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biosis
APEM Group



454 Commercial Road, Morwell

Flora and fauna assessment

Final Report

Prepared for Morwell FlexGen Pty Ltd

12 May 2026

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Biosis acknowledges the Aboriginal and Torres Strait Islander peoples as Traditional Custodians of the land on which we live and work.

We pay our respects to the Traditional Custodians and Elders past and present and honour their connection to Country and ongoing contribution to society.

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Definitions

CEMP	Construction Environmental Management Plan
DCCEEW	Australian Government Department of Climate Change, Energy, the Environment and Water
DBH	Diameter at Breast Height
EPBC Act	*Environment Protection and Biodiversity Conservation Act 1999*
GIS	Geographic Information System
LGA	Local Government Area
Locality	Area located within 10 km radius from the subject land
WHS	Work Health and Safety

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Summary

Biosis Pty Ltd was commissioned by Morwell FlexGen Pty Ltd to undertake a flora and fauna assessment of an area of land proposed for the Morwell Peaking Generation Project. The study area is located in private farmland approximately 2 kilometres south-east from the town of Morwell and approximately 130 kilometres east from Melbourne's central business district. **There are no direct or indirect impacts to native vegetation expected from this development.**

Ecological values

Key ecological values identified within the study area are as follows:

- 0.056 hectares of Plains Grassy Forest Ecological Vegetation Class (EVC 151) with a Bioregional Conservation Status (BCS) of Vulnerable
- 0.057 hectares of Tall Marsh EVC 821 with a BCS of Endangered.
- One large, scattered River Red-gum *Eucalyptus camaldulensis*
- Potential suitable habitat for two fauna species listed under the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) and the Victorian *Flora and Fauna Guarantee Act 1988* (FFG Act):
  - Gang-gang Cockatoo *Callocephalon fimbriatum*
  - White-throated Needletail *Hirundapus caudacutus*
- Potential suitable habitat for three fauna species listed under the FFG Act only:
  - Little Eagle *Hieraaetus morphnoides*
  - White-bellied Sea-Eagle *Haliaeetus leucogaster*
  - Black Falcon *Falco subniger*

Government legislation and policy

An assessment of the project in relation to key biodiversity legislation and policy is summarised below.

Legislation / policy	Relevant ecological feature on site	Permit / approval required	Notes
EPBC Act	Vegetation within the study area does not contain any EPBC Act listed species or habitat for any listed flora species. Potential suitable habitat for two fauna species listed under the EPBC Act: • Gang-gang Cockatoo listed as endangered	Referral not recommended.	Development unlikely to constitute a significant impact. Targeted surveys not recommended.

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Legislation / policy	Relevant ecological feature on site	Permit / approval required	Notes
	• White-throated Needletail listed as vulnerable		
FFG Act	Potential suitable habitat for five fauna species listed under the FFG Act: • Those listed above • Little Eagle listed as vulnerable • White-bellied Sea-Eagle listed as endangered • Black Falcon listed as critically endangered	Protected Flora Permit not required.	Site is private land and does not contain any listed or protected flora species, communities or habitat for them.
Planning & Environment Act	All indigenous vegetation to be removed.	Planning permit required to lop or remove native vegetation.	Information provided to meet the requirements of approval or exemption requirements, in line with Victoria's Guidelines for the removal, destruction or lopping of native vegetation
CaLP Act	Four noxious weed species listed under the CaLP Act are present within the study area.	N/A	Morwell FlexGen Pty Ltd must take reasonable steps to prevent the growth and spread of regionally controlled weeds and prevent the spread of and as far as possible eradicate established pest animals.

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Guidelines for the removal, destruction or lopping of native vegetation (the Guidelines)

Based on the current design, the proposed development will not require the removal of any patches of native vegetation or scattered trees.

Recommendations

The results of this assessment should be incorporated into the project design, by adding the flora and fauna mapping information into the planning maps and investigating options to retain as much of the mapped vegetation/habitats as possible.

Avoid the removal of Spotted Gum *Corymbia maculata* to the minimum extent possible to retain as much threatened fauna habitat as possible.

Future requirements for infrastructure and services must be forecast as much as possible at this time and allowance made outside any nominated reserves for all construction works. All areas of vegetation/habitat nominated in the design plan as 'retained' are to be treated as no-go zones and are not to be encroached upon as development progresses.

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1 Introduction

1.1 Project background

Biosis Pty Ltd was commissioned by Morwell FlexGen Pty Ltd to undertake a flora and fauna assessment of 454 Commercial Road, Morwell. A diesel fuel back-up electricity production facility is proposed for the study area, referred to as the Morwell Peaking Generation Project.

1.2 Scope of assessment

The objectives of this investigation are to:

- Describe the vascular flora (ferns, conifers, flowering plants), vertebrate fauna (mammals, birds, reptiles, frogs, fishes) and decapod crustacea (e.g. crayfish) observed within the study area.
- Map native vegetation and other habitat features within the study area.
- Conduct a vegetation quality assessment, if required.
- Review the implications of relevant biodiversity legislation and policy, including Victoria's Guidelines for the removal, destruction or lopping of native vegetation ('the Guidelines').
- Identify potential implications of the proposed development and provide recommendations to assist with development design.
- Recommend any further assessments of the site that may be required e.g. targeted searches for threatened species.

1.3 Location of study area

The study area is located approximately 2 kilometres south-east from the town of Morwell and approximately 130 kilometres east from Melbourne's central business district (Figure 1). It encompasses 27.7 hectares of private land. It is currently zoned Industrial 1 Zone (IN1Z). The peaking generation facility activities will be contained within the Facility Boundary (Figure 1). The Morwell Peaking Generation Facility (MPGF) will cover an area of approximately 3 hectares.

The study area is also encompassed by the following overlay within the Latrobe planning scheme:

- Environmental Significance Overlay – Schedule 1 (ESO1)

The study area is within the:

- Gippsland Plain Bioregion
- Latrobe River Basin (Latrobe River catchment)
- Management area of West Gippsland Catchment Management Authority (CMA)
- City of Latrobe municipality.
- Traditional lands of the Gunaikurnai.

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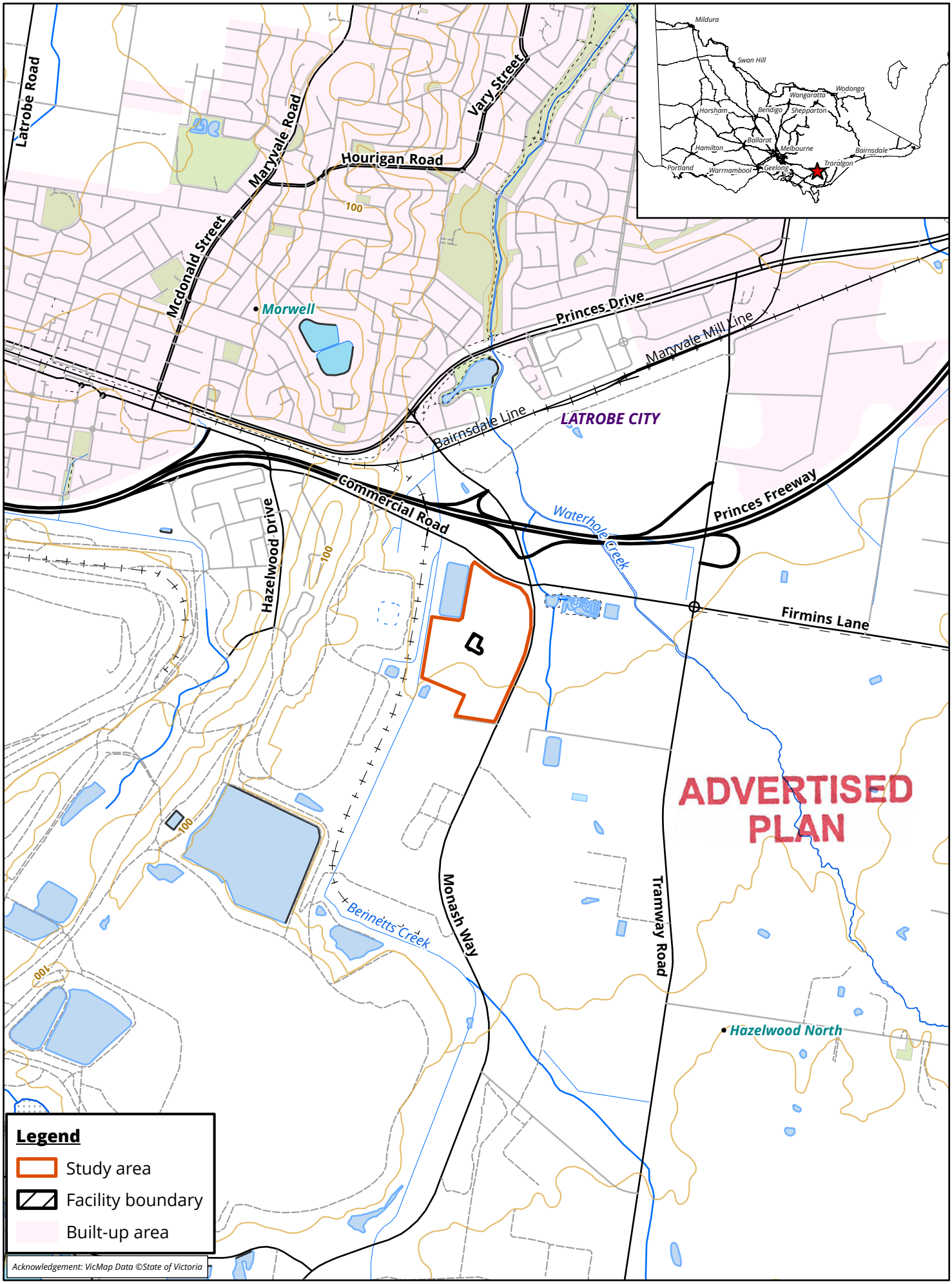


Figure 1 Location of the study area - 454 Commercial Road, Morwell, Victoria

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Date: 11 May 2026 ,
Prepared for: JO, Prepared by: PG, Last edited by: PGidley
Layout: 42872_F1_Locality
Project: P:\42800s\42872\Mapping\42872_454CommericalRd_Eco.aprx

0 250 500 750 1,000
Metres

Scale: 1:25,000 @ A4
Coordinate System GDA2020 MGA Zone 55

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2 Methods

2.1 Database review

In order to provide a context for the study area, information about flora and fauna from within 10 kilometres of the study area (the 'local area') was obtained from relevant biodiversity databases, many of which are maintained by the Victorian Government Department of Energy, Environment and Climate Action (DEECA) (formerly Department of Environment, Land, Water and Planning (DELWP)) or the Australian Government Department of Climate Change, Energy, the Environment and Water (DCCEEW). Records from the following databases were collated and reviewed:

- DEECA's Victorian Biodiversity Atlas (VBA), including the 'VBA_FLORA25, FLORA100 & FLORA Restricted' and 'VBA_FAUNA25, FAUNA100 & FAUNA Restricted' datasets (DSE 2009a).
- DCCEEW's Protected Matters Search Tool for matters protected by the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act).

