

# **BALMATTUM HILL MOUNTAIN BIKE TRAIL PLANNING PROJECT – HIGH-LEVEL ECOLOGICAL & ENVIRONMENTAL PLANNING DESKTOP ASSESSMENT**

## **1. INTRODUCTION**

### **1.1 Background**

Stantec has been engaged by Strathbogie Shire Council to assist in the preparation and oversight of the Balmattum Hill Mountain Bike Trail Planning Project. The project will involve the development of an investment-ready detailed project plan to build a universally accessible trail for mountain bike riding.

Balmattum Hill is located on the eastern side of the Hume Freeway and 3.5 km east of Euroa. Balmattum Hill is 475 metres high and located in the Balmattum Hill Bushland Reserve. The study area is located on Crown Land and maintained by Parks Victoria. The park currently offers a 2.6 km walking track, which provides a view of the town below.

The site is located approximately 90 minutes' drive from metropolitan Melbourne and is a potential convenient stop over by those passing through to other recreational and sporting activities.

Given there are no other dedicated mountain bike facilities in the Strathbogie Shire, with the most proximate purpose-built park being at Mount Major, 40 minutes to the north, the project has the potential to attract and engage the local and more regional community.

### **1.2 Purpose**

The purpose of the project is to assist in the preparation of an investment-ready project plan to build the mountain bike trail in Balmattum Hill. The mountain bike park aims to provide universally accessible trails with iconic riding location offering unique trail features for all users.

The purpose of this high-level desktop ecological and environmental planning assessment is to provide an overview of ecological and environmental planning considerations applicable to the Balmattum Hill Bushland Reserve (the Subject site) to identify potential constraints from these perspectives. This information is provided to assist in development of the concept alignment.

The study area assessed within this memo is outlined in Figure 1 below.



Figure 1: Balmattum Hill Mountain Bike Trail investigation area.

## 2. METHODOLOGY

### 2.1 Desktop Assessment

To identify the ecological values and planning obligations of the investigation area, the following steps have been undertaken:

1. Collate and review information from the following publicly available databases, proximate to the existing road corridors and general area:
  - a. DEECA NatureKit 2.0
  - b. DEECA Native Vegetation Information Management (NVIM) System
  - c. Environment Protection and Biodiversity Conservation (EPBC) Protected Matters Search Tool
  - d. WaterWatch Map Portal
  - e. DEECA Victorian Biodiversity Atlas (VBA)
  - f. VicPlan – MapShare Database
  - g. Strathbogie Planning Scheme
2. Highlight the areas of potential ecological/environmental planning sensitivity.

The results of the desktop investigation are provided in this memo. It should be noted that no site visits or investigations have been completed at this stage, so the investigation should be considered preliminary in nature and will be updated throughout the study, including during development of the concept alignment.

### 2.2 Limitations

The scope of the assessment is limited to advice on potential environmental impacts and guidance on potential legislative requirements under the following local, state, and federal legislation:

- *Flora and Fauna Guarantee Act 1988 (2019 Amendment Act)*
- *EPBC Act 1999*
- *Crown Land (Reserves) Act 1978*
- *Native Title Act 1993*
- *Planning and Environment Act 1987* (including local laws and policies regulated by Strathbogie Shire Council)
- *Water Act 1989*

The aim of this assessment is to determine any potential ecological and environmental planning impacts and provide guidance on potential legislative requirements. This assessment solely focuses on biodiversity and relevant legislation, with cultural heritage (including Aboriginal cultural heritage and historic heritage) and wider environmental investigations (e.g. geology and geotechnical investigations, contaminated land investigations) being outside the scope of this assessment.

This assessment has been undertaken as a high-level desktop assessment of the overall Balmattum Hill Bushland Reserve. As design progresses to concept alignment design and site investigations are undertaken, this will result in the need to re-evaluate the ecological and planning approval implications for the project.

Consultation has not been undertaken with Strathbogie Shire Council or other regulatory authorities as part of this desktop review.



### 3. RESULTS

#### 3.1 Desktop Review

##### 3.1.1 DEECA NatureKit – Victorian Bioregion

The Subject site is located within the Victorian Riverina bioregion (DEECA, 2023) as shown in Figure 2 below.

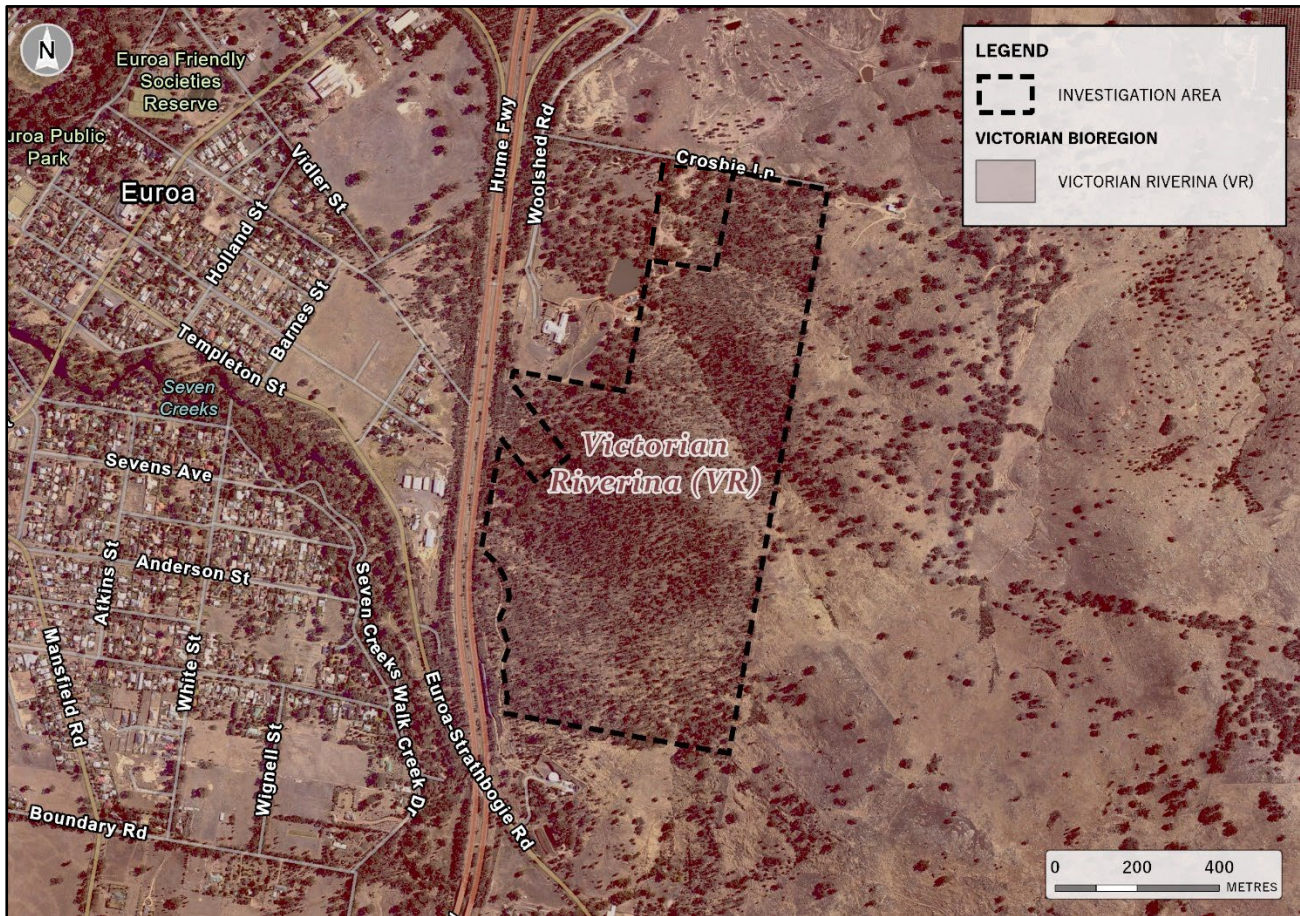


Figure 2: Victorian Bioregions (NatureKit, 2023).



### 3.1.2 DEECA NatureKit - Ecological Vegetation Classes 2005

The Department of Energy, Environment and Climate Action (DEECA)'s NatureKit online database has indicated that Ecological Vegetation Class (EVC)-quality vegetation is mapped within the investigation area. The distribution of these EVCs is shown in Figure 3, and the criteria for each Bioregional Conservation Status (BCS) is outlined in Table 1 below.

As outlined in Figure 3, the site is mapped as containing EVC175 Grassy Woodland EVC-quality vegetation, which is listed as Endangered within the Victorian Riverina bioregion.

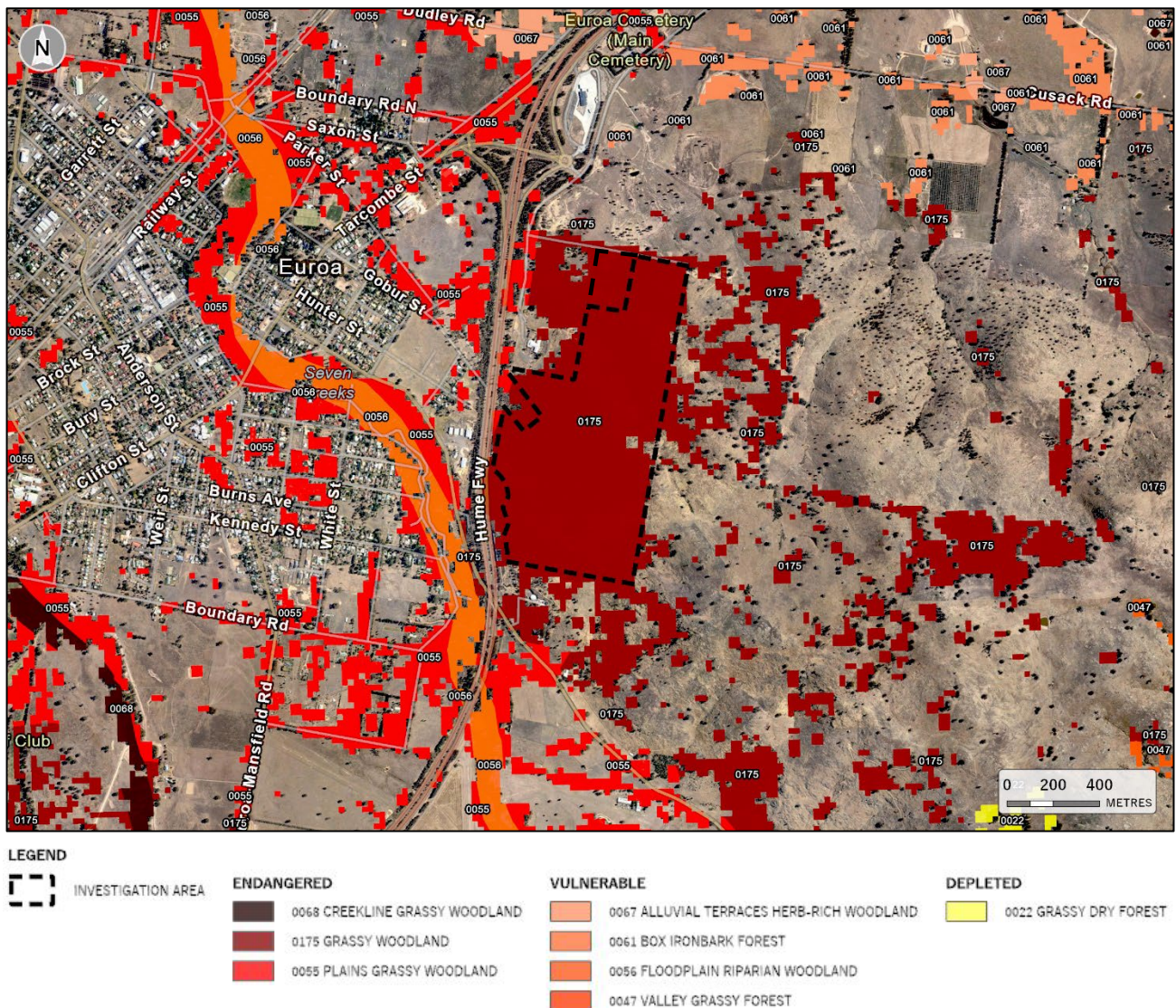


Figure 3: Ecological Vegetation Classes 2005 (NatureKit, 2023)

