



Report for Parklea Berwick Pty Ltd

Ecological Assessment for 62-80 Manuka
Road, Berwick

August 2025

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Executive Summary

Project Description

ID Ecological Management has been commissioned by Parklea to undertake an ecological assessment of 42-80 Manuka Road Berwick, the site of a planned residential subdivision. This report focuses on the 62-80 Manuka Road property which sits within a wider area of proposed future development that takes in land to the north identified as Development Plan Overlay – Schedule 24 (DPO24).

An ecological assessment of the wider DPO24 site was completed by Nature Advisory who undertook site assessments between 2014-2018. Copies of the Nature Advisory reports for the wider DPO24 site were provided by Parklea as background information. This report seeks to provide an updated ecological assessment of the 62-80 Manuka Road site that utilises any existing assessment information that remains relevant.

Assessment of all native vegetation within the study area was completed by ID Ecological Management on the 7th of April 2025.

Study Area- Ecological Values

Vegetation and Flora

The site is dominated by open pasture/paddocks utilized for grazing/agistment activities, with commonly planted rows of exotic and Victorian species aligning internal and external fence lines and driveways, intermixed with planted exotic garden species and various planted exotic scramblers and environmental weeds.

Native vegetation is largely confined to the eastern slopes where patches of remnant swampy woodland remain. The patches typically host a canopy of locally indigenous tree species and largely disturbed understorey, with scatterings of native grasses and sedges.

Two native patches were recorded measuring a total of 1.507 ha in area that hosted 48 large trees. An additional 5 large scattered trees and 2 small scattered trees were identified on site.

All native vegetation found within the site belongs to EVC 83: *Swampy Riparian Woodland* or EVC 937: *Swampy Woodland*. These EVC's are not synonymous with any threatened ecological communities that are listed under either the EPBC Act or FFG Act.

No locally indigenous threatened flora was recorded on site during the site visit. All threatened flora species identified in the database searches were unlikely to occur within the study area primarily due to a lack of suitable habitat.

Fauna

No threatened fauna were recorded on site during the site visit. Gang-gang cockatoo (*Callocephalon fimbriatum*) (EPBC Act and FFG Act listed) and powerful owl (*Ninox strenua*) (FFG Act listed) were assigned a moderate likelihood of occurrence, as it is likely they are occasional visitors to the site.

All other threatened fauna species identified in the database searches are considered unlikely to occur within the site or were assigned a 'low' likelihood of occurrence as possible occasional visitors.

Legislation/Policy Implications

Legislation and Policy	Relevant Ecological Feature on Site	Report/Approval required
Environment Protection and Biodiversity Conservation (EPBC) Act 1999	<p>No threatened ecological communities were found to occur within the study area during the site inspection.</p> <p>The EPBC Act listed gang-gang cockatoo is considered a likely occasional visitor to the site and assigned a moderate likelihood of occurrence.</p>	<p>The loss of 0.774ha of potential foraging (treed) habitat would not significantly affect gang gang cockatoo. The risk of significant impact to the species is considered to be low.</p> <p>There are no additional MNES that warrant further consideration under the proposal.</p> <p>No further action recommended.</p>
State – Flora and Fauna Guarantee (FFG) Act 1988	<p>The project does not involve any native vegetation removal on public land.</p> <p>The FFG Act listed gang-gang cockatoo and powerful owl are likely occasional visitors to the site.</p>	<p>Six hollow bearing trees are impacted by the development. Four are proposed for removal and two will remain in situ and continue to provide faunal habitat but are assumed lost due to TPZ encroachment. It is not expected the loss of four trees with hollows would have a significant impact on the threatened Gang-gang cockatoo at the landscape scale. The overall removal of native treed vegetation has been minimised to the greatest extent possible to mitigate the loss of foraging habitat for the species.</p> <p>An FFG Act protected flora permit is not required for the project to proceed.</p>
Planning and Environment Act 1987	<p>Two (2) native patches measuring 1.507 ha in area were recorded that hosted 48 large trees. An additional 5 large and 2 small scattered trees were identified within the site.</p>	<p>Under Clause 52.17 of the Casey Planning Scheme, a planning permit is required to clear or disturb native vegetation, unless an exemption applies.</p> <p>0.844 ha of native vegetation (which includes 17 large trees – 8 direct removal and 9 assumed lost) has been assessed as lost under the proposal. Offset requirements amount to 0.2740 general habitat units with a minimum strategic biodiversity value of 0.3901.</p>
Catchment and Land Protection Act 1994	<p>The following noxious weeds were present on the site:</p> <ul style="list-style-type: none"> Bridal creeper (<i>Asparagus asparagoides</i>) Restricted Spear thistle (<i>Cirsium vulgare</i>) Regionally Controlled; 	<p>Any contractors undertaking works on site must comply with the requirements of the Act to control/eradicate and avoid spreading these weeds onsite or to other areas.</p>

Legislation and Policy	Relevant Ecological Feature on Site	Report/Approval required
	<ul style="list-style-type: none"> Hawthorn (<i>Crataegus monogyna</i>) Regionally Controlled; African box-thorn (<i>Lycium ferocissimum</i>) Regionally Controlled. Blackberry (<i>Rubus fruticosus</i> spp. agg.) Regionally Controlled. Ragwort (<i>Senecio jacobaea</i>) Regionally Controlled 	
Environmental Effects Act 1978	<p>Survey of the study site did not identify any locally threatened flora or fauna species on site. The FFG Act listed gang-gang cockatoo and powerful owl are likely occasional visitors to the site.</p> <p>The development is not expected to impact on the last remaining 1-5% of known remaining habitat or populations of any other threatened species within Victoria.</p> <p>The native patches on site all belong to an endangered EVC. None have a habitat score above 0.5 are impacted by the project.</p>	No further action recommended.
State Wildlife Act 1979	Native vegetation within the site that is proposed for clearing may be occupied by native fauna species.	Persons engaged to remove, salvage, hold or relocate any native fauna must have a permit or approval issued by the DEECA.
Water Act 1989	<p>Under the Act approval must be sought from the local Catchment Management Authority and a 'Works on Waterways' (WoW) permit is required to construct, alter, operate, remove, or decommission':</p> <ul style="list-style-type: none"> any works on a waterway; or a bore. 	The current proposal does not directly impact on waterways adjacent to the study area. No permit requirements are likely to be triggered under the Act by future site development.

1 Introduction

1.1 Project Background

ID Ecological Management has been commissioned by Parklea to undertake an ecological assessment of 42-80 Manuka Road Berwick, the site of a planned residential subdivision. This report focuses on the 62-80 Manuka Road property which sits within a wider area of proposed future development that takes in land to the north identified as Development Plan Overlay – Schedule 24 (DPO24).

An ecological assessment of the wider DPO24 site was completed by Nature Advisory. Copies of this report were provided by Parklea as background information. This report seeks to provide an updated ecological assessment of the site that utilises any existing assessment information that remains relevant.

Appendix 1 provides the Development Plan for the site labelled as *Development Plan 42-80 Manuka Road, Berwick, Version 1, 06/06/2025*. It is included as *Appendix 1*.

Assessment of all native vegetation within the study area was completed by ID Ecological Management on the 7th of April 2025.

1.2 Objectives

The objectives of this assessment include:

- Undertake a desktop-based background review of relevant databases, including Victorian Biodiversity Atlas and Protected Matters Search Tool, and previous reports for ecological information of the site (if available), mapped EVC's and for records and identification of potentially present threatened species.
- Undertake site assessment of the study area, including:
 - A complete flora list;
 - Incidental observations of fauna;
 - Photographs of the site;
 - Map and record all native vegetation patches and complete vegetation quality assessments;
 - Map and record locations and diameter at breast height (DBH) of all scattered and large trees in patches to accuracy of approximately <4m;
 - Identification and mapping of the location or extent of any species or communities protected by either the *Environment Protection & Biodiversity Conservation Act 1999* (EPBC) or *Flora & Fauna Guarantee Acts 1988 & 2019 Amendment* (FFG Act); and
 - Map and record habitat features throughout the study area such as tree hollows, logs, waterbodies, drainage lines or other habitat characteristics which may be utilised by threatened fauna.
- Undertake data analysis that includes:
 - Undertake a likelihood assessment of all state or federal listed threatened flora and fauna species recorded on site or found within database searches (<5km radius);

- Identify implications of relevant state and federal legislation and loss of native vegetation on fauna species habitat;
- Recommendations for any further works or investigations such as targeted threatened species surveys or the like;
- Compile native vegetation information as per the Guidelines for the removal, destruction or lopping of native vegetation including native patch, scattered tree and threatened species and / or habitat field recorded spatial data;
- Complete vegetation quality assessment (habitat hectare) scoring for native patches; and
- Assess potential native vegetation / species impacts/ habitat loss and identify opportunities to avoid / minimise impacts.
- Prepare a report that includes:
 - An executive summary;
 - Description of methods;
 - Results of background and field survey;
 - An assessment of the likelihood of occurrence for all threatened species identified in a 5km database search area;
 - Prepare maps to the Department of Energy, Environment and Climate Action (DEECA) standards that show the locations of all ecological features identified and the extent of impacts to native vegetation under the current indicative plans; and
 - Conclusion and Recommendations (where applicable) for each of the items listed above.

1.3 Study Site and Study Area

The 62-80 Manuka Road, Berwick property and sections of the adjacent roadside of Manuka Road forms the study site. The study area is the area within a 5km radius of the study site which was the extent of desktop database searches undertaken.

The study site (*Figure 1*) measures approximately 11 hectares and is located to the east of Manuka Road, Berwick. The site lies two kilometres east of the town centre of Berwick and 43 km southeast of the Melbourne CBD. The site contains a dwelling surrounded by maintained gardens, with the majority comprising of open pasture either currently or historically utilized for agricultural practices.

The study site is located within the Gippsland Bioregion, the Port Phillip and Westernport Catchment Management area and the City of Casey municipality.

The study area has a mixed land use. Residential land, schools and recreational facilities are common to the west, while land to the east contains more undeveloped agricultural land and a wide linear bushland reserve that follows Cardinia Creek. Sparse pockets of bushland remain around the built-up townships of Berwick and Beaconsfield while a significant proportion of land northeast of the site is covered by remnant bushland that's protected in large conservation reserves.

The closest significant tracts of native vegetation close to the site include:

- A corridor of approximately 150 ha of disconnected bushland that is contained within the Cardinia Creek Nature Conservation Reserve (NCR) located just east of the site;

- Tracts of remnant bushland and native riparian vegetation up to 10 ha in size that follow Grasmere Creek north of the site up towards Harkaway; and
- Large expanses of contiguous bushland over 500 ha in size that are contained within unnamed Council Reserves and the Upper Beaconsfield NCR 2-3km northeast of the site.

The study site covers two parcels of land, with the associated planning property reports provided in *Appendix 2*. They detail several planning zones and overlays that cover the overall parcels. The planning zones and overlays that specifically cover the study site for this assessment are listed below.

62-70 Manuka Road, Berwick

- Lot and Plan Number: Lot 2 PS305400
- Standard Parcel Identifier: 2\PS305400

72-80 Manuka Road, Berwick

- Lot and Plan Number: Lot 1PS305400
- Standard Parcel Identifier: 1\PS305400

Planning Zones

Neighbourhood Residential Zone – Schedule 2 (NRZ2)

Planning Overlays

Bushfire Management Overlay (BMO)

Development Plan Overlay – Schedule 24 (DPO24)

Heritage Overlay – Schedule (HO50)

Significant Landscape Overlay – Schedule 4 (SLO4)
(DOTP, 2025)

Areas of Aboriginal Cultural Heritage Sensitivity

All or part of this property is an 'area of cultural heritage sensitivity'.



Figure 1: Study site

2 Description of Methods

2.1 Data and Literature Review

The Department of Energy, Environment and Climate Action's (DEECA) online interactive map, *NatureKit* (DEECA, 2025a) was used to gain an insight into the overall distribution of native vegetation on the site and the Ecological Vegetation Class (EVC) to which any remnant vegetation may belong.

The following resources were used to determine if any taxa listed or protected under the Victorian *Flora and Fauna Guarantee Act 1988* (FFG Act), or the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) have been, or potentially could be, located at the site:

- DEECA's *NatureKit Victoria* (DEECA, 2025a);
- DEECA's *Victorian Biodiversity Atlas* (VBA) (DEECA, 2025b);
- DEECA's *Native Vegetation Regulations Map* (NVR) (DEECA, 2025c); and
- The Commonwealth's Protected Matters Search Tool (PMST) (DCCEEW, 2025).

For the VBA and PMST, the search radius was five kilometres around the site.

Site relevant documents provided by the client as background information included:

- *Stormwater Management Plan 42-80 Manuka Road, Berwick* (SMEC, 2023); and
- *62-70 Manuka Road Berwick Arboricultural Construction Impact Assessment* (Greenwood Consulting, 2024).
- *62-70 Manuka Road Berwick (Trees 324, 332, 338, 385, 428 & 429) Arboricultural Construction Impact Assessment* (Greenwood Consulting, 2025)

Two versions of a prior ecological assessment covering the wider DPO24 site were also provided:

- *42-80 Manuka Road, Berwick, Flora and Fauna Assessment. Prepared for Parklea Pty. Ltd. December 2019. Report No. 11179 (4.3)* (Nature Advisory, 2019); and
- *42-80 Manuka Road, Berwick, Flora and Fauna Assessment. Prepared for Parklea Pty. Ltd. December 2019. Report No. 11179 (4.4)* (Nature Advisory, 2022)

2.2 Assessment of the extent of Native Vegetation Impacts and Quantification of Losses

2.2.1 Large Trees in Patches and Scattered Trees

Under the Guidelines (DEECA, 2017) large trees in patches are accounted for in the overall condition score of remnant patches and a count of the number of large trees within a patch marked as lost is provided to DEECA when processing offset requirements. Scattered trees are assigned a default area and condition score of 0.2 while an individual canopy tree deemed lost within a patch is assigned the quality score of the patch it is contained within.

2.2.2 Direct Impacts

Native patches or canopy trees contained within a construction footprint, i.e. roadway or building envelope, are assessed as lost.

2.2.3 Tree Protection Zone Impacts- Indirect Losses

The DEECA defines a Tree Protection Zone (TPZ) as '*an area around the trunk of the tree which has a radius of $12 \times$ the diameter at breast height to a maximum of 15 metres but no less than 2 metres*'. Unless an arborist report indicates otherwise, a tree, or trees will be deemed lost if the encroachment from construction (i.e. compaction and excavation) into the TPZ is greater than 10%, or is inside the Structural Root Zone (SRZ) (DEECA, 2018)

2.2.4 Consequential Losses

The DEECA also requires that 'consequential losses' be considered when determining losses to native vegetation under a subdivision proposal scenario. The DEECA's *Assessors handbook- Applications to remove, destroy or lop native vegetation* (DEECA, 2018) describes these considerations and the requirement to include:

- All native trees or patches within a newly created lot less than 0.4 ha in size as lost;
- All native trees or patches contained within 2 metres either side of any newly established internal property boundaries as 'lost'.

2.3 Field Survey

The site survey was undertaken on the 7th of April 2025. During the survey, all flora present on the site was recorded and vegetation quality assessments were carried out using the methods described below. Incidental fauna observations were also recorded.

The site survey was completed by the following consultants:

- Ben Imbery (B. Env. Mgt), a DEECA accredited native vegetation assessor with over 16 years' experience in environmental consultancy and flora and fauna assessments.
- Antares Fuhrmann (B. Earth Science), a DEECA accredited native vegetation assessor with over 10 years' experience in environmental consultancy and flora and fauna assessments.

The survey included:

- Recording all flora present. Flora species were recorded following the species nomenclature requirements of the VBA;
- Completion of a Vegetation Quality Assessment (VQA) for all native patches. These areas were Digital GPS (DGPS) mapped and assessed using the habitat hectare method described by DSE (2004) in the *Vegetation Quality Assessment Manual – Guidelines for applying the habitat hectares scoring method - Version 1.3*;
- Recording all scattered and large old trees including collecting data on species, DBH and any habitat features (i.e. nests or hollows);
- Identification and recording of any flora and fauna communities including any threatened, protected species / communities or habitat;

- Completing a fauna assessment that includes the opportunistic observation of scats, footprints, diggings, burrows, tracks, incidental bird and other fauna observations and listening for frog and bird calls;
- Identifying and recording notes on any habitat features including vegetation type and structure, proximity to water, the presence of hollow bearing trees and stags, logs and other ground debris. The surrounding landscape was also observed, and notes taken regarding its habitat provision, intactness of native vegetation and connectivity with the study area; and
- Recording notes on specific issues such as noxious weed infestations and any evidence of pest animal disturbance including any active warrens or dens.

GPS mapping was completed using the ArcCollector application paired with a handheld Android device. An average recording accuracy of approximately +/- 4m was achieved.

The mapping included:

- Walking and recording a GPS location of the extent of all native vegetation patches within the assessment corridor;
- Walking and recording a GPS location of all scattered trees, large trees within patches and any large trees immediately adjacent to the assessment boundary;
- Walking and recording a GPS location of any threatened or protected flora species;
- Walking and recording a GPS location of the extent of any threatened ecological communities; and
- Walking and recording a GPS location of any pest animal activity locations and any noxious weed infestations.

2.3.1 Native Vegetation

Native vegetation is defined in the Victoria Planning Provisions (Definitions – Clause 72) as '*plants that are indigenous to Victoria, including trees, shrubs, herbs and grasses*'. DEECA's *Guidelines for the removal, destruction or lopping of native vegetation* (DEECA, 2017) (the Guidelines) further defines native vegetation into two categories: 'remnant patches' and 'scattered trees' outlined below.

A 'remnant patch' of native vegetation is either:

- An area of vegetation where at least 25 per cent of the total perennial understorey plant cover is native; or
- Any area with three or more native canopy trees where the drip line of each tree touches the drip line of at least one other tree, forming a continuous canopy; or
- any mapped wetland included in the *Current wetlands map*, available in DEECA systems and tools.

A 'scattered tree' is:

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

Following these definitions all native vegetation on site was categorised as either 'remnant patches' or 'scattered trees'.

All large size class trees within and immediately adjacent to the study area and all scattered trees on site were identified, GPS mapped and had their diameter at breast height (DBH) and any other relevant data recorded.

2.4 Definitions of Significance

The significance of a species or ecological community described in this report follows its listing status under Commonwealth or State legislation.

- **National** significance includes all species listed as critically endangered, endangered or vulnerable under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act);
- **State** listed as critically endangered, endangered or vulnerable on the FFG Act Threatened List (DEECA, 2025d).

2.5 Likelihood of Occurrence

In determining the likelihood of presence of a listed species a likelihood rating of present, high, moderate, low or unlikely is assigned. This rating is based on consideration of the following factors:

- Was the species recorded on site or has it been previously recorded on the site;
- Is there likely to be a resident population within the local area (5km radius);
- Is suitable habitat present on site or is habitat modified but aspects of suitable habitat present;
- Is it possible the species may seasonally or opportunistically use resources within the local area; and
- Are there any records for the species within the local area within the last 5, 10 or 25 years.

Table 1 - Likelihood of occurrence determination

Likelihood	Comments
Present	Species has been confirmed as present on site during field work
High	Suitable habitat present on site
	Likely to be a resident population/s in the local area*
	Previously recorded on site
	Numerous records within the local area within the past 5 years
Moderate	Aspects of habitat present but may be modified
	Species may be resident in the local area or it forms part of the species' range
	May seasonally or opportunistically use resources within the local area
	Less than 10 year old records within local area
Low	Limited aspects of habitat present or habitat highly modified
	Species may occur rarely or as an opportunistic visitor in the area
	Few records within the local area within the past 25 years
Unlikely	No suitable habitat present
	Site is located outside of species natural range
	Considered locally extinct
	No records of the species within the local area in the last 25 years
* Local area = within a 5km range of the site.	

2.6 Legislation and Policy

Any biodiversity related implications for the project were assessed against the following biodiversity legislation and policy:

- *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) including related listing advice, recovery plans and significant impact guidelines;
- *Flora and Fauna Guarantee Act 1988* (FFG Act) including related action statements and listing advice;
- *Planning and Environment Act 1987* including *Clause 52.17* and any overlays applicable to the study area under the Casey Planning Scheme;
- The DEECA's *Guidelines for the removal, destruction or lopping of native vegetation* (DEECA, 2017);
- *Catchment and Land Protection Act 1994* (CaLP Act) including noxious weed and pest animal listings;
- *Water Act 1989*;
- *Wildlife Act 1979*; and
- *Environmental Effects Act 1987*.

2.7 Limitations

The site survey was undertaken during the Autumn season in April 2025. The autumn timing of the survey is generally suitable for vegetation and flora surveys, but not optimal. It is possible that some annual, deciduous or dormant taxa may not have been visible. Additionally, some taxa have not been identified to specific or infraspecific rank due to the absence of flowering, or other material typically used for identification.

The autumn timing of the survey and level of survey effort are considered satisfactory to assess the general habitat values of the study area and identify any threatened or protected perennial flora species or habitat, threatened ecological communities and to assess the general fauna habitat values of the study area.

The assessment of fauna presence did not involve a targeted fauna survey. Consequently, further species are likely to be recorded given further time and/or the undertaking of more detailed survey.

The likelihood of occurrence assessment did not involve targeted flora or fauna surveys nor the use of individual species experts for those species identified in the database searches. The assessment is undertaken using generalist expertise and knowledge of past targeted surveys and local area. Consequently, the potential for threatened or additional species being identified given further time, involvement of species experts, or undertaking of targeted surveys cannot be excluded. Likelihood assessment results could therefore vary given further expert opinion.

3 Results

3.1 Database & Literature Review

3.1.1 Related Reports

The arborist report for the site titled *62-70 Manuka Road Berwick Arboricultural Construction Impact Assessment* (Greenwood Consulting, 2024) was reviewed after the completion of the site visit. The arborist report identified thirty (30) remnant native trees within the 62-70 Manuka Road parcel. It also lists planted understorey trees including black wattle (*Acacia mearnsii*), silver wattle (*Acacia dealbata*) and swamp paperbark (*Melaleuca ericifolia*) and the environmental weed species willow (*Salix sp.*). This arborist report focuses on trees around a farm dam on Grasmere Creek.

An updated arborist report for the site was prepared in July 2025. The report, *62-70 Manuka Road Berwick (Trees 324, 332, 338, 385, 428 & 429) Arboricultural Construction Impact Assessment* (Greenwood Consulting, 2025) focused on mitigation measures for six retained native trees with TPZ encroachment from a proposed footpath adjacent to a tree reserve.

The *42-80 Manuka Road, Berwick, Flora and Fauna Assessment Prepared for Parklea Pty. Ltd. December 2019. Report No. 11179 (4.3)* (Nature Advisory, 2019) outlined an ecological assessment of the wider DPO24 site. It was updated in 2022 to ‘bring the contained information in line with gazetted changes to Victoria’s native vegetation removal regulations and investigate the quality of native vegetation directly east of the previous study area’ (Nature Advisory, 2022).

Key information taken from Nature Advisory reports included:

- Flora and fauna recordings;
- Ecological Vegetation Class, native patch and large tree determinations and mapping;
- Native patch habitat zone scoring and general habitat values assessment; and
- Threatened and listed migratory species likelihood determinations.

Nature Advisory recorded eight native patches within the site, totalling 3.072ha and recorded six scattered trees.

The Nature Advisory assessment of the likely presence of threatened flora and fauna considers the range of habitats found across the wider DPO24 site such as remnant woodland, waterways and riparian vegetation, which occur across the eastern region of the study site including along the eastern boundary.

3.1.2 Flora Species

Interrogation of the DEECA’s *Victorian Biodiversity Atlas* (VBA) (DEECA, 2025b) identified records for twenty-five threatened flora species records within a 5 km radius of the site. (*Appendix 3*).

There are no records of any threatened flora within the bounds of the site. Records of threatened flora located close to the site include:

- Spurred helmet-orchid (*Corybas aconitiflorus*), listed as Endangered on the FFG Act Threatened List, was recorded 200m northeast of the site at the edge of the Cardinia Creek bushland corridor in 1998.

- Green scentbark (*Eucalyptus fulgens*), listed as Endangered on the FFG Act Threatened List, was recorded 400 metres east of the site on the eastern side of Cardinia Creek in 2017.
- Floodplain fireweed (*Senecio campylocarpus*), listed as Endangered on the FFG Act Threatened List, was recorded at the same location on the eastern side of Cardinia Creek in 2017;
- Spotted gum (*Corymbia maculata*) a commonly planted tree not native to the local area has also been recorded nearby to the site.

Interrogation of the EPBC Act *Protected Matters Search Tool* (DCCEEW, 2025) identified within a 5km search radius the potential presence of nineteen significant flora species that are listed as threatened at the Federal level (*Appendix 4*).

Appendix 5 provides a summary of the assessment of likelihood of presence for all threatened flora species found in both the EPBC Act Protected Matters Search Tool and the Victorian Biodiversity Atlas within five kilometres of the study area.

3.1.3 Fauna Species

Interrogation of the DEECA's VBA (DEECA, 2025b) identified forty-two fauna species within 5 km of the site that are listed as threatened under Victoria's FFG Act (*Appendix 6*).

Records of threatened fauna close to the site include:

- Eastern Great Egret (*Ardea alba modesta*) listed as Vulnerable on the FFG Act Threatened list was recorded approximately 300 north of the site in 2019.
- Freckled duck (*Stictonetta naevosa*) listed as Endangered on the FFG Act Threatened list was recorded approximately 300 north of the site in 2018.
- Gang-gang cockatoo (*Callocephalon fimbriatum*) listed as Endangered under the EPBC Act and Endangered on the FFG Act Threatened List has multiple records in the local area. The closest approximately 200m east of the site in 2000.
- Powerful owl (*Ninox strenua*) listed as Endangered on the FFG Act Threatened List has been recorded seven times in the nearby Cardinia Creek riparian corridor within approximately 400m east distance of the site.
- Dwarf galaxias (*Galaxiella pusilla*) listed as Endangered under the EPBC Act and Endangered on the FFG Act Threatened list. Since 1983 approximately 50 individuals have been recorded in Grasmere Creek upstream of the site and within sections of Cardinia Creek close to the site.

Interrogation of the EPBC Act Protected Matters Search Tool (DCCEEW, 2025) identified within a 5km search radius the potential presence of forty-one significant fauna species that are listed as threatened at the Federal level or that are listed migratory species under the EPBC Act (*Appendix 4*).

Appendix 7 provides a summary of the assessment of likelihood of presence for all threatened fauna species found in both the EPBC Act Protected Matters Search Tool and the Victorian Biodiversity Atlas within five kilometres of the study area.

3.1.4 Location Ranking, Modelled Condition and Mapped Wetlands

The DEECA's *NVR Map* online map shows most of the site being covered by 'Location 1' which is the lowest ranking for biodiversity importance relative to other locations across Victoria. 'Location 2', the

middle ranking, is mapped along the northeastern and southeastern edges of the site, while 'Location 3', the highest ranking, is mapped in small, fragmented areas within the northeast of the site.

In its mapping DEECA assigns a modelled condition score of between 0 to 0.20 (out of 1 point) across the western region of the site, while an increased score range of between 0.21 to 0.80 (out of 1 point) is assigned to the southeastern boundary and northeastern boundary that interfaces with the Cardinia Creek corridor.

The *NVR Map* shows no DEECA 'mapped current wetlands' within the site but shows several scattered small, mapped wetlands nearby to the site along Grasmere Creek and Cardinia Creek (DEECA, 2025c).

3.1.5 Threatened Ecological Communities

Using a 5km search radius the EPBC Act Protected Matters Search Tool (*Appendix 4*) identified the possible presence of two Critically Endangered EPBC Act listed threatened ecological communities:

- *Natural Damp Grassland of the Victorian Coastal Plains*; and
- *White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland*

(DCCEEW, 2025)

3.1.6 Wetlands of National Importance (Ramsar)

Interrogation of the EPBC Act Protected Matters Search Tool (DCCEEW, 2025), identified the presence of one Wetland of National Importance; being Western Port, within a proximity of 10-20 km of the site (*Appendix 4*) (DCCEEW, 2025).

No Wetlands of National Importance are present within or adjacent to the site

1.1.1 Other Matters of National Environmental Significance (MNES)

The Protected Matters report did not identify any other EPBC Act protected matters within the 5 km search radius (*Appendix 4*).

3.2 Vegetation

Appendix 8 lists the results of the flora survey and includes all flora species identified during the site survey.

The site is dominated by open pasture/paddocks utilized for grazing/agistment activities, with common exotic grass species present including brown-top bent (*Agrostis capillaris*), kikuyu (*Cenchrus clandestinus*) and cocksfoot (*Dactylis glomerata*).

The domestic/dwelling area retains large spans of maintained lawn, planted garden beds and many planted rows of exotic trees such as Monterey cypress (*Hesperocyparis macrocarpa*) and white poplar (*Populus alba*) intermixed with commonly planted Australian and Victorian canopy trees. Species include lemon-scented gum (*Corymbia citriodora* subsp. *citriodora*), sugar gum (*Eucalyptus cladocalyx*), southern blue-gum (*Eucalyptus globulus*) and spotted gum (*Corymbia maculata*), which line the driveways and internal fence lines.

Native vegetation is largely confined to the lower eastern slopes, which retain a canopy of mature eucalypts dominated by manna gum (*Eucalyptus viminalis*), swamp gum (*Eucalyptus ovata*) and narrow-leaf peppermint (*Eucalyptus radiata*). An open mid-storey retains the occasional shrub or small tree such as a wattle, while the ground layer holds austral bracken (*Pteridium esculentum* subsp. *esculentum*) alongside a suite of native grasses including kangaroo grass (*Themeda triandra*) and wiry spear-grass (*Austrostipa muelleri*).

The ornamental dam at the front of existing dwelling hosts clusters of the native aquatic species river club-sedge (*Schoenoplectus tabernaemontani*), alongside plantings of exotic sedges and other exotic garden plants.

Several high threat woody weeds are scattered throughout the site. These include the declared noxious hawthorn (*Crataegus monogyna*), African boxthorn (*Lycium ferocissimum*) and blackberry (*Rubus fruticosus* spp. agg.) along with other environmental weeds such as desert ash (*Fraxinus angustifolia*) and the occasional occurrence of ragwort (*Senecio jacobaea*) and bridal creeper (*Asparagus asparagoides*).

Photos 1 and 2 show some examples of the vegetation found on site.



Photo 1: Example of the swamp woodland present across the eastern region



Photo 2: Example of the planted (mainly exotic trees) and maintained lawns that surrounded the dwelling/domestic area

3.2.1 Ecological Vegetation Classes

Ecological Vegetation Classes (EVC) are a type of vegetation classification which aims to group plant communities according to common flora species, vegetation structure and common environmental factors such as elevation, soils and average rainfall.

The study area is located with the Gippsland Plain Bioregion.

In its EVC modelling the DEECA's *NatureKit* interactive map shows EVC 937: *Swampy Woodland* is modelled to cover the majority of the site, while EVC 83: *Swampy Riparian Woodland* is modelled over a small pocket of the southeast corner and extends east to cover the nearby Cardinia Creek riparian corridor.

In its extant mapping DEECA shows EVC 937: *Swampy Woodland* as remaining largely intact across the eastern region of the site, with a small number of fragmented patches located within the southwestern corner, while EVC 83: *Swampy Riparian Woodland* remains intact within the southeast corner of the site.

The field assessment confirmed that DEECA's modelling was consistent across much of the site. However, it differed along the eastern slopes heading down towards Cardinia Creek and it was determined that this landform was a continuation of EVC 83: *Swampy Riparian Woodland* across the two native patches assessed. The assignment of EVC over the site and wider surrounds is shown in *Figure 2*.

Appendix 9 provides benchmarks for the two EVC assigned to the site, with some key elements provided in *Table 2* below.

Table 2: DEECA Bioregional Conservation Status, Description and Large Tree Size for Assigned Ecological Vegetation Classes-

Bioregion	Ecological Vegetation Class	Bioregional Conservation Status	Large Tree Size Benchmark	The DEECA's Ecological Vegetation Classes Description
Gippsland Plain	EVC 83: <i>Swampy Riparian Woodland</i>	Endangered	70 cm+	Woodland to 15 m tall generally occupying low energy streams of the foothills and plains. The lower strata are variously locally dominated by a range of large and medium shrub species on the stream levees in combination with large tussock grasses and sedges in the ground layer.
	EVC 937: <i>Swampy Woodland</i>	Endangered	70 cm+	Open eucalypt woodland to 15 m tall with ground-layer dominated by tussock grasses and/or sedges and often rich in herbs. Occurs on poorly drained, seasonally waterlogged heavy soils, primarily on swamp deposits but extending to suitable substrates within some landscapes of sedimentary origin.

(DEECA, 2025e).



3.2.2 Native Vegetation Quality Assessment

The vegetation quality assessment identified and mapped all native vegetation patches on site. The native patches were separated into two different habitat zones.

Map 1 show the location and extent of all native patches and scattered trees GPS mapped within the study area and *Table 3* provides the total area of native patches that were mapped and assessed within the study area.

Table 3: Summary and breakdown of total area of native patches identified and assessed

Habitat Zone (HZ)	Ecological Vegetation Class	Total Area (hectares)
1	EVC 83: <i>Swampy Riparian Woodland</i>	0.7817
2	EVC 83: <i>Swampy Riparian Woodland</i>	0.7257
TOTAL		1.5074

A habitat hectare assessment was completed for each habitat zone. *Table 4* provides the results of this assessment, including the score attributed to each of the site condition components and landscape values for each habitat zone. Habitat zone descriptions are provided below, and all flora species recorded in native patches are listed in *Appendix 8*.

The zones all scored very poorly overall for their 'landscape values' due to the dominance of cleared land and limited presence of native vegetation within a 5 km radius of the site.

Swampy Riparian Woodland – Habitat Zone 1 (0.7817 ha)

This zone covers the easterly facing slopes that taper down towards Grasmere Creek and Cardinia Creek. Canopy trees are dotted sparsely across the zone which has an open and disturbed native understorey that is likely the result of previous cattle access.

Manna gum is the dominant canopy species throughout the zone with swamp gum the next most common. Other eucalypts present include messmate stringybark (*Eucalyptus obliqua*) and narrow-leaf peppermint. A high proportion of the manna gum are large trees above 70cm DBH. The canopy health is generally very good; however, the overall foliage cover of the canopy is sparse across the zone.

Overall native shrub cover is sparse with limited scatterings of species like cherry ballart (*Exocarpos cupressiformis*) and sweet bursaria (*Bursaria spinosa*). Scatterings of native grasses and austral bracken do exist but generally the ground layer is dominated by exotic pasture species like Yorkshire fog (*Holcus lanatus*) and cocksfoot. Native graminoids and herbs are generally poorly represented.

Overall weed cover is high. The woody weed hawthorn forms clusters over the hillside and the ground layer is largely covered by exotic grass species with species like cocksfoot and kikuyu both common.

The vegetation quality assessment assigned a low-middle range score of 37 points out of 100 (0.37) to the zone. Breaking the score down, the zone received a high score for the presence of large trees but scored relatively poorly for most other site condition elements. The overall score gives a reasonable indication of the relatively high degree of disturbance and modification across the zones' understorey.

Photo 3 provides an example of vegetation typical to Habitat Zone 1.



Photo 3: Example of vegetation typical to Habitat Zone 1

Swampy Riparian Woodland – Habitat Zone 2 (0.7257 ha)

This zone covers an easterly facing slope that tapers down towards Grasmere Creek in the northeast corner of the site. Clusters of mature canopy trees exist above a generally degraded understorey with sparse scatterings of native understorey.

Manna gum is the dominant canopy species throughout the zone with the occasional narrow-leaf peppermint also present. A high proportion of the manna gum are large trees above 70cm DBH. The canopy health is generally very good however, the overall foliage cover of the canopy is sparse across the zone.

Native shrub cover is absent with native understorey consisting mostly of patches of sword tussock-grass (*Poa ensiformis*) and weeping grass (*Microlaena stipoides* var. *stipoides*) and scatterings of austral bracken. Native herbs are absent across the zone.

Overall weed cover is high. The woody weed hawthorn forms scattered clusters over the hillside and blackberry thickets have formed around many of the tree bases. Exotic pasture grasses are spread throughout, with cocksfoot and sweet vernal grass (*Anthoxanthum odoratum*) among the most common species.

The vegetation quality assessment assigned a low range score of 30 points out of 100 (0.30) to the zone. The zone it received a high score for the presence of large trees but scored relatively poorly for most other site condition elements. The overall score gives a reasonable indication of the relatively high degree of disturbance and modification across the zones' understorey.

Photo 4 provides an example of vegetation typical to Habitat Zone 2.