Other sources of biodiversity information were examined including:

- DEECA's NatureKit mapping tool.
- DEECA's Habitat Importance maps.
- DEECA's Native Vegetation Regulations (NVR) Map online application tool.
- DEECA's Ensym NVR Tool Support team was provided with site-based spatial information in order to generate a Native Vegetation Removal Report for the study area.
- Planning Scheme zones including any precinct structure plans, overlays and particular provisions relevant to biodiversity based on http://planningschemes.dpcd.vic.gov.au.

2.2 Definitions of threatened species and communities

Threatened species and communities are listed under the EPBC Act and/or Victorian *Flora and Fauna Guarantee Act 1988* (FFG Act). The conservation status of a species or ecological community is determined by its listing status under Commonwealth or State legislation/policy (Table 1).

Table 1 Conservation status of threatened species and ecological communities

Government level	Conservation status
National	Listed as nationally critically endangered, endangered or vulnerable under the EPBC Act.
State	Listed as extinct, extinct in the wild, critically endangered, endangered, vulnerable or conservation dependent in Victoria under the FFG Act.

Lists of threatened species generated from the databases are provided in Appendix 1 (flora) and Appendix 2 (fauna). Each species has been assessed to determine its likelihood of occurrence based on the following process.

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2.3 Determining likelihood of occurrence of threatened species

Likelihood of occurrence indicates the potential for a species or ecological community to occur within the study area. It is based on expert opinion, information in relevant biodiversity databases and reports, and an assessment of habitats on the site. Likelihood of occurrence is ranked as negligible, low, medium, high or recorded. The rationale for the rank assigned is provided for each species in Appendix 1 (flora) and Appendix 2 (fauna). Those species for which there is little or no suitable habitat within the study area are assigned a likelihood of low or negligible and are not considered further.

Only those species listed under the EPBC Act or the FFG Act (hereafter referred to as ' threatened species') are assessed to determine their likelihood of occurrence. The habitat value for threatened species is calculated by the Habitat Importance Modelling produced by DEECA (DELWP 2017a). Where threatened species are recorded in the study area this is noted in Appendix 1 (flora) and Appendix 2 (fauna).

Threatened species which have at least medium likelihood of occurrence are given further consideration in this report. The need for targeted survey for these species is also considered.

2.4 Site investigation

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2.4.1 Flora assessment

The flora assessment was undertaken on 2 July 2025by Josua Orchard (Botanist). A list of flora species was compiled and will be submitted to DEECA for incorporation into the VBA. Planted species were not recorded unless they were naturalised.

Native vegetation is defined in the Victoria Planning Provisions as 'plants that are indigenous to Victoria, including trees, shrubs, herbs, and grasses' (Clause 73.01).

The Guidelines classify native vegetation into two categories (DELWP 2017b):

- A **patch** of native vegetation (measured in hectares) is one of the following:
  - An area of native vegetation, with or without trees, where at least 25% of the total perennial understorey cover is native plants.
  - An area with three or more native canopy trees where the drip line (i.e. the outermost boundary of a tree canopy) of each tree touches the drip line of at least one other tree, forming a continuous canopy.
  - Any mapped wetland included in the Current wetlands map, available in DEECA systems and tools.
- A **scattered tree** is defined as a native canopy tree that does not form part of a patch of native vegetation.

Patch vegetation is classified into ecological vegetation classes (EVCs), which are the standard unit for classifying vegetation types in Victoria. They are described through a combination of floristics, lifeforms and ecological characteristics, and through an inferred fidelity to particular environmental attributes. Each EVC contains one or more floristic (plant) communities. The EVC benchmarks are standard descriptions that allow the vegetation quality on a given site to be determined under the Guidelines (DELWP 2017b).

A canopy tree is a mature tree that is greater than three metres in height and is normally found in the upper layer of a vegetation type. Ecological vegetation class descriptions provide a list of the typical canopy species. A scattered tree is defined as either small or large, and is determined using the large tree benchmark for the

relevant EVC. The extent of a small scattered tree is the area of a circle with a 10-metre radius (i.e. 0.031 hectares), while the extent of a large scattered tree is a circle with a 15-metre radius (i.e. 0.070 hectares). A condition score is applied to each scattered tree based on information provided by DEECA's NVR Map.

A Vegetation Quality Assessment (VQA) was undertaken for all patches of native vegetation based on DEECA's habitat hectare method (DSE 2004) and the Guidelines (DELWP 2017b). For the purposes of this assessment the limit of the resolution for identification of a patch of native vegetation was taken to be 0.001 habitat hectares (Hha). If a discrete patch of native vegetation had sufficient cover but its condition and extent would not result in the identification of at least 0.001 habitat hectares, the vegetation patch was not mapped.

The example of Tall Marsh EVC 821 is shown on mapping as it is currently presenting at the site, however for scoring purposes its condition has been measured against the benchmark for Plains Grassy Forest EVC 151 as per DEECA's habitat hectare method (DSE 2004). This is because modifications within the study area are not landscape-scale modifications and the way vegetation presents on site could be reverted if natural hydrological patterns are reinstated.

Where relevant, notes were made on specific issues such as noxious weed infestations, evidence of management works, current grazing impacts and the regeneration capacity of the vegetation.

Species nomenclature for flora follows the Victorian Biodiversity Atlas (VBA).

2.4.2 Fauna assessment

A desktop fauna assessment was undertaken by a Shannon Braun (Zoologist) to assess the fauna habitat values of the study area, and to determine the likelihood of threatened fauna species occurring. The desktop fauna assessment incorporated a review of database records of significant fauna, along with photographs and vegetation descriptions obtained during the flora assessment.

2.4.3 Permits

Biosis undertakes flora and fauna assessments under the following permits and approvals:

- Wildlife Authorisation issued by DEECA under the Victorian *Wildlife Act 1975* (Permit Number 10011235).
- Permit to Take/Keep Protected Flora issued by DEECA under the FFG Act (Permit Number 10011236).

2.5 Qualifications

Ecological surveys provide a sampling of flora and fauna at a given time and season. There are a number of reasons why not all species may be detected at a site during survey, such as low abundance, patchy distribution, species dormancy, seasonal conditions, and migration and breeding behaviours. In many cases these factors do not present a significant limitation to assessing the overall biodiversity values of a site.

The current flora and fauna assessment was conducted in winter, which is not an optimal time for survey due to the lack of floral material available required for the identification of many flora species. Despite this, the survey effort is considered adequate to assess the general ecological values of the study area.

Native Vegetation Removal Reports are prepared through DEECA's NVR Map online application. Biosis supplies relevant site-based spatial information as inputs to DEECA and we are entirely reliant on DEECA's output reports for all assessment pathway applications. Biosis makes every effort to ensure site and spatial information entered into the NVR Map is an accurate reflection of proposed native vegetation removal.

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2.6 Legislation and policy

The implications for the project were assessed in relation to key biodiversity legislation and policy including:

- Matters listed under the EPBC Act, associated policy statements, significant impacts guidelines, listing advice and key threatening processes.
- Threatened taxa, communities and threatening processes listed under Section 10 of the FFG Act and associated action statements and listing advice.
- Guidelines for the removal, destruction or lopping of native vegetation (DELWP 2017b).
- Native Vegetation Management Plans prepared by Catchment Management Authorities.
- *Planning and Environment Act 1987*, specifically Clauses 12.01-2, 52.17 and 66.02 and Overlays in the Latrobe Planning Scheme.
- Noxious weed and pest animal lists under the *Catchment and Land Protection Act 1994* (CaLP Act).
- *Water Act 1989.*
- *Environment Protection Act 1971*: State Environmental Protection Policy (Waters) 2018.

2.7 Mapping

Morwell FlexGen Pty Ltd supplied aerial photography, historical photography, and site plans (UD ID 01 Concept Plan).

Mapping was conducted using hand-held GPS-enabled tablets and aerial photo interpretation. The accuracy of this mapping is therefore subject to the accuracy of the tablets (generally ± 7 metres) and dependent on the limitations of aerial photo rectification and registration.

Mapping has been produced using a Geographic Information System (GIS). Electronic GIS files which contain our flora and fauna spatial data are available to incorporate into design concept plans. However this mapping may not be sufficiently precise for detailed design purposes.

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3 Results

The ecological features of the study area are described below and mapped in Figure 2.

