Present	Moderate One HBT present with hollow suitable in size for this species. Species not recorded in the locality however within known distribution of this species.	Low
<i>Falco hypoleucos</i>	Grey Falcon	V		Usually restricted to shrubland, grassland and wooded watercourses of arid and semi-arid regions, although it is occasionally found in open woodlands near the coast, and in wetlands where it preys on waterbirds. Preys primarily on birds, especially parrots and pigeons, using high speed chases and stoops; reptiles and mammals are also taken. Utilises old nests of other birds of prey and ravens, usually high in a living eucalypt near water or a watercourse; peak laying season is in late winter and early spring. Sparsely distributed in NSW, chiefly throughout the Murray-Darling Basin, with the occasional vagrant east of the Great Dividing Range. Believed to be extinct in areas with more than 500mm rainfall in NSW.		Marginal	Low Some marginal habitat present, not recorded in locality. Species usually present in more arid and semi-arid regions.	Low Species not likely to occur.
<i>Falco subniger</i>	Black Falcon	CE		The Black Falcon is found along tree-lined watercourses and in isolated woodlands, mainly in arid and semi-arid areas. It roosts in trees at night and often on power poles by day.	1	Marginal	Marginal Habitat present not preferred for this species; some preferred habitat present within the locality. Species recorded within locality.	Low Habitat to be removed is not considered likely to support this species. Pre-clear protocols would occur.

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<i>Antigone rubicunda</i>	Brolga	E		Often feed in dry grassland or ploughed paddocks or even desert claypans, they are dependent on wetlands too, especially shallow swamps, where they will forage with their head entirely submerged. They feed using their heavy straight bill as a 'crowbar' to probe the ground or turn it over, primarily on sedge roots and tubers. They will also take large insects, crustaceans, molluscs and frogs. The nest comprises a platform of grasses and sticks, augmented with mud, on an island or in the water. Was formerly found across Australia, except for the south-east corner, Tasmania and the south-western third of the country. It is still abundant in the northern tropics, but very sparse across the southern part of its range.	2	Absent	Low No habitat present on site that would support this species.	Low
<i>Gallinago hardwickii</i>	Latham's Snipe		M	Usually inhabit open, freshwater wetlands with low, dense vegetation (e.g., swamps, flooded grasslands or heathlands, around bogs and other water bodies). Known to occur in the upland wetlands of the New England Tablelands and Monaro Plateau.		Absent	Low No habitat present on site that would support this species.	Low
<i>Grantiella picta</i>	Painted Honeyeater	V	V	Nomadic and occurs at low densities throughout its range. The greatest concentrations of the bird and almost all breeding occurs on the inland slopes of the Great Dividing Range in NSW, Victoria and southern Queensland. Inhabits Boree/ Weeping Myall (<i>Acacia pendula</i>), Brigalow (<i>A. harpophylla</i>) and Box-Gum Woodlands and Box-Ironbark Forests. A specialist feeder on the fruits of mistletoes growing on woodland eucalypts and acacias. Prefers mistletoes of the genus <i>Amyema</i> . Nest from spring to autumn in a small, delicate nest hanging within the outer canopy of drooping eucalypts, she-oak, paperbark or mistletoe branches.		Present	Marginal Some woodland habitat present, mostly in the form of planted eucalyptus.	Low Habitat to be removed is not considered likely to support this species. Pre-clear protocols would occur.
<i>Hieraaetus morphnoides</i>	Little Eagle	V		The Little Eagle is found throughout the Australian mainland excepting the most densely forested parts of the Dividing Range escarpment. Occurs as a single population throughout NSW. Occupies open eucalypt forest, woodland or open woodland, Sheoak or Acacia woodlands, and riparian woodlands of interior NSW are also used. Nests in tall living trees within a remnant patch, where pairs	2	Present	Marginal Some woodland habitat present, mostly in the form of planted eucalyptus.	Low Habitat to be removed is not considered likely to support this species. Pre-clear protocols would

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				build a large stick nest in winter.				occur.
<i>Hirundapus caudacutus</i>	White-throated Needletail	V	M	Arrive in Australia from their breeding grounds in the northern hemisphere in about October each year and leave somewhere between May and August. Are non-breeding migrants in Australia. Breeding takes place in northern Asia.	1	Marginal	Low No habitat present on site that would support this species. Species is predominately aerial, preferring to utilise higher altitude habitat.	Low
<i>Chlidonias leucopterus</i>	White-winged Black Tern		M	A non-breeding migrant to Australia, where it is widespread and common along south-western, northern and central-eastern coasts, with only scattered records of small numbers along the coasts elsewhere in southern Australia.	1	Absent	Low No habitat present on site that would support this species.	Low
<i>Lathamus discolor</i>	Swift Parrot	CE	CE	<p style="color: red; font-weight: bold; text-align: center;">This copied document to be made available for the sole purpose of enabling its consideration and review as part of a planning process under the Planning and Environment Act 1997. The document must not be used for any purpose which may breach any copyright.</p> <p>Breeds in Tasmania during spring and summer, migrating in the autumn and winter months to south-eastern Australia from Victoria and the eastern part of Queensland to south-east Queensland and NSW. Mostly occur on the east and south west slopes. Migrates to the Australian south-east mainland between March and October. No breeding in NSW. Favoured feed trees include winter flowering species such as Swamp Mahogany <i>Eucalyptus robusta</i>, Spotted Gum <i>Corymbia maculata</i>, Red Bloodwood <i>C. gummifera</i>, Mugga Ironbark <i>E. sideroxylon</i>, and White Box <i>E. albens</i>.</p>	1	Present	Marginal Some woodland habitat present, mostly in the form of planted eucalyptus.	Low Habitat to be removed is not considered likely to support this species. Pre-clear protocols would occur.
<i>Motacilla flava</i>	Yellow Wagtail		M	Occupies a range of damp or wet habitats with low vegetation, from damp meadows, marshes, waterside pastures, sewage farms and bogs to damp steppe and grassy tundra. In the north of its range, it is also found in large forest clearings. Breeds from April to August, although this varies with latitude.		Absent	Low No habitat present on site that would support this species.	Low
<i>Myiagra cyanoleuca</i>	Satin Flycatcher		M	Found along the east coast of Australia in tall forests, preferring wetter habitats such as heavily forested gullies, but not rainforests. Nests in loose colonies of two to five pairs nesting at intervals of		Marginal	Low Some woodland habitat present, mostly in the form	Low Habitat to be removed is not considered

