Final Report

Biodiversity Assessment: 452-454 Waverley Road, Mount Waverley, Victoria

Prepared for

Perkins Architects

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Ecology and Heritage Partners Pty Ltd

MELBOURNE: 292 Mt Alexander Road, Ascot Vale VIC 3032 GEELONG: 230 Latrobe Terrace, Geelong West VIC 3218
BRISBANE: Level 22, 127 Creek Street, Brisbane QLD 4000 ADELAIDE: 78 Edmund Avenue, Unley SA 5061
CANBERRA: 19-23 Moor Street, Turner ACT 2612 SYDNEY: Level 5, 616 Harris Street, Ultimo NSW 2007
www.ehpartners.com.au | 1300 839 325

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Project manager	Andrew Hill (Director / Principal Ecologist)
Report reviewer	Aaron Organ (Director / Principal Ecologist)
Other EHP staff	Matt Hatton (Senior Botanist); Linda Parker (Consultant Ecologist); Sara Petrovic (Field Ecologist)
Mapping	Petra Sorensen (GIS Officer) Gerard Mercator (GIS Coordinator)
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CONTENTS

SUMMARY OF CLAUSE 52.17 APPLICATION REQUIREMENTS

Table S1. Application requirements for a permit to remove native vegetation (Victoria Planning Provisions Clause 52.17; DELWP 2017)

No.	Application Requirement	Response
Application requirements under the Intermediate Assessment Pathway		
1	Information about the native vegetation to be removed, including: • The assessment pathway and reason for the assessment pathway; • A description of the native vegetation to be removed; • Maps showing the native vegetation and property in context; and • The offset requirement that will apply if the native vegetation is approved to be removed.	Refer to Section 3.8 and Appendix 2 (NVR Report.
2	Topographic and land information relating to the native vegetation to be removed, showing ridges, crests and hilltops, wetlands and waterways, slopes of more than 20 percent, drainage lines, low lying areas, saline discharge areas, and areas of existing erosion, as appropriate.	Refer to Section 1.2 and Figure 1 and Figure 2.
3	Recent dated photographs of the native vegetation to be removed.	Refer to Section 3
4	Details of any other native vegetation that was permitted to be removed on the same property with the same ownership as the native vegetation to be removed, where the removal occurred in the five- year period before the application to remove native vegetation is lodged.	No removal of native vegetation has been removed by the proponent within the property within the past five years
5	An avoid and minimise statement. The statement describes any efforts to avoid the removal of and minimise the impacts on the biodiversity and other values of native vegetation, and how these efforts focussed on areas of native vegetation that have the most value.	Refer to Section 5.1
6	A copy of any Property Vegetation Plan contained within an agreement made pursuant to section 69 of the *Conservation, Forests and Lands Act 1987* that applies to the native vegetation to be removed.	Not applicable
7	Where the removal of native vegetation is to create defendable space, a written statement explaining why the removal of native vegetation is necessary. This statement must have regard to other available bushfire risk mitigation measures. This statement is not required when the creation of defendable space is in conjunction with an application under the Bushfire Management Overlay.	Not applicable as the vegetation clearance is not for defendable space
8	If the application is under Clause 52.16, a statement that explains how the proposal responds to the Native Vegetation Precinct Plan considerations at decision guideline 8.	Not applicable as the application responds to Clause 52.17
9	An offset statement providing evidence that an offset that meets the offset requirements for the native vegetation to be removed has been identified and can be secured in accordance with the Guidelines.	Refer to Section 5.3 and Appendix 2 and 3

1 INTRODUCTION

1.1 Background

Ecology and Heritage Partners Pty Ltd was commissioned by Perkins Architects on behalf of Mount Waverley Childcare Pty Ltd to undertake a Biodiversity Assessment at 452-454 Waverley Road, Mount Waverley, Victoria. The study area east of Scotchman's Creek (452-454 Waverley Road, Mount Waverley) is being considered for the potential development of a childcare facility and the feasibility of the land for this purpose is being investigated. Urbis Pty Ltd has submitted a planning permit application for the development (TPA/52770) and Monash City Council has advised that further information is required under the provisions of Section 54 of the *Planning and Environment Act 1987* (Monash City Council Letter dated 7 July 2021). These conditions included a biodiversity assessment to identify existing native vegetation within the study area and the offset requirements associated with the removal of the vegetation.

The purpose of this assessment was to identify the extent and type of native vegetation present and summarise the ecological values known to, or likely to occur within the study area. This report presents the results of the assessment and discusses the potential ecological and legislative implications associated with the proposed development based on the site plans provided (TP03 – Design Response 20210524).

1.2 Study Area

The study area is located at 444-454 Waverley Road, Mount Waverley, Victoria, approximately 30 kilometres south-east of Melbourne's CBD. The study area (Lot 1 PS84935) is triangular and covers approximately 1.9 hectares and is bound by Waverley Road to the north and residential development to all other sides (Figure 1). The proposed development is for a two-storey Childcare Centre and Café with an entrance off Anthony Drive and parking underneath in the Basement at 454 Waverley Rd, while the section of the study area at 444 Waverley Rd has already been developed into an aged-care facility. The study area is relatively flat with no ridges or crests. However, it is divided diagonally from the north-east to the south-west by a relatively deeply incised creek corridor (Scotchman's Creek). An existing aged care facility is located on the western side of the creek, while the eastern side comprises an undeveloped area of open space with modified native and planted vegetation.

According to the Department of Environment, Land, Water and Planning (DELWP) NatureKit Map (DELWP 2021a), the study area is located within the Gippsland Plain bioregion, Port Phillip and Westernport Catchment Management Authority (CMA) and Monash City Council.

The following zoning and overlays apply to the study area under the Monash City Council Planning Scheme:

- Neighbourhood Residential Zone – Schedule 2 (NRZ2);
- Land Subject to Inundation Overlay (LSIO) – Schedule 1 (VPO1);
- Vegetation Protection Overlay – Schedule 1 (VPO1).

As the study area is covered by a Vegetation Protection Overlay – Schedule 1 (VPO1), under the Monash City Council Planning Scheme (DTPLI 2015; Urbis 2021), the scope of works includes identification of all non-indigenous vegetation relevant to the VPO1.

Under the VPO trees over 10 metres high and with a circumference of 50 cm (16 cm diameter) or greater at 1.2 metres from the ground are required to be noted. There are a few exceptions for non- native tree species including some Willows, some Pines, Alders, Desert Ash, Sweet Pittosporum. Dead vegetation is also exempt under the VPO as is vegetation that presents an immediate risk of causing property damage or personal injury, The following report also includes a section on high-threat and noxious weeds to provide the basis for a weed management plan for Scotchman's Creek in order to meet Melbourne Water conditions for the site. Note: the entire study area is also identified as an area of Aboriginal Cultural Heritage Sensitivity, however, this aspect is not considered within the scope of works of this report.

2 METHODS

2.1 Desktop Assessment

Relevant literature, online-resources and databases were reviewed to provide an assessment of flora and fauna values associated with the study area. The following information sources were reviewed:

- The DELWP NatureKit Map (DELWP 2021a) and Native Vegetation Information Management (NVIM) Tool (DELWP 2021b) for:
    - Modelled data for location risk, native vegetation patches, scattered trees and habitat for rare or threatened species; and,
    - The extent of historic and current Ecological Vegetation Classes (EVCs).
- EVC benchmarks (DELWP 2021c) for descriptions of EVCs within the relevant bioregion;
- The Victorian Biodiversity Atlas (VBA) for previously documented flora and fauna records within the project locality (DELWP 2020);
- The Illustrated Flora Information System of Victoria (IFLISV) (Gullan 2017) and Atlas of Living Australia (ALA) (ALA 2021) for assistance with the distribution and identification of flora species;
- The Commonwealth Department of Agriculture, Water and the Environment (DAWE) Protected Matters Search Tool (PMST) for matters of National Environmental Significance (NES) protected under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) (DAWE 2021);
- Relevant listings under the Victorian *Flora and Fauna Guarantee Act 1988* (FFG Act), including the latest Threatened (DELWP 2019a) and Protected (DELWP 2019b) Lists;
- The online VicPlan Map (DELWP 2021d) to ascertain current zoning and environmental overlays in the study area;
- Aerial photography of the study area; and
- Previous ecological assessments relevant to the study area; including;
    - Low Risk-based Pathway Biodiversity Assessment – 444-454 Waverley Road, Mount Waverley. Ecology and Heritage Partners 2015 (EHP 2015).
    - Arborists report for 452-454 Waverley Road, Mt Waverley Childcare, prepared by Galbraith & Associates Pty Ltd. 28 January 2021.

2.2 Field Assessment

A field assessment was undertaken on 20 August 2021 to obtain information on flora and fauna values within the study area. The study area was walked, with all commonly observed vascular flora and fauna species recorded, significant records mapped, and the overall condition of vegetation and habitats noted. Ecological Vegetation Classes (EVCs) were determined with reference to DELWP pre-1750 and extant EVC mapping (DELWP 2021a) and their published descriptions (DELWP 2021c). The study area was previously assessed by Ecology and Heritage Partners on the 31 July 2015. The purpose of that assessment was to map and record the quality and quantity of remnant vegetation, identify flora and fauna habitat values, and provide detailed information with regard to the distribution and abundance of weeds throughout the site. (EHP 2015).