Species recorded during the assessment are listed in Appendix 1 (flora) and Appendix 2 (fauna). Unless of particular note, these species are not discussed further. Threatened species recorded or predicted to occur in the local area are also listed in these appendices, along with an assessment of the likelihood of the species occurring within the study area.

3.1 Vegetation and fauna habitat

The majority of the study area has been highly modified due to clearing the vegetation for agricultural purposes such as grazing and cropping. The study area is currently grazed by domestic horses and sheep. Most of the study area has been significantly modified and supports predominantly introduced vegetation that is of limited ecological value. Ecological features present within the study area are limited to one large, scattered tree, planted non-indigenous trees, small, isolated pockets of naturally-recruiting indigenous shrubs and native vegetation within a small, constructed farm dam. Common Froglet *Crinia signifera* were heard calling from drainage lines.

Pre-vegetation clearance, the study area would have most likely supported vegetation consistent with Plains Grassy Forest EVC 151.

Photos are provided in Appendix 3.

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Table 2 Summary of vegetation and habitat types within the study area

Vegetation or habitat type	Description	Location	Significant values
Plains Grassy Forest EVC 151 **Bioregional Conservation Status (BCS): Vulnerable**	This EVC is represented by small areas of naturally recruiting Blackwood *Acacia melanoxylon*. Habitat zones 4 and 5 also include another indigenous shrub species Swamp Paperbark *Melaleuca ericifolia*. The ground layer is completely introduced supporting perennial weed species such as Panic Veldt-grass *Ehrharta erecta* and Red-flower Mallow *Modiola caroliniana*.	Habitat zones 1, 3, 4 and 5 (Figure 2)	No significant values for flora. Blackwoods may offer possible foraging habitat for Gang-gang Cockatoo.
Tall Marsh EVC 821 **BCS of Endangered**	Small farm dam that has modified the remnant vegetation has now been colonised by indigenous wetland species Narrow-leaf Cumbungi *Typha domingensis* and some Rush *Juncus* spp. Introduced species in this habitat zone is Couch *Cynodon dactylon* var. *dactylon*.	Small farm dam in the western extent of the study area, represented by Habitat Zone 2 (Figure 2)	Limited habitat value for threatened flora or fauna species.
Scattered trees	One large, scattered River Red-gum *Eucalyptus camaldulensis* is present within the study area	Horse paddock within the centre of the study area (Figure 2).	River Red-gum offers possible foraging habitat for Gang-gang Cockatoo.
Predominantly introduced vegetation	Most of the study area supports paddocks that have been cleared in the past and are currently used for grazing purposes. Many paddocks are infested with noxious weed species such as Common Blackberry *Rubus anglocandicans*. The majority of the study area is dominated by introduced perennial graminoid species such as Cocksfoot *Dactylis glomerata* and introduced herbaceous species such as Flatweed *Hypochaeris radicata* and Ribwort *Plantago lanceolata*.	Majority of the study area.	Limited habitat value for threatened flora or fauna species.
Bennetts Creek	A narrow-constructed waterway.	Bennetts Creek flows from north to south immediately east outside of the study area.	Habitat for aquatic fauna species.

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Vegetation or habitat type	Description	Location	Significant values
Constructed dams	The farm dam is in a degraded state owing to trampling by livestock and nitrification.	Small farm dam in the western extent of the study area.	Dams provide habitat for common waterbirds and frog species such as Common Froglet.
Planted vegetation	Numerous planted Spotted Gum *Corymbia maculata* is planted in rough rows around the study area.	Various locations around the study area.	These trees are not large and do not provide any hollows for fauna. Gums in these areas offer possible foraging habitat for Gang-gang Cockatoo.

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3.2 Landscape context

The study area occurs within a heavily cleared and developed section of the Gippsland Plain with the Princes Freeway bordering the north of the study area. Majority of the surrounding land has been modified for industrial, residential and agricultural land uses. The local area supports limited occurrences native vegetation. The topography of the study area is largely flat with a slight slope toward the south. More broadly within the landscape, larger tracts of native vegetation occur within Jeeralang State Forest located 8 kilometres south of the study area, and Crinigan Bushland Reserve located approximately 3 kilometres north of the study area. Bennetts Creek runs immediately east of the study area.

3.3 Threatened species and ecological communities

Threatened species recorded or predicted to occur within 10 kilometres of the study area or from the relevant catchment (aquatic species) are listed in Appendix 1 (flora) and Appendix 2 (fauna). An assessment of the likelihood of these species occurring in the study area and an indication of where within the site (i.e. which habitats or features of relevance to the species) is included. A summary of those species recorded or with a medium or higher likelihood of occurring in the study area is provided in Table 3.

Table 3 Summary of EPBC Act and FFG Act listed species most likely to occur in the study area

Species name	Listing status	Area of value within the study area
Gang-gang Cockatoo *Callocephalon fimbriatum*	Endangered under EPBC Act Endangered under FFG Act	Flowering gums and Wattles Acacia spp. within the study area.
White-throated Needletail *Hirundapus caudacutus*	Vulnerable under EPBC Act Vulnerable under FFG Act	Likely to utilise airspace above the study area.
Black Falcon *Falco subniger*	Critically endangered under the FFG Act	Likely to utilise airspace and paddocks for hunting within the study area.
Little Eagle *Hieraaetus morphnoides*	Vulnerable under FFG Act	Likely to utilise airspace and paddocks for hunting within the study area.
White-bellied Sea-Eagle *Haliaeetus leucogaster*	Endangered under the FFG Act	Tall Marsh EVC 821 within the study area and surrounds.

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3.3.1 Threatened ecological communities

One EPBC Act listed threatened ecological community is predicted to occur by the PMST:

- Gippsland Red Gum (*Eucalyptus tereticornis* subsp. *mediana*) Grassy Woodland and Associated Native Grassland

Native vegetation within the study area is not consistent with this listed ecological community due to a lack of the requisite canopy species.

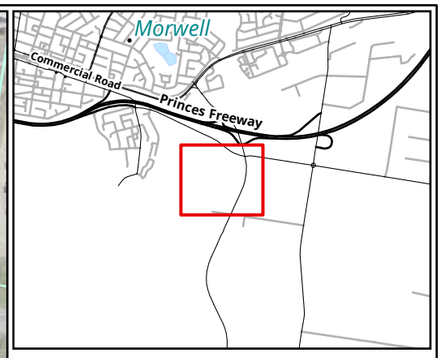
Three FFG Act listed threatened ecological communities are predicted to occur:

- Central Gippsland Plains Grassland Community
- Forest Red Gum Grassy Woodland Community
- Sedge Rich *Eucalyptus camphora* Swamp Community

Vegetation within the study area does not correspond to any FFG Act listed threated ecological community due to the lack of required native species and vegetation structure.

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Legend

- Study area
- Facility boundary
- Current parcel boundary
- Easement
- Contour 10m interval
- Scattered tree
- Planted vegetation - Spotted Gum

Ecological Vegetation Classes (EVCs)

- (GipP0151) Plains Grassy Forest
- (GipP0821) Tall Marsh

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Figure 2 Ecological features of the study area

0 20 40 60 80 100

Metres

Scale: 1:3,000 @ A3

Coordinate System: GDA2020 MGA Zone 55

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Matter: 42872,
Date: 11 May 2026 ,
Prepared for: JO, Prepared by: PG, Last edited by: PGidley
Layout: 42872_F2_EcoFeatures
Project: P:\42800s\42872\Mapping\
42872_454CommericalRd_Eco.aprx

4 Biodiversity legislation and government policy

This section provides an assessment of the project in relation to key biodiversity legislation and government policy. It does not describe the legislation and policy in detail. Where available, links to further information are provided.

4.1 Commonwealth

4.1.1 *Environment Protection and Biodiversity Conservation Act 1999*

The EPBC Act applies to developments and associated activities that have the potential to significantly impact on Matters of National Environmental Significance (MNES) protected under the Act.

Further information including a guide to the referral process is available at http://www.environment.gov.au/epbc/index.html

The MNES relevant to the project are summarised in Table 4. It includes an assessment against the EPBC Act policy statements published by the Australian Government which provide guidance on the practical application of EPBC Act.

Table 4 Assessment of project in relation to the EPBC Act

MNES	Project specifics	Assessment against significant impact guidelines
EPBC Act listed species	14 flora and 35 fauna EPBC Act listed species are recorded or predicted to occur in the project search area. The likelihood of these species occurring in the study area is assessed in Appendix 1 (flora) and Appendix 2 (fauna).	Most of these species are not likely to occur and development unlikely to constitute a significant impact.
EPBC Act listed ecological communities	One EPBC Act listed ecological community is recorded or predicted to occur in the project search area.	No EPBC Act listed communities were recorded during the field assessment. Further interpretation of these ecological communities can be viewed in Appendix 1.2.
Migratory species	Eight migratory species are recorded or predicted to occur in the project search area (Appendix 2.3).	While some of these species would be expected to use the study area on occasions, and some of them may do so regularly or may be resident, it does not provide important habitat for an ecologically significant proportion of any of these species.
Wetlands of international importance (Ramsar sites).	The study area is identified as being within the catchment of one Ramsar site: Gippsland Lakes.	The study area does not drain directly into either Ramsar site and the development is not likely to result in a significant impact significant impact on it is considered to be negligible.

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On the basis of criteria outlined in the relevant Significant Impact Guidelines (DoE 2013) it is considered unlikely that a significant impact on a MNES would result from the proposed action. Referral of the proposed action to the Australian Government Minister for the Environment to determine whether the action requires approval under the EPBC Act is therefore unlikely to be required.

