ABZECO
Applied Botany, Zoology & Ecological Consulting

Biodiversity Assessment Report

Bacchus Marsh Grammar – Staughton Vale Campus

155 Staughton Vale Road, Staughton Vale

Prepared for Urbis on behalf of Bacchus Marsh Grammar

Report 25083.1, Version 1.2

June 2026

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Contents

Version Control

Version	Responsibility	Name	Date	Signature
1.0	Field Assessment & Reporting	Alistair Smith	15/11/2025	
1.0	Field Assessment	Will Cuthbert	15/11/2025	
1.0	GIS Mapping	Lachlan King	20/11/2025	
1.0	Internal Review	Wendy Jeffery	06/12/2025	
1.0	External Review	Ewan Wymer (Urbis	16/01/2026	
1.1	Report Update	Alistair Smith	12/02/2026	
1.2	Report Update	Alistair Smith	02/06/2026	

Front cover image: Bacchus Marsh Grammar Staughton Vale Campus (Abzeco 15/11/2025)

1 Introduction

Abzeco was commissioned by Urbis to prepare a Biodiversity Assessment Report to inform a Planning Permit application with the City of Greater Geelong for a proposed development at the Bacchus Marsh Grammar, Staughton Vale campus, located at 155 Staughton Vale Road, Staughton Vale (Lot 1 TP963816).

The proposed development (Figure 3) includes the construction of:

- A new multipurpose education building;
- A new twenty-four space car park;
- Three bus drop-off areas (located outside the new building); and,
- A natural playground/open play area.

The Biodiversity Assessment is based on the most recent development plans provided for the site. A series of drawings were provided by Urbis that have provided the basis of this report (GoDesign, 2025). The primary purpose of the development is to accommodate a permanent primary school on the site and enable additional students to visit for event days.

The purpose of the Biodiversity Assessment is to identify and document the extent and condition of native vegetation (patches and/or scattered trees), listed ecological communities and habitat for threatened flora and fauna species, as well as to recommend further investigations if required, in relation to the proposed development.

The following report presents the results of the field assessment discusses potential impacts associated with the proposed works and details relevant Commonwealth, State and local legislative implications and approvals required as part of the project. In particular, the report is intended to inform the planning process, providing an assessment of implications in accordance with the *Guidelines for the removal, destruction and lopping of native vegetation* (the Guidelines, DEECA 2025f). Other relevant legislation requiring consideration is the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act), State *Flora and Fauna Guarantee Act 1988* (FFG Act) and *Catchment and Land Protection Act 1994* (CaLP Act).

1.1 Study Area and Surrounding Context

The subject property is irregular-shaped and covers approximately 83.48 hectares (Figures 1 and 2). Based on the Department of Energy, Environment and Climate Action (DEECA) Native Vegetation Removal (NVR) Tool (DEECA 2025a), the study area occurs within the City of Greater Geelong, the Melbourne Water Catchment Management Authority (MWCMA) and across two bioregions, these being the Victorian Volcanic Plain and the Central Victoria Uplands.

The entire land parcel is scheduled to the Farm Zone (FZ). The land is also entirely covered by the Significant Landscape Overlay – Schedule 5 (SLO5) and partially by the Bushfire Management Overlay (BMO) (DTP 2025).

Most built infrastructure is restricted to the southern portion of the site and includes classrooms, staff facilities, driveways and internal roads/tracks, water-tanks, maintenance buildings, sheds and orchards. The subject land also supports several farm dams. Access to the study area is gained from Staughton Vale Road to the east of the subject land via an existing mineral-earth driveway.

The study area is effectively surrounded by agricultural land to its north, east and south. The study area is contiguous with a large tract of intact native vegetation that makes up the Brisbane Ranges to north-west and west. Much of the subject land is managed as pasture, however several patches of remnant vegetation, a number of scattered trees, and areas of revegetation occur across the subject land.

The topography of the subject land varies from flat, to undulating and hilly with the highest point at approximately 340 m above mean sea level (AMSL) and the lowest areas at approximately 220 m AMSL. The topography of the proposed development footprint is effectively flat and situated on the lower eastern reaches of the subject land. It does not include any crests, ridges, hilltops or slopes exceeding 20% within or adjoining the study area. Several mapped waterways and waterbodies occur within the subject land.

Historical aerial imagery interpretation suggests that vegetation composition and cover has barely altered over the majority of the site for the past few decades, and it does not appear that any vegetation has been removed or destroyed within the past five years (Captures 1 and 2).

Capture 1: 155 Staughton Vale Road, imagery dated March 2019 (Source: Google Earth Pro 2025©)

Capture 2: 155 Staughton Vale Road, imagery dated March 2024 (Source: Google Earth Pro 2025©)

Study Area

Parks and Conservation Reserves

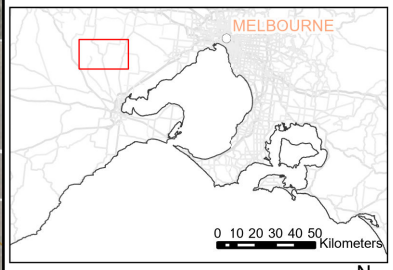
Watercourse

Waterbody

Contour (10m)

ADVERTISED PLAN

Figure 1
Location of Study Area
155 Staughton Vale Road, Staughton Vale



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Date: 19/11/2025 Scale: 1:50,000 (A4)
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Project: 25083
File: 25083_Urbis_BacchusMarshGrammarSchool
Note: Location of property boundaries, watercourse, roads and topography indicative only.

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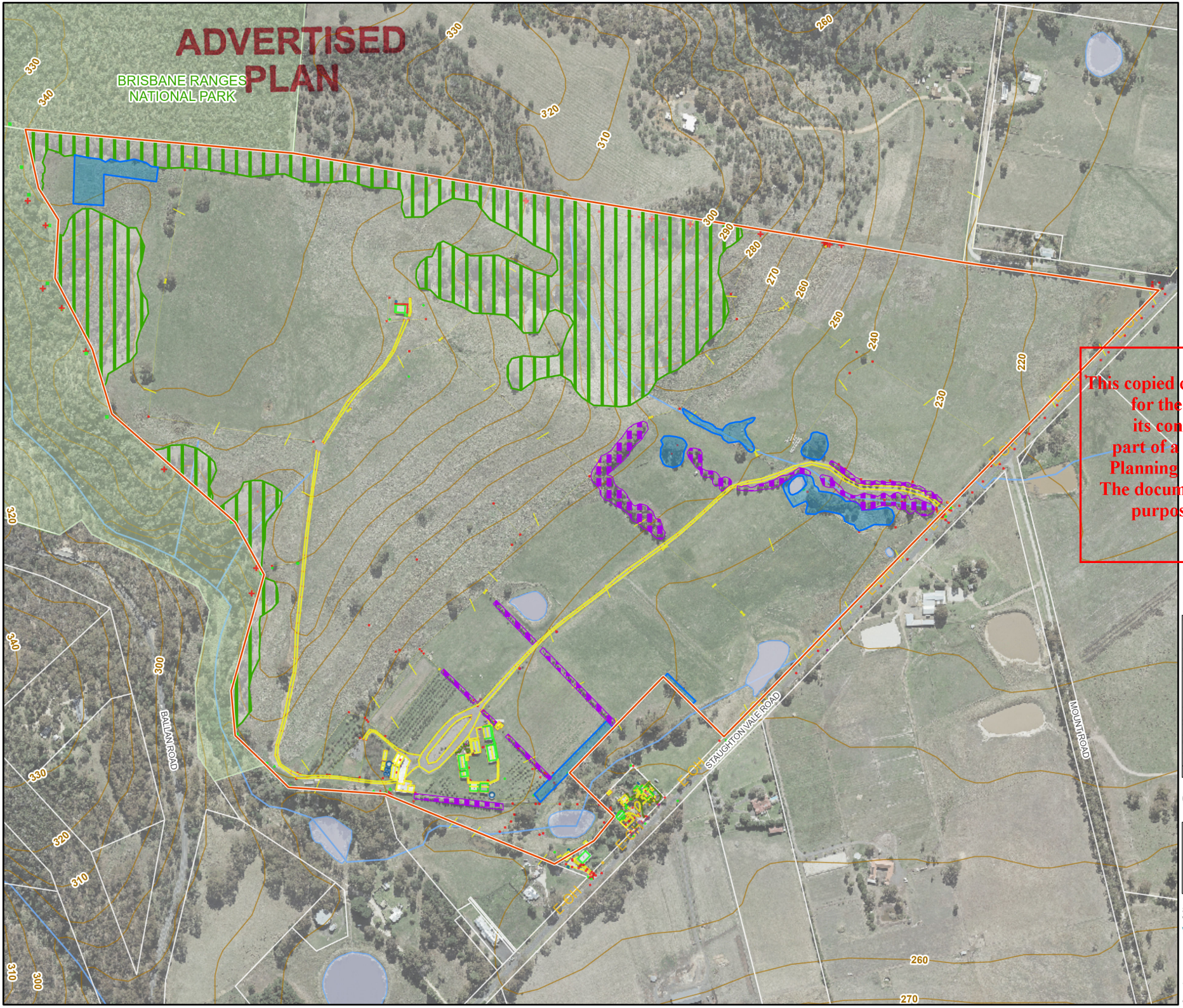


Study Area

Approximate extent of native vegetation

Approximate extent of revegetation zones as indicated by Bacchus Marsh Grammar

Other Amenity Plantings

Parks and Conservation Reserves

Watercourse

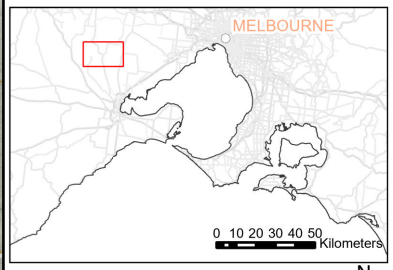
Waterbody

Contour (10m)

Figure 2

Existing Site Conditions

155 Staughton Vale Road, Staughton Vale



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Note: Location of property boundaries, watercourse, roads and topography indicative only.