2.3 Removal, Destruction or Lopping of Native Vegetation (the Guidelines)

Under the *Planning and Environment Act 1987,* Clause 52.17 of the Monash Planning Scheme requires a planning permit to remove, destroy or lop native vegetation. The assessment process for the clearing of vegetation follows the '*Guidelines for the removal, destruction or lopping of native vegetation*' (the Guidelines) (DELWP 2017). The '*Assessor's handbook: Applications to remove, destroy or lop native vegetation*' (Assessor's handbook) (DELWP 2018) provides clarification regarding the application of the Guidelines (DELWP 2017).

2.3.1 Assessment Pathway

The Guidelines manage the impacts on biodiversity from native vegetation removal using an assessment-based approach. Two factors – extent risk and location category – are used to determine the risk associated with an application for a permit to remove native vegetation. The location category (1, 2 or 3) has been determined for all areas in Victoria and is available on DELWP's NVIM Tool (DELWP 2021b). Determination of assessment pathway is summarised in Table 1.

Table 1. Assessment pathways for applications to remove, destroy or lop native vegetation (DELWP 2017).

Extent		Location		
		1	2	3
Native Vegetation	Less than 0.5 hectares and not including any large trees	Basic	Intermediate	Detailed
	Less than 0.5 hectares and including one or more large trees	Intermediate	Intermediate	Detailed
	0.5 hectares or more	Detailed	Detailed	Detailed

Notes: For the purpose of determining the assessment pathway of an application to remove native vegetation the extent includes any other native vegetation that was permitted to be removed on the same contiguous parcel of land with the same ownership as the native vegetation to be removed, where the removal occurred in the five year period before an application to remove native vegetation is lodged.

2.3.2 *Vegetation Assessment*

Native vegetation (as defined in Table 2) is assessed using two key parameters: extent (in hectares) and condition. For the purposes of this assessment, both condition and extent were determined as part of the habitat hectare assessment.

Table 2. Determination of a patch of native vegetation (DELWP 2017).

Category	Definition	Extent	Condition
Patch of native vegetation	An area of vegetation where at least 25 per cent of the total perennial understorey plant cover is native; OR An 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 DELWP systems and tools.	Measured in hectares. Based on hectare area of the native patch.	Vegetation Quality Assessment Manual (DSE 2004). Modelled condition for *Current Wetlands*.
Scattered tree	A native canopy tree that does not form part of a native patch.	Measured in hectares. Each Large scattered tree is assigned an extent of 0.071 hectares (15m radius). Each Small scattered tree is assigned a default extent of 0.031 hectares (10 metre radius)	Scattered trees are assigned a default condition score of 0.2 (outside a patch).

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

2.3.3 *Impact Avoidance and Minimisation*

All applications to remove native vegetation must demonstrate the three-step approach of avoid, minimise and offset. This is a precautionary approach that aims to ensure that the removal of native vegetation is restricted to what is reasonably necessary, and that biodiversity is appropriately compensated for any native vegetation removal that is approved.

2.3.4 *Offsets*

Biodiversity offsets are required to compensate for the permitted removal of native vegetation. Offset obligations and offset site criteria are determined in accordance with the Guidelines (DELWP 2017) and are divided into two categories, being General Habitat Units and Species Habitat Units.

The offset requirements for native vegetation removal are calculated by DELWP and presented in a Native Vegetation Removal (NVR) Report, which are based on the vegetation condition scores determined during the biodiversity assessment.

2.4 Assessment Qualifications and Limitations

This report has been written based on the quality and extent of the ecological values and habitat considered to be present or absent at the time of the field assessments being undertaken.

The field assessment was undertaken during a sub-optimal season for the identification of flora and fauna species (i.e. autumn/winter). The 'snapshot' nature of a standard biodiversity assessment, along with sub-optimal timing of the survey, meant that migratory, transitory or uncommon fauna species may have been absent from typically occupied habitats at the time of the field assessment. In addition, annual or cryptic flora species such as those that persist via underground tubers may also be absent.

A comprehensive list of all terrestrial flora and fauna present within the study area was not undertaken as this was not the objective of the assessment. Rather a list of commonly observed species was recorded to assist in determining the broader biodiversity values present within the study area.

Ecological values identified within the study area were recorded using a hand-held GPS or tablet with an accuracy of +/-5 metres. This level of accuracy is considered to provide an accurate assessment of the ecological values present within the study area; however, this data should not be used for detailed surveying purposes.

The terrestrial flora and fauna data collected during the field assessment and information obtained from relevant desktop sources is considered to adequately inform an accurate assessment of the ecological values present within the study area.

3 RESULTS

3.1 Vegetation condition

One patch of native vegetation, Valley Heathy Forest (EVC 127) and 13 scattered indigenous trees were recorded within the study area. The remainder of the study area comprised introduced and planted vegetation, present as pasture grass and ornamental gardens. A list of all flora species recorded during the field assessment are provided in Appendix 1.1. The presence of this EVC is generally consistent with the modelled pre-1750s native vegetation mapping (DELWP 2021c), as the study area would have historically been dominated by Swampy Riparian Woodland (EVC 83) within the Scotchman's Creek corridor and immediate floodplain as well as Valley Heathy Forest (EVC 127) at higher elevations (DELWP 2015a). The Swampy Riparian Woodland EVC is now absent from the study area as the remaining vegetation has been highly modified and weeds have replaced natives so that the vegetation no longer meets the 25% cover of native species required to be considered a patch. Both EVCs have a Bioregional Conservation Status of Endangered within the Gippsland Plain bioregion. Specific details relating to the observed Valley Heathy Forest EVC are provided below. Terrestrial vegetation throughout the remainder of the study area is characterised by a regularly mown lawn of introduced grasses east of Scotchman's Creek that contains a range of scattered trees including indigenous, native and introduced species. The scattered trees also extend along the northern boundary of Waverley Rd and around the north-eastern car parking area.

3.1.1 Valley Heathy Forest

Valley Heathy Forest (EVC 127) is characterised by open forest vegetation of Eucalyptus species which usually provide 30% canopy cover and is generally characterised by Yellow Box *Eucalyptus melliodora*, Bundy *Eucalyptus goniocalyx*, Silverleaf Stringybark *Eucalyptus cephalocarpa*, and Messmate Stringybark *Eucalyptus obliqua*, and understory of shrubs, tufted graminoids, and herbs, including Cherry Ballart *Exocarpus cupressiformis,* Common Cassinia *Cassinia aculeata*, Common Rice-flower *Pimelea humilis*, Thatch Saw-sedge *Gahnia radula,* and Kangaroo Grass *Themeda triandra.*

One small patch (approximately 0.04 hectares) of native vegetation corresponding to the Valley Heathy Forest (EVC 127) was recorded within the study area (Figure 2). The patch occurs in close association with the southern end of Scotchman's Creek and is characterised by indigenous mixed aged Yellow Box *Eucalyptus melliodora* trees with planted Black Wattle *Acacia mearnsii,* Hedge Wattle *Acacia paradoxa* and Hop Goodenia *Goodenia ovata* (Plate 1 and Plate 2). A small number of native understorey species are also present including, wallaby grasses *Rytidosperma* spp. and Common Tussock-grass *Poa labillardierei,* however, the percentage cover of native species is low and species diversity is poor.

Based on the proposed development works this remnant patch will not be impacted or disturbed as part of the proposed construction of the child-care facility. However, the proposed upgrades to the Scotchman's Creek Trail (shown in Figure 2 as part of the development footprint), that Council are designing which involve the path extending adjacent to the creek within the study area (Urbis 2021) will transect a section of this native patch and so impact native vegetation and require offsets.

Plate 1: Valley Heathy Forest vegetation (EVC 127) at the southern end of Scotchman's Creek

Plate 2: Valley Heathy Forest vegetation (EVC 127) at the southern end of Scotchman's Creek

3.1.2 Swampy Riparian Woodland

Swampy Riparian Woodland (EVC 83) is characterised by an open (20%) woodland canopy of Eucalyptus species to 15 m tall, usually in areas alongside streams. Swampy Riparian Woodland vegetation no longer occurs as a patch within the study area as the remaining vegetation has been modified and has a large cover of weed species, so it no longer meets the minimum 25% cover of native species to be considered a patch. Some species characteristic of this EVC are still present within the study area especially alongside Scotchman's Creek including Swamp Gum *Eucalyptus ovata*, Blackwood *Acacia melanoxylon*, Swamp Paperbark *Melaleuca ericifolia*, Sweet Bursaria *Bursaria spinosa,* and Kidney Weed *Dichondra repens.*

The study area is also characterised by the Scotchman's Creek corridor, which is highly modified and channelized at its northern end where it emerges from the culvert under Waverley Road (Plate 2). The creek-line is deeply incised in parts and bank stabilisation works have occurred in many places as evidenced by the presence of rock chutes (Plate 3). Riparian vegetation is restricted to a narrow band along the length of the corridor and is dominated by introduced species, particularly within the northern half of the creek and at lower elevations (Plate 4). Scattered individuals and small areas of indigenous species persist instream and on the immediate creek edges, including Slender Knotweed *Persicaria decipiens,* Water Ribbons *Triglochin procerum* and rushes *Juncus* spp. However, weed species such as Creeping Buttercup *Ranunculus repens,* Wandering Trad *Tradescantia fluminensis* and Angled Onion *Allium triquetrum* dominate most of the corridor. Weed species are discussed in greater detail in Section 4.4 and Section 7.

