Ecology Assessment

88a-90 Wedge St, Kyneton

June 2022

Project Number: 21-325

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Appendices

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Acronyms and abbreviations

ASL	Above sea level
AWS	Automatic weather station
BOM	Australian Bureau of Meteorology
CaLP Act	*Catchment and Land Protection Act, 1994*
CEMP	Construction environmental management plan
Cwth	Commonwealth
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) *Environment Protection and Biodiversity Conservation Act 1999*
ESD	Ecologically Sustainable Development
EVC	Ecological Vegetation Community
FFG	*Flora and Fauna Guarantee Act, 1988*
ha	hectares
km	kilometres
m	Metres
MNES	Matters of National Environmental Significance
P&E Act	*Planning and Environment Act, 1987*
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

NGH Pty Ltd has been engaged by Tomkinson Group to undertake an ecological assessment at 88a-90 Wedge St, Kyneton to assess the potential impacts on threatened entities and determine the native vegetation present on site and subsequent offset requirements.

The Study Area for the proposed 18 lot subdivision is located on 88A Wedge St (Lot 1 PS524086) and 90 Wedge St (Lot 2 PS524086 and CA25, CA26 and CA27\PP5439 (multiple lots)). The proposal includes a 18 lot subdivision site that is approximately 1.6 kms from the centre of Kyneton in Macedon Ranges Shire Council Area. The study area covers approximately 3.125 hectares which includes the unmade road reserves and Wedge St.as well as the development footprint for the proposed subdivision. The subdivision includes 18 residential lots and one reserve that covers a combined area of 1.95 hectares.

The property is zoned as a Neighbourhood Residential Zone (NRZ10) with the following overlays:

- Design and Development Overlay (DDO17)
- Environmental Audit Overlay (EAO)
- Environmental Significance Overlay (ESO4)
- Protected Settlement Boundary (PSB)

The property has an extensive garden with exotic trees, planted garden beds and pathways. The native vegetation in the development footprint is planted. The planted native vegetation on the banks and upper slopes of Post Office Creek will be retained. The planted vegetation includes local indigenous and regional Australian trees, shrubs and understorey.

There are some high threat weeds in this area that will require management as part of the Weed Management Plan. The noxious weeds include Cracked Willow, Hawthorn, Blackberry, Briar Rose, Spear Thistle and Fennel.

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.

The following offset requirements are needed in the offset strategy:

- General offset amount – 0.006 General Habitat Units
- Vicinity – North Central Catchment Management Authority (CMA) or Macedon Ranges Shire Council
- Minimum strategic biodiversity value score – 0.192
- Large trees - 0

If a planning 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 impact on threatened vegetation communities, flora or fauna from the proposed subdivision.

1. Introduction

NGH Pty Ltd has been engaged by Tomkinson Group Pty Ltd to undertake an ecological assessment for the proposed subdivision at as 88A-90 Wedge Street Kyneton.

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 if a planning permit is required under Clause 52.17 – native vegetation as outlined in the *Planning and Environment Act, 1987*
- Undertake a site assessment to determine the extent of native vegetation and high threat weeds
- Summarise findings in an Ecological Report
- Complete a Weed Management Plan
- Advise if any offsets are required for native vegetation removal

1.1 Locality

88A-90 Wedge Street, Kyneton is located in Maceon Ranges Local Government Area. The property is approximately 1.6 kms from the centre of Kyneton. 88A-90 Wedge Street covers approximately 1.95 hectares. The property is extensive gardens with exotic trees, planted garden beds and pathways. The native vegetation on site is planted. The creek area has been planted with a mix of local indigenous and regional Australian trees, shrubs and understorey. There are three rows of planted Manna Gums (*Eucalyptus viminalis*). There are some high threat weeds including Willows, Hawthorn, Blackberry, Briar Rose and Fennel (See Figure 6-1).

Post Office Creek is located to the south of the property which is mainly covered in willows and revegetation. The immediate north and eastern boundaries are unmade road reserves. There is an open paddock to the east of the Study Area. There is a small industrial area to the north of the site.

1.2 Development proposal

The Study Area for the proposed subdivision is located on 88A Wedge St (Lot 1PS524086) and 90 Wedge St (Lot 2 PS524086 and CA25, CA26 and CA27\PP5439 (multiple lots)). The proposed subdivision includes 18 lot subdivision that covers 1.95 hectares. The revegetation along the banks of Post Office Creek will be retained. No vegetation removal is proposed along the creek except for management of high threat weeds. A weed management plan can be found in Section 6 in this report.

1.3 Bioregion

Bioregions in Victoria are determined by climate, geomorphology, soils and vegetation to classify the environment at a landscape scale (DELWP 2021). There are 28 bioregions in Victoria and the Study Area is located in the Central Victorian Uplands Bioregion.

The Central Victorian Uplands geology formation include Lower Paleozoic deposits with dissected uplands at higher elevations, amongst granitic and sedimentary (with Tertiary colluvial aprons) terrain with metamorphic and old volcanic rocks which have formed steeply sloped peaks and ridges (DELWP 2021).

The vegetation communities on less fertile hills support Grassy Dry Forest and Heathy Dry Forests (DELWP 2021). Fertile soils are dominated by Herb-rich Foothill Forest and Shrubby Foothill Forests and the granitic and sedimentary (with Tertiary colluvial aprons) terrain is dominated by Grassy Woodlands (DELWP 2021). The vegetation communities in low lying valleys and plains includes Valley Grassy Forest and Plains Grassy Woodland (DELWP 2021).

1.4 Waterways and wetlands

One waterway flows through the Study Area, known as Post Office Creek. It is located to the south of the study area and flows north (see Figure 1-1). Post Office Creek joins Campaspe River to the northwest of the site. The site is located in the North Central Catchment Management Area.

The nearest wetlands are series of wetlands within 5 kms of the Study Area. These wetlands are termed Freshwater meadows with no official name. The nearest Reservoirs are Malmsbury and Lauriston which are within 7.5 kms of the Study Area.

The nearest RAMSAR wetlands are Gunbower Forest and NSW Central Murray State Forests which are 100-150 kms downstream.

Figure 1-1 Location Map

2. Legislative Requirements

This section details the legislative requirements in relation to the ecology assessment. Table 2-1 details the legislation and where it is assessed in the report.

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

Legislation	Requirements	Section of this Report
Commonwealth Environment Protection and Biodiversity Conservation Act, 1999 (EPBC)	Matters of National Environmental Significance for threatened entities and RAMSAR wetlands	Section 5
Victorian Planning and Environment Act, 1987 (P&E)	Municipal Planning Schemes including Planning Zones and Overlays Clause 52.17 – Native Vegetation	Section 2.1
Victorian Flora and Fauna Guarantee Amendment Act, 2019 (formerly Flora and Fauna Guarantee Act 1988) (FFGA)	Threatened entities and critical habitat listed in Victoria	Section 4.2
Victorian Wildlife Act 1975	Protection of native fauna	Section 2.3
Catchment and Land Protection Act, 1994	Declared noxious weeds and pest animals.	Section 6

2.1 Planning and Environment Act, 1987

The *Planning and Environment 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 Macedon Ranges Planning Scheme. The Study Area includes the following lots:

- 88A Wedge St - Lot 1 PS524086
- 90 Wedge St - Lot 2 PS524086
- 88 Wedge St – CA25, CA26 and CA27\PP5439

The zone for the Study Area is.

- Neighbourhood Residential Zone (NRZ10).

Overlays include:

- Design and Development Overlay (DDO17)
- Environmental Audit Overlay (EAO)
- Environmental Significance Overlay (ESO4)
- Protected Settlement Boundary (PSB)

Other overlays include

- Land Subject to Inundation (LSIO) -
- Clause 52.17 – Native Vegetation
- Areas of Aboriginal Cultural Heritage Sensitivity

The planning permit triggers for these Zones and Overlays relevant to native vegetation or biodiversity are Clause 52.17 – Native Vegetation and the Environmental Significance Overlay (ESO4). The objective and permit requirements are addressed in more detail below. The other zones and overlays are not required to be addressed further as a part of this ecology report.

2.1.1 Environmental Significance Overlay (ESO4).

The objectives of this overlay are:

- To implement the Municipal Planning Strategy and the Planning Policy Framework.
- To identify areas where the development of land may be affected by environmental constraints.
- To ensure that development is compatible with identified environmental values.

The environmental significance and objectives of this schedule (4) are:

- Lake Eppalock is a major water storage and recreational facility located within the Campaspe River catchment. It is a major source of water for irrigation, stock and domestic and urban water supplies for towns within the municipality.
- To ensure the protection and maintenance of water quality and water yield within the Eppalock Water Supply Catchment Area as listed under Section 5 of the *Catchment and Land Protection Act 1994*.

The permit requirement in regard to vegetation is as follows:

Remove, destroy or lop any vegetation, including dead vegetation. This does not apply:

- If a schedule to this overlay specifically states that a permit is not required.
- If the table to Clause 42.01-3 specifically states that a permit is not required.
- To the removal, destruction or lopping of native vegetation in accordance with a native vegetation precinct plan specified in the schedule to Clause 52.16.

2.1.2 Clause 52.17- Native Vegetation

Native plants that are indigenous to the region and important for biodiversity have the potential to be present in the Study Area. Based on an assessment of aerial imagery, native vegetation is likely to be present in the Study Area. This may include native trees, shrubs, herbs, grasses or aquatic plants. There are a range of regulations that may apply including need to obtain a planning permit under Clause 52.17 of the local planning scheme.

The purpose of Clause 52.17 is to ensure no net loss to Victoria's biodiversity as a result of the removal, destruction or lopping of native vegetation (DELWP 2017a). By applying the three step approach, by avoiding, minimising and offsetting native vegetation loss set out in the native vegetation guidelines. The three step approach includes:

1. Avoid the removal, destruction or lopping of native vegetation.

2. Minimise impacts from the removal, destruction or lopping of native vegetation that cannot be avoided.

3. Provide an offset to compensate for the biodiversity impact if a permit is granted to remove, destroy or lop native vegetation.

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

Table 2-2 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.
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 defendable space, a written statement explaining why the removal of native vegetation is necessary. This is not required when the creation of defendable 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.

Criteria
Information about impacts on rare or threatened species habitat.

2.1.3 Native vegetation assessment pathway

The development footprint is located predominantly in assessment pathway Location 1 with small patches of Location 2 as shown on Figure 2-1. The native vegetation guidelines (DELWP 2017a) 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.

From the DELWP Guidelines (2017a), Table 3 (p. 19 of the guidelines; DELWP 2017a) shows the assessment pathway and location category thresholds below. The Study Area is in location 1 and planted native vegetation is proposed to be removed, this triggers a planning permit under Clause 52.17 and ESO4.

Table 2-3 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

Figure 2-1 .Native Vegetation Assessment Pathway

2.2 Flora and Fauna Guarantee Act, 1988

The *Flora and Fauna Guarantee Act 1988 (FFG Act)* was amended to the *Flora and Fauna Amendment Act in 2019.* The flora and fauna conservation and management objectives 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.

An assessment of the threatened vegetation communities and threatened species listed under the FFG Act has been undertaken. It has been determined there is low potential impact on all threatened species and threatened species from the proposed development.