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				about 20-50 m apart. It builds a broad-based, cup-shaped nest of shredded bark and grass, coated with spider webs and decorated with lichen. The nest is placed on a bare, horizontal branch, with overhanging foliage, about 3-25 m above the ground.			of planted eucalyptus, may be used by this species during migration however unlikely to support population of this species.	likely to support this species. Pre-clear protocols would occur.
<i>Ninox strenua</i>	Powerful Owl	V		Inhabits a range of vegetation types, from woodland and open sclerophyll forest to tall open wet forest and rainforest. Requires large tracts of forest or woodland habitat but can occur in fragmented landscapes as well. Breeds and hunts in open or closed sclerophyll forest or woodlands and in open habitats. Roosts by day in dense vegetation comprising species such as Turpentine <i>Syncarpia glomulifera</i> , Black She-oak <i>Allocasuarina littoralis</i> , Blackwood <i>Acacia melanoxylon</i> , Rough-barked Apple <i>Angophora floribunda</i> , Cherry Ballart <i>Exocarpos cupressiformis</i> and eucalypt species. Prey items are fine sized invertebrates. Prey items include Greater Glider, Common Ringtail Possum, Sugar Glider, and Flying Foxes. Most prey species require hollows and a shrub layer, these are important habitat components. Owls may need up to 4000 ha. Nests in large tree hollows (at least 0.5 m deep), in large eucalypts (diameter at breast height of 80-240 cm) that are at least 150 years old. Nesting occurs from late autumn to mid-winter.	2	Present	Moderate One HBT present with hollow suitable in size for this species. Species recorded in the locality.	Low
<i>Pyrrholaemus sagittatus</i>	Speckled Warbler	E		Has a patchy distribution throughout south-eastern Queensland, the eastern half of NSW and into Victoria, as far west as the Grampians. The species is most frequently reported from the hills and tablelands of the Great Dividing Range, and rarely from the coast. Lives in a wide range of Eucalyptus dominated communities that have a grassy understorey, often on rocky ridges or in gullies. Typical habitat would include scattered native tussock grasses, a sparse shrub layer, some eucalypt regrowth and an open canopy. Large, relatively undisturbed remnants are required for the species to persist in an area.	2	Present	Marginal Some woodland habitat present, mostly in the form of planted eucalyptus.	Low Habitat to be removed is not considered likely to support this species. Pre-clear protocols would occur.

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<i>Numenius madagascariensis</i>	Eastern Curlew	CE	CE, M	<p>In NSW, occurs across the entire coast but is mainly found in estuaries such as the Hunter River, Port Stephens, Clarence River, Richmond River and ICOLLs of the south coast. Generally, occupies coastal lakes, inlets, bays and estuarine habitats, and in NSW is mainly found in intertidal mudflats and sometimes saltmarsh of sheltered coasts. Occasionally, the species occurs on ocean beaches (often near estuaries), and coral reefs, rock platforms, or rocky islets. Forages in or at the edge of shallow water, occasionally on exposed algal mats or waterweed, or on banks of beach-cast seagrass or seaweed. Roosts on sandy spits and islets, especially on dry beach sand near the high-water mark, and among coastal vegetation including low saltmarsh or mangroves. May also roost on wooden oyster leases or other similar structures. Is carnivorous, mainly eating crustaceans.</p>	Absent	Low No habitat present on site that would support this species.	Low
<i>Pedionomus torquatus</i>	Plains Wanderer	CE	CE	<p>Live in semi-arid, lowland native grasslands that typically occur on hard, iron-podzols. These grasslands support a high diversity of plant species, including a number of state and nationally threatened species. Habitat structure appears to play a more important role than plant species composition. Preferred habitat typically comprises 50% bare ground, 10% taller litter, and 40% herbs, forbs and grasses. Most grassland habitat is <5 cm high, but some vegetation up to a maximum of 30 cm is important for concealment, as long as grass tussocks are spaced 10-20 cm apart. During prolonged drought, the denudation of preferred habitats may force birds into marginal denser and taller grassland habitats that become temporarily suitable. Average home range of a single bird is about 12 ha. Breeding pairs have overlapping home ranges that total approximately 18 ha. Is a ground-dwelling grassland bird, which is cryptic and very difficult to observe during the day. Can only be properly surveyed at night using spotlighting techniques. 99% of records in NSW in the past 30 years come from an area of the western Riverina bounded by Hay and Narranderra on the Murrumbidgee River in the north, the Cobb</p>	Absent	Low No habitat present on site that would support this species. Grassland present however not suitable species and structure for this species.	Low

This document to be made available for the sole purpose of enabling access to a hard iron-podzols as part of planning diversity of plant species, including a number of state and nationally threatened species. Habitat structure appears to play a more important role than plant species composition. Preferred habitat typically comprises 50% bare ground, 10% taller litter, and 40% herbs, forbs and grasses. Most grassland habitat is <5 cm high, but some vegetation up to a maximum of 30 cm is important for concealment, as long as grass tussocks are spaced 10-20 cm apart. During prolonged drought, the denudation of preferred habitats may force birds into marginal denser and taller grassland habitats that become temporarily suitable. Average home range of a single bird is about 12 ha. Breeding pairs have overlapping home ranges that total approximately 18 ha. Is a ground-dwelling grassland bird, which is cryptic and very difficult to observe during the day. Can only be properly surveyed at night using spotlighting techniques. 99% of records in NSW in the past 30 years come from an area of the western Riverina bounded by Hay and Narranderra on the Murrumbidgee River in the north, the Cobb

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				Highway in the west, the Billabong Creek in the south, and Urana in the east. The amount of high-quality habitat in the Riverina drops to 1-2% during very wet or dry years when grasslands become too dense or are grazed too bade.				
<i>Sternula nereis nereis</i>	Australian Fairy Tern	CE	V	The Fairy Tern (Australian) nests on sheltered sandy beaches, spits and banks above the high tide line and below vegetation. The subspecies has been found in embayments of a variety of habitats including offshore, estuarine or lacustrine (lake) islands, wetlands and mainland coastline. The bird roosts on beaches at night.		Absent	Low No habitat present on site that would support this species.	Low
<i>Rhipidura rufifrons</i>	Rufous Fantail		M	Found in rainforest, dense wet forests, swamp woodlands and mangroves, preferring deep shade, and is often seen close to the ground. During migration, it may be found in more open habitats or urban areas. Builds a small compact cup nest, of fine grasses bound with spider webs, that is suspended from a tree for about 5m from the ground. The bottom of the nest is drawn out into a long stem. <b style="color: red; border: 1px solid red; padding: 5px;">This copied document to be made available for the sole purpose of enabling its consideration and review as part of a planning process under the Planning and Environment Act 1987. The document must not be used for any purpose which may breach any copyright.		Marginal	Low Some woodland habitat present, mostly in the form of planted eucalyptus, may be used by this species during migration however unlikely to support population of this species.	Low Habitat to be removed is not considered likely to support this species. Pre-clear protocols would occur.
<i>Stagonopleura guttata</i>	Diamond Firetail	V		Found in grassy eucalypt woodlands, including Box-Gum Woodlands and Snow-Gum <i>Eucalyptus pauciflora</i> Woodlands. Also occurs in open forest, mallee, Natural Temperate Grassland, and in secondary grassland derived from other communities. Often found in riparian areas (rivers and creeks), and sometimes in lightly wooded farmland. Feeds exclusively on the ground, on ripe and partly ripe grass and herb seeds and green leaves, and on insects (especially in the breeding season). Usually encountered in flocks of between 5-40 birds, occasionally more. Groups separate into small colonies to breed, between August and January. Nests are globular structures built either in the shrubby understorey, or higher up, especially under hawk's or raven's nests. Appears to be sedentary, though some populations move locally, especially those in the south. Has been recorded in some towns and near farm houses. Endemic to	2	Present	Marginal Some woodland habitat present, mostly in the form of planted eucalyptus.	Low Habitat to be removed is not considered likely to support this species. Pre-clear protocols would occur.