Plate 3: Culvert with highly modified banks

Plate 4: Rock chutes midway along the creek

Although there have been substantial revegetation efforts on both banks of the creek line (e.g. Blackwood *Acacia melanoxylon,* Black Wattle, Hedge Wattle and Hop Goodenia at higher elevations), the cover of indigenous species remains relatively low throughout most of the creek line and the majority of the vegetation has therefore not been included as part of a remnant patch.

Heavily mulched and manicured garden beds on the south-western side of the creek, containing native species such as Dwarf Limelight *Acacia cognata,* Westringia *Westringia* sp., Creeping Boobialla *Myoporum parvifolium,* Cut-leaf Daisy *Brachyscome multifida,* Knobby Club-sedge *Ficinia nodosa* and Tall Sedge *Carex appressa,* have also been excluded from the assessment. Two small clumps of Swamp Paperbark *Melaleuca ericifolia* are also present along the creek, which are likely to have naturally recruited, however, these small discrete areas were considered too small and weedy to qualify as a remnant patch.

3.2 Large Trees in Patches

No large trees in patches were recorded within the study area. Six indigenous Yellow Box *Eucalyptus melliodora* trees were recorded within the patch of native vegetation, however these were all only in the medium or small size class (Appendix 1.4) and none of these trees or the patch are set to be impacted by the proposed development.

3.3 Scattered Indigenous Trees

A total of 13 scattered indigenous trees were recorded within the study area (Figure 2; Appendix 1). Scattered indigenous trees include Yellow Box, Swamp Gum *Eucalyptus ovata* subsp. *ovata* and Manna Gum *Eucalyptus viminalis* subsp. *viminalis.* The majority of trees are in moderate to good health and most fall within the Medium Old Tree (MOT) size class.

Based on the site plan for the construction of the Child-Care Facility, two scattered indigenous trees (tree 2, and tree 60) are proposed for removal as part of the development (Figure 2; Plate 5 and 6; Appendix 1 and 2). Tree 60 is in poor health.

A further three scattered indigenous trees (tree 3, 4 and 5) are within the development area but are proposed to be retained. If these trees have greater than 10% of their Tree Protection Zone (TPZ) impacted by the development, then they may be lost (Figure 2) and would require offsetting.

Plate 3: Tree 60 which is set to be removed

Plate 4: Tree 2 which is set to be removed

3.4 Vegetation (Trees) relevant to the Vegetation Protection Overlay

A total of 39 native, though non-indigenous, trees are also present throughout the study area, which are relevant to the overarching Vegetation Protection Overlay (VPO) (Appendix 1). Under the Monash Planning Scheme, a permit is required to remove or destroy any vegetation that has a trunk circumference greater than 500 mm (160 mm diameter) at 1200mm above ground level and, is higher than 10 metres. Most trees relevant to the VPO are relatively densely concentrated within the northern section of the study area, with additional scattered individuals around the north-eastern carpark along both sides of Scotchman's Creek and among the open lawn area (Figure 2). Almost half of the trees relevant to the VPO are large Spotted Gums *Corymbia maculata,* although an additional eight species were also identified including, Southern Mahogany *Eucalyptus botryoides,* Narrow-leaved Black Peppermint *Eucalyptus nicholii,* Sydney Blue-gum *Eucalyptus saligna,* Red Ironbark *Eucalyptus sideroxylon* and Forest Red-gum *Eucalyptus tereticornis* (Plate 7; Appendix 1).

Based on the proposed development footprint for the childcare facility, 35 of the 39 native but not indigenous trees relevant to the VPO are set to be retained, with two trees to be removed (tree 61 and tree 83), and a further two trees (tree 62 and tree 107) marked as retain if possible. If the development footprint will impact 10% of their Tree Protection Zones then they may be impacted and would need to be considered lost.

Plate 7: Scattered trees in the north-east of the study area, including Spotted Gums that are relevant to the Vegetation Protection Overlay (VPO).

3.5 Introduced Vegetation and High Threat Weeds

With exception of a small number of canopy trees and a range of planted native shrubs along the creek line, the majority of the study area comprises introduced vegetation, including:

- Flora species native to Victoria yet growing outside their natural range, such as Sweet Pittosporum *Pittosporum undulatum* and Cootamundra Wattle *Acacia baileyana*;
- Three Weeds of National Significance (WoNS) including Blackberry *Rubus fruticosus spp. agg*., Montpellier Broom *Genista monspessulana* and Flax-leaf Broom *Genista linifolia* (AWC 2012), and a further six declared noxious weeds including, Angled Onion, Fennel *Foeniculum vulgare,* Hemlock *Conium maculatum,* Soursob *Oxalis pes-caprae,* Spear Thistle *Cirsium vulgare* and Variegated Thistle *Silybum marianum* (Table 3);
- A wide range of grassy and herbaceous weeds, such as Kikuyu *Cenchrus clandestinus*, Panic Veldt-grass *Ehrharta erecta var. erecta*, Annual Veldt-grass *Ehrharta longiflora*, Couch *Cynodon dactylon var. dactylon*, Cape weed *Arctotheca calendula*, Toowoomba Canary-grass *Phalaris aquatica,* Wall Fumitory *Fumaria muralis subsp. muralis* and Common Sow-thistle *Sonchus oleraceus*;
- A small range of common garden plants, such as Agapanthus *Agapanthus praecox,* Montpellier Broom and a large Variegated Century-plant *Agave* sp. growing among a roughly landscaped pile of rocks; and,
- Planted trees, such as Desert Ash *Fraxinus angustifolia*.

Point locations for high threat and noxious weed species identified within the study area are shown on Figure 2 and an overview of key species is provided in Table 3. Please note: the weed list presented below is not comprehensive and concentrates primarily on those species found within the creek corridor as it is our understanding that this area will be subject to a weed control program. Furthermore, the site is highly modified and contains many common weed species such as Onion Weed *Romulea rosea* and Cat's Ear *Hypochoeris radicata*, which in the context of this project are unlikely to be successfully controlled long-term.

Table 3. Noxious, High Threat and other key weed species identified within the study area.

Scientific Name	Common Name	Status	Extent of outbreak
Acacia baileyana	Cootamundra Wattle	Invasive native species	Minor – 2 isolated plants
Allium triquetrum	Angled Onion	Restricted Noxious Weed (CaLP Act)	**Severe** outbreaks in north and throughout creek
Callitriche stagnalis	Water Starwort	Low Risk aquatic weed (DSE 2008a)	Minor 1-2 plants instream
Cirsium vulgare	Spear Thistle	Regionally Controlled Noxious Weed (CaLP Act)	Minor outbreak – north western bank
Conium maculatum	Hemlock	Restricted Noxious Weed (CaLP Act)	Minor – north eastern bank
Cotoneaster sp.	Cotoneaster	High Risk Weed (DSE 2008b)	Minor – 1 plant in lawn area
Cyperus eragrostis	Drain Flat-sedge	Moderately High Risk Weed (DSE 2008b)	Minor – Scattered plants instream and on banks
Egeria densa	Dense Waterweed	Very High Risk aquatic weed (DSE 2008)	Minor - 2 plants noted instream - potential to spread
Foeniculum vulgare	Fennel	Restricted Noxious Weed (CaLP Act)	Minor – Small number of plants on northern creek banks
Genista linifolia	Flax-leaf Broom	Weed of National Significance (AWC 2012)	Minor – 1 plant noted on north-west bank
Genista monspessulana	Montpellier Broom	Weed of National Significance (AWC 2012)	Moderate – many plants on north-west bank
Gladiolus sp.	Gladioli	High Risk Weed (DSE 2008b)	Minor – 1 plant located midway along creek
Osteospermum fruticosum	Shrubby Daisy	Lower Risk Weed (DSE 2008b)	Minor – 1 plant located midway along creek
Oxalis pes-caprae	Soursob	Restricted Noxious Weed (CaLP Act)	Minor – occurrences along creek banks
Pittosporum undulatum	Sweet Pittosporum	Very High Risk Weed (DSE 2008b)	Minor – 2 plants in lawn area
Ranunculus repens	Creeping Buttercup	Very High Risk Weed (DSE 2008b)	**Severe** outbreaks in north and throughout creek corridor
Rubus fruticosa spp. agg.	Blackberry	Weed of National Significance (AWC 2012)	Minor – 2 small outbreaks on each side of creek
Silybum marianum	Variegated Thistle	Regionally Controlled Noxious Weed (CaLP Act)	Minor – small outbreak on north-east creek bank
Solanum nigrum	Nightshade	Lower Risk Weed (DSE 2008b)	Minor – Scattered occurrences along creek banks
Tradescantia fluminensis	Wandering Trad	Very High Risk Weed (DSE 2008b)	**Severe** outbreaks along creek corridor
Verbena bonariensis	Purpletop	Lower Risk Weed (DSE 2008b)	Minor – 1 plant noted at southern end of creek

3.6 Fauna Habitat

Valley Heathy Forest vegetation within the study area provides moderate quality habitat to common native fauna, however, is not considered to provide important or limiting habitat for any State or Commonwealth-listed species. Nevertheless, the large number of scattered gum trees provides a very good nectar source that would attract many common native bird species in the immediate area. Although many of the trees are large, few if any were observed to contain hollows, although some of the trees are likely to contain fissures that may provide habitat niches for microbats and the trees are likely to be regularly used by range of native arboreal mammals, such as possums. Possum drays were observed in some of the trees along the eastern side of Scotchman's Creek, however these trees are set to be retained.