Photo 4: Example of vegetation typical to Habitat Zone 2

Table 4: Results of Vegetation Quality Assessments for all Native Patches

			Habitat Zone 1	Habitat Zone 2
Bioregion - Gippsland Plain			Swampy Riparian Woodland	Swampy Riparian Woodland
EVC Name (initials)			SRW	SRW
EVC Number			83	83
Bioregional Conservation Status			Endangered	Endangered
		Max Score	100	100
Site Condition	Large Old Trees	10	9	9
	Canopy Cover	5	2	4
	Lack of Weeds	15	0	0
	Understorey	25	10	5
	Recruitment	10	3	0
	Organic Matter	5	5	5
	Logs	5	5	4
	Total Site Score	75	34	27
	Site score out of?	eg 55	75	75
	Adjusted Site Score		34	27
Landscape value	Patch Size	10	2	2
	Neighbourhood	10	0	0
	Distance to Core	5	1	1
Habitat points out of 100		100	37	30
Habitat Score (hab points/100)			0.37	0.30
Total area of the Zone (ha)			0.7817	0.7257
Total HHA in the zone			0.2892	0.2177
Catchment Management Authority			Melbourne Water CMA	

3.2.3 Canopy Trees

A total of 49 large trees were recorded in native patches. An additional 4 large scattered trees and 2 small scattered trees were identified on site.

Remnant trees are represented by clusters of eucalypts predominantly situated throughout the eastern region of the site. The site also contained planted exotic trees alongside some mature planted Australian and Victorian native species. The location of locally native canopy trees and some of the larger planted Australian/Victorian native trees is shown in *Map 1*. Individual detail for these trees is provided below in *Table 5*.

Please note that not all the exotic trees recorded by the arborist are shown in *Map 1*. Only Victorian native trees are mapped as part of this assessment. The tree numbers 293 to 964 (*Table 5*) correlates to the tree numbering from the arborist report *Greenwood Consulting – February 2021*. Tree identification numbers 1 to 37 form additional trees assessed on site as part of the ID Ecological Management survey.

Table 5: Tree Recordings

Tree ID No.	Botanical Name	Common Name	Diameter at Breast Height (DBH)	Size Category	Tree Protection Zone (TPZ) distance	Type	Comments
*293	<i>Eucalyptus botryoides</i>	Southern Mahogany	95	NA	11.4	Planted	
*296	<i>Eucalyptus botryoides</i>	Southern Mahogany	82	NA	9.8	Planted	
*297	<i>Dead Eucalypt</i>	Dead Tree	70	Large	8.4	Scattered Tree-Large	
*320	<i>Eucalyptus viminalis</i>	Manna Gum	86	Large	10.3	Large Patch Tree	
*324	<i>Eucalyptus viminalis</i>	Manna Gum	93	Large	11.2	Large Patch Tree	hollows x 1
*330	<i>Eucalyptus ovata</i>	Swamp Gum	75	Large	9	Large Patch Tree	
*331	<i>Eucalyptus viminalis</i>	Manna Gum	76	Large	9.1	Large Patch Tree	
*338	<i>Eucalyptus viminalis</i>	Manna Gum	97	Large	11.6	Large Patch Tree	hollows x 2
*340	<i>Eucalyptus viminalis</i>	Manna Gum	74	Large	8.9	Large Patch Tree	
*368	<i>Eucalyptus viminalis</i>	Manna Gum	108	Large	13	Large Patch Tree	
*370	<i>Eucalyptus viminalis</i>	Manna Gum	95	Large	11.4	Large Patch Tree	hollows x 2
*374	<i>Eucalyptus viminalis</i>	Manna Gum	86	Large	10.3	Large Patch Tree	
*377	<i>Eucalyptus viminalis</i>	Manna Gum	75	Large	9	Large Patch Tree	
*381	<i>Eucalyptus viminalis</i>	Manna Gum	75	Large	9	Large Patch Tree	
*382	<i>Dead Eucalypt</i>	Dead Tree	76	Large	9.1	Large Patch Tree	hollows x 1
*383	<i>Eucalyptus obliqua</i>	Messmate Stringybark	62	Small	7.4	Small Patch Tree	
*384	<i>Eucalyptus viminalis</i>	Manna Gum	148	Large	15	Large Patch Tree	hollows x 3
*385	<i>Eucalyptus viminalis</i>	Manna Gum	138	Large	15	Large Patch Tree	
*388	<i>Eucalyptus radiata</i>	Narrow-leaf Peppermint	64	Small	7.7	Small Patch Tree	
*389	<i>Eucalyptus obliqua</i>	Messmate Stringybark	105	Large	12.6	Large Patch Tree	
*392	<i>Eucalyptus viminalis</i>	Manna Gum	122	Large	14.6	Large Patch Tree	small hollows x 4
*393	<i>Eucalyptus viminalis</i>	Manna Gum	68	Small	8.2	Small Patch Tree	
*394	<i>Eucalyptus viminalis</i>	Manna Gum	106	Large	12.7	Large Patch Tree	small hollows x 2
*395	<i>Dead Eucalypt</i>	Dead Tree	45	Small	5.4	Small Patch Tree	
*419	<i>Eucalyptus viminalis</i>	Manna Gum	92	Large	11	Large Patch Tree	

Tree ID No.	Botanical Name	Common Name	Diameter at Breast Height (DBH)	Size Category	Tree Protection Zone (TPZ) distance	Type	Comments
*421	<i>Eucalyptus viminalis</i>	Manna Gum	100	Large	12	Large Patch Tree	
*424	<i>Eucalyptus viminalis</i>	Manna Gum	65	Small	7.8	Small Patch Tree	
*425	<i>Eucalyptus viminalis</i>	Manna Gum	95	Large	11.4	Large Patch Tree	damaged hollow main trunk
*428	<i>Eucalyptus ovata</i>	Swamp Gum	78	Large	9.4	Large Patch Tree	
*429	<i>Eucalyptus ovata</i>	Swamp Gum	78	Small	5.8	Small Patch Tree	
*431	<i>Dead Eucalypt</i>	Dead Tree	48	Large	15	Large Patch Tree	2.5 metres tall
*432	<i>Eucalyptus ovata</i>	Swamp Gum	120	Small	7.6	Small Patch Tree	
*433	<i>Eucalyptus ovata</i>	Swamp Gum	63	Small	7.4	Small Patch Tree	
*436	<i>Eucalyptus radiata</i>	Narrow-leaf Peppermint	62	Large	9.4	Large Patch Tree	
*620	<i>Eucalyptus globulus</i>	Southern Blue-gum	65	NA	7.8	Planted	
*626	<i>Eucalyptus globulus</i>	Southern Blue-gum	70	NA	8.4	Planted	
*631	<i>Eucalyptus globulus</i>	Southern Blue-gum	25	NA	3	Planted	
*632	<i>Eucalyptus globulus</i>	Southern Blue-gum	125	NA	15	Planted	
*795	<i>Eucalyptus radiata</i>	Narrow-leaf Peppermint	25	Small	3	Scattered Tree-Small	
*919	<i>Dead Eucalypt</i>	Dead Tree	80	Large	9.6	Large Patch Tree	
*920	<i>Eucalyptus viminalis</i>	Manna Gum	130	Large	15	Large Patch Tree	
*921	<i>Eucalyptus viminalis</i>	Manna Gum	100	Large	12	Large Patch Tree	
*922	<i>Eucalyptus viminalis</i>	Manna Gum	108	Large	13	Large Patch Tree	
*923	<i>Dead Eucalypt</i>	Dead Tree	100	Large	12	Scattered Tree-Large	5 metres tall, crown split
*932	<i>Dead Eucalypt</i>	Dead Tree	87	Large	10.4	Large Patch Tree	3 metres tall, split in half
*941	<i>Eucalyptus viminalis</i>	Manna Gum	68	Small	8.2	Small Patch Tree	hollows x 2
*943	<i>Eucalyptus viminalis</i>	Manna Gum	142	Large	15	Large Patch Tree	hollows x 4
*944	<i>Eucalyptus radiata</i>	Narrow-leaf Peppermint	43	Small	5.2	Small Patch Tree	
*946	<i>Eucalyptus radiata</i>	Narrow-leaf Peppermint	73	Large	8.8	Large Patch Tree	

Tree ID No.	Botanical Name	Common Name	Diameter at Breast Height (DBH)	Size Category	Tree Protection Zone (TPZ) distance	Type	Comments
*948	<i>Eucalyptus radiata</i>	Narrow-leaf Peppermint	72	Large	8.6	Large Patch Tree	
*952	<i>Eucalyptus viminalis</i>	Manna Gum	55	Small	6.6	Small Patch Tree	
*954	<i>Eucalyptus viminalis</i>	Manna Gum	54	Small	6.5	Small Patch Tree	
*957	<i>Eucalyptus viminalis</i>	Manna Gum	106	Large	12.7	Large Patch Tree	hollows x 2
*958	<i>Eucalyptus camaldulensis</i>	River Red-gum	80	NA	9.6	Planted	
*959	<i>Eucalyptus camaldulensis</i>	River Red-gum	60	NA	7.2	Planted	
*960	<i>Eucalyptus radiata</i>	Narrow-leaf Peppermint	165	Large	15	Scattered Tree-Large	large hollow main trunk
*963	<i>Eucalyptus radiata</i>	Narrow-leaf Peppermint	76	Large	9.1	Scattered Tree-Large	
*964	<i>Eucalyptus radiata</i>	Narrow-leaf Peppermint	28	Small	3.4	Scattered Tree-Small	
1	<i>Acacia mearnsii</i>	Black Wattle	0	NA	0	Understorey Tree	
2	<i>Eucalyptus botryoides</i>	Southern Mahogany	90	NA	10.8	Planted	
3	<i>Eucalyptus botryoides</i>	Southern Mahogany	55	NA	6.6	Planted	hollows x 3
4	<i>Eucalyptus botryoides</i>	Southern Mahogany	55	NA	6.6	Planted	
5	<i>Eucalyptus botryoides</i>	Southern Mahogany	45	NA	5.4	Planted	
6	<i>Eucalyptus botryoides</i>	Southern Mahogany	45	NA	5.4	Planted	
7	<i>Eucalyptus botryoides</i>	Southern Mahogany	58	NA	7	Planted	hollows x 1
8	<i>Acacia mearnsii</i>	Black Wattle	0	NA	0	Understorey Tree	hollows x 1
9	<i>Corymbia maculata</i>	Spotted Gum	40	NA	4.8	Planted	small hollows x 2
10	<i>Eucalyptus globulus</i>	Southern Blue-gum	52	NA	6.2	Planted	hollows x 2
11	<i>Dead Eucalypt</i>	Dead Tree	117	Large	14	Scattered Tree-Large	hollows x 3
12	<i>Eucalyptus viminalis</i>	Manna Gum	65	Small	7.8	Small Patch Tree	
13	<i>Eucalyptus viminalis</i>	Manna Gum	82	Large	9.8	Large Patch Tree	

Tree ID No.	Botanical Name	Common Name	Diameter at Breast Height (DBH)	Size Category	Tree Protection Zone (TPZ) distance	Type	Comments
14	<i>Eucalyptus viminalis</i>	Manna Gum	63	Small	7.6	Small Patch Tree	
15	<i>Eucalyptus viminalis</i>	Manna Gum	63	Small	7.6	Small Patch Tree	hollows x 2
16	<i>Eucalyptus viminalis</i>	Manna Gum	84	Large	10.1	Large Patch Tree	
17	<i>Dead Eucalypt</i>	Dead Tree	75	Large	9	Large Patch Tree	hollows x 2
18	<i>Eucalyptus ovata</i>	Swamp Gum	120	Large	14.4	Large Patch Tree	hollows x 7
19	<i>Eucalyptus viminalis</i>	Manna Gum	125	Large	15	Large Patch Tree	
20	<i>Eucalyptus obliqua</i>	Messmate Stringybark	972	Large	11.4	Large Patch Tree	
21	<i>Eucalyptus viminalis</i>	Manna Gum	88	Large	10.6	Large Patch Tree	
22	<i>Eucalyptus viminalis</i>	Manna Gum	94	Large	11.3	Large Patch Tree	
23	<i>Eucalyptus viminalis</i>	Manna Gum	98	Large	11.8	Large Patch Tree	
24	<i>Eucalyptus viminalis</i>	Manna Gum	92	Large	11	Large Patch Tree	
25	<i>Eucalyptus viminalis</i>	Manna Gum	105	Large	12.6	Large Patch Tree	Outside property fence-line
26	<i>Eucalyptus viminalis</i>	Manna Gum	76	Large	9.1	Large Patch Tree	Outside property fence-line
27	<i>Eucalyptus viminalis</i>	Manna Gum	54	Small	6.5	Small Patch Tree	hollows x 3
28	<i>Eucalyptus viminalis</i>	Manna Gum	110	Large	13.2	Large Patch Tree	large hollow main trunk
29	<i>Eucalyptus viminalis</i>	Manna Gum	60	Small	7.2	Small Patch Tree	
30	<i>Eucalyptus viminalis</i>	Manna Gum	60	Small	7.2	Small Patch Tree	
31	<i>Eucalyptus viminalis</i>	Manna Gum	58	Small	7	Small Patch Tree	
32	<i>Eucalyptus viminalis</i>	Manna Gum	48	Small	5.8	Small Patch Tree	
33	<i>Dead Eucalypt</i>	Dead Tree	98	Large	11.8	Large Patch Tree	
34	<i>Eucalyptus viminalis</i>	Manna Gum	110	Large	13.2	Large Patch Tree	
35	<i>Eucalyptus viminalis</i>	Manna Gum	92	Large	11	Large Patch Tree	
36	<i>Eucalyptus nicholii</i>	Narrow-leaved Black Peppermint	25	NA	3	Planted	
37	<i>Eucalyptus nicholii</i>	Narrow-leaved Black Peppermint	30	NA	3.6	Planted	
*ID Number follows arborist report numbering (onsite- tree tagging)							
Note - all trees were measured with a DBH tape at 1.3m above ground level which may cause some discrepancy with Arborist Report DBH measurements.							



Photo 5: Example of Large tree (Tree ID Numbers 384)



Photo 6: Example of Large tree (Tree ID Number 374)

3.2.4 Planted Vegetation

Planted rows of exotic trees line external and internal fence lines dominated by large radiata pine (*Pinus radiata*), and Monterey cypress, while the domestic/dwelling area location retains a myriad of planted exotic trees and shrubs intermixed with isolated Australian and Victorian native trees, with commonly planted species including southern mahogany (*Eucalyptus botryoides*), spotted gum, lemon-scented gum and southern blue-gum.

Three (3) separate 'Planted Vegetation Zones' have been defined within the site, including the domestic area and their location is shown in *Map 1*. *Table 6* provides a general description, details of the types of species planted in each of these Zones and further information on planted Australian/Victorian native canopy trees.

Table 6: Planted Vegetation Zones

Planted Vegetation Zone	Description
Domestic Area	Domestic/Dwelling area – retains exotic planted shrubs and trees including mature maple (<i>Acer spp.</i>), English oak (<i>Quercus robur</i>), Monterey cypress, desert ash, weeping willow (<i>Salix babylonica</i>), white poplar, pepper tree (<i>Schinus molle</i>), radiata pine, spotted gum, lemon-scented gum, sweet pittosporum (<i>Pittosporum undulatum</i>) and prunus (<i>Prunus spp.</i>).
A	Continuous planted row of large mature radiata pine or Monterey cypress hedges along external or internal fence lines.
B	Mixed plantings of exotic species intermixed with Australian and Victorian species including southern blue-gum, sugar gum, southern mahogany, spotted gum, sallow wattle (<i>Acacia longifolia</i>), plane tree (<i>Platanus sp.</i>), giant honey-myrtle (<i>Melaleuca armillaris</i> subsp. <i>armillaris</i>), sweet pittosporum and maple.



Photo 7: Example of planted vegetation Zone A – Monterey cypress hedge and the domestic area



Photo 8: Example of planted vegetation Zone B

3.2.5 Significant Vegetation Communities

All native vegetation found within the site belongs to EVC 83: *Swampy Riparian Woodland*. This EVC is not synonymous with any threatened ecological communities that are listed under either the EPBC Act or FFG Act.

3.3 Flora Species

3.3.1 Flora Species Recorded

A total of 81 vascular plants were recorded during the site visit undertaken on the 7th of April 2025. Of these, 33 species are taxa native to Victoria. *Appendix 8* provides the results of the flora survey.

The Nature Advisory site assessment which covered the much wider DPO24 site recorded 83 plant species, of which 23 (28%) were indigenous and 60 (72%) were introduced or non-indigenous native in origin (Nature Advisory, 2022).

3.3.2 Significant Flora Species

A description of the range of vegetation types and potential habitats for threatened flora species that are found on the site are described in *Section 3.5*.

Survey of the study site identified two (2) threatened flora species however, these species are not indigenous to the local area and are all planted specimens, located outside of their natural range.

- Spotted gum (*Corymbia maculata*) listed on the FFG Act Threatened List as Vulnerable; and
- Giant honey-myrtle (*Melaleuca armillaris* subsp. *armillaris*) listed on the FFG Act Threatened List as Endangered.

The field survey and likelihood assessment found that all other threatened flora species identified in the database searches were found to be unlikely to occur within the study area.

The Nature Advisory site assessment did not record any threatened flora species and in its analysis of the likelihood of occurrence of all listed flora species, it identified that no listed flora species could be impacted by any development in the wider DPO24 site (Nature Advisory, 2022).

Appendix 5 provides a summary of the assessment of likelihood of presence for all threatened flora species found in both the EPBC Act Protected Matters Search Tool and the Victorian Biodiversity Atlas within five kilometres of the study area as part of this assessment.

In summary, the field survey and likelihood assessment found:

- No locally indigenous threatened flora was recorded on site during the site visit; and
- All other threatened flora species identified in the database searches were unlikely to occur within the study area primarily due to a lack of suitable habitat.

3.4 Fauna Species

3.4.1 Fauna Species Recorded

A total of 21 fauna species were recorded during the site visit undertaken on the 7th of April 2025. Fauna recorded comprised of:

- 17 native bird species;
- 2 native mammal species;
- 1 introduced bird species; and
- 1 pest mammal species in European rabbit (*Oryctolagus cuniculus*).

The Nature Advisory site assessment which covered the wider DPO24 site recorded 54 fauna species. This included 44 bird (six introduced), five mammal (three introduced), two reptile and three frog species (Nature Advisory, 2022).

Appendix 10 lists all fauna observed on site.

3.4.2 Significant Fauna Species

The ID Ecological Management assessment of the study site did not identify any threatened fauna species on site during the assessment.

The Nature Advisory site assessment did not record any threatened or listed migratory fauna species on site. In its analysis of the likelihood of occurrence of all listed or listed migratory fauna species it identified:

- Nine listed non-migratory bird species and three listed migratory bird species as having potential to occur in the study area;
- One listed migratory bird species (white-throated needletail) as having the potential to flyover the site;
- One listed mammal species (grey-headed flying fox) as having potential to occur in the study area; and
- One listed fish species (dwarf galaxias) as having potential to occur in the study area.

Appendix 7 provides a summary of the assessment of likelihood of presence for all threatened fauna species found in both the EPBC Act Protected Matters Search Tool and the Victorian Biodiversity Atlas within 5km of the study area as part of this assessment.

A description of the range of vegetation types and potential habitats for threatened fauna species that are found within the study area are described in *Section 3.5*.

In summary, the ID Ecological Management field survey and likelihood assessment found:

- No threatened fauna was recorded on site during the site visit;
- Gang-gang cockatoo (EPBC Act and FFG Act listed) was assigned a **moderate** likelihood of occurrence; it is likely an occasional visitor to the site;
- Powerful owl (FFG Act listed) was assigned a **moderate** likelihood of occurrence; it is likely an occasional visitor to the site;
- All other threatened fauna species identified in the database searches are considered unlikely to occur within the site or were assigned a 'low' likelihood of occurrence as possible occasional visitors.

3.5 Habitat Values

Swampy Woodland Remnant

This habitat type is found throughout the eastern slopes of the site running down to the margins of Grasmere Creek. The canopy retains mature eucalypts which would provide foraging and roosting for a wide range of native birds like parrots and cockatoo species such as sulphur-crested cockatoo (*Cacatua galerita*), galah (*Eolophus roseicapilla*), crimson rosella (*Platycercus elegans*) and eastern rosella (*Platycercus eximius*) observed on site.

Large hollows and cavities, suitable for nesting by parrots, cockatoos or other native fauna, were observed in many of the canopy trees located throughout the eastern slopes. They may also be utilized by the FFG Act listed powerful owl, who may be a resident in the local area, along with gang-gang cockatoos who may occasionally visit the site. However, neither species are likely to be solely reliant on the habitat contained within the site.

The mid storey layer provides foraging and nesting opportunities along with protection for a variety of small to medium common birds such as yellow-rumped thornbill (*Acanthiza chrysorrhoa*), bell miner (*Manorina melanophrys*) and grey fantail (*Rhipidura albiscapa*) who are likely to be frequent visitors.

The ground layer provides a high density of fallen logs, woody debris, bark and leaf litter which has the ability to support native amphibian and reptiles along with the opportunity to host native mammals such as the bare-nosed wombat (*Vombatus ursinus*). Burrows, diggings and scats were observed across the lower regions of the slope.



Photo 9: Example of swampy woodland remnant

Planted Vegetation Strips

Planted vegetation includes a combination of canopy trees, mainly exotic trees and Victorian natives such as radiata pine, Monterey cypress, southern mahogany and southern blue gum, and an understorey of exotic shrubs intermixed with the occasional Victorian native such as white sallow-wattle (*Acacia floribunda*) and sallow wattle. The denser understorey sections may provide good protective and foraging habitat for a variety of small and medium native birds such as noisy miner (*Manorina melanocephala*) and grey butcherbird (*Cracticus torquatus*). The understorey also provides nesting structure for a variety of birds that includes exotic pest species like the observed common blackbird (*Turdus merula*).

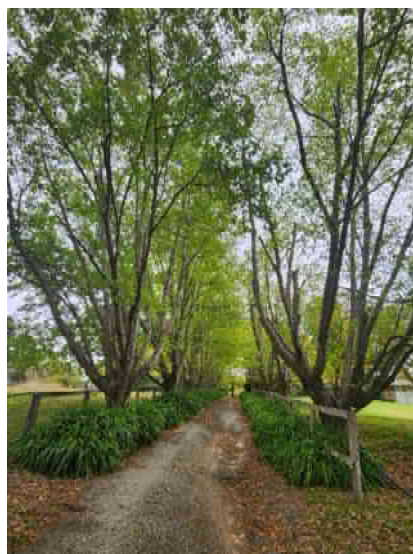


Photo 10: Example of planted vegetation strip

Open Pasture

Open areas of exotic pasture grass cover the majority of the site. They provide foraging opportunities for common avian species such as the Australian magpie (*Gymnorhina tibicen*) and magpie-lark (*Grallina cyanoleuca*) and provide grazing opportunities for native macropods such as the eastern grey kangaroo (*Macropus giganteus*). They also provide habitat for observed exotic mammals including the European rabbit observed on site during assessment but overall, it provides minimal fauna habitat value.

Ornamental Dam

The dam has some patches of tall native aquatic species and is fringed by a mix of planted exotic sedges and mown lawn. It provides a relatively small area of suitable foraging habitat for native waterfowl such as Australian wood duck (*Chenonetta jubata*) observed within the waterbody. It provides suitable habitat for native amphibian species and has dense sub-surface aquatic plant growth, providing habitat for aquatic invertebrates that may also support small exotic fish.



Photo 11: Ornamental dam

4 Policy and Legislative Implications

4.1 Commonwealth – Environment Protection and Biodiversity Conservation Act 1999

The EPBC Act establishes a Commonwealth process for assessment of proposed actions that are likely to have a significant impact on Matters of National Environmental Significance (MNES) or on Commonwealth land. An action (i.e. project, development, undertaking, activity, or series of activities), unless otherwise exempt, requires approval from the Commonwealth Environment Minister if they are considered likely to have an impact on any MNES. A referral under the EPBC Act is required if a proposed action is likely to have a ‘significant impact’ on any of the following MNES:

- World Heritage properties;
- National heritage places;
- Ramsar wetlands of international significance;
- Threatened species and ecological communities;
- Migratory and marine species;
- Commonwealth marine area;
- Nuclear actions (including uranium mining);
- Great Barrier Reef Marine Park; and
- A water resource, in relation to coal seam gas development and large coal mining development.

4.1.1 Implications (Significant Impact Criteria)

All MNES identified through database interrogation using the Protected Matters Search Tool (DCCEEW, 2025) are listed in *Table 7*.

Table 7 summarises the assessment of the likelihood of occurrence for all MNES, with additional detail and comments for threatened species identified in data base searches provided in *Appendix 5* and *Appendix 7*.

Table 7: Summary of the assessment of likelihood of occurrence for Matters of National Environmental Significance (MNES)

Matter of National Environmental Significance	Likelihood of Occurrence	Comments
Flora		
River Swamp Wallaby-grass	Unlikely	No further consideration required.
White Star-bush	Unlikely	No further consideration required.
Eastern Spider-Orchid	Unlikely	No further consideration required.
Thick-lipped Spider-orchid	Unlikely	No further consideration required.
Matted Flax-lily	Unlikely	No further consideration required.
Strzelecki Gum	Unlikely	No further consideration required.
Clover Glycine	Unlikely	No further consideration required.
Spiny Peppercress	Unlikely	No further consideration required.
Round-leaf Pomaderris	Unlikely	No further consideration required.
Dense Leek-orchid	Unlikely	No further consideration required.
Green-striped Greenhood	Unlikely	No further consideration required.
Leafy Greenhood	Unlikely	No further consideration required.
Swamp Fireweed	Unlikely	No further consideration required.
Hoary Sun-orchid	Unlikely	No further consideration required.
Austral Toadflax	Unlikely	No further consideration required.
Swamp Everlasting	Unlikely	No further consideration required.
Fauna		
Common Sandpiper	Unlikely	No further consideration required.
Regent Honeyeater	Unlikely	No further consideration required.
Southern Whiteface	Unlikely	No further consideration required.
Fork-tailed Swift	Unlikely	No further consideration required.
Australasian Bittern	Unlikely	No further consideration required.
Sharp-tailed Sandpiper	Unlikely	No further consideration required.
Curlew Sandpiper	Unlikely	No further consideration required.
Pectoral Sandpiper	Unlikely	No further consideration required.
Gang-gang Cockatoo	Moderate	The loss of 0.844 ha of potential foraging (treed) habitat would not significantly affect the species. As outlined in <i>Table 8</i> the risk of significant impact is considered to be low.
Brown Treecreeper	Unlikely	No further consideration required.
Grey Falcon	Unlikely	No further consideration required.
Latham's Snipe	Unlikely	No further consideration required.
Painted Honeyeater	Unlikely	No further consideration required.
White-throated Needletail	Low	No further consideration required.
Swift Parrot	Unlikely	No further consideration required.
Hooded Robin	Unlikely	No further consideration required.
Yellow Wagtail	Unlikely	No further consideration required.
Blue-winged Parrot	Unlikely	No further consideration required.
Eastern Curlew	Unlikely	No further consideration required.
Osprey	Unlikely	No further consideration required.
Plains Wanderer	Unlikely	No further consideration required.
Pilot Bird	Unlikely	No further consideration required.
Australian Painted Snipe	Unlikely	No further consideration required.
Diamond Firetail	Unlikely	No further consideration required.

Matter of National Environmental Significance	Likelihood of Occurrence	Comments
Common Greenshank	Unlikely	No further consideration required.
Mountain Skink	Unlikely	No further consideration required.
Swamp Skink	Low	No further consideration required.
Growling Grass Frog	Unlikely	No further consideration required.
Swamp Antechinus	Unlikely	No further consideration required.
Spotted-tail Quoll	Unlikely	No further consideration required.
Southern Brown Bandicoot	Unlikely	No further consideration required.
Broad-toothed Rat	Low	No further consideration required.
Greater Glider	Low	No further consideration required.
Yellow-bellied Glider	Unlikely	No further consideration required.
Long-nosed Potoroo	Unlikely	No further consideration required.
New Holland Mouse	Unlikely	No further consideration required.
Grey-headed Flying Fox	Unlikely	No further consideration required.
Dwarf Galaxias	Unlikely	No further consideration required.
Yarra Pygmy Perch	Unlikely	No further consideration required.
Australian Grayling	Unlikely	No further consideration required.
Golden Sun Moth	Unlikely	No further consideration required.
Wetlands of International Importance		
Western Port	Not present within or adjacent to study area	No further consideration required.
Listed Threatened Ecological Communities		
Natural Damp Grasslands of the Victorian Coastal Plains	Not present within or adjacent to study area	No further consideration required.
White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland	Not present within or adjacent to study area	No further consideration required.

There is one MNES identified above that warrant further consideration under the proposal:

Gang-gang Cockatoo

- Gang-gang cockatoo was assigned a moderate likelihood of occurrence and is a likely occasional visitor to the site.
- *Table 8* outlines the Significant Impact Assessment for gang-gang cockatoo.
- The risk of significant impact to the species from the development has been assessed as low.
- No further actions are recommended.

There are no additional MNES that warrant further consideration under the proposal. In summary:

- No threatened ecological communities were found to occur within the study area during the site inspection;
- All flora identified in database searches, within a 5km radius, that are listed as threatened under the EPBC Act are assigned a low likelihood of occurrence to occur within the site and specific area of impact.

- All other fauna species identified in the database searches, within a 5km radius, that are listed as threatened under the EPBC Act are assigned a low likelihood of occurrence or are considered unlikely to occur or be reliant on any of the habitat within the study area.

Table 8 – Significant Impact Assessment and Mitigation Measures for Gang-gang Cockatoo (*Callocephalon fimbriatum*)

Significant Impact Criteria	Risk to MNES without mitigation measures	Likelihood of a Significant impact (with no mitigation measures implemented)	Specific Mitigation Measure(s)	Residual Risk to MNES with mitigation measures applied	Likelihood of a Significant impact (with mitigation measures implemented)
Lead to a long term decrease in the size of a population	<p>Six hollow bearing trees are impacted by the development. Four are proposed for removal and two will remain in situ and continue to provide faunal habitat but are assumed lost due to TPZ encroachment.</p> <p>0.844 ha of foraging habitat is impacted by the project, this represents 0.08% of estimated foraging habitat for the species within a 5km radius of the site (approximately 1000 hectares). This amount of loss would have negligible impact on the species at the landscape scale.</p> <p>In this context the project is unlikely to directly lead to a long-term decrease in the size of a population.</p>	LOW	<p>The installation of a minimum of ten nest boxes within the tree reserve is recommended to offset and replace the loss of tree hollows.</p> <p>No further mitigation measures beyond those recommendations in <i>Section 5.2</i> required for the management of this impact.</p>	Low	LOW

Significant Impact Criteria	Risk to MNES without mitigation measures	Likelihood of a Significant impact (with no mitigation measures implemented)	Specific Mitigation Measure(s)	Residual Risk to MNES with mitigation measures applied	Likelihood of a Significant impact (with mitigation measures implemented)
Reduce the area of occupancy of the species	<p>Habitat critical to the survival of the gang-gang cockatoo includes all foraging habitat during both the breeding and non-breeding season (DAWE, 2024).</p> <p>0.844 ha of foraging habitat is impacted by the project, this represents 0.08% of estimated foraging habitat for the species within a 5km radius of the site (approximately 1000 hectares). This amount of loss would have negligible impact on the species at the landscape scale.</p>	LOW	<p>The installation of a minimum of ten nest boxes within the tree reserve is recommended to offset and replace the loss of tree hollows.</p> <p>No further mitigation measures beyond those recommendations in <i>Section 5.2</i> required for the management of this impact.</p>	Low	LOW
Fragment an existing population into two or more populations	<p>The species is a seasonal migrant with altitudinal movements. The project will not 'fragment' an existing population.</p>	LOW	<p>No further mitigation measures beyond those recommendations in <i>Section 5.2</i> required for the management of this impact.</p>	Low	LOW
Adversely affect habitat critical to the survival of a species	<p>Habitat critical to the survival of the species includes all foraging habitat during both the breeding and non-breeding season (DAWE, 2024).</p> <p>0.844 ha of foraging habitat is impacted by the project, this represents 0.08% of estimated foraging habitat for the species within a 5km radius of the site (approximately 1000 hectares). This amount of loss would have negligible impact on the species at the landscape scale.</p>	LOW	<p>The installation of a minimum of ten nest boxes within the tree reserve is recommended to offset and replace the loss of tree hollows.</p> <p>No further mitigation measures beyond those recommendations in <i>Section 5.2</i> required for the management of this impact.</p>	Low	LOW

Significant Impact Criteria	Risk to MNES without mitigation measures	Likelihood of a Significant impact (with no mitigation measures implemented)	Specific Mitigation Measure(s)	Residual Risk to MNES with mitigation measures applied	Likelihood of a Significant impact (with mitigation measures implemented)
Disrupt the breeding cycle of a population	<p>Six hollow bearing trees are impacted by the development. Four are proposed for removal and two will remain in situ and continue to provide faunal habitat but are assumed lost due to TPZ encroachment.</p> <p>The project will not disrupt the breeding cycle of a population.</p>	LOW	<p>The installation of a minimum of ten nest boxes within the tree reserve is recommended to offset and replace the loss of tree hollows.</p> <p>It is expected that faun management plans will be prepared for the site as part of approvals. These will direct the appropriate salvage and translocation of any resident native fauna prior to construction.</p> <p>No further mitigation measures beyond those recommendations in <i>Section 5.2</i> required for the management of this impact.</p>	Low	LOW
Modify, destroy, remove or isolate or decrease the availability or quality of habitat to the extent that the species is likely to decline	<p>The removal of 0.844 ha of foraging habitat at the site will contribute a negligible reduction to the amount of habitat for the species at the landscape scale.</p> <p>In this context the project is unlikely to directly contribute to the species decline.</p>	LOW	<p>The installation of a minimum of ten nest boxes within the tree reserve is recommended to offset and replace the loss of tree hollows.</p> <p>No further mitigation measures beyond those recommendations in <i>Section 5.2</i> required for the management of this impact.</p>	Low	LOW

Significant Impact Criteria	Risk to MNES without mitigation measures	Likelihood of a Significant impact (with no mitigation measures implemented)	Specific Mitigation Measure(s)	Residual Risk to MNES with mitigation measures applied	Likelihood of a Significant impact (with mitigation measures implemented)
Result in invasive species that are harmful to an endangered species becoming established in the endangered species' habitat	The disturbances associated with the proposal are unlikely to result in the further establishment of invasive species either weeds or pest animals within the area of identified habitat.	LOW	The contractor will be made aware of the presence of noxious weed species on site and appropriate site weed hygiene practices must be employed to limit of the spread of any existing noxious weeds within the construction area as part of contract conditions. Similarly, vehicle hygiene practice will be employed by the contractor to prevent the import or export of any noxious weeds to or from the construction area as part of contract conditions.	Low	LOW
Introduce disease that may cause the species to decline	There is no evidence to suggest that planned works would represent an increased risk of introduction of disease that may cause the species to decline. There is no evidence to suggest that planned works would represent an increased risk of introduction of disease that may cause the species to decline.	LOW	N/A	Low	LOW
Interfere with the recovery of the species	The removal of 0.844 ha of foraging habitat at the site will contribute a negligible reduction to the amount of habitat for the species at the landscape scale. In this context the project is unlikely to interfere substantially with the recovery of the species.	LOW	No further mitigation measures beyond those recommendations in <i>Section 5.2</i> required for the management of this impact.	Low	LOW

4.2 State – Flora and Fauna Guarantee Act 1988

The *Flora and Fauna Guarantee Act 1988* (FFG Act) and the *Flora and Fauna Guarantee (Amendment) Act 2019* (FFG Act) is the primary State legislation for the protection of native plants, native animals and ecological communities on public land and waters in Victoria. Species and ecological communities can be listed as threatened under the Act based on assessments by an independent Scientific Advisory Committee. Threatening processes may also be listed.

Under the FFG Act a permit is required from the DEECA to ‘take’ ‘protected’ flora species, ‘listed communities’ or ‘threatened species’ from public land. Removal of any protected flora taxa, listed flora species or listed communities may not be undertaken until this permit has been issued (DEECA, 2025f).

The FFG Act now defines three types of ‘take’, these include ‘incidental take’, ‘take for sale’ and ‘take for personal use’. For this project, the removal of any protected flora would meet the definition of ‘incidental take’. Two types of categories for protected flora have now been defined ‘generally protected flora’ and ‘restricted use protected flora’. ‘Generally protected flora’ require a permit under any situation while ‘restricted use protected flora’ don’t need a permit for ‘incidental take’. (DEECA, 2025g)

The FFG Act also provides specific protection of fish passage by noting that the ‘*prevention of passage of aquatic biota as a result of the presence of instream structures*’ is a potentially threatening process and that ‘*there should be no further preventable decline in the viability of any rare species*’.

4.2.1 Implications

The project does not involve any native vegetation removal on public land. An FFG Act protected flora permit is not required for the project to proceed.

The FFG Act listed gang-gang cockatoo and powerful owl are likely occasional visitors to the site. Six hollow bearing trees are impacted by the development. Four are proposed for removal and two will remain in situ and continue to provide faunal habitat but are assumed lost due to TPZ encroachment.

It is not expected the loss of four trees with hollows, in combination with mitigation such as nest box installation, would have a significant impact on either threatened species at the landscape scale. The removal of native treed vegetation has also been minimised to the greatest extent possible to mitigate the loss of foraging habitat for the species.

4.3 State – Catchment and Land Protection Act 1994

In accordance with Section 20 of the CaLP Act, landholders and managers have a responsibility to take all reasonable steps to:

- Avoid causing or contributing to land degradation which causes or may cause damage to land of another land owner;
- Eradicate regionally prohibited weeds;
- Prevent the growth and spread of regionally controlled weeds on their land; and

- Prevent the spread of, and as far as possible, eradicate established pest animals.