2.3 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.

There is potential impact on wildlife during vegetation removal, mitigation measures include fauna salvage and relocation of wildlife by an appropriately qualified wildlife handler during vegetation removal. There are limited hollows present in the native vegetation to be removed, however there may be active nests and wildlife utilising the gardens and vegetation that required appropriate management. Any handling of wildlife must be undertaken by qualified wildlife handlers to ensure no wildlife are injured.

2.4 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 require ongoing management prior, during and post construction.

A weed management plan should consider any new and emerging weeds and any necessary prevention methods. Weed and pest animal management should consider best practice methods.

Appropriately qualified contractors should be engaged to undertake weed (Accredited Chemical Users Permit (ACUP)) and pest animal control (1080 and PAPP).

Hygiene practices for reducing and spreading weeds and pathogens should be included in any Construction Environmental Management Plan.

The weeds and pest animals recorded during the site assessment are addressed in Section 6.1

Declared noxious weeds

In Victoria, the CaLP Act separates noxious weeds into four categories (DJPP 2019). The CaLP Act defines four categories of noxious weeds as:

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

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 (DJPP 2019).

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 (DJPP 2019).

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 (DJPP 2019).

Restricted weeds

Restricted weeds cannot be traded, and this includes plants, seeds or propagules or contaminants (DJPP 2019). Restricted weeds are at risk of spreading within Victoria or other States or Territories of Australia (DJPP 2019). It is a landowner's responsibility to prevent the spread of these weeds.

3. Method

3.1 Site assessment

The site assessment was completed by an NGH Senior Ecologist, Michelle Patrick on October 11, 2021. The weather was cool, cloudy with periodic rainfall throughout the site assessment. The site assessment included an assessment of native vegetation, scattered tree assessment, and incidental fauna observations. The methods used are outlined in the following sections.

3.2 Background 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.

3.2.1 Assessment of threatened species and vegetation communities

Based on the background search results, the likelihood of occurrence (Table 3-1) 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 3-1 Likelihood of threatened species being observed on site

Likelihood of Occurrence	Reasoning
Nil/Absent	Suitable habitat is not present within the Study Area.
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	Observed on site. Important habitat occurs onsite (i.e., nesting sites, suitable habitat).

3.3 Flora

The flora survey was completed on foot. The flora survey includes using 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.

The methodology applied for the native vegetation assessment is described below in 3.3.1.

3.3.1 Native vegetation assessment

Native vegetation

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 2017a). 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 4.

Scattered and large trees within a habitat zone

Based upon the criteria in the guidelines (DELWP 2017a), 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.

3.3.2 Ecological Vegetation Classes (EVC)

The vegetation communities found in the Wimmera 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 2004b). 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 (DSE 2004a).

The Ecological Vegetation Class results are provided in Section 4.1.1.

3.3.3 Habitat hectares methodology

The habitat hectare methodology compares the EVC benchmark with site attributes and landscape components to determine the vegetation site condition (DSE 2004a).

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 4.1

3.4 Mapping

The site assessment was undertaken with the use of aerial imagery created using Quantum GIS. Features were mapped on site using a Samsung Android using QField. All data layers were sourced from the layers publicly available from the Victorian Government. Mapping accuracy is within a few metres.

4. Results

The results of the site assessment including a summary of EVCs, scattered trees, site observations of flora and fauna and assessment of threatened species habitat is provided in the following sections.

4.1 Flora

The results of the list of flora species identified whilst on site, are listed in Appendix A. The flora observations documented a total of 47 plant species. There were 11 native species, 14 planted native species and 22 exotic plants (excluding the planted trees and garden).

A comprehensive species list is recommended to be compiled over many seasons and it is likely more flora species will be found across the site in wetter conditions. This does not have any further implications for this proposed subdivision.

The vegetation map is shown in Figure 4-9.

4.1.1 Planted Native Vegetation

The vegetation along Post Office Creek includes trees, shrubs and understorey. The vegetation present is planted Eucalypts and Acacias from the locality/region planted on the upper slopes of Post Office Creek. The creekline vegetation will be retained and covers 0.32 hectares. This planted vegetation will not be impacted. No large trees were recorded on site. There were 30 planted trees on the eastern boundary. All other native trees were included in the creekline revegetation patch. The exotic trees were assessed and included in the Arborist Report (Axiom 2021).

Examples of Planted Native Vegetation can be found in Figure 4-1 to .

Figure 4-1. Planted Native Vegetation

Figure 4-2. Planted Native Vegetation

Figure 4-3. Planted native trees

4.1.2 EVC 821 Tall Marsh

EVC 821 Tall Marsh is the small dam that covers 0.19 hectares that forms Habitat Zone 1A The dam is neat the creekline vegetation. There is some indigenous aquatic species. This area will be impacted and the offset requirements are outlined in Section 7.

Figure 4-4 EVC 821 Tall Marsh

4.1.3 Habitat hectare results

Table 4-1 presents the habitat hectare results for habitat zone 1A.

Table 4-1 Habitat hectare scores for habitat zone 1A.

Habitat Components	Score	Habitat Zone 1A
Site Condition Score		
EVC		**821**
Large Trees	**10**	0
Tree Canopy Cover	**5**	0
Understorey	**25**	10
Lack of Weeds	**15**	9

Recruitment	**10**	6
Organic Litter	**5**	0
Logs	**5**	0
Standardiser	**1**	1.36
Site Condition Score Total		34
Landscape Context Score		
Patch Size	**10**	1
Neighbourhood	**10**	0
Distance to Core Area	**5**	1
Final Habitat Score		36
Percentile Score		0.36
Area (hectares)		**0.019**

4.1.4 Exotic vegetation

The open areas are considered exotic with a garden and planted exotic and some native trees. These areas do not trigger a planning permit or offset for removal.

Figure 4-5. Exotic garden

Figure 4-6. Exotic garden

	
Figure 4-7. Exotic garden	Figure 4-8. Exotic garden

Figure 4-9 Vegetation in the Study Area

4.2 FFG Threatened communities

There are no FFG listed vegetation communities present on site.

4.2.1 Threatened flora

From the Victorian Biodiversity Atlas results recorded nine flora species within 5kms of the Study Area. No threatened flora were recorded on site and as the site is highly modified, it is unlikely threatened flora persist at the site.

See Appendix C for details of the threatened flora assessment.

4.2.2 Threatened fauna

No threatened fauna were observed during the site assessment. The Victorian Biodiversity Atlas (VBA) search results listed 21 threatened fauna records within 5km of the Study Area. These species included:

- 13 birds including migratory birds
- 2 mammals
- 2 reptiles
- 1 amphibian
- 3 invertebrates

Based on the onsite habitat assessment, all 21 species were considered to have a low likelihood of occurring on site.

No targeted surveys are required.

See Appendix E.2E.2 Appendix C for details of the threatened flora assessment.

4.2.3 Declared pest animals

There was no evidence of European Rabbit (*Oryctolagus cuniculus*) or the Red Fox (*Vulpes vulpes*) on site, however it is considered likely these two species are present in the locality.

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

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

5.1.1 Threatened communities

There were four threatened ecological communities identified in the Matters of National Significance search. These communities are listed in Table 5-1 below.

Table 5-1 MNES search results for Threatened Communities

Vegetation Community	EPBC Status	Likelihood of Occurrence	Reasoning
Grassy Eucalypt Woodland of the Victorian Volcanic Plain	Critically Endangered	Absent	Site in Central Victorian Uplands Bioregion not the Victorian Volcanic Plain Bioregion.
Grey Box (Eucalyptus macrocarpa) Grassy Woodlands and Derived Native Grasslands of South-Eastern Australia	Endangered	Absent	No Grey Box on site
Natural Temperate Grassland of the Victorian Volcanic Plain	Critically Endangered	Absent	Site in Central Victorian Uplands Bioregion not the Victorian Volcanic Plain Bioregion.

Vegetation Community	EPBC Status	Likelihood of Occurrence	Reasoning
White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland	Critically Endangered	Absent	Occurs further north of the study area.

5.1.2 RAMSAR wetlands

The nearest RAMSAR wetlands are Gunbower Forest and NSW Central Murray State Forests which are 100-150 kms downstream.

5.1.3 Threatened flora and fauna

There were 47 results from the MNES search results. A summary of the nationally threatened flora and fauna are:

- Flora - 15
- Reptiles - 1
- Invertebrates – 1
- Birds (including migratory) – 20
- Fish – 5
- Amphibians – 1
- Mammals – 4

From the threatened species assessment (see Appendix C), all 47 species were considered low likelihood of occurring on site due to limited habitat and the highly modified condition of the site.

All 47 species are unlikely to be impacted or by the proposed subdivision.

6. Weed Management Plan

6.1 High Threat Weeds identified on site

The high threat weeds recorded on site are listed under the *Catchment and Land Protection Act, 1994*. Noxious weeds are classified by Catchment and the site is located in the North Central Catchment. The weeds present on site and their Catchment classification is listed in Table 6-1.

Table 6-1 Declared noxious weeds.

Scientific Name	Common Name	CaLP weed listing status
Allium triquetrum	Angled Onion	Restricted
Rosa rubiginosa	Sweet Briar	Regionally Controlled
Salix fragilis	Cracked Willow	Restricted
Foeniculum vulgare	Fennel	Restricted
Cirsium vulgare	Spear Thistle	Regionally Controlled
Crataegus monogyna	Hawthorn	Regionally Controlled

6.2 Weed Management

Weed management includes method of treatment, timing, frequency and prevention of spread as outlined in Table 6-2. The creek area is considered an environmentally sensitive area. All weed control works should be carried out by a qualified contractor with an appropriate Chemical Users Permit (ACUP).