Table 1: Criteria for Bioregional Conservation Status of Ecological Vegetation Classes (EVC) (DELWP, 2022)

Bioregional Conservation Status (BCS)	Criteria
<b>Endangered (E)</b>	<p>Contracted to less than 10% of former range;  OR Less than 10% pre-European extent remains; OR  Combination of depletion, degradation, current threats and rarity is comparable overall to the above:</p> <ul style="list-style-type: none"> <li>• 10 to 30% pre-European extent remains and severely degraded over a majority of this area; or</li> <li>• naturally restricted EVC reduced to 30% or less of former range and moderately degraded over a majority of this area; or</li> <li>• rare EVC cleared and/or moderately degraded over a majority of former area.</li> </ul>
<b>Vulnerable (V)</b>	<p>10 to 30% pre-European extent remains; OR  Combination of depletion, degradation, current threats and rarity is comparable overall to the above:</p> <ul style="list-style-type: none"> <li>• greater than 30% and up to 50% pre-European extent remains and moderately degraded over a majority of this area; or</li> <li>• greater than 50% pre-European extent remains and severely degraded over a majority of this area; or</li> <li>• naturally restricted EVC where greater than 30% pre-European extent remains and moderately degraded over a majority of this area; or</li> <li>• rare EVC cleared and/or moderately degraded over a minority of former area.</li> </ul>
<b>Depleted (D)</b>	<p>Greater than 30% and up to 50% pre-European extent remains; OR  Combination of depletion, degradation and current threats is comparable overall to the above and:</p> <ul style="list-style-type: none"> <li>• greater than 50% pre-European extent remains</li> <li>• and moderately degraded over a majority of this area.</li> </ul>
<b>Least Concern (LC)</b>	<p>Greater than 50% pre-European extent remains and subject to little to no degradation over a majority of this area.</p>



### 3.1.3 DEECA NatureKit - Flora and Fauna Guarantee Act 1988 Listed Communities

A search of *Flora and Fauna Guarantee Act 1988* (FFG Act) listed threatened communities within the investigation area on DEECA's NatureKit (DEECA, 2023) indicated that no FFG listed threatened communities are present within the investigation area. However, two FFG listed threatened communities are shown to border the investigation area (see Figure 4). The proximity of these listed communities should be confirmed with field surveys in order to ensure they do not exist within the investigation area. If it is determined they are present, these FFG Act listed communities would require a separate application for a *Permit to take protected flora* under the FFG Act if they are expected to be impacted:

- **Northern Plains Grassland**
  - EVC 55 – Plains Grassy Woodland (marked in purple)
- **Grey Box – Buloke Grassy Woodland**
  - EVC 55 – Plains Grassy Woodland (marked in green)

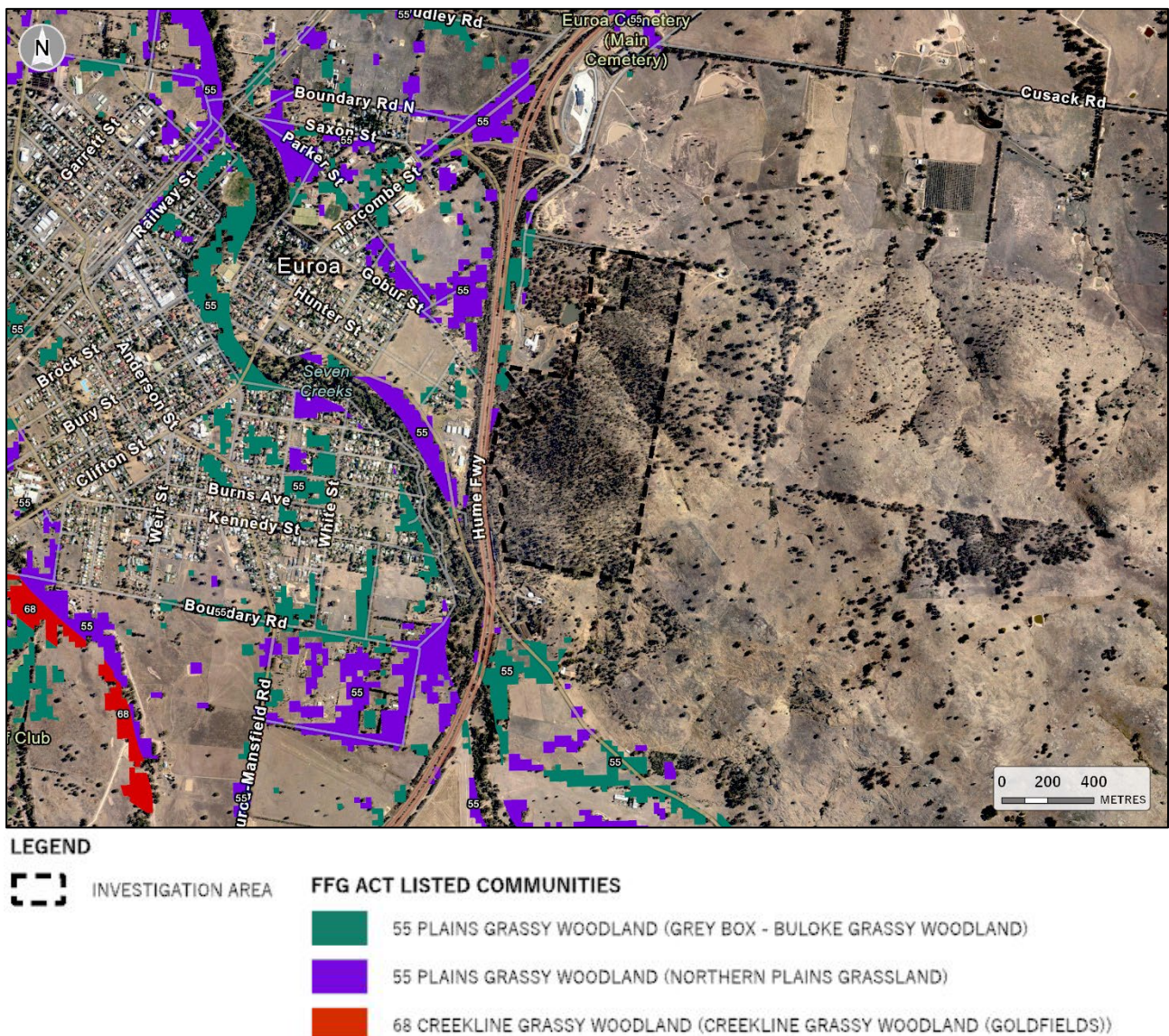


Figure 4: FFG Act Listed Communities (DEECA, 2023)



### 3.1.4 DEECA NVIM System - The Guidelines for the removal, destruction or lopping of native vegetation (State)

The Guidelines apply Victoria's state-wide policy for the assessment and removal of native vegetation and are incorporated into the Victorian Planning Provisions and all planning schemes in Victoria. The Guidelines aim to ensure that the removal of native vegetation is avoided, minimised, and offset to achieve no net loss to biodiversity (DELWP, 2017).

The location categories mapped within the investigation area include Locations 1, 2, and 3 (Figure 5). Depending on the location and extent of vegetation to be cleared, these pathways determine the information that will need to be supplied to DEECA when applying for the removal of native vegetation. Table 2 below provides an overview of the determination of the assessment pathway, which depends upon the location of the proposed vegetation removal along with the extent and type of removal. Given the likelihood of vegetation removal within areas mapped as Location 3, it is expected that the works will trigger the Detailed assessment pathway.

Table 2: Determination of the assessment pathway for an application for native vegetation removal (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

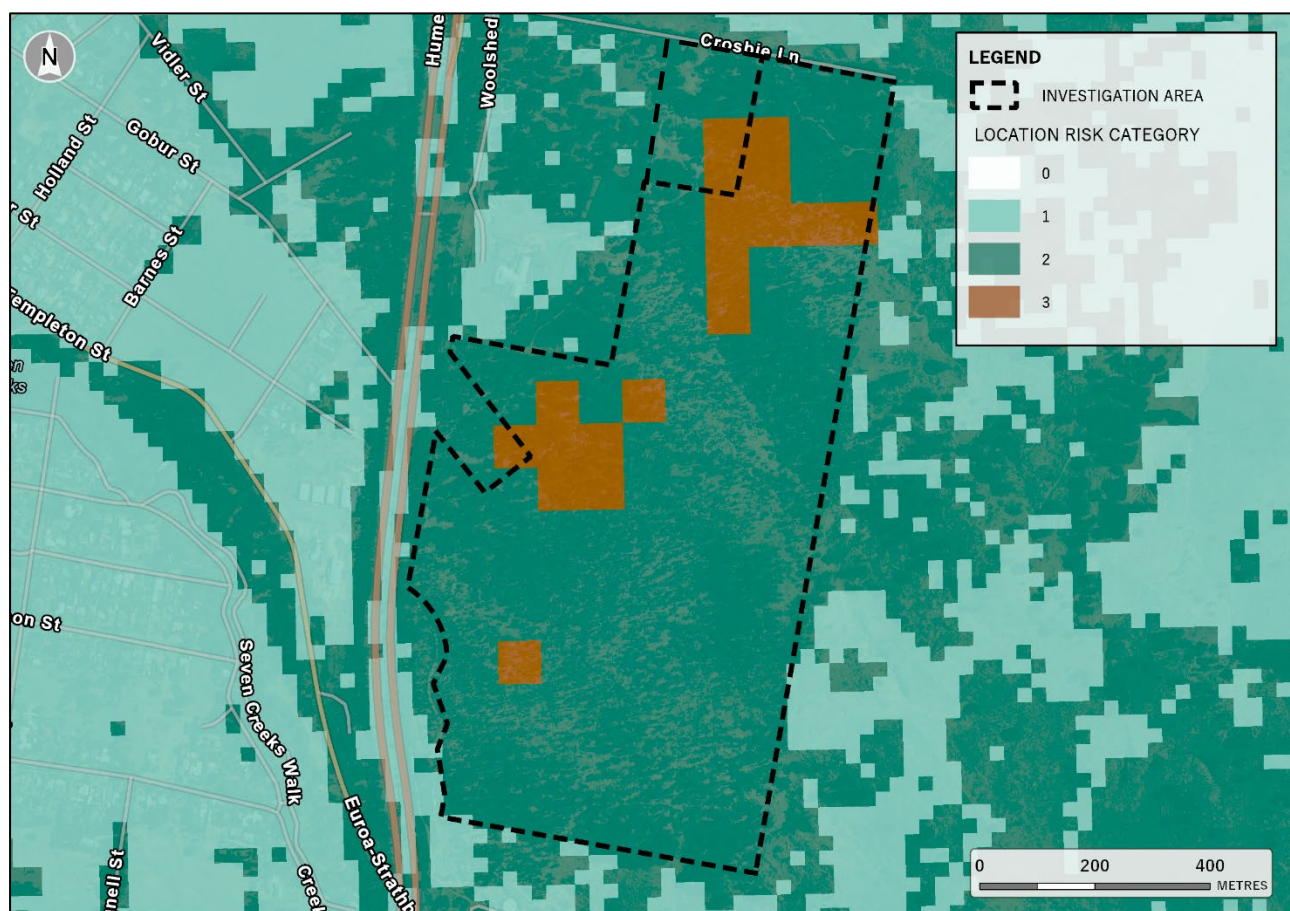


Figure 5: Native Vegetation Risk Location Category Map (NVIM, 2023)



### 3.1.5 Victorian Biodiversity Atlas (VBA) - Listed Threatened Flora Species

A search of the VBA database conducted on 2<sup>nd</sup> August 2023 indicated that 7 threatened flora species have been previously recorded within a 5km buffer of the investigation area in the past 20 years. See Figure 6 below for the locations of these observations. The list of species, their most recent record and habitat requirements are presented in Table 3 below.