4.3.1 Implications

Six weeds declared noxious under the Catchment and Land Protection Act 1994 (CaLP Act) were identified on site (*Table 9*). Five of these weeds are categorised within the Melbourne Water Catchment Management Authority region as 'Regionally Controlled' and one is categorised as 'Restricted' (Agriculture Victoria, 2025).

Table 9: Declared noxious weeds proclaimed under the Catchment and Land Protection Act 1994

Scientific Name	Common Name	Classification
<i>Asparagus asparagoides</i>	Bridal Creeper	Restricted
<i>Cirsium vulgare</i>	Spear Thistle	Regionally controlled
<i>Crataegus monogyna</i>	Hawthorn	Regionally controlled
<i>Lycium ferocissimum</i>	African Box-thorn	Regionally Controlled
<i>Rubus fruticosus</i> spp. agg	Blackberry	Regionally controlled
<i>Senecio jacobaea</i>	Ragwort	Regionally Controlled

To prevent the spread of noxious weeds listed in *Table 9*, the contractor engaged to carry any works on site must be made aware if the presence of these weed species. Appropriate site weed hygiene practices should be employed to limit the spread of any existing noxious weeds within the construction area. Similarly, vehicle hygiene practice must be employed to prevent the import or export of any noxious weeds to or from any construction areas.

4.4 Water Act 1987

Catchment Management Authorities have statutory responsibilities under Section 67 of the Water Act to monitor, manage, enforce, and administer control over all works which may impact upon designated waterways to ensure works undertaken do not adversely affect the health of those waterways.

A permit is required to undertake works on a designated waterway and can include activities such as:

- Crossings – bridges, fords, culverts;
- Deviations – waterway realignments;
- Extractions – sand, silt or gravel;
- Stabilisation – bank protection, retaining structures;
- Vegetation – fallen timber and vegetation removal, revegetation projects;
- Works – stormwater outlets, service crossings; and
- Other – jetty, river mouth opening, boardwalks.

4.4.1 Implications

Under the Act approval must be sought from the local Catchment Management Authority and a 'Works on Waterways' (WoW) permit is required to 'construct, alter, operate, remove, or decommission':

- any works on a waterway; or
- a bore.

The current proposal does not directly impact on waterways adjacent to the study area. No permit requirements are likely to be triggered under the Act by future site development.

4.5 State – Wildlife Act 1979

The Wildlife Act 1975 provides the primary legislation for the protection and management of wildlife, the purposes of this Act are:

- To establish procedures in order to promote the protection and conservation of wildlife, the prevention of taxa of wildlife from becoming extinct and the sustainable use of and access to wildlife; and
- To prohibit and regulate the conduct of persons engaged in activities concerning or related to wildlife.

4.5.1 Implications

Persons engaged to remove, salvage, hold or relocate any native fauna species during proposed construction works must have a permit under this Act to undertake such actions and ensure any actions to manage wildlife must be undertaken in accordance with the requirements of the Act or at the direction of DEECA.

4.6 State – Environmental Effects Act 1978

In Victoria, environmental impact assessments of proposed development projects are conducted through the Environmental Effects Statement (EES) process under the *Environment Effects Act 1978* (EE Act). The Minister for Planning (the Minister) administers the EES process through the *Ministerial Guidelines for Assessment of Environmental Effects* (Ministerial Guidelines), whilst DEECA manages this process (Victorian Auditor Generals Report, 2017).

A proponent should ask the Minister administering the Act whether an EES is required for projects or amended projects that could have a significant effect on the environment. If the Minister decides that an Environment Effects Statement (EES) is required, the project proponent is responsible for preparing the EES and undertaking the necessary investigations (Victorian Government, the Department of Sustainability and Environment, 2006).

Referral criteria is based on either individual potential environmental effects or a combination of potential environmental effects.

4.6.1 Implications

Assessment of referral requirements for relevant criteria are outlined below.

Individual Potential Environmental Effects

Potential long-term loss of a significant proportion (e.g. 1 to 5 percent depending on the conservation status of the species) of known remaining habitat or population of a threatened species within Victoria.

- The loss of 0.844 ha of potential foraging habitat for the gang-gang cockatoo is unlikely to significantly impact upon the species; and
- Development of the site will not impact on the last remaining 1-5% of known remaining habitat or populations of any other threatened species within Victoria.

Potential clearing of 10 ha or more of native vegetation from an area that is of an EVC identified as endangered (with a condition score of 0.5 or more) or rare (with a condition score of 0.6 or more).

- The native patches on site all belong to an endangered EVC. None have a habitat score above 0.5 are impacted by the project.

No further action in regard to the Act is considered necessary.

4.7 State – Planning and Environment Act 1987

Planning Overlays

Bushfire Management Overlay (BMO)

The purpose of this overlay is to address bushfire risk management considerations at the development application stage.

Significant Landscape Overlay – Schedule 4 (SLO4)

This overlay covers the entire site. The purpose of this overlay is to:

- Implement the State Planning Policy Framework and the Local Planning Policy Framework, including the Municipal Strategic Statement and local planning policies.
- Identify significant landscapes.
- Conserve and enhance the character of significant landscapes.

Of relevance to this project a permit is required under the schedule to the overlay to:

- Remove, destroy or lop any tree if the trunk circumference is greater than 0.5 metres, or the trunk diameter is greater than 16 centimetres, at one metre above ground level. This does not apply to the pruning of a tree for regeneration or ornamental shaping or the removal of dead trees or dead limbs or the partial removal of limbs and branches directly overhanging dwellings, garages and outbuildings.

Heritage Overlay – Schedule (HO50)

This overlay covers a small section of the property which retains a heritage place (dwelling/building) labelled 'Minard'. The purpose of this overlay is to conserve and enhance heritage places of natural or cultural significance.

Development Plan Overlay – Schedule 24 (DPO24)

This overlay covers the entirety of the site. Its presence does not have any effect on the native vegetation and biodiversity matters that this report seeks to address.

Clause 52.17 -Native Vegetation

Under *Clause 52.17* of the Casey Planning Scheme, a planning permit is required to clear or disturb native vegetation unless an exemption applies.

Native vegetation will be impacted and or require removal under the proposal, therefore application of the 'Guidelines' to obtain a planning permit for the works is necessary. The information provided within this report and summarised specifically within *Section 5* seeks to satisfy the information requirements of the Guidelines.

Clause 52.17-7 identifies exemptions from requiring a planning permit to remove native vegetation for certain uses, activities or development. In particular the planted vegetation exemption is applicable to some of the study area.

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

This exemption does not apply to native vegetation planted or managed with public funding for the purpose of land protection or enhancing biodiversity unless the removal, destruction or lopping of the native vegetation is in accordance with written permission of the agency (or its successor) that provided the funding.

It is considered that the planted Victorian native trees identified in *Table 5* meet the definition of planted vegetation exemption. These trees are not locally indigenous species and do not require offsets for their removal.

5 Victoria's Native Vegetation Removal Regulations

The purpose of the Guidelines is to set out and describe the application of Victoria's statewide policy in relation to assessing and compensating for the removal of native vegetation. The Guidelines implement Clause 12.01-2S (Biodiversity) of the Planning Provisions objective 'To ensure that there is no net loss to biodiversity as a result of the removal, destruction or lopping of native vegetation (DEECA, 2017).

The Guidelines also detail the three-step approach of Avoid, Minimise and Offset as a key component of the policy. This approach aims to ensure that the removal of native vegetation is restricted to only what is reasonably necessary, and that biodiversity is appropriately compensated for any removal approved.

A combination of site-based and landscape information is used to calculate the biodiversity value (being a general or species habitat score) of native vegetation to be removed. This is calculated by the extent and condition score, combined to determine the site-based measure of biodiversity value.

The assessment pathway for an application to remove native vegetation reflects its potential impact on biodiversity and is determined by combining the location and extent of the native vegetation proposed to be removed, in accordance with Table 3 of the Guidelines.

The pathways are:

Basic - limited impacts on biodiversity.

Intermediate - could impact on large trees, endangered EVC's, and sensitive wetlands and coastal areas.

Detailed - could impact on large trees, endangered EVC's, sensitive wetlands and coastal area and could significantly impact on habitat for rare or threatened species. (DEECA, 2017)

5.1 Avoiding and minimising Impacts on Native Vegetation

The principles of avoidance and minimisation can be achieved in a project by avoiding the removal of native vegetation via locating or designing the project works so that native vegetation is not removed. Minimising losses to native vegetation can be achieved via minimising the design construction footprint, restricting project works to areas of native vegetation that have the least biodiversity or other values or managing the works to minimise impacts on surrounding vegetation (DEECA, 2017).

5.1.1 Strategic Level Planning

The site is not subject to any strategic planning policies or guidelines that would provide direction on the avoidance or protection of any areas of native vegetation or biodiversity values.

The site is zoned Neighbourhood Residential Zone (NRZ) which identifies the site as suitable for residential development. The proposed development aims to support the growth of the Berwick and wider south-east Melbourne region and will contribute more broadly to Victoria reaching its target to build 2.24 million new homes by 2051.

5.1.2 Site Level Planning

The Development Plan Overlay- Schedule 24 (DPO24) dictates that any proposed development must have proper regard to the nearby Cardinia Creek Parklands and provides heritage and environmental conservation outcomes.

The site Development Plan (*Development Plan 42-80 Manuka Road, Berwick, Version 1, 06/06/2025*) is included as *Appendix 1*. It displays the indicative location of lots, internal roads, shared paths and the placement of a reserve in the south-east corner which provides a buffer to Cardinia Creek from the development in this region of the parcel. It also identifies trees for retention as per the Greenwood Consulting report (Greenwood Consulting, 2024).

The proposed plan was overlaid on the mapped native vegetation layers and using the GIS program native vegetation impacts were marked. Losses from the construction impact zone (CIZ) includes proposed internal roads, shared paths and subdivision lots. The process was consistent with the methodology described in *Section 2.4*. Under the current proposal:

- Native patch vegetation retention within open space equates to 1.03 ha (approximately 68% of the total of 1.507 ha)
- Out of the 53 large size class (locally indigenous) trees on site impacts have been reduced to 8 unavoidably requiring direct removal and 9 that are assumed lost (6 with tpz impacts that will remain in-situ).
- The remaining 36 large (locally indigenous) canopy trees identified on site have been appropriately avoided through the design and are proposed to be retained within reserve areas.

After a lengthy planning process a situation has now been reached where no more feasible opportunities exist to further avoid and minimise impacts on native vegetation without undermining the key objectives and feasibility of the proposal.

The unavoidable native vegetation impacts will be appropriately offset by the proponent in line with the Guidelines (DEECA, 2017). The purchase of a registered credit extract will ensure that the overarching native vegetation policy of 'no net loss' is achieved.

5.2 Construction

A number of measures are proposed to minimise construction impacts on ecological values. These include the following:

No-Go Zone Fencing / Limit of Works

- Prior to the commencement of any works,
 - The construction zone footprint and limit of works must be clearly defined on construction plans and should be physically delineated with fencing; and
 - Native vegetation outside of the limit of works must be protected by the establishment of No-Go zones, with fencing and exclusion areas identified as part of contract conditions.

- All works and construction activities associated with the project (i.e. stock sites, temporary storage areas, parking areas, turn around point etc.) should be located within degraded areas not containing native vegetation;
- The fencing should be constructed of supported para-webbing or rope bunting and include signage identifying the area as 'No-Go Zone - No Unauthorised Access'. The No-Go Zone fence is to be erected prior to the commencement of construction works and to be retained in place for the duration of construction activities and then removed.

Vehicle Hygiene / Weed Management

- Vehicle / plant hygiene protocols should be implemented to prevent the importation and the spread of declared weeds, environmental weeds, pests and diseases (pathogens) within the construction works area and offsite.

Sedimentation / Erosion

Erosion and sediment controls should include but not be limited to:

- Installation and maintenance of erosion and sedimentation controls established in accordance with EPA best practice guidelines for the treatment of sediment laden run-off resulting from construction activities. Sediment controls must be maintained in good order throughout the project and all materials removed from site at the completion of works;
- Adequately control and route runoff within the construction site to the appropriate sedimentation controls. Any controls installed should prevent any surface water run off;
- Appropriate control structures within the 'limits of works' should also be established where required to prevent surface water run-off from exiting construction works areas beyond the 'limit of works' or onto adjoining native vegetation to be retained / No Go Zones;
- Minimising the amount of exposed erodible surfaces during construction - i.e. through the staging of works and progressive reinstatement of earthworks; and
- Prompt covering of exposed surfaces (including batters and stockpiles) that would otherwise remain bare for more than 28 days - cover may include mulch, erosion control mat or seeding.

Wildlife Management

- Should there be a likelihood that wildlife may be encountered on the site, directly impacted or potentially displaced by construction works, a suitability qualified wildlife expert / zoologist with appropriate DEECA authorisations should be engaged to ensure the protection and management of any wildlife encountered during the works. Any displaced fauna should be salvaged and relocated at an appropriate time.

5.3 Topographic and Land Information

Table 10 below provides topography and land information for the site. This is information that would typically be required in an application to remove native vegetation (DEECA, 2017).

Table 10: Topographic and Land Information

Item	Description
The role of native vegetation in protecting water quality and waterway and riparian ecosystems.	Grasmere Creek lies directly adjacent to the site at its eastern boundary. The adjacent section of native patch habitat zone 2 is retained under the proposal, maintaining the riparian buffer alongside the creek.
Waterways, wetlands or special water supply catchments located within 30 metres of site.	An ornamental dam sits to the side of an existing residence within the site. Grasmere Creek runs along the neighbouring boundary to the east of the site.
Ridges, crests or hilltops or slopes greater than 20%. Areas of existing erosion.	The sites western region is relatively flat with a gradient of no more than 5%. The eastern facing slope runs down to Grasmere Creek at a slope gradient of approximately 20%.
Low-lying areas, saline discharge areas or groundwater recharge areas.	The site does not host any of these features.
Landscape values	0.844 hectares of native vegetation will be lost but this is unlikely to contribute to a significant decline in the landscape values of the surrounding area.

5.4 Determination of Losses to Native Vegetation

The site Development Plan (*Development Plan 42-80 Manuka Road, Berwick, Version 1, 06/06/2025*) is included as *Appendix 1*. It displays the indicative location of lots, internal roads, shared paths and open space reserve areas.

An updated arborist report for the site was prepared in July 2025. The report, *62-70 Manuka Road Berwick (Trees 324, 332, 338, 385, 428 & 429) Arboricultural Construction Impact Assessment* (Greenwood Consulting, 2025) focused on mitigation measures for six retained native trees with TPZ encroachment from a proposed footpath surrounding a tree reserve. The report concludes '*provided that the recommendations of this report are adopted and effectively implemented, the construction impact will be low and these trees will remain viable within the proposed development*' (Consulting, 2025).

Parklea have committed to the recommendations set out in the report and as such Trees 324, 332, 338, 385, 428 & 429 have not been considered lost consistent with DEECA's native vegetation policy and direction.

The proposed plan was overlaid on the mapped native vegetation layers and using the GIS program native vegetation impacts were marked. *Table 11* provides a breakdown of the proposed native vegetation removal and the offset requirements that are generated by the project. *Table 12* list all locally native canopy trees with potential to be impacted by the CIZ and their respective loss determination when assessed against *Clause 52.17* of the Victorian Planning Provisions (VPP).

The two understorey trees that are impacted (Tree 1 and 8) were mapped as a native patch and given a default score of 0.2, as a scattered tree would be assessed. *Map 2* shows the extent of native vegetation that will be impacted by the development and has been marked as lost/removed.

In total 0.844 ha of native vegetation is assessed as impacted. This comprises 0.477 ha of native patches, 2 large scattered trees and 15 large trees within patches.

Table 11: Summary and Breakdown of Native Vegetation Losses

Native Patches	EVC	Bioregional Conservation Significance	Native Vegetation Losses	
	EVC 83: Swampy Riparian Woodland	Endangered	0.468 ha	Habitat zone 1 and 2
	EVC 937: Swampy Woodland	Endangered	0.009 ha	Two understorey trees
	Total		0.477 ha	
Scattered and Large Trees	Scattered small trees		2	
	Scattered large trees (removed)		2	
	Scattered large trees (TPZ encroachment >10%)		0	
	Scattered large trees (Proposed Lot size <0.4ha)		3	
	Large trees in patches (removed)		6	
	Large trees in patches (TPZ encroachment >10%)		6	
	Total No. Large Trees		17	
Offset Requirements	General offset amount	General Habitat Units (GHU)	0.2550	
		Minimum Strategic Biodiversity Value score of offset	0.3689	
		Large Trees	16	
	Species offset amount	Species Habitat Units	Nil	
		Large Trees	Nil	
	Total number of Large Trees that must be protected		16	
	Assessment pathway		Detailed	

The Photos section of this report provides recent dated photographic examples of the native vegetation to be removed or have TPZ encroachment.

Table 12: Impact determination to locally indigenous canopy trees assessed on site

Tree ID No.	Botanical Name	Common Name	Diameter at Breast Height (DBH)	Size Category	Origin	Retention Status	Offset Requirement
*297	<i>Dead Eucalypt</i>	Dead Tree	70	Large	Assumed Locally Indigenous	Assumed Loss – Lot size <0.4ha	Offsets Required
*320	<i>Eucalyptus viminalis</i>	Manna Gum	86	Large	Locally Indigenous	Direct Loss - Internal Road & Verge	Offsets Required
*324	<i>Eucalyptus viminalis</i>	Manna Gum	93	Large	Locally Indigenous	Arborist determined will remain viable	N/A
*330	<i>Eucalyptus ovata</i>	Swamp Gum	75	Large	Locally Indigenous	Direct Loss - Internal Road & Verge	Offsets Required
*331	<i>Eucalyptus viminalis</i>	Manna Gum	76	Large	Locally Indigenous	Retained	N/A
*332	<i>Eucalyptus viminalis</i>	Manna Gum	82	Large	Locally Indigenous	Arborist determined will remain viable	N/A
*338	<i>Eucalyptus viminalis</i>	Manna Gum	97	Large	Locally Indigenous	Arborist determined will remain viable	N/A
*340	<i>Eucalyptus viminalis</i>	Manna Gum	74	Large	Locally Indigenous	Retained	N/A
*368	<i>Eucalyptus viminalis</i>	Manna Gum	108	Large	Locally Indigenous	Retained	N/A
*370	<i>Eucalyptus viminalis</i>	Manna Gum	95	Large	Locally Indigenous	Retained	N/A
*374	<i>Eucalyptus viminalis</i>	Manna Gum	86	Large	Locally Indigenous	Retained	N/A
*377	<i>Eucalyptus viminalis</i>	Manna Gum	75	Large	Locally Indigenous	Retained	N/A
*381	<i>Eucalyptus viminalis</i>	Manna Gum	75	Large	Locally Indigenous	Retained	N/A
*382	<i>Dead Eucalypt</i>	Dead Tree	76	Large	Locally Indigenous	Retained	N/A
*383	<i>Eucalyptus obliqua</i>	Messmate Stringybark	62	Small	Locally Indigenous	Retained	N/A
*384	<i>Eucalyptus viminalis</i>	Manna Gum	148	Large	Locally Indigenous	Retained	N/A
*385	<i>Eucalyptus viminalis</i>	Manna Gum	138	Large	Locally Indigenous	Arborist determined will remain viable	N/A
*388	<i>Eucalyptus radiata</i>	Narrow-leaf Peppermint	64	Small	Locally Indigenous	Retained	N/A
*389	<i>Eucalyptus obliqua</i>	Messmate Stringybark	105	Large	Locally Indigenous	Retained	N/A
*392	<i>Eucalyptus viminalis</i>	Manna Gum	122	Large	Locally Indigenous	Retained	N/A
*393	<i>Eucalyptus viminalis</i>	Manna Gum	68	Small	Locally Indigenous	Retained	N/A
*394	<i>Eucalyptus viminalis</i>	Manna Gum	106	Large	Locally Indigenous	Retained	N/A
*395	<i>Dead Eucalypt</i>	Dead Tree	45	Small	Locally Indigenous	Retained	N/A
*419	<i>Eucalyptus viminalis</i>	Manna Gum	92	Large	Locally Indigenous	Retained	N/A
*421	<i>Eucalyptus viminalis</i>	Manna Gum	100	Large	Locally Indigenous	Retained	N/A

*424	<i>Eucalyptus viminalis</i>	Manna Gum	65	Small	Locally Indigenous	Retained	N/A
*425	<i>Eucalyptus viminalis</i>	Manna Gum	95	Large	Locally Indigenous	Assumed Loss - TPZ Impact	Offsets Required
*428	<i>Eucalyptus ovata</i>	Swamp Gum	78	Large	Locally Indigenous	Direct Loss - Internal Road & Verge	Offsets Required
*429	<i>Eucalyptus ovata</i>	Swamp Gum	78	Large	Locally Indigenous	Assumed Loss - TPZ Impact	Offsets Required
*431	<i>Dead Eucalypt</i>	Dead Tree	48	Small	Locally Indigenous	Direct Loss - Internal Road & Verge	Offsets Required
*432	<i>Eucalyptus ovata</i>	Swamp Gum	70	Large	Locally Indigenous	Direct Loss - Internal Road & Verge	Offsets Required
*433	<i>Eucalyptus ovata</i>	Swamp Gum	63	Small	Locally Indigenous	Direct Loss - Internal Road & Verge	Offsets Required
*436	<i>Eucalyptus radiata</i>	Narrow-leaf Peppermint	62	Small	Locally Indigenous	Retained	N/A
*795	<i>Eucalyptus radiata</i>	Narrow-leaf Peppermint	25	Small	Locally Indigenous	Direct Loss - Footpath	Offsets Required
*919	<i>Dead Eucalypt</i>	Dead Tree	80	Large	Locally Indigenous	Retained	N/A
*920	<i>Eucalyptus viminalis</i>	Manna Gum	130	Large	Locally Indigenous	Retained	N/A
*921	<i>Eucalyptus viminalis</i>	Manna Gum	100	Large	Locally Indigenous	Retained	N/A
*922	<i>Eucalyptus viminalis</i>	Manna Gum	108	Large	Locally Indigenous	Retained	N/A
*923	<i>Dead Eucalypt</i>	Dead Tree	100	Large	Locally Indigenous	Direct Loss - Internal Road & Verge	Offsets Required
*932	<i>Dead Eucalypt</i>	Dead Tree	87	Large	Locally Indigenous	Retained	N/A
*941	<i>Eucalyptus viminalis</i>	Manna Gum	68	Small	Locally Indigenous	Retained	N/A
*943	<i>Eucalyptus viminalis</i>	Manna Gum	142	Large	Locally Indigenous	Retained	N/A
*944	<i>Eucalyptus radiata</i>	Narrow-leaf Peppermint	43	Small	Locally Indigenous	Retained	N/A
*946	<i>Eucalyptus radiata</i>	Narrow-leaf Peppermint	73	Large	Locally Indigenous	Retained	N/A
*948	<i>Eucalyptus radiata</i>	Narrow-leaf Peppermint	72	Large	Locally Indigenous	Assumed Loss - TPZ Impact	Offsets Required
*952	<i>Eucalyptus viminalis</i>	Manna Gum	55	Small	Locally Indigenous	Retained	N/A
*954	<i>Eucalyptus viminalis</i>	Manna Gum	54	Small	Locally Indigenous	Retained	N/A
*957	<i>Eucalyptus viminalis</i>	Manna Gum	106	Large	Locally Indigenous	Assumed Loss - TPZ Impact	Offsets Required
*960	<i>Eucalyptus radiata</i>	Narrow-leaf Peppermint	165	Large	Locally Indigenous	Direct Loss - Internal Road & Verge	Offsets Required
*963	<i>Eucalyptus radiata</i>	Narrow-leaf Peppermint	76	Large	Locally Indigenous	Assumed Loss – Lot size <0.4ha	Offsets Required
*964	<i>Eucalyptus radiata</i>	Narrow-leaf Peppermint	28	Small	Locally Indigenous	Assumed Loss – Lot size <0.4ha	Offsets Required
1	<i>Acacia mearnsii</i>	Black Wattle	0	NA	Locally Indigenous	Retained	N/A
8	<i>Acacia mearnsii</i>	Black Wattle	0	NA	Locally Indigenous	Direct Loss - Internal Road & Verge	N/A
11	<i>Dead Eucalypt</i>	Dead Tree	117	Large	Locally Indigenous	Assumed Loss – Lot size <0.4ha	Offsets Required
12	<i>Eucalyptus viminalis</i>	Manna Gum	65	Small	Locally Indigenous	Retained	N/A

14	<i>Eucalyptus viminalis</i>	Manna Gum	63	Small	Locally Indigenous	Assumed Loss - TPZ Impact	Offsets Required
15	<i>Eucalyptus viminalis</i>	Manna Gum	63	Small	Locally Indigenous	Retained	N/A
16	<i>Eucalyptus viminalis</i>	Manna Gum	84	Large	Locally Indigenous	Retained	N/A
17	<i>Dead Eucalypt</i>	Dead Tree	75	Large	Locally Indigenous	Direct Loss - Internal Road & Verge	Offsets Required
18	<i>Eucalyptus ovata</i>	Swamp Gum	120	Large	Locally Indigenous	Direct Loss - Internal Road & Verge	Offsets Required
19	<i>Eucalyptus viminalis</i>	Manna Gum	125	Large	Locally Indigenous	Retained	N/A
20	<i>Eucalyptus obliqua</i>	Messmate Stringybark	972	Large	Locally Indigenous	Retained	N/A
21	<i>Eucalyptus viminalis</i>	Manna Gum	88	Large	Locally Indigenous	Assumed Loss - TPZ Impact	Offsets Required
22	<i>Eucalyptus viminalis</i>	Manna Gum	94	Large	Locally Indigenous	Retained	N/A
23	<i>Eucalyptus viminalis</i>	Manna Gum	98	Large	Locally Indigenous	Retained	N/A
24	<i>Eucalyptus viminalis</i>	Manna Gum	92	Large	Locally Indigenous	Retained	N/A
25	<i>Eucalyptus viminalis</i>	Manna Gum	105	Large	Locally Indigenous	Retained	N/A
26	<i>Eucalyptus viminalis</i>	Manna Gum	76	Large	Locally Indigenous	Retained	N/A
27	<i>Eucalyptus viminalis</i>	Manna Gum	54	Small	Locally Indigenous	Assumed Loss - TPZ Impact	Offsets Required
28	<i>Eucalyptus viminalis</i>	Manna Gum	110	Large	Locally Indigenous	Assumed Loss - TPZ Impact	Offsets Required
29	<i>Eucalyptus viminalis</i>	Manna Gum	60	Small	Locally Indigenous	Retained	N/A
30	<i>Eucalyptus viminalis</i>	Manna Gum	60	Small	Locally Indigenous	Retained	N/A
31	<i>Eucalyptus viminalis</i>	Manna Gum	58	Small	Locally Indigenous	Retained	N/A
32	<i>Eucalyptus viminalis</i>	Manna Gum	48	Small	Locally Indigenous	Retained	N/A
33	<i>Dead Eucalypt</i>	Dead Tree	98	Large	Locally Indigenous	Retained	N/A
34	<i>Eucalyptus viminalis</i>	Manna Gum	110	Large	Locally Indigenous	Retained	N/A
35	<i>Eucalyptus viminalis</i>	Manna Gum	92	Large	Locally Indigenous	Retained	N/A

*Corresponds with the arborist report numbering

5.5 Offset requirements- Native Vegetation Removal Report

Clearing shapefiles were uploaded to the DEECA's online NVR Map system (DEECA, 2025h). A Native Vegetation Removal report (NVRr) was processed and is attached as *Appendix 11*. The NVRr identified that the following offset requirements apply to the project:

- The proposal falls under the 'Detailed Assessment Pathway';
- Offset requirements amount to 0.2740 General Habitat Units (GHUs) with a minimum strategic biodiversity score of 0.3901 and 17 large trees;
- No specific offsets apply; and
- Offsets must be located within the Melbourne Water Catchment Management Authority (CMA) boundary or within the City of Casey LGA.

Previous Clearing

'Past Clearing' is native vegetation approved to be removed, or that was removed without the required approvals, on the same property or on contiguous land in the same ownership as the applicant, in the five year period before the application for a permit is lodged (DEECA, 2017).

Confirmation with the proponent has been undertaken to ensure that no other native vegetation has been approved to be removed or was removed without the required approvals, on the same property or on continuous land in the same client ownership in the past 5 years.

Offset Statement

In accordance with the DEECA's Guidelines for the removal, destruction or lopping of native vegetation an offset statement must be provided that shows evidence that an offset that meets the offset requirements for the native vegetation to be removed has been identified and can be secured.

A current search of the Native Vegetation Credit Register (NVCR) shows sufficient offsets are presently available for purchase by the proponent. A credit search report is provided as evidence as *Appendix 12*.

6 Conclusion and Recommendations

Study Area- Ecological Values

Vegetation and Flora

The site is dominated by open pasture/paddocks utilized for grazing/agistment activities, with commonly planted rows of exotic and Victorian species aligning internal and external fence lines and driveways, intermixed with planted exotic garden species and various planted exotic scramblers and environmental weeds.

Native vegetation is largely confined to the eastern slopes where patches of remnant swampy woodland remain. The patches typically host a canopy of locally indigenous tree species and largely disturbed understorey with scatterings of native grasses and sedges.

Two native patches were recorded measuring a total of 1.507 ha in area that hosted 48 large trees. An additional 5 large scattered trees and 2 small scattered trees were identified on site.

No locally indigenous threatened flora was recorded on site during the site visit. All threatened flora species identified in the database searches were unlikely to occur within the study area primarily due to a lack of suitable habitat.

Fauna

No threatened fauna was recorded on site during the site visit. Gang-gang cockatoo and powerful owl were assigned a moderate likelihood of occurrence; they are likely occasional visitors to the site.

All other threatened fauna species identified in the database searches are considered unlikely to occur within the site or were assigned a 'low' likelihood of occurrence as possible occasional visitors.

Legislation / Policy Considerations

EPBC Act- Matters of National Environmental Significance

No threatened ecological communities were found to occur within the study area during the site inspection.

Six hollow bearing trees are impacted by the development. Four are proposed for removal and two will remain in situ and continue to provide faunal habitat but are assumed lost due to TPZ encroachment. It is not expected the loss of four trees with hollows would have a significant impact on the threatened Gang-gang cockatoo at the landscape scale. The installation of a minimum of ten nest boxes within the tree reserves would appropriately offset and mitigate against the amount of tree hollows and potential that will be lost as part of the development.

The removal of native treed vegetation has been minimised overall to the greatest extent possible to mitigate the loss of foraging habitat for the species. The risk of significant impact to the species from the development is considered low in the context of the large amount of suitable foraging habitat for the species that exists in the surrounding landscape.

All other flora and fauna identified in database searches were assigned a low likelihood of occurrence to occur within the site or are considered unlikely to occur or be reliant on any of the habitat within the study area.

Flora and Fauna Guarantee Act

An FFG Act protected flora permit is not required for the project to proceed.

The FFG Act listed gang-gang cockatoo and powerful owl are likely occasional visitors to the site.

Native Vegetation Removal

- The proposal falls under the 'Detailed Assessment Pathway';
- Offset requirements amount to 0.2740 General Habitat Units (GHUs) with a minimum strategic biodiversity score of 0.3901 and 17 large trees;
- No specific offsets apply; and
- Offsets must be located within the Melbourne Water Catchment Management Authority (CMA) boundary or within the City of Casey LGA.

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- Victorian Auditor Generals Report. (2017). *Effectiveness of the Environmental Effects Statement Process.* Melbourne: Victorian Government.
- Victorian Government, the Department of Sustainability and Environment. (2006). *Ministerial guidelines for assessment of environmental effects under the Environment Effects Act 1978.* East Melbourne: Department of Sustainability and Environment.

Glossary

Avoid	Avoiding removing any native vegetation when undertaking a use or development. This can be either by not permitting or not going ahead with the use or development or locating it elsewhere so that removing native vegetation is not required.
Biodiversity	The variety of all life forms, the different plants, animals and microorganisms, the genes they contain, and the ecosystems of which they form a part.
Bioregion	Biogeographic areas that capture the patterns of ecological characteristics in the landscape or seascape, providing a natural framework for recognizing and responding to biodiversity values.
Bioregional Conservation Status (BCS of an EVC)	A state-wide classification of the degree of depletion in the extent and/or quality of an Ecological Conservation Class (EVC) within a bioregion in comparison to the State's estimation of its pre-1750 extent and condition.
Canopy Tree	A tree, greater than five meters in height, that is normally found in the upper layer of a vegetation type. A tree, greater than five meters in height, that is normally found in the upper layer of a vegetation type.
Diameter at Breast Height (DBH)	The diameter of the trunk of a tree measured over bark at 1.3m above ground level.
Ecological Vegetation Class (EVC)	A type of native vegetation classification that is described through a combination of its floristic, life form and ecological characteristics, and through an inferred fidelity to particular environmental attributes. Each EVC includes a collection of floristic communities (i.e. lower level in the classification that is based solely on groups of the same species) that occur across a biogeographic range, and although differing in species, have similar habitat and ecological processes operating.
EVC Benchmark	A standard vegetation-quality reference point relevant to the vegetation type that is applied in habitat hectare assessments. Represents the average characteristics of a mature and apparently long-undisturbed state of the same vegetation type.
Habitat Hectares	Combined measure of condition and extent of native vegetation. This measure is obtained by multiplying the site's condition score (measured between 0 and 1) with the area of the site (in hectares).
Habitat Score	The score assigned to a habitat zone that indicates the quality of the vegetation relative to the Ecological Vegetation Class (EVC) benchmark – sum of the site condition score and landscape context score usually expressed as a percentage or on a scale of zero to 1.
Habitat Zone	A discrete area of native vegetation consisting of a single vegetation type (EVC) with an assumed similar quality. This is the base spatial unit for conducting a habitat hectare assessment.
Large Tree (LT)	A tree with a Diameter at Breast Height equal to or greater than the large tree diameter as specified in the relevant EVC benchmark.
Loss	Loss in the contribution to Victoria's biodiversity when native vegetation is fully or partially removed, as measured in biodiversity equivalence scores or units.
Minimise	Locating, designing or managing a use or development to reduce the impacts on biodiversity from the removal of native vegetation.
Native vegetation	Native vegetation is defined in the Victoria Planning Provisions as 'plants that are indigenous to Victoria, including trees, shrubs, herbs and grasses'.

Native vegetation condition	A site-based measure of how close native vegetation is to its mature natural state, as represented by a benchmark reflecting pre-settlement circumstances.
No net loss	An outcome where a particular gain in the contribution to Victoria's biodiversity is equivalent to an associated loss in the contribution to Victoria's biodiversity from permitted clearing.
Offset	Protection and management (including revegetation) of native vegetation at a site to generate a gain in the contribution that native vegetation makes to Victoria's biodiversity. An offset is used to compensate for the loss to Victoria's biodiversity from the removal of native vegetation.
Permitted clearing	Removal of native vegetation for which a planning permit has been granted to remove native vegetation.
Protection (of a tree)	An area with twice the canopy diameter of the tree(s) fenced and protected from adverse impacts: grazing, burning and soil disturbance not permitted, fallen timber retained, weeds controlled, and other intervention and/or management if necessary to ensure adequate natural regeneration or planting can occur.
Scattered Trees	An indigenous canopy tree that does not form part of a remnant patch of native vegetation (see definition of remnant patch of native vegetation).
Small Tree (ST)	A tree with a Diameter at Breast Height (DBH) equal to or greater than 0.25 of the large tree diameter in the relevant EVC benchmark but less than the DBH for a medium old tree.
Strategic biodiversity score	A score that quantifies the relative value of a location in the landscape with regard to its condition, extent, connectivity and the support function it plays for species.
Understorey	The lower layers of vegetation, including the shrub layer, grass layer and ground layer. The understorey may comprise native and non-native species.
Vegetation Quality Assessment (VQA)	The Vegetation Quality Assessment (VQA) otherwise known as the habitat hectare assessment method is the standard approach of assessing vegetation quality in Victoria. Consistency in the application of the method by assessors is essential to support the delivery of Victoria's native vegetation removal regulations.