The weed control methods include:

- **Chemical Treatment** – this weed management technique involves different chemical techniques with the appropriate herbicide application. All herbicide application should follow the label specification and appropriate application in environmentally sensitive areas. This includes the banks of Post Office Creek and the creek reserve area.
- **Mechanical Removal** – this technique is also known as grubbing where the plant is physically removed. The entire plant including bulbs or part of the root may be required for mechanical removal (e.g., Angled Onion) Appropriate disposal should be considered for this method. These weeds cannot be added to compost or green waste.
- **Mowing/Slashing** – mowing and slashing prior to seed set will prevent new seedlings establishing and spreading the following growing season. Mowing or slashing should be undertaken while a plant is flowering or prior to flowering to prevent seed development t or spreading the seed when it is mature i.e., slashing or mowing too late in the growing season can contribute to seed spread.
- **Prevention** – preventing weeds from spreading can include
    - implementing weed hygiene practices during construction
    - Undertake weed control prior to construction
    - limiting movement of soil, rubbish, weed seeds or propagules (parts of the plant capable of growing

Table 6-2. Weed Management

Weed species	Lifeform	Flowering	Method of Control	Specification	Timing	Frequency
Angled Onion	Bulb	Spring	Chemical Treatment	Foliar spray	Prior to flowering	Annually
			Mowing/Slashing	N/A	Spring – flowering to prevent seeds setting	Annually
			Mechanical Removal	Remove entire bulb or at least flowerheads	Spring – summer when easy to identify	Anytime during the period
			Prevention	Do not move/use soil where Angled Onion occurs	All year	Ongoing
Sweet Briar	Shrub	Late spring	Chemical Treatment	Foliar Spray	When plant is actively growing	Late spring to early autumn
			Environmentally sensitive approach	Basal Bark (<5 cms Diameter at Breast Height DBH)	When plant is actively growing and dry	Late spring to early autumn
			Environmentally sensitive approach	Cut Stump (>5 cms Diameter at Breast Height DBH)	All year but apply herbicide within 30 seconds of cutting stem	One time – monitor for new stems. New stems can be foliar sprayed.
			Mechanical Removal		Spring – summer when easy to identify	Anytime during the year

Weed species	Lifeform	Flowering	Method of Control	Specification	Timing	Frequency
Cracked Willow	Tree	Spring	Mechanical Removal	Hand pulling young seedlings (<0.5 m tall).	All year	Ongoing for new seedlings.
			Chemical	Stem injection (drill and fill)	All year	Suited to larger trees. Inject once and leave tree in-situ for 12 months.
				Cut stump - for smaller trees. Remove all material to prevent small branches pieces from falling on soil and re-establishing	Apply Picloram 44.7 g/kg + Aminopyralid 4.47 g/L or Triclopyr 240 g/L + Picloram 120 g/L immediately after cutting stump.	One application should be adequate, however further follow up monitoring and herbicide application may be necessary.
				Foliar Spray – plants <2 metres high). No spray drift on to native plants or waterway	Prior to autumn leaf fall.	One application with follow up monitoring
Fennel	Perennial Herb	Spring	Mechanical Removal	Dig up entire plant (including taproot) Slashing	All year – prior to flowering	Ongoing
				Removal of seed heads	September - March	Annually
			Chemical	Spot Spray	September - March	Annually
Spear Thistle	Herb		Mechanical Removal	Chipping/Grubbing	Spring-summer	Annually

Weed species	Lifeform	Flowering	Method of Control	Specification	Timing	Frequency
				Remove flowerheads prior to going to seed	Late spring-early summer	
			Chemical Treatment	Foliar spray	Spring – when actively growing	Annually
Hawthorn	Shrub	October to December	Mechanical Removal	Remove by hand – small seedlings	September to January	Annually
			Chemical Treatment	Cut and Paint	September to January	Annually
				Drill and Fill	September to January	Annually

6.3 Weed Hygiene

Weed seeds and parts of a plant that are capable of regenerating (such as a piece of a branch from a cracked willow) can be spread via vectors such as soil, animals, machinery, equipment, clothing, wind and water. Weed Hygiene practices can assist in reducing the risk of weeds being spread via these vectors. Hygiene measures can be applied for preventing the spread of pathogens.

Weed hygiene includes the following principles in development of a Construction Environmental Management Plan (CEMP):

- Undertake weed control for high threat or declared weed at the appropriate time or season to ensure no weed seeds or plant pathogens will spread in soil.
- Ensure the noxious weeds present on site are included in the site inductions and tool box meetings
- Ensure weed hygiene practices are included in the development of CEMP and implemented during the construction phase of the development.
- Ensure vehicles, equipment and machinery are clean prior to entry to the site and cleaned/washed down prior to leaving the site.
- Set up a designated wash down area near an entry-exit point on the construction site
- Plan earthmoving and soil excavation in clean areas first then proceed to working in contaminated areas
- Limit the import of soil to the site or source from reliable supplier
- Set up a weed management plan for stock pile areas in the construction site. Implement the weed management plan as weeds germinate.
- No storing of soil or debris or weeds in the Post Office Creek reserve area.

Figure 6-1 High Threat Weeds at 88A-90 Wedge St, Kyneton

7. Vegetation Impact Assessment

7.1 Native Vegetation

The native vegetation on Post Office Creek, the eastern boundary and throughout the garden is considered planted vegetation. The native vegetation includes:

- Eucalypts, Acacias and native grasses species indigenous to the Bioregion and Macedon Ranges
- There are some native herbs and aquatic plants that have re-colonised this area or persisted after disturbance as climatic conditions are favourable.

The planted vegetation on Post Office Creek will be retained. As part of the proposed subdivision the planted native vegetation that will be impacted includes 30 eucalypts (manna gum, river red gum and snow gum).

7.1.1 Consideration of Clause 52.17 – Native vegetation exemptions

After further consideration of Clause 52.17 – Native Vegetation exemptions (DELWP 2017c), the exemption can be applied:

- *Native vegetation that is to be removed, destroyed or lopped that was either planted, or grown as a result of direct seeding.*

From Section 2.22 – Planted vegetation of the native vegetation exemptions states:

The purpose of this exemption is to not require a permit for the removal of native vegetation which has either been planted (e.g., planting a seedling or an established plant) or grown from direct seeding (e.g., placing a seed in the ground in any manner).

Conclusion:

There is no planning permit requirement to remove 30 eucalypts within the proposed development footprint for the 18 lot subdivision under Clause 52.17 – Native Vegetation. By applying this exemption there is no native vegetation offset requirement.

The planted native vegetation on Post Office Creek is proposed to be retained. Retention of this vegetation contributes biodiversity and the overall health for the Campaspe Catchment. This area is also subject to inundation during high rainfall events. Ongoing weed management is proposed in this section of the creek.

7.1.2 Consideration of Environmental Significance Overlay (ESO4)

Under Clause 42.01-2 a permit is required to:

Remove, destroy or lop any vegetation, including dead vegetation. This does not apply:

- If a schedule to this overlay specifically states that a permit is not required.
- If the table to Clause 42.01-3 specifically states that a permit is not required.
- To the removal, destruction or lopping of native vegetation in accordance with a native vegetation precinct plan specified in the schedule to Clause 52.16.

In the table to Clause 42.01-3 – the exemption for planted vegetation states:

Vegetation that is to be removed, destroyed or lopped that was either planted or grown as a result of direct seeding for Crop raising or Grazing animal production.

Conclusion

The native and non-native vegetation in the garden area was not planted for the purposes of crop raising or grazing animal production, therefore a planning permit is required.

7.2 Non-native vegetation

The development footprint for the 18 lot subdivision covers 1.95 hectares. This includes exotic trees, shrubs and the garden beds with a mix of shrubs, herbs and grasses.

The areas impacted by the proposed subdivision, require a planning permit required under Clause 42.01-2, but there is no offset.

A comprehensive list of the trees was provided in the Preliminary Arborist Report completed by Axiom Tree Management Pty Ltd, 2021.

7.3 Proposed native vegetation removal

7.3.1 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 7-1 outlines the assessment pathway for the native vegetation impacts to meet the requirements of Clause 52.17 for a planning permit application.

Table 7-1 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 2 and <0.5ha is to be removed.	No	N/A	This section
A description of the native vegetation to be removed	Yes	N/A	N/A	Section 7
Maps showing the native vegetation	Yes	N/A	N/A	Section 4
The offset requirement determined in accordance with section 5 of the Guidelines.	Yes	N/A	N/A	Section 7.3.4
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 4.1.2
Details of any other native vegetation approved to be removed, or that was removed without the required approvals, on the same property or on	No recent planning permit	No recent planning permit	No recent planning permit	NA

Criteria	Assessment Pathway		Scattered trees or large trees in a patch	Report Section
	Basic/ Intermediate Pathway	Detailed Pathway		
contiguous land in the same ownership as the applicant, in the five year period before the application for a permit is lodged.	application to remove of native vegetation	application to remove of native vegetation	application to remove of native vegetation	
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 7.3.2
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	N/A	N/A	N/A	N/A
Where the removal of native vegetation is to create defendable space, a written statement explaining why the removal of native vegetation is necessary. This is not required when the creation of defendable 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 7.3.4
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 4 and 5

7.3.2 Avoid and minimise statement

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

- The impact area is confided to the development footprint.
- The plantings on Post Office Creek 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.

7.3.3 Native vegetation removal report

The impacted native vegetation includes 0.019 hectares for the proposed 18 lot subdivision.

A native vegetation removal report was completed on 17/06/2022. As this is a intermediate 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 7-2 and the offset requirements in Table 7-3.

The information provided in Table 7-3 outlines the offset requirements for the offset strategy. The offset strategy is discussed in the next section.

Figure 7-1 shows the native vegetation proposed to be removed.

Table 7-2 Assessment pathway

Assessment Pathway	Basic Assessment Pathway
Extent of native vegetation removal	0.019 (hectares)
Extent of past removal	0 (hectares)
Extent of proposed removal	0.019 (hectares)
Number of large trees	0
Location category	Location 2

Table 7-3 Offset Requirements

Offset Items	Offset Requirements
General offset amount	0.006 General Habitat Units
Vicinity	North Central Catchment Management Authority (CMA) or Macedon Ranges Shire Council
Minimum strategic biodiversity value score	0.192

Large trees	0

7.3.4 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. No first party offset will be undertaken for this proposal.

Third party offsets are purchased through a broker and this is outlined in Section 7.3.5.

7.3.5 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 7-3 the offset requirements for 0.006 General Habitat Units must be located in the North Central Catchment Management Authority (CMA) or Macedon Ranges Shire Council and have a minimum strategic biodiversity value score of 0.192.

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

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

Figure 7-1 Proposed Vegetation Removal

8. Mitigation measures

The following mitigation measures are recommended as part of the development of a Construction Environmental Management Plan (CEMP) to reduce impacts to biodiversity.

The mitigation measures include:

- Fence off all native vegetation on Post Office Creek for the duration of construction.
- Erect signage to say 'no-go zones' tree protection areas.
- Take steps to avoid unnecessary harm or injury to wildlife.
- Engage a suitably qualified wildlife handler during tree removal works.
- Sediment control measures should prevent surface water runoff carrying sediment into Edgars Creek for the duration of construction.
- Sediment control can include sediment fencing using geotextile fabric which should remain in-situ until vegetation has re-established post construction.

Weed hygiene includes the following principles in development of a Construction Environmental Management Plan (CEMP):

- Undertake weed control for high threat or declared weed at the appropriate time or season to ensure no weed seeds or plant pathogens will spread in soil.
- Ensure the noxious weeds present on site are included in the site inductions and tool box meetings
- Ensure weed hygiene practices are included in the development of CEMP and implemented during the construction phase of the development.
- Ensure vehicles, equipment and machinery are clean prior to entry to the site and cleaned/washed down prior to leaving the site.
- Set up a designated wash down area near an entry-exit point on the construction site
- Plan earthmoving and soil excavation in clean areas first then proceed to working in contaminated areas
- Limit the import of soil to the site or source from reliable supplier
- Set up a weed management plan for stock pile areas in the construction site. Implement the weed management plan as weeds germinate.
- No storing of soil or debris or weeds in the Post Office Creek reserve area.

9. Conclusion

From the ecology assessment undertaken the following results were determined:

- The Ecological Vegetation Classes in the Study Area includes EVC 821 Tall Marsh for the small dam.
- No offset are required the vegetation on Post Office Creek. This planted vegetation will be retained.
- No FFG or EPBC listed vegetation communities occur on site
- No threatened flora or fauna were observed

The proposed native vegetation removal requiring offsets includes 0.019 hectares of EVC 821 Tall Marsh for the small dam. The following offset requirements needed in the offset strategy:

- General offset amount – 0.006 General Habitat Units
- Vicinity – North Central Catchment Management Authority (CMA) or Macedon Ranges Shire Council
- Minimum strategic biodiversity value score – 0.192
- Large trees -0

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

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

No EPBC Referral is required.