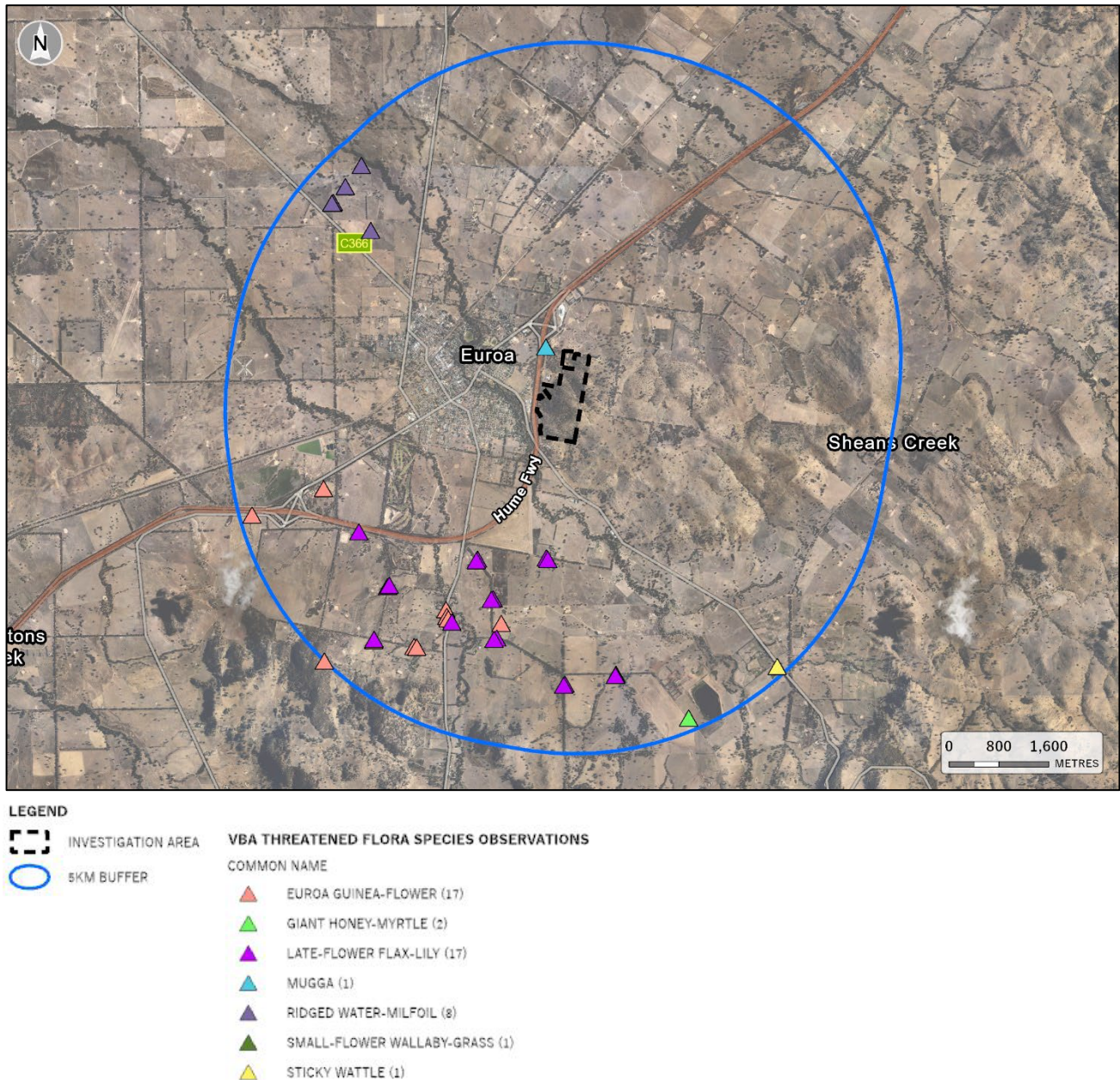


Figure 6: VBA Threatened Flora Species - Observation Locations

The VBA search has indicated that there are no threatened flora records within the direct investigation area. However, two federally listed flora species, Euroa Guinea-flower (*Hibbertia humifusa subsp. erigens*) and Ridged Water-milfoil (*Myriophyllum porcatum*), have been recorded within 5km of the investigation area. If these are to occur within areas to be impacted, they have the potential to trigger referral under the EPBC Act (dependent upon the extent of impacts). All other species records are state listed and if present will require a permit under the *Flora and Fauna Guarantee Act 1988* (the FFG Act) if they are to be impacted (unless planted). Species including Sticky Wattle (*Acacia howittii*) and Giant Honey-myrtle (*Melaleuca armillaris subsp. armillaris*) are outside of their natural range and are likely to have been planted if present.

Impacts to threatened species should be considered during concept alignment design, including consideration of the required construction footprint.

Table 3: VBA Threatened Flora Records generated on 2<sup>nd</sup> August 2023

Scientific Name	Common Name	Conservation Status			Last Record	Habitat
		EPBC	FFG	#		
<i>Acacia howittii</i>	Sticky Wattle		vu	#	2017	Confined to eastern Victoria, grows in moist forests, widely cultivated and naturalising in some areas (VicFlora, 2018).
<i>Dianella tarda</i>	Late-flower Flax-lily		cr		2017	Occurs in open, often grassy forests of foothills and plains of north-eastern and north-central Vic. Often on lower slopes or near gullies and watercourses, usually on clay or clay-loam soils (VicFlora, 2017).
<i>Eucalyptus sideroxylon subsp. sideroxylon</i>	Mugga		en		2017	Found in open forest and woodland, mainly on the tablelands, western slopes and plains of NSW, although also occurs in inland Victoria (Ausplantssociety, 2020).
<i>Hibbertia humifusa subsp. erigens</i>	Euroa Guinea-flower	VU	cr		2017	"Euroa Guinea-flower is apparently confined to north-eastern of Victoria and is mostly associated with woodlands with shallow sandy loams. Populations are known from Longwood, Euroa, Creighton, Avenel and Locksley." (DSE, 2008)
<i>Melaleuca armillaris subsp. armillaris</i>	Giant Honey-myrtle		en	#	2017	"Mainly confined to near-coastal sandy heaths, scrubs slightly raised above saltmarsh, riparian scrubs, rocky coastlines and foothill outcrops eastwards from about Marlo. Occurrences to the west are naturalized from cultivated stock." (VicFlora, 2019)
<i>Myriophyllum porcatum</i>	Ridged Water-milfoil	VU	cr		2011	"Occurs in shallow, ephemeral and seasonal wetlands, including lakes, swamps and rock pools in granite outcrops." (DCCEEW, 2023)
<i>Rytidosperma monticola</i>	Small-flower Wallaby-grass		en		2011	Mostly in dryish grassy woodland, chiefly through central and north-eastern Victoria (e.g. Ararat, Warby Range), but with isolated occurrences in the far east (e.g. Mt Delegate, upper Genoa R), but rather rare in Victoria. (VicFlora, 2021)

EPBC = Environment Protection and Biodiversity Conservation Act 1999 (National) VU (vulnerable); FFG = Flora and Fauna Guarantee Act 1988, cr = critically endangered, en = endangered, vu = vulnerable; # = extended outside its natural range.



### 3.1.6 Victorian Biodiversity Atlas (VBA) – Listed Threatened Fauna Species Observations

A search of the VBA database conducted on the 2<sup>nd</sup> August 2023 indicated that 12 threatened fauna species have been previously recorded within a 5km buffer of the investigation area in the past 20 years. See Figure 7 below for the locations of these observations. The list of species, their most recent record and habitat requirements are presented in Table 4 below.

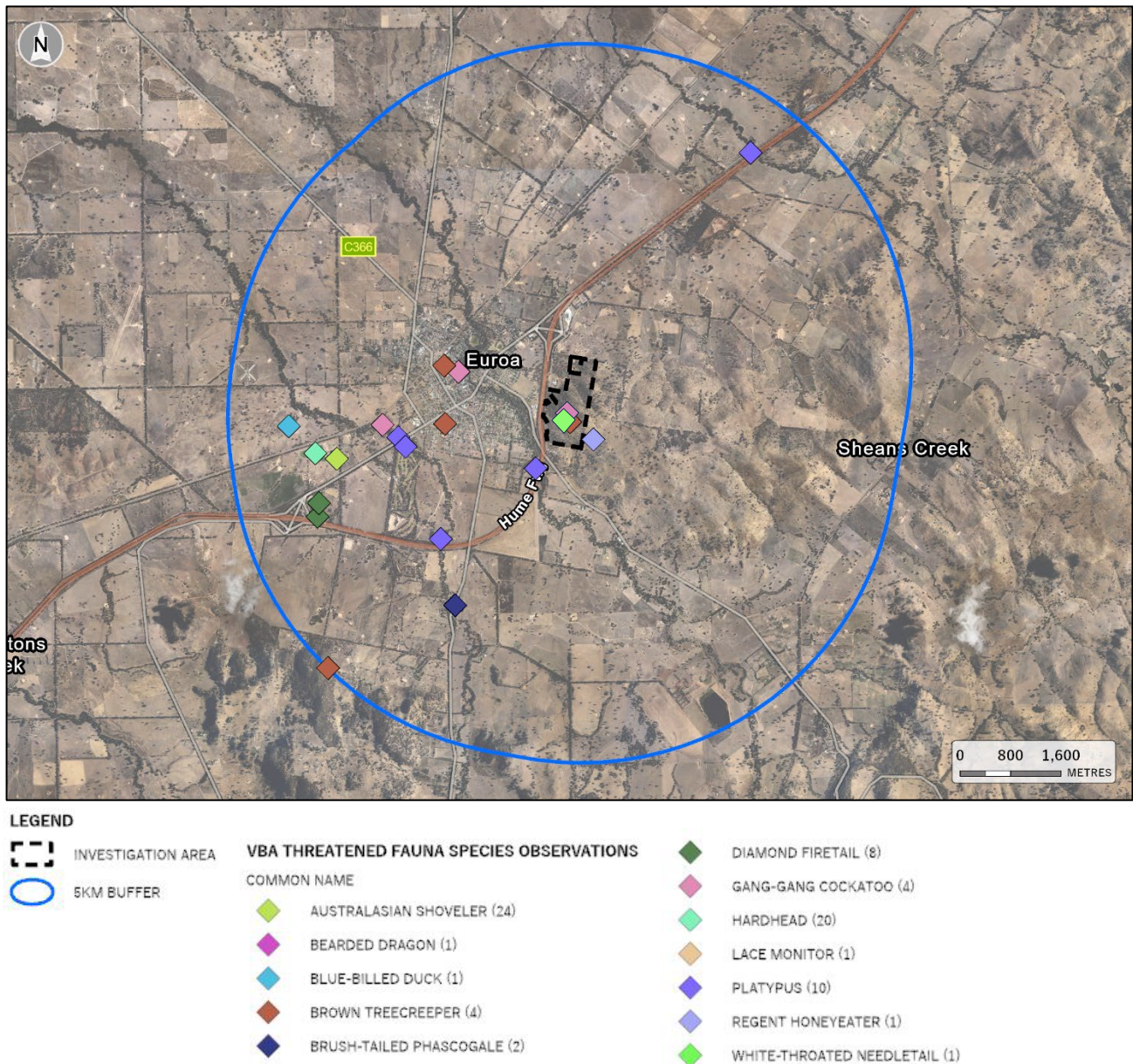


Figure 7: VBA Threatened Fauna Species - Observation Locations

Several federally listed fauna species have been recorded within the investigation area, including Regent Honeyeater (*Anthochaera phrygia*), Gang-gang Cockatoo (*Callocephalon fimbriatum*), Brown Treecreeper (*Climacteris picumnus*), White-throated Needletail (*Hirundapus caudacutus*), and Diamond Firetail (*Stagonopleura guttata*), all having the potential to trigger a referral under the EPBC Act.