Photos

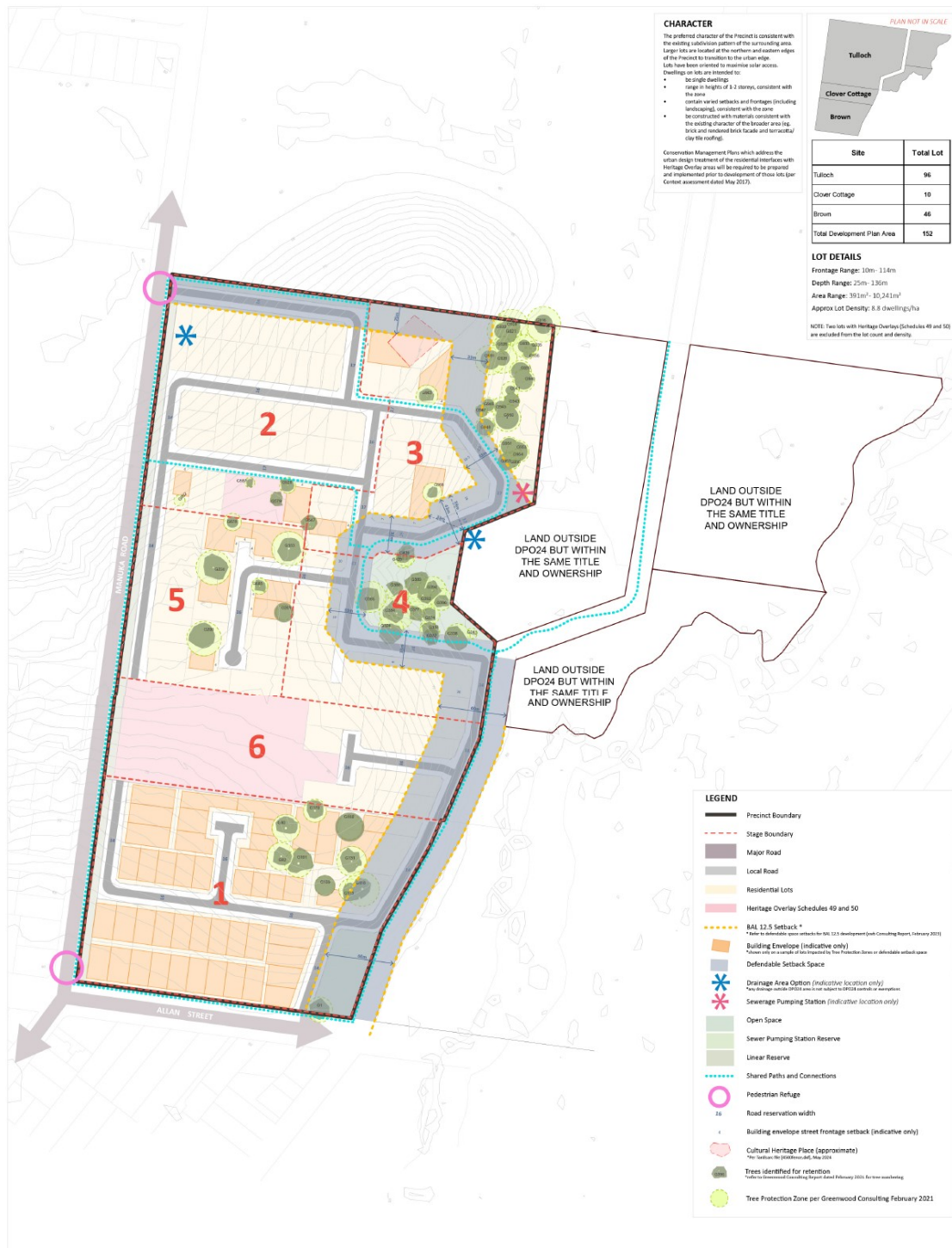
The below photos provide examples of native vegetation assessed on site on the 7th April 2025, determined to be impacted under the current proposal.

		
Tree ID Number 330	Tree ID Number 948	Tree ID Number 957
Native Patch Habitat Zone 1 (0.468 ha lost)		
Native Patch Habitat Zone 2 (0.009 ha lost)		

Appendices

Appendices commence on the next page.

Appendix 1: Development Plan 42-80 Manuka Road, Berwick (Version I – 06/06/2025)



Development Plan

42 - 80 Manuka Road | Berwick
328131 | 328131UDY1 | Version I | 06.06.25

1:3,000@ A3



Note: Plan to be read in conjunction with text of Development Plan.
This is an indicative plan only based on the Planning Zones/Overlays. This plan and areas shown are subject to survey and rounding. Tree data per Veris survey "310545.dwg", May 2024 and other sources.
The current property boundaries are based on DCMB data and are subject to survey realignment.

Damon Land Pty Ltd

veris

Appendix 2: Planning Property Reports

62-70 Manuka Road, Berwick

PLANNING PROPERTY REPORT



From www.planning.vic.gov.au at 03 April 2025, 05:28 PM

PROPERTY DETAILS

Address: **62-70 MANUKA ROAD BERWICK 3806**
 Lot and Plan Number: **Lot 2 PS305400**
 Standard Parcel Identifier (SPI): **2\PS305400**
 Local Government Area (Council): **CASEY**
 Council Property Number: **21988**
 Planning Scheme: **Casey**
 Directory Reference: **Melway 111 H8**

www.casey.vic.gov.au

[Planning Scheme - Casey](#)

UTILITIES

Rural Water Corporation: **Southern Rural Water**
 Melbourne Water Retailer: **South East Water**
 Melbourne Water: **Inside drainage boundary**
 Power Distributor: **AUSNET**

STATE ELECTORATES

Legislative Council: **SOUTH-EASTERN METROPOLITAN**
 Legislative Assembly: **BERWICK**

OTHER

Registered Aboriginal Party: **Bunurong Land Council**
 Aboriginal Corporation

[View location in VicPlan](#)

Planning Zones

[GREEN WEDGE ZONE \(GWZ1\)\(CASEY\)](#)
[GREEN WEDGE ZONE - SCHEDULE 4 \(GWZ4\)\(CASEY\)](#)
[NEIGHBOURHOOD RESIDENTIAL ZONE \(NRZ1\)\(CASEY\)](#)
[NEIGHBOURHOOD RESIDENTIAL ZONE - SCHEDULE 2 \(NRZ2\)\(CASEY\)](#)



FZ - Farming	GRZ - General Residential	GWAZ - Green Wedge A
GWZ - Green Wedge	LDRZ - Low Density Residential	NRZ - Neighbourhood Residential
PPRZ - Public Park and Recreation	PUZ1 - Public Use-Service and Utility	PUZ6 - Public Use-Local Government
PUZ2 - Public Use-Education	PUZ5 - Public Use-Cemetery/Crematorium	TRZ2 - Principal Road Network
RCZ - Rural Conservation	TRZ3 - Significant Municipal Road	
Water area	Water course	

Note: labels for zones may appear outside the actual zone - please compare the labels with the legend.

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PLANNING PROPERTY REPORT: 62-70 MANUKA ROAD, BERWICK 3806

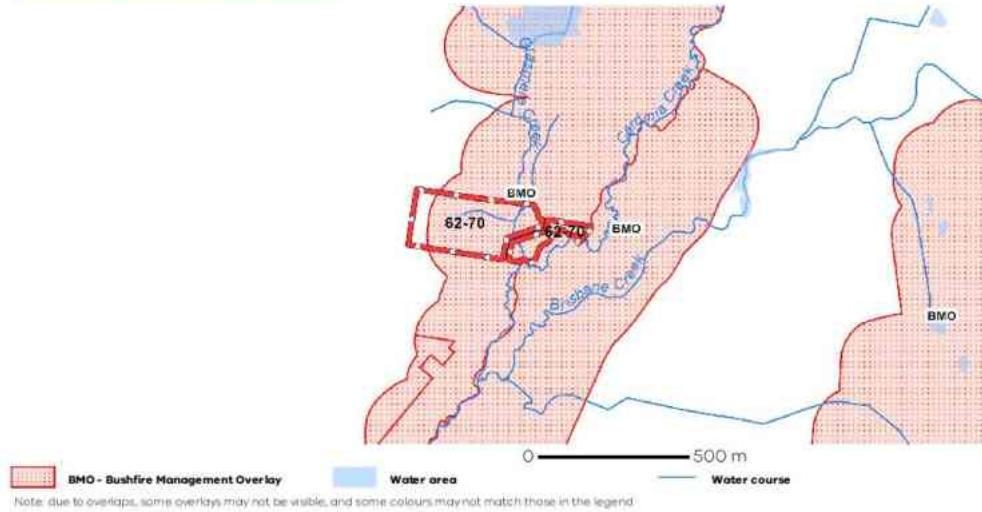
Page 1 of 8

PLANNING PROPERTY REPORT



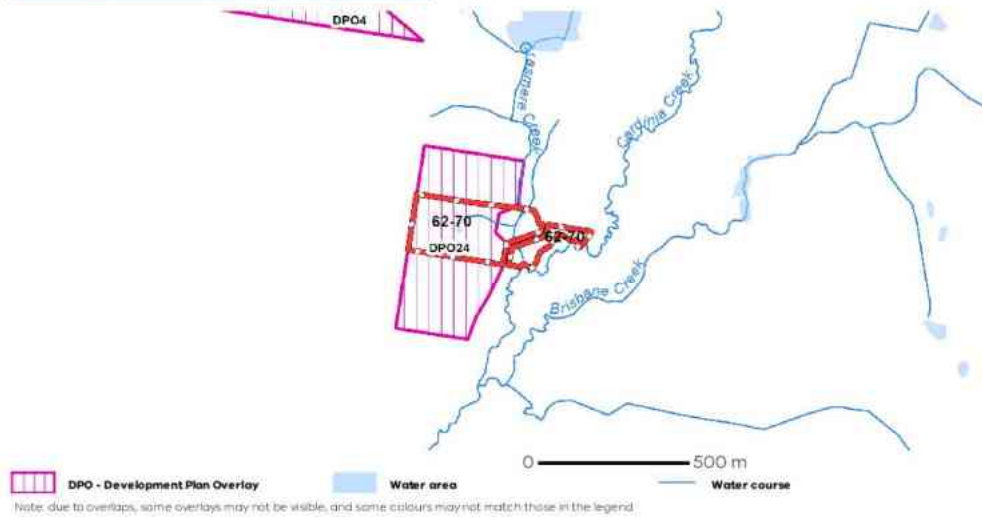
Planning Overlays

BUSHFIRE MANAGEMENT OVERLAY (BMO) (CASE V)



DEVELOPMENT PLAN OVERLAY (DPO) (CASE V)

DEVELOPMENT PLAN OVERLAY - SCHEDULE 24 (DPO24) (CASE V)



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PLANNING PROPERTY REPORT: 62-70 MANUKA ROAD, BERWICK 3806

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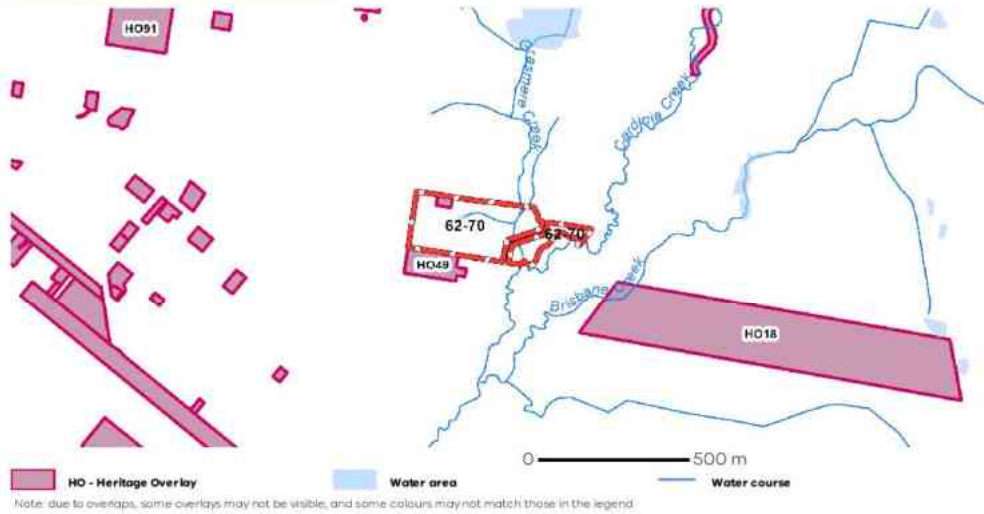
PLANNING PROPERTY REPORT



Planning Overlays

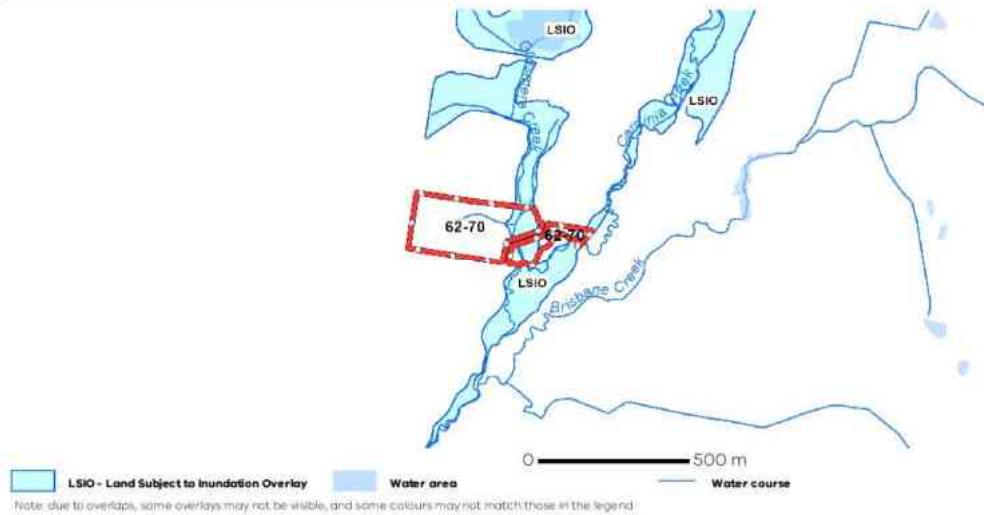
HERITAGE OVERLAY (HO) (CASEY)

HERITAGE OVERLAY - SCHEDULE (HO50) (CASEY)



LAND SUBJECT TO INUNDATION OVERLAY (LSIO) (CASEY)

LAND SUBJECT TO INUNDATION OVERLAY SCHEDULE (LSIO) (CASEY)



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PLANNING PROPERTY REPORT: 62-70 MANUKA ROAD, BERWICK 3806

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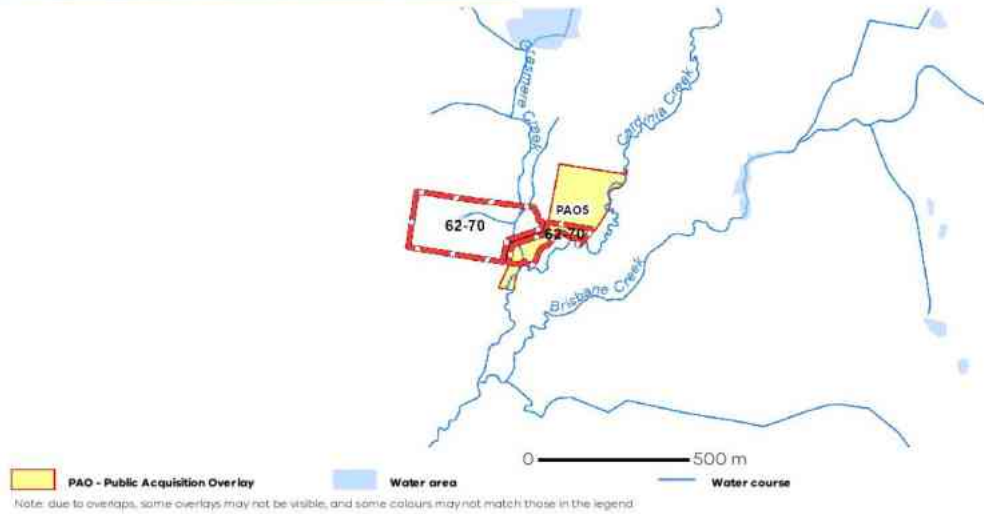
PLANNING PROPERTY REPORT



Planning Overlays

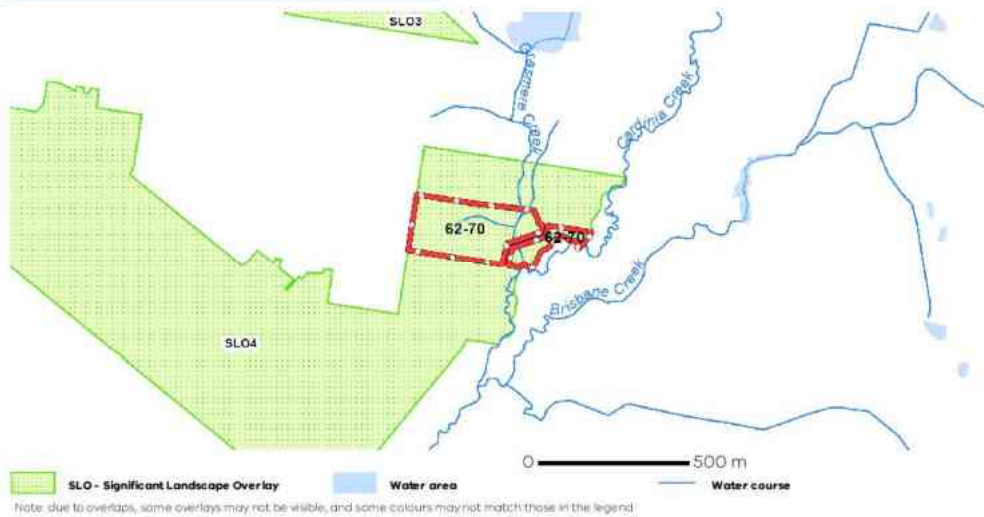
PUBLIC ACQUISITION OVERLAY (PAO) (CASEY)

PUBLIC ACQUISITION OVERLAY - PS MAP REF PAO5 SCHEDULE 1 (CASEY)



SIGNIFICANT LANDSCAPE OVERLAY (SLO) (CASEY)

SIGNIFICANT LANDSCAPE OVERLAY - SCHEDULE 4 (SLO4) (CASEY)



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PLANNING PROPERTY REPORT: 62-70 MANUKA ROAD, BERWICK 3806

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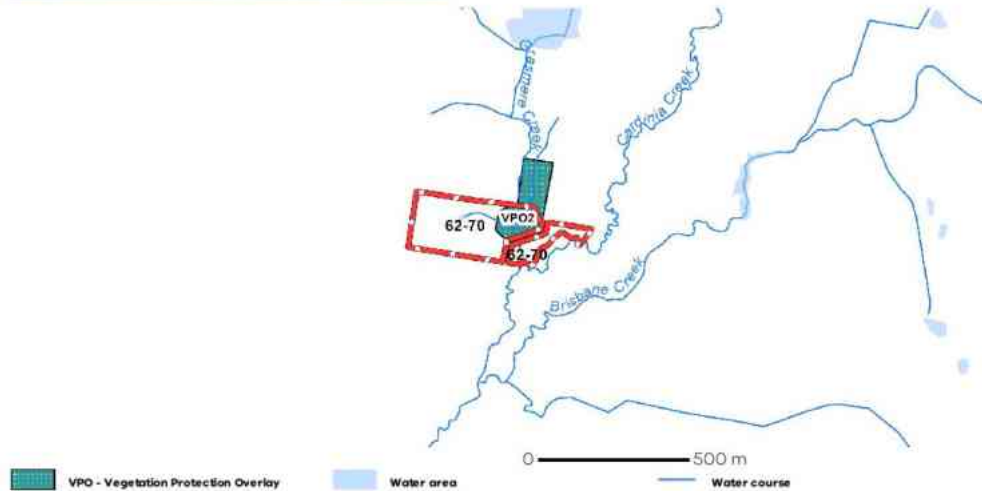
PLANNING PROPERTY REPORT



Planning Overlays

VEGETATION PROTECTION OVERLAY (VPO) (CASEY)

VEGETATION PROTECTION OVERLAY - SCHEDULE 2 (VPO2) (CASEY)



Note: due to overlaps, some overlays may not be visible, and some colours may not match those in the legend.

OTHER OVERLAYS

Other overlays in the vicinity not directly affecting this land:

ENVIRONMENTAL SIGNIFICANCE OVERLAY (ESO) (CASEY)

ENVIRONMENTAL SIGNIFICANCE OVERLAY (ESO) (CARDINA)

FLOODWAY OVERLAY (FO) (CARDINA)

SPECIAL BUILDING OVERLAY (SBO) (CASEY)

SPECIFIC CONTROLS OVERLAY (SCO) (CARDINA)



Note: due to overlaps, some overlays may not be visible, and some colours may not match those in the legend.

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PLANNING PROPERTY REPORT: 62-70 MANUKA ROAD, BERWICK 3806

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PLANNING PROPERTY REPORT



Areas of Aboriginal Cultural Heritage Sensitivity

All or part of this property is an 'area of cultural heritage sensitivity'.

'Areas of cultural heritage sensitivity' are defined under the Aboriginal Heritage Regulations 2018, and include registered Aboriginal cultural heritage places and land form types that are generally regarded as more likely to contain Aboriginal cultural heritage.

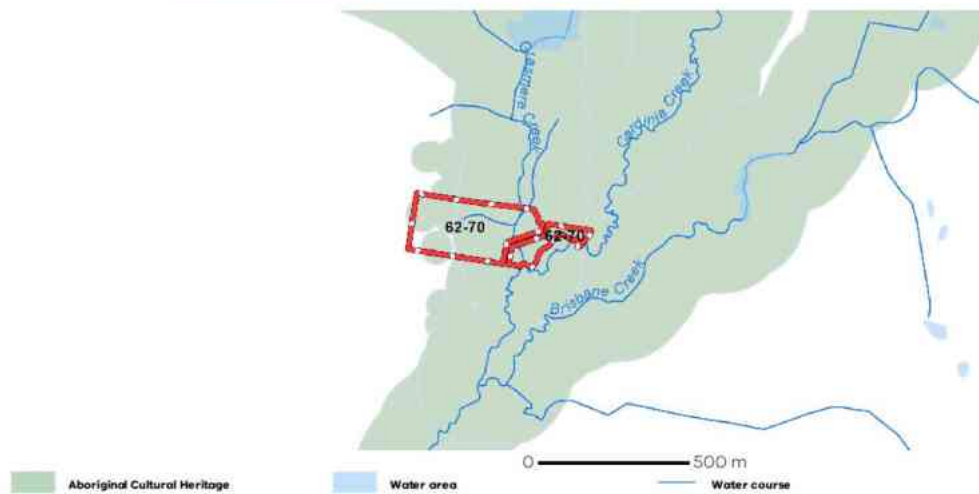
Under the Aboriginal Heritage Regulations 2018, 'areas of cultural heritage sensitivity' are one part of a two part trigger which require a cultural heritage management plan to be prepared where a listed high impact activity is proposed.

If a significant land use change is proposed (for example, a subdivision into 3 or more lots), a cultural heritage management plan may be triggered. One or two dwellings, works ancillary to a dwelling, services to a dwelling, alteration of buildings and minor works are examples of works exempt from this requirement.

Under the Aboriginal Heritage Act 2006, where a cultural heritage management plan is required, planning permits, licences and work authorities cannot be issued unless the cultural heritage management plan has been approved for the activity.

For further information about whether a Cultural Heritage Management Plan is required go to <http://www.pdv.nms.net.au/pdv/Question1.aspx>

More information, including links to both the Aboriginal Heritage Act 2006 and the Aboriginal Heritage Regulations 2018, can also be found here - <https://www.aboriginal.vic.gov.au/aboriginal-heritage-legislation>



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PLANNING PROPERTY REPORT: 62-70 MANUKA ROAD, BERWICK 3806

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PLANNING PROPERTY REPORT



Further Planning Information

Planning scheme data last updated on 03 April 2025.

A **planning scheme** sets out policies and requirements for the use, development and protection of land. This report provides information about the zone and overlay provisions that apply to the selected land. Information about the State and local policy, particular, general and operational provisions of the local planning scheme that may affect the use of this land can be obtained by contacting the local council or by visiting <https://www.planning.vic.gov.au>.

This report is NOT a **Planning Certificate** issued pursuant to Section 199 of the **Planning and Environment Act 1987**. It does not include information about exhibited planning scheme amendments, or zonings that may affect the land. To obtain a Planning Certificate go to Titles and Property Certificates at Landata - <https://www.landata.vic.gov.au>.

For details of surrounding properties, use this service to get the Reports for properties of interest.

To view planning zones, overlay and heritage information in an interactive format visit <https://mapshare.maps.vic.gov.au/vicplan>.

For other information about planning in Victoria visit <https://www.planning.vic.gov.au>.

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PLANNING PROPERTY REPORT ID: 70 MANUKA ROAD BERWICK 3806

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PLANNING PROPERTY REPORT

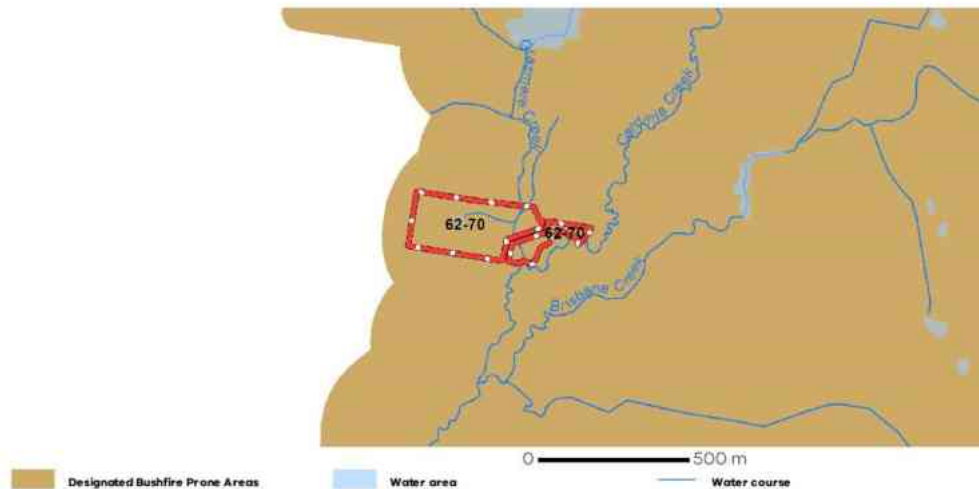


Designated Bushfire Prone Areas

This property is in a designated bushfire prone area. Special bushfire construction requirements apply to the part of the property mapped as a designated bushfire prone area (BPA). Planning provisions may apply.

Where part of the property is mapped as BPA, if no part of the building envelope or footprint falls within the BPA area, the BPA construction requirements do not apply.

Note: the relevant building surveyor determines the need for compliance with the bushfire construction requirements.



Designated BPA are determined by the Minister for Planning following a detailed review process. The Building Regulations 2018, through adoption of the Building Code of Australia, apply bushfire protection standards for building works in designated BPA.

Designated BPA maps can be viewed on VicPlan at <https://mapshare.vic.gov.au/vicplan/> or at the relevant local council.

Create a BPA definition plan in [VicPlan](#) to measure the BPA.

Information for lot owners building in the BPA is available at <https://www.planning.vic.gov.au>

Further information about the building control system and building in bushfire prone areas can be found on the Victorian Building Authority website <https://www.vba.vic.gov.au>. Copies of the Building Act and Building Regulations are available from <http://www.legislation.vic.gov.au>. For Planning Scheme Provisions in bushfire areas visit <https://www.planning.vic.gov.au>

Native Vegetation

Native plants that are indigenous to the region and important for biodiversity might be present on this property. This could include trees, shrubs, herbs, grasses or aquatic plants. There are a range of regulations that may apply including need to obtain a planning permit under Clause 52.17 of the local planning scheme. For more information see [Native Vegetation \(Clause 52.17\)](#) with local variations in [Native Vegetation \(Clause 52.17\) Schedule](#)

To help identify native vegetation on this property and the application of Clause 52.17 please visit the Native Vegetation Information Management system <https://nvim.delwp.vic.gov.au/> and [Native vegetation \(environment.vic.gov.au\)](#) or please contact your relevant council.

You can find out more about the natural values on your property through NatureKit [NatureKit \(environment.vic.gov.au\)](#)

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PLANNING PROPERTY REPORT: 62-70 MANUKA ROAD, BERWICK 3806

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72-80 Manuka Road, Berwick

PLANNING PROPERTY REPORT



From www.planning.vic.gov.au at 03 April 2025 06:29 PM

PROPERTY DETAILS

Address: **72-80 MANUKA ROAD BERWICK 3806**
 Lot and Plan Number: **Lot 1 PS305400**
 Standard Parcel Identifier (SPI): **1\PS305400**
 Local Government Area (Council): **CASEY**
 Council Property Number: **30663**
 Planning Scheme: **Casey**
 Directory Reference: **Melway 111 H7**

www.casey.vic.gov.au

[Planning Scheme - Casey](#)

UTILITIES

Rural Water Corporation: **Southern Rural Water**
 Melbourne Water Retailer: **South East Water**
 Melbourne Water: **Inside drainage boundary**
 Power Distributor: **AUSNET**

STATE ELECTORATES

Legislative Council: **SOUTH-EASTERN METROPOLITAN**
 Legislative Assembly: **BERWICK**

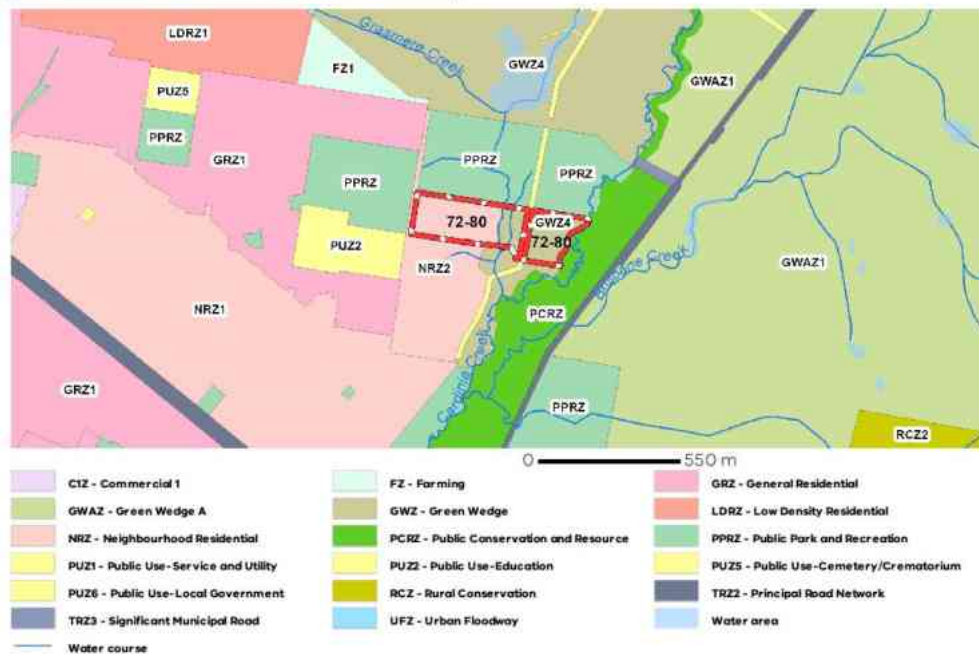
OTHER

Registered Aboriginal Party: **Bunurong Land Council**
Aboriginal Corporation

[View location in Vi-Plan](#)

Planning Zones

[GREEN WEDGE ZONE \(GWZ\) \(CASEY\)](#)
[GREEN WEDGE ZONE - SCHEDULE 4 \(GWZ4\) \(CASEY\)](#)
[NEIGHBOURHOOD RESIDENTIAL ZONE \(NRZ\) \(CASEY\)](#)
[NEIGHBOURHOOD RESIDENTIAL ZONE - SCHEDULE 2 \(NRZ2\) \(CASEY\)](#)



Note: labels for zones may appear outside the actual zone - please compare the labels with the legend.

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PLANNING PROPERTY REPORT: 72-80 MANUKA ROAD BERWICK 3806

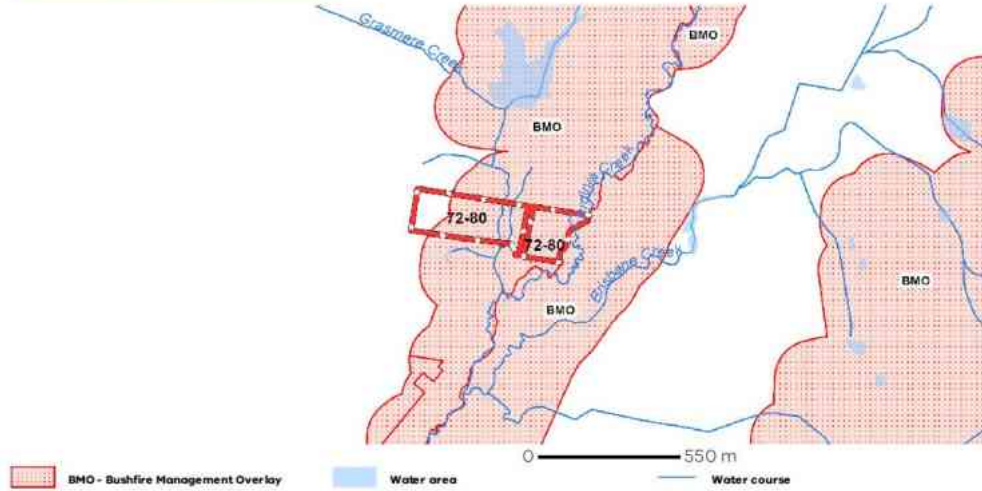
Page 1 of 8

PLANNING PROPERTY REPORT



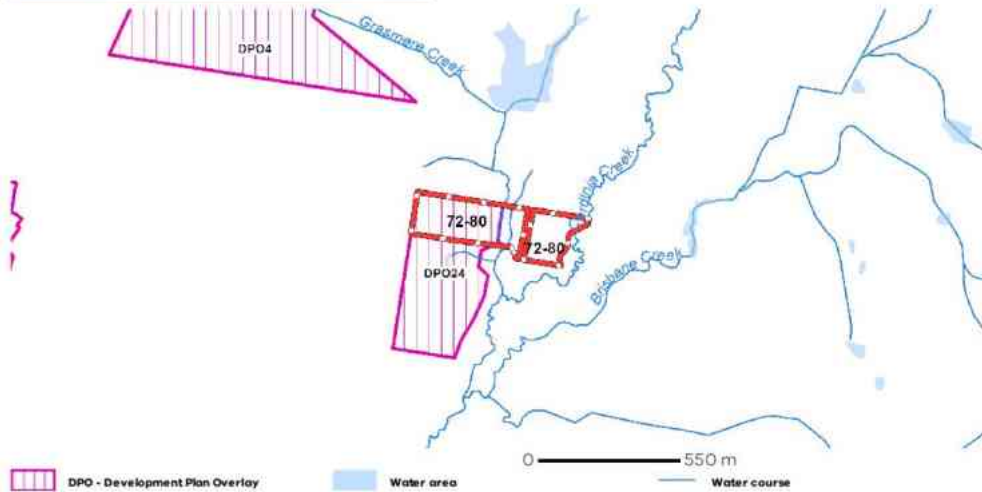
Planning Overlays

BUSHFIRE MANAGEMENT OVERLAY (BMO) (CASEY)



DEVELOPMENT PLAN OVERLAY (DPO) (CASEY)

DEVELOPMENT PLAN OVERLAY - SCHEDULE 24 (DPO24) (CASEY)



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PLANNING PROPERTY REPORT: 72-80 MANUKA ROAD, BERWICK 3806

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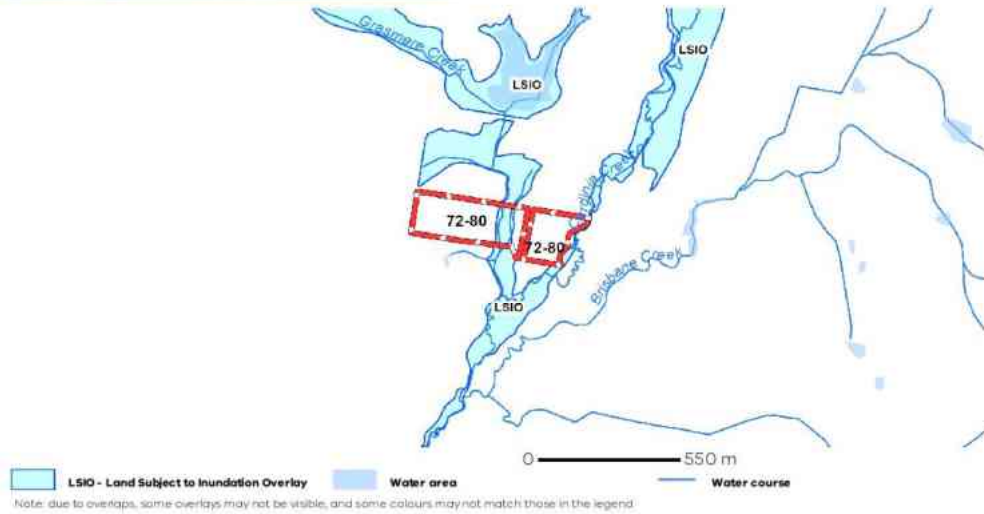
PLANNING PROPERTY REPORT