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Appendix A Flora List

E – Exotic; N- Native;

CaLP weed listing R – Restricted; C – Regionally Controlled;

Scientific Name	Common Name	Status	CaLP weed listing status
Acacia dealbata	Silver Wattle	P	
Acacia melanoxylon	Blackwood	P	
Eucalyptus ovata	Swamp Gum	P	
Eucalyptus sideroxylon	Red Ironbark	P	
Acacia pravissima	Ovens Wattle	P	
Acacia sp.	Wattle	P	
Allium triquetrum	Angled Onion	E	R
Allocasuarina sp.	Sheoak	P	
Banksia marginata	Silver Banksia	P	
Briza maxima	Large Quaking Grass	E	
Callistemon sieberi	River Bottlebrush	P	
Carex appressa	Tall Sedge	N	
Cirsium vulgare	Spear Thistle	E	C
Crataegus monogyna	Hawthorn	E	C
Dactylis glomerata	Cocksfoot	E	
Ehrharta longifolia	Annual Veldt-grass	E	
Epilobium hirtigerum	Hairy Willow-herb	N	
Eucalyptus camaldulensis	River Red-gum	P	
Eucalyptus leucoxylon	Yellow Gum	P	
Eucalyptus nicholii	Narrow-leaved Black Peppermint	P	
Eucalyptus pauciflora	Snow Gum	P	
Eucalyptus viminalis	Manna Gum	P	
Festuca sp.	Fescue	E	
Foeniculum vulgare	Fennel	E	R
Fumaria bastardii	Bastard's Fumitory	E	
Gallium aparine	Sticky weed	E	
Geranium sp.	Native Geranium	N	
Holcus lanatus	Yorkshire Fog	E	
Hypochaeris radicata	Cat's-ear	E	

Scientific Name	Common Name	Status	CaLP weed listing status
Lomandra longifolia	Spiny-headed Mat-rush	N	
Malva parviflora	Small-flowered Mallow	E	
Oxalis perennans	Grassland Wood-sorrel	N	
Phalaris aquatica	Toowoomba Canary-grass	E	
Phragmites australis	Common Reed	N	
Plantago lanceolata	Ribwort	E	
Poa labillardierei	Common Tussock Grass	N	
Portulaca oleracea	Common Purslane	N	
Rosa rubiginosa	Sweet Briar	E	C
Rumex sp.	Dock	E	
Salix fragilis	Cracked Willow	E	R
Senecio quadridentatus	Cottony Fireweed	N	
Sonchus asper	Spiny sow-thistle	E	
Sonchus oleraceus	Sow Thistle	E	
Trifolium repens var. repens	White Clover	E	
Typha sp.	Cumbungi	N	
Typha sp.	Cumbungi	N	
Vicia sativa	Common Vetch	E	

Appendix B Tree List

Number	Date-Time	Common Name	Scientific Name	DBH	Easting	Northing	Notes
1	2021-10-11T15:34:37.894	Manna Gum	*Eucalyptus viminalis*	24	273786	5875560	Native Planted Tree
2	2021-10-11T15:35:21.400	Manna Gum	*Eucalyptus viminalis*	25	273782.7	5875556	Native Planted Tree
3	2021-10-11T15:51:15.067	Manna Gum	*Eucalyptus viminalis*	27	273777.6	5875507	Native Planted Tree
4	2021-10-11T15:52:15.708	Manna Gum	*Eucalyptus viminalis*	18	273776.4	5875501	Native Planted Tree
5	2021-10-11T15:52:42.383	Manna Gum	*Eucalyptus viminalis*	27	273774.7	5875504	Native Planted Tree
6	2021-10-11T15:53:01.560	Manna Gum	*Eucalyptus viminalis*	27	273774.8	5875509	Native Planted Tree
7	2021-10-11T15:53:40.533	Manna Gum	*Eucalyptus viminalis*	34	273773.8	5875515	Native Planted Tree
8	2021-10-11T15:54:37.952	Manna Gum	*Eucalyptus viminalis*	24	273773.7	5875522	Native Planted Tree
9	2021-10-11T15:43:41.134	Manna Gum	*Eucalyptus viminalis*	24	273778.2	5875528	Native Planted Tree
10	2021-10-11T15:44:21.700	Manna Gum	*Eucalyptus viminalis*	28	273775.7	5875526	Native Planted Tree
11	2021-10-11T15:45:06.844	Manna Gum	*Eucalyptus viminalis*	25	273778	5875524	Native Planted Tree
12	2021-10-11T15:46:36.049	Manna Gum	*Eucalyptus viminalis*	24	273774.4	5875515	Native Planted Tree

Number	Date-Time	Common Name	Scientific Name	DBH	Easting	Northing	Notes
13	2021-10-11T15:47:42.725	River Red Gum	*Eucalyptus camaldulensis*	22	273776.9	5875518	Native Planted Tree
14	2021-10-11T15:48:56.521	River Red Gum	*Eucalyptus camaldulensis*	16	273783.3	5875517	Native Planted Tree
15	2021-10-11T15:50:04.921	River Red Gum	*Eucalyptus camaldulensis*	14	273781.8	5875511	Native Planted Tree
16	2021-10-11T15:50:35.903	River Red Gum	*Eucalyptus camaldulensis*	15	273780.8	5875506	Native Planted Tree
17	2021-10-11T15:36:21.420	Eucalypt sp.	*Gum*	15	273778.9	5875555	Native Planted Tree
18	2021-10-11T15:37:17.998	Manna Gum	*Eucalyptus viminalis*	29	273782.2	5875552	Native Planted Tree
19	2021-10-11T15:38:15.169	Manna Gum	*Eucalyptus viminalis*	27	273780.6	5875542	Native Planted Tree
20	2021-10-11T15:39:28.560	Manna Gum	*Eucalyptus viminalis*	25	273783.4	5875540	Native Planted Tree
21	2021-10-11T15:40:03.673	River Red Gum	*Eucalyptus camaldulensis*	21	273784.5	5875536	Native Planted Tree
22	2021-10-11T15:41:12.314	Manna Gum	*Eucalyptus viminalis*	25	273777.1	5875535	Native Planted Tree
23	2021-10-11T15:42:16.186	Manna Gum	*Eucalyptus viminalis*	25	273779.8	5875534	Native Planted Tree
24	2021-10-11T15:42:54.906	Manna Gum	*Eucalyptus viminalis*	22	273777.1	5875530	Native Planted Tree

Number	Date-Time	Common Name	Scientific Name	DBH	Easting	Northing	Notes
25	2021-10-11T13:29:47.840	Eucalypt sp.	*Gum*	34	273713.9	5875612	Native Planted Tree
26	2021-10-11T15:21:09.991	Snow gum	*Eucalyptus pauciflora*	5	273729.9	5875575	Native Planted Tree
27	2021-10-11T15:21:45.248	Eucalypt sp.	*Gum*	1	273725.6	5875568	Native Planted Tree
28	2021-10-11T15:22:36.948	Eucalypt sp.	*Gum*	1	273731.2	5875563	Native Planted Tree
29	2021-10-11T15:32:37.344	Manna Gum	*Eucalyptus viminalis*	31	273788.4	5875573	Native Planted Tree
30	2021-10-11T15:33:43.681	River Red Gum	*Eucalyptus camaldulensis*	27	273785.8	5875565	Native Planted Tree

Appendix C 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: **17/06/2022**
Time of issue: **2:43 pm**

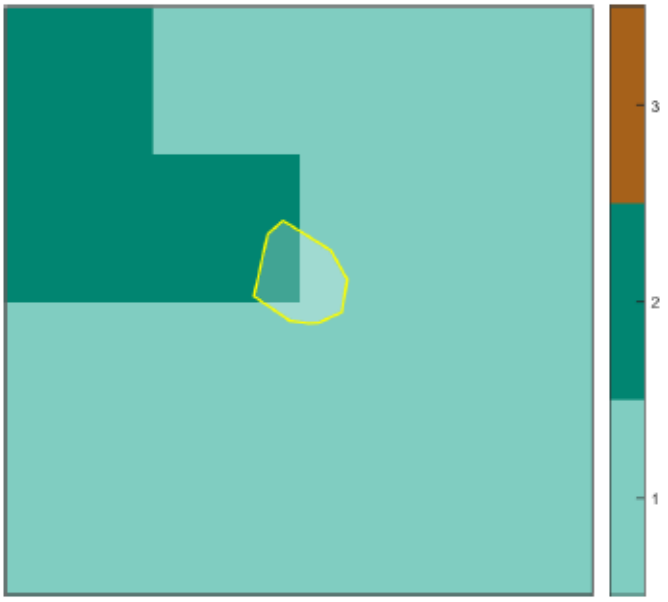
Report ID: NGH_2022_005

Project ID	21-325_NVR_88a-90_WedgeSt_Kyneton_14062022

Assessment pathway

Assessment pathway	**Intermediate Assessment Pathway**
Extent including past and proposed	0.019 ha
Extent of past removal	0.000 ha
Extent of proposed removal	0.019 ha
No. Large trees proposed to be removed	0
Location category of proposed removal	Location 2 The native vegetation is in an area mapped as an endangered Ecological Vegetation Class (as per the statewide EVC map). Removal of less than 0.5 hectares of native vegetation in this location will not have a significant impact on any habitat for a rare or threatened species.

1. Location map



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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 amount[1]	0.006 general habitat units
Vicinity	North Central Catchment Management Authority (CMA) or Macedon Ranges Shire Council
Minimum strategic biodiversity value score[2]	0.192
Large trees	0 large trees

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

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 defendable space statement as applicable
- A statement about the Native Vegetation Precinct Plan as applicable
- An offset statement that explains that an offset has been identified and how it will be secured.

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:

General habitat units = extent x condition x general landscape factor x 1.5, where the general landscape factor = 0.5 + (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

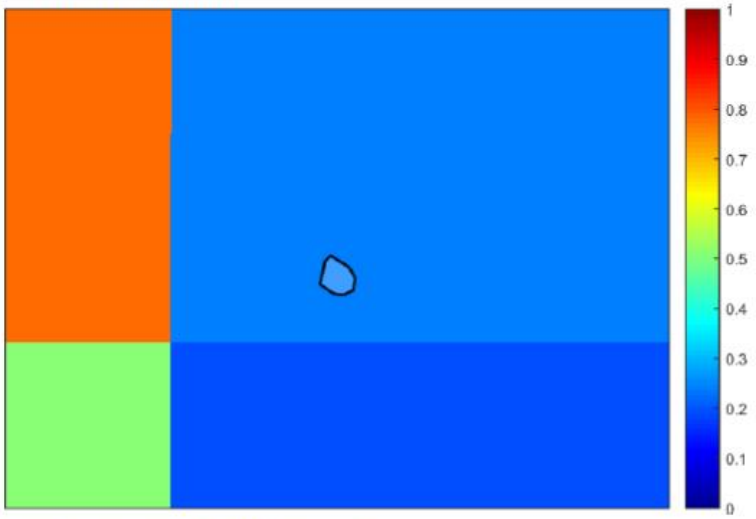
Information provided by or on behalf of the applicant in a GIS file							Information calculated by EnSym					
Zone	**Type**	**BioEVC**	**BioEVC conservation status**	**Large tree(s)**	**Partial removal**	**Condition score**	**Polygon Extent**	**Extent without overlap**	**SBV score**	**HI score**	**Habitat units**	**Offset type**
2-a	Patch	vriv0821	Depleted	0	no	0.360	0.019	0.019	0.240		0.006	General

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

This is not applicable in the Intermediate Assessment Pathway.