Introduced and planted vegetation also provides suitable habitat for a small range of common fauna species, both native and introduced (e.g. Noisy Miner *Manorina melanocephala*, Willie Wagtail *Rhipidura leucophrys* and Little Raven *Corvus mellori*).

A rock pile exists in the central north of the open-lawn area with scattered weed species and one small native eucalypt, which may also provide limited habitat for reptiles.

Although the creek line is in relatively poor condition with a high cover of weeds and a low state of naturalness for much of its length, the structure of vegetation is relatively complex, largely as a result of substantial revegetation efforts that have established many shrubs and understorey trees. The Scotchman's Creek corridor therefore provides moderate habitat for a range of common fauna species and acts as a contiguous wildlife corridor. No frogs or evidence of yabbies, or freshwater crayfish were observed, although many common bird species such as Rainbow Lorikeet *Trichoglossus moluccanus* and Grey-headed Butcherbird *Cracticus torquatus* were utilising trees within the corridor and several native duck species were observed within the creek including Chestnut Teal *Anas castanea* and Australian Wood Duck *Chenonetta jubata*.

3.7 Significance Assessment

Based on the highly modified habitat present within the study area, landscape context (highly isolated) and the proximity of previous records, no National and State significant flora and fauna species are considered likely to occur within the study area, with the exception of the Grey-headed Flying Foxes *Pteropus poliocephalus* which likely utilise some of the trees for food. This species is highly mobile, travelling long distances to feed so the removal of these four trees will not impact on it.

3.7.1 Flora

The VBA contains records of 7 Nationally significant and45 State significant flora species previously recorded within 10 kilometres of the study area (DELWP 2020) (Figure 3). The PMST nominated an additional 10 nationally significant species which have not been previously recorded but have the potential to occur in the locality (DAWE 2021) (Figure 3).

No National or State significant flora were recorded during the site assessment, and based on the modified nature of the study area, landscape context and the proximity of previous records, significant flora species are considered unlikely to occur within the study area due to the and high levels of disturbance and absence of suitable habitat.

3.7.1 Fauna

The VBA contains records of 18 Nationally significant and 41 State significant fauna species previously recorded within 10 kilometres of the study area (DELWP 2020) (Figure 4). The PMST nominated an additional 5 nationally significant species which have not been previously recorded but have the potential to occur in the locality (DAWE 2021) (Figure 4).

Based on the modified nature of the study area, landscape context and the proximity of previous records, significant fauna species are considered unlikely to rely on habitat within the study area for foraging or breeding purposes due to the lack of suitable and/or important habitat.

No significant fauna species were identified during the field survey. Although there are many records for national, state and regionally listed fauna species within a 10 kilometre radius of the study area, including Regent Honeyeater *Anthochaera Phrygia*, Dwarf Galaxias *Galaxiella pusilla,* Hardhead *Aythya australis*, Eastern Great Egret *Ardea modesta* and Latham's Snipe *Gallinago hardwickii,* the records are concentrated around Dandenong Valley Parklands several kilometres to the east. Grey-headed Flying-fox *Pteropus poliocephalus,* Swift Parrot *Lathamus discolour* may visit the site infrequently or opportunistically.

3.7.2 Ecological Communities

Two nationally listed ecological communities are predicted to occur within 10 kilometres of the study area (DAWE 2021):

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

However, vegetation within the study area did not meet the condition thresholds that define any national or State-significant communities due to the absence of key indicator species, the low diversity of native flora and high cover of exotic vegetation.

A further six native but non-indigenous trees relevant to the VPO (Appendix 1.3) are required to be removed as part of the proposed development of the site. Although these trees are not considered under the Biodiversity Assessment Guidelines and therefore formal offsets do not apply for their removal, an application must still be made to Council to remove any vegetation relevant to the VPO and informal offsets may be expected to compensate for the loss. In this instance, informal offsets generally involve the planting of an equivalent number of trees as lost, which can generally be included as part of the future landscape plan for the site.

3.8 Removal, Destruction or Lopping of Native Vegetation (the Guidelines)

The below clearing scenario is based on the proposed development footprint for the Child Care Facility.

3.8.1 Vegetation proposed to be removed

Nine scattered trees and one patch of native vegetation, as defined by the Guidelines (2017), were identified within the study area. However, only two of the scatted trees are proposed to be removed and a further three are proposed to be retained if possible, with the remainder proposed to be retained. The study area is within Location 1, with 0.102 hectares of native vegetation proposed to be removed. As such, the permit application falls under the Intermediate Assessment Pathway (Table 4).

Condition scores for vegetation proposed to be removed are based on modelled scores available in the NVIM system (DELWP 2021b).

Table 4. Removal of Native Vegetation (the Guidelines) (DELWP 2017).

Assessment pathway	Intermediate
Location Category	1
Total Extent (past and proposed) (ha)	0.102
Extent of past removal (ha)	0.00
Extent of proposed removal (ha)	0.102
Large Trees (scattered and in patches) to be removed (no.)	1
Small scattered trees to be removed (no.)	1
EVC Conservation Status of vegetation to be removed	Endangered (Valley Heathy Forest)

3.8.2 Offset Targets

The offset requirement for native vegetation removal is 0.018 General Habitat Units and 1 Large Tree

A summary of proposed vegetation losses and associated offset requirements is presented in Table 3 and the Native Vegetation Removal (NVR) is presented in Appendix 3.

Table 3. Offset Targets.

General Offsets Required	0.018 General Habitat Units
Large Trees	1
Vicinity (catchment/council)	Port Phillip and Westernport CMA / Monash City Council
Minimum Strategic Biodiversity Value*	0.152

*The minimum Strategic Biodiversity Value is 80% of the weighted average score across habitat zones where a General offset is required.

4 LEGISLATIVE AND POLICY IMPLICATIONS

4.1 *Environment Protection and Biodiversity Conservation Act 1999* (Commonwealth)

The EPBC Act establishes a Commonwealth process for the assessment of proposed actions likely to have a significant impact on any matters of National Environment Significance (NES). No EPBC Act listed flora and fauna species, or ecological communities recorded during the field assessment, or considered likely to occur, due to the highly modified condition of the study area. The proposed action is highly unlikely to have a significant impact on any matter of NES. As such, a referral to the Commonwealth Environment Minister is unlikely to be required regarding matters listed under the EPBC Act.

4.2 *Flora and Fauna Guarantee Act 1988* (Victoria)

The FFG Act is the primary legislation dealing with biodiversity conservation and sustainable use of native flora and fauna in Victoria. Proponents are required to apply for an FFG Act Permit to 'take' threatened and/or protected flora species, listed vegetation communities and listed fish species in areas of public land (e.g. within road reserves, drainage lines and public reserves/parks). An FFG Act permit is generally not required for removal of species or communities on private land, or for the removal of habitat for a listed terrestrial fauna species.

No FFG Act listed flora and fauna species, or vegetation communities, were recorded during the field assessment, or are considered likely to occur due to the highly modified condition of the study area. The proposed childcare facility will also be located on private land. A permit under the FFG Act will therefore not be required.

4.3 *Planning and Environment Act 1987* (Victoria)

The *Planning and Environment Act 1987* outlines the legislative framework for planning in Victoria and for the development and administration of planning schemes. All planning schemes contain native vegetation provisions at Clause 52.17, which requires a planning permit from the relevant local Council to remove, destroy or lop native vegetation, unless an exemption at Clause 52.17-7 of the Victoria Planning Provisions applies.

4.3.1 Local Planning Scheme

The study area is located within the Monash City Council. The following zoning and overlays apply (DELWP 2021d):

- Neighbourhood Residential Zone – Schedule 2 and Schedule 3 (NRZ2 and NRZ3)
- Land Subject to Inundation Overlay (LSIO)
- Vegetation Protection Overlay – Schedule 1 (VPO1)

The study area is also within an 'area of cultural heritage sensitivity' as defined under the Aboriginal Heritage Regulations 2018. The north-eastern corner of the study area is also in a bushfire prone area.