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				<p>south-eastern Australia, extending from central Queensland to the Eyre Peninsula in South Australia. It is widely distributed in NSW, with a concentration of records from the Northern, Central and Southern Tablelands, the Northern, Central and South Western Slopes and the North West Plains and Riverina.</p>				
<i>Tringa nebularia</i>	Common Greenshank	E	M	<p>Does not breed in Australia, however, the species occurs in all types of wetlands and has the widest distribution of any shorebird in Australia. In NSW, the species has been recorded in most coastal regions. It is widespread west of the Great Dividing Range, especially between the Lachlan and Murray Rivers and the Darling River drainage basin, including the Macquarie Marshes, and north-west regions.</p>		Absent	<p>Low No habitat present on site that would support this species.</p>	Low
Amphibians				<p>This copied document to be made available for the sole purpose of enabling its consideration and review as part of a planning process under the Planning and Development Act 1987. The document must not be used for any purpose which may breach any copyright.</p>				
<i>Litoria raniformis</i>	Southern Bell Frog	V	V	<p>Usually found in or around permanent or ephemeral or flowing water courses such as swamps, lignum and ha swamps and River Gum swamps or billabongs along floodplains and river valleys. They are also found in irrigated rice crops, particularly where there is no available natural habitat. Breeding occurs during the warmer months and is triggered by flooding or a significant rise in water levels. Known to breed anytime from early spring through to late summer/early autumn (Sept to April) following a rise in water levels. During the breeding season animals are found floating amongst aquatic vegetation (especially cumbungi or Common Reeds) within or at the edge of slow-moving streams, marshes, lagoons, lakes, farm dams and rice crops. Tadpoles require standing water for at least 4 months for development and metamorphosis to occur but can take up to 12 months to develop. Outside the breeding season animals disperse away from the water and take shelter beneath ground debris such as fallen timber and bark, rocks, grass clumps and in deep soil cracks.</p>		Absent	<p>Low No habitat present on site that would support this species.</p>	Low

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Mammals								
<i>Dasyurus maculatus maculatus</i>	Spotted-Tailed Quoll (South-Eastern Mainland Population)	E	E	<p>The Spot-tailed Quoll has a preference for mature wet forest habitat, especially in areas with rainfall 600 mm/year. Unlogged forest or forest that has been less disturbed by timber harvesting is also preferable. This subspecies has been recorded from a wide range of habitats, including:</p> <ul style="list-style-type: none"> • temperate and subtropical rainforests in mountain areas • wet sclerophyll forest • lowland forests • open and closed eucalypt woodlands • inland riparian and River Red Gum (<i>Eucalyptus camaldulensis</i>) forests • dry rain shadow woodland • sub-alpine woodlands • coastal heathlands • occasional sightings from open country, grazing lands, rocky outcrops and other places <p>The Spot-tailed Quoll is predominantly nocturnal and rests during the day in dens. Habitat requirements include suitable den sites such as hollow logs, tree hollows, rock outcrops or caves. Individuals also require an abundance of food, such as birds and small mammals, and large areas of relatively intact vegetation through which to forage. This subspecies is moderately arboreal and approximately 11% of travelling is done in trees.</p>		Absent	Low Habitat present is not likely to support this species, not recorded within the locality.	Low
<i>Pteropus poliocephalus</i>	Grey-headed Flying-fox	V	V	<p>Occurs in subtropical and temperate rainforests, tall sclerophyll forests and woodlands, heaths and swamps as well as urban gardens and cultivated fruit crops. Roosting camps are generally located within 20 km of a regular food source and commonly found in gullies, close to water, in vegetation with a dense canopy. Individual camps</p>		Present	Marginal Some woodland habitat present, mostly in the form of planted eucalyptus. Flying fox camp recorded	Low Habitat to be removed is not considered likely to support this species. Pre-clear

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				may have tens of thousands of animals and are used for mating, giving birth and rearing young. Annual mating commences in January and a single young is born in October or November. Site fidelity to camps is high; some camps have been used for over a century. Can travel up to 50km from the camp to forage; commuting distances are more often <20 km. Feed on the nectar and pollen of native trees, in particular <i>Eucalyptus</i> , <i>Melaleuca</i> and <i>Banksia</i> , and fruits of rainforest trees and vines. Also forage in cultivated gardens and fruit crops.			in Maffra and near Lake Glen Maggie in 2014.	protocols would occur. Not breeding or roosting location.
<i>Petaurus australis australis</i>	Yellow-bellied Glider		V	<p>Found along the eastern coast to the western slopes of the Great Dividing Range, from southern Queensland to Victoria. Occur in tall mature eucalypt forest generally in areas with high rainfall and nutrient rich soils. Forest type preferences vary with latitude and elevation; mixed coastal forests to dry escarpment forests in the north; moist coastal gullies and creek flats to tall montane forests in the south. Feed primarily on plant and insect exudates, including nectar and pollen, and occasionally with pollen and insects providing protein. Extract sap by incising (or biting into) the trunks and branches of favoured food trees, often leaving a distinctive 'V'-shaped scar. Live in small family groups of two - six individuals and are nocturnal. Den, often in family groups, in hollows of large trees. Very mobile and occupy large home ranges between 20 to 85 ha to encompass dispersed and seasonally variable food resources.</p>		Present	Moderate One HBT present with hollow suitable in size for this species, however species not recorded within locality and no woodland connected to HBT. Habitat on site unlikely to support this species.	Low Species unlikely to use stag tree to be removed, in open paddock more than 75 metres from nearest tree or vegetation patch.
Fish								
<i>Galaxiella pusilla</i>	Dwarf Galaxias	E	V	Eastern Dwarf Galaxias has broad habitat requirements and occurs in slow flowing and still, shallow, permanent and temporary freshwater habitats such as swamps, drains and the backwaters of streams and creeks, often (but not always) containing dense aquatic macrophytes and emergent plants. In larger pools, the species is usually found amongst marginal vegetation. Some wetlands where it occurs may partially or		Absent	Low No habitat present on site that would support this species.	Low

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				<p>completely dry up during summer and such wetlands rely on seasonal flooding plus linkages to other sites where the species occurs, for recolonization. Wetlands connected to a more permanent waterbody (such as river or creek) may also be vital to their long-term survival (particularly during extended dry conditions) and must therefore be considered as part of the habitat requirement critical to survival.</p> <p>The Eastern Dwarf Galaxias are known to occupy a wide range of habitats; however, the species' specific (or 'preferred') habitat requirements are not well known. The national recovery plan lists the determination of the species habitat use at different life history stages and across total range as a key objective of the plan. The determination would include the development of a predictive habitat model and the development of management strategies to maintain persistence of essential habitat requirements and review as part of a planning process under the Planning and Environment Act 1987.</p>				
<i>Nannoperca obscura</i>	Yarra Pygmy Perch	V	V	<p>The Yarra Pygmy Perch typically occurs in lakes, ponds and slow flowing rivers, but prefers small-medium sized relatively shallow (1-2m) freshwater streams with moderate to high flow. It is a demersal species that completes its life cycle in freshwater. It is usually associated with large amounts of aquatic vegetation (particularly emergent vegetation) and log snags in clear, fresh to slightly brackish water. The distributional range of the Yarra Pygmy Perch coincides with Victoria's ancient volcanic region; most streams in this area are notably alkaline and have a high mineral content. The species occurs in Deep Creek, which is a clear, slow to steady flowing creek with a silt or solid rock substrate. In winter, the average depth is around 0.5-1.5 m. summer water levels are greatly reduced, with little if any water flow. Typical winter water temperatures are 7-9 °C and summer water temperature averages 17-19 °C. Water chemistry is pH 7.6-7.8. In artificial ponds this species has survived minimum and maximum water temperatures of 5 °C and 35 °C, respectively.</p>	Absent	Low No habitat present on site that would support this species.	Low	