The most frequently recorded state listed fauna species include the Australasian Shoveler (*Spatula rhynchotis*), Hardhead (*Aythya australis*), Platypus (*Ornithorhynchus anatinus*) and Diamond Firetail (*Stagonopleura guttata*). If the works are considered to significantly impact on any state listed species, impacts should be mitigated by adjusting construction methodology and timing, e.g., works should be timed outside species breeding seasons. Further efforts to minimise such impacts should be determined through consultation with DEECA.

Table 4: VBA Threatened Fauna Records generated on 2<sup>nd</sup> August 2023

Scientific Name	Common Name	Conservation Status			Last Record	Habitat
		EPBC	FFG	#		
<i>Anthochaera phrygia</i>	Regent Honeyeater	CR	cr		2005	Favour box-ironbark habitat which once extended from west of the Adelaide Hills right through inland Victoria and sub-coastal NSW into QLD. Remnant vegetation on private land can contain valuable feeding and/or breeding resources for this species (SWIFFT, 2023).
<i>Aythya australis</i>	Hardhead		vu		2019	Found in freshwater wetlands and on occasion in sheltered estuaries, this species prefers deep, open, densely vegetated, freshwater wetlands for breeding. Rarely observed on land and predominantly roost on branches and stumps near a waterbody (Birds in backyards, 2023).
<i>Callocephalon fimbriatum</i>	Gang-gang Cockatoo	EN	en		2021	In summer, this species is mostly found in tall, mountain woodlands and forests with a densely shrubby understorey. Over winter, they move to lower altitudes into drier, more open woodlands and forests and can often be seen in urban areas. This species relies on tall, hollowed trees for nesting (Birds in backyards, 2023).
<i>Climacteris picumnus</i>	Brown Treecreeper	VU			2021	Found in drier open forests and woodlands and stays in the same area all year round (Birdlife, 2023).
<i>Hirundapus caudacutus</i>	White-throated Needletail	VU	vu		2007	Spend the majority of their time in flight, however occasionally roost in trees (Birds in backyards, 2023).
<i>Ornithorhynchus anatinus</i>	Platypus		vu		2021	Prefers rivers or streams with earth banks and native vegetation that provides shelter within the water. The presence of logs, twigs, and roots, as well as cobbled or gravel water substrate result in increased microinvertebrate fauna (a main food source). Tends to be more abundant in areas with pool-riffle sequences (AusMuseum, 2022).
<i>Oxyura australis</i>	Blue-billed Duck		vu		2005	Inhabits fresh to saline, deep permanent open wetlands and deep, densely vegetated lakes. During the breeding season (November - March) they prefer deep freshwater wetlands with abundant aquatic and emergent vegetation (SWIFFT, 2023).
<i>Phascogale tapoatafa</i>	Brush-tailed Phascogale		vu		2016	Prefer Eucalypt forests for foraging grounds and nesting sites. They inhabit both humid and arid regions and dense to open forest (ADW, 2001).
<i>Pogona barbata</i>	Bearded Dragon		vu		2010	"Central and eastern mainland Australia - open sclerophyll woodlands or forests with places to perch such as logs and fallen branches." (Museums Victoria, 2023).
<i>Spatula rhynchotis</i>	Australasian Shoveler		vu		2021	Found in freshwater shallow wetlands, ephemeral lakes and inland wetlands with abundant emergent vegetation, as well as in saline estuaries (BirdsSA, 2003).
<i>Stagonopleura guttata</i>	Diamond Firetail	VU	vu		2021	Found in grassy eucalypt woodlands, including Box-Gum Woodlands and Snow Gum Woodlands. Also occurs in open forest, mallee, Natural Temperate Grassland, and in secondary grassland derived from other communities



Scientific Name	Common Name	Conservation Status			Last Record	Habitat
		EPBC	FFG	#		
						(NSWGov, 2017).
<i>Varanus varius</i>	Lace Monitor		en		2019	Inhabit both dry tropical forests and cool temperate forests (Animalia, 2023).

EPBC = Environment Protection and Biodiversity Conservation Act 1999 (National) CR (critically endangered), EN (endangered), VU (vulnerable); FFG = Flora and Fauna Guarantee Act 1988, cr = critically endangered, en = endangered, vu = vulnerable; # = extended outside its natural range.

## 4. LEGISLATIVE REVIEW

### 4.1 Desktop Review

The relevant environmental legislation has been reviewed for permit and approval triggers below.

#### 4.1.1 Environment Protection and Biodiversity Conservation (EPBC) Act 1999 (Federal)

The Environment Protection and Biodiversity Conservation (EPBC) Act 1999 establishes a Commonwealth process for assessment of proposed actions that are likely to have a significant impact on Matters of National Environmental Significance (MNES), or on Commonwealth Land. An action is defined as a project, a development, an undertaking, an activity or a series of activities, or an alteration of any of these things. An action, unless otherwise exempt, requires approval from the Commonwealth Environment Minister if the action has, will have, or is likely to have a 'significant impact' on a matter of NES. An EPBC Act Referral is required if actions are likely to impact on a matter of national significance i.e., threatened species.

The Protected Matters Search Tool (PMST) is an online database that identifies if matters of national environmental significance or other matters protected by the EPBC Act 1999 are likely to occur in the investigation area. An EPBC Protected Matters Search Tool Report was generated on the 2<sup>nd</sup> of August 2023 to determine whether any matters of National Environmental Significance (MNES) or habitat may occur within or near the proposed alignment. A radius of 5km was used, and full results are presented in **Appendix A**.

Below is a summary of the results from the Protected Matters Search Report:

- **6 Wetlands of International Importance (Ramsar):**
  - Banrock Station Wetland Complex (500-600km upstream from Ramsar site)
  - Riverland (500-600km upstream from Ramsar site)
  - Hattah-Kulkyne Lakes (300-400km upstream from Ramsar site)
  - Gunbower Forest (100-150km upstream from Ramsar site)
  - The Coorong, and Lakes Alexandrina and Albert Wetland (500-600km upstream from Ramsar site)
  - NSW Central Murray State Forests (50-100km upstream from Ramsar site)
- **4 Threatened Ecological Communities:**
  - Natural Grasslands of the Murray Valley Plains
  - Buloke Woodlands of the Riverina and Murray-Darling Depression Bioregions
  - Grey Box (*Eucalyptus microcarpa*) Grassy Woodlands and Derived Native Grasslands of South-eastern Australia
  - White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland
- **43 Threatened Species:**
  - 17 Birds
  - 5 Fish
  - 2 Frog
  - 2 Insect
  - 2 Mammal
  - 12 Plants
  - 3 Reptile
  - 11 Migratory Species:  
1 migratory marine bird, 4 migratory terrestrial species, and 6 migratory wetland birds
- **4 State and Territory Reserves**
  - Euroa I51 B.R., Balmattum Hill B.R., Euroa I50 B.R., Balmattum B.R.
- **1 Regional Forest Agreement**
  - North East Victoria RFA



The presence and extent of any federally listed ecological communities would need to be confirmed following detailed site investigations, assessing vegetation against the EPBC listing criteria for each listed community consistent with other EVCs in proximity to the investigation area.

As per Sections 3.1.5 and 3.1.6 above, there have been previous records of at least 2 EPBC-listed flora species - Euroa Guinea-flower (*Hibbertia humifusa subsp. erigens*) and Ridged Water-milfoil (*Myriophyllum porcatum*), and 5 fauna species Regent Honeyeater (*Anthochaera Phrygia*), Gang-gang Cockatoo (*Callocephalon fimbriatum*), Brown Treecreeper (*Climacteris picumnus*), White-throated Needletail (*Hirundapus caudacutus*), and Diamond Firetail (*Stagonopleura guttata*), within proximity to the investigation area in the past 20 years. The likelihood of significantly impacting on these species cannot be determined until the proposed location of the mountain bike trail has been established. Given the presence of EPBC-listed species in the area, at this early stage, there is potential that the project could impact on federally listed species and potential that an EPBC referral may be required.

#### 4.1.2 Environment Effects Act 1978

Under Victoria's *Environment Effects Act 1978 (EE Act)*, projects that could have a 'significant effect' on Victoria's environment can potentially require an Environment Effects Statement (EES). This Act applies to any public works 'reasonably considered to have or be capable of having a significant effect on the environment'. The Minister for Planning and Environment is the responsible person for assessing whether this Act applies.

Before commencing any public works to which this Act applies, the proponent must initiate an EES to be prepared and submitted to the Minister for the Minister's assessment of the environmental effects of the works.

The criteria for the types of potential effects on the environment that might be of significance are provided in the Ministerial Guidelines for Assessment of Environmental Effects under the Environment Effects Act 1978 (DSE 2006). They include impacts to native vegetation, matters listed under the FFG Act, and wetlands. The criteria come under two categories:

- Individual potential environmental effects (one or more effects indicates potential significance of the impacts)
- A combination of potential environmental effects (two or more effects indicate potential significance of the impacts)

An assessment against the criteria should be completed to identify whether one or more individual effects may be triggered, with the information available at the time. Although the project isn't likely to have a significant impact to the surrounding environment, it is still possible that the works may trigger the requirement for an Environment Effects Statement (EES). This should be confirmed when an alignment and construction corridor are determined. In particular, it is important that the construction footprint is assessed in detail as part of determining the need for an EES.