Planning Overlays

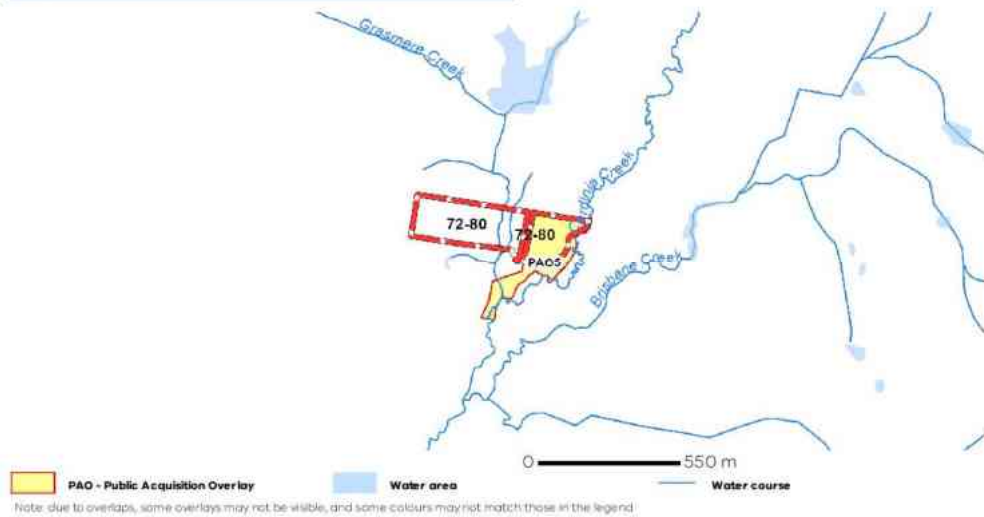
LAND SUBJECT TO INUNDATION OVERLAY (LSIO) (CASEY)

LAND SUBJECT TO INUNDATION OVERLAY SCHEDULE (LSIO) (CASEY)



PUBLIC ACQUISITION OVERLAY (PAO) (CASEY)

PUBLIC ACQUISITION OVERLAY - PS MAP REF PAOS SCHEDULE (PAOS) (CASEY)



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PLANNING PROPERTY REPORT: 72-80 MANUKA ROAD BERWICK 3806

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PLANNING PROPERTY REPORT

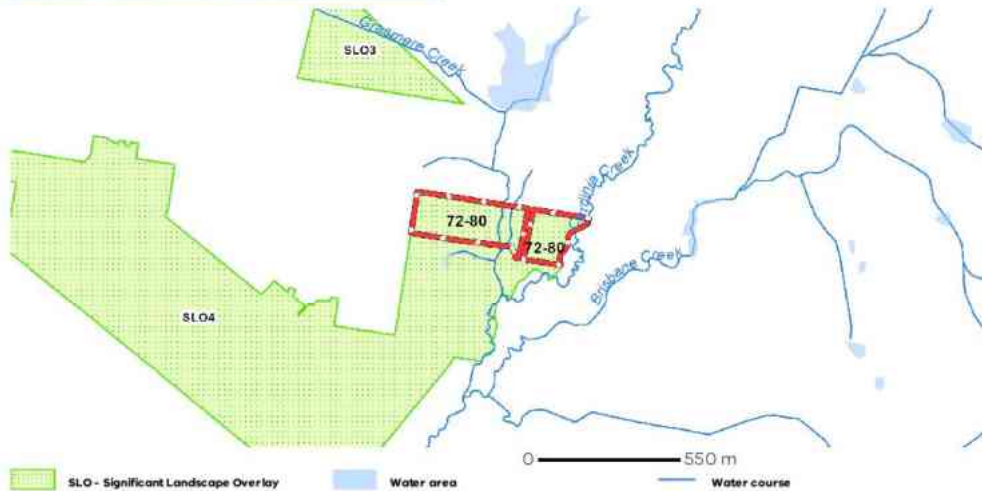


Department
of Transport
and Planning

Planning Overlays

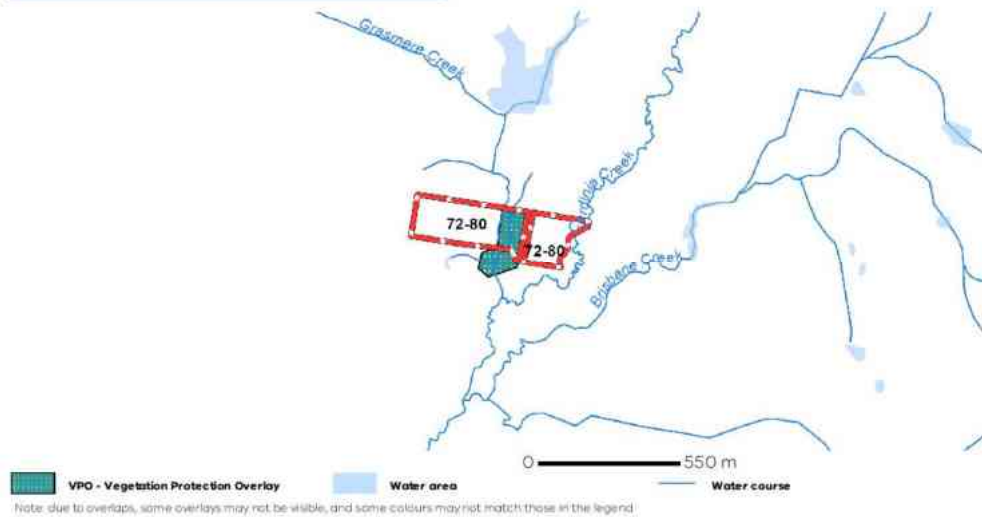
SIGNIFICANT LANDSCAPE OVERLAY (SLO) (CASEY)

SIGNIFICANT LANDSCAPE OVERLAY - SCHEDULE 4 (SLO4) (CASEY)



VEGETATION PROTECTION OVERLAY (VPO) (CASEY)

VEGETATION PROTECTION OVERLAY - SCHEDULE 3 (VPO2) (CASEY)



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PLANNING PROPERTY REPORT: 72-80 MANUKA ROAD BERWICK 3806

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PLANNING PROPERTY REPORT

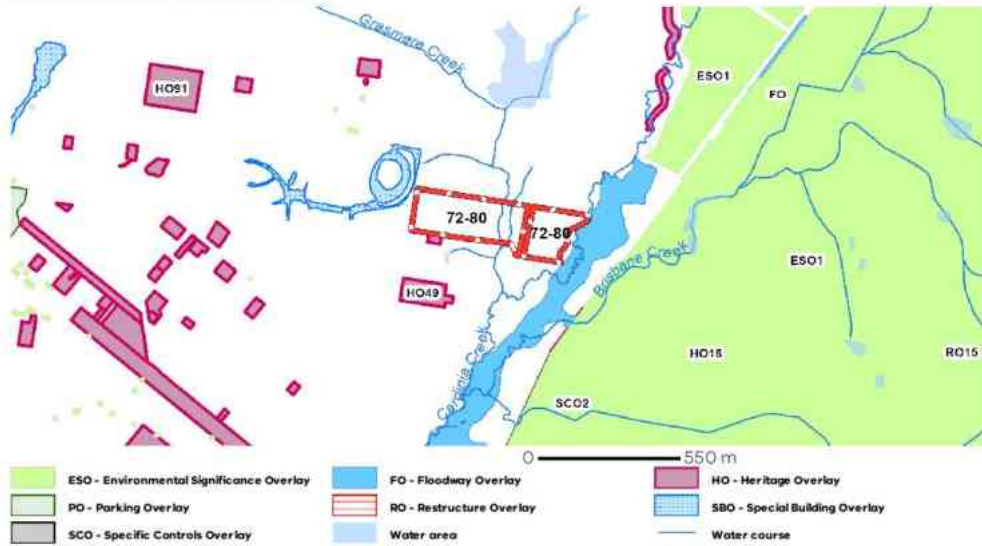


Planning Overlays

OTHER OVERLAYS

Other overlays in the vicinity not directly affecting this land:

[ENVIRONMENTAL SIGNIFICANCE OVERLAY \(ESO\) \(CASEY\)](#)
[ENVIRONMENTAL SIGNIFICANCE OVERLAY \(ESO\) \(CARDINIA\)](#)
[FLOODWAY OVERLAY \(FO\) \(CARDINIA\)](#)
[HERITAGE OVERLAY \(HO\) \(CARDINIA\)](#)
[HERITAGE OVERLAY \(HO\) \(CASEY\)](#)
[PARKING OVERLAY \(PO\) \(CASEY\)](#)
[RESTRUCTURE OVERLAY \(RO\) \(CARDINIA\)](#)
[SPECIAL BUILDING OVERLAY \(SBO\) \(CASEY\)](#)
[SPECIFIC CONTROLS OVERLAY \(SCO\) \(CARDINIA\)](#)



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Areas of Aboriginal Cultural Heritage Sensitivity

All or part of this property is an 'area of cultural heritage sensitivity'.

'Areas of cultural heritage sensitivity' are defined under the Aboriginal Heritage Regulations 2018, and include registered Aboriginal cultural heritage places and land form types that are generally regarded as more likely to contain Aboriginal cultural heritage.

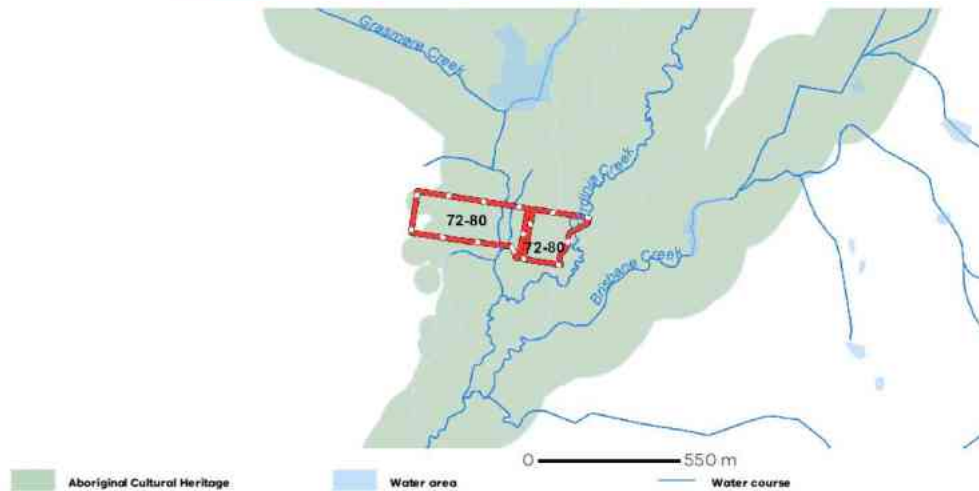
Under the Aboriginal Heritage Regulations 2018, 'areas of cultural heritage sensitivity' are one part of a two part trigger which require a cultural heritage management plan to be prepared where a listed high impact activity is proposed.

If a significant land use change is proposed (for example, a subdivision into 3 or more lots), a cultural heritage management plan may be triggered. One or two dwellings, works ancillary to a dwelling, services to a dwelling, alteration of buildings and minor works are examples of works exempt from this requirement.

Under the Aboriginal Heritage Act 2006, where a cultural heritage management plan is required, planning permits, licences and work authorities cannot be issued unless the cultural heritage management plan has been approved for the activity.

For further information about whether a Cultural Heritage Management Plan is required go to <http://www.dpy.vic.gov.au/Question1.aspx>.

More information, including links to both the Aboriginal Heritage Act 2006 and the Aboriginal Heritage Regulations 2018, can also be found here - <https://www.aboriginal.vic.gov.au/aboriginal-heritage-legislation>.



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PLANNING PROPERTY REPORT



Further Planning Information

Planning scheme data last updated on 03 April 2025.

A **planning scheme** sets out policies and requirements for the use, development and protection of land. This report provides information about the zone and overlay provisions that apply to the selected land. Information about the State and local policy, particular, general and operational provisions of the local planning scheme that may affect the use of this land can be obtained by contacting the local council or by visiting <https://www.planning.vic.gov.au>.

This report is NOT a **Planning Certificate** issued pursuant to Section 199 of the **Planning and Environment Act 1987**. It does not include information about exhibited planning scheme amendments, or zonings that may affect the land. To obtain a Planning Certificate go to Titles and Property Certificates at Landata - <https://www.landata.vic.gov.au>.

For details of surrounding properties, use this service to get the Reports for properties of interest.

To view planning zones, overlay and heritage information in an interactive format visit <https://mapshare.maps.vic.gov.au/vicplan>.

For other information about planning in Victoria visit <https://www.planning.vic.gov.au>.

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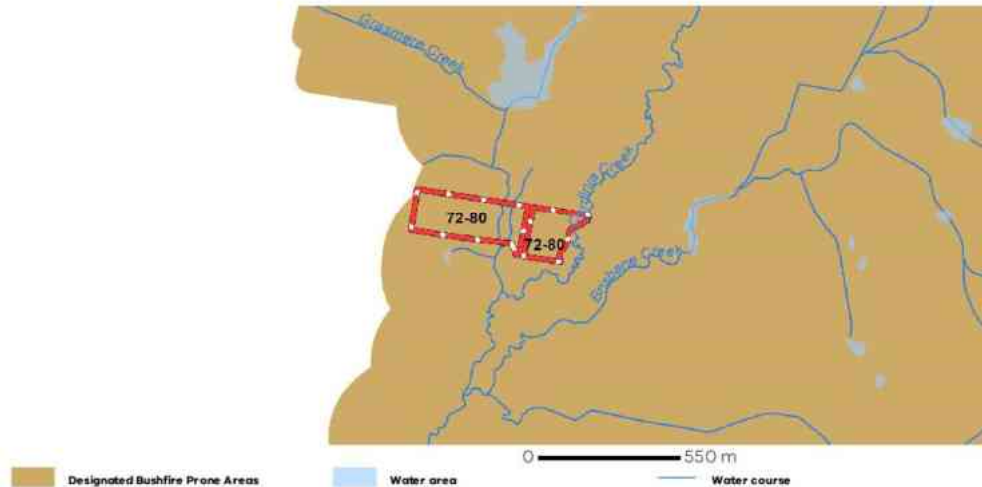


Designated Bushfire Prone Areas

This property is in a designated bushfire prone area. Special bushfire construction requirements apply to the part of the property mapped as a designated bushfire prone area (BPA). Planning provisions may apply.

Where part of the property is mapped as BPA, if no part of the building envelope or footprint falls within the BPA area, the BPA construction requirements do not apply.

Note: the relevant building surveyor determines the need for compliance with the bushfire construction requirements.



Designated BPA are determined by the Minister for Planning following a detailed review process. The Building Regulations 2018, through adoption of the Building Code of Australia, apply bushfire protection standards for building works in designated BPA.

Designated BPA maps can be viewed on VicPlan at <https://mapshare.vic.gov.au/vicplan/> or at the relevant local council.

Create a BPA definition plan in [VicPlan](https://www.planning.vic.gov.au/vicplan/) to measure the BPA.

Information for lot owners building in the BPA is available at <https://www.planning.vic.gov.au/>

Further information about the building control system and building in bushfire prone areas can be found on the Victorian Building Authority website <https://www.vba.vic.gov.au/>. Copies of the Building Act and Building Regulations are available from <http://www.legislation.vic.gov.au/>. For Planning Scheme Provisions in bushfire areas visit <https://www.planning.vic.gov.au/>

Native Vegetation

Native plants that are indigenous to the region and important for biodiversity might be present on this property. This could include trees, shrubs, herbs, grasses or aquatic plants. There are a range of regulations that may apply including need to obtain a planning permit under Clause 52.17 of the local planning scheme. For more information see [Native Vegetation \(Clause 52.17\)](#) with local variations in [Native Vegetation \(Clause 52.17\) Schedule](#)

To help identify native vegetation on this property and the application of Clause 52.17 please visit the Native Vegetation Information Management system <https://nvim.delwp.vic.gov.au/> and [Native vegetation \(environment.vic.gov.au\)](#) or please contact your relevant council.

You can find out more about the natural values on your property through NatureKit [NatureKit \(environment.vic.gov.au\)](#)

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Appendix 3: Results of VBA 5 kilometre radius search for threatened flora species

Scientific Name	Common Name	Conservation Status / Origin	Count of Sightings	Last Record
<i>Acacia stictophylla</i>	Dandenong Wattle	en	3	23/09/2009
<i>Austrostipa rudis subsp. australis</i>	Veined Spear-grass	en	3	30/12/2004
<i>Bossiaea cordigera</i>	Wiry Bossiaea	en	1	1/04/2011
<i>Burnettia cuneata</i>	Lizard Orchid	en	1	01/01/1770
<i>Caladenia oenochila</i>	Wine-lipped Spider-orchid	cr	2	20/10/1985
<i>Caladenia vulgaris</i>	Slender Pink-fingers	vu	1	20/12/2022
<i>Correa reflexa var. lobata</i>	Powelltown Correa	en	1	26/02/2014
<i>Corybas aconitiflorus</i>	Spurred Helmet-orchid	en	1	6/06/1998
<i>Corymbia maculata</i>	Spotted Gum	vu #	3	15/08/2023
<i>Dianella amoena</i>	Matted Flax-lily	EN cr	8	25/06/2019
<i>Dianella longifolia var. grandis s.l.</i>	Glaucous Flax-lily	cr	15	30/10/2018
<i>Diuris punctata var. punctata</i>	Purple Diuris	en	60	01/01/1987
<i>Eucalyptus fulgens</i>	Green Scentbark	en	2	20/06/2022
<i>Eucalyptus leucoxylon subsp. megalocarpa</i>	Large-fruit Yellow-gum	cr #	1	15/02/2016
<i>Gentianella polysperes</i>	Early Forest-gentian	en	1	09/11/1880
<i>Melaleuca armillaris subsp. armillaris</i>	Giant Honey-myrtle	en #	2	20/03/2024
<i>Prasophyllum frenchii</i>	Maroon Leek-orchid	EN en	5	27/10/1940
<i>Pterostylis clivosa</i>	Red-tip Greenhood	en	2	1/04/2011
<i>Pterostylis grandiflora</i>	Cobra Greenhood	en	6	16/06/2021
<i>Pterostylis X ingens</i>	Sharp Greenhood	vu	1	01/01/1770
<i>Pterostylis X toveyana</i>	Mentone Greenhood	en	1	01/07/1896
<i>Senecio campylocarpus</i>	Floodplain Fireweed	en	2	21/10/2021
<i>Tetralathea stenocarpa</i>	Long Pink-bells	en	1	1/01/1935
<i>Thelymitra X irregularis</i>	Crested Sun-orchid	en	1	01/01/1770
<i>Utricularia gibba</i>	Floating Bladderwort	en #	1	14/02/2018

Key to Conservation Status and Origin

Taxon Origin	
#	Native species that may be considered alien in some circumstances
*	Exotic species
Commonwealth Environment Protection and Biodiversity Conservation (EPBC) Act 1999	
VU	Listed as Nationally Vulnerable
EN	Listed as Nationally Endangered
EX	Listed as Nationally Extinct
CR	Listed as Nationally Critically Endangered
Victorian FFG Act 1988 Listing (DEECA 2024)	
x	Presumed Extinct in Victoria
cr	Listed as Critically Endangered in Victoria
en	Listed as Endangered in Victoria
vu	Listed as Vulnerable in Victoria

Appendix 4: Results of EPBC Act Protected Matters 5 kilometre radius search



Australian Government

Department of Climate Change, Energy,
the Environment and Water

EPBC Act Protected Matters Report

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

Report created: 03-Apr-2025

[Summary](#)

[Details](#)

[Matters of NES](#)

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

[Extra Information](#)

[Caveat](#)

[Acknowledgements](#)

Summary

Matters of National Environment Significance

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

World Heritage Properties:	None
National Heritage Places:	None
Wetlands of International Importance (Ramsar):	1
Great Barrier Reef Marine Park:	None
Commonwealth Marine Area:	None
Listed Threatened Ecological Communities:	2
Listed Threatened Species:	53
Listed Migratory Species:	11

Other Matters Protected by the EPBC Act

This part of the report summarises other matters protected under the Act that may relate to the area you nominated. Approval may be required for a proposed activity that significantly affects the environment on Commonwealth land, when the action is outside the Commonwealth land, or the environment anywhere when the action is taken on Commonwealth land. Approval may also be required for the Commonwealth or Commonwealth agencies proposing to take an action that is likely to have a significant impact on the environment anywhere.

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

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

Commonwealth Lands:	None
Commonwealth Heritage Places:	None
Listed Marine Species:	22
Whales and Other Cetaceans:	None
Critical Habitats:	None
Commonwealth Reserves Terrestrial:	None
Australian Marine Parks:	None
Habitat Critical to the Survival of Marine Turtles:	None

Extra Information

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

State and Territory Reserves:	5
Regional Forest Agreements:	1
Nationally Important Wetlands:	None
EPBC Act Referrals:	16
Key Ecological Features (Marine):	None
Biologically Important Areas:	None
Bioregional Assessments:	None
Geological and Bioregional Assessments:	None

Details

Matters of National Environmental Significance

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

Ramsar Site Name	Proximity	Buffer Status
Western port	10 - 20km upstream from Ramsar site	In feature area

Listed Threatened Ecological Communities [\[Resource Information \]](#)

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

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

Community Name	Threatened Category	Presence Text	Buffer Status
Natural Damp Grassland of the Victorian Coastal Plains	Critically Endangered	Community likely to occur within area	In feature area
White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland	Critically Endangered	Community likely to occur within area	In feature area

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

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

Number is the current name ID.

Scientific Name	Threatened Category	Presence Text	Buffer Status
BIRD			
Anthochaera phrygia Regent Honeyeater [82338]	Critically Endangered	Species or species habitat likely to occur within area	In feature area
Aphelocephala leucopsis Southern Whiteface [529]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Botaurus poiciloptilus Australasian Bittern [1001]	Endangered	Species or species habitat known to occur within area	In feature area
Calidris acuminata Sharp-tailed Sandpiper [874]	Vulnerable	Species or species habitat likely to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Calidris ferruginea Curlew Sandpiper [856]	Critically Endangered	Species or species habitat may occur within area	In feature area
Callocephalon fimbriatum Gang-gang Cockatoo [768]	Endangered	Species or species habitat known to occur within area	In feature area
Climacteris picumnus victoriae Brown Treecreeper (south-eastern) [67062]	Vulnerable	Species or species habitat may occur within area	In feature area
Falco hypoleucos Grey Falcon [929]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Gallinago hardwickii Latham's Snipe, Japanese Snipe [863]	Vulnerable	Species or species habitat known to occur within area	In feature area
Grantiella picta Painted Honeyeater [470]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Hirundapus caudacutus White-throated Needletail [682]	Vulnerable	Species or species habitat known to occur within area	In feature area
Lathamus discolor Swift Parrot [744]	Critically Endangered	Species or species habitat known to occur within area	In feature area
Melanodryas cucullata cucullata South-eastern Hooded Robin, Hooded Robin (south-eastern) [67093]	Endangered	Species or species habitat may occur within area	In feature area
Neophema chrysostoma Blue-winged Parrot [726]	Vulnerable	Species or species habitat known to occur within area	In feature area
Numenius madagascariensis Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat may occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
<u>Pedionomus torquatus</u> Plains-wanderer [906]	Critically Endangered	Species or species habitat may occur within area	In feature area
<u>Pycnoptilus floccosus</u> Pilotbird [525]	Vulnerable	Species or species habitat known to occur within area	In feature area
<u>Rostratula australis</u> Australian Painted Snipe [77037]	Endangered	Species or species habitat likely to occur within area	In feature area
<u>Stagonopleura guttata</u> Diamond Firetail [59398]	Vulnerable	Species or species habitat likely to occur within area	In feature area
<u>Tringa nebularia</u> Common Greenshank, Greenshank [832]	Endangered	Species or species habitat likely to occur within area	In feature area
FISH			
<u>Galaxiella pusilla</u> Eastern Dwarf Galaxias, Dwarf Galaxias [56790]	Endangered	Species or species habitat known to occur within area	In feature area
<u>Nannoperca obscura</u> Yarra Pygmy Perch [26177]	Endangered	Species or species habitat may occur within area	In feature area
<u>Prototroctes maraena</u> Australian Grayling [26179]	Vulnerable	Species or species habitat known to occur within area	In feature area
FROG			
<u>Litoria raniformis</u> Southern Bell Frog, Growling Grass Frog, Green and Golden Frog, Warty Swamp Frog, Golden Bell Frog [1828]	Vulnerable	Species or species habitat known to occur within area	In feature area
INSECT			
<u>Synemon plana</u> Golden Sun Moth [25234]	Vulnerable	Species or species habitat may occur within area	In feature area
MAMMAL			

Scientific Name	Threatened Category	Presence Text	Buffer Status
<u>Antechinus minimus maritimus</u> Swamp Antechinus (mainland) [83086]	Vulnerable	Species or species habitat may occur within area	In feature area
<u>Dasyurus maculatus maculatus (SE mainland population)</u> Spot-tailed Quoll, Spotted-tail Quoll, Tiger Quoll (southeastern mainland population) [75184]	Endangered	Species or species habitat known to occur within area	In feature area
<u>Isoodon obesulus obesulus</u> Southern Brown Bandicoot (eastern), Southern Brown Bandicoot (south-eastern) [68050]	Endangered	Species or species habitat known to occur within area	In feature area
<u>Mastacomys fuscus mordicus</u> Broad-toothed Rat (mainland), Tooarrana [87617]	Endangered	Species or species habitat may occur within area	In feature area
<u>Petauroides volans</u> Greater Glider (southern and central) [254]	Endangered	Species or species habitat likely to occur within area	In feature area
<u>Petaurus australis australis</u> Yellow-bellied Glider (south-eastern) [87600]	Vulnerable	Species or species habitat likely to occur within area	In feature area
<u>Potorous tridactylus trisulcatus</u> Long-nosed Potoroo (southern mainland) [86367]	Vulnerable	Species or species habitat may occur within area	In buffer area only
<u>Pseudomys fumeus</u> Smoky Mouse, Konoom [88]	Endangered	Species or species habitat may occur within area	In feature area
<u>Pseudomys novaehollandiae</u> New Holland Mouse, Pookila [96]	Vulnerable	Species or species habitat may occur within area	In buffer area only
<u>Pteropus poliocephalus</u> Grey-headed Flying-fox [186]	Vulnerable	Foraging, feeding or related behaviour known to occur within area	In feature area
PLANT			
<u>Amphibromus fluitans</u> River Swamp Wallaby-grass, Floating Swamp Wallaby-grass [19215]	Vulnerable	Species or species habitat likely to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
<u>Asterolasia asteriscophora subsp. albiflora</u> White Star-bush [84573]	Critically Endangered	Species or species habitat may occur within area	In buffer area only
<u>Caladenia orientalis</u> Eastern Spider Orchid [83410]	Endangered	Species or species habitat may occur within area	In buffer area only
<u>Caladenia tessellata</u> Thick-lipped Spider-orchid, Daddy Long-legs [2119]	Vulnerable	Species or species habitat likely to occur within area	In buffer area only
<u>Dianella amoena</u> Matted Flax-lily [64886]	Endangered	Species or species habitat known to occur within area	In feature area
<u>Eucalyptus strzeleckii</u> Strzelecki Gum [55400]	Vulnerable	Species or species habitat likely to occur within area	In feature area
<u>Glycine latrobeana</u> Clover Glycine, Purple Clover [13910]	Vulnerable	Species or species habitat known to occur within area	In feature area
<u>Lepidium aschersonii</u> Spiny Peppercress [10976]	Vulnerable	Species or species habitat may occur within area	In feature area
<u>Pomaderris vacciniifolia</u> Round-leaf Pomaderris [4256]	Critically Endangered	Species or species habitat likely to occur within area	In feature area
<u>Prasophyllum spicatum</u> Dense Leek-orchid [55146]	Vulnerable	Species or species habitat likely to occur within area	In feature area
<u>Pterostylis chlorogramma</u> Green-striped Greenhood [56510]	Vulnerable	Species or species habitat likely to occur within area	In feature area
<u>Pterostylis cucullata</u> Leafy Greenhood [15459]	Vulnerable	Species or species habitat may occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Senecio psilocarpus Swamp Fireweed, Smooth-fruited Groundsel [64976]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Thelymitra orientalis Hoary Sun-orchid [88011]	Critically Endangered	Species or species habitat may occur within area	In buffer area only
Thesium australe Austral Toadflax, Toadflax [15202]	Vulnerable	Species or species habitat may occur within area	In feature area
Xerochrysum palustre Swamp Everlasting, Swamp Paper Daisy [76215]	Vulnerable	Species or species habitat likely to occur within area	In feature area

REPTILE

Liopholis montana Mountain Skink [87162]	Endangered	Species or species habitat may occur within area	In buffer area only
Lissolepis coventryi Swamp Skink, Eastern Mourning Skink [84053]	Endangered	Species or species habitat known to occur within area	In feature area

Listed Migratory Species [Resource Information]

Scientific Name	Threatened Category	Presence Text	Buffer Status
Migratory Marine Birds			
Apus pacificus Fork-tailed Swift [678]		Species or species habitat likely to occur within area	In feature area
Migratory Terrestrial Species			
Hirundapus caudacutus White-throated Needletail [682]	Vulnerable	Species or species habitat known to occur within area	In feature area
Motacilla flava Yellow Wagtail [644]		Species or species habitat likely to occur within area	In feature area
Migratory Wetlands Species			
Actitis hypoleucos Common Sandpiper [59309]		Species or species habitat may occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Calidris acuminata Sharp-tailed Sandpiper [874]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Calidris ferruginea Curlew Sandpiper [856]	Critically Endangered	Species or species habitat may occur within area	In feature area
Calidris melanotos Pectoral Sandpiper [858]		Species or species habitat may occur within area	In feature area
Gallinago hardwickii Latham's Snipe, Japanese Snipe [863]	Vulnerable	Species or species habitat known to occur within area	In feature area
Numenius madagascariensis Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat may occur within area	In feature area
Pandion haliaetus Osprey [952]		Species or species habitat likely to occur within area	In buffer area only
Tringa nebularia Common Greenshank, Greenshank [832]	Endangered	Species or species habitat likely to occur within area	In feature area

Other Matters Protected by the EPBC Act

Listed Marine Species			[Resource Information]
Scientific Name	Threatened Category	Presence Text	Buffer Status
Bird			
Actitis hypoleucos Common Sandpiper [59309]		Species or species habitat may occur within area	In feature area
Apus pacificus Fork-tailed Swift [678]		Species or species habitat likely to occur within area overfly marine area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
<u>Bubulcus ibis as Ardea ibis</u> Cattle Egret [66521]		Species or species habitat may occur within area overfly marine area	In feature area
<u>Calidris acuminata</u> Sharp-tailed Sandpiper [874]	Vulnerable	Species or species habitat likely to occur within area	In feature area
<u>Calidris ferruginea</u> Curlew Sandpiper [856]	Critically Endangered	Species or species habitat may occur within area overfly marine area	In feature area
<u>Calidris melanotos</u> Pectoral Sandpiper [858]		Species or species habitat may occur within area overfly marine area	In feature area
<u>Chalcites osculans as Chrysococcyx osculans</u> Black-eared Cuckoo [83425]		Species or species habitat likely to occur within area overfly marine area	In feature area
<u>Gallinago hardwickii</u> Latham's Snipe, Japanese Snipe [863]	Vulnerable	Species or species habitat known to occur within area overfly marine area	In feature area
<u>Haliaeetus leucogaster</u> White-bellied Sea-Eagle [943]		Species or species habitat known to occur within area	In feature area
<u>Hirundapus caudacutus</u> White-throated Needletail [682]	Vulnerable	Species or species habitat known to occur within area overfly marine area	In feature area
<u>Lathamus discolor</u> Swift Parrot [744]	Critically Endangered	Species or species habitat known to occur within area overfly marine area	In feature area
<u>Merops ornatus</u> Rainbow Bee-eater [670]		Species or species habitat may occur within area overfly marine area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
<u>Monarcha melanopsis</u> Black-faced Monarch [609]		Species or species habitat may occur within area overfly marine area	In feature area
<u>Motacilla flava</u> Yellow Wagtail [644]		Species or species habitat likely to occur within area overfly marine area	In feature area
<u>Myiagra cyanoleuca</u> Satin Flycatcher [612]		Species or species habitat known to occur within area overfly marine area	In feature area
<u>Neophema chrysostoma</u> Blue-winged Parrot [726]	Vulnerable	Species or species habitat known to occur within area overfly marine area	In feature area
<u>Numenius madagascariensis</u> Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat may occur within area	In feature area
<u>Pandion haliaetus</u> Osprey [952]		Species or species habitat likely to occur within area	In buffer area only
<u>Rhipidura rufifrons</u> Rufous Fantail [592]		Species or species habitat known to occur within area overfly marine area	In feature area
<u>Rostratula australis as Rostratula benghalensis (sensu lato)</u> Australian Painted Snipe [77037]	Endangered	Species or species habitat likely to occur within area overfly marine area	In feature area
<u>Sterna striata</u> White-fronted Tern [799]		Migration route may occur within area	In feature area
<u>Tringa nebularia</u> Common Greenshank, Greenshank [832]	Endangered	Species or species habitat likely to occur within area overfly marine area	In feature area

Extra Information

State and Territory Reserves [\[Resource Information \]](#)

Protected Area Name	Reserve Type	State	Buffer Status
Beaconsfield N.C.R.	Natural Features Reserve	VIC	In buffer area only
Cardinia Creek N.C.R.	Natural Features Reserve	VIC	In feature area
Gembrook G66 B.R.	Natural Features Reserve	VIC	In buffer area only
Pakenham G71 B.R.	Natural Features Reserve	VIC	In buffer area only
Upper Beaconsfield N.C.R.	Natural Features Reserve	VIC	In buffer area only

Regional Forest Agreements [\[Resource Information \]](#)

Note that all areas with completed RFAs have been included. Please see the associated resource information for specific caveats and use limitations associated with RFA boundary information.

RFA Name	State	Buffer Status
Central Highlands RFA	Victoria	In feature area

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

Title of referral	Reference	Referral Outcome	Assessment Status	Buffer Status
Controlled action				
'Fairway Waters' Retirement Village, Racecourse Road	2003/1145	Controlled Action	Post-Approval	In buffer area only
Construction 17km 4 lane freeway	2001/536	Controlled Action	Post-Approval	In buffer area only
Residential Development, 193 Golf Links Road, Narre Warren, Vic	2019/8451	Controlled Action	Further Information Request	In buffer area only
Victorian Desalination Project, Bass Coast	2008/3948	Controlled Action	Post-Approval	In buffer area only

Title of referral	Reference	Referral Outcome	Assessment Status	Buffer Status
Controlled action				
<u>VicUrban Residential Development, Officer</u>	2006/3001	Controlled Action	Post-Approval	In buffer area only
Not controlled action				
<u>Improving rabbit biocontrol: releasing another strain of RHDV, sthrn two thirds of Australia</u>	2015/7522	Not Controlled Action	Completed	In feature area
<u>INDIGO Central Submarine Telecommunications Cable</u>	2017/8127	Not Controlled Action	Completed	In feature area
<u>Piped Drainage Construction, Narre-Warren, VIC</u>	2004/1773	Not Controlled Action	Completed	In buffer area only
Not controlled action (particular manner)				
<u>Cardinia Creek (North) Parklands Master Plan, Stage 1</u>	2012/6247	Not Controlled Action (Particular Manner)	Post-Approval	In feature area
<u>Construction of dual freeway service centres and access ramps</u>	2008/4440	Not Controlled Action (Particular Manner)	Post-Approval	In buffer area only
<u>Drainage, Trenching & Cable Laying as Part of the Regional Fast Rail Project</u>	2003/1133	Not Controlled Action (Particular Manner)	Post-Approval	In feature area
<u>INDIGO Marine Cable Route Survey (INDIGO)</u>	2017/7996	Not Controlled Action (Particular Manner)	Post-Approval	In feature area
<u>Officer sewage pump station, detention storage & pressure pipeline</u>	2006/2523	Not Controlled Action (Particular Manner)	Post-Approval	In buffer area only
<u>Packenham to Narre Warren Water Transfer Scheme</u>	2008/4632	Not Controlled Action (Particular Manner)	Post-Approval	In buffer area only
<u>Subdivision of land</u>	2010/5781	Not Controlled Action (Particular Manner)	Post-Approval	In buffer area only
Referral decision				
<u>All actions taken in response to the current severe bushfires in Victoria.</u>	2009/4787	Referral Decision	Completed	In feature area

Caveat

1 PURPOSE

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

The report contains the mapped locations of:

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

2 DISCLAIMER

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

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

3 DATA SOURCES

Threatened ecological communities

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

Threatened, migratory and marine species

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

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

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

4 LIMITATIONS

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

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

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

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

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

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

Acknowledgements

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

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

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

Please feel free to provide feedback via the [Contact us](#) page.