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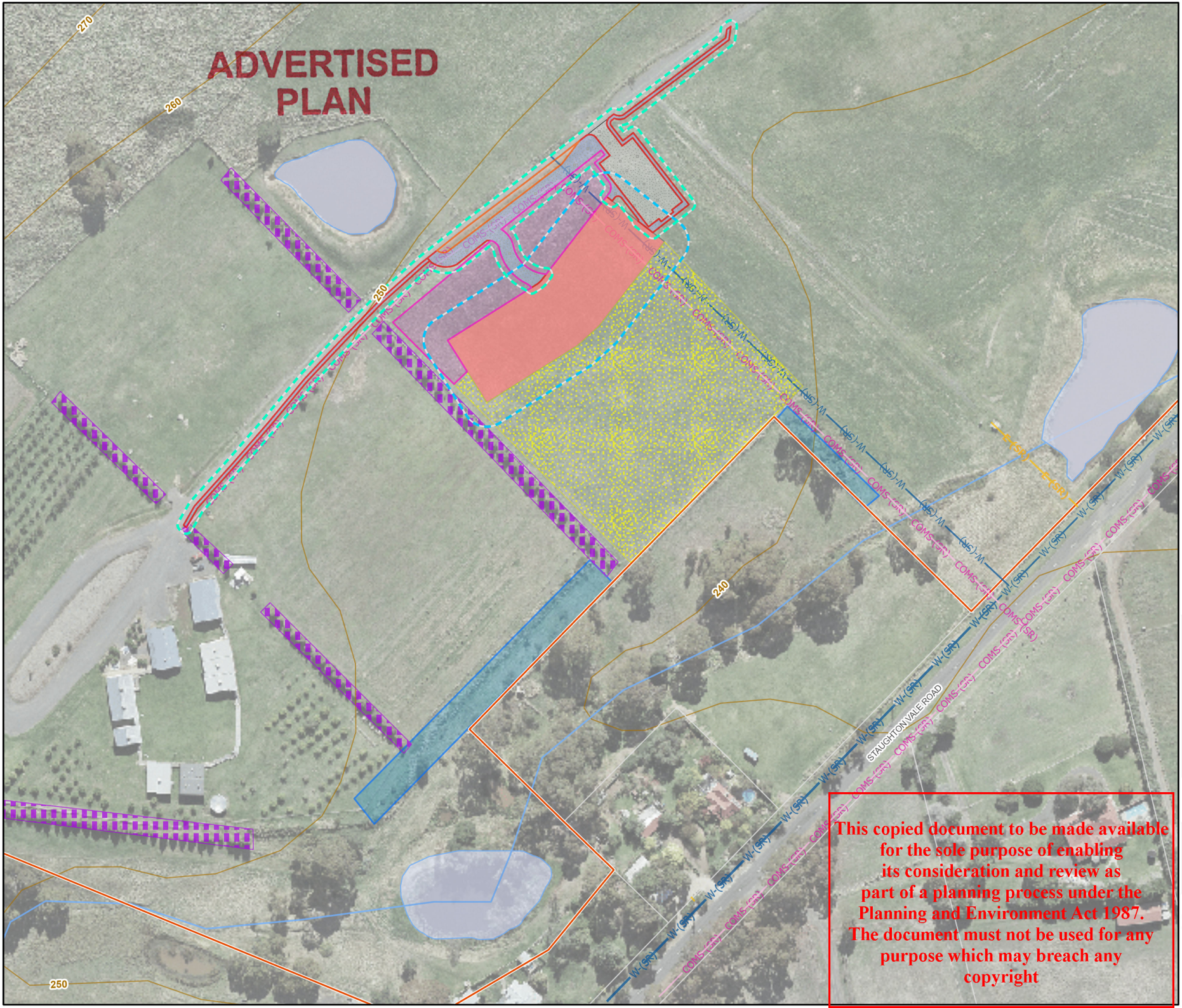

Study Area

Construction Buffer - Learning Centre (10m)

Construction Buffer - Footpath, Car Park and Bus Bays (2.5m)

Proposed Learning Centre Building

Proposed Carpark

Proposed Footpath

Proposed Bus Bays

Proposed Playing Field

Proposed Playspace

["SERVICE RECORDS_ELECTRICAL",4

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["SERVICE RECORDS_WATER",152,"S

Approximate extent of revegetation zones as indicated by Bacchus Marsh Grammar

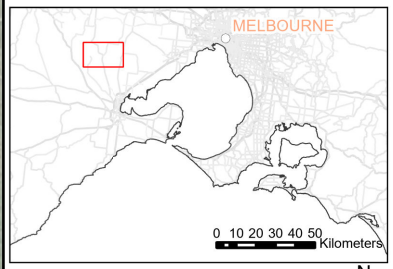
Other Amenity Plantings

Watercourse

Waterbody

Contour (10m)

Figure 3
Proposed Development Plans
155 Staughton Vale Road, Staughton Vale



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Project: 25083
File: 25083_Urbis_BacchusMarshGrammarSchool-A

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2 Methods

2.1 Literature Review

Relevant literature and online databases were reviewed prior to the field assessment to obtain information on known ecological values associated with the study area, including the following:

- The Victorian Department of Energy, Environment and Climate Action (DEECA) Native Vegetation Removal (NVR) Tool (DEECA 2025a) and NatureKit (DEECA 2025b) for modelled data for Location categories (1, 2 and 3), habitat importance mapping for rare and threatened flora and fauna, and the modelled extent of current and historic Ecological Vegetation Classes (EVCs);
- EVC benchmarks for descriptions and characteristics of each bioregion (DEECA 2025c);
- The Victorian Biodiversity Atlas (VBA) for previously documented records of flora and fauna in the locality (DEECA 2025d);
- The Commonwealth Department of Climate Change, Energy, the Environment and Water (DCCEEW) Protected Matters Search Tool (PMST) for matters of National Environmental Significance (NES) listed under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act; DCCEEW 2025);
- Relevant literature, including the following:
    - The Guidelines (DEECA 2025f) and other explanatory documents relating to measuring value of native vegetation (DEECA 2-25a), the Assessor's Handbook (DEECA 2025g), Applicant's Guide (DEECA 2023) and relevant planning permit exemptions (DELWP 2017c); and,
- The VicPlan Maps Online (DTP 2025a) and VicPlan (DTP 2025b) for the zoning and overlays relevant to the study area;
- The latest Threatened List (DEECA 2025e) under the Victorian *Flora and Fauna Guarantee Act 1988* (FFG Act);
- Aerial photography of the study area.

2.2 Nomenclature and Taxonomy

Scientific and common names of plants follow the determinations of Walsh and Stajsic (2007), the Flora of Victoria Online (VicFlora 2025) and the VBA (DEECA 2025d). Names of plants are generally introduced in-text by use of the common name followed by the scientific name, and subsequently only refer to the common name.

Where an asterisk (*) appears in-text as a prefix to all scientific names (flora and fauna), this indicates the entity to be exotic to Victoria or Australia. A hash (#) prior to a plant scientific name denotes those species native to Australia or Victoria but non-indigenous to the study area or to the relevant vegetation type.

2.3 Field Assessment

The field assessment was conducted on 15 November 2025. The Diameter at Breast Height (DBH) of trees were measured at 1.3 metres above ground height in accordance with Clause 52.17 of the

Victorian Planning Provisions and the *Guidelines* (DEECA 2025f), and a list of observed vascular flora species and fauna was compiled, with notes made of any incidental observations of any rare or threatened species or their habitat.

Ecological Vegetation Classes (EVCs) were determined using modelled pre-1750s and extant EVC mapping and published descriptions (DEECA 2025b, 2025c). The extent of native vegetation within the study area was mapped using ArcGIS version 10 and FieldMaps™ software, with GPS accuracy of +/-3 metres.

Where a patch of native vegetation was present, a habitat hectare assessment was conducted in accordance with the *Vegetation Quality Assessment Manual: Guidelines for applying the habitat hectares scoring method, Version 1.3* (DSE 2004).

2.4 Biodiversity Assessments Under the Guidelines 2017

Clause 52.17 of the Victorian Planning Provisions and the Victorian *Guidelines for the removal, destruction and lopping of native vegetation* (the Guidelines) are publicly available documents covering regulatory and technical requirements of assessing applications that propose to impact native vegetation. The NVR tool (DEECA 2025a) provides additional supporting information to assess applications that may impact native vegetation.

In accordance with the *Guidelines* (DEECA 2025f), native vegetation is defined by two categories (patches and scattered trees) as outlined below.

Patch

A patch of native vegetation is either (DEECA 2025f):

- An area of vegetation where at least 25% of the total perennial understorey plant cover is native;
- Any area with three (3) or more native canopy trees where the drip line of each tree touches the drip line of at least one other tree, forming a continuous canopy; or,
- Any mapped wetland included in the Current wetlands map (DEECA 2025f; 2025g).

The extent of patches (in hectares) is determined during a field assessment.

Scattered Trees

A native canopy tree that does not form part of a patch.