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.

Appendix D Offset Quote

vegetationlink

Our reference: VLQ-8156

Your reference: TBA

16 June 2022

Michelle Patrick
NGH Consulting
michelle.p@nghconsulting.com.au

Dear Michelle

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	North Central CMA	0.006	0.192	0

To meet your offset requirements, you can purchase native vegetation credits from a third party as per the option quoted below[1]. This quotation is valid for 14 days, subject to credit availability and landholder pricing.

Fixed price trade pathway – offset site located in the Pyrenees Shire area (approx. 3-4 week turnaround from acceptance of quote)	
Cost of native vegetation credits – **invoiced by DELWP**	$466.80
Transaction fees – **invoiced by Vegetation Link**	$870.00
Total (ex. GST)	**$1,336.80**
Total (inc. GST)	**$1,470.48**

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*

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).

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.

Appendix E Threatened Species Impact Assessment

E.1 Threatened flora Assessment

EPBC Status – E: Endangered; V: Vulnerable, CE: Critically Endangered.

FFG Status – Listed (Listed under the FFG Act and the Victorian Advisory List includes the threatened status for each species. The Victorian Advisory List is: E: Endangered; V: Vulnerable, R: Rare, NT: Near Threatened, Pr Ex – presumed extinct.

(NT = did not meet the criteria to be officially listed under the FFG Act, but they could possibly qualify or are close to qualifying in the near future

Th = threatened on the FFG Threatened List but no status provided

Scientific Name	Common Name	Habitat	EPBC Status	FFG Status	Victorian Advisory List	VBA/ MNES	Total Count	Most recent survey date	Likelihood of Occurrence	Reasoning	Potential Impact
Eucalyptus aggregata	Black Gum	The only known natural occurrence of Black Gum in Victoria within 4 kms of Woodend. Its natural habitat typically comprises riparian woodland which it may dominate or co-dominate with Swamp Gum *Eucalyptus ovata*	V			MNES			Absent	Outside of geographical location	Low
Dodonaea procumbens	Trailing Hop-bush	Largely confined in Victoria to the south-west (Penola-Dergholm area, Grampians, Lake Fyans) with outlying occurrences near Castlemaine, Avoca, Skipton, Camperdown and extraordinary disjunctions near Sale where very rare and in perhaps also in the upper Murray River area (represented by a single, 1883 specimen of uncertain provenance). Grows in low-lying, often winter-wet areas in woodland, low open-forest and grasslands on sands and clays.	V			MNES			Low	Closest record is in Castlemaine, approximately 35 km away	Low

Scientific Name	Common Name	Habitat	EPBC Status	FFG Status	Victorian Advisory List	VBA/ MNES	Total Count	Most recent survey date	Likelihood of Occurrence	Reasoning	Potential Impact
Grevillea repens	Creeping Grevillea	Disjunct occurrences in mountains north-east and north-west of Melbourne: i.e. between Mt Disappointment and Healesville (Mt Slide form), and near Daylesford. Grows in moist to well-drained situations in shallow clayey soils in dry sclerophyll forest.		E	R	VBA	1	01/04/1887	Low	Lack of suitable habitat. Old record.	Low
Diuris X palachila	Broad-lip Diuris	Occurs singly or in small groups in fertile grassland or open forest generally with its putative parents D. maculata and D. lanceolata.		E	R	VBA	1	01/01/1770	Low	Area disturbed. Old record.	Low
Glycine latrobeana	Clover Glycine	Clover Glycine is found across south-eastern Australia in native grasslands, dry sclerophyll forests, woodlands and low open woodlands with a grassy ground layer.	V	V	V	VBA/MNES	50	23/11/2015	Low	Area disturbed.	Low
Euphrasia collina subsp. speciosa	Purple Eyebright	Previously considered to be extinct in Victoria, represented at MEL by a few old specimens from between Ballarat and Heathcote.			PrEx	VBA	1	15/10/1892	Low	Area disturbed. Old record	Low
Rumex crystallinus s.s.	Glistening Dock	Rare in Victoria, occurring only in the far north-west of the state on the Murray River floodplain, recorded only from the margins and drying beds of Lakes Wallawalla, Hattah and Lalbert.		E	V	VBA		25/06/2018	Low	Outside of known range.	Low
Dianella amoena	Matted	Largely confined to drier grassy woodland and grassland communities south of the	E			VBA/MNES	31	27/01/2018	Low	Within range.	Low

Scientific Name	Common Name	Habitat	EPBC Status	FFG Status	Victorian Advisory List	VBA/ MNES	Total Count	Most recent survey date	Likelihood of Occurrence	Reasoning	Potential Impact
	Flax-lily	Dividing Range and now much depleted through its range.								Recent record.	
Geranium sp. 3	Pale-flower Crane's-bill	Found in open, grassy areas of dry woodland to forest.		E	R	VBA		8/11/2011	Low	Recent record. Suitable habitat according to EVC mapping.	Low
Pterostylis agrestis	Sutton Grange Greenhood	Endemic to Victoria where confined to basalt plains grasslands in the vicinity of Bacchus Marsh, Maldon, Sutton Grange, Taradale and possibly Woorndoo.		C	CE	VBA		8/11/2011	Low	Area disturbed. Outside known range.	Low
Caladenia ornata	Ornate Pink fingers	In Victoria known only from the south-west in heathy forest on seasonally moist sandy loam.	V			MNES			low	Area disturbed. Lack of suitable habitat according to EVC mapping.	Low
Lepidum hyssopifolium	Basalt Pepper-cress	Establish on open, bare ground with limited competition from other plants	E			MNES			Low -	Area disturbed	Low
Leucochrysum albicans subsp. tricolor	Hoary Sunray	Occurs in a wide variety of grassland, woodland and forest habitats, generally on relatively heavy soils. Plants can be found in natural or semi-natural vegetation and grazed or ungrazed habitat. Bare ground is required for germination.	E			MNES			Absent	Outside of bioregion.	Low

Scientific Name	Common Name	Habitat	EPBC Status	FFG Status	Victorian Advisory List	VBA/ MNES	Total Count	Most recent survey date	Likelihood of Occurrence	Reasoning	Potential Impact
Prasophyllum validum	Sturdy Leek-orchid	Tends to grow in drier woodland habitats, generally with a low sparse understorey. In Victoria, it occurs in box and box-ironbark woodland	V			MNES			Low	Area disturbed	Low
Rutidosis leptorhynchoides	Button Wrinklewort	Restricted to open stands of plains grassland and grassy woodlands, on fertile clays to clay loams, usually in areas where the grass cover is more open	E			MNES			Low	Confined to basalt grasslands between Rokewood and Melbourne	Low
Senecio macrocarpus	Large-fruit Fireweed	In Victoria largely confined to remnant Themeda grasslands on loamy clay soils derived from basalt from near Melbourne west to Skipton area. Also known from auriferous ground near Stawell. Formerly recorded from near Horsham and Casterton, but apparently long extinct from these areas.	V			MNES			Low	Within known range. Grassy EVC with Themeda sp present according to EVC mapping.	Low
Senecio psilocarpus	Swamp Fireweed	Restricted in Victoria to a few herb-rich winter-wet swamps throughout the south of the state, west from Sale, growing on volcanic clays or peaty soils.	V			MNES			Low	Swamp EVC mapped adjacent to the study area.	Low
Thelymitra matthewsii	Spiral Sun-orchid	Widely distributed but rare, in coastal sandy flats or slightly elevated sites (to 400 m) in well-drained soils (sandy loams to gravelly limestone soils) in open forest. Plants colonise disturbed sites and slowly	V			MNES			Low	Outside known/predicted range.	Low

Scientific Name	Common Name	Habitat	EPBC Status	FFG Status	Victorian Advisory List	VBA/ MNES	Total Count	Most recent survey date	Likelihood of Occurrence	Reasoning	Potential Impact
		disappear as these sites stabilise.									
Xerochrysum palustre	Swamp Everlasting	Occurs in lowland swamps, usually on black cracking clay soils, scattered from near the South Australian border north-west of Portland to Bairnsdale district, but rare due to habitat depletion.	V			MNES			Low	Swamp EVC mapped adjacent to the study area.	Low
Amphibromus fluitans	River Swamp Wallaby-grass	Grows mostly in permanent swamps. It needs wetlands which are at least moderately fertile and which have some bare ground.	V			MNES			Low	Swamp EVC mapped adjacent to the study area.	Low
Caladenia versicolor	Candy Spider-orchid	Restricted to the western part of the Midlands region in the vicinity of Stawell, in woodland on winter-wet sandy loam.	V			MNES			Low	Outside of known range. Area disturbed.	Low

E.2 Threatened Fauna Assessment

Scientific name	Common name	Habitat	EPBC	FFG	VBA/ MNES	Last record	No. sites	Likelihood of occurrence	Reasoning	Potential Impact
Birds										
Anthochaera phrygia	Regent Honeyeater	Most commonly associated with box-ironbark eucalypt woodland and dry sclerophyll forest, but also inhabits riparian vegetation such as sheoak (Casuarina spp) where it feeds on needle-leaved mistletoe and sometimes breeds. Also uses remnant patches in farmland and urban areas and roadside reserves.	CE					Low	Lack of suitable habitat	Low
Biziura lobata	Musk Duck	Usually seen in small numbers on the deep waters of well-vegetated fresh to saline lakes, swamps and occasionally shallow inlets and bays.		V	VBA	28/02/1978	1	Low	Post Office Creek adjacent to proposed works.	Low
Botaurus poiciloptilus	Australasian Bittern	Part nocturnal and forages over water in dense cover. Habitat is usually tall reedbeds, sedges, rushes, cumbungi or lignum. Also occurs on rice fields, drains in tussocky paddocks and occasionally on saltmarshes and brackish wetlands. Mostly recorded in the southern coastal areas and in the Murray River region of central northern Victoria.	EN		MNES			Low	Outside area mostly recorded. Area disturbed.	Low
Falco hypoleucos	Grey Falcon	Inhabits grasslands, lightly wooded plains and scrublands of interior Australia. Birds occur sporadically on the periphery of their range, such as NW. Vic. More common in Vic during or after droughts.	VU		MNES			Low	No records on ALA or VBA within 5km. Tree-lined watercourse present	Low