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<i>Prototroctes maraena</i>	Australian Grayling		V	<p>Is diadromous, spending part of its lifecycle in freshwater and at least part of the larval and/or juvenile stages in coastal seas. Adults (including pre spawning and spawning adults) inhabit cool, clear, freshwater streams with gravel substrate and areas alternating between pools and riffle zones such as the Tambo River, which is also known to have granite outcrops. Also associated with clear, gravel-bottomed habitats in the Mitchell and Wonnangatta Rivers (Victoria) and in a muddy-bottomed, heavily silted habitat in the Tarwin River (Victoria). Has been found over 100 km upstream from the sea. Currently, occurs in streams and rivers on the eastern and southern flanks of the Great Dividing Range, from Sydney, southwards to the Otway Ranges of Victoria and in Tasmania. Found in fresh and brackish waters of coastal lagoons, from Shoalhaven River in NSW to Ewan Pools in South Australia. Is absent in the Murray-Darling system. In Victoria in the 1980s, this species had been most frequently collected in the Tambo, Barwon, Mitchell and Tarwin River systems. In NSW, there are many sightings from the Deua River that cover all year classes, usually in shoals containing a number of boulders.</p>	Absent	Low No habitat present on site that would support this species.	Low
Reptiles							
<i>Aprasia parapulchella</i>	Pink-tailed Worm-lizard	E	V	<p>Known from the Central and Southern Tablelands, and the South Western Slopes. A concentration of populations in the Canberra/Queanbeyan Region, Cooma, Yass, Bathurst, Albury and West Wyalong. Inhabits sloping, open woodland areas with predominantly native grassy ground layers, particularly those dominated by Kangaroo Grass (<i>Themeda triandra</i>). Sites are typically well-drained, with rocky outcrops or scattered, partially buried rocks. Commonly found beneath small, partially embedded rocks and appear to spend considerable time in burrows below these rocks; the burrows have been constructed by and are often still inhabited by small black ants and termites. Feeds on the larvae and eggs of the ants</p>	Absent	Low Habitat on site not considered likely to support this species. Not recorded within the locality. One small area of rocky habitat present. Not likely to support this species.	Low

This report does not take into account the Murray-Darling Basin Authority's 2017 Basin Plan for the sole purpose of enabling its consideration and review as part of a planning process under the Planning and Environment Act 1987. The shoals containing a number of boulders purpose which may breach any copyright

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				with which it shares its burrows.				
<i>Delma impar</i>	Striped Legless Lizard	E	V	Occurs in the Southern Tablelands, the South West Slopes, the Upper Hunter and possibly on the Riverina. Populations are known in the Goulburn, Yass, Queanbeyan, Cooma, Muswellbrook and Tumut areas. Also occurs in the ACT, Victoria and south-eastern South Australia. Found mainly in Natural Temperate Grassland but has also been captured in grasslands that have a high exotic component. Habitat is where grassland is dominated by perennial, tussock-forming grasses such as Kangaroo Grass <i>Themeda triandra</i> , spear-grasses <i>Austrostipa</i> spp., Poa tussocks <i>Poa</i> spp., and occasionally wallaby grasses <i>Austrodanthonia</i> spp. Sometimes present in modified grasslands with a significant content of exotic grasses. Sometimes found in grasslands with significant amounts of surface rocks which are used for shelter. Sometimes utilises dried cowpats for shelter. Actively hunts for spiders, crickets, moth larvae and cockroaches.	Marginal	Moderate Some marginal habitat (exotic dominated grassland and native grassland) present, however species not recorded within the locality. However, within an area mapped where species may occur.	Low No suitable habitat to be impacted	
<i>Tympanocryptis pinguicollis</i>	Grassland Earless Dragon	CE	E	The grassland earless dragon is a native grassland specialist inhabiting natural temperate grasslands. This habitat is best described in the endangered ecological community description for natural temperate grasslands of the Southern Tablelands. Burrows of the wolf spider (<i>Lycosa</i> spp.) and wood cricket (<i>Cooraboorama canberrae</i>), embedded surface rocks and tussocks are habitat components critical to this species survival. Natural temperate grassland with actual or potential connectivity value is also habitat critical to this species survival.	Absent	Low No habitat on site considered likely to support this species, not recorded within locality and not within the mapped distribution of this species.	Low	
Invertebrates								
<i>Synemon plana</i>	Golden Sun Moth	V	CE	NSW populations are found in the area between Queanbeyan, Gunning, Young and Tumut. Historical distribution extended from Bathurst (central NSW) through the NSW Southern Tablelands, through to central and western Victoria, to Bordertown in eastern South Australia.	Marginal	Marginal Some potentially suitable habitat present. However not recorded in the locality and not	Low – Moderate Suitable habitat identified. A small area, 0.001 ha	

			Occurs in Natural Temperate Grasslands and grassy Box-Gum Woodlands in which ground layer is dominated by wallaby grasses <i>Rytidosperma</i> spp. Grasslands dominated by wallaby grasses are typically low and open - the bare ground between the tussocks is thought to be an important microhabitat feature, as it is typically these areas on which the females are observed displaying to attract males. Habitat may contain several wallaby grass species, which are typically associated with other grasses particularly spear-grasses <i>Austrostipa</i> spp. or Kangaroo Grass <i>Themeda triandra</i> . Larvae feed on the roots of the wallaby grass plant.			within the mapped distribution of this species.	proposed for removal.
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Appendix C MNES Search Results

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EPBC Act Protected Matters Report

This report provides general guidance on matters of national environmental significance and other matters protected by the EPBC Act in the area you have selected. Please see the caveat for interpretation of information provided here.

Report created: 28-Apr-2022

[Summary](#)

[Details](#)

[Matters of NES](#)

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

[Extra Information](#)

[Caveat](#)

[Acknowledgements](#)

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Summary

Matters of National Environment 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 (Ramsar)	1
Great Barrier Reef Marine Park:	None
Commonwealth Marine Area:	None
Listed Threatened Ecological Communities:	4
Listed Threatened Species:	40
Listed Migratory Species:	12

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

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>

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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 Lands:	None
Commonwealth Heritage Places:	None
Listed Marine Species:	19
Whales and Other Cetaceans:	None
Critical Habitats:	None
Commonwealth Reserves Terrestrial:	None
Australian Marine Parks:	None
Habitat Critical to the Survival of Marine Turtles:	None

Extra Information

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

State and Territory Reserves:	1
Regional Forest Agreements:	1
Nationally Important Wetlands:	None
EPBC Act Referrals:	5
Key Ecological Features (Marine):	None
Biologically Important Areas:	None
Bioregional Assessments:	None
Geological and Bioregional Assessments:	None

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Details

Matters of National Environmental Significance

Wetlands of International Importance (Ramsar Wetlands) [[Resource Information](#)]

Ramsar Site Name	Proximity	Buffer Status
Port phillip bay (western shoreline) and bellarine peninsula	Within 10km of Ramsar site	In feature area

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.

Status of Vulnerable, Disallowed and Ineligible are not MNES under the EPBC Act.

Community Name	Threatened Category	Presence Text	Buffer Status
Grassy Eucalypt Woodland of the Victorian Volcanic Plain	Critically Endangered	Community known to occur within area	In feature area
Natural Temperate Grassland of the Victorian Volcanic Plain	Critically Endangered	Community likely to occur within area	In feature area
Seasonal Herbaceous Wetlands (Freshwater) of the Temperate Lowland Plains	Critically Endangered	Community likely to occur within area	In buffer area only
White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland	Critically Endangered	Community likely to occur within area	In feature area

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

Status of Conservation Dependent and Extinct are not MNES under the EPBC Act.