Scattered trees are assigned to two size classes (Large or Small) based on the Diameter at Breast Height (DBH) benchmark in the applicable EVC (DEECA 2025f). Trees greater than or equal to the Large tree benchmark DBH are considered Large, while trees below the Large tree benchmark DBH are classified as Small.

A Large tree is assigned a default extent of 0.070 hectares (15 metre radius), while a Small tree has a default extent of 0.031 hectares (10 metre radius; DEECA 2025f; 2025g).

2.4.1 Assessment Pathways

An application to remove, destroy or lop native vegetation must be classified as being in the Basic, Intermediate or Detailed assessment pathway, as defined in the Guidelines (DEECA 2025f). The assessment pathway is determined by the modelled Location category (1, 2 or 3) and extent of native vegetation proposed for removal. The total extent is the combined area in hectares of patches and any scattered trees. The applicable assessment pathway is used to

determine the level of information required to adequately inform the biodiversity and planning application assessment process (DEECA 2025f).

Determination of the assessment pathway based on relevant criteria is summarized in Table 1.

Table 1. Assessment pathway matrix (DEECA 2025f)

Extent of native vegetation	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

Note: *The determination of the assessment pathway includes any other native vegetation that was approved to be removed, or that was removed without the required approvals, on the same property or on contiguous land in the same ownership as the applicant, in the five-year period before the application for a permit is lodged (DEECA 2025f).

The three assessment pathways are defined according to the potential impact on biodiversity in Victoria (DEECA 2025f):

- **Basic** – limited impacts on biodiversity;
- **Intermediate** – could impact on large trees, endangered EVCs, and sensitive wetlands and coastal areas; and,
- **Detailed** – could impact on large trees, endangered EVCs, sensitive wetlands and coastal areas and could significantly impact on habitat for rare or threatened species.

The three Location categories are shown on the NVR tool (DEECA 2025a) and indicate the potential risk to biodiversity from removing a small amount of native vegetation (DEECA 2025f). The Location categories have the following attributes:

- **Location 3** – includes locations where the removal of less than 0.5 hectares of native vegetation could have a significant impact on habitat for a rare or threatened species;
- **Location 2** – includes locations that are mapped as endangered EVCs and/or sensitive wetlands and coastal areas (section 3.2.1) and are not included in Location 3; and,
- **Location 1** – includes all remaining locations in Victoria not included within Location categories 2 or 3.

2.4.2 Native Vegetation Offsets

Offsets are required for any approved removal of native vegetation and are stipulated as a condition on the relevant planning permit. The Guidelines define two types of offsets, General and Species. General offsets are required for all approved removal of native vegetation. Species offsets apply under circumstances where there is proportional impact of the removal of native vegetation on modelled habitat for a rare or threatened species (DEECA 2025f). Where both General and Species offsets are specified, both must be sourced to meet offset requirements.

In addition to General and Species offsets, the offset requirement includes the protection of at least one Large tree for every Large tree being removed. The requirement applies to Large trees in patches as well as scattered trees.

DEECA calculate the offset requirements based on the native vegetation condition scores (from the field-based habitat hectare assessment or the NVR tool) and modelled biodiversity information. The results are summarised in the Native Vegetation Removal Report (NVRR) generated from the NVR tool.

An application to remove native vegetation must include an offset strategy that identifies the required offset is available and how the offset will be secured if a permit is granted. Offsets can be secured by obtaining a credit extract from the Native Vegetation Credit Register or establishing and registering a new offset site (first or third party).

2.5 Avoid and Minimise Statement

An avoid and minimise statement is required for all applications under the Guidelines (DEECA 2025f). The statement should describe any actions taken to avoid and minimise impacts on the biodiversity and other values of native vegetation.

Emphasis is placed on the avoidance and minimisation of impacts to areas of native vegetation that have the most value (DEECA 2025a, 2017c). Areas of higher value are generally those containing large, intact or high-quality native vegetation (have a high condition score [0.60 or above] and Strategic Biodiversity Value score), areas supporting endangered EVCs, sensitive wetlands or coastal areas, have large and hollow-bearing trees and/or are designated by modelled Location categories 2 or 3 (DEECA 2025f; DEECA 2025a).

Other values include the role of native vegetation in ensuring land and water protection, protection of landscape values Aboriginal cultural heritage values (DELWP 2017c).

The following information should be provided in the statement where relevant:

- Strategic level planning – any regional or landscape scale strategic planning process that the site has been subject to that avoided and minimised impacts on native vegetation across a region or landscape;
- Site level planning – how the proposed use or development has been sited or designed to avoid and minimise impacts on native vegetation; and,
- That no feasible opportunities exist to further avoid and minimise impacts on native vegetation without undermining the key objectives of the proposal.

There are also instances where a statement outlining consideration of avoidance and minimisation of impacts on ecological values is required, such as under various Environmental Significance Overlays and Significant Landscape Overlays.

2.6 Survey Limitations

The flora survey was conducted on 15 November 2025, which is typically an optimal period for the identification of flora taxa, particularly spring-flowering herbs.

Biodiversity assessments generally do not capture all flora and fauna species present in the study area. Time and seasonal constraints, the lack of diagnostic features, especially when flora species are not flowering or transient fauna, can result in some species being absent or overlooked in short-term studies. For example, some rare and threatened orchids only flower intermittently and when not in flower may be very inconspicuous. Observations of fauna species are likewise limited by weather conditions, seasonality and the cryptic nature of some species.

Targeted surveys for rare or threatened flora and fauna species and detailed zoological survey comprising a range of techniques over different seasons were not conducted, as these tasks were beyond the scope of works.

Despite the stated limitations the timing of the survey and condition of the vegetation was considered suitable to ascertain the extent and condition of the native vegetation and provide an

indication of species diversity in the study area. The overall results of the field assessment are therefore considered sufficient to inform the planning application for the proposed upgrade works.

3 Flora Results

3.1 Description of Vegetation

A total of 156 vascular plant species were recorded within the subject land, this number was comprised of 88 indigenous species, two (2) Victorian native species not considered indigenous to the study area, and 66 exotic species (Appendix 1).

The vegetation across the subject land varies considerably in composition and quality. Much of the subject land (including the proposed development footprint is dominated by exotic pastures punctuated by a variety of weedy exotic species (Photos 1 and 2). The development footprint is dominated by exotic species, including a high-proportion of broadleaf weeds such as Sheep Sorrel **Acetosella vulgaris*, Ribwort **Plantago lanceolata,* Flatweed **Hypochaeris radicata,* and a variety of exotic pasture grasses. Areas associated with the built school infrastructure supports planted vegetation of various origins, included in orchard and market garden area (Photos 3 and 4). A number of exotic species within the school zone were not recorded as they were not considered relevant to the development footprint or the broader site context.

Discrete patches of native vegetation seldom occur within the pastures. Where native vegetation does occur within the pastures it is generally restricted to areas unfavourable to livestock and cropping such as rocky outcrops and steep slopes (Photos 5 and 6). These discrete areas continue to support a variety of native herbs and grasses such as Kangaroo Grass *Themedra triandra,* Spear-grass *Austrostipa* spp., Soft Tussock-grass *Poa morrisii*, Rough Crane's Bill *Geranium gardneri*, and Bronze Bluebell *Wahlenbergia luteola*. An area of intact native forest is located on the western boundary and is contiguous with the vegetation of Brisbane Ranges National Park this area supported species such as Austral Grass Tree *Xanthorrhoea australis,* Sun Orchid *Thelymitra* sp., Fireweed Groundsel *Senecio linearifolius,* and several eucalypts *Eucalyptus* spp. Additionally the large gully supports modified native vegetation including several eucalypts *Eucalyptus* spp., Blackwood *Acacia melanoxylon,* Fragrant Saltbush *Rhagodia parabolica* and Black Wattle *Acacia mearnsii,* and Austral Bracken *Pteridium esculentum* subsp. *esculentum.* The groundstorey along the gullies is highly modified and dominated by exotic species including grasses and broadleaved weeds.

The subject land supports a high diversity of weeds including at least thirteen listed under the CaLP Act, these species included species such as Serrated Tussock **Nasella neesiana* (Photo 11), Paterson's Curse **Echium plantagineum* (Photo 12), Boneseed **Chrysanthemoides monilifera,* and Horehound **Marrubium vulgare.* See Appendix 1 for the complete species list.

Photo 1: The pastures across much of the property are dominated by exotic grasses and herbs (Abzeco 15/11/2025)

Photo 2: Parts of the study area have been subject to historic cropping and tilling of soil (Abzeco 15/11/2025)

Photo 3: The study area features orchards and food production areas (Abzeco 15/11/2025)

Photo 4: Vegetation planted for amenity purposes occurs throughout the developed parts of the subject land (Abzeco 15/11/2025)

Photo 5: Stony ridgelines feature a high proportion of native vegetation likely as a result of stock avoiding these areas while grazing and the terrain being unsuitable for tilling (Abzeco 15/11/2025)

Photo 6: Native Kangaroo Grass *Themedra triandra* and Bronze Bluebell *Wahlenbegia luteola* persisting amongst rocks (Abzeco 15/11/2025)

Photo 7: A stand of remnant Grass Trees *Xanthorrhoea australis* occurs in a patch of remnant native vegetation in the western side of the property where it adjoins Brisbane Ranges National Park (Abzeco 15/11/2025)

Photo 8: A remnant patch of vegetation situated on the western side of the subject land (Abzeco 15/11/2025)

Photo 9: Modified native vegetation within the gullies of the subject land (Abzeco 15/11/2025)

Photo 10: Modified native vegetation within the gullies of the subject land (Abzeco 15/11/2025)

Photo 11: Infestations of Serrated Tussock were recorded within the subject land (Abzeco 15/11/2025)

Photo 12: CaLP Act-listed weeds including Paterson's Curse were recorded within the subject land (Abzeco 15/11/2025)

3.2 Patches of Native Vegetation

No patches of native vegetation are relevant to the development footprint.