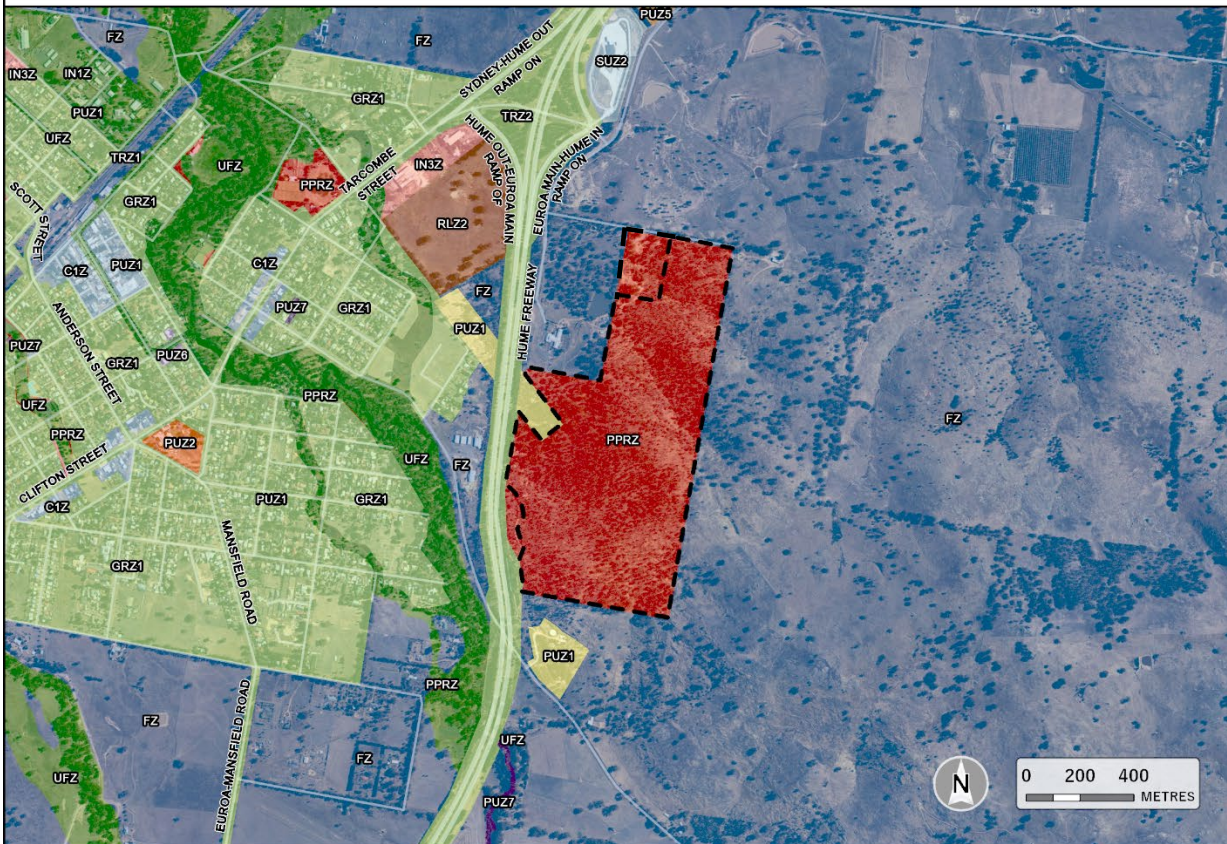
### 4.1.3 Planning and Environment Act 1987 (State) – Strathbogie Planning Scheme

Table 5: Planning Summary Table

Planning Scheme (PS)	Strathbogie Planning Scheme – Strathbogie Shire Council (SSC)
Use Classification	<p><b>Informal Outdoor Recreation</b></p> <p>The proposed Balmattum Hill MTB is likely considered 'informal outdoor recreation' which is defined in Clause 73.03 – Land Use Terms of the Strathbogie planning scheme. Informal outdoor recreation: land used for a minor sports and recreation facility comprising of:</p> <p>'Land open to the public and used by non-paying persons for leisure or recreation, such as a <b>cycle track</b>, park, picnic or barbeque area, playground, plaza, and walking or jogging track'.</p>
Relevant Zones	<ul style="list-style-type: none"> <li>Public Park and Recreation Zone (PPRZ)</li> </ul>
Relevant Overlays	<ul style="list-style-type: none"> <li>Erosion Management Overlay (EMO)</li> <li>Bushfire Management Overlay (BMO)</li> </ul>
Particular Provisions	Clause 52.17 – Native Vegetation



## BALMATTUM HILL MOUNTAIN BIKE PARK PLANNING ZONES



### LEGEND

INVESTIGATION AREA

### PLANNING ZONE

COMMERCIAL 1 ZONE (C1Z)

FARMING ZONE (FZ)

GENERAL RESIDENTIAL ZONE - SCHEDULE 1, GRZ1

INDUSTRIAL 1 ZONE (IN1Z)

INDUSTRIAL 3 ZONE (IN3Z)

PUBLIC PARK AND RECREATION ZONE (PPRZ)

PUBLIC USE ZONE - CEMETERY/ CREMATORIUM (PUZ5)

PUBLIC USE ZONE - EDUCATION (PUZ2)

PUBLIC USE ZONE - LOCAL GOVERNMENT (PUZ6)

PUBLIC USE ZONE - OTHER PUBLIC USE (PUZ7)

PUBLIC USE ZONE - SERVICE AND UTILITY (PUZ1)

RURAL LIVING ZONE - SCHEDULE 2 (RLZ2)

SPECIAL USE ZONE - SCHEDULE 2 (SUZ2)

TRANSPORT ZONE 1 - STATE TRANSPORT INFRASTRUCTURE (TRZ1)

TRANSPORT ZONE 2 - PRINCIPAL ROAD NETWORK (TRZ2)

URBAN FLOODWAY ZONE (UFZ)



SKETCHED BY: [LC], CHECKED BY: [KA]  
DATE: 04-08-2023

### NOTES

1. COORDINATE SYSTEM: GDA2020 MGA ZONE 55
2. BACKGROUND: NEARMAP WMS SERVER

Disclaimer: This document has been prepared based on information provided by others as cited in the Notes section. Stantec has not verified the accuracy and/or completeness of this information and shall not be responsible for any errors or omissions which may be incorporated herein as a result. Stantec assumes no responsibility for data supplied in electronic format, and the recipient accepts full responsibility for verifying the accuracy and completeness of the data.

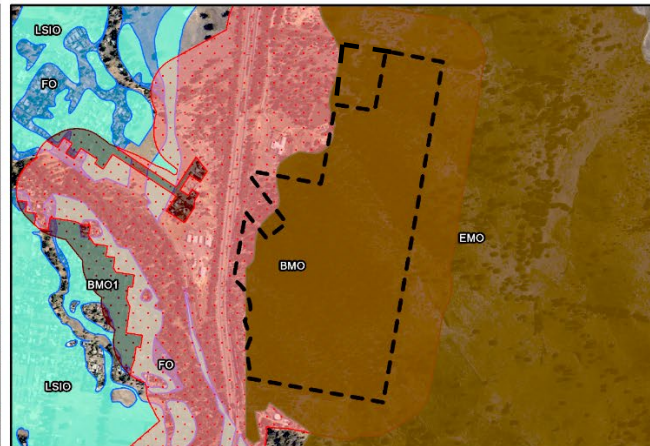
Figure 8: Balmattum Hill Planning Zone Overview



# BALMATTUM MOUNTAIN BIKE TRAIL PLANNING OVERLAYS



ENVIRONMENT AND LANDSCAPE



LAND MANAGEMENT



HERITAGE AND BUILT FORM



OTHER

## LEGEND

 INVESTIGATION AREA

## LAND MANAGEMENT

-  BMO - BUSHFIRE MANAGEMENT OVERLAY
-  BMO1 - BUSHFIRE MANAGEMENT OVERLAY - SCHEDULE 1
-  EMO - EROSION MANAGEMENT OVERLAY
-  FO - FLOODWAY OVERLAY
-  LSIO - LAND SUBJECT TO INUNDATION OVERLAY

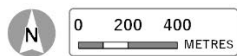
## HERITAGE & BUILT FORM

-  HO51 - HERITAGE OVERLAY
-  HO52 - HERITAGE OVERLAY
-  HO53 - HERITAGE OVERLAY

SKETCHED BY: [LC], CHECKED BY: [KA]  
DATE: 04-05-2023

## NOTES

1. COORDINATE SYSTEM: GDA2020
2. BACKGROUND: WORLD TOPOGRAPHIC MAP. SOURCES: ESRI, HERE, GARMIN, FAO, NOAA, USGS, © OPENSTREETMAP CONTRIBUTORS, AND THE GIS USER COMMUNITY
- WORLD TOPOGRAPHIC MAP: VICMAP, ESRI, HERE, GARMIN, FOURSQUARE, METI/NASA, USGS
- WORLD HILLSHADE: ESRI, GEOSCIENCE AUSTRALIA, NASA, NGA, USGS
- NEARMAP WMS SERVER:





**Table 7:** Planning Approval Requirements - Summary

CODE	SCHEDULE	PERMITS/APPROVALS		
		Use	Buildings and Works	Native Vegetation Removal
Zones				
PPRZ	PUBLIC PARK AND RECREATION ZONE	<b>No</b> – as per the Table of Uses in Clause 36.02-1, Informal Outdoor Recreation is a Section 1 Use (permit not required).	<b>Unlikely</b> – as per Clause 36.02-2, a permit is not required for Buildings and Works for the following:  <b>Pathways, trails</b> , seating, picnic tables, drinking taps, shelters, barbeques, rubbish bins, security lighting, irrigation, drainage or underground infrastructure.	n/a
Overlays				
EMO	EROSION MANAGEMENT OVERLAY	n/a – EMO does not contain specific requirements related to land use.	<b>Likely</b> – under Clause 44.01-2, a permit is required to construct a building or construct or carry out works. Works associated with Leisure and Recreation is not specifically excluded, as such it is interpreted that a permit is required.	<b>Likely</b> – under Clause 44.01-3, a permit is required to remove, destroy or lop any vegetation, unless a specific exemption applies. Applicable exemptions may include: <ul style="list-style-type: none"><li>• Declared noxious weeds</li><li>• Vegetation that was planted or grown as a result of direct seeding for crop raising or grazing animal production</li><li>• Regrowth</li></ul>
BMO	BUSHFIRE MANAGEMENT OVERLAY	n/a – BMO does not contain specific requirements related to land use	<b>Likely</b> – under Clause 44.06-2, a permit is required for Buildings and Works associated with: Leisure and Recreation. It is noted that planning permit applications triggered under Clause 44.06 should be accompanied by: <ul style="list-style-type: none"><li>• A bushfire hazard site assessment</li><li>• A bushfire hazard landscape assessment</li><li>• A bushfire management statement</li></ul>	n/a – BMO does not contain specific requirements related to vegetation removal
Particular Provisions				

Clause 52.17 – Native Vegetation

n/a

n/a

**Likely** – A planning permit may be required for ‘vegetation removal’ under Clause 52.17 (unless an exemption applies).

Possible exemptions listed under Clause 52.17 include:

- Planted vegetation that is to be removed, destroyed or lopped that was either planted or growth as a result of direct seeding. This exemption does not apply to native vegetation planted or managed with public funding for the purpose of land protection or enhancing biodiversity unless the removal, destruction or lopping of the native vegetation is in accordance with written permission of the agency (or its successor) that provided the funding.
- Regrowth: Native vegetation that is to be removed, destroyed or lopped that has naturally established or ~~regenerated on land lawfully cleared of naturally established~~

**Note:** It is recommended that the above interpretation of the planning scheme is confirmed with Strathbogie Shire Council.



#### **4.1.4 Wildlife Act 1975**

The Wildlife Act 1975 is the primary legislation in Victoria providing for protection and management of wildlife. The Act requires people engaged in wildlife research (e.g., fauna surveys, salvage, and relocation activities) to obtain management authorisation under the Act to ensure these activities are undertaken appropriately and, in a manner, consistent with the controls.

The purpose of the Wildlife Act 1975 is to establish processes to protect and conserve wildlife, prevent extinction, and provide for the sustainable use and access to wildlife. Additionally, the Act prohibits and regulates activities relating to wildlife. This includes requiring a licence to capture, handle, relocate or temporarily house wildlife.

There are no requirements under this Act relevant to the planning stages of the project. However, requirements of this Act are relevant should the project progress to construction. If fauna is found on site (e.g., trapped or injured) during construction and needs to be moved, a qualified specialist (ecologist/zoologist) who holds management authorisation under the Wildlife Act 1975 should be engaged to conduct the work.

#### **4.1.5 Catchment and Land Protection Act 1994**

The Catchment and Land Protection (CALP) Act 1994 is the main piece of legislation covering noxious weed and pest animal management in Victoria. Under the Act all landowners have legal obligations to manage declared noxious weeds and pest animals on their land.

The site is within the jurisdiction of the Goulburn Broken Catchment Management Authority (GBCMA). Mitigation measures should be in place during construction to avoid the spread of listed noxious weeds and avoid the introduction of new weed species into the site.