Number is the current name ID.

Scientific Name	Threatened Category	Presence Text	Buffer Status
BIRD			
Anthochaera phrygia Regent Honeyeater [82338]	Critically Endangered	Foraging, feeding or related behaviour may occur within area	In feature area
Botaurus poiciloptilus Australasian Bittern [1001]	Endangered	Species or species habitat likely to occur within area	In feature area

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Scientific Name	Threatened Category	Presence Text	Buffer Status
Calidris ferruginea Curlew Sandpiper [856]	Critically Endangered	Species or species habitat may occur within area	In feature area
Callocephalon fimbriatum Gang-gang Cockatoo [768]	Endangered	Species or species habitat likely to occur within area	In feature area
Falco hypoleucos Grey Falcon [929]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Grantiella picta Painted Honeyeater [470]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Hirundapus caudacutus White-throated Needletail [682]	Vulnerable	Species or species habitat known to occur within area	In feature area
Lathamus discolor Swift Parrot [744]	Critically Endangered	Species or species habitat known to occur within area	In buffer area only
ADVERTISED PLAN			
Numenius madagascariensis Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat may occur within area	In feature area
Pedionomus torquatus Plains-wanderer [906]	Critically Endangered	Species or species habitat likely to occur within area	In feature area
Rostratula australis Australian Painted Snipe [77037]	Endangered	Species or species habitat likely to occur within area	In feature area
Sternula nereis nereis Australian Fairy Tern [82950]	Vulnerable	Species or species habitat may occur within area	In buffer area only

FISH

Galaxiella pusilla Eastern Dwarf Galaxias, Dwarf Galaxias [56790]	Vulnerable	Species or species habitat may occur within area	In feature area
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Scientific Name	Threatened Category	Presence Text	Buffer Status
Nannoperca obscura Yarra Pygmy Perch [26177]	Vulnerable	Species or species habitat known to occur within area	In feature area
Prototroctes maraena Australian Grayling [26179]	Vulnerable	Species or species habitat may occur within area	In feature area
FROG			
Litoria raniformis Growling Grass Frog, Southern Bell Frog, Green and Golden Frog, Warty Swamp Frog, Golden Bell Frog [1828]	Vulnerable	Species or species habitat likely to occur within area	In feature area
INSECT			
Synemon plana Golden Sun Moth [25234]	Vulnerable	Species or species habitat known to occur within area	In feature area
MAMMAL			
Dasyurus maculatus maculatus (SE mainland population) Spot-tailed Quoll, Spotted-tail Quoll, Tiger Quoll (southeastern mainland population) [75184]	Endangered	Species or species habitat may occur within area	In feature area
Petaurus australis australis Yellow-bellied Glider (south-eastern) [87600]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Pteropus poliocephalus Grey-headed Flying-fox [186]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
PLANT			
Amphibromus fluitans River Swamp Wallaby-grass, Floating Swamp Wallaby-grass [19215]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Caladenia ornata Ornate Pink Fingers [76213]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Caladenia pumila Dwarf Spider-orchid [4155]	Critically Endangered	Species or species habitat likely to occur within area	In feature area

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Scientific Name	Threatened Category	Presence Text	Buffer Status
Dianella amoena Matted Flax-lily [64886]	Endangered	Species or species habitat likely to occur within area	In feature area
Dodonaea procumbens Trailing Hop-bush [12149]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Glycine latrobeana Clover Glycine, Purple Clover [13910]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Lachnagrostis adamsonii Adamson's Blown-grass, Adamson's Blowngrass [76211]	Endangered	Species or species habitat likely to occur within area	In feature area
Lepidium aschersonii Spiny Pepper-cress [10976]	Vulnerable	Species or species habitat may occur within area	In feature area
Lepidium hyssopifolium Basalt Pepper-cress, Peppercress, Rubble Pepper-cress, Pepperweed [16542]	Endangered	Species or species habitat likely to occur within area	In feature area
Leucochrysum albicans subsp. tricolor Hoary Sunray, Grassland Paper-daisy [89104]	Endangered	Species or species habitat likely to occur within area	In feature area
Pimelea spinescens subsp. spinescens Plains Rice-flower, Spiny Rice-flower, Prickly Pimelea [21980]	Critically Endangered	Species or species habitat likely to occur within area	In feature area
Pterostylis chlorogramma Green-striped Greenhood [56510]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Pterostylis cucullata Leafy Greenhood [15459]	Vulnerable	Species or species habitat may occur within area	In feature area
Rutidosis leptorhynchoides Button Wrinklewort [67251]	Endangered	Species or species habitat likely to occur within area	In feature area

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Scientific Name	Threatened Category	Presence Text	Buffer Status
Senecio macrocarpus Large-fruit Fireweed, Large-fruit Groundsel [16333]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Thelymitra epipactoides Metallic Sun-orchid [11896]	Endangered	Species or species habitat may occur within area	In buffer area only
Xerochrysum palustre Swamp Everlasting, Swamp Paper Daisy [76215]	Vulnerable	Species or species habitat may occur within area	In feature area

REPTILE

Aprasia parapulchella Pink-tailed Worm-lizard, Pink-tailed Legless Lizard [1665]	Vulnerable	Species or species habitat may occur within area	In feature area
Delma impar Striped Legless Lizard, Striped Snake-lizard [1649]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Tymanocryptis pinguicolla Grassland Earless Dragon [66727]	Endangered	Species or species habitat may occur within area	In feature area

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Listed Migratory Species

[[Resource Information](#)]

Scientific Name	Threatened Category	Presence Text	Buffer Status
Migratory Marine Birds			
Apus pacificus Fork-tailed Swift [678]		Species or species habitat likely to occur within area	In feature area

Migratory Terrestrial Species

Hirundapus caudacutus White-throated Needletail [682]	Vulnerable	Species or species habitat known to occur within area	In feature area
Motacilla flava Yellow Wagtail [644]		Species or species habitat may occur within area	In feature area
Myiagra cyanoleuca Satin Flycatcher [612]		Breeding known to occur within area	In feature area

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Scientific Name	Threatened Category	Presence Text	Buffer Status
Rhipidura rufifrons Rufous Fantail [592]		Species or species habitat likely to occur within area	In feature area
Migratory Wetlands Species			
Actitis hypoleucos Common Sandpiper [59309]		Species or species habitat may occur within area	In feature area
Calidris acuminata Sharp-tailed Sandpiper [874]		Species or species habitat may occur within area	In feature area
Calidris ferruginea Curlew Sandpiper [856]	Critically Endangered	Species or species habitat may occur within area	In feature area
Calidris melanotos Pectoral Sandpiper [858]		Species or species habitat may occur within area	In feature area
Gallinago hardwickii Latham's Snipe, Japanese Snipe [863]	ADVERTISED PLAN	Species or species habitat likely to occur within area	In feature area
Numenius madagascariensis Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat may occur within area	In feature area
Tringa nebularia Common Greenshank, Greenshank [832]		Species or species habitat likely to occur within area	In feature area

Other Matters Protected by the EPBC Act

Listed Marine Species			[Resource Information]
Scientific Name	Threatened Category	Presence Text	Buffer Status
Bird			
Actitis hypoleucos Common Sandpiper [59309]		Species or species habitat may occur within area	In feature area