3.3 Scattered Trees

The subject land supports a variety of scattered indigenous trees; however, the specimens have not been explicitly mapped as they are not relevant to the proposed development area.

3.4 Rare and Threatened Flora Species

One species listed as Vulnerable under the FFG Act – Fragrant Saltbush *Rhagodia parabolica* (Photo 12) —is recorded within the study area. The Victorian Biodiversity Atlas (VBA) contains records for 34 FFG Act-listed species and two species listed under both the EPBC Act and FFG Act within a 5 km radius of the study area (DEECA 2025d; Appendix 2). Many of these records are likely associated with vegetation communities within the adjoining Brisbane Ranges National Park. Given the extensive land-use modification across the subject land, it is unlikely that most of these species persist outside areas of remnant vegetation.

Photo 13: Fragrant Saltbush listed as vulnerable under the FFG Act is recorded within the subject land (Abzeco 15/11/2025)

Areas where native forests have been replaced by managed pasture no longer provide habitat for easily detectable species such as shrubs and trees, which can be effectively discounted. More cryptic taxa such as orchids are also unlikely to persist in these settings due to weed competition and the impacts of past grazing. Threatened species, if present, would be expected to occur only within patches of intact remnant vegetation, particularly the contiguous forest in the western portion of the subject land or in areas historically excluded from intensive agriculture. However, no additional threatened flora species were detected in these areas during the site assessment.

The PMST search flags 21 EPBC Act-listed species or species habitats that have potential to occur within the search area (DCCEEW 2025). Many of the species captured in this search result are associated with grassland and grassy woodland ecosystems, and the vegetation within the Brisbane Ranges National Park, this includes species such as:

- Matted Flax-lily *Dianella amoena* – EPBC Endangered;
- Sunshine Diuris *Diuris fragrantissima* – EPBC Endangered;
- Spiny Rice-flower *Pimelea spinescens* subsp. *spinescens* – EPBC Critically Endangered;
- Button Wrinklewort – *Rutidosis leptorhynchoides* – EPBC Endangered; and,
- Large-fruited Groundsel *Senecio macrocarpus* – EPBC Vulnerable.

No threatened flora species were recorded within the proposed development footprint, nor was suitable habitat for such species identified. Given the absence of EPBC and FFG Act-listed flora and the history of cropping and agricultural modification, significant impacts to listed flora are unlikely. Accordingly, targeted surveys for threatened flora species are not considered necessary to support the proposed works.

3.5 Determination of Listed Ecological Communities

The EPBC Act PMST (DCCEEW 2025) identifies four significant ecological communities as having the potential to occur within the local area including:

1) *Grassy Eucalypt Woodland of the Victorian Volcanic Plain (Critically Endangered);*
2) *Grey Box (Eucalyptus microcarpa) Grassy Woodlands and Derived Native Grasslands of South-eastern Australia (Endangered);*
3) *Natural Temperate Grassland of the Victorian Volcanic Plain (Critically Endangered); and,*
4) *White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland (Critically Endangered.*

In its current state, the vegetation occurring within the development footprint does not meet the condition thresholds and character descriptions of any EPBC Act-listed ecological communities.

4 Fauna Results

4.1 Fauna Habitat

The quality and estimated value of habitat for fauna within the study area was determined by assessment against the criteria described below.

Habitat quality classification

Low: Habitat areas classed as being of low quality are usually fragmented and have lost most structural elements such as tussock/hummock forming grasses or sedges, inter-tussock spaces, understorey shrubs, logs, rocks and hollow-bearing trees. Connectivity with higher quality patches may be limited or absent. Such patches are generally weed infested, have little or no natural regeneration and remaining indigenous species are under threat from invasive exotic species. No species of conservation significance are known or likely to occur there.

Moderate: Some structural elements have been lost, and invasive species may not be dominant over indigenous species but pose a significant threat. There is some connectivity with adjacent habitat of equal or greater quality. The patch may provide suitable habitat for fauna of conservation significance known or likely to occur in the area.

High: Most structural elements for fauna are present, understorey species are generally healthy, and most life forms may be present. The patch is part of a mosaic of reasonably contiguous vegetation with connectivity to other areas of habitat. The patch provides suitable habitat for fauna of conservation significance known or likely to occur in the area, even if dominated by weeds.

4.2 Habitat Types and Assessment of Quality

The entire site is relatively large (approximately 83 hectares), and habitat quality varies drastically across its expanse. The proposed development footprint has only low-quality habitat values. The area has been historically cropped and supports no native vegetation or habitat structure considered suitable for threatened fauna. It lacks most features of moderate to high-quality habitat. This area provides only limited foraging opportunities to highly mobile species adapted to modified environs such as Australian Magpie *Cracticus tibicen.*

4.3 Habitat Suitability for Rare and Threatened Fauna

No EPBC Act or FFG Act-listed fauna species were recorded during the field assessment.

The VBA contains previous records for eleven fauna species listed under the FFG and EPBC Act and an additional 13 species list solely under the FFG Act within a 5 km radius of the study area (DEECA 2025d). A complete list is included as Appendix 4. None of the records are known to pertain to the immediate study area (possibly due to a lack of historical surveys), with most records likely be relevant to the Brisbane Ranges. Records include:

- Brown Treecreeper *Climacteris picumnus* (EPBC Vulnerable, FFG Vulnerable) last recorded 2019;
- Brush-tailed Phascogale *Phascogale tapoatafa* (FFG Vulnerable) last recorded 2019;
- Speckled Warbler *Pyrrholaemus sagittatus* (FFG Vulnerable) last recorded 2019;
- Diamond Firetail *Stagonopleura guttata* (EPBC Vulnerable, FFG Vulnerable) last recorded 2018;
- Hooded Robin *Melanodryas cucullata* (EPBC Endangered, FFG Endangered) last recorded 1980; and,
- Brown Toadlet *Pseudophryne bibronii* (FFG Endangered) last recorded 1989.

If present, these species would be expected to utilize the more wooded area of the subject land such as those contiguous with the vegetation of the Brisbane Ranges. Significant impacts to these species and their habitat are unlikely to result from the proposed development.

The PMST search results cites 30 EPBC Act-listed species as having a likelihood of occurring within 5 km of the subject land (Appendix 4). None of the listed species are considered relevant to the proposed development footprint.

No habitat for threatened species is considered to be present within the development footprint. Accordingly, targeted surveys for threatened fauna species are not considered necessary to support the proposed works.

5 Native Vegetation Impacts

5.1 Vegetation Quality Assessment (Habitat Hectares)

No assessable native vegetation is relevant to the proposed development footprint.

5.2 Proposed Native Vegetation Removal

Based on the current design plans, no native vegetation is expected to be impacted or removed. The proposed development footprint supports only exotic vegetation.

5.3 Offset Requirements

Under the current design plans no offsets are required.

6 Legislation and Regulations

The key biodiversity protection legislation and regulations potentially relevant to the study area are the Commonwealth Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act), the Victorian *Flora and Fauna Guarantee Act 1988* (FFG Act), the *Catchment and Land Protection Act 1994* (CaLP Act), and the City of Greater Geelong planning scheme (DTP 2025b). The *Guidelines* (DEECA 2025f) is the principal document that informs biodiversity regulation under the planning scheme.

The implications and requirements associated with the relevant legislation are summarised below.

6.1 *Environment Protection and Biodiversity Conservation Act 1999*

The *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) is the primary Commonwealth legislation for environment protection. Under the EPBC Act, an action will require approval from the Commonwealth Minister for the Environment if it has, will have, or is likely to have a significant impact on a matter of National Environmental Significance (NES) and it is not subject to certain specified exceptions.

Matters of NES trigger the Commonwealth's environmental assessment and approval responsibilities. These matters are World Heritage properties, National Heritage Places, Ramsar wetlands of international importance, nationally listed threatened species and ecological communities, migratory species protected under international agreements, the Commonwealth marine environment, the Great Barrier Reef Marine Park, nuclear actions and water resources (coal seam gas development and large coal mining development).

If a project is likely to have a potential significant impact on a matter of NES, a referral to the Commonwealth Minister for the Environment is required. If the Minister considers it likely that a proposed action may have a significant impact on matters of NES, the action may be considered 'controlled' and requires a detailed assessment and the granting of a permit to proceed (DOE 2013).

Implications

EPBC Act-listed flora, fauna, and communities were not recorded in the study area and are not expected to utilise the development footprint given that its level of modification. Targeted surveys for EPBC listed flora and fauna species are therefore not recommended.

6.2 *Flora and Fauna Guarantee Act 1988*

The *Flora and Fauna Guarantee Act 1988* (FFG Act) is the primary State legislation for the protection of native plants, animals and ecological communities on public land and water in Victoria. Species and ecological communities can be listed as threatened under the Act based on determination by an independent Scientific Advisory Committee. Threatening processes may also be listed.

Vegetation communities, plants, animals and other taxa may be listed under the FFG Act if they are known to be in decline or under the threat of extinction. Listing is intended to protect threatened taxa or communities from further threats to their survival on public land in Victoria. Threatened taxa are listed under Section 10 (Schedule 2) of the Act. Whilst not immediately threatened, a number of species, genera and families of plants are protected under Section 46 of the Act to protect them from unauthorised clearing, harvesting and collection on public land.