#### **4.1.6 Water Act 1989**

The Water Act 1989 provides for the management of Victoria's waterways. The main objectives of the Act are to promote the efficient use of water resources, ensure conservation and appropriate management and increase community involvement in the conservation and management of Victoria's water resources. Under the Act, a 'Works on Waterways' permit would be required from the relevant authority for all construction work (including crossings) within the bed and banks of a designated waterway.

The site is within the Goulburn Broken Catchment Management Authority (GBCMA) region. A Works on Waterways permit is required for crossings of a designated waterway. The works do not involve crossing waterways (likely to be 'designated waterways'), therefore a Works on Waterways permit will not be required.

Figure 10 contains an overview of the watercourses present within the investigation area which are managed by the Goulburn Broken CMA.

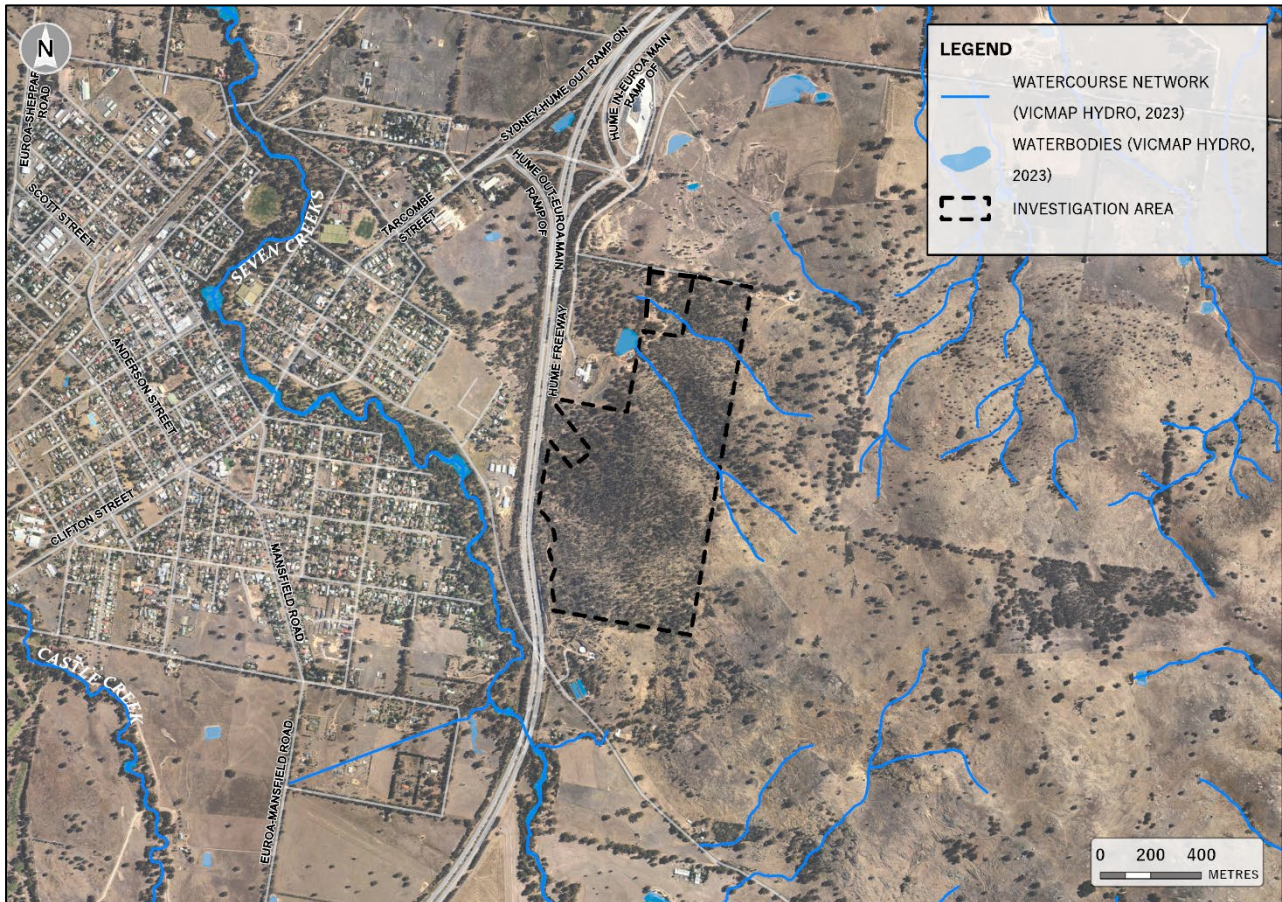


Figure 10: Watercourse network (VicMap Hydro, 2023)

## 4.2 Landowner Consent

### 4.2.1 Crown Land Reserves Act 1978

Under the Crown Land Reserves Act 1978, Crown land is dealt with differently depending on whether the land is reserved Crown land or unreserved crown land. Reserved Crown land is land which has been reserved for any of the variety of public purposes under the Crown Land (Reserves) Act 1978 and allows the land to be managed on behalf of DELWP. Unreserved Crown land is all other Crown land that is not reserved. A search for Crown land parcels via the VicMap Crown Land Tenure spatial data available publicly from DataVic (VicMap, 2023) indicates that the site is located on Crown Land. As such, consent is required from the Crown Landowner/Manager and may include a licence agreement.

### 4.2.2 Native Title Act 1993

Native title recognises the traditional rights and interests to land and waters of Aboriginal and Torres Strait Islander people. Under the Native Title Act 1993, native title claimants can make an application to the Federal Court to have their native title on Crown Land recognised by Australian law. If works occur on Crown Land within an area with recognized Native Title, consent is required from the traditional owners of the land. As the works occur on Crown Land and an active claim is in place (9 November 2023) it is likely that the works will trigger approvals under the Native Title Act 1993.

## **5. SUMMARY & CONCLUSIONS**

Table 6 below outlines the risk assessment criteria, and Figure 11 illustrates the areas of highest environmental risk within the investigation area based on the desktop assessment. As outlined in Figure 11, almost the entire Balmattum Hill Bushland Reserve is mapped as medium risk, largely due to the presence of endangered EVC-quality vegetation. Three nationally listed fauna species have been recorded within the site, and the area surrounding these records should be viewed as high risk based on desktop results. Note that this assessment is based on publicly available desktop databases only. The categorisation of areas as medium or high risk is subject to change upon completion of field assessments to verify the indicated ecological values. Field assessments will assist in refining high risk areas and may also identify additional areas of environmental sensitivity that should be considered.

Table 7 below provides information regarding specific likely biodiversity legislation and policy that is relevant to the investigation area. Given this assessment has been conducted as a preliminary desktop assessment, these requirements may change and should be reviewed as the study progresses.



Table 6: Environmental Desktop Risk Assessment

Environmental Risk Rating	Criteria
High	<ul style="list-style-type: none"> <li>Flora and Fauna Guarantee (FFG) Act Listed Communities Distribution Area</li> <li>Environment Protection and Biodiversity Conservation (EPBC) Act Listed Species recorded within the last 20 years</li> <li>Likely to incur federal and state legislative approvals</li> </ul>
Medium	<ul style="list-style-type: none"> <li>Ecological Vegetation Class (EVC) with Bioregional Conservation Status (BCS) of Endangered/Vulnerable Distribution Area</li> <li>FFG Act Listed Species recorded within the last 20 years</li> <li>Likely to incur state legislative approvals</li> </ul>