4.3.2 *The Guidelines*

The State Planning Policy Framework and the decision guidelines at Clause 12.01 Biodiversity and Clause 52.17 Native Vegetation require Planning and Responsible Authorities to have regard for the Guidelines (DELWP 2017).

4.3.3 *Implications*

The study area is within Location 1, with 0.102 hectares of native vegetation proposed to be removed and one large scattered tree and one small scattered tree. As such, the permit application falls under the Intermediate assessment pathway.

The offset requirement for native vegetation removal is 0.018 General Habitat Units and 1 Large Trees.

A planning permit from the Monash City Council is required to remove, destroy or lop any native vegetation under Clause 52.17 A permit will also be required to remove any vegetation (i.e. native or exotic) under Clause 42.03 (SLO1). In this instance, the application is not required to be referred to DELWP.

4.4 *Catchment and Land Protection Act 1994* (Victoria)

Six weeds listed as noxious under the *Catchment and Land Protection Act 1994* were recorded during the assessment including three Weeds of National Significance (WoNS) including Blackberry *Rubus fruticosus spp. agg*., Montpellier Broom *Genista monspessulana* and Flax-leaf Broom *Genista linifolia* (AWC 2012), and a further six declared noxious weeds including, Angled Onion, Fennel *Foeniculum vulgare,* Hemlock *Conium maculatum,* Soursob *Oxalis pes-caprae,* Spear Thistle *Cirsium vulgare* and Variegated Thistle *Silybum marianum* (Table 3);

Similarly, there is evidence that the study area is currently occupied by several pest fauna species listed under the CaLP Act, including European Rabbit *Oryctotagus cuniculus,* and Red Fox *Vulpes vulpes*). Listed noxious weeds/pests should be appropriately controlled throughout the study area

4.5 *Wildlife Act 1975* and Wildlife Regulations 2013 (Victoria)

The *Wildlife Act 1975* (and associated Wildlife Regulations 2013) is the primary legislation in Victoria providing for protection and management of wildlife. Authorisation for habitat removal may be obtained under the *Wildlife Act 1975* through a licence granted under the *Forests Act 1958*, or under any other Act such as the *Planning and Environment Act 1987*. Any persons engaged to remove, salvage, hold or relocate native fauna during construction must hold a current Management Authorisation under the *Wildlife Act 1975*, issued by DELWP.

4.6 *Water Act 1989* (Victoria)

Scotchman's Creek divides the study area diagonally from the north-east to south-west. A 'works on waterways' permit from the Port Phillip and Westernport CMA is likely to be required where any action impacts on waterways within the study area. Additionally, if any structures are to be installed within or across waterways that potentially interfere with the passage of fish or the quality of aquatic habitat, these activities should be referred to DELWP with the Port Phillip and Westernport CMA included for comment.

5 MITIGATION MEASURES

5.1 Avoid and Minimise Statement

The proposed design of the Childcare Facility with Café and Basement Parking has been designed to avoid the native vegetation within the study area, with only two native trees set to be removed (Trees 2 and 60). Under the proposed development footprint fewer native trees will be impacted compared to the previous proposed development footprint for an aged care facility (dwp|suters dated 21/08/2015). This reduction in impact to vegetation is due to a smaller footprint and also a shift in the footprint from the southern section of the study area to the northern section. Previously, non-indigenous trees relevant to the VPO were not impacted by the development footprint, under the new development footprint a few more trees relevant under the VPO will be impacted but less native trees.

Most of the trees relevant to the VPO are set to be retained under the new development footprint and two others are retain if possible.

The current proposal considers the one patch of native vegetation and most scattered trees on Figure 2 are being retained. The proponent does not intend to remove any trees unless necessary. The following actions will be followed by the proponent during the construction phase:

- The proponent will ensure that as many individual trees are retained as possible.
- All attempts to minimise root damage and retain trees within the study area will be undertaken. This will primarily be done by fencing trees to be retained prior to construction beginning.
- Development of any kind, including direct and indirect works, will not occur within 15 metres of trees set to be retained.

In the context of the development, the modified condition of ecological values proposed to be impacted, and the extent of native vegetation proposed to be retained and enhanced within the study area, it is considered that the minimisation measures implemented are appropriate in this instance.

5.2 Best Practice Mitigation Measures

Recommended measures to mitigate impacts upon terrestrial and aquatic values present within the study area may include:

- Minimise impacts to native vegetation and habitats through construction and micro-siting techniques, including fencing retained areas of native vegetation. If indeed necessary, trees should be lopped or trimmed rather than removed.
- All contractors should be aware of ecologically sensitive areas to minimise the likelihood of inadvertent disturbance to areas marked for retention. Native vegetation (areas of sensitivity) should be included as a mapping overlay on any construction plans;
- Tree Protection Zones (TPZs) should be implemented to prevent indirect losses of native vegetation during construction activities (DSE 2011). A TPZ applies to a tree and is a specific area above and below the ground, with a radius 12 x the Diameter at Breast Height (DBH). At a minimum standard a TPZ should consider the following:

- A TPZ of trees should be a radius no less than two metres or greater than 15 metres;
- Construction, related activities and encroachment (i.e. earthworks such as trenching that disturb the root zone) should be excluded from the TPZ;
- Where encroachment is 10% or more of the total area of the TPZ, the tree should be considered as lost and offset accordingly (unless an arboricultural report specifies otherwise);
- Directional drilling may be used for works within the TPZ without being considered encroachment. The directional bore should be at least 600 millimetres deep;
- The above guidelines may be varied if a qualified arborist confirms the works will not significantly damage the tree (including stags / dead trees). In this case the tree would be retained, and no offset would be required; and,
- Where the minimum standard for a TPZ has not been met an offset may be required.

- Removal of any habitat trees or shrubs (particularly hollow-bearing trees or trees/shrubs with nests) should be undertaken between February and September to avoid the breeding season for most fauna species. If any habitat trees or shrubs are proposed to be removed, this should be undertaken under the supervision of an appropriately qualified zoologist to salvage and translocate any displaced fauna. A Fauna Management Plan may be required to guide the salvage and translocation process;
- Where possible, construction stockpiles, machinery, roads, and other infrastructure should be placed away from areas supporting native vegetation and Large Trees;
- Ensure that best practice sedimentation and pollution control measures are undertaken at all times, in accordance with Environment Protection Authority guidelines (EPA 1991; EPA 1996; Victorian Stormwater Committee 1999) to prevent offsite impacts to waterways and wetlands; and,
- As indigenous flora provides valuable habitat for indigenous fauna, it is recommended that any landscape plantings that are undertaken as part of the proposed works are conducted using indigenous species sourced from a local provenance, rather than exotic deciduous trees and shrubs.

5.3 Offset Impacts and Strategy

According to DELWPs Native Vegetation Offset Register (DELWP 2021e), there are more than 20 offset sites within the Port Phillip and Westernport CMA or Monash City Council region that can be used to satisfy the General Habitat Unit and Large tree offset requirements.

An offset register search statement identifying the relevant offsite sites is provided in Appendix 3.

6 VEGETATION PROTECTION OVERLAY – SCHEDULE 1 APPLICATION REQUIREMENTS

Schedule 1 to the Vegetation Protection Overlay (VPO1) aims to conserve significant treed environments and ensure that new development complements the Garden City Character of the neighbourhood.

A Planning Permit from Monash City Council is required to remove or destroy any native vegetation that:

- Has a trunk circumference greater than 500mm (160mm diameter) at 1200mm above ground level, and,
- Is higher than 10 metres.

This does not apply to dead vegetation, Willows, Radiata or Monterey Pines, Evergreen Alders, Sweet Pittosporum and Desert Ash.

A planning permit is not required if the vegetation presents an immediate risk of personal injury or damage to property and only that part of vegetation which presents the immediate risk is removed, destroyed or lopped, or as otherwise allowed under the requirements of the Vegetation Protection Overlay of the Monash Planning Scheme (Clause 42.02).

A checklist of the VPO1 application requirements for the proposed development is provided below (Table 5).