A permit under the FFG Act is required to take (kill, injure, disturb or collect) Restricted Use Protected Flora (under Sections 47 and 47A), Generally Protected Flora (under Sections 47B and 47C) and listed fish (under Section 52) from public land. A permit is required to take components of listed ecological communities on public land.

A permit is also required to take, trade in, keep, move or process protected flora from private land from areas that are designated as Critical Habitat under the Act and for tree-ferns, grasstrees or sphagnum moss taken for the purpose of sale.

Implications

No flora, fauna or ecological communities listed under the FFG Act were identified within the development area or are considered likely to occur within it. No permits are expected to be required under the FFG Act.

6.3 *Catchment and Land Protection Act 1994*

The *Catchment and Land Protection Act 1994* (the CaLP Act) seeks to protect Victorian land and water resources from degrading processes.

Under the Act, Landowners are required to conserve soil, protect water resources, eradicate 'Controlled' and 'Prohibited' weeds, eradicate pest animals and avoid actions that may result in land degradation on neighbouring properties. In certain instances, landowners may be served with a Land Management Notice that may prohibit or regulate land use or specify management actions required to be undertaken on their property.

Implications

The study area supports at least thirteen declared noxious weed species under the CaLP Act including: Slender Thistle **Carduus pycnocephalus*, Saffron Thistle **Carthamus lanatus*, Spear Thistle **Cirsium vulgare*, Paterson's Curse **Echium plantagineum*, African Boxthorn **Lycium ferocissimum*, Horehound **Marrubium vulgare*, Sweet Briar **Rosa rubiginosa*, Variegated Thistle **Silybum marianum*, Boneseed **Chrysanthemoides monilifera*, Serrated Tussock **Nassella trichotoma*,

Common Blackberry **Rubus anglocandicans*, Soursob **Oxalis pes-caprae* and, Chilean Needle-grass **Nassella neesiana.* Serveral of these species have also been identified as weeds of national significance (WoNS; Appendix 1).

Landowners have a legal responsibility under the Act to control declared noxious weeds and ensure spreading of weeds is limited and managed during construction works.

6.4 *Wildlife Act 1975* and Wildlife Regulations 2002 (Victoria)

The *Wildlife Act 1975* and Wildlife Regulations 2002 is the primary legislation in Victoria providing for the management and protection of wildlife. The objective of the Act is to regulate the conduct of those involved in working with wildlife and establish procedures for the protection and conservation of wildlife and prevention of species extinctions.

Implications

The proposed works areas do not support any native vegetation, scattered or embedded rock or other habitat features that would require pre-clearance checks by a qualified ecologist. Nevertheless, any persons engaged in the salvage, translocation and/or handling of native fauna during any construction works must have a management authorization under the *Wildlife Act 1975*.

6.5 *Planning and Environment Act 1987* (The Guidelines 2017)

In Victoria, a permit is required to remove, destroy or lop native vegetation. Regulation of planning proposals with potential impacts to native vegetation is governed by Clause 12.01 (Biodiversity) and Clause 52.17 (Native Vegetation) of Victorian planning schemes. Clause 52.17 references the requirements of the Victorian *Guidelines for the removal, destruction, or lopping of native vegetation* (the Guidelines, DEECA 2025f).

In accordance with the relevant planning scheme clauses, the Guidelines seek to ensure that there is no net loss to biodiversity as a result of the removal, destruction or lopping of native vegetation (DEECA 2025f).

Strategic planning plays a primary role in avoiding and minimising the impacts of uses and developments on native vegetation. In Victoria, the three-step approach for ensuring the objective of no net loss is achieved at the permit level are (DEECA 2025f):

- Avoid the removal, destruction or lopping of native vegetation;
- Minimise impacts on Victoria's biodiversity from the removal, destruction and lopping of native vegetation; and,
- Provide an offset to compensate for the biodiversity impact from the removal, destruction or lopping of native vegetation.

Referral of Planning Applications

The relevant responsible authorities are required to assess permit applications for the removal, destruction or lopping of native vegetation. The responsible authority is the relevant Council. Under Clause 66 (Referral and Notice Provisions) of planning schemes, DEECA is a recommending referral authority where one or more of the following requirements are met:

- To remove, destroy or lop native vegetation in the Detailed Assessment Pathway;
- To remove, destroy or lop native vegetation if a Property Vegetation Plan applies to the site; or,
- To remove, destroy or lop native vegetation on Crown land which is occupied or managed by the responsible authority.

6.5.1 Implications of the Native Vegetation Clause 52.17

No native vegetation is recorded within the development footprint.

A planning permit to remove, destroy or lop native vegetation under Clause 52.17 of the City of Greater Geelong planning scheme is not required.

6.5.2 Avoidance and Minimisation Statement

The proposed development footprint has a long agricultural history including cropping. This has resulted in an area that is entirely devoid of native vegetation. The access, topography and lack of native flora and fauna values show this to be an ideal site for development.

Photo 14: Approximate proposed development site shown in red (Abzeco 15/11/2025)

Photo 15: The proposed development footprint is highly modified and has been subject to historic grazing and cropping (Abzeco 15/11/2025)

Photo 16: The development footprint does not support native vegetation or critical habitat for threatened fauna (Abzeco 15/11/2025)

6.5.3 Means of Achieving Offsets for Native Vegetation Loss

Under the *Guidelines* any approved removal of native vegetation is required to be offset, with the ultimate aim of achieving no net loss in the extent and quality of indigenous vegetation across Victoria (DEECA 2025f).

If required, offsets can be achieved via the protection and enhancement of existing vegetation patches, by the forfeit of rights of use over native vegetation, by enhancing the legal protection of native vegetation and via revegetation. Depending upon the assessment pathway, conservation significance of vegetation to be cleared and related factors, a number of limitations and restrictions apply to offset options. These restrictions and limitations are designed to ensure that lower quality outcomes are not exchanged for high quality vegetation loss.

6.5.4 Offset Strategy

No offsets are required as part of the proposed development.

6.5.5 City of Greater Geelong Planning Scheme

The entirety of the development footprint is scheduled to the Farm Zone (FZ). The land is also entirely covered by the Significant Landscape Overlay – Schedule 5 (SLO5) and partially by the Bushfire Management Overlay (BMO) (DTP 2025b).

A summary of relevant matters relating to the zoning and overlays is provided below:

Farm Zone (FZ)

Purpose:

- *To implement the Municipal Planning Strategy and the Planning Policy Framework.*
- *To provide for the use of land for agriculture.*
- *To encourage the retention of productive agricultural land.*
- *To ensure that non-agricultural uses, including dwellings, do not adversely affect the use of land for agriculture.*

- *To encourage the retention of employment and population to support rural communities.*
- *To encourage use and development of land based on comprehensive and sustainable land management practices and infrastructure provision.*
- *To provide for the use and development of land for the specific purposes identified in a schedule to this zone.*

Decision guidelines:

Environmental issues

- *The impact of the proposal on the natural physical features and resources of the area, in particular on soil and water quality.*
- *The impact of the use or development on the flora and fauna on the site and its surrounds.*
- *The need to protect and enhance the biodiversity of the area, including the retention of vegetation and faunal habitat and the need to revegetate land including riparian buffers along waterways, gullies, ridgelines, property boundaries and saline discharge and recharge area.*
- *The location of on-site effluent disposal areas to minimise the impact of nutrient loads on waterways and native vegetation.*

Implications:

No significant impacts to the natural features, resources and native flora and fauna values are expected to result from the proposed development. The proposed development is considered unlikely to impede the protection and enhancement of local biodiversity. An integrated Land Management Plan has been developed and details land management zones and key management objectives including the retention of existing native vegetation and habitat, and revegetation (Abzeco reference: 25083.2).

Significant Landscape Overlay - Schedule 5 to Clause 42.03 (SLO5)

EDGES OF THE BRISBANE RANGES AND ANAKIE

Statement of nature and key elements of landscape

The eastern edges of the Brisbane Ranges, including the Rowsley Scarp and its foothills, and the granitic and scoria Anakie Hills are visually prominent landscape features affording views of the plains to the east. These locations contain a mix of cleared land contrasted with substantial vegetation cover. The area has a high scenic quality, and its visual exposure makes it susceptible to visual intrusion from inappropriate development.

Landscape character objectives to be achieved

- *To protect and enhance the visual and natural landscape values of the area.*
- *To maintain vegetation as an important element of the landscape.*
- *To protect the landscape from visual intrusion from inappropriate buildings and works and their siting, design and/or materials.*
- *To maintain the natural skyline of ridge and escarpment areas and avoid obtrusive building silhouettes.*

- *To encourage the siting, design and landscaping of buildings and works responsive to the landscape values of the area.*

Decision guidelines

The following decision guidelines apply to an application for a permit under Clause 42.03, in addition to those specified in Clause 42.03 and elsewhere in the scheme which must be considered, as appropriate, by the responsible authority:

- *The landscape values of the edges of the Brisbane Ranges and Anakie Hills.*
- *The protection and appropriate enhancement of the landscape, having regard to:*
    - *Protecting landscape areas and vantage points of high quality.*
    - *The conservation of significant areas of natural vegetation and significant stands of trees.*
    - *The control of the density of buildings and subdivision in areas of scenic value.*
    - *Whether the siting, height, scale, materials and form of proposed buildings and works has been designed to have least visual effect on the landscape and scenic views of the Brisbane Ranges and Anakie Hills.*
    - *Whether approval of the proposed buildings and works is compatible with maintaining the visual and natural significance of the landscape.*
    - *The benefit of permit conditions requiring all building materials to be non-reflective and of colours which are complementary to those of the natural landscape.*
    - *The benefit of the conditions requiring the landscaping of buildings and works, while also having regard to the maintenance of existing viewlines.*
    - *The containment of extractive industries to ensure that development and subsequent reclamation are carried out without significant detriment to the recreational and scenic value of the surrounding area.*
    - *Whether an alternative site is available on the land for the proposed buildings and works that would better meet the landscape objectives of this schedule.*

Permit requirements

A permit is required to remove, destroy, or lop any vegetation except for:

- Where listed within the incorporated document Environmental Weeds, City of Greater Geelong, September 2008;
- Exotic and native vegetation if within 10 metres of a dwelling on a lot exceeding 0.4 hectares; and,
- Any vegetation which is dead.
- Noxious weeds - Vegetation that is a noxious weed subject of a declaration under section 58 or section 58A of the Catchment and Land Protection Act 1994. This exemption does not apply to Australian Dodder (Cuscuta australis);
- Planted vegetation - Vegetation that is to be removed, destroyed or lopped that was either planted or grown as a result of direct seeding for Crop raising or Grazing animal production.