Scientific name	Common name	Habitat	EPBC	FFG	VBA/ MNES	Last record	No. sites	Likelihood of occurrence	Reasoning	Potential Impact
Falco subniger	Black Falcon	Has a stronghold in inland Australia. Most Victorian records come from the lowlands and only occasionally from the foothills. It occurs mainly over croplands, grasslands and wooded farmlands.		CE	VBA	31/12/1998	2	Low	Lack of suitable habitat.	Low
Grantiella picta	Painted Honeyeater	Inhabits Boree/ Weeping Myall (Acacia pendula), Brigalow (A. harpophylla) 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 Amyema. It is more common in wider blocks of remnant woodland than in narrower, although it breeds in quite narrow roadside strips if ample mistletoe fruit is available.	V	V	MNES/ VBA	No date supplied	1	Low	Lack of preferred habitat.	Low
Accipiter novaehollandiae	Grey Goshawk	Inhabits a variety of wet forest types in Australia. Generally favours tall, wet forests, particularly in gullies, for roosting and hunting. It depends on mature forests for breeding, rarely using forest regrowth less than 30 years old. They are also seen in woodlands, dry forests, wooded farmlands and suburban parks below altitudes of 500 m.		E	VBA	No date supplied	1	Low	Area disturbed (trees unlikely to be old).	Low
Ninox strenua	Powerful Owl	The Powerful Owl inhabits a range of vegetation types, from woodland and open sclerophyll forest to tall open wet forest and rainforest. The Powerful Owl requires large tracts of forest or woodland habitat but can occur in fragmented landscapes as well.		V	VBA	12/05/2018	5	Low	Lack of preferred habitat.	Low

Scientific name	Common name	Habitat	EPBC	FFG	VBA/ MNES	Last record	No. sites	Likelihood of occurrence	Reasoning	Potential Impact
Pyrrholaemus sagittatus	Speckled Warbler	The Speckled Warbler 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.		E	VBA	No date supplied	1	Low	Some habitat may be present	Low
Hieraaetus morphnoides	Little Eagle	Seen over woodland and forested lands and open country, extending into the arid zone. It tends to avoid rainforest and heavy forest. Populations may benefit from clearing, which may open new feeding grounds, but they do not respond well to urbanisation.		V	VBA	24/11/1979	2	Low	Lack of suitable habitat.	Low
Rostratula australis	Australian Painted Snipe	Generally inhabits shallow terrestrial freshwater (occasionally brackish) wetlands, including temporary and permanent lakes, swamps and claypans. They also use inundated or waterlogged grassland or saltmarsh, dams, rice crops, sewage farms and bore drains. Typical sites include those with rank emergent tussocks of grass, sedges, rushes or reeds, or samphire; often with scattered clumps of lignum Muehlenbeckia or canegrass or sometimes tea-tree (Melaleuca). The Australian Painted Snipe sometimes utilises areas that are lined with trees, or that have some scattered fallen or washed-up timber	E		MNES			Low	Post Office Creek present adjacent study area.	Low

Scientific name	Common name	Habitat	EPBC	FFG	VBA/ MNES	Last record	No. sites	Likelihood of occurrence	Reasoning	Potential Impact
Lathamus discolor	Swift Parrot	On the mainland they occur in areas where eucalypts are flowering profusely or where there are abundant lerp (from sap-sucking bugs) infestations. Favoured feed trees include winter flowering species such as Swamp Mahogany Eucalyptus robusta, Spotted Gum Corymbia maculata, Red Bloodwood C. gummifera, Forest Red Gum E. tereticornis, Mugga Ironbark E. sideroxylon, and White Box E. albens. Commonly used lerp infested trees include Inland Grey Box E. microcarpa, Grey Box E. moluccana, Blackbutt E. pilularis, and Yellow Box E. melliodora.	CE		MNES			Low	No records in VBA or ALA within 5km of study area. Species exhibits high site fidelity.	Low
Numenius madagascariensis	Eastern Curlew	It generally occupies coastal lakes, inlets, bays and estuarine habitats, and in New South Wales 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 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. It 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	CE /M		MNES			Low	Lack of preferred habitat.	Low

Scientific name	Common name	Habitat	EPBC	FFG	VBA/ MNES	Last record	No. sites	Likelihood of occurrence	Reasoning	Potential Impact
Pedionomus torquatus	Plains-wanderer	Main distribution is within the Riverina of NSW, patchy elsewhere, and only occurring in small numbers in northern Victoria. Inhabits open grasslands with preference towards Danthonia and Stipa species. However, vegetation structure is more important than floristic composition.	CE		MNES			Low	No suitable habitat on site	Low
Spatula rhynchotis	Australasian Shoveler	Occurs mainly on large, well-vegetated wetlands and lakes, occasionally including areas with saline waters. Populations are found in higher numbers on permanent, well-vegetated freshwater swamps with areas of open water.		V	VBA	No date supplied	1	Low	Post Office Creek present adjacent to study area.	
Migratory Bird										
Calidris ferruginea	Curlew Sandpiper	Summer migrants to Victoria from Arctic breeding grounds (Aug-April). Found in a range of wetland habitats: tidal mudflats, saltmarsh, saltfields, fresh to saline wetlands, both coastal (most) and inland.	CR /M		MNES			Low	Lack of suitable vegetation	Low
Hirundapus caudacutus	White-throated Needletail	Almost exclusively aerial, from heights of less than 1 m up to more than 1000 m above the ground.	V/ M		MNES			Low	Species almost exclusively aerial.	Low
Rhipidura rufifrons	Rufous Fantail	Mainly inhabits wet sclerophyll forests, often in gullies dominated by eucalypts such as Tallow-wood (Eucalyptus microcorys), Mountain Grey Gum (E. cypellocarpa), Narrow-leaved Peppermint (E. radiata), Mountain Ash (E. regnans), Alpine Ash (E. delegatensis), Blackbutt (E. pilularis) or Red Mahogany (E. resinifera);	M		MNES			Low	Lack of preferred vegetation. May pass through the area.	Low

Scientific name	Common name	Habitat	EPBC	FFG	VBA/ MNES	Last record	No. sites	Likelihood of occurrence	Reasoning	Potential Impact
		usually with a dense shrubby understorey often including ferns. When on passage, they are sometimes recorded in drier sclerophyll forests and woodlands, including Spotted Gum (Eucalyptus maculata), Yellow Box (E. melliodora), ironbarks or stringybarks, often with a shrubby or heath understorey. They are also recorded from parks and gardens when on passage.								
Motacilla flava	Yellow Wagtail	This insectivorous bird inhabits open country near water, such as wet meadows. It nests in tussocks.	M		MNES			Low	Lack of suitable vegetation	Low
Apus pacificaus	Fork-tailed Swift	A mainly aerial species. In Australia it is found in arid areas as well as in towns and on the coast. Flocks of thousands may appear when there are hot strong winds. Pacific swifts often travel and feed with white-throated needletails.	M		MNES			Low	Lack of suitable vegetation	Low
Myiagra cyanoleuca	Satin Flycatcher	Found in tall forests, preferring wetter habitats such as heavily forested gullies, but not rainforests	M		MNES			Low	Lack of suitable vegetation	Low
Amphibians										
Litoria raniformis	Growling Grass Frog	The species often inhabits water bodies with a diverse assemblage of aquatic vegetation, including emergent species such as sedges (Gahnia spp.), submergent species such as curly pondweed (Potamogeton spp.), floating species such as water ribbon (Triglochin spp.) and filamentous algae.	V		MNES			Low	No recent records in this location. No suitable habitat	Low

Scientific name	Common name	Habitat	EPBC	FFG	VBA/ MNES	Last record	No. sites	Likelihood of occurrence	Reasoning	Potential Impact
Pseudophryne bibronii	Brown Toadlet	Found in a variety of habitats not necessarily associated with permanent water. Utilise a wide variety of habitats, including dry forests, woodland, shrubland, grassland, coastal swamps, heathland, and sub-alpine areas (Anon 2006). They live in areas that are likely to be inundated after rain (Robinson 2002). They shelter in damp areas under leaf litter, logs, or other forms of cover.		E	VBA	18/05/2018	21	Low	Recent record. Suitable habitat.	Low
Fish										
Maccullochella peelii	Murray Cod	Lives in a wide variety of habitats from silty slow moving rivers to clear rivers with pools and riffles. Prefers instream habitat of rocks & logs with over-hanging vegetation.	V		MNES			Low	Lack of suitable habitat	Low
Galaxias rostratus	Flathead Galaxias	Has been recorded before 1980 in the Campaspe River. Collected from a variety of habitats including billabongs, lakes, swamps and rivers.	CE		MNES			Low	Post Office Creek connects with Campaspe River approximately 1.5km north west of the study site.	Low
Macquaria australasica	Macquarie Perch	Found in the Murray River and its tributaries and is also found in parts of the Yarra River. It is most often found as a solitary individual, however can form schools during breeding season.	E		MNES			Low	Lack of suitable habitat	Low

Scientific name	Common name	Habitat	EPBC	FFG	VBA/ MNES	Last record	No. sites	Likelihood of occurrence	Reasoning	Potential Impact
Maccullochella macquariensis	Trout Cod		E		MNES			Low	Lack of suitable habitat	Low
Nannoperca australis Murray-Darling Basin lineage	Southern Pygmy Perch		V		MNES			Low	Lack of suitable habitat	Low
Aythya australis	Hardhead	Inhabit deep to shallow wetlands with open water and fringing emergent vegetation. These birds are most common in the wetland systems of inland Australia		V	VBA		1	Low	Lack of suitable habitat	Low
Reptiles										
Delma impar	Striped Legless Lizard	The Striped Legless Lizard is a grassland specialist. Potential habitat for the Striped Legless Lizard includes all areas which have, or once had, native grasslands or grassy woodlands (including derived grasslands) across the historical range of the species, provided that area retains suitable tussock structure, the soil is of appropriate type and structure, and the site has not had major disturbance such as ploughing.	V		MNES			Low	Potential suitable habitat	Low
Pseudemoia pagenstecheri	Tussock Skink	Found from the Grampians in the west through the basalt plains west of Melbourne to north-east Victoria.		E	VBA	No date supplied	1	Low	Outside of known Victorian geographical area	Low

Scientific name	Common name	Habitat	EPBC	FFG	VBA/ MNES	Last record	No. sites	Likelihood of occurrence	Reasoning	Potential Impact
Mammal										
Dasyurus maculatus maculatus (SE mainland population)	Spot-tailed Quoll	Habitat requirements include suitable den sites such as hollow logs, tree hollows, rock outcrops or caves (NPWS 1999at). Individuals also require an abundance of food, such as birds and small mammals, and large areas of relatively intact vegetation through which to forage (NSW NPWS 1999at). This subspecies is moderately arboreal and approximately 11% of travelling is done in trees.	E		MNES			Low	Area disturbed and urban.	Low
Potorous tridactylus tridactylus	Long-nosed Potoroo	In Victoria the Long-nosed Potoroo (SE Mainland) occurs in six discrete regions (Seebeck 1981), including the South-western region, Grampians, Otways, Western Port, Wilsons Promontory and east Gippsland.	V		MNES			Low	Outside known range.	Low
Phascogale tapoatafa	Brush-tailed Phascogale	The Brush-tailed Phascogale inhabits open dry foothill forest with little ground cover, typically associated with box, ironbark and stringybark eucalyptus. The Brush-tailed Phascogale is a shy, cryptic species.		V	VBA	26/07/2019	14	Low	Area urban.	Low
Petauroides volans	Southern Greater Glider	Largely restricted to eucalypt forests and woodlands. It is typically found in highest abundance in taller, montane, moist eucalypt forests with relatively old trees and abundant hollows. Favours forests with a diversity of eucalypt species, due to seasonal variation in its preferred tree species	V	V	MNES/ VBA	No date supplied	1	Low	Lack of preferred habitat.	Low