Table 5. VPO1 application requirements

Decision Guideline	Further Action
Before deciding on an application to remove or destroy vegetation, the responsible authority must consider, as appropriate: • The reason for removing or destroying the vegetation and the practicality of alternative options which do not require removal or destruction of vegetation. • The practicality and benefits of relocating significant vegetation. • The condition and quality of the vegetation.	An application to remove or destroy vegetation must be accompanied by the following information: • A plan showing the location of the vegetation to be removed or destroyed. • The type and quality of the vegetation to be removed or destroyed. • The justification for the proposed removal or destruction. • A statement of alternatives examined to removal or destruction. An application to remove or destroy vegetation in conjunction with development of the land must be accompanied by a site analysis plan and a written statement demonstrating how the removal or destruction of the vegetation is essential for the proposed development to proceed, including an assessment of alternative design solutions for retaining the vegetation

7 WEED MANAGEMENT

The general locations of individual weed infestations are shown on Figure 2. Weed control activities will be strategically employed and species dependent (Appendix 1.3). Given the proposal to develop most of the terrestrial/elevated section of the study area, the following weed management targets effectively apply only to the creek-line and are intended to address the requirements of the previous Melbourne Water condition to improve the condition and integrity of vegetation within and along Scotchman's Creek. Any recommended weed management techniques are general guidelines/principles only and should be applied adaptively, dependent on current conditions and contractor experience. The following targets are recommended:

- Eliminate woody environmental weeds (cover reduced to <1%). This goal should be achievable for all woody species (e.g. Pittosporum, Broom species, Cotoneaster and Blackberry);
- As only small numbers of Hemlock, Fennel, Spear Thistle, Shrubby Daisy, Purpletop and Nightshade were identified within the study area, these species are considered possible to eradicate from the creek corridor, although follow up surveys should be conducted along the entire creek section to ensure there are no new recruits in succeeding years (Appendix 3);
- Control all remaining noxious or CaLP Act listed environmental within intensive weed control (cover reduced to <1% if possible or <5%) throughout corridor (e.g. Angled Onion, Creeping Buttercup, Soursob, Variegated Thistle, Wandering Trad;
- Remove all aquatic weeds such as Drain Flat-sedge, Dense Waterweed and Water Starwort with aim of eradication;
- All remaining herbaceous and graminoid weed species are to be controlled at or below current levels with competitive planting along creek banks of native species such as Common Tussock-grass;
- Weed control should be conducted in a manner that minimises soil disturbance;
- Where herbicide application is employed, waterway sensitive products and non-residual herbicides are to be employed;
- Pest plants that reproduce sexually (by seed) are best controlled before seed set;
- Weed species capable of vegetative (asexual) reproduction must be carefully disposed of following treatment;
- Weed control works should be monitored regularly to assess their effectiveness, perform follow up works and evaluate the feasibility of management objectives.

In consultation with the ecologist responsible for monitoring and reporting, the nominated contractor undertaking weed control works will make appropriate decisions on which technique to use based on site specific situations. It is likely that several control methods will be required, including spraying, physical removal, hand pulling, and cutting and painting. A broad summary of weed control protocols is provided in Appendix 1.3).

8 FURTHER REQUIREMENTS

Further requirements associated with development of the study area are summarised below (Table 6).

Table 6. Further requirements associated with development of the study area

Relevant Legislation	Implications	Further Action
Environment Protection and Biodiversity Conservation Act 1999	The *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) establishes a Commonwealth process for the assessment of proposed actions (i.e. project, development, undertaking, activity, or series of activities) likely to have a significant impact on matters of National Environment Significance (NES), or those that are undertaken on Commonwealth Land. No EPBC Act listed flora and fauna species, or ecological communities recorded during the field assessment, or considered likely to occur, due to the highly modified condition of the study area. The proposed action is considered unlikely to have a significant impact on any matter of NES. As such, a referral to the Commonwealth Environment Minister is unlikely to be required regarding matters listed under the EPBC Act	No further action required.
Flora and Fauna Guarantee Act 1988	No FFG Act listed flora and fauna species, and vegetation communities, or protected flora species, were recorded during the field assessment, or are considered likely to occur due to the highly modified condition of the study area. The proposed childcare facility will also be located on private land. An FFG Act permit is therefore not required.	No further action required.
Planning and Environment Act 1987	A Planning Permit from Monash City Council is required to remove or disturb any native vegetation. Monash City Council will likely be the referral authority. Any Planning Permit application to Monash City Council must address requirements of VPO1. The responsible authority may consider the biodiversity objectives of the Native Vegetation Plan. Any development within the study area should incorporate these objectives.	Prepare and submit a Planning Permit application. Planning Permit conditions are likely to include: • A Intermediate Pathway Application (Biodiversity Assessment) for proposed native vegetation removal. • Requirements to address VPO1 • A Construction Environment Management Plan (CEMP).
Catchment and Land Protection Act 1994	Ten weeds listed under the CaLP Act (including several Weeds of National Significance) were recorded within the study area. To meet requirements under the CaLP Act, listed noxious weeds should be appropriately controlled throughout the study area.	Listed noxious weeds should be appropriately controlled throughout the study area to minimise their spread and impact on ecological values
Water Act 1989	A 'works on waterways' permit is likely to be required from the Port Phillip and Westernport CMA where any action impacts on waterways within the study area.	Obtain a 'works on waterways' permit from Port Phillip and Westernport CMA for any works within the creek corridor.
Wildlife Act 1975	Any persons engaged to conduct salvage and relocation, or general handling of terrestrial fauna species must hold a current Management Authorisation.	Ensure wildlife specialists hold a current Management Authorisation.

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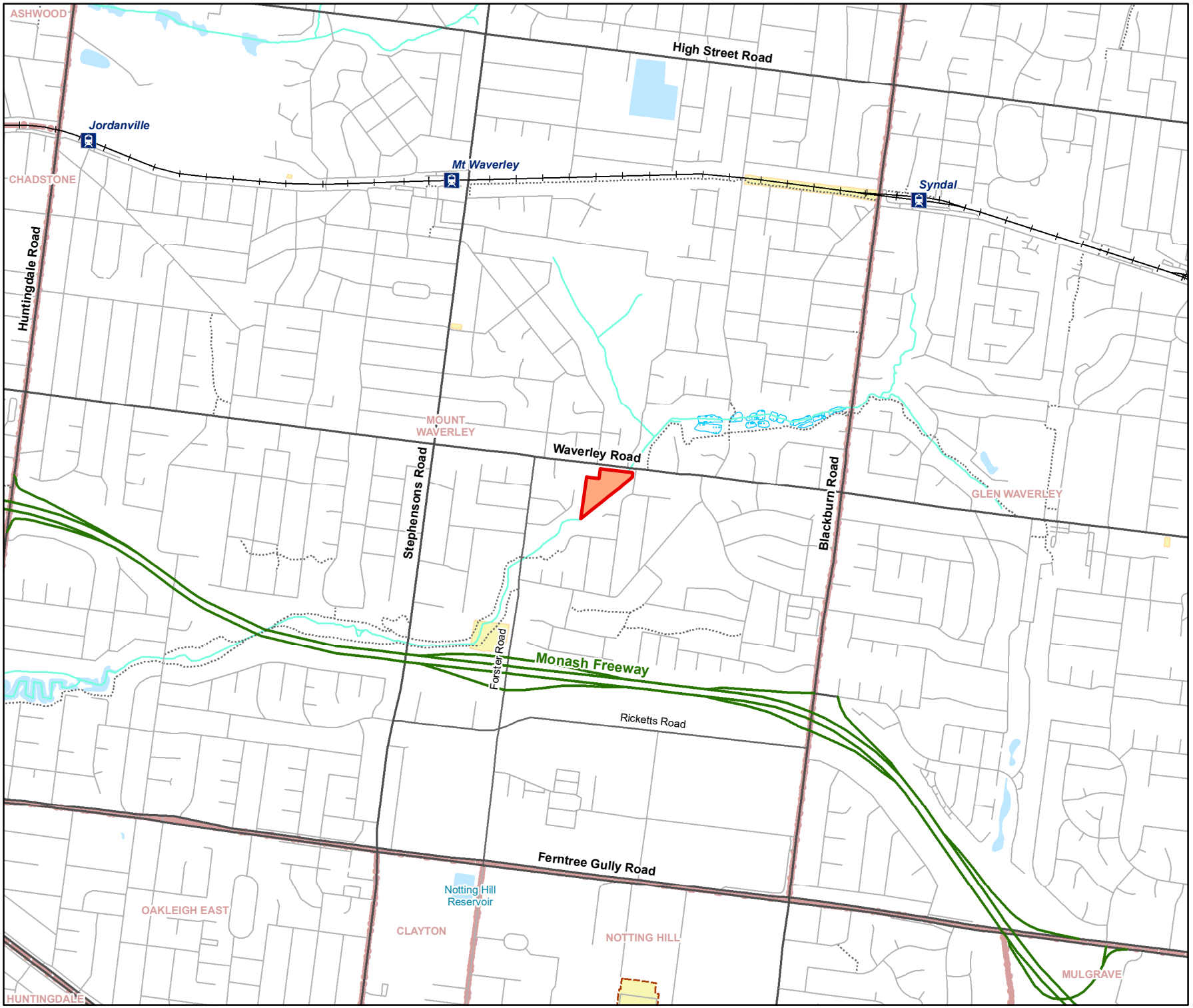
FIGURES



Legend

- Study Area
- Railway
- Freeway
- Major Road
- Collector Road
- Minor Road
- Walking Track
- Minor Watercourse
- Permanent Waterbody
- Wetland/Swamp
- Crown Land
- Localities

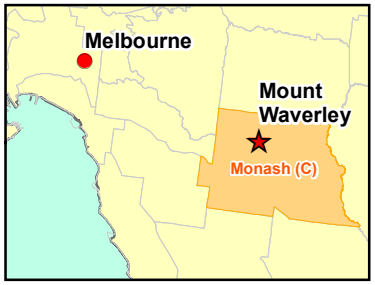


Figure 1

Location of the study area

Biodiversity Assessment for 444-454 Waverley Road, Mount Waverley

N

0 250 500

Metres

ecology & heritage partners

15427_Fig01_StudyArea_fr7113 10/09/2021 psorensen

Legend

- Study Area
- Development features
- Development area
- Non-indigenous trees relevant to VPO
- Indigenous trees
- Tree to be removed