Implications:

All the vegetation occurring within the development footprint is managed exotic pasture and weeds. Removal of managed pasture is considered exempt from permit requirements under SLO5.

Clause 14.01 Agriculture – Discretionary uses in rural areas 14.01-1L-01

Policy application

This policy applies to the use or development of land in the Farming and Rural Conservation Zones other than agricultural, tourism, function centre or accommodation uses.

Objectives

To preserve the productive agricultural capacity of the land and where possible enhance the environmental condition of the land.

To maintain the landscape character of rural areas.

Strategy

Support discretionary uses where:

- The intensity of the use will complement and support adjoining rural land uses.
- Existing agricultural activity on adjoining land will not be compromised.
- The scale of the development will complement and respect the rural landscape character.
- The site has access to a constructed or sealed road that is capable of accommodating anticipated traffic levels.
- The site has access to all necessary servicing infrastructure.
- Policy guidelines

Consider as relevant:

- Whether buildings and structures have been designed or sited to be visually recessive and can blend into the surrounding landscape and natural environment through design, landscaping, materials and colours.
- Whether the environmental condition of the land could be enhanced by fencing off remnant vegetation and revegetating along waterways and in other strategic areas.
- Where infrastructure is required or needs upgrading, whether the landowner should meet all costs.

Implications:

The current primary land-use of the subject land is education with a focus on agricultural and environmental studies. The nature of the education program is believed to be complementary to the broader rural area and adjoining lands. A draft education plan provided by Bacchus Marsh Grammar highlights a variety of programs that represent the complementary nature of the proposed development and future use. Programs include:

"Paddock to Plate" Program

- Students grow vegetables, raise chickens, and maintain orchards.
- Regular cooking sessions using school-grown produce.
- Nutrition and seasonal eating focus.

Animal Care Roster

- Responsibility rotation for feeding, grooming, and recording data on school livestock (chickens, goats, sheep).

Bush Classroom & Sustainability Projects

- Weekly outdoor learning: biodiversity walks, flora/fauna surveys, bush regeneration.
- Composting, water harvesting systems, native tree planting, and beekeeping (senior years).

Junior Agribusiness

- Year 5–6 students run a mini-farm and sustainability enterprise (e.g. eggs, honey, native plants) with real-world pricing, marketing, and profit distribution.
- Involves budgeting, packaging design, ecological impact monitoring, and seasonal planning.

The proposed development is not expected to compromise agricultural activities occurring on adjoining land. The site is accessed via a sealed road that can accommodate anticipated traffic resultant from the development and has access to all necessary servicing infrastructure.

Sensitive design choices, development siting, and appropriate landscaping are expected to achieve the desired outcomes of policy 14.01-1L-01 as they pertain to maintaining the rural landscape character. Furthermore, weed control, protection of remnant native vegetation and future revegetation in environmentally sensitive areas of the subject land that are generally considered unsuitable for agricultural purposes may lead to an improvement in overall site conditions and limit the spread of weeds into adjoining lands. Measures to protect native vegetation, revegetation and improve ecological details are detailed in a dedicated land management plan (Abzeco ref: 25083.2).

Bushfire Management Overlay (BMO)

Purpose:

- *To implement the Municipal Planning Strategy and the Planning Policy Framework.*
- *To ensure that the development of land prioritises the protection of human life and strengthens community resilience to bushfire.*
- *To identify areas where the bushfire hazard warrants bushfire protection measures to be implemented.*
- *To ensure development is only permitted where the risk to life and property from bushfire can be reduced to an acceptable level.*

Implications:

The development footprint is not covered by the BMO. Further considerations relating to bushfire and the BMO are outside the scope of this report.

7 Conclusions and Recommendations

The following requirements should be considered as part of proposed development:

7.1 Threatened Flora and Fauna

- No flora, fauna of ecological communities listed under the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) are considered relevant to the proposed development footprint. As such, targeted surveys are not recommended.
- No flora, fauna of ecological communities listed under the FFG Act-listed are considered relevant to the proposed development footprint, therefore targeted surveys are not recommended.

7.2 Permit Requirements

- The proposed development footprint does not support any native vegetation. A planning permit to remove, destroy or lop native vegetation under Clause 52.17 of the City of Greater Geelong planning scheme (*Planning and Environment Act 1987*) is not required.

7.3 Offset Requirements

- The proposed development does not trigger the requirement to secure any offsets.

7.4 Land Management Requirements

- Landowners have a legal responsibility under the CaLP Act to control declared noxious weeds and ensure spreading of weeds is limited and managed during construction works.

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Appendix 1. Flora Recorded in the Study Area

Legend:

vu – vulnerable under the *FFG Act 1988*
* – Introduced/exotic species.
# - Australian native species not indigenous to the study area.
C – Weed listed as regionally controlled under the CaLP Act.
R – Weed listed as regionally restricted under the CaLP Act.
W – Weed of National Significance

Origin	Scientific Name	Common Name	Status
	Acacia mearnsii	Black Wattle	
	Acacia melanoxylon	Blackwood	
	Acacia paradoxa	Hedge Wattle	
	Acacia spp.	Wattle	
	Acaena echinata	Sheep's Burr	
	Acaena novae-zelandiae	Bidgee-widgee	
*	*Acetosella vulgaris*	Sheep Sorrel	
*	*Agrostis capillaris*	Brown-top Bent	
*	*Aira spp.*	Hair Grass	
*	*Aizoon pubescens*	Galenia	
	Amyema miquelii	Box Mistletoe	
	Amyema pendula	Drooping Mistletoe	
	Amyema preissii	Wire-leaf Mistletoe	
	Anthosachne scabra s.l.	Common Wheat-grass	
*	*Anthoxanthum odoratum*	Sweet Vernal-grass	
*	*Arctotheca calendula*	Cape Weed	
	Arthropodium strictum s.l.	Chocolate Lily	
	Asperula conferta	Common Woodruff	
	Atriplex semibaccata	Berry Saltbush	
	Austrostipa bigeniculata	Kneed Spear-grass	
	Austrostipa scabra	Rough Spear-grass	
*	*Avena barbata*	Bearded Oat	
*	*Brassica fruticulosa*	Twiggy Turnip	
*	*Briza maxima*	Large Quaking-grass	
*	*Briza minor*	Lesser Quaking-grass	
*	*Bromus catharticus*	Prairie Grass	
*	*Bromus hordeaceus*	Soft Brome	
	Bursaria spinosa subsp. spinosa	Sweet Bursaria	
*	*Carduus pycnocephalus*	Slender Thistle	C
	Carex appressa	Tall Sedge	
	Carex breviculmis	Common Grass-sedge	
*	*Carthamus lanatus*	Saffron Thistle	C

Origin	Scientific Name	Common Name	Status
#	*Cassinia sifton*	Drooping Cassinia	
*	*Cenchrus clandestinus*	Kikuyu	
*	*Chenopodium macrospermum*	Red-stem Goosefoot	
*	*Chrysanthemoides monilifera*	Boneseed	C, W
*	*Cirsium vulgare*	Spear Thistle	C
	Convolvulus angustissimus	Blushing Bindweed	
	Crassula colligata	Slender Stonecrop	
	Crassula sieberiana s.s.	Sieber Crassula	
	Cycnogeton procerum s.s.	Common Water-ribbons	
*	*Cynosurus echinatus*	Rough Dog's-tail	
*	*Dactylis glomerata*	Cocksfoot	
	Dichondra repens	Kidney-weed	
*	*Disa bracteata*	South African Orchid	
	Dysphania pumilio	Clammy Goosefoot	
*	*Echium plantagineum*	Paterson's Curse	C
*	*Ehrharta erecta*	Panic Veldt-grass	
*	*Ehrharta longiflora*	Annual Veldt-grass	
	Einadia hastata	Saloop	
	Einadia nutans	Nodding Saltbush	
	Epilobium hirtigerum	Hairy Willow-herb	
*	*Erodium botrys*	Big Heron's-bill	
*	*Erodium spp.*	Heron's Bill	
	Eucalyptus goniocalyx s.l.	Bundy	
	Eucalyptus leucoxylon	Yellow Gum	
	Eucalyptus macrorhyncha	Red Stringybark	
	Eucalyptus polyanthemos subsp. vestita	Red Box	
	Eucalyptus spp.	Eucalypt	
	Eucalyptus tricarpa	Red Ironbark	
	Eucalyptus viminalis	Manna Gum	
	Euchiton japonicus s.l.	Clustered/Creeping Cudweed	
	Exocarpos cupressiformis	Cherry Ballart	
*	*Fumaria spp.*	Fumitory	
*	*Galium aparine*	Cleavers	
	Geranium gardneri	Rough Crane's-bill	
	Geranium spp.	Crane's Bill	
	Gonocarpus tetragynus	Common Raspwort	
	Goodenia geniculata	Bent Goodenia	
*	*Helminthotheca echioides*	Ox-tongue	
	Hibbertia spp.	Guinea Flower	
*	*Holcus lanatus*	Yorkshire Fog	
*	*Hordeum leporinum*	Barley Grass	