Scientific name	Common name	Habitat	EPBC	FFG	VBA/ MNES	Last record	No. sites	Likelihood of occurrence	Reasoning	Potential Impact
Pteropus poliocephalus	Grey-Headed Flying-fox	Eastern coastal Australia from Gladstone in Qld to South Gippsland and Melbourne in Vic, with rare influxes further west and south. Rarely more than 200km inland. In warmer months gathers in very large camps, usually in dense forest in gullies.	V		MNES			Low	Potential foraging in the area	Low
Invertebrate										
Austrolestes aridus	Inland Ringtail Damselfly	Widespread across inland Australia, where it inhabits streams, pools, and ponds.		nt	VBA	No date supplied	1	Low	Not mapped in the VBA or ALA. However suitable habitat.	Low
Leptocerus souta	Caddisfly	Caddisflies (Trichoptera): Adults are predominately found near water bodies, as their young are aquatic. Although there is one species in Australia that has terrestrial larvae. The adults are nocturnal and can sometimes be found resting on tree trunks by streams and lakes during the day. The larvae live in almost all types of freshwater habitats and a few species even inhabit saline waters and marine environments.		V	VBA	No date supplied	1	Low	Post Office Creek adjacent study area. 20 species collected at Campaspe River which is approximatel y 1.5km north west of the study site.	Low
Synemon plana	Golden Sun Moth	Habitat includes native temperate grassland and open grassy woodlands dominated by wallaby grass. While previous studies suggested that the species prefers grasslands which have a greater	CE	V	MNES/ VBA	4/12/2020	1	Low	Area disturbed.	Low

Scientific name	Common name	Habitat	EPBC	FFG	VBA/ MNES	Last record	No. sites	Likelihood of occurrence	Reasoning	Potential Impact
		than 40% coverage of wallaby grass over a given area, more recent studies show a broader tolerance for other species compositions, including degraded grasslands dominated by exotic Chilean Needlegrass								

Appendix F MNES Search Results

Australian Government

Department of Agriculture, Water and the Environment

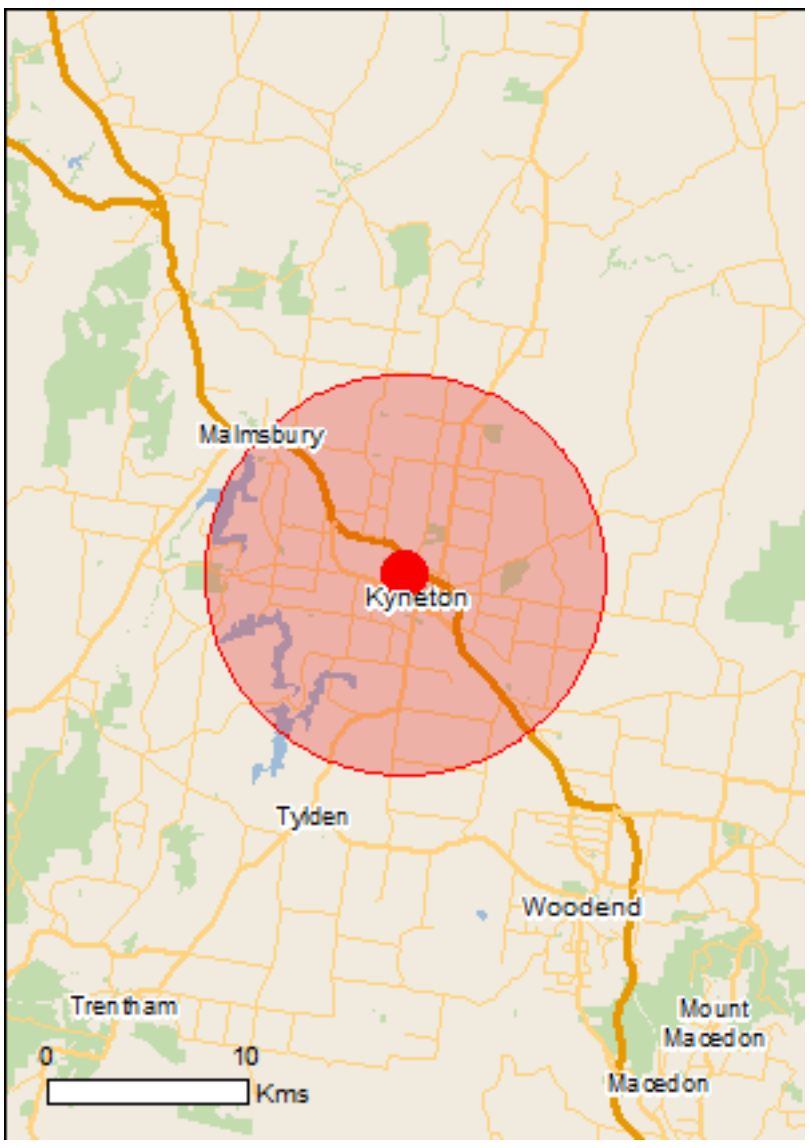
EPBC Act Protected Matters Report

This report provides general guidance on matters of national environmental significance and other matters protected by the EPBC Act in the area you have selected.

Information on the coverage of this report and qualifications on data supporting this report are contained in the caveat at the end of the report.

Information is available about Environment Assessments and the EPBC Act including significance guidelines, forms and application process details.

Report created: 24/09/21 14:57:19



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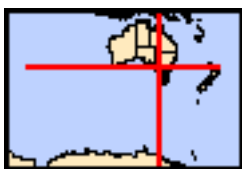

Summary

Matters of National Environmental Significance

This part of the report summarises the matters of national environmental significance that may occur in, or may relate to, the area you nominated. Further information is available in the detail part of the report, which can be accessed by scrolling or following the links below. If you are proposing to undertake an activity that may have a significant impact on one or more matters of national environmental significance then you should consider the Administrative Guidelines on Significance.

World Heritage Properties:	None
National Heritage Places:	None
Wetlands of International Importance:	6
Great Barrier Reef Marine Park:	None
Commonwealth Marine Area:	None
Listed Threatened Ecological Communities:	4
Listed Threatened Species:	37
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 environment anywhere.

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

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

Commonwealth Land:	1
Commonwealth Heritage Places:	1
Listed Marine Species:	18
Whales and Other Cetaceans:	None
Critical Habitats:	None
Commonwealth Reserves Terrestrial:	None
Australian Marine Parks:	None

Extra Information

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

State and Territory Reserves:	10
Regional Forest Agreements:	1
Invasive Species:	37
Nationally Important Wetlands:	None
Key Ecological Features (Marine)	None

Details

Matters of National Environmental Significance

Wetlands of International Importance (Ramsar)	[Resource Information]
Name	Proximity
Banrock station wetland complex	400 - 500km upstream
Gunbower forest	100 - 150km upstream
Hattah-kulkyne lakes	300 - 400km upstream
Nsw central murray state forests	100 - 150km upstream
Riverland	400 - 500km upstream
The coorong, and lakes alexandrina and albert wetland	400 - 500km upstream

Listed Threatened Ecological Communities		[Resource Information]

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

Name	Status	Type of Presence
Grassy Eucalypt Woodland of the Victorian Volcanic Plain	Critically Endangered	Community likely to occur within area
Grey Box (Eucalyptus microcarpa) Grassy Woodlands and Derived Native Grasslands of South-eastern Australia	Endangered	Community likely to occur within area
Natural Temperate Grassland of the Victorian Volcanic Plain	Critically Endangered	Community may occur within area
White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland	Critically Endangered	Community likely to occur within area

Listed Threatened Species		[Resource Information]
Name	Status	Type of Presence
Birds		
Anthochaera phrygia Regent Honeyeater [82338]	Critically Endangered	Foraging, feeding or related behaviour may occur within area
Botaurus poiciloptilus Australasian Bittern [1001]	Endangered	Species or species habitat may occur within area
Calidris ferruginea Curlew Sandpiper [856]	Critically Endangered	Species or species habitat may occur within area
Falco hypoleucos Grey Falcon [929]	Vulnerable	Species or species habitat may occur within area
Grantiella picta Painted Honeyeater [470]	Vulnerable	Species or species habitat known to occur within area
Hirundapus caudacutus White-throated Needletail [682]	Vulnerable	Species or species habitat known to occur within area
Lathamus discolor Swift Parrot [744]	Critically Endangered	Species or species habitat likely to occur within area

Name	Status	Type of Presence
[Numenius madagascariensis](#) Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat may occur within area
[Pedionomus torquatus](#) Plains-wanderer [906]	Critically Endangered	Species or species habitat likely to occur within area
[Rostratula australis](#) Australian Painted Snipe [77037]	Endangered	Species or species habitat likely to occur within area
Fish		
[Galaxias rostratus](#) Flathead Galaxias, Beaked Minnow, Flat-headed Galaxias, Flat-headed Jollytail, Flat-headed Minnow [84745]	Critically Endangered	Species or species habitat likely to occur within area
[Maccullochella macquariensis](#) Trout Cod [26171]	Endangered	Species or species habitat likely to occur within area
[Maccullochella peelii](#) Murray Cod [66633]	Vulnerable	Species or species habitat may occur within area
[Macquaria australasica](#) Macquarie Perch [66632]	Endangered	Translocated population known to occur within area
[Nannoperca australis Murray-Darling Basin lineage](#) Southern Pygmy Perch (Murray-Darling Basin lineage) [91711]	Vulnerable	Species or species habitat known to occur within area
Frogs		
[Litoria raniformis](#) Growling Grass Frog, Southern Bell Frog, Green and Golden Frog, Warty Swamp Frog, Golden Bell Frog [1828]	Vulnerable	Species or species habitat likely to occur within area
Insects		
[Synemon plana](#) Golden Sun Moth [25234]	Critically Endangered	Species or species habitat likely to occur within area
Mammals		
[Dasyurus maculatus maculatus (SE mainland population)](#) Spot-tailed Quoll, Spotted-tail Quoll, Tiger Quoll (southeastern mainland population) [75184]	Endangered	Species or species habitat may occur within area
[Petauroides volans](#) Greater Glider [254]	Vulnerable	Species or species habitat known to occur within area
[Potorous tridactylus tridactylus](#) Long-nosed Potoroo (SE Mainland) [66645]	Vulnerable	Species or species habitat may occur within area
[Pteropus poliocephalus](#) Grey-headed Flying-fox [186]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Plants		
[Amphibromus fluitans](#) River Swamp Wallaby-grass, Floating Swamp Wallaby-grass [19215]	Vulnerable	Species or species habitat may occur within area
[Caladenia ornata](#) Ornate Pink Fingers [76213]	Vulnerable	Species or species habitat may occur within area
[Caladenia versicolor](#) Candy Spider-orchid [24392]	Vulnerable	Species or species habitat may occur within area