4.2 State

4.2.1 *Flora and Fauna Guarantee Act 1988* (FFG Act)

The FFG Act is a key piece of Victorian legislation on the conservation of threatened species and communities and on the management of potentially threatening processes. Under the Act a permit is required from DEECA to 'take' protected flora species. Permit exemptions under the Act generally apply to the non-commercial removal of protected flora from private land, unless there is 'critical habitat' that has been declared on the land. Authorisation under the Act is required to collect, kill, injure or disturb listed fish on private or public land.

Link for further information: https://www.environment.vic.gov.au/conserving-threatened-species/victorias-framework-for-conserving-threatened-species

The FFG Act defines public land as Crown land or land owned by, or vested in, a public authority, while private land is defined as any land other than public land. A public authority is defined in the FFG Act as a body established for a public purpose by or under any Act and includes:

- an administrative office
- a government department
- a municipal council
- a public entity
- a State-owned enterprise.

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Native vegetation on site is not a FFG act listed threatened community, and does not contain any protected flora species, or FFG Act listed threatened species or habitat for them (Appendix 1).

The study area is on private land, does not contain any declared 'critical habitat' for the purposes of the FFG Act and the flora species are not being taken for the purpose of commercial sale. A protected flora permit is therefore not required, however the presence of rare or threatened flora and habitat for threatened fauna will be considered by the Responsible Authority in determining its response to an application for native vegetation removal under Clause 52.17 (see below).

4.2.2 *Catchment and Land Protection Act 1994* (CaLP Act)

The CaLP Act identifies and classifies certain species as noxious weeds or pest animals, and provides a system of controls on noxious species.

Four declared noxious weeds identified in the study area are listed below:

- Spear Thistle *Cirsium vulgare*
- Stinkwort *Dittrichia graveolens*
- African Box-thorn *Lycium ferocissimum*

- Common Blackberry

The proponent/landowner must take all reasonable steps to eradicate regionally prohibited weeds, prevent the growth and spread of regionally controlled weeds, and prevent the spread of and as far as possible eradicate established pest animals. The State is responsible for eradicating State prohibited weeds from all land in Victoria.

Further information is at http://agriculture.vic.gov.au/agriculture/pests-diseases-and-weeds

4.2.3 *Planning and Environment Act 1987* (incl. Planning Schemes)

The *Planning and Environment Act 1987* controls the planning and development of land in Victoria, and provides for the development of planning schemes for all municipalities.

Of particular relevance to the development proposal are controls relating to the removal, destruction or lopping of native vegetation contained within the Latrobe Planning Scheme (the Scheme), including permit requirements. The Scheme (Clause 73.01) defines 'native vegetation' as 'Plants that are indigenous to Victoria, including trees, shrubs, herbs, and grasses'. It is an objective of Clause 12.01-2 of the State Planning Policy Framework (Native Vegetation Management) that removal of native vegetation results in no net loss in the contribution made by native vegetation to Victoria's biodiversity.

Clause 52.17 (Native Vegetation) requires a planning permit to remove, destroy or lop native vegetation including some dead native vegetation subject to exemptions. Decision guidelines that must be considered by the referral or responsible authority are contained in Section 7 of the Guidelines and referred to in Clause 52.17-4. Clause 52.17 does not apply if a Native Vegetation Precinct Plan corresponding to the land is incorporated in the Scheme. Where native vegetation does not meet the definition of a patch or scattered tree as described in Section 3.1 there is no offset requirement under the Guidelines. However, a permit is still required to remove, destroy or lop native vegetation that is not a patch or scattered tree under Clause 52.17 subject to exemptions.

Clause 65.02 requires consideration of native vegetation retention in a subdivision application and siting of open space areas.

Under Clause 66.02 a permit application to remove, destroy or lop native vegetation is required to be referred to DEECA as a recommending referral authority if any of the following apply:

- the class of application is on the detailed assessment pathway
- a property vegetation precinct plan applies to the site or
- the native vegetation is on Crown land occupied or managed by the Responsible Authority.

The need for a permit to remove native vegetation may also be triggered by one overlay within the Scheme. The location of the overlays in relation to the study area can be determined via the following link: http://planningschemes.dpcd.vic.gov.au. The provisions of the following overlays apply to the study area:

- Environmental Significance Overlay – Schedule 1 (ESO1) covers the entire study area. Additional permit requirements can be viewed online at http://planningschemes.dpcd.vic.gov.au.

Victoria's Guidelines for the removal, destruction or lopping of native vegetation

The Guidelines are incorporated into the Victoria Planning Provisions and all planning schemes in Victoria (DELWP 2017b). The Guidelines replaced the previous incorporated document titled Permitted clearing of native vegetation – Biodiversity assessment guidelines (DEPI 2013) on 12 December 2017.

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The purpose of the Guidelines is to guide how impacts to biodiversity should be considered when assessing a permit application to remove, destroy or lop native vegetation. The objective for the guidelines in Victoria is 'No net loss to biodiversity as a result of the removal, destruction or lopping of native vegetation'.

A detailed assessment of the implications for the project under the Guidelines is provided in Section 5 of this report. Under the Guidelines, there are three assessment pathways for assessing an application for a permit to remove native vegetation: basic, intermediate and detailed.

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5 Victoria's Guidelines for the removal, destruction or lopping of native vegetation

The Guidelines set out and describe the application of Victoria's statewide policy in relation to assessing and compensating for the removal of native vegetation in order to achieve the objective of 'no net loss to biodiversity as a result of the removal, destruction or lopping of native vegetation' (DELWP 2017b).

This objective is to be achieved through Victoria's planning system using an assessment approach that relies on strategic planning and the permit and offset system. The key policy for achieving no net loss to biodiversity is the three-step approach of avoid, minimise and offset:

- **Avoid** the removal, destruction or lopping of native vegetation.
- **Minimise** impacts resulting from the removal, destruction or lopping of native vegetation that cannot be avoided.
- Provide an **offset** to compensate for the biodiversity impact from the removal, destruction or lopping of native vegetation.

Steps that have been taken during the design of the development to ensure that impacts on biodiversity from the removal of native vegetation have been minimised include:

- As the design currently stands all patches of native vegetation are avoided.
- Locating temporary site storage and compounds on existing disturbed land to minimise impacts on native vegetation.
- Implementing the use of existing tracks for the proposed access road.

The 9.6 metre radius TPZ of the scattered large tree will be protected by erecting temporary fencing during construction.

Due to the lack of native vegetation within the study area and protection of the scattered tree and other patches of native vegetation via temporary fencing, an assessment of the development under the Guidelines is not required.

5.1 Proposed removal of native vegetation

There are no direct or indirect native vegetation losses associated with this project.

5.1.1 Habitat hectares

A continuous area of the same EVC is termed a 'habitat zone'. Different habitat zones exists where there are different EVCs present and/or discrete (non-continuous) patches of the same EVC. A separate vegetation quality assessment was conducted for each habitat zone. The vegetation quality assessment score was multiplied by the extent of the habitat zone to give a value in habitat hectares.

Five habitat zones were identified (Table 5). The results of the vegetation quality assessment are provided with the number of habitat hectares in each habitat zone and the vegetation condition was assessed in relation to standard methods (DSE 2004) and pre-determined EVC benchmarks: https://www.environment.vic.gov.au/biodiversity/bioregions-and-evc-benchmarks.

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Table 5 Habitat hectares of native vegetation within the study area

Habitat Zone ID			1,3,4,5	2	
EVC #: Name (Figure 2)			151	821	
EVC #: Name (VQA/NVRR)			151	151	
		Max Score	**Score**	**Score**	**Total**
Site Condition	Large Trees	10	0	0	
	Tree Canopy Cover	5	0	0	
	Lack of Weeds	15	0	4	
	Understorey	25	5	5	
	Recruitment	10	3	0	
	Organic Litter	5	2	2	
	Logs	5	0	0	
	Total Site Score		10	11	
Landscape Value	Patch Size	10	1	1	
	Neighbourhood	10	0	0	
	Distance to Core Area	5	1	1	
	Total Landscape Score		1	2	
Habitat points = #/100		100	11	13	
CONDITION SCORE		1	0.110	0.130	
Habitat Zone area (ha)			0.056	0.057	0.113
Habitat Hectares (Hha)			0.006	0.007	0.014

There is one scattered large tree within the study area. For applications that propose to remove scattered trees, the extent of scattered trees is calculated using the standard extents described in Section 2.4.1. A condition score is applied to each scattered tree based on information provided by DEECA's NVR Map. Scattered trees within the study area equate to 0.070 habitat hectares as displayed in Table 6. The locations of scattered trees within the study area are shown in
Figure 2 and further details for each tree (e.g. size, extent and circumference) are provided in Table 6.

Table 6 Scattered trees within the study area

Scientific name	Common name	DBH (cm)	Size	Extent	Tree retention zone (m)	Other attributes	Status
Eucalyptus camaldulensis	River Red-gum	80	Large	0.070	9.6	No hollows	Retained

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5.2 Determining the assessment pathway

There are no direct or indirect native vegetation losses associated with this project.

5.3 Offset requirements

Not applicable.

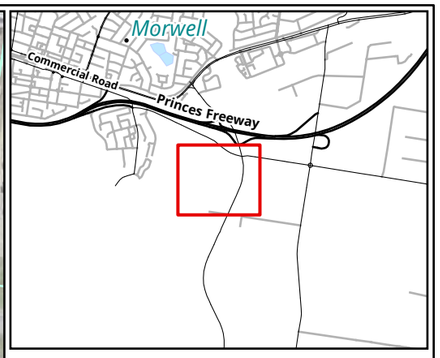
5.4 Proposed offset strategy

Not applicable.

The proposed removal of native vegetation was assessed in accordance with the concept design provided (UD ID 01 Concept Plan). Based on the current design, the proposed development will not require the removal of any patches of vegetation or scattered trees.