Origin	Scientific Name	Common Name	Status
	Hydrocotyle hirta	Hairy Pennywort	
	Hypericum gramineum	Small St John's Wort	
*	*Hypochaeris radicata*	Flatweed	
	Indigofera australis subsp. australis	Austral Indigo	
	Isolepis levynsiana	Tiny Flat-sedge	
	Isolepis spp.	Club Sedge	
	Juncus spp.	Rush	
	Lachnagrostis filiformis s.l.	Common Blown-grass	
	Laphangium luteoalbum	Jersey Cudweed	
*	*Lolium rigidum*	Wimmera Rye-grass	
	Lomandra filiformis	Wattle Mat-rush	
	Luzula spp.	Woodrush	
*	*Lycium ferocissimum*	African Box-thorn	C, W
*	*Lysimachia arvensis var. arvensis*	Scarlet Pimpernel	
	Lythrum hyssopifolia	Small Loosestrife	
*	*Malva spp.*	Mallow	
*	*Marrubium vulgare*	Horehound	C
*	*Medicago polymorpha*	Burr Medic	
*	*Melilotus indicus*	Sweet Melilot	
	Microlaena stipoides var. stipoides	Weeping Grass	
*	*Modiola caroliniana*	Red-flower Mallow	
*	*Nassella neesiana*	Chilean Needle-grass	R, W
*	*Nassella trichotoma*	Serrated Tussock	C, W
	Oxalis perennans	Grassland Wood-sorrel	
*	*Oxalis pes-caprae*	Soursob	R
*	*Paspalum dilatatum*	Paspalum	
	Pelargonium rodneyanum	Magenta Stork's-bill	
	Persicaria prostrata	Creeping Knotweed	
*	*Phalaris aquatica*	Toowoomba Canary-grass	
*	*Phytolacca octandra*	Red-ink Weed	
	Pimelea humilis	Common Rice-flower	
	Pimelea linifolia	Slender Rice-flower	
*	*Pinus radiata*	Radiata Pine	
#	*Pittosporum undulatum*	Sweet Pittosporum	
*	*Plantago coronopus*	Buck's-horn Plantain	
*	*Plantago lanceolata*	Ribwort	
*	*Poa annua s.l.*	Annual Meadow-grass	
	Poa labillardierei	Common Tussock-grass	
	Poa morrisii	Soft Tussock-grass	
*	*Poa pratensis*	Kentucky Blue-grass	
	Poa sieberiana	Grey Tussock-grass	

Origin	Scientific Name	Common Name	Status
*	*Polygonum aviculare s.l.*	Prostrate Knotweed	
*	*Prunus spp.*	Prunus	
	Pteridium esculentum subsp. esculentum	Austral Bracken	
	Pultenaea scabra	Rough Bush-pea	
	Ranunculus sessiliflorus	Annual Buttercup	
*	*Raphanus raphanistrum*	Wild Radish	
	Rhagodia parabolica	Fragrant Saltbush	vu
*	*Rosa rubiginosa*	Sweet Briar	C
*	*Rubus anglocandicans*	Common Blackberry	C, W
	Rubus parvifolius	Small-leaf Bramble	
	Rumex brownii	Slender Dock	
	Rumex dumosus	Wiry Dock	
	Rytidosperma racemosum var. racemosum	Slender Wallaby-grass	
	Rytidosperma spp.	Wallaby Grass	
*	*Schinus molle*	Pepper Tree	
	Schoenus spp.	Bog Sedge	
	Senecio glomeratus	Annual Fireweed	
	Senecio linearifolius	Fireweed Groundsel	
	Senecio minimus	Shrubby Fireweed	
	Senecio quadridentatus	Cotton Fireweed	
*	*Silybum marianum*	Variegated Thistle	C
	Solanum laciniatum	Large Kangaroo Apple	
*	*Solanum nigrum s.l.*	Black Nightshade	
	Solenogyne gunnii	Hairy Solenogyne	
*	*Sonchus asper s.l.*	Rough Sow-thistle	
*	*Sonchus oleraceus*	Common Sow-thistle	
*	*Stellaria media*	Chickweed	
	Stellaria pungens	Prickly Starwort	
	Styphelia humifusa	Cranberry Heath	
	Thelymitra spp.	Sun Orchid	
	Themeda triandra	Kangaroo Grass	
*	*Trifolium subterraneum*	Subterranean Clover	
	Typha spp.	Bulrush	
*	*Urtica urens*	Small Nettle	
	Veronica calycina	Hairy Speedwell	
*	*Vicia hirsuta*	Tiny Vetch	
*	*Vicia sativa*	Common Vetch	
	Viola hederacea s.l.	Ivy-leaf Violet	
*	*Vulpia spp.*	Fescue	
	Wahlenbergia gracilenta s.l.	Annual Bluebell	

Origin	Scientific Name	Common Name	Status
	Wahlenbergia luteola	Bronze Bluebell	
	Xanthorrhoea australis	Austral Grass-tree	

Appendix 2. Listed Flora Species Previously Recorded Within 5 km of the Study Area

The list below provides records for significant plant species previously recorded within 5 km of the study area (DEECA 2025d).

Legend:

EPBC Act – ***Environment Protection and Biodiversity Conservation Act 1999***

- **CR** = Critically Endangered; **EN** = Endangered **VU** = Vulnerable.

FFG Act – ***Flora and Fauna Guarantee Act 1988***

- **cr** = Critically Endangered; **en** = Endangered; **vu** = Vulnerable;

= Non-indigenous Australian native

Scientific Name	Common Name	EPBC Status	FFG Status	Origin	Count	Last Record
Acacia aspera subsp. parviceps	Rough Wattle		en		15	24/08/2015
Caladenia ornata	Ornate Pink-fingers	VU	en		1	21/10/1996
Caladenia vulgaris	Slender Pink-fingers		vu		1	1/05/1998
Calochilus imberbis	Naked Beard-orchid		cr		1	1/05/1998
Cardamine lineariloba	Western Bitter-cress		en		1	8/10/2009
Cardamine papillata	Forest Bitter-cress		en		2	25/09/2005
Cullen parvum	Small Scurf-pea		en		1	19/10/2010
Dipodium pardalinum	Spotted Hyacinth-orchid		en		1	1/05/1998
Eucalyptus goniocalyx subsp. laxa	Gum-barked Bundy		en		26	31/07/2021
Eucalyptus leucoxylon subsp. connata	Melbourne Yellow-gum		en		23	14/08/2023
Eucalyptus yarraensis	Yarra Gum		cr		14	24/08/2015
Geranium sp. 3	Pale-flower Crane's-bill		en		2	11/10/2008
Grevillea chrysophaea	Golden Grevillea		vu		65	12/09/2015
Grevillea micrantha	Small-flower Grevillea		cr		2	6/09/1995
Grevillea rosmarinifolia subsp. glabella	Smooth Grevillea		en		1	23/07/1991
Grevillea steiglitziana	Brisbane Range Grevillea		en		168	12/10/2023
Melaleuca armillaris subsp. armillaris	Giant Honey-myrtle		en	#	1	24/08/2015
Nicotiana suaveolens	Austral Tobacco		en		1	1/10/1980
Olearia minor	Satin Daisy-bush		en		1	1/01/1935
Olearia pannosa subsp. cardiophylla	Velvet Daisy-bush		en		33	27/06/2019
Prasophyllum maccannii	Inland Leek-orchid		en		2	20/11/2013
Prostanthera decussata	Dense Mint-bush		en		1	27/10/1923
Prostanthera nivea var. nivea	Snowy Mint-bush		vu	#	15	24/08/2015
Pterostylis chlorogramma	Green-striped Greenhood	VU	en		1	5/08/2009
Pterostylis smaragdyna	Emerald-lip Greenhood		en		4	27/06/2019

Scientific Name	Common Name	EPBC Status	FFG Status	Origin	Count	Last Record
Pterostylis truncata	Brittle Greenhood		cr		2	1/05/1998
Pterostylis X ingens	Sharp Greenhood		vu		1	1/05/1998
Pterostylis X toveyana	Mentone Greenhood		en		6	1/05/1998
Pultenaea daltonii	Hoary Bush-pea		vu		5	19/12/1996
Pultenaea graveolens	Scented Bush-pea		en		2	25/03/1982
Pultenaea gunnii subsp. tuberculata	Golden Bush-pea		vu		17	27/06/2019
Rhagodia parabolica	Fragrant Saltbush		vu	#	1	29/03/2019
Thelymitra circumsepta	Naked Sun-orchid		en		1	1/05/1998
Thelymitra hiemalis	Winter Sun-orchid		cr		1	1/05/1998
Thelymitra malvina	Mauve-tuft Sun-orchid		en		1	1/05/1998
Thelymitra X macmillanii	Crimson Sun-orchid		vu		1	1/05/1998

Appendix 3. EPBC Act Protected Matters Search Tool Results – Flora

The EPBC Act Protected Matters Search Tool was queried for EPBC Act flora related matters occurring or likely to occur within 5 km of the study area (DCCEEW 2025).