Name	Status	Type of Presence
Dianella amoena Matted Flax-lily [64886]	Endangered	Species or species habitat known to occur within area
Dodonaea procumbens Trailing Hop-bush [12149]	Vulnerable	Species or species habitat may occur within area
Eucalyptus aggregata Black Gum [20890]	Vulnerable	Species or species habitat likely to occur within area
Glycine latrobeana Clover Glycine, Purple Clover [13910]	Vulnerable	Species or species habitat known to occur within area
Lepidium hyssopifolium Basalt Pepper-cress, Peppercress, Rubble Pepper-cress, Pepperweed [16542]	Endangered	Species or species habitat likely to occur within area
Leucochrysum albicans subsp. tricolor Hoary Sunray, Grassland Paper-daisy [89104]	Endangered	Species or species habitat may occur within area
Prasophyllum validum Sturdy Leek-orchid, Mount Remarkable Leek-orchid [10268]	Vulnerable	Species or species habitat may occur within area
Rutidosis leptorhynchoides Button Wrinklewort [67251]	Endangered	Species or species habitat may occur within area
Senecio macrocarpus Large-fruit Fireweed, Large-fruit Groundsel [16333]	Vulnerable	Species or species habitat may occur within area
Senecio psilocarpus Swamp Fireweed, Smooth-fruited Groundsel [64976]	Vulnerable	Species or species habitat likely to occur within area
Thelymitra matthewsii Spiral Sun-orchid [4168]	Vulnerable	Species or species habitat may occur within area
Xerochrysum palustre Swamp Everlasting, Swamp Paper Daisy [76215]	Vulnerable	Species or species habitat likely to occur within area
Reptiles		
Delma impar Striped Legless Lizard, Striped Snake-lizard [1649]	Vulnerable	Species or species habitat likely to occur within area

Listed Migratory Species [Resource Information]

* Species is listed under a different scientific name on the EPBC Act - Threatened Species list.

Name	Threatened	Type of Presence
Migratory Marine Birds		
Apus pacificus Fork-tailed Swift [678]		Species or species habitat likely to occur within area
Migratory Terrestrial Species		
Hirundapus caudacutus White-throated Needletail [682]	Vulnerable	Species or species habitat known to occur within area
Motacilla flava Yellow Wagtail [644]		Species or species habitat may occur within area

Name	Threatened	Type of Presence
Myiagra cyanoleuca		
Satin Flycatcher [612]		Species or species habitat known to occur within area
Rhipidura rufifrons		
Rufous Fantail [592]		Species or species habitat known to occur within area
Migratory Wetlands Species		
Actitis hypoleucos		
Common Sandpiper [59309]		Species or species habitat may occur within area
Calidris acuminata		
Sharp-tailed Sandpiper [874]		Species or species habitat may occur within area
Calidris ferruginea		
Curlew Sandpiper [856]	Critically Endangered	Species or species habitat may occur within area
Calidris melanotos		
Pectoral Sandpiper [858]		Species or species habitat may occur within area
Gallinago hardwickii		
Latham's Snipe, Japanese Snipe [863]		Species or species habitat known to occur within area
Numenius madagascariensis		
Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat may occur within area
Tringa nebularia		
Common Greenshank, Greenshank [832]		Species or species habitat likely to occur within area

Other Matters Protected by the EPBC Act

Commonwealth Land [Resource Information]

The Commonwealth area listed below may indicate the presence of Commonwealth land in this vicinity. Due to the unreliability of the data source, all proposals should be checked as to whether it impacts on a Commonwealth area, before making a definitive decision. Contact the State or Territory government land department for further information.

Name
Defence - KYNETON TRAINING DEPOT (Drill Hall)

Commonwealth Heritage Places [Resource Information]

Name	State	Status
Historic		
Kyneton Post Office	VIC	Listed place

Listed Marine Species [Resource Information]

* Species is listed under a different scientific name on the EPBC Act - Threatened Species list.

Name	Threatened	Type of Presence
Birds		
Actitis hypoleucos		
Common Sandpiper [59309]		Species or species habitat may occur within area
Apus pacificus		
Fork-tailed Swift [678]		Species or species habitat likely to occur within area
Ardea ibis		
Cattle Egret [59542]		Species or species habitat may occur within area
Calidris acuminata		
Sharp-tailed Sandpiper [874]		Species or species

Name	Threatened	Type of Presence
		habitat may occur within area
Calidris ferruginea Curlew Sandpiper [856]	Critically Endangered	Species or species habitat may occur within area
Calidris melanotos Pectoral Sandpiper [858]		Species or species habitat may occur within area
Chrysococcyx osculans Black-eared Cuckoo [705]		Species or species habitat likely to occur within area
Gallinago hardwickii Latham's Snipe, Japanese Snipe [863]		Species or species habitat known to occur within area
Haliaeetus leucogaster White-bellied Sea-Eagle [943]		Species or species habitat likely to occur within area
Hirundapus caudacutus White-throated Needletail [682]	Vulnerable	Species or species habitat known to occur within area
Lathamus discolor Swift Parrot [744]	Critically Endangered	Species or species habitat likely to occur within area
Merops ornatus Rainbow Bee-eater [670]		Species or species habitat may occur within area
Motacilla flava Yellow Wagtail [644]		Species or species habitat may occur within area
Myiagra cyanoleuca Satin Flycatcher [612]		Species or species habitat known to occur within area
Numenius madagascariensis Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat may occur within area
Rhipidura rufifrons Rufous Fantail [592]		Species or species habitat known to occur within area
Rostratula benghalensis (sensu lato) Painted Snipe [889]	Endangered*	Species or species habitat likely to occur within area
Tringa nebularia Common Greenshank, Greenshank [832]		Species or species habitat likely to occur within area

Extra Information

State and Territory Reserves [Resource Information]

Name	State
Burke I93 B.R.	VIC
Carlsruhe B.R.	VIC
Carlsruhe SS.R.	VIC
Edgecombe SS.R.	VIC
Green Hill SS.R.	VIC
Kyneton SS.R.	VIC
Langley I12 B.R	VIC
Lauriston B.R	VIC
Milkingyard Creek SS.R.	VIC
Woodend I95 B.R	VIC

Regional Forest Agreements [Resource Information]

Note that all areas with completed RFAs have been included.

Name	State
West Victoria RFA	Victoria

Invasive Species [Resource Information]

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

Name	Status	Type of Presence
Birds		
Acridotheres tristis Common Myna, Indian Myna [387]		Species or species habitat likely to occur within area
Alauda arvensis Skylark [656]		Species or species habitat likely to occur within area
Anas platyrhynchos Mallard [974]		Species or species habitat likely to occur within area
Carduelis carduelis European Goldfinch [403]		Species or species habitat likely to occur within area
Carduelis chloris European Greenfinch [404]		Species or species habitat likely to occur within area
Columba livia Rock Pigeon, Rock Dove, Domestic Pigeon [803]		Species or species habitat likely to occur within area
Passer domesticus House Sparrow [405]		Species or species habitat likely to occur within area
Passer montanus Eurasian Tree Sparrow [406]		Species or species habitat likely to occur within area
Pycnonotus jocosus Red-whiskered Bulbul [631]		Species or species habitat likely to occur within area
Streptopelia chinensis Spotted Turtle-Dove [780]		Species or species habitat likely to occur within area
Sturnus vulgaris Common Starling [389]		Species or species habitat likely to occur

Name	Status	Type of Presence
		within area
Turdus merula Common Blackbird, Eurasian Blackbird [596]		Species or species habitat likely to occur within area
Turdus philomelos Song Thrush [597]		Species or species habitat likely to occur within area
Mammals		
Bos taurus Domestic Cattle [16]		Species or species habitat likely to occur within area
Canis lupus familiaris Domestic Dog [82654]		Species or species habitat likely to occur within area
Capra hircus Goat [2]		Species or species habitat likely to occur within area
Felis catus Cat, House Cat, Domestic Cat [19]		Species or species habitat likely to occur within area
Lepus capensis Brown Hare [127]		Species or species habitat likely to occur within area
Mus musculus House Mouse [120]		Species or species habitat likely to occur within area
Oryctolagus cuniculus Rabbit, European Rabbit [128]		Species or species habitat likely to occur within area
Rattus norvegicus Brown Rat, Norway Rat [83]		Species or species habitat likely to occur within area
Rattus rattus Black Rat, Ship Rat [84]		Species or species habitat likely to occur within area
Vulpes vulpes Red Fox, Fox [18]		Species or species habitat likely to occur within area
Plants		
Asparagus asparagoides Bridal Creeper, Bridal Veil Creeper, Smilax, Florist's Smilax, Smilax Asparagus [22473]		Species or species habitat likely to occur within area
Cenchrus ciliaris Buffel-grass, Black Buffel-grass [20213]		Species or species habitat may occur within area
Chrysanthemoides monilifera Bitou Bush, Boneseed [18983]		Species or species habitat may occur within area
Chrysanthemoides monilifera subsp. monilifera Boneseed [16905]		Species or species habitat likely to occur within area
Cytisus scoparius Broom, English Broom, Scotch Broom, Common Broom, Scottish Broom, Spanish Broom [5934]		Species or species habitat likely to occur within area
Genista linifolia Flax-leaved Broom, Mediterranean Broom, Flax		Species or species

Name	Status	Type of Presence
Broom [2800]		habitat likely to occur within area
Genista monspessulana Montpellier Broom, Cape Broom, Canary Broom, Common Broom, French Broom, Soft Broom [20126]		Species or species habitat likely to occur within area
Lycium ferocissimum African Boxthorn, Boxthorn [19235]		Species or species habitat likely to occur within area
Nassella neesiana Chilean Needle grass [67699]		Species or species habitat likely to occur within area
Nassella trichotoma Serrated Tussock, Yass River Tussock, Yass Tussock, Nassella Tussock (NZ) [18884]		Species or species habitat likely to occur within area
Opuntia spp. Prickly Pears [82753]		Species or species habitat likely to occur within area
Rubus fruticosus aggregate Blackberry, European Blackberry [68406]		Species or species habitat likely to occur within area
Salix spp. except S.babylonica, S.x calodendron & S.x reichardtii Willows except Weeping Willow, Pussy Willow and Sterile Pussy Willow [68497]		Species or species habitat likely to occur within area
Ulex europaeus Gorse, Furze [7693]		Species or species habitat likely to occur within area

Caveat

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

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

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

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

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

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

Only selected species covered by the following provisions of the EPBC Act have been mapped:

- migratory and
- marine

The following species and ecological communities have not been mapped and do not appear in reports produced from this database:

- threatened species listed as extinct or considered as vagrants
- some species and ecological communities that have only recently been listed
- some terrestrial species that overfly the Commonwealth marine area
- migratory species that are very widespread, vagrant, or only occur in small numbers

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

- non-threatened seabirds which have only been mapped for recorded breeding sites
- seals which have only been mapped for breeding sites near the Australian continent

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

Coordinates

-37.23899 144.44862

Acknowledgements

This database has been compiled from a range of data sources. The department acknowledges the following custodians who have contributed valuable data and advice:

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

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

Please feel free to provide feedback via the Contact Us page.

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