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Legend

- Study area
- Facility boundary/impact area
- Current parcel boundary
- Easement
- Contour 10m interval
- Scattered tree to be retained
- Planted vegetation - Spotted Gum

Ecological Vegetation Classes (EVCs)

- (GipP0151) Plains Grassy Forest
- (GipP0821) Tall Marsh

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Figure 3 Proposed impact area

0 20 40 60 80 100

Metres

Scale: 1:3,000 @ A3

Coordinate System: GDA2020 MGA Zone 55

N

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APEM Group

Matter: 42872,
Date: 11 May 2026 ,
Prepared for: JO, Prepared by: PG, Last edited by: PGidley
Layout: 42872_F3_ImpactArea
Project: P:\42800s\42872\Mapping\
42872_454CommericalRd_Eco.aprx

Acknowledgements: VicMap BaseMap©State of Victoria

6 Key ecological values and recommendations

This section identifies the key ecological features of the study area, provides an outline of potential implications of proposed development on those values and includes recommendations to assist Morwell FlexGen Pty Ltd to design a development to minimise impacts on biodiversity.

The primary measure to reduce impacts to biodiversity values within the study area is to avoid and minimise removal of native vegetation and terrestrial and aquatic habitat. It is critical that this be considered during the design phase of the project, when key decisions are made about the location of all built infrastructure, site compounds, access roads and temporary material storage. The results of this assessment should therefore be incorporated into the project design, by adding the flora and fauna mapping information into the planning maps and investigating options to retain as much of the mapped vegetation/habitats as possible. Priority should be given to highest value areas and retaining larger areas in preference to numerous smaller ones.

The majority of the study area has been highly modified due to removal of native vegetation for past agricultural land uses. Native vegetation within the study area is minimal and comprises of several, small and isolated pockets of indigenous shrub species. As the design currently stands none of these patches are being impacted. All areas of vegetation/habitat nominated in the design plan as 'retained' are to be treated as no-go zones and are not to be encroached upon as development progresses.

A summary of potential implications of development of the study area and recommendations to minimise impacts during the **design phase** of the project is provided in Table 7.

Table 7 Summary of key ecological values, potential implications of developing the study area and recommendations to minimise ecological impacts during the design phase.

Ecological feature (Figure 2)	Implications of development	Recommendations
Native vegetation	0.183 hectares of native vegetation occurs within the study area. Comprising of the following items: • Plains Grassy Forest EVC 151 • Tall Marsh EVC 821 • One large, scattered River Red-gum *Eucalyptus camaldulensis* There are no direct or indirect impacts to native vegetation expected from this development. The application will not need to be assessed under the Guidelines.	Avoid and minimise removal of native vegetation, in accordance with the Guidelines. Refer to Section 5. Retained vegetation should be fenced off and treated as no-go zones. As the current design stands there is no proposed impact on native vegetation as shown in Figure 3.
Threatened species and ecological communities	Potential suitable habitat for two fauna species listed under the EPBC Act: • Gang-gang Cockatoo listed as endangered. • White-throated Needletail listed as vulnerable.	Avoid the removal of Spotted Gum to the minimum extent possible to retain as much threatened fauna habitat as possible. As the current design stands there is no proposed impact on native vegetation as shown in Figure 3.

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Ecological feature (Figure 2)	Implications of development	Recommendations
	Potential suitable habitat for five fauna species listed under the FFG Act: • Those listed above • Little Eagle listed as vulnerable. • White-bellied Sea-Eagle listed as endangered. • Black Falcon listed as critically endangered.	

Construction and post-construction management

Specific detail relating to preventing impacts on retained native vegetation and aquatic and terrestrial habitat should be addressed in a site-specific Construction Environmental Management Plan. This will include issues relating to contractors such as environmental inductions, installation of temporary fencing/signage, drainage and sediment control.

An Ecological Management Plan should be prepared by an ecological consultant to provide detailed advice on the ongoing protection and long-term management of retained vegetation/ habitat, creation of linkages and other habitat features such as wetlands, if proposed.

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Appendices

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Appendix 1 Flora

Abbreviations and symbols relevant to this Appendix.

Code	Meaning	Reference
National listings		
EX	Extinct	Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act)
CR	Critically endangered	
EN	Endangered	
VU	Vulnerable	
PMST	Protected Matters Search Tool	
State listings		
x	Extinct	Victorian *Flora and Fauna Guarantee Act 1988* (FFG Act)
cr	Critically endangered	
e	Endangered	
v	Vulnerable	
t	Threatened	
RU	Restricted use (public land only)	
Weed status (CaLP Act)		
SP	State prohibited species	Victorian *Catchment and Land Protection Act 1994* (CaLP Act)
RP	Regionally prohibited species	
RC	Regionally controlled species	
R	Restricted species	
Other		
#	Native species outside its natural range	Victorian Biodiversity Atlas (VBA)
*****	Planted species	

Appendix 1.1 Flora species recorded from the study area

Table 8 Flora species recorded from the study area

Status	Scientific Name	Common Name
Indigenous species		
RU	*Acacia mearnsii*	Black Wattle
	Acacia melanoxylon	Blackwood
#, *	*Corymbia maculata*	Spotted Gum
	Epilobium billardiereanum	Variable Willow-herb
	Eucalyptus camaldulensis	River Red-gum

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Status	Scientific Name	Common Name
#, *	*Eucalyptus leucoxylon*	Yellow Gum
	Euphorbia dallachyana	Flat Spurge
	Geranium spp.	Crane's Bill
	Juncus spp.	Rush
	Lachnagrostis filiformis s.s.	Common Blown-grass
	Laphangium luteoalbum	Jersey Cudweed
	Lythrum hyssopifolia	Small Loosestrife
	Melaleuca ericifolia	Swamp Paperbark
	Typha domingensis	Narrow-leaf Cumbungi
Introduced species		
	Agrostis capillaris	Brown-top Bent
	Arctotheca calendula	Cape Weed
	Brassica fruticulosa	Twiggy Turnip
	Cenchrus clandestinus	Kikuyu
	Cerastium glomeratum s.s.	Sticky Mouse-ear Chickweed
	Chenopodium album	Fat Hen
RC	*Cirsium vulgare*	Spear Thistle
	Cortaderia selloana subsp. *selloana*	Pampas Grass
	Cynodon dactylon var. *dactylon*	Couch
	Cyperus eragrostis	Drain Flat-sedge
	Dactylis glomerata	Cocksfoot
R	*Dittrichia graveolens*	Stinkwort
	Ehrharta erecta	Panic Veldt-grass
	Ehrharta longiflora	Annual Veldt-grass
	Erigeron bonariensis	Flaxleaf Fleabane
	Erodium botrys	Big Heron's-bill
	Fumaria spp.	Fumitory
	Galium aparine	Cleavers
	Helminthotheca echioides	Ox-tongue
	Hesperocyparis macrocarpa	Monterey Cypress
	Hypochaeris radicata	Flatweed
	Lolium rigidum	Wimmera Rye-grass
RC	*Lycium ferocissimum*	African Box-thorn
	Malva parviflora	Small-flower Mallow
	Modiola caroliniana	Red-flower Mallow
	Paspalum dilatatum	Paspalum
	Phalaris aquatica	Toowoomba Canary-grass
	Plantago coronopus	Buck's-horn Plantain
	Plantago lanceolata	Ribwort
	Poa annua s.s.	Annual Meadow-grass
	Romulea rosea	Onion Grass

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Status	Scientific Name	Common Name
RC	*Rubus anglocandicans*	Common Blackberry
	Rumex crispus	Curled Dock
	Solanum nigrum s.s.	Black Nightshade
	Sonchus asper s.s.	Rough Sow-thistle
	Sonchus oleraceus	Common Sow-thistle
	Symphyotrichum subulatum	Aster-weed
	Taraxacum officinale spp. agg.	Garden Dandelion
	Trifolium repens var. *repens*	White Clover

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Appendix 1.2 Listed flora species

The following table includes threatened flora species that have potential to occur within the study area, sourced from the VBA and PMST (accessed on 26 June 2025). Where years are specified for the most recent database records, these refer to records from the VBA unless otherwise specified. Where no year is specified, the PMST predicts the species has potential to occur. Some flora habitat descriptions are reproduced from the Royal Botanic Gardens Victoria (VicFlora 2025) with permission.

Table 9 Threatened flora species recorded or predicted to occur within 10 km of the study area

Scientific name	Common name	Conservation status		Most recent database record	Other records	Habitat description	Likely occurrence in study area	Rationale for likelihood ranking
		EPBC	FFG					
National significance								
Amphibromus fluitans	River Swamp Wallaby-grass	VU		2002		Swampy areas, mainly along the Murray River between Wodonga and Echuca with scattered records from southern Victoria.	**Negligible**	No suitable habitat. No recent records.
Caladenia orientalis	Eastern Spider-orchid	EN	e	1981		Heath and heathy woodlands in coastal areas between the Mornington Peninsula and Wilsons Promontory.	**Negligible**	No suitable habitat. No recent records.
Caladenia tessellata	Thick-lip Spider-orchid	VU			PMST	Heathlands, heathy woodlands and lowland forest in coastal areas east from Port Phillip Bay.	**Negligible**	No suitable habitat. No recent records.
Dianella amoena	Matted Flax-lily	EN	cr	2023		Lowland grassland and grassy woodland, on well-drained to seasonally waterlogged fertile sandy loam soils to heavy cracking clays.	**Low**	Limited suitable habitat. 27 records within 10 km of the study area.