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Appendix 5: Summary of the assessment of likelihood of presence for threatened flora species, communities or other MNES

Taxon Name	Taxon / Item Common Name	Taxon Origin	Conservation Status	Count of Sightings	Date of Last Record	Preferred Habitat Notes	Database Source	Likelihood of occurrence	Comments
Wetlands of National Importance									
Westernport						10-20km upstream of Ramsar site	PMST	Not Present	Ramsar site is not present within or adjacent to site.
Listed Threatened Ecological Communities									
Natural Damp Grasslands of the Victorian Coastal Plains			Critically Endangered				PMST	Not Present	Site is not located within the coastal plains.
White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland			Critically Endangered				PMST	Not Present	Site does not host any of the character Eucalypts that define the community.
Flora									
<i>Acacia stictophylla</i>	Dandenong Wattle		en	3	23/09/2009	Restricted to the Dandenong Ranges where it is often locally common in the riparian zone on hillsides in tall forest and open woodland. (RBG 2025)	VBA	Unlikely	Not observed on site during assessment.
<i>Amphibromus fluitans</i>	River Swamp Wallaby-grass		VU			Natural and man-made water-bodies, including swamps, lagoons, billabongs and dams (DCCEEW 2025).	PMST	Unlikely	Not recorded during site survey. Adjacent section of Grasmere Creek may provide suitable habitat.
<i>Asterolasia asteriscophora</i> subsp. <i>albiflora</i>	White Star-bush		CR cr			Restricted to the Emerald-Monbulk area of the southern Dandenong Ranges where growing in damp sclerophyll forest. (RBG 2025)	PMST	Unlikely	Not recorded during site survey. Other <i>Austrostipa</i> species recorded.
<i>Austrostipa rudis</i> subsp. <i>australis</i>	Veined Spear-grass		en	3	30/12/2004	Uncommon, mostly in cool areas of southern Victoria. Usually at moderate altitude, in open-forest on sandy or sandstone-derived soils. (RBG 2025)	VBA	Unlikely	Not recorded during site survey. Woodland vegetation on site is highly disturbed.
<i>Bossiaea cordigera</i>	Wiry Bossiaea		en	1	1/04/2011	Occurs sporadically in south-western and central Victoria, apparently nowhere common. Favours moist situations in	VBA	Unlikely	Swampy Woodland is not a vegetation community the species is typically found in.

Taxon Name	Taxon / Item Common Name	Taxon Origin	Conservation Status	Count of Sightings	Date of Last Record	Preferred Habitat Notes	Database Source	Likelihood of occurrence	Comments
						heathland, heathy woodland and open-forest. (RBG 2025)			
<i>Burnettia cuneata</i>	Lizard Orchid		en	1	01/01/1770	Occurs in dense, wet heathy vegetation in near-coastal areas from Portland in the west to Mallacoota in the east with a disjunct inland occurrence in the Grampians (RBG 2025)	VBA	Unlikely	Swampy Woodland is not a vegetation community the species is typically found in.
<i>Caladenia oenochila</i>	Wine-lipped Spider-orchid		cr	2	20/10/1985	Heathy Woodland; Damp Sands Herb-rich Woodland; Heathy Herb-rich Woodland on Tertiary siliceous sand deposits (DCCEEW 2025).	VBA	Unlikely	Swampy Woodland is not a vegetation community the species is typically found in.
<i>Caladenia orientalis</i>	Eastern Spider Orchid		EN en			Endemic to Victoria were found in coastal heathland and heathy woodlands between the Mornington Peninsula and Yarram, on well-drained soil. (RBG 2025)	PMST	Unlikely	Swampy Woodland is not a vegetation community the species is typically found in.
<i>Caladenia tessellata</i>	Thick-lipped Spider-orchid		VU			Apparently confined to eastern Victoria from near-coastal heathy woodlands to open forests on well-drained sandy soils (RBG 2025)	PMST	Unlikely	Swampy Woodland is not a vegetation community the species is typically found in.
<i>Caladenia vulgaris</i>	Slender Pink-fingers		vu		20/12/2022	Scattered across southern Victoria where sometimes locally common in heathland and coastal scrub on moisture-retentive sandy soil (RBG 2025)	VBA	Unlikely	Swampy Woodland is not a vegetation community the species is typically found in.
<i>Correa reflexa var. lobata</i>	Powelltown Correa		en	1	26/02/2014	Locally common in moist, often heathy, open-forest from the Dandenong Ranges to near Powelltown, with an isolated occurrence at Cranbourne. (RBG 2025)	VBA	Unlikely	Swampy Woodland is not a vegetation community the species is typically found in.
<i>Corybas aconitiflorus</i>	Spurred Helmet-orchid		en	1	6/06/1998	Localized and uncommon in southern parts of eastern Victoria with isolated westerly occurrences near Portland and Edenhope. Colonies grow in sheltered positions, often on	VBA	Unlikely	Woodland vegetation on site is highly disturbed.

Taxon Name	Taxon / Item Common Name	Taxon Origin	Conservation Status	Count of Sightings	Date of Last Record	Preferred Habitat Notes	Database Source	Likelihood of occurrence	Comments
						damp sand under ferns or shrubs (RBG 2025)			
<i>Corymbia maculata</i>	Spotted Gum	#	vu	3	15/08/2023	Only known in Victoria from the Mottle Range, south of Buchan (RBG 2025)	VBA	Present	Confirmed present on site. Commonly planted tree. Site is outside of species natural range.
<i>Dianella amoena</i>	Matted Flax-lily		EN cr	8	25/06/2019	Grassland and grassy woodland habitats, on well drained to seasonally wet fertile sandy loams to heavy cracking clay soils derived from Silurian or Tertiary sediments, or from volcanic geology (DCCEEW 2025).	PMST / VBA	Unlikely	No remnant grassland patches exist on site. Not observed along fence lines or within native patches.
<i>Dianella longifolia</i> var. <i>grandis</i> s.l.	Glaucous Flax-lily		cr	15	30/10/2018	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. <i>longifolia</i> . (RBG 2025)	VBA	Unlikely	Swampy Woodland is not a vegetation community the species is typically found in.
<i>Diuris punctata</i>	Purple Diuris		en	60	1/01/1987	Purple Diuris occurs principally in lowland native grasslands, grassy woodlands, heathy woodlands and open heathlands, usually on fertile, loamy soils and including periodically inundated areas (DEECA 2025)	VBA	Unlikely	Swampy Woodland is not a vegetation community the species is typically found in.
<i>Eucalyptus fulgens</i>	Green Scentbark		en	2	20/06/2022	Occurs east from Healesville and Woori Yallock to the Latrobe Valley near Driffield. (RBG 2025)	VBA	Unlikely	Not observed on site during assessment.
<i>Eucalyptus leucoxylon</i> subsp. <i>Megalocarpa</i>	Large-fruit Yellow-gum	#	cr	1	15/02/2016	The Victorian occurrence, near Nelson, is the easternmost part of the mainly South Australian coastal distribution, south of Mt Gambier. (RBG 2025)	VBA	Unlikely	Site is outside of species natural range. Not observed on site during assessment.
<i>Eucalyptus strzeleckii</i>	Strzelecki Gum		VU cr			<i>Eucalyptus strzeleckii</i> is a large forest tree component of Herbrich Foothill Forest and Gippsland Plains Grassy Woodland Ecological Vegetation Classes (John Davies, DPI, pers. comm) of the Strzelecki Ranges. It also	PMST	Unlikely	Not recorded during site survey. Does not occur as far west as Berwick.

Taxon Name	Taxon / Item Common Name	Taxon Origin	Conservation Status	Count of Sightings	Date of Last Record	Preferred Habitat Notes	Database Source	Likelihood of occurrence	Comments
						occurs on flatter terrain at the edges of the Strzelecki Ranges, where it is largely restricted to the banks of watercourses or on river flats where soils are seasonally waterlogged (DCCEEW 2025).			
<i>Gentianella polysperes</i>	Early Forest-gentian		en	1	09/11/1880	Scattered through the State, usually in hilly country, e.g. Dandenong Ranges and foothills, Mt Sugarloaf, Mt Macedon (but apparently now rare at these localities), ascending to subalpine areas (e.g. Snowy Range, Mt Benambra, Mt Delusion) in the eastern ranges. (RBG 2025)	VBA	Unlikely	Swampy Woodland is not a vegetation community the species is typically found in
<i>Glycine latrobeana</i>	Clover Glycine		VU vu			Grassland and grassy woodland habitats, less often in dry forests, and only rarely in heathland. Populations occur from sea level to c. 1,200 m altitude on a range of soil types including alluvial soils, and those derived from sandstones, mudstones, granite and basalt. Soils are usually clay but may also have high loam content (DCCEEW 2025).	PMST	Unlikely	Swampy Woodland is not a vegetation community the species is typically found in
<i>Lepidium aschersonii</i>	Spiny Peppercreess		VU en			Mostly on heavy clay soil near salt lakes on volcanic plain, but with outlying records from near Lake Omeo (in 1940 & 1981) and the Grampians (in 1893). (RBG 2025)	PMST	Unlikely	Swampy Woodland is not a vegetation community the species is typically found in
<i>Melaleuca armillaris subsp. armillaris</i>	Giant Honey-myrtle	#	en	2	20/03/2024	Mainly confined to near-coastal sandy heaths, scrubs slightly raised above saltmarsh, riparian scrubs, rocky coastlines and foothill outcrops eastwards from about Marlo. Occurrences to the west are naturalized from cultivated stock. (RBG 2025)	VBA	Present	Confirmed present on site. Commonly planted tree. Site is outside of species natural range

Taxon Name	Taxon / Item Common Name	Taxon Origin	Conservation Status	Count of Sightings	Date of Last Record	Preferred Habitat Notes	Database Source	Likelihood of occurrence	Comments
<i>Pomaderris vacciniifolia</i>	Round-leaf Pomaderris		CR cr			Disjunct occurrences on the northern outskirts of the La Trobe Valley between Tyers and the Toongabbie-Cowwarr district (DCCEEW 2025).	PMST	Unlikely	Not recorded during site survey. Swampy Woodland is not a vegetation community the species is typically found in.
<i>Prasophyllum frenchii</i>	Maroon Leek-orchid		EN en	5	27/10/1940	Grassland and grassy woodland habitats, on sandy to black clay loams that are generally damp but well drained, although some sites are seasonally waterlogged (DCCEEW 2025).	VBA	Unlikely	Swampy Woodland is not a vegetation community the species is typically found in.
<i>Prasophyllum spicatum</i>	Dense Leek-orchid		VU cr			Grows in coastal heath and sandhills. Localised across southern Victoria in coastal heathland and near-coastal heathy forest on sandy soils (RBG 2025)	PMST	Unlikely	Swampy Woodland is not a vegetation community the species is typically found in.
<i>Pterostylis chlorogramma</i>	Green-striped Greenhood		VU en			Grows in moist areas of heathy and shrubby forest on well-drained soils (RBG 2025)	PMST	Unlikely	Swampy Woodland is not a vegetation community the species is typically found in.
<i>Pterostylis clivosa</i>	Red-tip Greenhood		en	2	1/04/2011	Widespread across southern Victoria on slopes and ridges in drier open forests and woodlands on well-drained soils, mostly east of Melbourne (e.g Dandenong Ranges, Walhalla, Cann River areas). (RBG 2025)	VBA	Unlikely	Swampy Woodland is not a vegetation community the species is typically found in.
<i>Pterostylis cucullata</i> var. <i>cucullata</i>	Leafy Greenhood		VU en			Favours open forests and woodlands in well-drained sand and clay loams. It is a post-disturbance coloniser that is usually found in open areas around old quarries and gravel pits, on road verges, disused tracks and animal trails (DCCEEW 2025)	PMST	Unlikely	Swampy Woodland is not a vegetation community the species is typically found in
<i>Pterostylis grandiflora</i>	Cobra Greenhood		en	6	16/06/2021	Generally restricted and uncommon in near-coastal eastern Victoria, growing on	VBA	Unlikely	Swampy Woodland is not a vegetation

Taxon Name	Taxon / Item Common Name	Taxon Origin	Conservation Status	Count of Sightings	Date of Last Record	Preferred Habitat Notes	Database Source	Likelihood of occurrence	Comments
						moist, shady slopes in open-forest on well-drained soil (RBG 2025)			community the species is typically found in
<i>Pterostylis X ingens</i>	Sharp Greenhood		vu	1	01/01/1770	Favours moist areas around swamps and stream banks on heavy soils (RBG 2025)	VBA	Unlikely	Site does not provide suitable habitat. No records in the local area in the past 100 years
<i>Pterostylis X toveyana</i>	Mentone Greenhood		en	1	01/07/1896	Grows in moist areas of open forest and in coastal scrub, usually on sandy soils. (RBG 2025)	VBA	Unlikely	Swampy Woodland is not a vegetation community the species is typically found in.
<i>Senecio campylocarpus</i>	Floodplain Fireweed		en	2	21/10/2021	In Victoria mostly throughout central Victoria and in the north-east in loam to clay soils in forest and woodland, usually in seasonally inundated areas. (RBG 2025)	VBA	Unlikely	Site does not provide suitable habitat.
<i>Senecio psilocarpus</i>	Swamp Fireweed		VU			Occurs on high quality herb-rich wetlands on plains. During winter such sites can be inundated with up to 60cm or more of water but are almost dry in summer. A tree canopy is absent from most sites or rarely, River Red Gum is the overstory species in a woodland formation. (DCCEEW 2025)	PMST	Unlikely	Site does not provide suitable habitat.
<i>Tetralthea stenocarpa</i>	Long Pink-bells		en	1	1/01/1935	Endemic in Victoria. Localized near Healesville and Gembrook, on French Island and in the Pyrete Ranges north of Melton. Grows in open-forests and tall mountain forests. (RBG 2025)	VBA	Unlikely	Swampy Woodland is not a vegetation community the species is typically found in.
<i>Thelymitra X irregularis</i>	Crested Sun-orchid		en	1	01/01/1770	Flowers oct-Nov. Widespread but rare in heathland, woodland and open forest on well-drained sand or clay loams (RBG 2025)	VBA	Unlikely	Swampy Woodland is not a vegetation community the species is typically found in
<i>Thelymitra orientalis</i>	Hoary Sun-orchid		CR cr			Hoary sun-orchid occurs in leached white (often peaty) sand, in heathland, damp heathy flats and seepage areas, usually close	PMST	Unlikely	Swampy Woodland is not a vegetation community the species is typically found in

Taxon Name	Taxon / Item Common Name	Taxon Origin	Conservation Status	Count of Sightings	Date of Last Record	Preferred Habitat Notes	Database Source	Likelihood of occurrence	Comments
						to sedge-dominated wetlands (DCCEEW 2025)			
<i>Thesium australe</i>	Austral Toadflax		VU en			Austral Toadflax is semi-parasitic on roots of a range of grass species notably Kangaroo Grass (<i>Themeda triandra</i>). It occurs in subtropical, temperate and subalpine climates over a wide range of altitudes. It occurs in shrubland, grassland or woodland, often on damp sites (DCCEEW 2025)	PMST	Unlikely	Site does not provide suitable habitat
<i>Utricularia gibba</i>	Floating Bladderwort	#	en	1	14/02/2018	Occurs in fresh-water swamps and wetlands at low elevations. (RBG 2025)	VBA	Unlikely	Plants previously collected in urban areas around Melbourne are considered introduced and outside of the species natural range
<i>Xerochrysum palustre</i>	Swamp Everlasting		VU cr			Swamp Everlasting grows in wetlands including sedge-swamps and shallow freshwater marshes, often on heavy black clay soils. (DCCEEW 2025)	PMST	Unlikely	Site does not provide suitable habitat

References

NAME	Title	Web address
RBG 2025	VICFLORA Flora of Victoria website	https://vicflora.rbg.vic.gov.au
DCCEEW 2025	Department of Climate Change, Energy, the Environment and Water Threatened species and ecological communities' website Includes species profiles, recovery plans, conservation advice and other related species information.	https://www.dcccew.gov.au/environment/biodiversity/threatened

Key to Likely Occurrence

Likelihood	Comments
Present	Species has been confirmed as present on site during field work
High	Suitable habitat present on site
	Likely to be a resident population/s in the local area*
	Previously recorded on site
	Numerous records within the local area within the past 5 years
Moderate	Aspects of habitat present but may be modified
	Species may be resident in the local area or it forms part of the species' range
	May seasonally or opportunistically use resources within the local area
	Less than 10 year old records within local area
Low	Limited aspects of habitat present or habitat highly modified
	Species may occur rarely or as an opportunistic visitor in the area
	Few records within the local area within the past 25 years
Unlikely	No suitable habitat present
	Site is located outside of species natural range
	Considered locally extinct
	No records of the species within the local area in the last 25 years

* Local area = within a 5km range of the site.

Conservation Status Key

Commonwealth Environment Protection and Biodiversity Conservation (EPBC) Act 1999	
VU	Listed as Nationally Vulnerable
EN	Listed as Nationally Endangered
EX	Listed as Nationally Extinct
CR	Listed as Nationally Critically Endangered
Victorian FFG Act 1988 Listing (DEECA 2024)	
x	Presumed Extinct in Victoria
cr	Listed as Critically Endangered in Victoria
en	Listed as Endangered in Victoria
vu	Listed as Vulnerable in Victoria
Origin	
#	Native but some stands may be alien

Appendix 6: Results of VBA 5 kilometre radius search for fauna species

Scientific Name	Common Name	Conservation Status / Origin	Count of Sightings	Last Record
<i>Accipiter novaehollandiae</i>	Grey Goshawk	en	1	1/04/1976
<i>Antechinus minimus maritimus</i>	Swamp Antechinus	VU vu	1	24/02/2021
<i>Anthochaera Phrygia</i>	Regent Honeyeater	CR cr	1	1/01/1972
<i>Ardea alba modesta</i>	Eastern Great Egret	vu	7	12/05/2019
<i>Ardea intermedia plumifera</i>	Plumed Egret	cr	1	01/01/1760
<i>Biziura lobata</i>	Musk Duck	vu	3	16/07/2010
<i>Botaurus poiciloptilus</i>	Australasian Bittern	EN cr	1	26/06/2008
<i>Callocephalon fimbriatum</i>	Gang-gang Cockatoo	EN en	23	9/03/2013
<i>Climacteris picumnus</i>	Brown Treecreeper	VU	1	27/06/2000
<i>Dasyurus viverrinus</i>	Eastern Quoll	EN en-x	1	01/01/1850
<i>Egretta garzetta</i>	Little Egret	en	3	12/02/2019
<i>Engaeus victoriensis</i>	Foothill Burrowing Crayfish	en	2	1/11/2022
<i>Galaxiella pusilla</i>	Dwarf Galaxias	EN en	1031	23/11/2022
<i>Gallinago hardwickii</i>	Latham's Snipe	VU	58	9/10/2019
<i>Haliaeetus leucogaster</i>	White-bellied Sea-Eagle	en	1	25/06/1976
<i>Hieraaetus morphnoides</i>	Little Eagle	vu	1	19/03/1976
<i>Hirundapus caudacutus</i>	White-throated Needletail	VU vu	10	28/02/2020
<i>Hydroprogne caspia</i>	Caspian Tern	vu	1	19/12/2018
<i>Isoodon obesulus obesulus</i>	Southern Brown Bandicoot	EN en	1	8/01/1919
<i>Lathamus discolor</i>	Swift Parrot	CR cr	2	26/01/1989
<i>Lewinia pectoralis</i>	Lewin's Rail	vu	1	19/06/1988
<i>Lichenostomus melanops cassidix</i>	Helmeted Honeyeater	CR cr	7	1/01/1983
<i>Maccullochella peelii</i>	Murray Cod	VU en	1	01/01/1890
<i>Mastacomys fuscus mordicus</i>	Broad-toothed Rat	EN vu	5	28/03/2025
<i>Ninox connivens</i>	Barking Owl	cr	1	20/12/2014
<i>Ninox strenua</i>	Powerful Owl	vu	19	25/07/2022
<i>Ornithorhynchus anatinus</i>	Platypus	vu	18	24/11/2021
<i>Oxyura australis</i>	Blue-billed Duck	vu	41	5/03/2018
<i>Pasma tasmanica</i>	Two-spotted Grass-skipper Butterfly	en	2	28/11/1907
<i>Petauroides volans</i>	Southern Greater Glider	EN en	1	30/11/2018
<i>Polytelis swainsonii</i>	Superb Parrot	VU en	1	01/01/1760
<i>Prototroctes maraena</i>	Australian Grayling	VU en	2	4/12/1985
<i>Pseudophryne semimarmorata</i>	Southern Toadlet	en	4	23/04/2009
<i>Pteropus poliocephalus</i>	Grey-headed Flying-fox	VU vu	1	18/02/2017
<i>Pycnoptilus floccosus</i>	Pilotbird	VU vu	2	16/07/2010
<i>Pyrrholaemus sagittatus</i>	Speckled Warbler	en	1	1/01/1961
<i>Rostratula australis</i>	Australian Painted-snipe	EN cr	1	28/11/1976
<i>Spatula rhynchotis</i>	Australasian Shoveler	vu	28	2/12/2002
<i>Stictonetta naevosa</i>	Freckled Duck	en	3	24/11/2019
<i>Synemon plana</i>	Golden Sun Moth	VU vu	1	01/01/1760
<i>Tyto novaehollandiae</i>	Masked Owl	cr	1	1/01/1961
<i>Tyto tenebricosa</i>	Sooty Owl	en	2	30/11/2018

Conservation Status Key

Origin	
*	Exotic species
#	Native but some stands may be alien
Commonwealth Environment Protection and Biodiversity Conservation (EPBC) Act 1999	
VU	Listed as Nationally Vulnerable
EN	Listed as Nationally Endangered
EX	Listed as Nationally Extinct
CR	Listed as Nationally Critically Endangered
Victorian FFG Act 1988 Listing (DEECA 2024)	
x	Presumed Extinct in Victoria
cr	Listed as Critically Endangered in Victoria
en	Listed as Endangered in Victoria
vu	Listed as Vulnerable in Victoria
cd	Conservation Dependant in Victoria

Appendix 7: Summary of the assessment of likelihood of presence for threatened and listed migratory fauna species

Scientific Name	Common Name	Conservation Status	EPBC Act Listed Migratory or Marine Species	Treaty	Count of Sightings	Date of Last Record	Preferred Habitat Notes	Database Source	Likelihood of occurrence	Comments
Birds										
<i>Accipiter novaehollandiae</i>	Grey Goshawk	en			1	1/04/1976	Rainforest, forests, open forest and thickly wooded watercourses. (AoLA 2025)	VBA	Unlikely	Unlikely to be more than a very occasional visitor to site.
<i>Actitis hypoleucos</i>	Common Sandpiper	vu	v	CAMBA JAMBA ROKAMBA BONN			Found in coastal or inland wetlands, both saline or fresh. It is found mainly on muddy edges or rocky shores. (BiB 2025).	PMST	Unlikely	Site does not provide suitable habitat.
<i>Anthochaera phrygia</i>	Regent Honeyeater	CR cr			1	1/01/1972	Occur mainly in dry box ironbark open-forest and woodland areas. feeding on the nectar from eucalypts such as the Mugga Ironbark, White Box and Yellow Box, and Blakeley's Red Gum on which they are reliant. (DCCEEW 2025)	VBA / PMST	Unlikely	Site does not provide suitable habitat.
<i>Aphelocephala leucopsis</i>	Southern Whiteface	VU					Southern whitefaces live in a wide range of open woodlands and shrublands where there is an understorey of grasses or shrubs, or both. These areas are usually in habitats dominated by acacias or eucalypts on ranges, foothills and lowlands, and plains.(DCCEEW 2025)	PMST	Unlikely	Never recorded in the local area. Unlikely to be more than a very occasional visitor to site.

Scientific Name	Common Name	Conservation Status	EPBC Act Listed Migratory or Marine Species	Treaty	Count of Sightings	Date of Last Record	Preferred Habitat Notes	Database Source	Likelihood of occurrence	Comments
<i>Apus pacificus</i>	Fork-tailed Swift		✓				They mostly occur over dry or open habitats, including riparian woodland and tea-tree swamps, low scrub, heathland or saltmarsh. They are also found at treeless grassland and sandplains covered with spinifex, open farmland and inland and coastal sand-dunes. (DCCEEW 2025)	PMST	Unlikely	Never recorded in local area. Largely aerial species, may occasionally fly over site.
<i>Ardea alba</i>	Great Egret	vu			7	12/05/2019	The Eastern Great Egret has been reported in a wide range of wetland habitats (for example inland and coastal, freshwater and saline, permanent and ephemeral, open and vegetated, large and small, natural and artificial). These include swamps and marshes; margins of rivers and lakes; damp or flooded grasslands, pastures or agricultural lands; reservoirs; sewage treatment ponds; drainage channels; salt pans and salt lakes; salt marshes; estuarine mudflats, tidal streams; mangrove swamps; coastal lagoons; and offshore reefs (DEECCW 2025)	VBA	Unlikely	Site does not provide suitable habitat.
<i>Ardea plumifera</i>	Plumed Egret	cr			1	01/01/1760	Found mostly in freshwater wetlands, shallows of rivers, swamps with short or tall vegetation. (DEECCW 2025)	VBA	Unlikely	Site does not provide suitable habitat.
<i>Biziura lobata</i>	Musk Duck	vu			3	16/07/2010	Found in deep freshwater lagoons, with dense reed beds. (Birdlife 2025)	VBA	Unlikely	Site does not provide suitable habitat.

Scientific Name	Common Name	Conservation Status	EPBC Act Listed Migratory or Marine Species	Treaty	Count of Sightings	Date of Last Record	Preferred Habitat Notes	Database Source	Likelihood of occurrence	Comments
<i>Botaurus poiciloptilus</i>	Australasian Bittern	EN cr			1	26/06/2008	Frequents reedbeds and other areas, particularly those dominated by sedges, rushes, reeds or cutting grass. They are mainly found in freshwater environments but can also tolerate brackish estuaries, with lots of reeds and rushes. (Birdlife 2025)	VBA / PMST	Unlikely	Site does not provide suitable habitat.
<i>Calidris acuminata</i>	Sharp-tailed Sandpiper		✓				Prefers muddy edges of shallow fresh or brackish wetlands, with inundated or emergent sedges, grass, saltmarsh or other low vegetation. This includes lagoons, swamps, lakes and pools near the coast, and dams, waterholes, soaks, bore drains and bore swamps, saltpans and hypersaline salt lakes inland. They also occur in saltworks and sewage farms. (DCCEEW 2025)	PMST	Unlikely	Site does not provide suitable habitat.
<i>Calidris ferruginea</i>	Curlew Sandpiper	CR	✓				Intertidal mudflats of estuaries, lagoons, mangroves, as well as beaches, rocky shores and around lakes, dams and floodwaters. (Birdlife 2025)	PMST	Unlikely	Site does not provide suitable habitat.
<i>Calidris melanotos</i>	Pectoral Sandpiper		✓	BONN JAMBA ROKAMBA			Found in coastal or near coastal habitat but occasionally found further inland. It prefers wetlands that have open fringing mudflats and low, emergent or fringing vegetation, such as grass or samphire. (DCCEEW 2025)	PMST	Unlikely	Site does not provide suitable habitat.
<i>Callocephalon fimbriatum</i>	Gang-gang Cockatoo	EN en			26	9/03/2013	Gang-gang Cockatoos primarily occur within the temperate eucalypt forests and woodlands of mainland south-east Australia (Menkhorst et al. 2017). The	VBA / PMST	Moderate	Multiple records along the nearby Cardina Creek. Possible occasional visitor to site.

Scientific Name	Common Name	Conservation Status	EPBC Act Listed Migratory or Marine Species	Treaty	Count of Sightings	Date of Last Record	Preferred Habitat Notes	Database Source	Likelihood of occurrence	Comments
							species is an altitudinal migrant. (DCCEEW 2025)			
<i>Climacteris picumnus</i>	Brown Treecreeper	VU			1	27/06/2000	Found in the drier open forests and woodlands of the inland slopes and plains of the Great Dividing Range. Stays in the same area all year round. Fallen timber is an important habitat component for foraging; also recorded, though less commonly, in similar woodland habitats on the coastal ranges and plains (Day and Simpson 2010).	VBA / PMST	Unlikely	Rarely seen in local area. Unlikely to be more than a very occasional visitor to site.
<i>Egretta garzetta</i>	Little Egret	en			3	12/02/2019	Frequents tidal mudflats, saltwater and freshwater wetlands, and mangroves. (Day and Simpson 2010)	VBA	Unlikely	Site does not provide suitable habitat.
<i>Falco hypoleucos</i>	Grey Falcon	VU vu					Found in shrubland, grassland and wooded watercourses of arid and semi-arid regions, although it is occasionally found in open woodlands near the coast. Also occurs near wetlands where surface water attracts prey. (Day and Simpson 2010)	PMST	Unlikely	Never seen in local area. Unlikely to be more than a very occasional visitor to site.
<i>Gallinago hardwickii</i>	Latham's Snipe	VU	v	CAMBA JAMBA ROKAMBA BONN	40	9/10/2019	Found in small groups or singly in freshwater wetlands on or near the coast, generally among dense cover. They are found in any vegetation around wetlands, in sedges, grasses, lignum, reeds and rushes and also in saltmarsh and creek edges on migration. They also use crops and pasture. (BiB 2025)	VBA / PMST	Unlikely	Site does not provide suitable habitat.

Scientific Name	Common Name	Conservation Status	EPBC Act Listed Migratory or Marine Species	Treaty	Count of Sightings	Date of Last Record	Preferred Habitat Notes	Database Source	Likelihood of occurrence	Comments
<i>Grantiella picta</i>	Painted Honeyeater	VU vu					Found in dry open forests and woodlands and is strongly associated with mistletoe. It may also be found along rivers, on plains with scattered trees and on farmland with remnant vegetation. It has been seen in urban parks and gardens where large eucalypts are available. (BiB 2025)	PMST	Unlikely	Never seen in local area. Unlikely to occur in south-east Melbourne.
<i>Haliaeetus leucogaster</i>	White-bellied Sea-Eagle	en		CAMBA	1	25/06/1976	Usually seen high in a tree or soaring over waterways and adjacent land. The nest can be located in a tree up to 30m above the ground but may also be placed on the ground or on rocks. (BiB 2025)	VBA	Unlikely	Rarely seen in local area. Unlikely to be more than a very occasional visitor to site.
<i>Hieraetus morphnoides</i>	Little Eagle	vu			1	19/03/1976	Open forest, woodlands and croplands (AoLA 2025)	VBA	Unlikely	May occasionally flyover site.
<i>Hirundapus caudacutus</i>	White-throated Needletail	VU vu	v	CAMBA JAMBA ROKAMBA	10	28/02/2020	In Australia, the White-throated Needletail is almost exclusively aerial, from heights of less than 1 m up to more than 1000 m above the ground. Because they are aerial, it has been stated that conventional habitat descriptions are inapplicable, but there are, nevertheless, certain preferences exhibited by the species. (DCCEEW 2025)	VBA / PMST	Low	Largely aerial species, may occasionally fly over site
<i>Hydroprogne caspia</i>	Caspian Tern	VU vu		CAMBA JAMBA	1	19/12/2018	Usually found near the coast, in extensive wetlands, on coastal and interior beaches and sheltered estuaries. Lives equally well in fresh	VBA	Unlikely	Site does not provide suitable habitat.

Scientific Name	Common Name	Conservation Status	EPBC Act Listed Migratory or Marine Species	Treaty	Count of Sightings	Date of Last Record	Preferred Habitat Notes	Database Source	Likelihood of occurrence	Comments
							water and saline environments. (BiB 2025)			
<i>Lathamus discolor</i>	Swift Parrot	CR cr			2	26/01/1989	Found in dry sclerophyll forests and woodlands, suburban parks and gardens and flowering fruit trees. (BiB 2025)	VBA / PMST	Unlikely	Rarely seen in local area. Unlikely to be more than a very occasional visitor to site.
<i>Lewinia pectoralis pectoralis</i>	Lewin's Rail	vu			1	19/06/1988	Lewin's Rails inhabit permanent to ephemeral, fresh to saline wetlands that have dense emergent or fringing vegetation. They also use artificial habitats with similar structural features (Day and Simpson 2010).	VBA	Unlikely	Site does not provide suitable habitat.
<i>Lichenostomus melanops cassidix</i>	Helmeted Honeyeater	CR cr			7	1/01/1983	Found in open dry forests and woodlands dominated by eucalypts, and often near water. They sometimes visit gardens. It is confined to narrow patches of tall forest along streams or in swamps. (BiB 2025)	VBA	Unlikely	Has not been recorded in Cardinia Creek since 1983. Current known population is restricted mainly to Yellingbo area.
<i>Melanodryas cucullata</i>	Hooded Robin	EN vu					Home range 10 ha. Found in lightly timbered woodland, mainly dominated by acacia and/or eucalypts. Requires structurally diverse habitats featuring mature eucalypts, saplings, some small shrubs and a ground layer of moderately tall native grasses (Day and Simpson 2010).	PMST	Unlikely	Never seen in local area. Unlikely to be more than a very occasional visitor to site.
<i>Motacilla flava</i>	Yellow Wagtail		v				Occurs in mainly salt works, paddocks, marshes, grassy wetlands (Day and Simpson 2010)	PMST	Unlikely	Never seen in local area. Unlikely to be more than a very occasional visitor to site.

Scientific Name	Common Name	Conservation Status	EPBC Act Listed Migratory or Marine Species	Treaty	Count of Sightings	Date of Last Record	Preferred Habitat Notes	Database Source	Likelihood of occurrence	Comments
<i>Neophema chrysostoma</i>	Blue-winged Parrot	VU					Blue-winged parrots inhabit a range of habitats from coastal, sub-coastal and inland areas, through to semi-arid zones. They tend to favour grasslands and grassy woodlands and are often found near wetlands both near the coast and in semi-arid zones. The species can also be seen in altered environments such as airfields, golf-courses and paddocks. (DCCEEW 2025)	PMST	Unlikely	Never seen in local area. Unlikely to be more than a very occasional visitor to site.
<i>Ninox connivens</i>	Barking Owl	cr			1	20/12/2014	Occur in savannah woodland, although they also inhabit well-forested hill and riverine woodlands. Inhabits eucalypt woodland, open forest, swamp woodlands and, especially in inland areas, timber along watercourses. Denser vegetation is used occasionally for roosting. More often heard than seen (Day and Simpson 2010).	VBA	Unlikely	Nearest record is within Upper Beaconsfield NCR, 3km north of site and separated by cleared agricultural land. Unlikely to visit site as part of home foraging range.
<i>Ninox strenua</i>	Powerful Owl	vu			19	25/07/2022	Home range of 400-1450 ha. Found in open forests and woodlands, as well as along sheltered gullies in wet forests with dense understoreys, especially along watercourses. Will sometimes be found in open areas near forests such as farmland, parks and suburban areas, as well as in remnant bushland patches. Needs old growth trees to nest (Day and Simpson 2010).	VBA	Moderate	Recorded in nearby Cardinia Creek corridor. Woodland patches at eastern boundary would form part of species home foraging range.

Scientific Name	Common Name	Conservation Status	EPBC Act Listed Migratory or Marine Species	Treaty	Count of Sightings	Date of Last Record	Preferred Habitat Notes	Database Source	Likelihood of occurrence	Comments
<i>Numenius madagascariensis</i>	Eastern Curlew	CR cr	✓	CAMBA JAMBA ROKAMBA BONN			Found on intertidal mudflats and sandflats, often with beds of seagrass, on sheltered coasts, especially estuaries, mangrove swamps, bays, harbours and lagoons. (BiB 2025)	PMST	Unlikely	Site does not provide suitable habitat.
<i>Oxyura australis</i>	Blue-billed Duck	vu			41	5/03/2018	Found mainly in deep freshwater marshes with dense vegetation. More open water in non-breeding season. (Day and Simpson 2010)	VBA	Unlikely	Site does not provide suitable habitat.
<i>Pandion haliaetus</i>	Osprey		✓				Mainly occurs in mangroves, rivers and estuaries, inshore seas, coastal islands. (Day and Simpson 2010)	PMST	Unlikely	Site does not provide suitable habitat.
<i>Pedionomus torquatus</i>	Plains-wanderer	CR cr					Found in the low-land native grasslands in the Riverina region, in Northern Victoria. (Day and Simpson 2010)	PMST	Unlikely	Site does not provide suitable habitat.
<i>Polytelis swainsonii</i>	Superb Parrot	VU en			1	01/01/1760	Found along timbered waterways and nearby well-watered woodlands, especially in River Red Gums along the Murray and Murrumbidgee Rivers. (BiB 2025)	VBA	Unlikely	No records in the study area in the past 100 years.
<i>Pycnoptilus floccosus</i>	Pilot Bird	VU vu			2	16/07/2010	Pilotbirds are strictly terrestrial, living on the ground in dense forests with heavy undergrowth. Largely sedentary, they are typically seen hopping briskly over the forest floor and foraging on damp ground or among leaf-litter. (DCCEEW 2025)	VBA / PMST	Unlikely	Site does not provide suitable habitat.
<i>Pyrholaemus sagittatus</i>	Speckled Warbler	en			1	1/01/1961	Its preferred habitat is open eucalypt woodland with rocky gullies, tussocky grass, scattered logs, and sparse shrubbery (AoLA 2025)	VBA	Unlikely	Site does not provide suitable habitat.

Scientific Name	Common Name	Conservation Status	EPBC Act Listed Migratory or Marine Species	Treaty	Count of Sightings	Date of Last Record	Preferred Habitat Notes	Database Source	Likelihood of occurrence	Comments
<i>Rostratula australis</i>	Australian Painted Snipe	EN cr		CAMBA		28/11/1976	Inhabits inland and coastal shallow freshwater wetlands, occurring in both ephemeral and permanent wetlands, particularly where there is grass. Individuals have been spotted in artificial dams, sewage ponds and waterlogged grasslands. (DCCEEW 2025)	VBA / PMST	Unlikely	Site does not provide suitable habitat.
<i>Spatula rhynchotis</i>	Australasian Shoveler				28	2/12/2002	All kinds of wetlands, preferring large undisturbed heavily vegetated freshwater swamps. It is also found on open waters and occasionally along the coast. Nests are built on the ground in dense vegetation, sometimes on a stump or hollow of a tree that is standing in water. (Birdlife 2025).	VBA	Unlikely	Site does not provide suitable habitat.
<i>Stagonopleura guttata</i>	Diamond Firetail	VU vu					Found in open grassy woodland, heath and farmland or grassland with scattered trees. (BiB 2025)	PMST	Unlikely	Never seen in local area. Unlikely to be more than a very occasional visitor to site.
<i>Stictonetta naevosa</i>	Freckled Duck	en			3	24/11/2019	Prefers permanent freshwater swamps and creeks with heavy growth of Cumbungi, Lignum or Tea-tree. During drier times they move from ephemeral breeding swamps to more permanent waters such as lakes, reservoirs, farm dams and sewage ponds. (Day and Simpson 2010)	VBA	Unlikely	Site does not provide suitable habitat.