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Scientific Name	Threatened Category	Presence Text	Buffer Status
Apus pacificus Fork-tailed Swift [678]		Species or species habitat likely to occur within area overfly marine area	In feature area
Bubulcus ibis as Ardea ibis Cattle Egret [66521]		Species or species habitat may occur within area overfly marine area	In feature area
ADVERTISED PLAN			
Calidris acuminata Sharp-tailed Sandpiper [874]		Species or species habitat may occur within area	In feature area
Calidris ferruginea Curlew Sandpiper [856]	Critically Endangered	Species or species habitat may occur within area overfly marine area	In feature area
Calidris melanotos Pectoral Sandpiper [858]		Species or species habitat may occur within area overfly marine area	In feature area
Chalcites osculans as Chrysococcyx osculans Black-eared Cuckoo [83425]		Species or species habitat likely to occur within area overfly marine area	In feature area
Gallinago hardwickii Latham's Snipe, Japanese Snipe [863]		Species or species habitat likely to occur within area overfly marine area	In feature area
Haliaeetus leucogaster White-bellied Sea-Eagle [943]		Species or species habitat likely to occur within area	In feature area
Hirundapus caudacutus White-throated Needletail [682]	Vulnerable	Species or species habitat known to occur within area overfly marine area	In feature area
Lathamus discolor Swift Parrot [744]	Critically Endangered	Species or species habitat known to occur within area overfly marine area	In buffer area only

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Scientific Name	Threatened Category	Presence Text	Buffer Status
Merops ornatus Rainbow Bee-eater [670]		Species or species habitat may occur within area overfly marine area	In feature area
Motacilla flava Yellow Wagtail [644]		Species or species habitat may occur within area overfly marine area	In feature area
Myiagra cyanoleuca Satin Flycatcher [612]		Breeding known to occur within area overfly marine area	In feature area
Neophema chrysostoma Blue-winged Parrot [726]		Species or species habitat known to occur within area overfly marine area	In feature area
Numenius madagascariensis Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat may occur within area	In feature area
Rhipidura rufifrons Rufous Fantail [592]	ADVERTISED PLAN	Species or species habitat likely to occur within area overfly marine area	In feature area
Rostratula australis as Rostratula benghalensis (sensu lato) Australian Painted Snipe [77037]	Endangered	Species or species habitat likely to occur within area overfly marine area	In feature area
Tringa nebularia Common Greenshank, Greenshank [832]		Species or species habitat likely to occur within area overfly marine area	In feature area

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Extra Information

State and Territory Reserves			[Resource Information]
Protected Area Name	Reserve Type	State	Buffer Status
Durridwarrah B.R.	Natural Features Reserve	VIC	In buffer area only

Regional Forest Agreements	[Resource Information]
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Note that all areas with completed RFAs have been included.

RFA Name	State	Buffer Status
West Victoria RFA	Victoria	In feature area

EPBC Act Referrals [[Resource Information](#)]

Title of referral	Reference	Referral Outcome	Assessment Status	Buffer Status
Not controlled action				
Geelong Bypass Sections 1 & 2	2005/2097	Not Controlled Action	Completed	In buffer area only
Improving rabbit biocontrol: releasing another strain of RHDV, sthrn two thirds of Australia	2015/7522	Not Controlled Action	Completed	In feature area
INDIGO Central Submarine Telecommunications Cable	2017/8127	Not Controlled Action	Completed	In feature area
Power Station	2001/239	Not Controlled Action	Completed	In buffer area only
Not controlled action (particular manner)				
INDIGO Marine Cable Route Survey (INDIGO)	2017/7996	Not Controlled Action (Particular Manner)	Post-Approval	In feature area

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Caveat

1 PURPOSE

This report is designed to assist in identifying the location of matters of national environmental significance (MNES) and other matters protected by the Environment Protection and Biodiversity Conservation Act 1999 (Cth) (EPBC Act) which may be relevant in determining obligations and requirements under the EPBC Act.

The report contains the mapped locations of:

- World and National Heritage properties;
- Wetlands of International and National Importance;
- Commonwealth and State/Territory reserves;
- distribution of listed threatened, migratory and marine species;
- listed threatened ecological communities; and
- other information that may be useful as an indicator of potential habitat value.

2 DISCLAIMER

This report is not intended to be exhaustive and should only be relied upon as a general guide as mapped data is not available for all species or ecological communities listed under the EPBC Act (see below). Persons seeking to use the information contained in this report to inform the referral of a proposed action under the EPBC Act should consider the limitations noted below and whether additional information is required to determine the existence and location of MNES and other protected matters.

Where data are available to inform the mapping of protected species, the presence type (e.g. known, likely or may occur) that can be determined from the data is indicated in general terms. It is the responsibility of any person using or relying on the information in this report to ensure that it is suitable for the circumstances of any proposed use. The Commonwealth cannot accept responsibility for the consequences of any use of the report or any part thereof. To the maximum extent allowed under governing law, the Commonwealth will not be liable for any loss or damage that may be occasioned directly or indirectly through the use of, or reliance

3 DATA SOURCES

Threatened ecological communities

For threatened ecological communities where the distribution is well known, maps are generated based on information contained in recovery plans, State vegetation maps and 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

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

Where little information is available for a 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 detailed distribution mapping methods are used to update these distributions

4 LIMITATIONS

The following species and ecological communities have not been mapped and do not appear in this report:

- threatened species listed as extinct or considered vagrants;
- some recently listed species and ecological communities;
- some listed migratory and listed marine species, which are not listed as threatened species; and
- migratory species that are very widespread, vagrant, or only occur in Australia in small numbers.

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

- listed migratory and/or listed marine seabirds, which are not listed as threatened, have only been mapped for recorded
- seals which have only been mapped for breeding sites near the Australian continent

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

Refer to the metadata for the feature group (using the Resource Information link) for the currency of the information.

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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
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- [-Ocean Biogeographic Information System](#)
- [-Australian Government, Department of Defence](#)
- [Forestry Corporation, NSW](#)
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- [-Australian Tropical Herbarium, Cairns](#)
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- [-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

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

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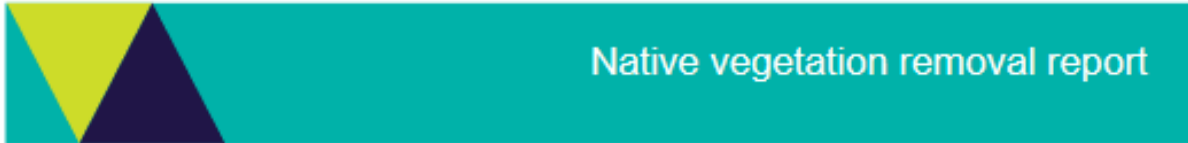
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Appendix D Native Vegetation Removal Report



Native vegetation removal report

This report provides information to support an application to remove, destroy or lop native vegetation in accordance with the *Guidelines for the removal, destruction or lopping of native vegetation*. The report is **not an assessment** by DELWP of the proposed native vegetation removal. Native vegetation information and offset requirements have been determined using spatial data provided by the applicant or their consultant.