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Scientific name	Common name	Conservation status		Most recent database record	Other records	Habitat description	Likely occurrence in study area	Rationale for likelihood ranking
		EPBC	FFG					
Eucalyptus crenulata	Buxton Gum	EN	e	2006		Alluvial soils in seasonally inundated depressions along river flats; records away from Buxton and Yering in the northeast are likely to be introductions.	**Low**	Limited suitable habitat. One record within 10 km of the study area.
Eucalyptus strzeleckii	Strzelecki Gum	VU	cr	2023		Ridges, slopes and along the banks of streams on deep, fertile loam soils that are seasonally waterlogged; less commonly found on undulating or flat terrain.	**Low**	Limited suitable habitat present within the study area. Closest record is approximately 5 km away.
Glycine latrobeana	Clover Glycine	VU	v		PMST	Grasslands and grassy woodlands, particularly those dominated by Kangaroo Grass.	**Negligible**	No suitable habitat. No recent records.
Pomaderris vacciniifolia	Round-leaf Pomaderris	CR	cr		PMST	Endemic in Victoria. Largely confined to moist forest and scrubs in the upper catchment of the Yarra, Plenty and Yea Rivers in an area bounded by Healesville, Marysville and Whittlesea, but also in the Tyers-Walhalla areas.	**Negligible**	No suitable habitat. No recent records.
Prasophyllum spicatum	Dense Leek-orchid	VU	cr		PMST	Heath and heathy woodlands.	**Negligible**	No suitable habitat. No recent records.
Pterostylis chlorogramma	Green-striped Greenhood	VU	e		PMST	Heathy woodland; more specific habitat requirements are poorly known.	**Negligible**	No suitable habitat. No recent records.

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Scientific name	Common name	Conservation status		Most recent database record	Other records	Habitat description	Likely occurrence in study area	Rationale for likelihood ranking
		EPBC	FFG					
Senecio psilocarpus	Swamp Fireweed	VU			PMST	Seasonally inundated herb-rich swamps, growing on peaty soils or volcanic clays.	**Negligible**	No suitable habitat. No recent records.
Thelymitra epipactoides	Metallic Sun-orchid	EN	e		PMST	Moist or dry sandy loams or loamy sands, primarily in coastal heaths, grasslands and woodlands, but also in similar communities at drier inland sites.	**Negligible**	No suitable habitat. No recent records.
Thesium australe	Austral Toad-flax	VU	e		PMST	Most commonly in damp grassland and woodland, including subalpine grassy heathlands.	**Negligible**	No suitable habitat. No recent records.
Xerochrysum palustre	Swamp Everlasting	VU	cr		PMST	Sedge-swamps and shallow freshwater marshes and swamps in lowlands, on black cracking clay soils.	**Negligible**	No suitable habitat. No recent records.
State significance								
Acacia howittii	Sticky Wattle		v	2009		Moist forest. Natural occurrences are confined to South Gippsland and Central Highlands.	**Negligible**	No suitable habitat within the study area.
Billardiera scandens s.s.	Velvet Apple-berry		e	2012		Common in heathland, woodland and forests from near sea level to the subalps.	**Low**	Limited suitable habitat as study area is significantly disturbed. One record within 10 km of the study area.

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Scientific name	Common name	Conservation status		Most recent database record	Other records	Habitat description	Likely occurrence in study area	Rationale for likelihood ranking
		EPBC	FFG					
Brachyscome salkiniae	Elegant Daisy		v	1967		In forests and woodland on sandy or loamy soil, often on river banks and flats, throughout East Gippsland and extending west into the Latrobe Valley near Moe.	**Low**	Limited suitable habitat as study area is significantly disturbed. One record within 10 km of the study area.
Caladenia aurantiaca	Orange-tip Finger-orchid		e	2003		Lowland forest and heathy woodlands, typically near the coast.	**Negligible**	No suitable habitat within the study area.
Caladenia vulgaris	Slender Pink-fingers		v	1995		Scattered across southern Victoria where sometimes locally common in heathland and coastal scrub on moisture-retentive sandy soils.	**Negligible**	No suitable habitat within the study area.
Chiloglottis jeanesii	Mountain Bird-orchid		v	2002		Fern gullies and wet sclerophyll forests. Often grows with *Chiloglottis cornuta* and *C. valida*.	**Negligible**	No suitable habitat within the study area.
Corymbia maculata	Spotted Gum		v	2021		In Victoria, naturally confined to a small population near Mt Tara in the east of the state.	**Not applicable**	Species outside of its natural range. Progeny is likely from cultivated stock.

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Scientific name	Common name	Conservation status		Most recent database record	Other records	Habitat description	Likely occurrence in study area	Rationale for likelihood ranking
		EPBC	FFG					
Craspedia canens	Grey Billy-buttons		cr	2023		Low altitude grasslands between Cranbourne and Traralgon.	**Low**	Limited suitable habitat as study area is significantly disturbed. 78 records within 10 km of the study area.
Cyathea cunninghamii	Slender Tree-fern		cr	1997		Deep loamy humus soils on the banks of sheltered gullies in wet, hilly regions.	**Negligible**	No suitable habitat within the study area.
Cymbonotus lawsonianus	Bear's-ear		e	2003		Woodland communities.	**Low**	Limited suitable habitat as study area is significantly disturbed. Three records within 10 km of the study area.
Dianella longifolia var. grandis s.l.	Glaucous Flax-lily		cr	1992		Occurs in lowland plains grassland and grassy woodlands (e.g. Volcanic Plain and Riverina) as well as around rocky outcrops at higher altitudes than the var. longifolia (e.g. between Swifts Creek and Omeo, Benambra-Corryong district, Don River near Launching Place).	**Low**	Limited suitable habitat as study area is significantly disturbed. One record within 10 km of the study area.

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Scientific name	Common name	Conservation status		Most recent database record	Other records	Habitat description	Likely occurrence in study area	Rationale for likelihood ranking
		EPBC	FFG					
Eucalyptus arenicola	Gippsland Lakes Peppermint		e	1991		Sandy soils in both coastal and near coastal environments.	**Negligible**	No suitable habitat within the study area.
Eucalyptus fulgens	Green Scentbark		e	2008		Forests and woodlands of the Gippsland Plain and adjacent foothills.	**Low**	Limited suitable habitat as study area is significantly disturbed. 15 records within 10 km of the study area.
Eucalyptus globulus subsp. globulus	Southern Blue-gum		e	2021		Damp forest communities. Restricted to South Gippsland and the Otway Ranges.	**Not applicable**	Species outside of its natural range. Progeny is likely from cultivated stock.
Eucalyptus kitsoniana	Bog Gum		cr	2021		Damp alluvial soils or boggy flats.	**Low**	Limited suitable habitat as study area is significantly disturbed. One record within 10 km of the study area.

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Scientific name	Common name	Conservation status		Most recent database record	Other records	Habitat description	Likely occurrence in study area	Rationale for likelihood ranking
		EPBC	FFG					
Eucalyptus yarraensis	Yarra Gum		cr	2023		Valley flats and along stream on soils subject to periodic inundation or waterlogging.	**Low**	Limited suitable habitat as study area is significantly disturbed. 15 records within 10 km of the study area.
Grevillea chrysophaea	Golden Grevillea		v	2003		Silty sand and sandy loam soils in woodlands and heath.	**Negligible**	No suitable habitat within the study area.
Lachnagrostis semibarbata var. semibarbata	Purple Blown-grass		e	2000		Wet marshes and slightly saline swamps and depressions in plains communities.	**Negligible**	No suitable habitat within the study area.
Melaleuca armillaris subsp. armillaris	Giant Honey-myrtle		e	2021		Near coastal heath/scrub, rocky coast and foothill outcrops.	**Not applicable**	Species outside of its natural range. Progeny is likely from cultivated stock.
Platysace ericoides	Heath Platysace		e	2003		Dry forests on coastal plains, foothills and lowland woodlands - typically on shallow, rocky soils.	**Low**	Limited suitable habitat as study area is significantly disturbed. Two records within 10 km of the study area.

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Scientific name	Common name	Conservation status		Most recent database record	Other records	Habitat description	Likely occurrence in study area	Rationale for likelihood ranking
		EPBC	FFG					
Pterostylis fischiorum	Fisch's Greenhood		e	2003		Grassy moist areas within open forest.	**Negligible**	No suitable habitat within the study area.
Pterostylis grandiflora	Cobra Greenhood		e	2011		Moist, shady slopes in open-forest, on well-drained soil.	**Negligible**	No suitable habitat within the study area.
Pterostylis X ingens	Sharp Greenhood		v	1967		Moist areas in open forest.	**Negligible**	No suitable habitat within the study area.
Senecio glomeratus subsp. longifructus	Annual Fireweed		v	2012		Areas adjacent to streams, swamps and saline flats.	**Negligible**	No suitable habitat within the study area.
Triglochin minutissima	Tiny Arrowgrass		e	2012		Scattered occurrences on damp saline soils near salt-lakes, and forming part of herbfields in coastal saltmarshes.	**Negligible**	No suitable habitat within the study area.

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Appendix 1.3 Threatened ecological communities

The following table includes threatened ecological communities that have potential to occur within the project area, compiled with reference to characteristics of FFG Act threatened communities (DEECA 2023) and predictive output from the PMST (accessed on 26 June 2025).

Table 10 Threatened ecological communities predicted to occur within 10 km of the project area.