Scientific Name	Common Name	Conservation Status	EPBC Act Listed Migratory or Marine Species	Treaty	Count of Sightings	Date of Last Record	Preferred Habitat Notes	Database Source	Likelihood of occurrence	Comments
<i>Tringa nebularia</i>	Common Greenshank	EN en	v	CAMBA JAMBA ROKAMBA BONN			The Common Greenshank is found in a wide variety of inland wetlands and sheltered coastal habitats of varying salinity. The edges of the wetlands used are generally of mud or clay, occasionally of sand, and may be bare or with emergent or fringing vegetation, including short sedges and saltmarsh, mangroves, thickets of rushes, and dead or live trees. (DCCEEW 2025)	PMST	Unlikely	Site does not provide suitable habitat.
<i>Tyto novaehollandiae</i>	Masked Owl	cr			1	1/01/1961	The Australian masked owl inhabits timbered areas, often with a shrub understorey. In Australia they are seldom found more than 300 km inland. They roost and nest in large tree hollows near foraging areas. (AoLA 2025)	VBA	Unlikely	Not recorded in local area in over 60 years.
<i>Tyto tenebricosa</i>	Sooty Owl	en			2	30/11/2018	Require hollow tree trunks, caves and tall trees with heavy foliage during daylight hours. Can be found in areas with deep gullies in eucalyptus forests, where smooth-barked gum trees, tree ferns and tropical fruit trees are present. (Day and Simpson 2010)	VBA	Unlikely	Nearest record is within Upper Beaconsfield NCR, 3km north of site and separated by cleared agricultural land. Unlikely to visit site as part of home foraging range.
Amphibians and Reptiles										
<i>Liopholis montana</i>	Mountain Skink	EN					The mountain skink occupies habitats with granite and basalt boulders, rocks, slabs, rock screes or tors and large logs in tall open-forest, woodland, and heathland vegetation in montane and subalpine areas of south-east	PMST	Unlikely	Not recorded in the local area. Site does not provide suitable habitat.

Scientific Name	Common Name	Conservation Status	EPBC Act Listed Migratory or Marine Species	Treaty	Count of Sightings	Date of Last Record	Preferred Habitat Notes	Database Source	Likelihood of occurrence	Comments
							Australia from 600–1700m above sea level. (DCCEEW 2025)			
<i>Lissolepis coventryi</i>	Swamp Skink	EN en					Occupies densely vegetated freshwater and saltwater wetlands in southeastern Australia which have natural hydrological regimes and contain shelter sites. Habitat typically has little to no overstorey. Swamp skinks are generally found in areas of poorly drained peaty soils, with the exception of coastal saltmarsh sites which often have sandy substrates. (DCCEEW 2025)	PMST	Low	Habitat Zones 1 and 2 are marginal habitat within site. Adjacent riparian section of Grasmere Creek may provide suitable habitat.
<i>Litoria raniformis</i>	Growling Grass Frog	VU vu					Need still or slow-moving water with emergent vegetation around the edges and mats of floating and submerged plants. (DCCEEW 2025)	PMST	Unlikely	Unlikely to be present in small dam attached to residence. Adjacent section of Grasmere Creek may provide suitable habitat.
<i>Pseudemoia rawlinsoni</i>	Glossy Grass Skink	en					Occupies densely vegetated freshwater and saltwater wetlands in southeastern Australia which have natural hydrological regimes and contain shelter sites. Habitat typically has little to no overstorey. Swamp skinks are generally found in areas of poorly-drained peaty soils, with the exception of coastal saltmarsh sites which often have sandy substrates. (DCCEEW 2025)	Did not turn up in database searches	Low	Habitat Zones 1 and 2 are marginal habitat within site. Adjacent riparian section of Grasmere Creek may provide suitable habitat.
<i>Pseudophryne semimarmorata</i>	Southern Toadlet	en			52	23/04/2009	Frequent dry forest, woodland, shrubland, grassland, and heaths. They shelter under leaf litter and other debris in moist soaks and depressions. (SWIFFT 2025)	VBA	Low	Habitat Zones 1 and 2 are marginal habitat within site. Adjacent section of Grasmere Creek

Scientific Name	Common Name	Conservation Status	EPBC Act Listed Migratory or Marine Species	Treaty	Count of Sightings	Date of Last Record	Preferred Habitat Notes	Database Source	Likelihood of occurrence	Comments
										may provide suitable habitat.
Mammals										
<i>Antechinus minimus maritimus</i>	Swamp Antechinus	VU vu			1	24/02/2021	This species occurs in damp habitats with dense understorey vegetation. It has been found in forest, woodland, heathland, tussock grassland, and sedgeland. It prefers lower elevation areas, with a southerly aspect and moderate slopes. (DCCEEW 2025)	VBA / PMST	Unlikely	Site does not provide suitable habitat.
<i>Dasyurus maculatus maculatus</i>	Spot-tailed Quoll	EN en					Home range 100 to 200 ha. Trees with hollows, hollow logs on the ground, rocky outcrops, caves or rock crevices. (Menkhorst, Knight 2010).	PMST	Unlikely	Site does not provide suitable habitat.
<i>Dasyurus viverrinus</i>	Eastern Quoll	EN en X			1	01/01/1850	It is commonly associated with dry grasslands and forest mosaics which are bounded by agricultural land, particularly where pasture grubs are common. (DCCEEW 2025)	VBA	Unlikely	Considered extinct in local area.
<i>Isodon obesulus obesulus</i>	Southern Brown Bandicoot	EN en			1	8/01/1919	Home range 1 to 6 ha. Eucalypt woodlands and forests that have a dense shrubby understorey. Bandicoots often inhabit blackberry thickets. (Menkhorst, Knight 2010).	VBA / PMST	Unlikely	Not recorded in local area since 1919. Species is unlikely to persist in Berwick area.

Scientific Name	Common Name	Conservation Status	EPBC Act Listed Migratory or Marine Species	Treaty	Count of Sightings	Date of Last Record	Preferred Habitat Notes	Database Source	Likelihood of occurrence	Comments
<i>Mastacomys fuscus mordicus</i>	Broad-toothed Rat	EN vu			5	28/03/2025	Occur in a wide range of environments from alpine herb fields to coastal tussock grassland. (Menkhorst, Knight 2010)	VBA / PMST	Low	Site does not provide suitable habitat.
<i>Ornithorhynchus anatinus</i>	Platypus	vu			18	24/11/2021	They feed in both slow-moving and rapid (riffle) parts of streams, but show preference to coarser bottom substrates, particularly cobbles and gravel. When not foraging, the Platypus spends most of the time in its burrow in the bank of the river, creek or a pond. At times, the individuals use rocky crevices and stream debris as shelters, or they burrow under the roots of vegetation near the stream. Hence, the ideal habitat for the species includes a river or a stream with earth banks and native vegetation that provides shading of the stream and cover near the bank. (Menkhorst, Knight 2010)	VBA	Unlikely	Site does not provide suitable habitat for species. Known to be present in Grasmere Creek which runs adjacent to sites northeast boundary.
<i>Petauroides volans</i>	Greater Glider	EN en			1	30/11/2018	The greater glider is an arboreal nocturnal marsupial, largely restricted to eucalypt forests and woodlands. It is primarily folivorous, with a diet mostly comprising eucalypt leaves, and occasionally flowers. It is typically found in highest abundance in taller, montane, moist eucalypt forests with relatively old trees and	VBA / PMST	Low	Site does not provide suitable habitat for species. Unlikely to be more than an occasional visitor to the site

Scientific Name	Common Name	Conservation Status	EPBC Act Listed Migratory or Marine Species	Treaty	Count of Sightings	Date of Last Record	Preferred Habitat Notes	Database Source	Likelihood of occurrence	Comments
							abundant hollows (Menkhorst, Knight 2010).			
<i>Petaurus australis australis</i>	Yellow-bellied Glider	VU vu					The yellow-bellied glider (south-eastern) occurs in eucalypt-dominated woodlands and forests, including both wet and dry sclerophyll forests. Abundance is highly dependent on habitat suitability, which is in turn determined by forest age and floristics. (DCCEEW 2025)	PMST	Unlikely	Site does not provide suitable habitat.
<i>Potorous tridactylus trisulcatus</i>	Long-nosed Potoroo	VU vu					Home range 2 to 4 ha. Requires open, floristically diverse areas for foraging in conjunction with dense, complex shrubby vegetation for shelter from predators. (Menkhorst, Knight 2010).	PMST	Unlikely	Site does not provide suitable habitat.
<i>Pseudomys fumeus</i>	Koonoom, Smoky Mouse	EN en					Coastal heath to heathy woodland with a diverse understorey of heathy shrubs, especially from the families Fabaceae and Epacridaceae. (Menkhorst, Knight 2010)	PMST	Unlikely	Site does not provide suitable habitat. Species has never been recorded in the local area
<i>Pseudomys novaehollandiae</i>	New Holland Mouse	VU en					Across the species' range the New Holland Mouse is known to inhabit open heathlands, open woodlands with a heathland understorey and vegetated sand dunes. (DCCEEW 2025)	PMST	Unlikely	Site does not provide suitable habitat. Species has never been recorded in the local area
<i>Pteropus poliocephalus</i>	Grey-headed Flying-fox	Vu vu			1	18/02/2017	Roosting camps are generally located within 20 km of a regular food source and are commonly found in gullies, close to water, in vegetation with a dense canopy. (Menkhorst, Knight 2010).	VBA / PMST	Unlikely	Rarely seen in local area. Unlikely to be more than a very occasional visitor to site.

Scientific Name	Common Name	Conservation Status	EPBC Act Listed Migratory or Marine Species	Treaty	Count of Sightings	Date of Last Record	Preferred Habitat Notes	Database Source	Likelihood of occurrence	Comments
Fish										
<i>Galaxiella pusilla</i>	Dwarf Galaxias	EN en			1031	23/11/2022	Dwarf Galaxias has broad habitat requirements and occurs in slow flowing and still, shallow, permanent and temporary freshwater habitats such as swamps, drains and the backwaters of streams and creeks, often (but not always) containing dense aquatic macrophytes and emergent plants. In larger pools, the species is usually found amongst marginal vegetation. Some wetlands where it occurs may partially or completely dry up during summer and such wetlands rely on seasonal flooding plus linkages to other sites where the species occurs, for recolonisation. (DCCEEW 2025)	VBA / PMST	Unlikely	Unlikely to be present in small ornamental dam attached to residence which lacks connectivity to Grasmere Creek. Remainder of site does not provide suitable habitat for species. Known to be present in Grasmere Creek which runs adjacent to sites northeast boundary.
<i>Maccullochella peelii</i>	Murray Cod	VU en			1	01/01/1890	Utilises a diverse range of habitats from clear rocky streams, such as those found in the upper western slopes of NSW (including the ACT), to slow-flowing, turbid lowland rivers and billabongs. Frequently found in the main channels of rivers and larger tributaries. (DCCEEW 2025)	VBA	Unlikely	Site does not provide suitable habitat for species.
<i>Nannoperca obscura</i>	Yarra Pygmy Perch	EN vu					The Yarra Pygmy Perch typically occurs in lakes, ponds and slow-flowing rivers, but prefers small-medium sized, relatively shallow (1-2 m) freshwater streams with moderate to high flow. (DCCEEW 2025)	PMST	Unlikely	Site does not provide suitable habitat for species.

Scientific Name	Common Name	Conservation Status	EPBC Act Listed Migratory or Marine Species	Treaty	Count of Sightings	Date of Last Record	Preferred Habitat Notes	Database Source	Likelihood of occurrence	Comments
<i>Prototroctes mareana</i>	Australian Grayling	VU en			2	4/12/1985	Inhabit cool, clear, freshwater streams with gravel substrate and areas alternating between pools and riffle zones. The species has been found over 100 km upstream from the sea. (DCCEEW 2025)	VBA	Unlikely	Site does not provide suitable habitat for species.
Insects										
<i>Pasma tasmanica</i>	Two-spotted Grass-skipper Butterfly	en			2	28/11/1907	The butterfly requires cool, damp, shady, temperate forest and wetland areas receiving more than about 750 mm of annual rainfall and having its grass hostplants in the understorey remaining in a green condition all year round. (BCSA 2025)	VBA	Unlikely	Not recorded in local area since 1907. Site does not provide suitable habitat for species.
<i>Synemon plana</i>	Golden Sun Moth	VU vu			1	01/01/1760	Native temperate grassland and open grassy woodlands dominated by wallaby grass. While previous studies suggested that the species prefers grasslands which have a greater than 40% coverage of wallaby grass over a given area more recent studies show a broader tolerance for other species compositions, including degraded grasslands dominated by exotic Chilean Needlegrass. (DCCEEW 2025)	VBA / PMST	Unlikely	Site does not provide suitable habitat for species.
Other										
<i>Engaeus victoriensis</i>	Foothill Burrowing Crayfish	en			2	1/11/2022	The only known current locations of the species are on Labertouche Creek and Wattle Creek (a tributary of Labertouche Creek) in West Gippsland. The creeks flow through predominantly cleared grazing land. Remnant patches of	VBA	Unlikely	No suitable habitat on site. Adjacent section of Grasmere Creek may provide suitable habitat.

Scientific Name	Common Name	Conservation Status	EPBC Act Listed Migratory or Marine Species	Treaty	Count of Sightings	Date of Last Record	Preferred Habitat Notes	Database Source	Likelihood of occurrence	Comments
							indigenous vegetation, some of which is in a relatively natural condition, and scattered eucalypts (<i>Eucalyptus viminalis</i> and <i>E. ovata</i>) are present along the creek. (DCCEEW 2025)			

References

NAME	Title	Web address
ALA 2025	Atlas of Living Australia	https://bie.ala.org.au/species
BCSA 2025	South Australian Butterflies and Moths website. Species profiles.	https://sabutterflies.org.au
BiB 2025	Birds in Backyards website. Species profiles.	https://www.birdsinbackyards.net
Birdlife 2025	Birdlife website. Species profiles.	https://birdlife.org.au
Day and Simpson 2010	Field Guide to the Birds of Australia. Nicholas Day and Ken Simpson. 8th Edition, 2010. Viking publishing.	
DCCEEW 2025	Department of Climate Change, Energy, the Environment and Water. Threatened species and ecological communities' website. Includes species profiles, recovery plans, conservation advice and other related species publications.	https://www.dcceew.gov.au/environment/biodiversity/threatened
Menkhorst, Knight 2010	A Field Guide to the Mammals of Australia, 3rd Edition, 2010. Oxford University Press.	
Platy-Project 2025	The Platy-Project- Sightings Map	https://platy-project.acf.org.au/
SWIFFT 2025	Statewide Integrated Flora and Fauna Teams website. Threatened species profiles.	https://www.swifft.net.au

Key to Likely Occurrence

Likelihood	Comments
Present	Species has been confirmed as present on site during field work
High	Suitable habitat present on site
	Likely to be a resident population/s in the local area*
	Previously recorded on site
	Numerous records within the local area within the past 5 years
Moderate	Aspects of habitat present but may be modified
	Species may be resident in the local area or it forms part of the species' range
	May seasonally or opportunistically use resources within the local area
	Less than 10 year old records within local area
Low	Limited aspects of habitat present or habitat highly modified
	Species may occur rarely or as an opportunistic visitor in the area
	Few records within the local area within the past 25 years
Unlikely	No suitable habitat present
	Site is located outside of species natural range
	Considered locally extinct
	No records of the species within the local area in the last 25 years

* Local area = within a 5km range of the site.

Conservation Status Key

Commonwealth Environment Protection and Biodiversity Conservation (EPBC) Act 1999	
VU	Listed as Nationally Vulnerable
EN	Listed as Nationally Endangered
EX	Listed as Nationally Extinct
CR	Listed as Nationally Critically Endangered
Victorian FFG Act 1988 Listing (DEECA 2024)	
x	Presumed Extinct in Victoria
cr	Listed as Critically Endangered in Victoria
en	Listed as Endangered in Victoria
vu	Listed as Vulnerable in Victoria
cd	Conservation Dependant in Victoria
Bilateral migratory bird agreements	
JAMBA	Japan-Australia Migratory Bird Agreement (JAMBA)
CAMBA	China-Australia Migratory Bird Agreement (CAMBA)
ROKAMBA	Republic of Korea-Australia Migratory Bird Agreement (ROKAMBA)
BONN	Convention on the Conservation of Migratory Species of Wild Animals (Bonn Convention)
RAMSAR	Ramsar Convention on Wetlands
ACAP	Agreement on the Conservation of Albatrosses and Petrels (ACAP)

Appendix 8: Flora survey results

Scientific Name	Common Name	Origin	CaLP	FFG Act Status	EPBC Act Status	Native Patch	Degraded
<i>Acacia baileyana</i>	Cootamundra Wattle	*					+
<i>Acacia elata</i>	Cedar Wattle	*					+
<i>Acacia floribunda</i>	White Sallow-wattle	#					+
<i>Acacia longifolia</i>	Sallow Wattle	#					+
<i>Acacia mearnsii</i>	Black Wattle	√					+
<i>Acer spp.</i>	Maple	*					+
<i>Agapanthus praecox subsp. orientalis</i>	Agapanthus	*					+
<i>Agrostis capillaris</i>	Brown-top Bent	*					+
<i>Anthoxanthum odoratum</i>	Sweet Vernal-grass	*				+	+
<i>Arctotheca calendula</i>	Cape Weed	*					+
<i>Asparagus asparagoides</i>	Bridal Creeper	*	X			+	+
<i>Austrostipa muelleri</i>	Wiry Spear-grass	√				+	
<i>Austrostipa sp.</i>	Spear Grass	√				+	
<i>Brassica fruticulosa</i>	Twiggy Turnip	*					+
<i>Bromus catharticus</i>	Prairie Grass	*					+
<i>Bursaria spinosa</i>	Sweet Bursaria	√				+	
<i>Callistemon spp.</i>	Bottlebrush	#					+
<i>Carex appressa</i>	Tall Sedge	√				+	
<i>Cenchrus clandestinus</i>	Kikuyu	*				+	+
<i>Chenopodium murale</i>	Sowbane	*					+
<i>Cirsium vulgare</i>	Spear Thistle	*	X			+	+
<i>Cortaderia selloana</i>	Pampas Grass	*				+	
<i>Corymbia citriodora subsp. citriodora</i>	Lemon-scented Gum	*					+
<i>Corymbia maculata</i>	Spotted Gum	#		Vulnerable			+
<i>Crataegus monogyna</i>	Hawthorn	*	X			+	+
<i>Cynodon dactylon</i>	Couch	#					+
<i>Cyperus eragrostis</i>	Drain Flat-sedge	*				+	+

Scientific Name	Common Name	Origin	CaLP	FFG Act Status	EPBC Act Status	Native Patch	Degraded
<i>Dactylis glomerata</i>	Cocksfoot	*				+	+
<i>Dichondra repens</i>	Kidney-weed	√				+	
<i>Dietes spp.</i>	Iris	*				+	+
<i>Ehrharta erecta</i>	Panic Veldt-grass	*				+	+
<i>Eucalyptus botryoides</i>	Southern Mahogany	#					+
<i>Eucalyptus camaldulensis</i>	River Red-gum	√					+
<i>Eucalyptus cladocalyx</i>	Sugar Gum	*					+
<i>Eucalyptus globulus</i>	Southern Blue-gum	#					+
<i>Eucalyptus nicholii</i>	Narrow-leaved Black Peppermint	#					+
<i>Eucalyptus obliqua</i>	Messmate Stringybark	√				+	
<i>Eucalyptus ovata</i>	Swamp Gum	√				+	
<i>Eucalyptus radiata</i>	Narrow-leaf Peppermint	√				+	+
<i>Eucalyptus viminalis</i>	Manna Gum	√				+	
<i>Exocarpos cupressiformis</i>	Cherry Ballart	√				+	
<i>Fraxinus angustifolia</i>	Desert Ash	*					+
<i>Galium aparine</i>	Cleavers	*				+	+
<i>Hesperocyparis macrocarpa</i>	Monterey Cypress	*					+
<i>Hypochaeris radicata</i>	Flatweed	*				+	+
<i>Juncus australis</i>	Austral Rush	√					+
<i>Juncus spp.</i>	Rush	√				+	+
<i>Lepidosperma elatius</i>	Tall Sword-sedge	√				+	
<i>Lomandra longifolia</i>	Spiny-headed Mat-rush	√					+
<i>Lycium ferocissimum</i>	African Box-thorn	*	X				+
<i>Melaleuca armillaris subsp. armillaris</i>	Giant Honey-myrtle	#		Endangered			+
<i>Microlaena stipoides var. stipoides</i>	Weeping Grass	√				+	+
<i>Modiola caroliniana</i>	Red-flower Mallow	*					+
<i>Nephrolepis cordifolia</i>	Fishbone Fern	*					+
<i>Oxalis perennans</i>	Grassland Wood-sorrel	√				+	
<i>Paspalum dilatatum</i>	Paspalum	*				+	+

Scientific Name	Common Name	Origin	CaLP	FFG Act Status	EPBC Act Status	Native Patch	Degraded
<i>Pinus radiata</i>	Radiata Pine	*					+
<i>Pittosporum tenuifolium</i>	Kohuhu	*					+
<i>Pittosporum undulatum</i>	Sweet Pittosporum	#					+
<i>Plantago lanceolata</i>	Ribwort	*					+
<i>Platanus sp.</i>	Plane Tree	*					+
<i>Poa ensiformis</i>	Sword Tussock-grass	√				+	
<i>Populus alba</i>	White Poplar	*					+
<i>Prunus spp.</i>	Prunus	*					+
<i>Pteridium esculentum subsp. esculentum</i>	Austral Bracken	√				+	
<i>Quercus robur</i>	English Oak	*					+
<i>Ranunculus repens</i>	Creeping Buttercup	*				+	
<i>Rhus sp.</i>	Sumac	*					+
<i>Rubus fruticosus spp. agg.</i>	Blackberry	*	X			+	+
<i>Rumex spp.</i>	Dock	*				+	+
<i>Rytidosperma spp.</i>	Wallaby Grass	√					+
<i>Salix babylonica s.l.</i>	Weeping Willow	*					+
<i>Schinus molle</i>	Pepper Tree	*					+
<i>Schoenoplectus tabernaemontani</i>	River Club-sedge	√					+
<i>Senecio jacobaea</i>	Ragwort	*	X			+	+
<i>Solanum nigrum</i>	Black Nightshade	*					+
<i>Sporobolus africanus</i>	Rat-tail Grass	*					+
<i>Stellaria media</i>	Chickweed	*					+
<i>Themeda triandra</i>	Kangaroo Grass	√				+	
<i>Vicia sativa</i>	Common Vetch	*					+
<i>Vinca major</i>	Blue Periwinkle	*					+

Origin and Conservation Status Key

Origin	
v	Species is native to Victoria
*	Exotic species
#	Native but some stands may be alien
Commonwealth Environment Protection and Biodiversity Conservation (EPBC) Act 1999	
VU	Listed as Nationally Vulnerable
EN	Listed as Nationally Endangered
EX	Listed as Nationally Extinct
CR	Listed as Nationally Critically Endangered
Victorian FFG Act 1988 Listing (DEECA 2024)	
x	Presumed Extinct in Victoria
cr	Listed as Critically Endangered in Victoria
en	Listed as Endangered in Victoria
vu	Listed as Vulnerable in Victoria
Catchment and Land Protection Act (CaLP) 1994	
x	Declared Noxious Weed

Appendix 9: Ecological Vegetation Class Benchmarks

**Department of
Sustainability and
Environment**

EVC/Bioregion Benchmark for Vegetation Quality Assessment

Gippsland Plain bioregion

EVC 83: Swampy Riparian Woodland

Description:
Woodland to 15 m tall generally occupying low energy streams of the foothills and plains. The lower strata are variously locally dominated by a range of large and medium shrub species on the stream levees in combination with large tussock grasses and sedges in the ground layer.

Large trees:

Species	DBH(cm)	#/ha
<i>Eucalyptus</i> spp.	70 cm	15 / ha

Tree Canopy Cover:

%cover	Character Species	Common Name
20%	<i>Eucalyptus ovata</i>	Swamp Gum
	<i>Eucalyptus radiata</i> s.l.	Narrow-leaf Peppermint

Understorey:

Life form	#Spp	%Cover	LF code
Immature Canopy Tree		5%	IT
Understorey Tree or Large Shrub	4	30%	T
Medium Shrub	5	20%	MS
Small Shrub	1	1%	SS
Prostrate Shrub	1	1%	PS
Large Herb	3	5%	LH
Medium Herb	7	10%	MH
Small or Prostrate Herb	3	5%	SH
Large Tufted Graminoid	3	15%	LTG
Large Non-tufted Graminoid	1	5%	LNG
Medium to Small Tufted Graminoid	5	10%	MTG
Medium to Tiny Non-tufted Graminoid	2	10%	MNG
Ground Fern	2	10%	GF
Scrambler or Climber	2	5%	SC
Bryophytes/Lichens	na	10%	BL

LF Code	Species typical of at least part of EVC range	Common Name
T	<i>Acacia melanoxylon</i>	Blackwood
T	<i>Melaleuca ericifolia</i>	Swamp Paperbark
T	<i>Leptospermum lanigerum</i>	Woolly Tea-tree
MS	<i>Leptospermum continentale</i>	Prickly Tea-tree
MS	<i>Coprosma quadrifida</i>	Prickly Currant-bush
MS	<i>Bursaria spinosa</i>	Sweet Bursaria
LH	<i>Senecio minimus</i>	Shrubby Fireweed
MH	<i>Gonocarpus tetragynus</i>	Common Raspwort
MH	<i>Acaena novae-zelandiae</i>	Bidgee-widgee
MH	<i>Hydrocotyle hirta</i>	Hairy Pennywort
SH	<i>Dichondra repens</i>	Kidney-weed
LTG	<i>Carex appressa</i>	Tall Sedge
LTG	<i>Cyperus lucidus</i>	Leafy Flat-sedge
LTG	<i>Lepidosperma elatius</i>	Tall Sword-sedge
LTG	<i>Juncus procerus</i>	Tall Rush
LNG	<i>Phragmites australis</i>	Common Reed
MTG	<i>Themeda triandra</i>	Kangaroo Grass
MTG	<i>Lomandra filiformis</i>	Wattle Mat-rush
MNG	<i>Microtena stipoides</i> var. <i>stipoides</i>	Weeping Grass
GF	<i>Pteridium esculentum</i>	Austral Bracken

Ecological Vegetation Class bioregion benchmark

EVC 83: Swampy Riparian Woodland - Gippsland Plain bioregion

Recruitment:

Continuous

Organic Litter:

20 % cover

Logs:

20 m/0.1 ha.

Weediness:

LF Code	Typical Weed Species	Common Name	Invasive	Impact
LH	<i>Cirsium vulgare</i>	Spear Thistle	high	high
LH	<i>Sonchus oleraceus</i>	Common Sow-thistle	high	low
MH	<i>Hypochaeris radicata</i>	Cat's Ear	high	low
MH	<i>Prunella vulgaris</i>	Self-heal	high	high
LNG	<i>Holcus lanatus</i>	Yorkshire Fog	high	high
MTG	<i>Anthoxanthum odoratum</i>	Sweet Vernal-grass	high	high
MTG	<i>Briza maxima</i>	Large Quaking-grass	high	low

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EVC/Bioregion Benchmark for Vegetation Quality Assessment
Gippsland Plain bioregion

EVC 937: Swampy Woodland

Description:

Open eucalypt woodland to 15 m tall with ground-layer dominated by tussock grasses and/or sedges and often rich in herbs. Occurs on poorly drained, seasonally waterlogged heavy soils, primarily on swamp deposits but extending to suitable substrates within some landscapes of sedimentary origin.

Large trees:

Species	DBH(cm)	#/ha
<i>Eucalyptus</i> spp.	70 cm	15 / ha

Tree Canopy Cover:

%cover	Character Species	Common Name
15%	<i>Eucalyptus ovata</i>	Swamp Gum
	<i>Eucalyptus cephalocarpa</i> s.s.	Mealy Stringybark
	<i>Eucalyptus radiata</i> s.l.	Narrow-leaf Peppermint
	<i>Eucalyptus obliqua</i>	Messmate Stringybark

Understorey:

Life form	#Spp	%Cover	LF code
Immature Canopy Tree		5%	IT
Understorey Tree or Large Shrub	1	5%	T
Medium Shrub	2	20%	MS
Medium Herb	5	10%	MH
Small or Prostrate Herb	3	10%	SH
Large Tufted Graminoid	4	30%	LTG
Large Non-tufted Graminoid	2	10%	LNG
Medium to Small Tufted Graminoid	4	10%	MTG
Bryophytes/Lichens	na	20%	BL

LF Code**Species typical of at least part of EVC range****Common Name**

T	<i>Melaleuca encifolia</i>	Swamp Paperbark
MS	<i>Leptospermum continentale</i>	Prickly Tea-tree
MH	<i>Acaena novae-zelandiae</i>	Bidgee-widgee
MH	<i>Centella cordifolia</i>	Centella
MH	<i>Gratiola peruviana</i>	Austral Brooklime
SH	<i>Mazus pumilio</i>	Swamp Mazus
LTG	<i>Guhnia sieberiana</i>	Red-fruit Saw-sedge
LTG	<i>Poa lubillardierei</i>	Common Tussock-grass
LTG	<i>Carex appressa</i>	Tall Sedge
LNG	<i>Guhnia radula</i>	Thatch Saw-sedge
LNG	<i>Phragmites australis</i>	Common Reed
MTG	<i>Schoenus apogon</i>	Common Bog-sedge
MTG	<i>Lepidosperma laterale</i>	Variable Sword-sedge
MNG	<i>Poa tenera</i>	Slender Tussock-grass
MNG	<i>Juncus holoschoenus</i>	Joint-leaf Rush

Recruitment:

Continuous

Organic Litter:

20 % cover

Logs:

15 m/0.1 ha.

EVC 937: Swampy Woodland - Gippsland Plain bioregion

Weediness:

LF Code	Typical Weed Species	Common Name	Invasive	Impact
MS	<i>Rubus sp. aff. armeniacus</i>	Blackberry	high	high
MH	<i>Hypochoeris radicata</i>	Cat's Ear	high	low
LNG	<i>Holcus lanatus</i>	Yorkshire Fog	high	high
MTG	<i>Anthoxanthum odoratum</i>	Sweet Vernal-grass	high	high

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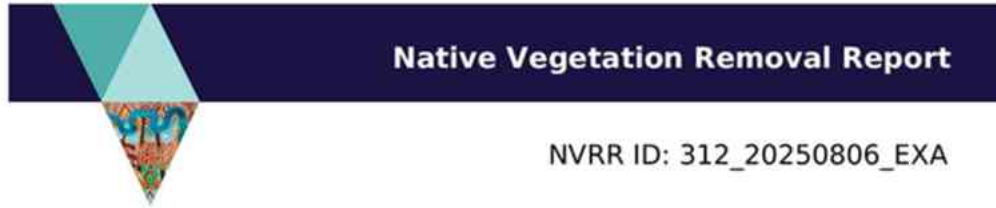
Appendix 10: Fauna survey results

Scientific Name	Common Name	Origin	Treaties	FFG Act Status	EPBC Act Status
<i>Acanthiza chrysorrhoa</i>	Yellow-rumped Thornbill				
<i>Alisterus scapularis</i>	Australian King-Parrot				
<i>Anas castanea</i>	Chestnut Teal				
<i>Cacatua galerita</i>	Sulphur-crested Cockatoo				
<i>Calyptrorhynchus funereus</i>	Yellow-tailed Black-Cockatoo				
<i>Chenonetta jubata</i>	Australian Wood Duck				
<i>Cracticus torquatus</i>	Grey Butcherbird				
<i>Eolophus roseicapilla</i>	Galah				
<i>Grallina cyanoleuca</i>	Magpie-lark				
<i>Gymnorhina tibicen</i>	Australian Magpie				
<i>Macropus giganteus</i>	Eastern Grey Kangaroo				
<i>Manorina melanocephala</i>	Noisy Miner				
<i>Manorina melanophrys</i>	Bell Miner				
<i>Oryctolagus cuniculus</i>	European Rabbit	Introduced			
<i>Platycercus elegans</i>	Crimson Rosella				
<i>Platycercus eximius</i>	Eastern Rosella				
<i>Podicipedidae spp.</i>	Grebes				
<i>Rhipidura albiscapa</i>	Grey Fantail				
<i>Strepera graculina</i>	Pied Currawong				
<i>Turdus merula</i>	Common Blackbird	Introduced			
<i>Vombatus ursinus</i>	Bare-nosed Wombat				

Origin and Conservation Status Key

Origin	
Native	Native species
*	Exotic species
#	Native but some stands may be alien
Commonwealth Environment Protection and Biodiversity Conservation (EPBC) Act 1999	
VU	Listed as Nationally Vulnerable
EN	Listed as Nationally Endangered
EX	Listed as Nationally Extinct
CR	Listed as Nationally Critically Endangered
Victorian FFG Act 1988 Listing (DEECA 2024)	
x	Presumed Extinct in Victoria
cr	Listed as Critically Endangered in Victoria
en	Listed as Endangered in Victoria
vu	Listed as Vulnerable in Victoria
cd	Conservation Dependant in Victoria

Appendix 11: Native Vegetation Removal Report



NVRR ID: 312_20250806_EXA

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

Report details

Date created: 06/08/2025

Local Government Area: CASEY CITY

Shapefile name:

NVR_Removal_Patches_62-80_20250805.shp

NVR_Removal_Trees_62-80_20250805.shp

Site assessor name: Ben Imbery

Registered Aboriginal Party: Bunurong

Coordinates: 145.36863, -38.03208

Address:

62-70 MANUKA ROAD BERWICK 3806

72-80 MANUKA ROAD BERWICK 3806

Regulator Notes

Removal polygons are located:

Summary of native vegetation to be removed

Assessment pathway	Detailed Assessment Pathway		
Location category	Location 3 Within this area, the removal of less than 0.5 hectares of native vegetation could have a significant impact on the habitat of one or more rare or threatened species. In such cases, a Species Offset will be required.		
Total extent including past and proposed removal (ha) <i>Includes endangered EVCs (ha): 0.844</i>	0.844	<i>Extent of past removal (ha)</i>	0
		<i>Extent of proposed removal - Patches (ha)</i>	0.477
		<i>Extent of proposed removal - Scattered Trees (ha)</i>	0.367
No. Large Trees proposed to be removed	17	<i>No. Large Patch Trees</i>	12
		<i>No. Large Scattered Trees</i>	5
No. Small Scattered Trees	2		

Offset requirements if approval is granted

Any approval granted will include a condition to obtain an offset, before the removal of native vegetation, that meets the following requirements:

General Offset amount ¹	0.2740 General Habitat Units
Vicinity	Melbourne Water CMA or CASEY CITY LGA
Minimum strategic biodiversity value score ²	0.3901
Large Trees*	17
*The total number of Large Trees that the offset must protect	17 Large Trees to be protected in either the General, Species or combination across all habitat units protected

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

Appendix 1 includes information about the native vegetation to be removed

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

Appendix 3 includes the following figures

- Location map
- Strategic Biodiversity Value map
- Condition map
- Endangered EVCs map
- Aerial photograph showing mapped native vegetation
- Property in context
- Habitat Importance maps

1. The General Offset amount required is the sum of all General Habitat Units in Appendix 1.

2. Minimum strategic biodiversity value score is 80 per cent of the weighted average score across habitat zones where a General Offset is required.

3. The Species Offset amount(s) required is the sum of all Species Habitat Units in Appendix 1.



Next steps

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

If you wish to remove the mapped native vegetation you are required to apply for approval from the responsible authority. The responsible authority will refer your application to DEECA for assessment, as required. **This report is not a referral assessment by DEECA.**

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

Refer to the Guidelines for a full list of application requirements. This report provides information that meets the following application requirements:

- The assessment pathway and reason for the assessment pathway.
- A description of the native vegetation to be removed (partly met).
- Maps showing the native vegetation and property (partly met).
- Information about the impacts on rare or threatened species.
- The offset requirements determined in accordance with Section 5 of the Guidelines that apply if approval is granted to remove native vegetation.

Additional application requirements must be met including:

- Topographical and land information
- Recent dated photographs.
- Details of past native vegetation removal.
- An avoid and minimise statement.
- A copy of any Property Vegetation Plan as applicable.
- A defensible space statement as applicable.
- A statement about the Native Vegetation Precinct Plan (NVPP) as applicable.
- A site assessment report including a habitat hectare assessment of any patches of native vegetation and details of trees.
- An offset statement that explains that an offset has been identified and how it will be secured.