Date of issue: 13/07/2022
Time of issue: 4:27 pm

Report ID: NGH_2022_008

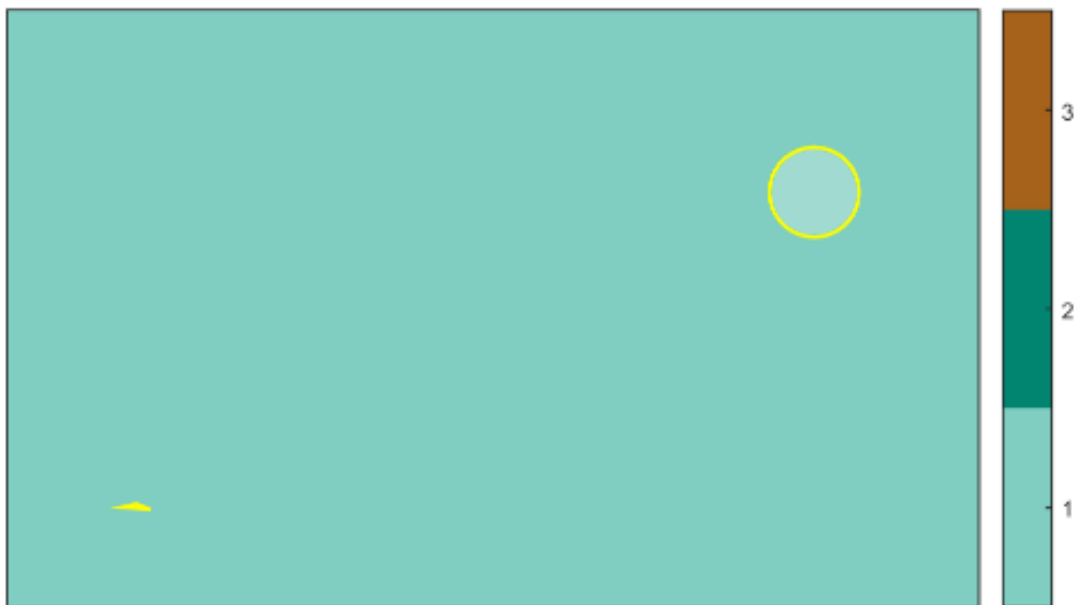
Project ID	21-425_Anakie_SF_Ensym_20220708_V5
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Assessment pathway

Assessment pathway	Intermediate Assessment Pathway
Extent including past and proposed	0.071 ha
Extent of past removal	0.000 ha
Extent of proposed removal	0.071 ha
No. Large trees proposed to be removed	0
Location category of proposed removal	Category 1: The area is not mapped as an endangered Ecological Vegetation Class (as per the statewide EVC map), sensitive wetland or coastal area. Removal of less than 0.5 hectares in this location will not have any significant impact on native or threatened species

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1. Location map





Native vegetation removal report

Offset requirements if a permit is granted

Any approval granted will include a condition to obtain an offset that meets the following requirements:

General offset amount¹	0.014 general habitat units
Vicinity	Corangamite Catchment Management Authority (CMA) or Greater Geelong City Council
Minimum strategic biodiversity value score ²	0.288
Large trees	1 large tree

NB: values within tables in this document may not add to the totals shown above due to rounding

Appendix 1 includes information about the native vegetation to be removed

Appendix 2 includes information about the rare or threatened species mapped at the site.

Appendix 3 includes maps showing native vegetation to be removed and extracts of relevant species habitat importance maps

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¹ The general offset amount required is the sum of all general habitat units in Appendix 1.

² Minimum strategic biodiversity score is 80 per cent of the weighted average score across habitat zones where a general offset is required

Native vegetation removal report

Next steps

Any proposal to remove native vegetation must meet the application requirements of the Intermediate Assessment Pathway and it will be assessed under the Intermediate Assessment Pathway.

If you wish to remove the mapped native vegetation you are required to apply for a permit from your local council. Council will refer your application to DELWP for assessment, as required. **This report is not a referral assessment by DELWP.**

This **Native vegetation removal report** must be submitted with your application for a permit to remove, destroy or lop native vegetation.

Refer to the **Guidelines for the removal, destruction or lopping of native vegetation** (the Guidelines) for a full list of application requirements. This report provides information that meets the following application requirements:

- The assessment pathway and reason for the assessment pathway
- A description of the native vegetation to be removed (met unless you wish to include a site assessment)
- Maps showing the native vegetation and property
- The offset requirements determined in accordance with section 5 of the Guidelines that apply if approval is granted to remove native vegetation.

Additional application requirements must be met including:

- Topographical and land information
- Recent dated photographs
- Details of past native vegetation removal
- An avoid and minimise statement
- A copy of any Property Vegetation Plan that applies
- A defensible space statement as applicable
- A statement about the Native Vegetation Precinct Plan as applicable
- An offset statement that explains how the offset will be secured.

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Authorised by the Victorian Government, 8 Nicholson Street, East Melbourne.

For more information contact the DELWP Customer Service Centre 136 186

www.delwp.vic.gov.au

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This publication may be of assistance to you but the State of Victoria and its employees do not guarantee that the publication is without flaw of any kind or is wholly appropriate for your particular purposes and therefore disclaims all liability for any error, loss or other consequence which may arise from you relying on any information in this publication.

Obtaining this publication does not guarantee that an application will meet the requirements of Clauses 52.16 or 52.17 of the Victoria Planning Provisions and Victorian planning schemes or that a permit to remove native vegetation will be granted.

Notwithstanding anything else contained in this publication, you must ensure that you comply with all relevant laws, legislation, awards or orders and that you obtain and comply with all permits, approvals and the like that affect, are applicable or are necessary to undertake any action to remove, lop or destroy or otherwise deal with any native vegetation or that apply to matters within the scope of Clauses 52.16 or 52.17 of the Victoria Planning Provisions and Victorian planning schemes.

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Appendix 1: Description of native vegetation to be removed

All zones require a general offset, the general habitat units each zone is calculated by the following equation in accordance with the Guidelines:

$$\text{General habitat units} = \text{extent} \times \text{condition} \times \text{general landscape factor} \times 1.5, \text{ where the general landscape factor} = 0.5 + (\text{strategic biodiversity value score}/2)$$

The general offset amount required is the sum of all general habitat units per zone.

Native vegetation to be removed

Information provided by or on behalf of the applicant in a GIS file							Information calculated by En Sym					
Zone	Type	BioEVC	BioEVC conservation status	Large tree(s)	Partial removal	Condition score	Polygon Extent	Extent without overlap	SBV score	HI score	Habitat units	Offset type
1-a	Patch	vvp_0055_61	Endangered	0	no	0.210	0.001	0.001	0.320		0.000	General
2-a	Scattered Tree	vvp_0055_61	Endangered	1	no	0.200	0.070	0.070	0.360		0.014	General

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Appendix 2: Information about impacts to rare or threatened species' habitats on site

This is not applicable in the Intermediate Assessment Pathway.