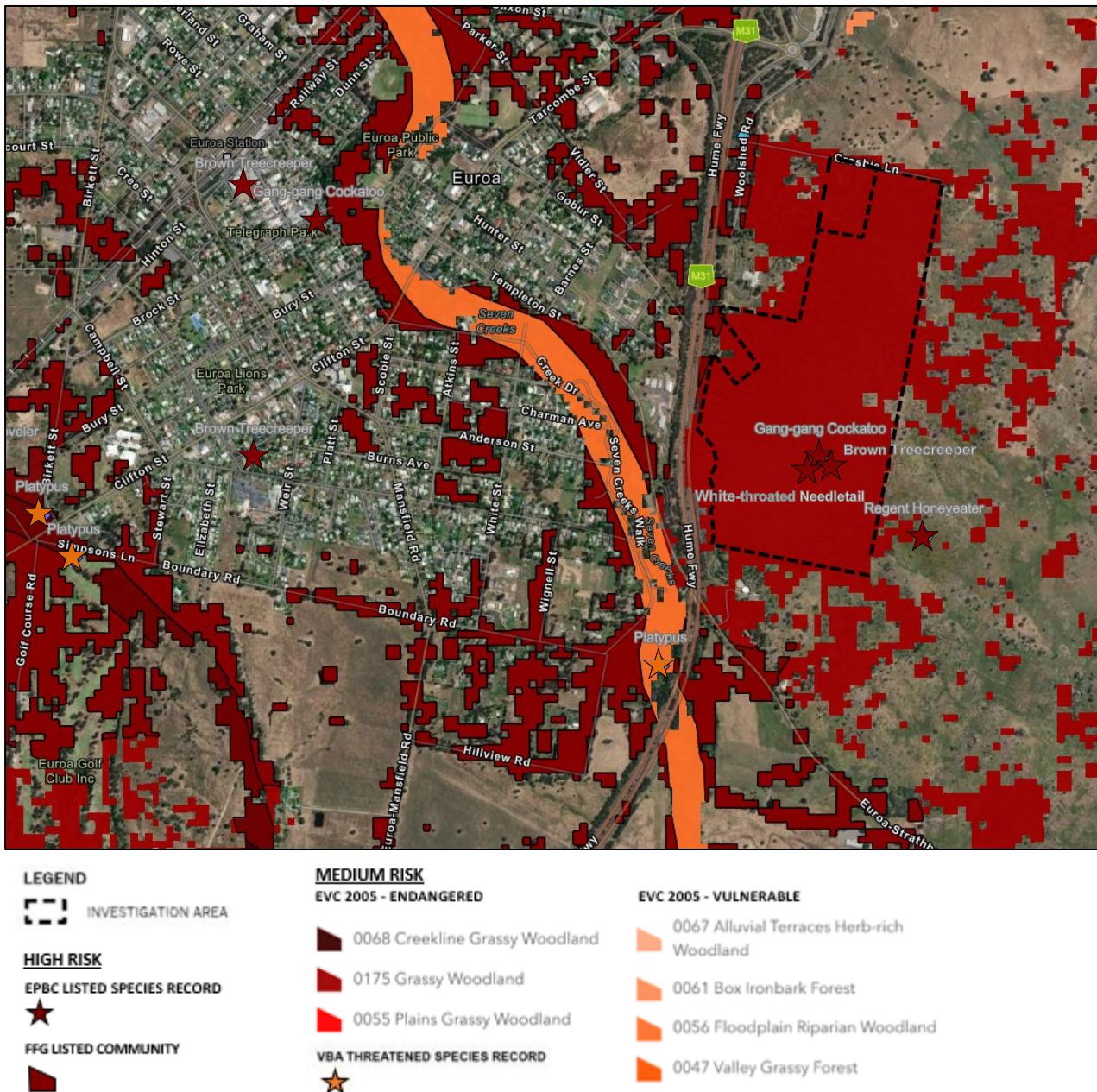


Figure 11: Environmental Desktop Risk Assessment Overview

Table 7: Biodiversity Legislation Summary Table

Legislation or Criteria	Permit/Approval/Actions Required?
<b>Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act)</b>	<b>Possibly</b> – 7 EPBC-listed species have previously been recorded within or in proximity to the investigation area. Under the EPBC Act, a referral is required if any significant impacts on listed threatened ecological communities, flora or fauna species is expected as a result of the proposed works.
<b>Flora and Fauna Guarantee Act 1988 (FFG Act)</b>	<b>Possibly</b> - FFG-listed species (11 flora, 26 fauna) have been previously recorded and 5 FFG listed ecological communities are mapped within the Feasibility Study Area. FFG permit may be required if impacting on FFG-listed or protected species and/or communities.
<b>Planning and Environment Act 1987</b>	<b>Likely</b> – Permits for 'Buildings and works' will likely be required under the BMO and EMO. A permit will also be required for native vegetation removal under Clause 52.17 unless an applicable exemption applies.
<b>Guidelines for the removal, destruction or lopping of native vegetation (DELWP, 2017)</b>	<b>Likely</b> – While the risk-based pathway is yet to be determined, it is likely to be via the Detailed Assessment Pathway, based on likelihood to impact Location 2 and 3 risk categories, and the amount of vegetation likely required to be removed due to scale of project.
<b>Water Act 1989</b>	<b>No</b> – There are no designated waterways within the investigation area.
<b>Catchment and Land Protection Act 1994</b>	<b>Likely</b> – to require management of transport of noxious weeds, depending on species observed through site investigations. Weed and pest management and hygiene controls will be required in a Construction Environmental Management Plan.
<b>Environment Effects Act 1978</b>	<b>Possibly</b> – It is considered possible that the proposed works may result in a significant adverse effect in a regional, state, or national context. However, this risk level should be revised once the mountain bike trail route options are decided and assessed.
<b>Crown Land Reserves Act 1978</b>	<b>Required</b> – The site is located within Crown land. As such, approval under the Crown Land Reserves Act will be required. This may include a Crown landowner/manager consent and a licence agreement with the Crown Land Manager.
<b>Native Title Act 1993</b>	<b>Likely</b> - As the works occur on Crown Land and an active claim is in place (9 November 2023) it is likely that the works will trigger approvals under the Native Title Act 1993.
<b>Wildlife Act 1975</b>	<b>TBC</b> – If fauna is present or is found on site (e.g., trapped or injured) during construction and needs to be moved, a qualified specialist (ecologist/zoologist) who holds management authorisation under the Wildlife Act 1975 should be engaged to conduct the work. It is also recommended that the engaged specialist undertakes a pre-construction check to ensure there are no nests or other areas of potential fauna habitat that may be impacted by tree felling (particularly if impacting on any mature trees). *Provided the specialist holds a management authorisation under the Wildlife Act (1975), a specific permit for this project will not be required by the client.
<b>Landowner/land manager consent</b>	<b>Required</b> – Landowner/land manager consent needs to be obtained, e.g., Parks Victoria.
<b>Are further flora and fauna assessments required?</b>	<b>Yes</b> – Once the mountain bike trail concept alignment has been determined, including the likely construction footprint, a preliminary environmental assessment will be required to highlight environmental issues and likely approvals applicable to the concept alignment, as well as determine measures to avoid and minimise impacts. Once the alignment and construction corridor is finalised, a detailed vegetation quality assessment undertaken by a qualified native vegetation assessor will be required to quantify native vegetation removal as part of the planning permit and offsetting process. Confirmation of the need for additional environmental approvals (i.e. EES, FFG permit, EPBC referral) can also be determined at the detailed assessment stage.

## 6. REFERENCES

BirdLife (2022) Birdlife Australia. Birdlife International. (Online) <https://birdlife.org.au/>

DataVic (2021) VicMap Crown Land Tenure Spatial Dataset (Online) Vicmap Crown Land Tenure - Datasets - Victorian Government Data Directory.

DELWP (2017) Guidelines for the removal, destruction or lopping of native vegetation. The State of Victoria Department of Environment, Land, Water and Planning.

DELWP (2021) Flora and Fauna Guarantee Act 1988 – Threatened List: June 2021. Department of Environment, Land, Water and Planning. The State of Victoria Microsoft Word - FFG Threatened List June 2021.docx (environment.vic.gov.au)

Department of Climate Change, Energy, the Environment and Water (DCCEEW) (2022) Environment Protection and Biodiversity Conservation (EPBC) Protected Matters Search Tool. Australian Government, Canberra. (Online)

Department of Environment, Land, Water and Planning (DELWP) (2021) NatureKit 2.0. Victorian State Government (Online) <https://www.environment.vic.gov.au/biodiversity/naturekit>

Department of Environment, Land, Water and Planning (DELWP) (2022) Native Vegetation Information Management (NVIM) System. Victorian State Government. (Online) <https://nvim.delwp.vic.gov.au/>

Department of Environment, Land, Water and Planning (DELWP) (2022) Victorian Biodiversity Atlas (VBA). Victorian State Government. (Online) <https://www.environment.vic.gov.au/biodiversity/victorian-biodiversity-atlas>

Department of Environment, Land, Water and Planning (DELWP) (2022) VicPlan – MapShare Database. Victorian State Government. (Online) <https://mapshare.vic.gov.au/vicplan/>



## Appendix A – EPBC Act Protected Matters Report



Australian Government

Department of Climate Change, Energy,  
the Environment and Water

# EPBC Act Protected Matters Report

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

Report created: 02-Aug-2023

[Summary](#)

[Details](#)

[Matters of NES](#)

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

[Extra Information](#)

[Caveat](#)

[Acknowledgements](#)

# Summary

## Matters of National Environment Significance

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

<a href="#">World Heritage Properties:</a>	None
<a href="#">National Heritage Places:</a>	None
<a href="#">Wetlands of International Importance (Ramsar</a>	6
<a href="#">Great Barrier Reef Marine Park:</a>	None
<a href="#">Commonwealth Marine Area:</a>	None
<a href="#">Listed Threatened Ecological Communities:</a>	4
<a href="#">Listed Threatened Species:</a>	43
<a href="#">Listed Migratory Species:</a>	11

## 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 <https://www.dcceew.gov.au/parks-heritage/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.

<a href="#">Commonwealth Lands:</a>	None
<a href="#">Commonwealth Heritage Places:</a>	1
<a href="#">Listed Marine Species:</a>	18
<a href="#">Whales and Other Cetaceans:</a>	None
<a href="#">Critical Habitats:</a>	None
<a href="#">Commonwealth Reserves Terrestrial:</a>	None
<a href="#">Australian Marine Parks:</a>	None
<a href="#">Habitat Critical to the Survival of Marine Turtles:</a>	None

## Extra Information

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

<a href="#">State and Territory Reserves:</a>	4
<a href="#">Regional Forest Agreements:</a>	1
<a href="#">Nationally Important Wetlands:</a>	None
<a href="#">EPBC Act Referrals:</a>	8
<a href="#">Key Ecological Features (Marine):</a>	None
<a href="#">Biologically Important Areas:</a>	None
<a href="#">Bioregional Assessments:</a>	None
<a href="#">Geological and Bioregional Assessments:</a>	None



# Details

## Matters of National Environmental Significance

Wetlands of International Importance (Ramsar Wetlands)		[ Resource Information ]
Ramsar Site Name	Proximity	Buffer Status
<a href="#">Banrock station wetland complex</a>	500 - 600km upstream from Ramsar site	In feature area
<a href="#">Gunbower forest</a>	100 - 150km upstream from Ramsar site	In feature area
<a href="#">Hattah-kulkyne lakes</a>	300 - 400km upstream from Ramsar site	In feature area
<a href="#">Nsw central murray state forests</a>	50 - 100km upstream from Ramsar site	In feature area
<a href="#">Riverland</a>	500 - 600km upstream from Ramsar site	In feature area
<a href="#">The coorong, and lakes alexandrina and albert wetland</a>	500 - 600km upstream from Ramsar site	In feature area

Listed Threatened Ecological Communities

[ Resource Information ]

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

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

Community Name	Threatened Category	Presence Text	Buffer Status
<a href="#">Buloke Woodlands of the Riverina and Murray-Darling Depression Bioregions</a>	Endangered	Community may occur within area	In feature area
<a href="#">Grey Box (Eucalyptus microcarpa) Grassy Woodlands and Derived Native Grasslands of South-eastern Australia</a>	Endangered	Community likely to occur within area	In feature area
<a href="#">Natural Grasslands of the Murray Valley Plains</a>	Critically Endangered	Community may occur within area	In feature area
<a href="#">White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland</a>	Critically Endangered	Community likely to occur within area	In feature area

Community Name	Threatened Category	Presence Text	Buffer Status
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Listed Threatened Species

[ [Resource Information](#) ]

Status of Conservation Dependent and Extinct are not MNES under the EPBC Act.  
 Number is the current name ID.

Scientific Name	Threatened Category	Presence Text	Buffer Status
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BIRD

[Anthochaera phrygia](#)

Regent Honeyeater [82338]	Critically Endangered	Species or species habitat known to occur within area	In feature area
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[Aphelocephala leucopsis](#)

Southern Whiteface [529]	Vulnerable	Species or species habitat likely to occur within area	In feature area
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[Botaurus poiciloptilus](#)

Australasian Bittern [1001]	Endangered	Species or species habitat likely to occur within area	In feature area
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[Calidris ferruginea](#)

Curlew Sandpiper [856]	Critically Endangered	Species or species habitat may occur within area	In feature area
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[Callocephalon fimbriatum](#)

Gang-gang Cockatoo [768]	Endangered	Species or species habitat known to occur within area	In feature area
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[Climacteris picumnus victoriae](#)

Brown Treecreeper (south-eastern) [67062]	Vulnerable	Species or species habitat known to occur within area	In feature area
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[Falco hypoleucos](#)

Grey Falcon [929]	Vulnerable	Species or species habitat likely to occur within area	In feature area
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[Grantiella picta](#)

Painted Honeyeater [470]	Vulnerable	Species or species habitat likely to occur within area	In feature area
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[Hirundapus caudacutus](#)

White-throated Needletail [682]	Vulnerable	Species or species habitat known to occur within area	In feature area
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[Lathamus discolor](#)

Swift Parrot [744]	Critically Endangered	Species or species habitat known to occur within area	In feature area
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Scientific Name	Threatened Category	Presence Text	Buffer Status
<a href="#">Melanodryas cucullata cucullata</a> South-eastern Hooded Robin, Hooded Robin (south-eastern) [67093]	Endangered	Species or species habitat likely to occur within area	In feature area
<a href="#">Neophema chrysostoma</a> Blue-winged Parrot [726]	Vulnerable	Species or species habitat likely to occur within area	In feature area
<a href="#">Numenius madagascariensis</a> Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat may occur within area	In feature area
<a href="#">Pedionomus torquatus</a> Plains-wanderer [906]	Critically Endangered	Species or species habitat likely to occur within area	In feature area
<a href="#">Polytelis swainsonii</a> Superb Parrot [738]	Vulnerable	Species or species habitat may occur within area	In feature area
<a href="#">Rostratula australis</a> Australian Painted Snipe [77037]	Endangered	Species or species habitat likely to occur within area	In feature area
<a href="#">Stagonopleura guttata</a> Diamond Firetail [59398]	Vulnerable	Species or species habitat known to occur within area	In feature area
FISH			
<a href="#">Galaxias rostratus</a> 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	In feature area
<a href="#">Maccullochella macquariensis</a> Trout Cod [26171]	Endangered	Species or species habitat likely to occur within area	In feature area
<a href="#">Maccullochella peelii</a> Murray Cod [66633]	Vulnerable	Species or species habitat may occur within area	In feature area
<a href="#">Macquaria australasica</a> Macquarie Perch [66632]	Endangered	Species or species habitat may occur within area	In feature area