Scientific Name	Common Name	EPBC Status	Likely occurrence or habitat in the search area (DCCEEW 2025)	Likelihood of Occurrence
Amphibromus fluitans	River Swamp Wallaby-grass	Vulnerable	Species or species habitat likely to occur within area	Likely
Caladenia concolor	Crimson Spider-orchid	Vulnerable	Species or species habitat known to occur within area	Known
Caladenia ornata	Ornate Pink Fingers	Vulnerable	Species or species habitat known to occur within area	Known
Caladenia pumila	Dwarf Spider-orchid	Critically Endangered	Species or species habitat likely to occur within area	Likely
Dianella amoena	Matted Flax-lily	Endangered	Species or species habitat likely to occur within area	Likely
Diuris fragrantissima	Sunshine Diuris	Endangered	Species or species habitat may occur within area	May
Dodonaea procumbens	Trailing Hop-bush	Vulnerable	Species or species habitat likely to occur within area	Likely
Glycine latrobeana	Clover Glycine	Vulnerable	Species or species habitat likely to occur within area	Likely
Lachnagrostis adamsonii	Adamson's Blown-grass	Endangered	Species or species habitat likely to occur within area	Likely
Lepidium aschersonii	Spiny Peppercress	Vulnerable	Species or species habitat may occur within area	May
Lepidium hyssopifolium	Basalt Pepper-cress	Endangered	Species or species habitat likely to occur within area	Likely
Leucochrysum albicans subsp. tricolor	Hoary Sunray	Endangered	Species or species habitat likely to occur within area	Likely
Pimelea spinescens subsp. spinescens	Spiny Rice-flower	Critically Endangered	Species or species habitat likely to occur within area	Likely
Prasophyllum suaveolens	Fragrant Leek-orchid	Endangered	Species or species habitat may occur within area	May
Pterostylis chlorogramma	Green-striped Greenhood	Vulnerable	Species or species habitat known to occur within area	Known

Scientific Name	Common Name	EPBC Status	Likely occurrence or habitat in the search area (DCCEEW 2025)	Likelihood of Occurrence
Pterostylis cucullata	Leafy Greenhood	Vulnerable	Species or species habitat may occur within area	May
Rutidosis leptorhynchoides	Button Wrinklewort	Endangered	Species or species habitat likely to occur within area	Likely
Senecio macrocarpus	Large-fruit Groundsel	Vulnerable	Species or species habitat likely to occur within area	Likely
Senecio psilocarpus	Swamp Fireweed	Vulnerable	Species or species habitat likely to occur within area	Likely
Thelymitra orientalis	Hoary Sun-orchid	Critically Endangered	Species or species habitat may occur within area	May
Xerochrysum palustre	Swamp Everlasting	Vulnerable	Species or species habitat likely to occur within area	Likely

Appendix 4. Listed Fauna Species Previously Recorded Within 5 km of the Study Area

The following appendix shows Victorian Biodiversity Atlas records for rare and threatened fauna species that have previously been recorded within a 5 km radius of the study area (DEECA 2025d).

Legend:

EPBC Act – ***Environment Protection and Biodiversity Conservation Act 1999***

- **CR** = Critically Endangered; **EN** = Endangered **VU** = Vulnerable; **-** Not Applicable

FFG Act – ***Flora and Fauna Guarantee Act 1988***

- **cr** = Critically Endangered; **en** = Endangered; **vu** = Vulnerable; **-** Not Applicable

Scientific Name	Common Name	EPBC Status	FFG Status	Origin	Count	Last Record
Amphibians						
Litoria raniformis	Growling Grass Frog	VU	vu		1	16/02/1990
Pseudophryne bibronii	Brown Toadlet		en		2	6/07/1989
Birds						
Biziura lobata	Musk Duck		vu		33	27/04/2014
Botaurus poiciloptilus	Australasian Bittern	EN	cr		1	2/02/1972
Calamanthus pyrrhopygius	Chestnut-rumped Heathwren		vu		12	20/02/2018
Callocephalon fimbriatum	Gang-gang Cockatoo	EN	en		1	30/09/2016
Climacteris picumnus	Brown Treecreeper	VU	vu		153	4/03/2019
Egretta garzetta	Little Egret		en		2	11/03/1978
Falco subniger	Black Falcon		cr		2	12/08/1978
Gallinago hardwickii	Latham's Snipe	VU	vu		11	27/01/1979
Grantiella picta	Painted Honeyeater	VU	vu		5	14/01/2008
Hieraaetus morphnoides	Little Eagle		vu		19	26/11/2016
Hirundapus caudacutus	White-throated Needletail	VU	vu		14	5/04/2017
Hydroprogne caspia	Caspian Tern		vu		1	11/03/1978
Lathamus discolor	Swift Parrot	CR	cr		12	16/08/2014
Lewinia pectoralis	Lewin's Rail		vu		3	1/10/1995
Melanodryas cucullata	Hooded Robin	EN	en		16	3/11/1980
Neophema chrysostoma	Blue-winged Parrot	VU	vu		13	10/11/2016
Ninox connivens	Barking Owl		cr		4	1/01/1990
Ninox strenua	Powerful Owl		vu		44	22/01/2018
Oxyura australis	Blue-billed Duck		vu		4	27/11/2006
Pyrrholaemus sagittatus	Speckled Warbler		en		19	6/02/2019
Stagonopleura guttata	Diamond Firetail	VU	vu		43	26/12/2018
Mammals						
Phascogale tapoatafa	Brush-tailed Phascogale		vu		12	27/06/2019

Appendix 4. EPBC Act Protected Matters Search Tool Records – Fauna

The EPBC Act Protected Matters Search Tool was queried for EPBC Act fauna related matters occurring or likely to occur within 5 km of the study area (DCCEEW 2025).

Scientific Name	Common Name	EPBC Status	Likely occurrence or habitat in the search area (DCCEEW 2025)	Likelihood of Occurrence (DCCEEW 2025)
Amphibians				
Litoria raniformis	Growling Grass Frog	Vulnerable	Species or species habitat likely to occur within area	Likely
Birds				
Anthochaera phrygia	Regent Honeyeater	Critically Endangered	Foraging, feeding or related behaviour may occur within area	May
Aphelocephala leucopsis	Southern Whiteface	Vulnerable	Species or species habitat known to occur within area	Known
Botaurus poiciloptilus	Australasian Bittern	Endangered	Species or species habitat known to occur within area	Known
Calidris acuminata	Sharp-tailed Sandpiper	Vulnerable	Species or species habitat likely to occur within area	Likely
Calidris ferruginea	Curlew Sandpiper	Critically Endangered	Species or species habitat likely to occur within area	Likely
Callocephalon fimbriatum	Gang-gang Cockatoo	Endangered	Species or species habitat known to occur within area	Known
Climacteris picumnus victoriae	Brown Treecreeper	Vulnerable	Species or species habitat known to occur within area	Known
Falco hypoleucos	Grey Falcon	Vulnerable	Species or species habitat likely to occur within area	Likely
Gallinago hardwickii	Latham's Snipe	Vulnerable	Species or species habitat likely to occur within area	Likely
Grantiella picta	Painted Honeyeater	Vulnerable	Species or species habitat known to occur within area	Known

Scientific Name	Common Name	EPBC Status	Likely occurrence or habitat in the search area (DCCEEW 2025)	Likelihood of Occurrence (DCCEEW 2025)
Hirundapus caudacutus	White-throated Needletail	Vulnerable	Species or species habitat known to occur within area	Known
Lathamus discolor	Swift Parrot	Critically Endangered	Species or species habitat known to occur within area	Known
Melanodryas cucullata cucullata	Hooded Robin	Endangered	Species or species habitat known to occur within area	Known
Neophema chrysostoma	Blue-winged Parrot	Vulnerable	Species or species habitat known to occur within area	Known
Pedionomus torquatus	Plains-wanderer	Critically Endangered	Species or species habitat likely to occur within area	Likely
Rostratula australis	Australian Painted Snipe	Endangered	Species or species habitat known to occur within area	Known
Stagonopleura guttata	Diamond Firetail	Vulnerable	Species or species habitat known to occur within area	Known
Tringa nebularia	Common Greenshank	Endangered	Species or species habitat likely to occur within area	Likely
Fish				
Nannoperca obscura	Yarra Pygmy Perch	Endangered	Species or species habitat likely to occur within area	Likely
Prototroctes maraena	Australian Grayling	Vulnerable	Species or species habitat may occur within area	May
Invertebrates				
Synemon plana	Golden Sun Moth	Vulnerable	Species or species habitat known to occur within area	Known
Mammals				
Dasyurus maculatus maculatus	Spot-tailed Quoll	Endangered	Species or species habitat may occur within area	May
Petaurus australis australis	Yellow-bellied Glider	Vulnerable	Species or species habitat likely to occur within area	Likely

Scientific Name	Common Name	EPBC Status	Likely occurrence or habitat in the search area (DCCEEW 2025)	Likelihood of Occurrence (DCCEEW 2025)
Pseudomys novaehollandiae	New Holland Mouse	Vulnerable	Species or species habitat may occur within area	May
Reptiles				
Aprasia parapulchella	Pink-tailed Worm-lizard	Vulnerable	Species or species habitat may occur within area	May
Delma impar	Striped Legless Lizard	Vulnerable	Species or species habitat likely to occur within area	Likely
Lissolepis coventryi	Swamp Skink	Endangered	Species or species habitat may occur within area	May
Pteropus poliocephalus	Grey-headed Flying-fox	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	Likely
Tympanocryptis pinguicolla	Victorian Grassland Earless Dragon	Critically Endangered	Species or species habitat likely to occur within area	Likely