Community Name	Conservation status	Source	Description
National significance			
Gippsland Red Gum (*Eucalyptus tereticornis* subsp. *mediana*) Grassy Woodland and Associated Native Grassland	Critically Endangered	PMST	**Not present. Canopy species are not present as per key diagnostic characteristics of the community.**
State significance			
Central Gippsland Plains Grassland Community	Threatened		**Not present. Study area does not support grassland patch vegetation.**
Forest Red Gum Grassy Woodland Community	Threatened		**Not present. Canopy species are not present as per key diagnostic characteristics of the community.**
Sedge Rich *Eucalyptus camphora* Swamp Community	Threatened		**Not present. Required canopy species not present within the study area. The only known occurrence of the Sedge-rich *Eucalyptus camphora* Swamp Community is within the Yellingbo Nature Conservation Reserve in the Yarra Valley, 50 km east of Melbourne.**

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Appendix 2 Fauna

Abbreviations and symbols relevant to this Appendix:

Code	Meaning	Reference
National listings		
EX	Extinct	Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act)
CR	Critically endangered	
EN	Endangered	
VU	Vulnerable	
CD	Conservation dependent	
PMST	Protected Matters Search Tool	
State listings		
x	Extinct	Victorian *Flora and Fauna Guarantee Act 1988* (FFG Act)
cr	Critically endangered	
e	Endangered	
v	Vulnerable	
t	Threatened	

Appendix 2.1 Fauna species recorded from the study area

Table 11 Vertebrate fauna recorded from the study area

Status	Scientific name	Common name
Frogs		
	Crinia signifera	Common Froglet

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Appendix 2.2 Listed fauna species

The following table includes a list of threatened fauna species that have potential to occur within the study area, sourced from the VBA and PMST (accessed on 26 June 2025). Where years are specified for the most recent database records, these refer to records from the VBA unless otherwise specified. Where no year is specified, the PMST predicts the species has potential to occur.

Table 12 Threatened fauna species recorded or predicted to occur within 10 km of the study area

Scientific name	Common name	Conservation status		Most recent database record	Other records	Habitat description	Likely occurrence in study area	Rationale for likelihood ranking
		EPBC	FFG					
National significance								
Gallinago hardwickii	Latham's Snipe	VU		2014		A migrant to Australia from July to April occurring in a wide variety of permanent and ephemeral wetlands. Prefers open freshwater wetlands with nearby cover, but also recorded on the edges of creeks and rivers, river-pools and floodplains. Forages in soft mud at edge of wetlands and roosts in a variety of vegetation around wetlands including tussock grasslands, reeds and rushes, tea-tree scrub, woodlands and forests.	**Low**	Species may occur in nearby wetland areas but there is no suitable wetland habitat on site.
Rostratula australis	Australian Painted-snipe	EN	cr		PMST	Shallows of well-vegetated freshwater wetlands.	**Low**	No recent nearby records. No suitable vegetated wetland habitat within the study area.

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Scientific name	Common name	Conservation status		Most recent database record	Other records	Habitat description	Likely occurrence in study area	Rationale for likelihood ranking
		EPBC	FFG					
Botaurus poiciloptilus	Australasian Bittern	EN	cr		PMST	Shallow freshwater and brackish wetlands with abundant emergent aquatic vegetation.	**Low**	No recent nearby records. No suitable freshwater habitat within the study area.
Falco hypoleucos	Grey Falcon	VU	v		PMST	Lightly timbered plains and Acacia scrub.	**Negligible**	No recent records within 10km of the study area. Species is more commonly found in semi-arid and arid environments.
Calyptorhynchus lathami	Glossy Black-Cockatoo	VU	v		PMST	Forests and woodlands with Buloke *Allocasuarina* spp.	**Low**	No recent records within 10km of the study area. No suitable habitat within the study area.
Callocephalon fimbriatum	Gang-gang Cockatoo	EN	e	2022		S Vic to E NSW. Forests and woodlands from coast to alpine areas. Autumn-winter dispersal from highlands to lower elevations. Forages in eucalypts, acacias and some exotic garden trees and shrubs.	**Medium**	There are multiple recent records within 10km of the study area. There is some suitable eucalypt and acacia habitat within the study area.

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Scientific name	Common name	Conservation status		Most recent database record	Other records	Habitat description	Likely occurrence in study area	Rationale for likelihood ranking
		EPBC	FFG					
Neophema chrysostoma	Blue-winged Parrot	VU		2020		A range of coastal, sub-coastal and semi-arid regions throughout south-eastern Australia. Feeds on seeds of a range of native grasses and herbs.	**Low**	There are multiple recent records within 10km of the study area. However, the study area lacks native grasses and herbs being dominated by pasture grasses and weeds.
Lathamus discolor	Swift Parrot	CR	cr		PMST	A range of forests and woodlands, especially those supporting nectar-producing tree species. Also well-treed urban areas.	**Low**	No recent records within 10km of the study area. Some planted flowering spotted gums may provide a foraging resource for the species, however, this resource is not of a high enough density to support the foraging of a passing group of Swift Parrot.

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Scientific name	Common name	Conservation status		Most recent database record	Other records	Habitat description	Likely occurrence in study area	Rationale for likelihood ranking
		EPBC	FFG					
Hirundapus caudacutus	White-throated Needletail	VU	v	2001		An almost exclusively aerial species within Australia, occurring over most types of habitat, particularly wooded areas.	**Medium**	Species is wide ranging and highly mobile and can be found flying overhead throughout most of mainland Australia. May occasionally utilise aerial space above the study area.
Tringa nebularia	Common Greenshank	EN	e		PMST	A variety of ephemeral and permanent inland wetlands and sheltered coastal wetlands.	**Negligible**	No recent records within 10km of the study area. No suitable aquatic or marine foraging habitat within the study area.
Calidris ferruginea	Curlew Sandpiper	CR	cr		PMST	Large intertidal sandflats, banks, mudflats, estuaries, inlets, sewage farms, saltworks, harbours, coastal lagoons and bays.	**Negligible**	No recent records within 10km of the study area. No suitable habitat within the study area.
Calidris acuminata	Sharp-tailed Sandpiper	VU		1978		Prefers muddy edges of shallow fresh or brackish wetlands with inundated or emergent low vegetation. Occasionally use flooded paddocks and other ephemeral wetlands.	**Negligible**	No recent records within 10km of the study area. No suitable habitat within the study area.

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Scientific name	Common name	Conservation status		Most recent database record	Other records	Habitat description	Likely occurrence in study area	Rationale for likelihood ranking
		EPBC	FFG					
Melanodryas cucullata	Hooded Robin	EN	v	1999		Woodlands of eucalypt, Mallee, semi-cleared farmland.	**Low**	No recent records within 10km of the study area. No suitable woodland or mallee habitat within the study area.
Pycnoptilus floccosus	Pilotbird	VU	v		PMST	E Vic to SE NSW. Largely ground-dwelling among leaf litter, logs and lower storey vegetation of wet sclerophyll forests and rainforest. Less often, alpine and coastal woodlands.	**Low**	No recent records within 10km of the study area. No suitable forest or woodland habitat within the study area.
Grantiella picta	Painted Honeyeater	VU	v		PMST	Dry open woodlands and forests. Typically forages for fruit and nectar in mistletoes and in tree canopies.	**Low**	No recent records within 10km of the study area. No suitable woodland or forest habitat within the study area.
Anthochaera phrygia	Regent Honeyeater	CR	cr		PMST	A range of dry woodlands and forests dominated by nectar-producing tree species.	**Low**	No recent records within 10km of the study area. No suitable forest or woodland habitat within the study area.

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Scientific name	Common name	Conservation status		Most recent database record	Other records	Habitat description	Likely occurrence in study area	Rationale for likelihood ranking
		EPBC	FFG					
Stagonopleura guttata	Diamond Firetail	VU	v		PMST	Open forests and woodlands with a grassy ground layer.	**Low**	No recent records within 10km of the study area. No suitable forest or woodland habitat within the study area.
Climacteris picumnus	Brown Treecreeper	VU			PMST	Open eucalypt forests, woodlands and Mallee, often where there are stands of dead trees.	**Low**	There are no recent records within 5km and there is no suitable habitat. Woodland habitat within the study area is highly modified generally lacks the structural complexity required to support resident populations of the species.
Dasyurus maculatus maculatus (SE mainland population)	Spot-tailed Quoll	EN			PMST	Rainforest and wet and dry sclerophyll forests and woodlands.	**Low**	No recent records within 10km of the study area. No suitable forest or woodland habitat within the study area.

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Scientific name	Common name	Conservation status		Most recent database record	Other records	Habitat description	Likely occurrence in study area	Rationale for likelihood ranking
		EPBC	FFG					
Petauroides volans	Southern Greater Glider	EN	e	1915		Wet and damp sclerophyll forest with large hollow-bearing trees.	**Low**	No recent records within 10km of the study area. No suitable forest habitat within the study area.
Petaurus australis	Yellow-bellied Glider	VU	v		PMST	Sclerophyll forest with large hollow-bearing trees, prefers mature eucalypt dominated forest and woodland. Distributed along South-eastern Australia.	**Low**	No recent records within 10km of the study area. No suitable forest or woodland habitat within the study area.
Potorous tridactylus trisulcatus	Long-nosed Potoroo	VU	v		PMST	Forest, heathy woodlands and heathlands.	**Low**	No recent records within 10km of the study area. No suitable habitat within the study area.
Mastacomys fuscus mordicus	Broad-toothed Rat	EN	v		PMST	Sub-alpine Woodland, Heathland, Sedgeland, and sedge-dominated areas within forest.	**Low**	No recent records within 10km of the study area. No suitable habitat within the study area.
Pseudomys novaehollandiae	New Holland Mouse	VU	e		PMST	Coastal heathland, heathy woodland and dry sclerophyll forest.	**Low**	No recent records within 10km of the study area. No suitable habitat within the study area.