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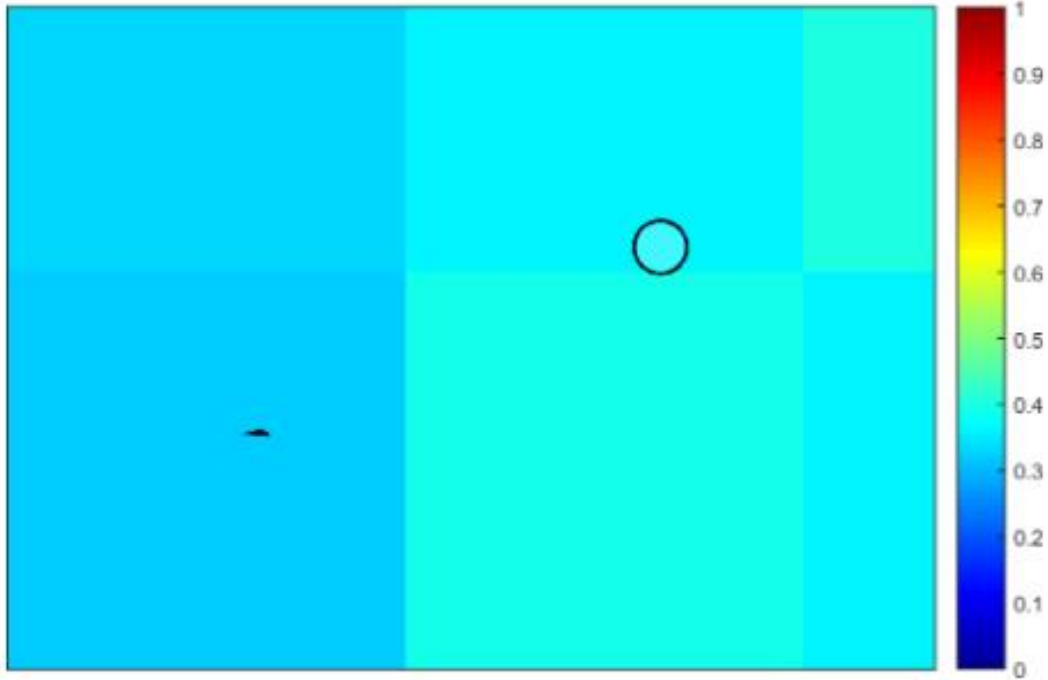
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Appendix 3 – Images of mapped native vegetation

2. Strategic biodiversity values map



3. Aerial photograph showing mapped native vegetation



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4. Map of the property in context



Yellow boundaries denote areas of proposed native vegetation removal.

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Appendix E Third Party Offset Quote

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vegetationlink

Our reference: VLQ-8287

Your reference: Anakie Solar Farm

14 July 2022

Dimity Bambrick
NGH Consulting
Dimity.B@nghconsulting.com.au

Dear Dimity

RE: Quotation for the supply of native vegetation credits

Vegetation Link is an accredited offset provider with the Department of Environment, Land, Water & Planning (DELWP). We offer a specialised brokerage service to enable permit holders and developers to identify suitable native vegetation credits to meet their planning permit offset requirements.

Based on the information you have provided, I understand you require the following native vegetation offset:

Offset type	Vicinity	General habitat units (GHU)	Min. strategic biodiversity value (SBV)	Large trees
General	Corangamite CMA	0.014	0.288	1

To meet your offset requirements, you can purchase native vegetation credits from a third party as per the option quoted below¹. This quotation is valid for 14 days, subject to credit availability and landholder pricing.

CTA pathway – offset site located in the Colac Otway Shire area (approx. 4-6 week turnaround from acceptance of quote)	
Cost of native vegetation credits – invoiced by Credit Owner	\$2,040.00
Transaction fees – invoiced by Vegetation Link	\$1,280.00
Total (ex. GST)	\$3,320.00
Total (inc. GST)	\$3,652.00

If you would like to purchase credits, let us know that you accept the quote and return the attached **purchaser details form** by email. Upon receipt of the form, we will begin the trade process. Further details of the process for credit allocation is in the FAQ below.

Should you have any queries, please do not hesitate to contact us on 1300 VEG LINK (1300 834 546) or email offsets@vegetationlink.com.au.

Sincerely,



Tesha Mahoney
Biodiversity Offset Broker

¹ Note that the transaction fee includes DELWP NVOR transfer and allocation fees and a Vegetation Link fee

Vegetation Link Pty Ltd
ABN: 92 169 702 032
www.vegetationlink.com.au

1300 VEG LINK (1300 834 546) | offsets@vegetationlink.com.au | PO Box 10 Castlemaine VIC 3450

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vegetationlink

What happens if I don't have a permit yet?

When people are buying credits before a permit is issued, the following three options are most common:

- You can pay for the offsets before the planning permit is available, and then the offsets are allocated to the permit when it is available. This will incur an additional \$50 fee from DELWP. When considering this option, it is important to realise that your estimated offset requirements may be different than the actual permit requirements.
- You can wait for the planning permit to be approved first and then request a quote to meet the requirements in your permit. Should credits be available, you can then start the offset purchase process. We then use the planning permit number for allocating the credits. Allocating credits to the permit is evidence that you have purchased your offset.
- You can request a quote to confirm availability and to get an idea of the cost of offsetting before you apply for a permit. Once you receive the planning permit you can request an updated quote. It is at this point that you can then go through the offset purchase process.

We cannot guarantee credit availability until a) contracts are executed, or b) credits have been held via a pending trade lodged with DELWP Native Vegetation Offset Register.

We cannot guarantee price until a) a quote has been accepted within 14 days, and b) a Credit Trading Agreement is signed within 21 days, and c) the invoice for the credits is paid within 28 days of the date the invoice is issued.

If I sign the contract, does that mean I MUST pay for the credits?

Yes, you have entered into a contract agreeing to pay for the offset credits therein and are required to pay for those credits. The credits must be paid for within 28 days of the date of the invoice.

Can you hold the credits for me, as I want to pay later?

We are unable to hold credits for later payment. Please also see 'What happens if I don't have a permit yet?' above.

For further information, see [our website](#) or the [DELWP website](#).

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FAQs

What is a third party offset?

A third party offset is an offset site owned by another landowner who manages and protects native vegetation on their land. Landowners who establish these offset sites are required to:

- Enter into a Landowner Agreement for the specified offset site. A landowner agreement is in perpetuity and is binding upon the current and future landowners of the site. It permanently restricts use of the site for many purposes.
- Implement a detailed 10-year Management Plan endorsed by the DELWP Native Vegetation Offset Register to manage and improve the biodiversity values of the site.

How is the price of native vegetation offset credit (GHUs, GBEUs etc.) determined?

Landowners who own offset sites set their own price for native vegetation credits. They determine the price based on numerous factors. This includes but not limited to site establishment, the cost to manage the site in perpetuity (e.g., maintain fencing, control pest species), foregone use cost, and administrative costs. Depending on how the site is registered, the credit fee may be paid to either DELWP or directly to the landowner.

Further information about the work some of our landowners are doing can be found on the [Vegetation Link website](#).

What is the process after I accept the quote?

After you accept the quote and return the purchaser table, the following steps will be undertaken:

1. We will set up a contract between the parties involved and send the contract out for signing by all parties.
2. Once the contract is signed by all parties, invoices will be issued for the fees listed in the quotation. We will send you two invoices, one for our transaction fee invoiced by Vegetation Link and one for the credit fee, usually to be paid to DELWP or the landowner. We recommend providing remittances for your payments.
3. Once payments are received, Vegetation Link will send you an allocated credit extract from the Native Vegetation Offset Register and your executed contract as evidence that you have purchased the offset.

How long will the process take? When will I get my credits?

Generally, the process from quote acceptance to having evidence of allocated credits takes between 2-6 weeks. This is dependent on a range of factors including the type of landholder agreement, contract types and organisational workflows. We work as quickly as possible to get your credits to you within this time period.

We note that you **cannot** remove vegetation until you have been given permission by the Responsible Authority (usually the council that has issued your permit).

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