Ecological Vegetation Class

- Valley Heathy Forest (EVC 127)

Weeds

- Angled Onion
- Blackberry
- Cootamundra Wattle
- Cotoneaster
- Creeping Buttercup
- Dense Waterweed
- Drain Flat-sedge
- Flax-leaf Broom
- Gladiolus
- Hemlock
- Montpellier Broom
- Nightshade
- Purpletop
- Shrubby Daisy
- Soursob
- Spear Thistle
- Sweet Pittosporum
- Variegated Thistle
- Wandering Trad
- Water Starwort

Figure 2

Ecological features

Biodiversity Assessment for 444-454 Waverley Road, Mount Waverley

N

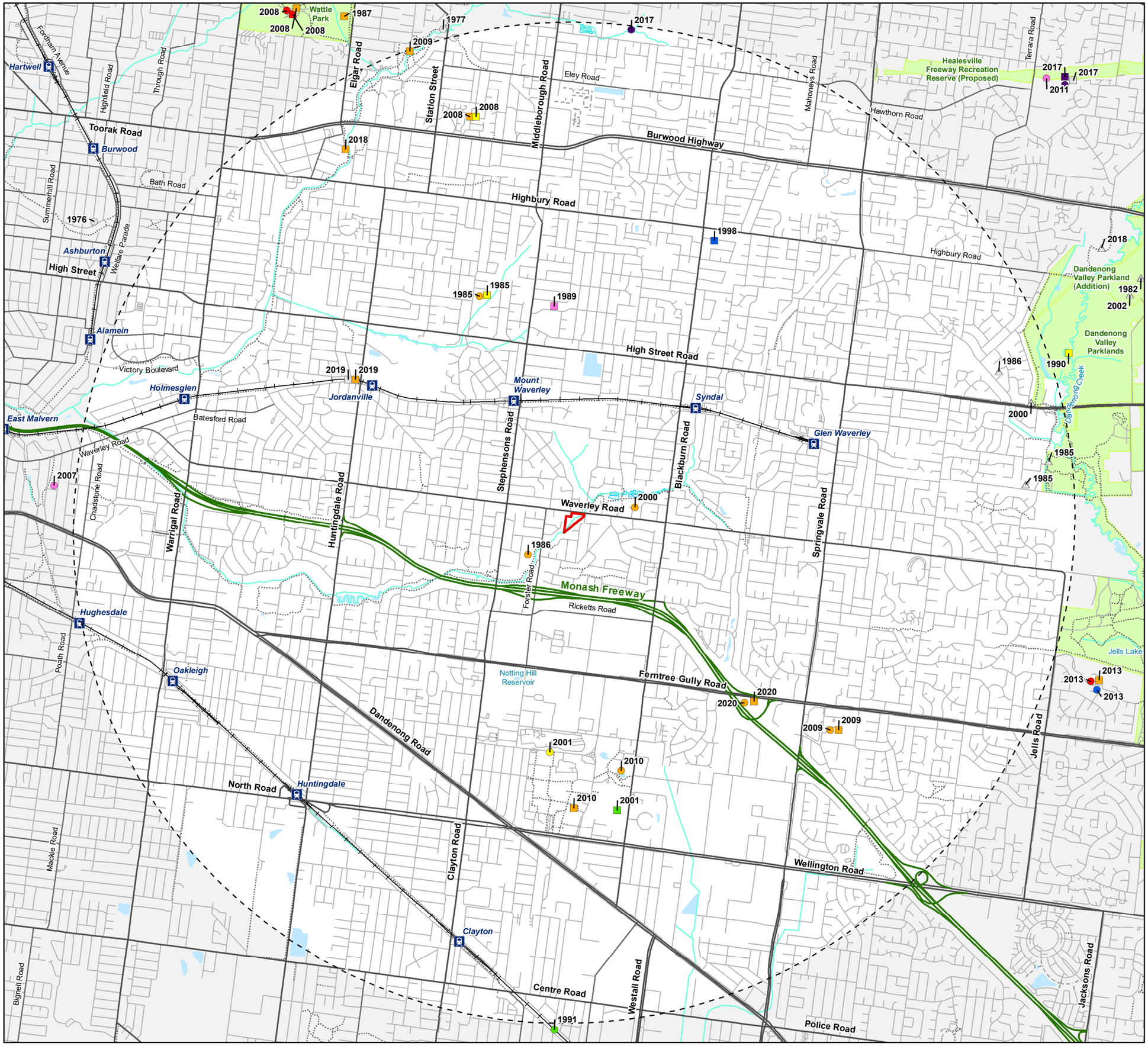
0 15 30

Metres

ecology & heritage partners

15427_Fig02_EcoFeat 13/10/2021 psorensen

Aerial source: Nearmap 2021



Legend

Study Area

Significant flora

- Basalt Peppercress
- Coast Grey-box
- Giant Honey-myrtle
- Green-leaf Mallee
- Grey Billy-buttons
- Large-fruit Yellow-gum
- Melbourne Yellow-gum
- Mugga
- Snowy River Wattle
- Southern Blue-gum
- Spotted Gum
- Sticky Wattle
- Studley Park Gum
- Tufted Hair-grass
- Velvet Apple-berry
- Violet Westringia
- Yarra Gum

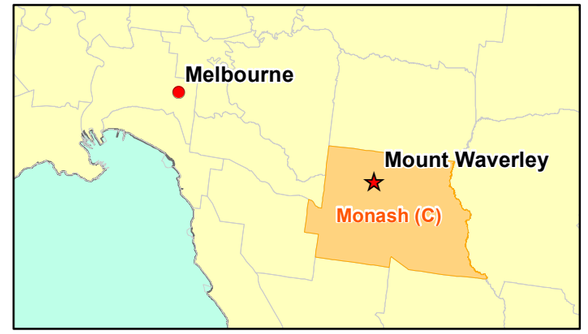


Figure 3

Previously documented significant flora within 5km of the study area

Biodiversity Assessment for 444-454 Waverley Road, Mount Waverley

N

0 1 2

Kilometres

ecology & heritage partners

Legend

- Study Area

Significant fauna

- Australasian Bittern
- Australasian Shoveler
- Australian Little Bittern
- Australian Painted-snipe
- Black Falcon
- Blue-billed Duck
- Caspian Tern
- Common Sandpiper
- Eastern Great Egret
- Foothill Burrowing Crayfish
- Freckled Duck
- Grey Goshawk
- Grey-crowned Babbler
- Grey-headed Flying-fox
- Growling Grass Frog
- Hardhead
- Lewin's Rail
- Little Eagle
- Little Egret
- Major Mitchell's Cockatoo
- Murray River Turtle
- Musk Duck
- Platypus
- Plumed Egret
- Powerful Owl
- Regent Honeyeater
- Sooty Owl
- Southern Brown Bandicoot
- Southern Toadlet
- Superb Parrot
- Swift Parrot
- White-bellied Sea-Eagle
- White-throated Needletail
- Yellow-bellied Sheathtail Bat

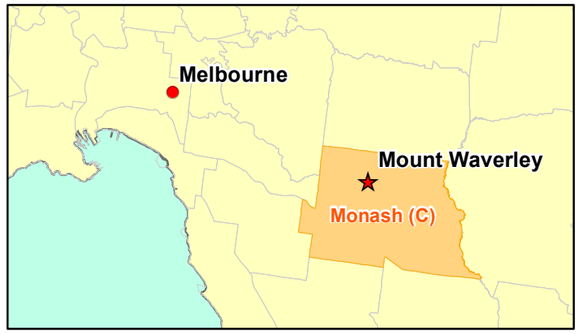


Figure 4

Previously documented significant fauna within 5km of the study area

Biodiversity Assessment for 444-454 Waverley Road, Mount Waverley

N

0 1 2

Kilometres

ecology & heritage partners

APPENDIX 1: FLORA

Appendix 1.1: Flora Results

Legend:

CR/EN/VU Listed as Critically Endangered/Endangered/Vulnerable under the EPBC Act;

L Listed as threatened under the FFG Act (DELWP 2019a);

I Protected under the FFG Act (DELWP 2019b);

e/v/r Listed as endangered/vulnerable/rare in Victoria under the Advisory List of Rare or Threatened Plants in Victoria (DEPI 2014);

***** Listed as a noxious weed under the CaLP Act;

w Weed of National Significance;

****** Planted indigenous species in the study area;

+ Planted indigenous species that also occur in native vegetation in the study area;

Planted Victorian and non-Victorian species.

Table A1.1. Flora within the study area.