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Scientific name	Common name	Conservation status		Most recent database record	Other records	Habitat description	Likely occurrence in study area	Rationale for likelihood ranking
		EPBC	FFG					
Pseudomys fumeus	Smoky Mouse	EN	e		PMST	Coastal heath and heathy woodland, wet forest, sub-alpine heath and dry sclerophyll forest.	**Low**	No recent records within 10km of the study area. No suitable habitat within the study area.
Isoodon obesulus obesulus	Southern Brown Bandicoot	EN	e		PMST	Heathland, shrubland, sedgeland, heathy open forest and woodland; also exotic vegetation, such as blackberry thickets and rank grasses where native vegetation has been removed.	**Low**	No recent records within 10km of the study area. No suitable habitat within the study area.
Pteropus poliocephalus	Grey-headed Flying-fox	VU	v		PMST	Rainforest, wet and dry sclerophyll forest, woodland and urban areas.	**Low**	No recent records within 10km of the study area. There is limited suitable foraging habitat within the study area.
Aprasia parapulchella	Pink-tailed Worm-Lizard	VU	e		PMST	Woodland and grassland with partially buried rocks.	**Low**	No recent records within 10km of the study area. The species range is limited to the Bendigo and surrounding region.

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Scientific name	Common name	Conservation status		Most recent database record	Other records	Habitat description	Likely occurrence in study area	Rationale for likelihood ranking
		EPBC	FFG					
Lissolepis coventryi	Swamp Skink	EN	e	2007		Densely vegetated swamps and associated watercourses, and adjacent wet heaths, sedgelands and saltmarshes.	**Low**	The only recent records within 10km and the wider region are associated with the Morwell River. There is no suitable swamp, heath, sedgleand or saltmarsh habitat on site.
Litoria raniformis	Growling Grass Frog	VU	v	1973		Still or slow-flowing waterbodies and surrounding terrestrial vegetation.	**Low**	No recent records within 10km of the study area. No connected suitable habitat within the study area.
Uperoleia martini	Martin's Toadlet	EN	cr		PMST	Dry grasslands, woodlands and heathlands at scattered locations on the coastal border of eastern Victoria and New South Wales.	**Low**	No recent records within 10km of the study area. No suitable grassland or heathland habitat within the study area.

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Scientific name	Common name	Conservation status		Most recent database record	Other records	Habitat description	Likely occurrence in study area	Rationale for likelihood ranking
		EPBC	FFG					
Mordacia praecox	Non-parasitic Lamprey	EN		1983		Limited habitat information exists for the species. Species requires aquatic environments.	**Negligible**	No recent records within 10km of the study area. Little is known about the habitat for this species but there is limited aquatic habitat on site to support Lamprey.
Prototroctes maraena	Australian Grayling	VU	e	1998		Adults inhabit cool, clear, freshwater streams.	**Negligible**	No suitable aquatic habitat within the study area.
Galaxiella pusilla	Dwarf Galaxias	EN	e	2023		Slow-flowing or still freshwater wetlands such as swamps, drains and backwaters of streams.	**Negligible**	No suitable aquatic habitat within the study area.
Euastacus bispinosus	Glenelg Spiny Crayfish	EN	e	2003		Cool, shaded, flowing areas of rivers and streams, which have intact riparian vegetation and high water quality.	**Negligible**	No suitable aquatic habitat within the study area.
State significance								
Lewinia pectoralis	Lewin's Rail		v	2023		Swamps, dense riparian vegetation and saltmarsh.	**Low**	No suitable swamp or saltmarsh habitat on site.
Egretta garzetta	Little Egret		e	2018		Swamps, billabongs, floodplain pools, mudflats, mangroves and channels; breeds in trees standing in water.	**Low**	No suitable habitat within the study area.

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Scientific name	Common name	Conservation status		Most recent database record	Other records	Habitat description	Likely occurrence in study area	Rationale for likelihood ranking
		EPBC	FFG					
Ardea intermedia plumifera	Plumed Egret		cr	1980		Densely-vegetated freshwater wetlands including lakes, swamps and billabongs. Breeds in trees standing in water.	**Low**	No suitable habitat within the study area.
Ardea alba modesta	Eastern Great Egret		v	2022		Flooded crops, pasture, swamps, lagoons, saltmarsh, sewage ponds, estuaries, dams, roadside ditches. Breeds in trees standing in water.	**Low**	No suitable habitat within the study area.
Ixobrychus dubius	Australian Little Bittern		e	2018		Freshwater swamps, lakes and rivers with dense reedbeds, saltmarsh and coastal lagoons.	**Low**	No suitable habitat within the study area.
Spatula rhynchotis	Australasian Shoveler		v	2011		Variety of wetlands, with a preference for large, permanent, freshwater lakes/swamps with dense fringing vegetation.	**Low**	No suitable habitat within the study area.
Oxyura australis	Blue-billed Duck		v	2019		Open or densely vegetated wetlands.	**Low**	No suitable habitat within the study area.
Biziura lobata	Musk Duck		v	2011		Deep, permanent freshwater wetlands with areas of open water and patches of dense aquatic vegetation.	**Low**	No suitable habitat within the study area.
Accipiter novaehollandiae	Grey Goshawk		e	1999		Rainforest, gallery forest, tall wet forest and woodland. Also partially cleared agricultural land.	**Low**	No suitable habitat within the study area.
Hieraaetus morphnoides	Little Eagle		v	2004		Woodland and open areas. Rabbits are a key component of their diet. Nesting occurs in mature trees in open woodland or riparian vegetation.	**Medium**	There are multiple recent records within 10km of the study area. There is some suitable habitat within the study area.

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Scientific name	Common name	Conservation status		Most recent database record	Other records	Habitat description	Likely occurrence in study area	Rationale for likelihood ranking
		EPBC	FFG					
Haliaeetus leucogaster	White-bellied Sea-Eagle		e	2019		Coastal areas such as beaches and estuaries, inland wetlands and major inland streams.	**Medium**	There are multiple recent records within 10km of the study area. There is some suitable habitat within the study area.
Falco subniger	Black Falcon		cr	2001		Woodlands, open country and around terrestrial wetlands areas, including rivers and creeks. Primarily occurs in arid and semi-arid zones in the north, north-west and west of Victoria.	**Medium**	There are multiple recent records within 10km of the study area. There is some suitable perching habitat where the species may forage on occasion, but limited habitat for nesting. The species is mostly found further north and north-west in Victoria.
Ninox connivens	Barking Owl		cr	2000		Eucalypt forests and woodlands.	**Low**	No suitable forest or woodland habitat within the study area.
Ninox strenua	Powerful Owl		v	2008		Eucalypt forests and woodlands, well-treed urban areas.	**Low**	No suitable forest or woodland habitat within the study area.

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Scientific name	Common name	Conservation status		Most recent database record	Other records	Habitat description	Likely occurrence in study area	Rationale for likelihood ranking
		EPBC	FFG					
Hydroprogne caspia	Caspian Tern		v	2017		Estuaries, inlets, bays, lagoons, inland lakes, flooded pasture, sewage ponds.	**Low**	No suitable aquatic habitat within the study area.
Phascogale tapoatafa	Brush-tailed Phascogale		v	1932		Drier sclerophyll forests and woodlands.	**Low**	No suitable forest or woodland habitat within the study area.
Ornithorhynchus anatinus	Platypus		v	2021		A variety of freshwater waterbodies, particularly those with stable banks suitable for burrows, and shallow waters for foraging.	**Low**	No suitable habitat within the study area.
Pseudemoia rawlinsoni	Glossy Grass Skink		e	2008		Damp environments like drainage lines, soaks and the margins of creeks, particularly in dense vegetation including rank grass, reeds and sedges. Also the fringes of coastal saltmarshes.	**Low**	No suitable habitat within the study area. The understorey of the study area is primarliy pasture grasses with a history of cropping disturbance.
Nannoperca sp. 1	Flinders Pygmy Perch		v	2023		Slow flowing, deep shaded pool with abundant instream aquatic vegetation. A population occurs east of the La Trobe River in Gippsland.	**Low**	No suitable habitat within the study area.

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Scientific name	Common name	Conservation status		Most recent database record	Other records	Habitat description	Likely occurrence in study area	Rationale for likelihood ranking
		EPBC	FFG					
Trapezites luteus luteus	Yellow Ochre Butterfly		e	1952		There is limited habitat information for the species.	**Low**	No suitable habitat within the study area. Although little is known about the habitat requirements for the species, the study area has a history of disturbance and limited native diversity in the understorey.

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Appendix 2.3 Migratory species (EPBC Act listed)

Table 13 Migratory fauna species recorded or predicted to occur within 10 km of the study area

Scientific name	Common name	Most recent record
Migratory species		
Gallinago hardwickii	Latham's Snipe	2014
Plegadis falcinellus	Glossy Ibis	1995
Hirundapus caudacutus	White-throated Needletail	2001
Apus pacificus	Fork-tailed Swift	2001
Hydroprogne caspia	Caspian Tern	2017
Tringa nebularia	Common Greenshank	PMST
Calidris ferruginea	Curlew Sandpiper	PMST
Calidris acuminata	Sharp-tailed Sandpiper	1978

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Appendix 3 Photos of the study area



Photo 1 **Predominantly introduced vegetation within the proposed impact footprint; looking approximately south (see Figure 3).**



Photo 2 **Predominantly introduced vegetation within the proposed impact footprint; looking approximately west (see Figure 3).**

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Photo 3 **Plains Grassy Forest EVC 151 – Habitat Zone 1; looking approximately south-west (see Figure 2).**



Photo 4 **Tall Marsh EVC 821– Habitat Zone 2; looking approximately north-west (see Figure 2).**

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Photo 5 **Plains Grassy Forest EVC 151 – Habitat Zone 3; looking approximately south-east (see Figure 2).**



Photo 6 **Plains Grassy Forest EVC 151 – Habitat Zone 4; looking approximately east (see Figure 2).**

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Photo 7 **Plains Grassy Forest EVC 151 – Habitat Zone 5; looking approximately north (see Figure 2).**



Photo 8 **Large, scattered River Red-gum *Eucalyptus camaldulensis* –looking approximately west (see Figure 2)**

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