Appendix 1: Description of native vegetation to be removed

The Species-General Offset Test was applied to your proposal. This test determines if the proposed removal of native vegetation has a proportional impact on any rare or threatened species habitats above the Species Offset threshold. The threshold is set at 0.005 per cent of the mapped habitat value for a species. When the proportional impact meets or exceeds the Species Offset threshold, a Species Offset is required. This test is completed for all species with mapped habitat at the site. Multiple Species Offsets will be required if the Species Offset threshold is exceeded for multiple species.

Where a zone requires Species Offset(s), the Species Habitat Units for each species in that zone are calculated by the following equation in accordance with the Guidelines: **Species Habitat Units = extent without overlap x condition score x species landscape factor x 2, where the species landscape factor = 0.5 + (habitat importance score/2)**

The Species Offset amount(s) required is the sum of all Species Habitat Units per zone.

Where a zone does not require a Species Offset, the General Habitat Units in that zone are calculated by the following equation in accordance with the Guidelines: **General Habitat Units = extent without overlap x condition score x general landscape factor x 1.5, where the general landscape factor = 0.5 + (strategic biodiversity value score/2)**

The General Offset amount required is the sum of all General Habitat Units per zone.

Native vegetation to be removed

Information provided by or on behalf of the applicant							Information calculated by NVR Map						
Zone	Type	DBH (cm)	EVC code	Bioregional conservation status	Partial Removal	Condition score	Large Tree(s)	Polygon extent (ha)	Extent without overlap (ha)	SBV score	HI Score	Habitat Units	Offset Type
10-a	Patch	-	GipP0083	Endangered	no	0.300	2	0.041	0.041	0.294	-	0.012	General
11-a	Patch	-	GipP0083	Endangered	no	0.300	-	0.027	0.027	0.790	-	0.011	General
12-a	Patch	-	GipP0083	Endangered	no	0.370	6	0.136	0.136	0.740	-	0.066	General
13-a	Patch	-	GipP0083	Endangered	no	0.370	2	0.167	0.167	0.780	-	0.082	General

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Information provided by or on behalf of the applicant							Information calculated by NVR Map						
Zone	Type	DBH (cm)	EVC code	Bioregional conservation status	Partial Removal	Condition score	Large Tree(s)	Polygon extent (ha)	Extent without overlap (ha)	SBV score	HI Score	Habitat Units	Offset Type
14-a	Patch	-	GipP0937	Endangered	no	0.200	-	0.003	0.003	0.220	-	0.001	General
15-a	Patch	-	GipP0937	Endangered	no	0.200	-	0.006	0.006	0.220	-	0.001	General
8-a	Patch	-	GipP0083	Endangered	no	0.300	1	0.040	0.040	0.230	-	0.011	General
9-a	Patch	-	GipP0083	Endangered	no	0.300	1	0.057	0.057	0.230	-	0.016	General
1-a	Scattered Tree	165	GipP0937	Endangered	no	0.200	1	0.070	0.070	0.230	-	0.013	General
2-a	Scattered Tree	76	GipP0937	Endangered	no	0.200	1	0.070	0.070	0.230	-	0.013	General
3-a	Scattered Tree	28	GipP0937	Endangered	no	0.200	-	0.031	0.000	0.230	-	0.000	General
4-a	Scattered Tree	100	GipP0937	Endangered	no	0.200	1	0.070	0.054	0.230	-	0.010	General
5-a	Scattered Tree	25	GipP0937	Endangered	no	0.200	-	0.031	0.031	0.220	-	0.006	General
6-a	Scattered Tree	117	GipP0937	Endangered	no	0.200	1	0.070	0.070	0.228	-	0.013	General
7-a	Scattered Tree	70	GipP0937	Endangered	no	0.200	1	0.070	0.070	0.780	-	0.019	General

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

This table identifies all rare or threatened species with mapped habitat at the site and the proportional impact associated with the proposed native vegetation removal.

Species common name	Species scientific name	Taxon ID	Conservation status	Group	Habitat impacted	Proportional impact (%)
Dwarf Galaxias	<i>Galaxiella pusilla</i>	4701	Endangered	Highly Localised Habitat	Habitat importance map	0.0019
Wine-lipped Spider-orchid	<i>Caladenia oenochila</i>	503694	Vulnerable	Dispersed	Habitat importance map	0.0002
Strzelecki Gum	<i>Eucalyptus strzeleckii</i>	504558	Vulnerable	Dispersed	Habitat importance map	0.0002
Dandenong Wattle	<i>Acacia stictophylla</i>	505140	Rare	Dispersed	Habitat importance map	0.0002
Spurred Helmet-orchid	<i>Corybas aconitiflorus</i>	500835	Rare	Dispersed	Habitat importance map	0.0001
Hoary Rapier-sedge	<i>Lepidosperma canescens</i>	501915	Rare	Dispersed	Habitat importance map	0.0001
Winter Sun-orchid	<i>Thelymitra hiemalis</i>	505006	Endangered	Dispersed	Habitat importance map	0.0001
Green Scentbark	<i>Eucalyptus fulgens</i>	505175	Rare	Dispersed	Habitat importance map	0.0001
Grey Goshawk	<i>Accipiter novaehollandiae novaehollandiae</i>	10220	Vulnerable	Dispersed	Habitat importance map	0.0000
Powerful Owl	<i>Ninox strenua</i>	10248	Vulnerable	Dispersed	Habitat importance map	0.0000

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Species common name	Species scientific name	Taxon ID	Conservation status	Group	Habitat impacted	Proportional impact (%)
Masked Owl	<i>Tyto novaehollandiae novaehollandiae</i>	10250	Endangered	Dispersed	Habitat importance map	0.0000
White-throated Needletail	<i>Hirundapus caudacutus</i>	10334	Vulnerable	Dispersed	Habitat importance map	0.0000
Swamp Skink	<i>Lissolepis coventryi</i>	12407	Vulnerable	Dispersed	Habitat importance map	0.0000
Southern Toadlet	<i>Pseudophryne semimarmorata</i>	13125	Vulnerable	Dispersed	Habitat importance map	0.0000
Growling Grass Frog	<i>Litoria raniformis</i>	13207	Endangered	Dispersed	Habitat importance map	0.0000
Yarra Gum	<i>Eucalyptus yarraensis</i>	501326	Rare	Dispersed	Habitat importance map	0.0000
Brickmaker's Sedge	<i>Gahnia grandis</i>	501390	Vulnerable	Dispersed	Habitat importance map	0.0000
Clover Glycine	<i>Glycine latrobeana</i>	501456	Vulnerable	Dispersed	Habitat importance map	0.0000
Tufted Club-sedge	<i>Isolepis wakefieldiana</i>	501789	Rare	Dispersed	Habitat importance map	0.0000
Slender Stylewort	<i>Levenhookia sonderi</i>	501998	Rare	Dispersed	Habitat importance map	0.0000
Rough Daisy-bush	<i>Olearia asterotricha</i>	502300	Rare	Dispersed	Habitat importance map	0.0000

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Species common name	Species scientific name	Taxon ID	Conservation status	Group	Habitat impacted	Proportional impact (%)
Cobra Greenhood	<i>Pterostylis grandiflora</i>	502798	Rare	Dispersed	Habitat importance map	0.0000
Swamp Bush-pea	<i>Pultenaea weindorferi</i>	502881	Rare	Dispersed	Habitat importance map	0.0000
Parsley Xanthosia	<i>Xanthosia leiophylla</i>	504562	Rare	Dispersed	Habitat importance map	0.0000
Austral Crane's-bill	<i>Geranium solanderi</i> var. <i>solanderi</i> s.s.	505337	Vulnerable	Dispersed	Habitat importance map	0.0000
Arching Flax-lily	<i>Dianella</i> sp. aff. <i>longifolia</i> (Benambra)	505560	Vulnerable	Dispersed	Habitat importance map	0.0000
Floodplain Fireweed	<i>Senecio campylocarpus</i>	507136	Rare	Dispersed	Habitat importance map	0.0000

Habitat Group

- Highly localised habitat means there is 2,000 hectares or less mapped habitat for the species.
- Dispersed habitat means there is more than 2,000 hectares of mapped habitat for the species.

Habitat Impacted

The *Species General Offset* test, as described in Section 5.3.1 of the Guidelines, is used to determine if proposed native vegetation removal will result in a proportionally significant impact on the habitat value of rare or threatened species. The test is applied where the native vegetation proposed for removal:

- Intersects the Habitat Importance Map for a rare or threatened species; or
- Intersects the 'top ranking' modelled habitat for a rare or threatened species with dispersed habitat, as identified in its Top Ranking Habitat Importance Map.

Top Ranking Maps consist of the 2,000 hectares of habitat with the highest Habitat Importance Scores for each dispersed species.

The 'Habitat impacted' column identifies whether the Habitat Importance Map or its Top Ranking Map was used to determine the proportional impact for a species with dispersed habitat.

Appendix 3: Images of mapped native vegetation

1. Property in context



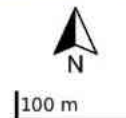
- Proposed Removal
- Past Removal
- Partial Removal
- Property Boundaries



2. Aerial photograph showing mapped native vegetation

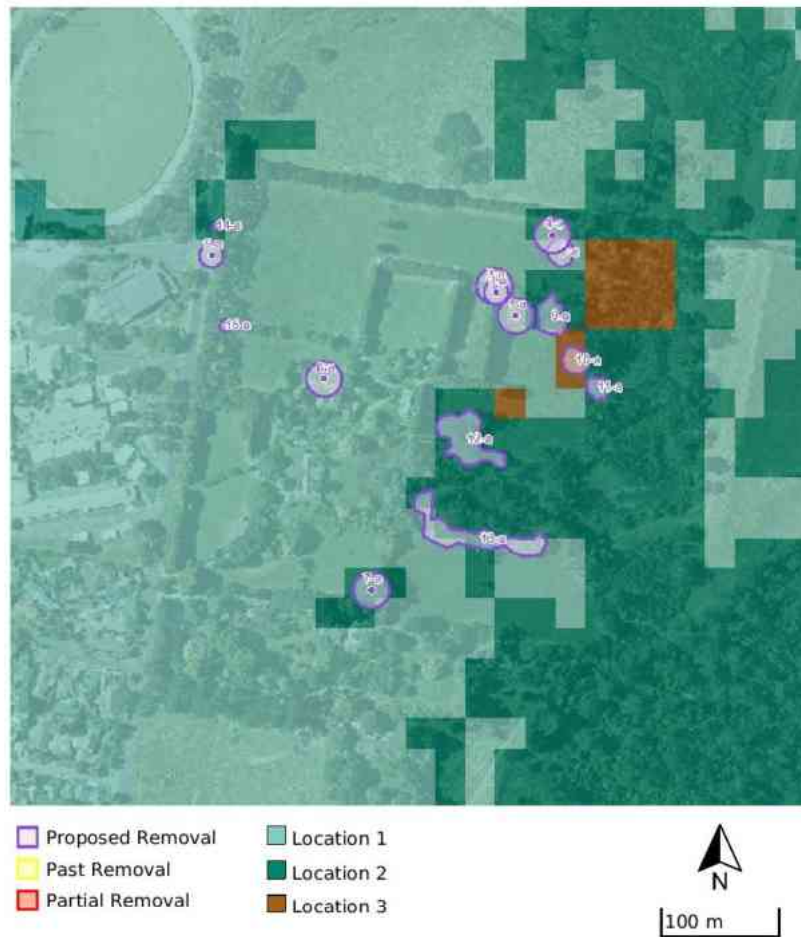


- Proposed Removal
- Past Removal
- Partial Removal



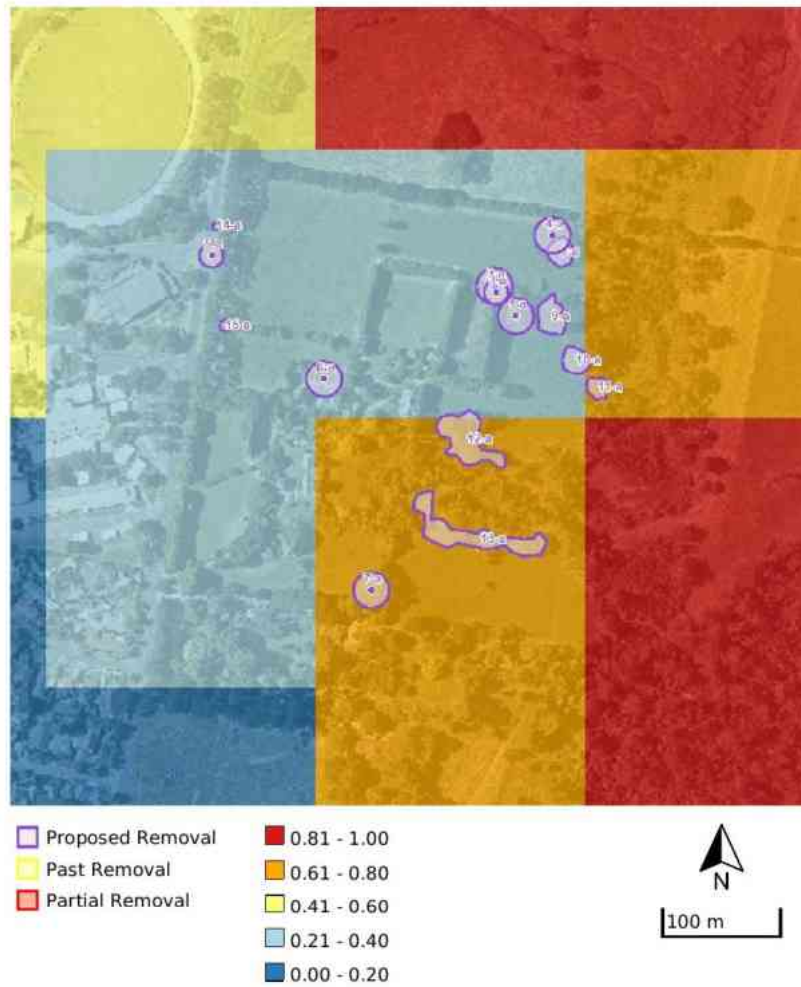


3. Location Risk Map



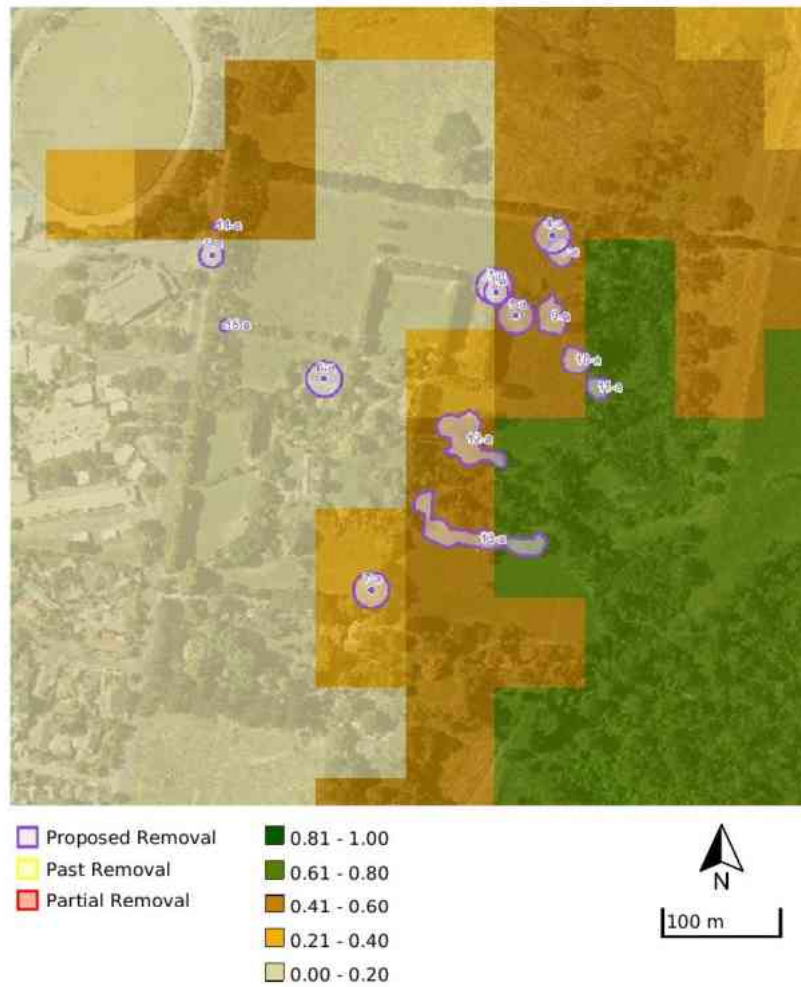


4. Strategic Biodiversity Value Score Map

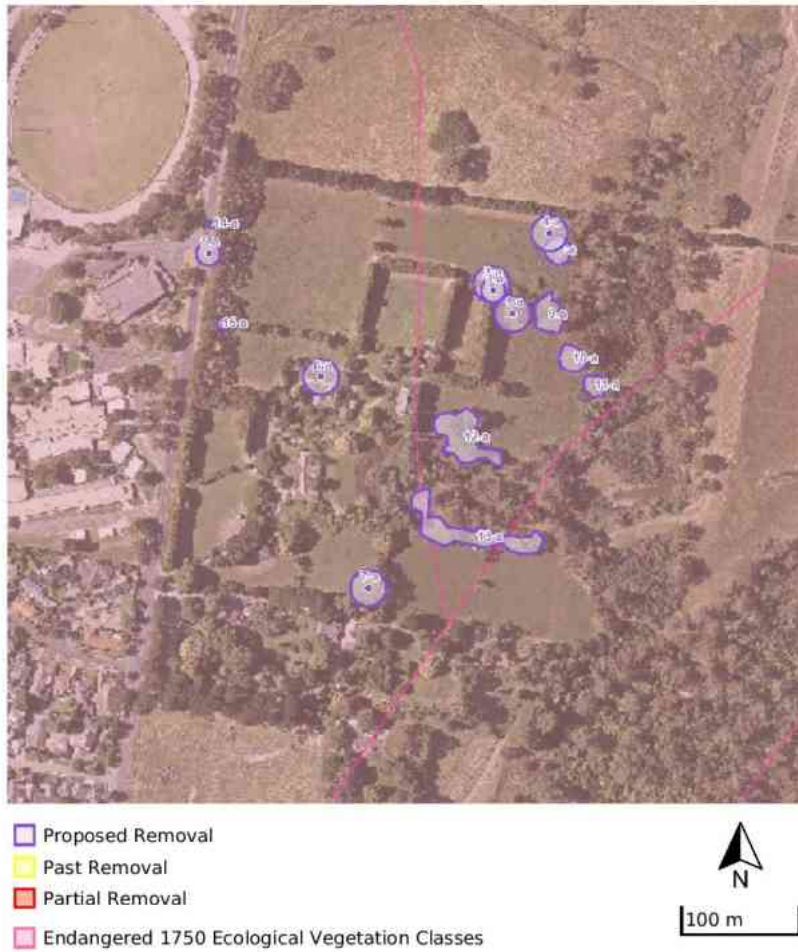




5. Modelled Condition Score Map



6. Modelled Endangered EVCs





7. Habitat Importance maps

Not Applicable

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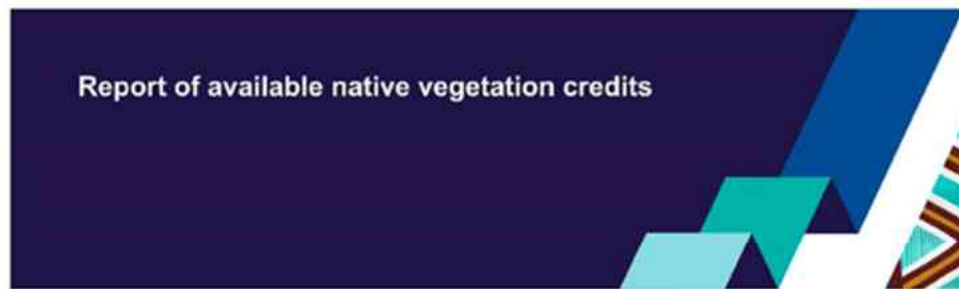


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Appendix 12: Native Vegetation Credit Search Results



This report lists native vegetation credits available to purchase through the Native Vegetation Credit Register.

This report is **not evidence** that an offset has been secured. An offset is only secured when the units have been purchased and allocated to a permit or other approval and an allocated credit extract is provided by the Native Vegetation Credit Register.

Date and time: 06/08/2025 11:32

Report ID: 31161

What was searched for?

General offset

General habitat units	Strategic biodiversity value	Large trees	Vicinity (Catchment Management Authority or Municipal district)	
0.274	0.3901	17	CMA	Melbourne Water
			or LGA	Casey City

Details of available native vegetation credits on 06 August 2025 11:32

These sites meet your requirements for general offsets.

Credit Site ID	GHU	LT	CMA	LGA	Land owner	Trader	Fixed price	Broker(s)
BBA-0277	1.499	439	Melbourne Water	Mornington Peninsula Shire	No	Yes	No	Abezco, Ethos, VegLink
BBA-0570	13.399	70	Melbourne Water	Cardinia Shire	No	Yes	No	Abezco, VegLink
BBA-0577	3.254	1320	Melbourne Water	Whittlesea City	No	Yes	No	Abezco, VegLink
BBA-0578	27.908	2426	Melbourne Water	Nilumbik Shire	No	Yes	No	Abezco, VegLink
BBA-0578_02	0.562	58	Melbourne Water	Nilumbik Shire	No	Yes	No	Abezco, VegLink
BBA-1136	0.757	30	Melbourne Water	Mornington Peninsula Shire	Yes	Yes	No	Bio Offsets, VegLink
BBA-2870	2.544	431	Melbourne Water	Yarra Ranges Shire	Yes	Yes	No	VegLink
BBA-2871	13.225	1592	Melbourne Water	Yarra Ranges Shire	Yes	Yes	No	VegLink
VC_CFL-3710_01	6.238	322	Melbourne Water	Yarra Ranges Shire	Yes	Yes	No	VegLink
VC_CFL-3744_01	1.078	347	Melbourne Water	Macedon Ranges Shire	Yes	Yes	No	VegLink
VC_CFL-3805_01	3.289	802	Melbourne Water	Yarra Ranges Shire	Yes	Yes	No	VegLink

These sites meet your requirements using alternative arrangements for general offsets.

Credit Site ID	GHU	LT	CMA	LGA	Land owner	Trader	Fixed price	Broker(s)
----------------	-----	----	-----	-----	------------	--------	-------------	-----------

There are no sites listed in the Native Vegetation Credit Register that meet your offset requirements when applying the alternative arrangements as listed in section 11.2 of the Guidelines for the removal, destruction or lopping of native vegetation.

These potential sites are not yet available, land owners may finalise them once a buyer is confirmed.

Credit Site ID	GHU	LT	CMA	LGA	Land owner	Trader	Fixed price	Broker(s)
VC_CFL-3746_01	4.962	563	Melbourne Water	Macedon Ranges Shire	Yes	Yes	No	VegLink
VC_CFL-3792_01	14.025	1235	Melbourne Water	Macedon Ranges Shire	Yes	Yes	No	VegLink
VC_CFL-3816_01	10.827	596	Melbourne Water	Yarra Ranges Shire	Yes	Yes	No	Contact NVOR

LT - Large Trees

CMA - Catchment Management Authority

LGA - Municipal District or Local Government Authority

Next steps

If applying for approval to remove native vegetation

Attach this report to an application to remove native vegetation as evidence that your offset requirement is currently available.

If you have approval to remove native vegetation

Below are the contact details for all brokers. Contact the broker(s) listed for the credit site(s) that meet your offset requirements. These are shown in the above tables. If more than one broker or site is listed, you should get more than one quote before deciding which offset to secure.

Broker contact details

Broker Abbreviation	Broker Name	Phone	Email	Website
Fully traded				
Abezco	Abzeco Pty. Ltd.	(03) 9431 5444	offsets@abzeco.com.au	www.abzeco.com.au
Baw Baw SC	Baw Baw Shire Council	(03) 5624 2411	bawbaw@bawbawshire.vic.gov.au	www.bawbawshire.vic.gov.au
Bio Offsets	Biodiversity Offsets Victoria	0452 161 013	info@offsetsvictoria.com.au	www.offsetsvictoria.com.au
Contact NVOR	Native Vegetation Offset Register	136 186	nativevegetation.offsetregister@deeca.vic.gov.au	www.environment.vic.gov.au/native-vegetation
Ecocentric	Ecocentric Environmental Consulting	0410 564 139	ecocentric@me.com	Not available
Ethos	Ethos NRM Pty Ltd	(03) 5153 0037	offsets@ethosnrm.com.au	www.ethosnrm.com.au
IDES	Indigenous Design Environmental Services Pty Ltd	(03) 9437 0555		www.idecological.com.au
Nilumbik SC	Nilumbik Shire Council	(03) 9433 3316	offsets@nilumbik.vic.gov.au	www.nilumbik.vic.gov.au
TFN	Trust for Nature	8631 5888	offsets@tfn.org.au	www.trustfornature.org.au
VegLink	Vegetation Link Pty Ltd	(03) 8578 4250 or 1300 834 546	offsets@vegetationlink.com.au	www.vegetationlink.com.au
Yarra Ranges SC	Yarra Ranges Shire Council	1300 368 333	biodiversityoffsets@yarraranges.vic.gov.au	www.yarraranges.vic.gov.au

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For more information contact the DEECA Customer Service Centre 136 186 or the Native Vegetation Credit Register at nativevegetation.offsetregister@delwp.vic.gov.au

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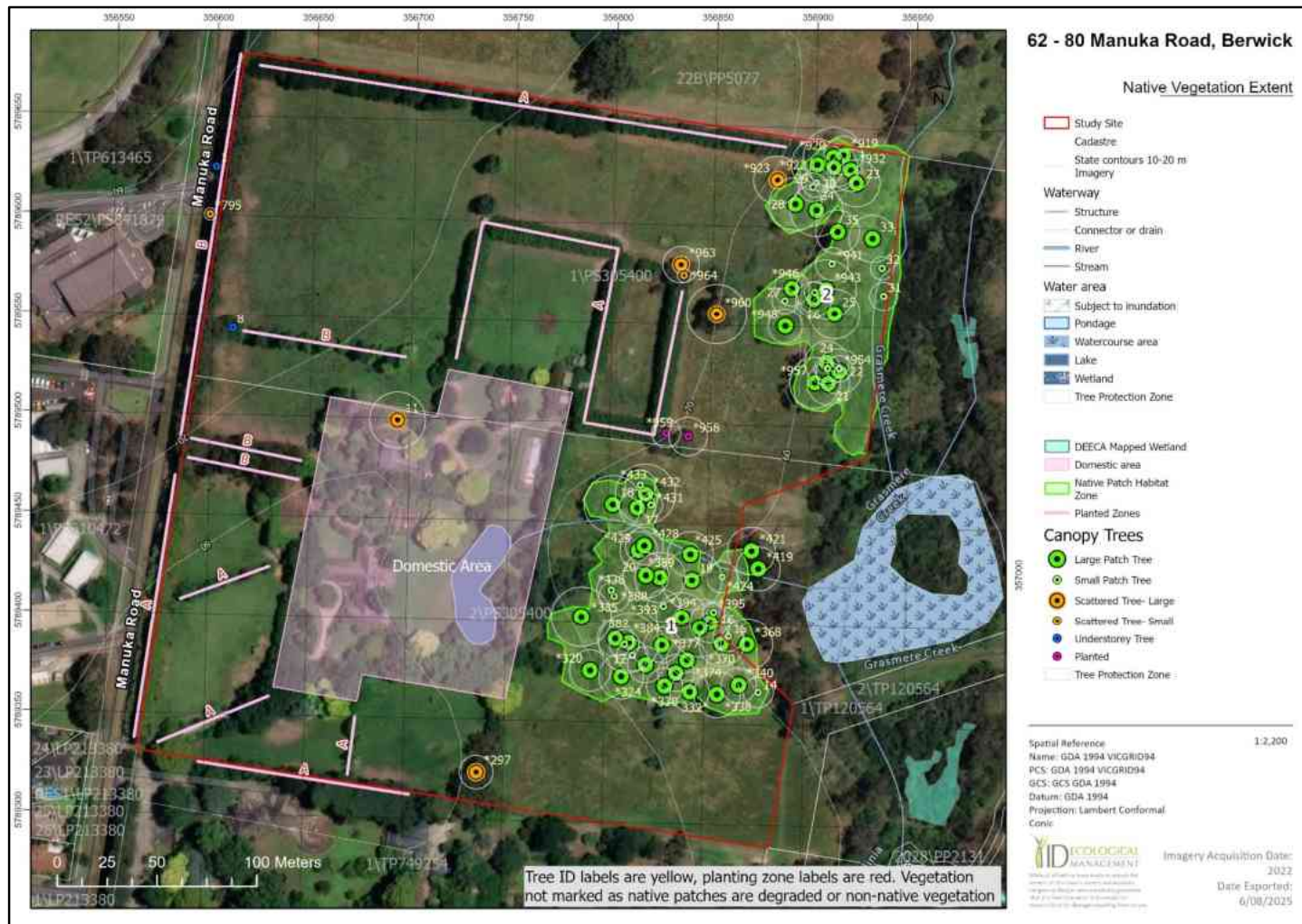
Obtaining this publication does not guarantee that the credits shown will be available in the Native Vegetation Credit Register either now or at a later time when a purchase of native vegetation credits is planned.

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

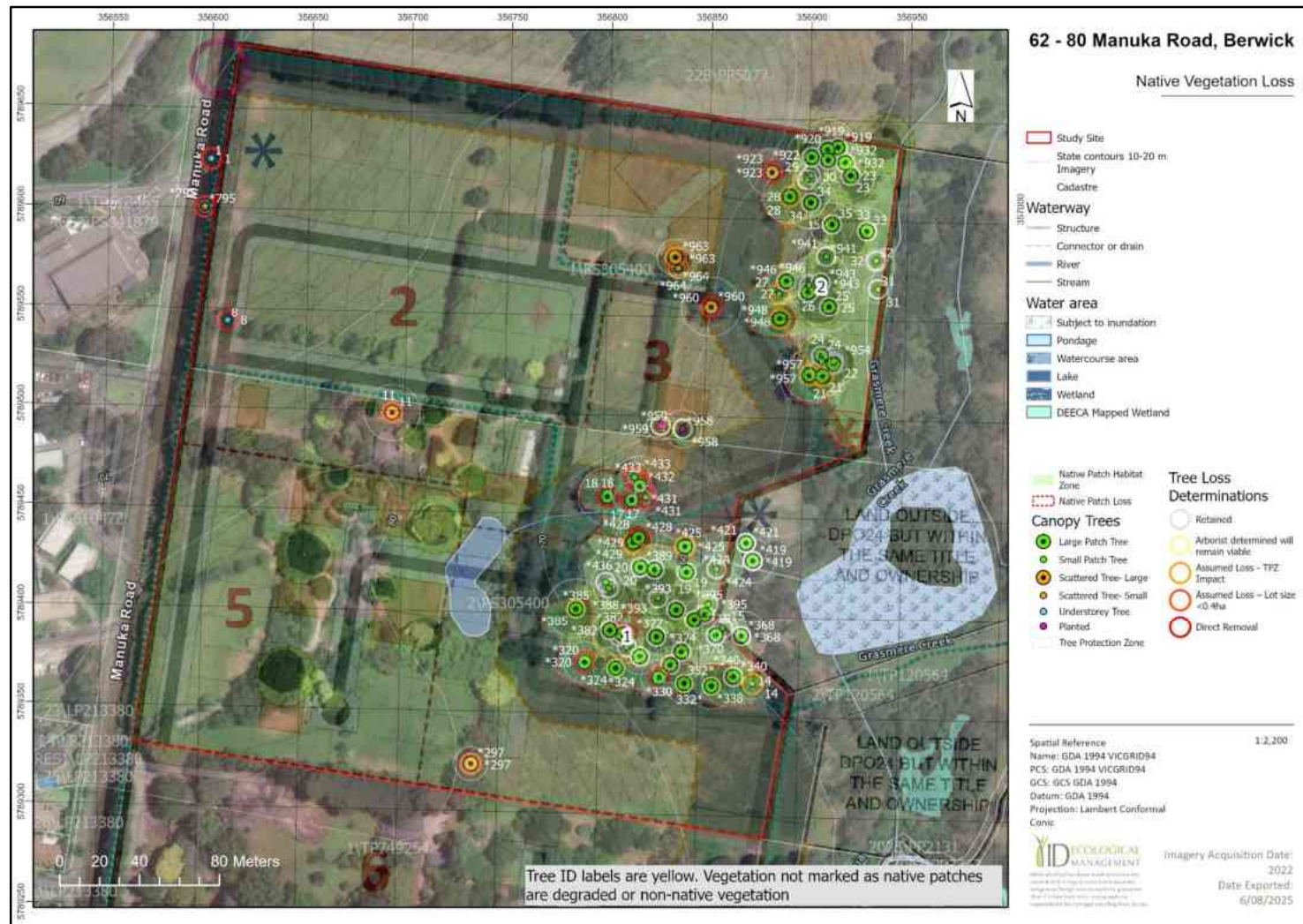
Maps

Maps commence on the next page.

Map 1– Native Vegetation distribution and Ecological Values



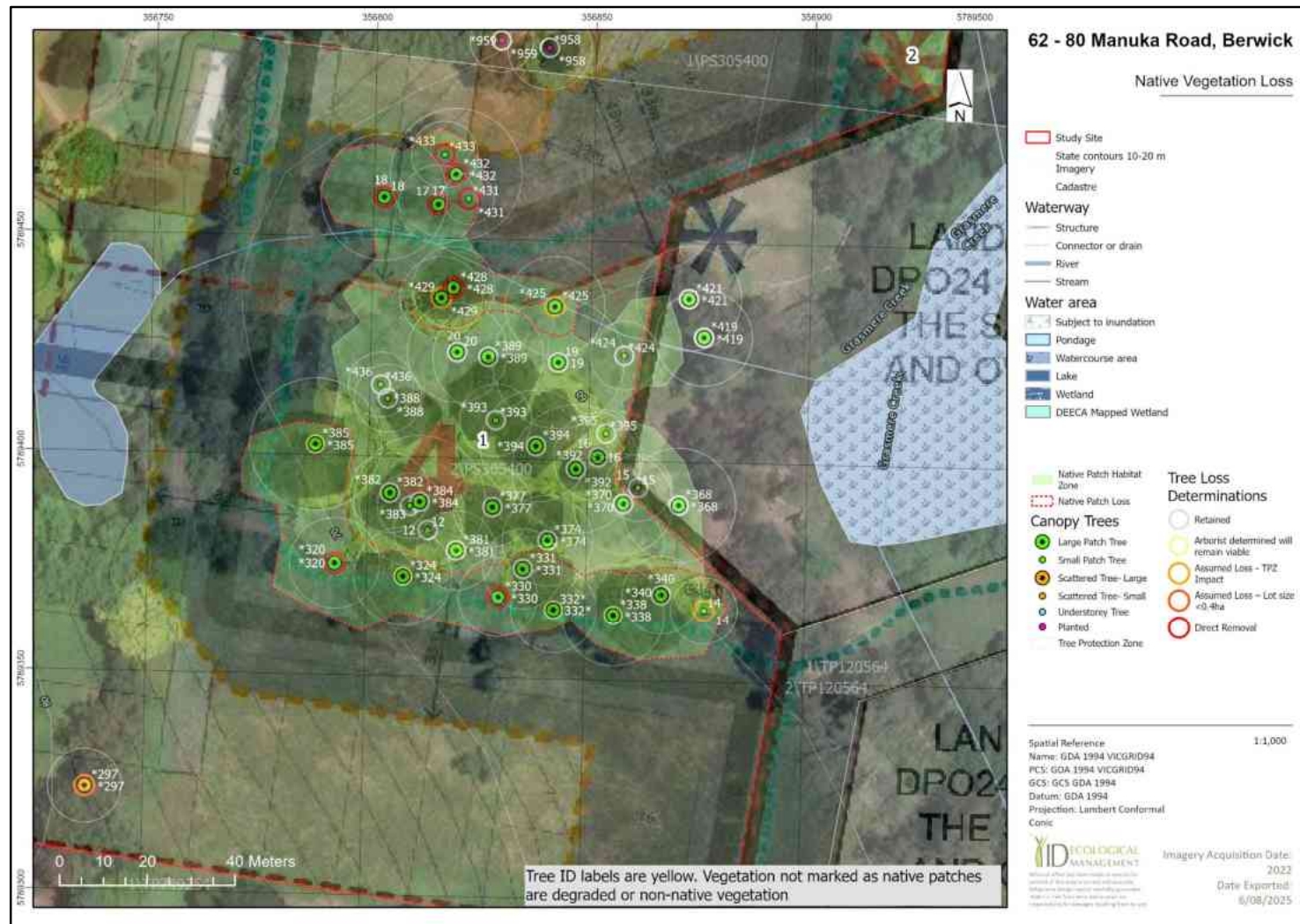
Map 2- Native Vegetation Loss



Map 2a- Native Vegetation Loss



Map 2b- Native Vegetation Loss





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