Scientific Name	Threatened Category	Presence Text	Buffer Status
<a href="#">Nannoperca australis Murray-Darling Basin lineage</a>			
Southern Pygmy Perch (Murray-Darling Basin lineage) [91711]	Vulnerable	Species or species habitat known to occur within area	In feature area
FROG			
<a href="#">Crinia sloanei</a>			
Sloane's Froglet [59151]	Endangered	Species or species habitat may occur within area	In feature area
<a href="#">Litoria raniformis</a>			
Growling Grass Frog, Southern Bell Frog, Green and Golden Frog, Warty Swamp Frog, Golden Bell Frog [1828]	Vulnerable	Species or species habitat likely to occur within area	In feature area
INSECT			
<a href="#">Keyacris scurra</a>			
Key's Matchstick Grasshopper [89739]	Endangered	Species or species habitat may occur within area	In feature area
<a href="#">Synemon plana</a>			
Golden Sun Moth [25234]	Vulnerable	Species or species habitat may occur within area	In feature area
MAMMAL			
<a href="#">Dasyurus maculatus maculatus (SE mainland population)</a>			
Spot-tailed Quoll, Spotted-tail Quoll, Tiger Quoll (southeastern mainland population) [75184]	Endangered	Species or species habitat may occur within area	In feature area
<a href="#">Pteropus poliocephalus</a>			
Grey-headed Flying-fox [186]	Vulnerable	Foraging, feeding or related behaviour may occur within area	In feature area
PLANT			
<a href="#">Amphibromus fluitans</a>			
River Swamp Wallaby-grass, Floating Swamp Wallaby-grass [19215]	Vulnerable	Species or species habitat likely to occur within area	In feature area
<a href="#">Brachyscome muelleroides</a>			
Mueller Daisy [15572]	Vulnerable	Species or species habitat may occur within area	In buffer area only
<a href="#">Dodonaea procumbens</a>			
Trailing Hop-bush [12149]	Vulnerable	Species or species habitat may occur within area	In buffer area only

Scientific Name	Threatened Category	Presence Text	Buffer Status
<a href="#">Glycine latrobeana</a> Clover Glycine, Purple Clover [13910]	Vulnerable	Species or species habitat likely to occur within area	In feature area
<a href="#">Hibbertia humifusa subsp. erigens</a> Euroa Guinea-flower [64918]	Vulnerable	Species or species habitat known to occur within area	In feature area
<a href="#">Lepidium monolocoides</a> Winged Pepper-cress [9190]	Endangered	Species or species habitat may occur within area	In feature area
<a href="#">Myriophyllum porcatum</a> Ridged Water-milfoil [19919]	Vulnerable	Species or species habitat known to occur within area	In feature area
<a href="#">Pimelea spinescens subsp. spinescens</a> Plains Rice-flower, Spiny Rice-flower, Prickly Pimelea [21980]	Critically Endangered	Species or species habitat may occur within area	In buffer area only
<a href="#">Prasophyllum diversiflorum</a> Gorae Leek-orchid [13210]	Endangered	Species or species habitat likely to occur within area	In buffer area only
<a href="#">Prasophyllum validum</a> Sturdy Leek-orchid, Mount Remarkable Leek-orchid [10268]	Vulnerable	Species or species habitat may occur within area	In feature area
<a href="#">Pterostylis chlorogramma</a> Green-striped Greenhood [56510]	Vulnerable	Species or species habitat may occur within area	In buffer area only
<a href="#">Swainsona murrayana</a> Slender Darling-pea, Slender Swainson, Murray Swainson-pea [6765]	Vulnerable	Species or species habitat may occur within area	In buffer area only
REPTILE			
<a href="#">Aprasia parapulchella</a> Pink-tailed Worm-lizard, Pink-tailed Legless Lizard [1665]	Vulnerable	Species or species habitat likely to occur within area	In feature area
<a href="#">Delma impar</a> Striped Legless Lizard, Striped Snake-lizard [1649]	Vulnerable	Species or species habitat may occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
<a href="#">Lissolepis coventryi</a> Swamp Skink, Eastern Mourning Skink [84053]	Endangered	Species or species habitat may occur within area	In buffer area only
Listed Migratory Species [ Resource Information ]			
Scientific Name	Threatened Category	Presence Text	Buffer Status
Migratory Marine Birds			
<a href="#">Apus pacificus</a> Fork-tailed Swift [678]		Species or species habitat likely to occur within area	In feature area
Migratory Terrestrial Species			
<a href="#">Hirundapus caudacutus</a> White-throated Needletail [682]	Vulnerable	Species or species habitat known to occur within area	In feature area
<a href="#">Motacilla flava</a> Yellow Wagtail [644]		Species or species habitat may occur within area	In feature area
<a href="#">Myiagra cyanoleuca</a> Satin Flycatcher [612]		Species or species habitat known to occur within area	In feature area
<a href="#">Rhipidura rufifrons</a> Rufous Fantail [592]		Species or species habitat likely to occur within area	In feature area
Migratory Wetlands Species			
<a href="#">Actitis hypoleucos</a> Common Sandpiper [59309]		Species or species habitat may occur within area	In feature area
<a href="#">Calidris acuminata</a> Sharp-tailed Sandpiper [874]		Species or species habitat may occur within area	In feature area
<a href="#">Calidris ferruginea</a> Curlew Sandpiper [856]	Critically Endangered	Species or species habitat may occur within area	In feature area
<a href="#">Calidris melanotos</a> Pectoral Sandpiper [858]		Species or species habitat may occur within area	In feature area



Scientific Name	Threatened Category	Presence Text	Buffer Status
<a href="#">Gallinago hardwickii</a> Latham's Snipe, Japanese Snipe [863]		Species or species habitat likely to occur within area	In feature area
<a href="#">Numenius madagascariensis</a> Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat may occur within area	In feature area

### Other Matters Protected by the EPBC Act

Commonwealth Heritage Places			[ <a href="#">Resource Information</a> ]
Name	State	Status	Buffer Status
Historic <a href="#">Euroa Post Office</a>	VIC	Listed place	In buffer area only

Listed Marine Species			[ <a href="#">Resource Information</a> ]
Scientific Name	Threatened Category	Presence Text	Buffer Status
Bird <a href="#">Actitis hypoleucos</a> Common Sandpiper [59309]		Species or species habitat may occur within area	In feature area
<a href="#">Apus pacificus</a> Fork-tailed Swift [678]		Species or species habitat likely to occur within area overfly marine area	In feature area
<a href="#">Bubulcus ibis as Ardea ibis</a> Cattle Egret [66521]		Species or species habitat may occur within area overfly marine area	In feature area
<a href="#">Calidris acuminata</a> Sharp-tailed Sandpiper [874]		Species or species habitat may occur within area	In feature area
<a href="#">Calidris ferruginea</a> Curlew Sandpiper [856]	Critically Endangered	Species or species habitat may occur within area overfly marine area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
<a href="#">Calidris melanotos</a> Pectoral Sandpiper [858]		Species or species habitat may occur within area overfly marine area	In feature area
<a href="#">Chalcites osculans as Chrysococcyx osculans</a> Black-eared Cuckoo [83425]		Species or species habitat likely to occur within area overfly marine area	In feature area
<a href="#">Gallinago hardwickii</a> Latham's Snipe, Japanese Snipe [863]		Species or species habitat likely to occur within area overfly marine area	In feature area
<a href="#">Haliaeetus leucogaster</a> White-bellied Sea-Eagle [943]		Species or species habitat likely to occur within area	In feature area
<a href="#">Hirundapus caudacutus</a> White-throated Needletail [682]	Vulnerable	Species or species habitat known to occur within area overfly marine area	In feature area
<a href="#">Lathamus discolor</a> Swift Parrot [744]	Critically Endangered	Species or species habitat known to occur within area overfly marine area	In feature area
<a href="#">Merops ornatus</a> Rainbow Bee-eater [670]		Species or species habitat may occur within area overfly marine area	In feature area
<a href="#">Motacilla flava</a> Yellow Wagtail [644]		Species or species habitat may occur within area overfly marine area	In feature area
<a href="#">Myiagra cyanoleuca</a> Satin Flycatcher [612]		Species or species habitat known to occur within area overfly marine area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
<a href="#">Neophema chrysostoma</a> Blue-winged Parrot [726]	Vulnerable	Species or species habitat likely to occur within area overfly marine area	In feature area
<a href="#">Numenius madagascariensis</a> Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat may occur within area	In feature area
<a href="#">Rhipidura rufifrons</a> Rufous Fantail [592]		Species or species habitat likely to occur within area overfly marine area	In feature area
<a href="#">Rostratula australis as Rostratula benghalensis (sensu lato)</a> Australian Painted Snipe [77037]	Endangered	Species or species habitat likely to occur within area overfly marine area	In feature area

### Extra Information

State and Territory Reserves			[ <a href="#">Resource Information</a> ]
Protected Area Name	Reserve Type	State	Buffer Status
Balmattum B.R.	Natural Features Reserve	VIC	In buffer area only
Balmattum Hill B.R.	Natural Features Reserve	VIC	In feature area
Euroa I50 B.R.	Natural Features Reserve	VIC	In buffer area only
Euroa I51 B.R	Natural Features Reserve	VIC	In buffer area only

Regional Forest Agreements	[ <a href="#">Resource Information</a> ]
Note that all areas with completed RFAs have been included. Please see the associated resource information for specific caveats and use limitations associated with RFA boundary information.	

RFA Name	State	Buffer Status
<a href="#">North East Victoria RFA</a>	Victoria	In feature area

EPBC Act Referrals				[ <a href="#">Resource Information</a> ]
Title of referral	Reference	Referral Outcome	Assessment Status	Buffer Status
Controlled action				
<a href="#">Hume Highway Rest Area Facilities</a>	2002/545	Controlled Action	Completed	In buffer area only



Title of referral	Reference	Referral Outcome	Assessment Status	Buffer Status
Controlled action				
<a href="#">The Modified Operation of the Goulburn Murray Irrigation District</a>	2009/5123	Controlled Action	Post-Approval	In feature area
Not controlled action				
<a href="#">Biodiversity Impacts Audit</a>	2011/6191	Not Controlled Action	Completed	In feature area
<a href="#">Euroa Water Management Scheme - Levee Construction</a>	2008/3955	Not Controlled Action	Completed	In buffer area only
<a href="#">Improving rabbit biocontrol: releasing another strain of RHDV, sthrn two thirds of Australia</a>	2015/7522	Not Controlled Action	Completed	In feature area
<a href="#">INDIGO Central Submarine Telecommunications Cable</a>	2017/8127	Not Controlled Action	Completed	In feature area
Not controlled action (particular manner)				
<a href="#">APA GasNet Australia (Operations) Pty Ltd /Exploration (mineral, oil and gas - non-marine)/Between W</a>	2014/7186	Not Controlled Action (Particular Manner)	Post-Approval	In buffer area only
<a href="#">INDIGO Marine Cable Route Survey (INDIGO)</a>	2017/7996	Not Controlled Action (Particular Manner)	Post-Approval	In feature area

# Caveat

## 1 PURPOSE

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

The report contains the mapped locations of:

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

## 2 DISCLAIMER

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

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

## 3 DATA SOURCES

Threatened ecological communities

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

Threatened, migratory and marine species

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

Where little information is available for a species or large number of maps are required in a short time-frame, maps are derived either from 0.04 or 0.02 decimal degree cells; by an automated process using polygon capture techniques (static two kilometre grid cells, alpha-hull and convex hull); or captured manually or by using topographic features (national park boundaries, islands, etc.).

In the early stages of the distribution mapping process (1999-early 2000s) distributions were defined by degree blocks, 100K or 250K map sheets to rapidly create distribution maps. More detailed distribution mapping methods are used to update these distributions

## 4 LIMITATIONS

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

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

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

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

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

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

# 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](#)

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