Scientific Name	Common Name	Notes
INDIGENOUS SPECIES		
Acacia mearnsii	Black Wattle	-
Acacia melanoxyon	Blackwood	-
Acacia paradoxa	Hedge Wattle	-
Allocasuarina littoralis	Black She-oak	-
Bursaria spinosa	Sweet Bursaria	-
Eucalyptus melliodora	Yellow Box	-
Eucalyptus ovata var. ovata	Swamp Gum	-
Eucalyptus viminalis subsp. viminalis	Manna Gum	-
Exocarpus cupressiformis	Cherry Ballart	-
Dianella sp.	Flax Lily	-
Goodenia ovata	Hop Goodenia	-
NON-INDIGENOUS OR INTRODUCED SPECIES		
Acacia baileyana	Cootamundra Wattle	-
Cotoneaster sp.	Cotoneaster	-
Acacia elata	Mountain Cedar Wattle	-
Corymbia maculata	Spotted Gum	-
Eucalyptus nicholii	Narrow-leaved Black Peppermint	-
Eucalyptus saligna	Sydney Blue-gum	-
Eucalyptus sideroxylon	Red Ironbark	-

Scientific Name	Common Name	Notes
Genista spp.	Broom species	-
Pittosporum undulatum	Sweet Pittosporum	-
Rubus fruticosus spp. agg.	Blackberry	W
Allium triquetrum	Angled Onion	-
Callitriche stagnalis	Water Starwort	-
Cirsium vulgare	Spear Thistle	-
Conium maculatum	Hemlock	-
Cyperus eragrostis	Drain Flat-sedge	-
Egeria densa	Dense Waterweed	-
Foeniculum vulgare	Fennel	-
Gladiolus sp.	Gladioli	-
Osteospermum fruticosum	Shrubby Daisy	-
Oxalis pes-caprae	Soursob	-
Ranunculus repens	Creeping Buttercup	-
Silybum marianum	Variegated Thistle	-
Solanum nigrum	Nightshade	-
Tradescantia fluminensis	Wandering Tradescantia	-

Appendix 1.2: Scattered Trees and Large Trees in Patches

Table A1.3. Scattered Trees and Large Trees in Patches.

Tree # (Figure 2)	Species Name	Common Name	Size Class	Scattered / Patch	VPO	Status
1	*Eucalyptus viminalis subsp. viminalis*	Manna Gum	MOT	Scattered Tree		Retention
2	***Eucalyptus ovata var. ovata***	**Swamp Gum**	**MOT**	**Scattered Tree**		**Removal**
3	*Eucalyptus viminalis subsp. viminalis*	Manna Gum	LOT	Scattered Tree		Retain if Possible
4	*Eucalyptus viminalis subsp. viminalis*	Manna Gum	MOT	Scattered Tree		Retain if Possible
5	*Eucalyptus viminalis subsp. viminalis*	Manna Gum	MOT	Scattered Tree		Retain if Possible
6	*Eucalyptus melliodora*	Yellow Box	MOT	Tree in Patch		Retention
7	*Eucalyptus melliodora*	Yellow Box	ST	Tree in Patch		Retention
8	*Eucalyptus melliodora*	Yellow Box	MOT	Tree in Patch		Retention
9	*Eucalyptus melliodora*	Yellow Box	MOT	Tree in Patch		Retention
10	*Eucalyptus melliodora*	Yellow Box	MOT	Scattered Tree		Retention
11	*Eucalyptus melliodora*	Yellow Box	ST	Tree in Patch		Retention
12	*Eucalyptus melliodora*	Yellow Box	LOT	Scattered Tree		Retention
27	*Eucalyptus melliodora*	Yellow Box	ST	Tree in Patch		Retention
54	*Eucalyptus viminalis subsp. viminalis*	Manna Gum	ST	Scattered Tree		Retention
60	***Eucalyptus viminalis subsp. viminalis***	**Manna Gum**	**LOT**	**Scattered Tree**		**Removal**
61	***Corymbia maculata***	**Spotted Gum**	**LOT**	**Scattered Tree**	**VPO**	**Removal**
62	*Eucalyptus nicholii*	Narrow-leaved Black Peppermint	MOT	Scattered Tree	VPO	Retain if Possible
63	*Corymbia maculata*	Spotted Gum	MOT	Scattered Tree	VPO	Retention

Tree # (Figure 2)	Species Name	Common Name	Size Class	Scattered / Patch	VPO	Status
64	*Eucalyptus botryoides*	Southern Mahogany	MOT	Scattered Tree	VPO	Retention
65	*Corymbia maculata*	Spotted Gum	LOT	Scattered Tree	VPO	Retention
66	*Eucalyptus botryoides*	Southern Mahogany	MOT	Scattered Tree	VPO	Retention
67	*Corymbia maculata*	Spotted Gum	LOT	Scattered Tree	VPO	Retention
68	*Corymbia maculata*	Spotted Gum	MOT	Scattered Tree	VPO	Retention
69	*Eucalyptus botryoides*	Southern Mahogany	MOT	Scattered Tree	VPO	Retention
71	*Corymbia maculata*	Spotted Gum	ST	Scattered Tree	VPO	Retention
72	*Corymbia maculata*	Spotted Gum	ST	Scattered Tree	VPO	Retention
73	*Eucalyptus botryoides*	Southern Mahogany	MOT	Scattered Tree	VPO	Retention
74	*Eucalyptus botryoides*	Southern Mahogany	MOT	Scattered Tree	VPO	Retention
75	*Corymbia maculata*	Spotted Gum	MOT	Scattered Tree	VPO	Retention
76	*Eucalyptus botryoides*	Southern Mahogany	MOT	Scattered Tree	VPO	Retention
77	*Eucalyptus nicholii*	Narrow-leaved Black Peppermint	ST	Scattered Tree	VPO	Retention
78	*Acacia elata*	Mountain Cedar Wattle	n/a	Scattered Tree	VPO	Retention
79	*Eucalyptus botryoides*	Southern Mahogany	ST	Scattered Tree	VPO	Retention
80	*Eucalyptus botryoides*	Southern Mahogany	ST	Scattered Tree	VPO	Retention
81	*Eucalyptus botryoides*	Southern Mahogany	ST	Scattered Tree	VPO	Retention
82	*Corymbia maculata*	Spotted Gum	ST	Scattered Tree	VPO	Retention
83	***Eucalyptus nicholii***	**Narrow-leaved Black Peppermint**	**ST**	**Scattered Tree**	**VPO**	**Removal**
84	*Eucalyptus botryoides*	Southern Mahogany	MOT	Scattered Tree	VPO	Retention
86	*Eucalyptus ovata var. ovata*	Swamp Gum	ST	Scattered Tree		Retention
87	*Eucalyptus saligna*	Sydney Blue-gum	VLOT	Scattered Tree	VPO	Retention

Tree # (Figure 2)	Species Name	Common Name	Size Class	Scattered / Patch	VPO	Status
88	*Eucalyptus sideroxylon*	Red Ironbark	MOT	Scattered Tree	VPO	Retention
89	*Eucalyptus melliodora*	Yellow Box	LOT	Scattered Tree		Retention
90	*Corymbia maculata*	Spotted Gum	ST	Scattered Tree	VPO	Retention
91	*Corymbia maculata*	Spotted Gum	MOT	Scattered Tree	VPO	Retention
93	*Eucalyptus sideroxylon*	Red Ironbark	LOT	Scattered Tree	VPO	Retention
94	*Corymbia maculata*	Spotted Gum	VLOT	Scattered Tree	VPO	Retention
95	*Corymbia maculata*	Spotted Gum	ST	Scattered Tree	VPO	Retention
96	*Eucalyptus botryoides*	Southern Mahogany	ST	Scattered Tree	VPO	Retention
98	*Eucalyptus melliodora*	Yellow Box	ST	Scattered Tree		Retention
99	*Eucalyptus tereticornis*	Forest Red-gum	LOT	Scattered Tree	VPO	Retention
100	*Corymbia maculata*	Spotted Gum	MOT	Scattered Tree	VPO	Retention
101	*Corymbia maculata*	Spotted Gum	MOT	Scattered Tree	VPO	Retention
102	*Corymbia maculata*	Spotted Gum	MOT	Scattered Tree	VPO	Retention
104	*Corymbia maculata*	Spotted Gum	MOT	Scattered Tree	VPO	Retention
105	*Eucalyptus melliodora*	Yellow Box	ST	Scattered Tree		Retention
106	*Corymbia maculata*	Spotted Gum	MOT	Scattered Tree	VPO	Retention
107	*Corymbia maculata*	Spotted Gum	MOT	Scattered Tree	VPO	Retain if Possible
108	*Acacia mearnsii*	Black Wattle	n/a	Scattered Tree	n/a	Retention

Appendix 1.3: Weed Control Methods

Scientific Name	Common Name	Timing	Control Method	Aim	Location and comments*
Woody Weeds					
Acacia baileyana	Cootamundra Wattle	All year	CP/DF	Eradicate or Control	Only two plants. First plant will be removed as within developable footprint. Second plant occurs in the north-west corner of carpark and can potentially be retained as it is unlikely to spread. No impacts to native fauna expected from removal.
Cotoneaster sp.	Cotoneaster	All year	CP/DF	Eradicate	One plant earmarked for removal as within developable footprint
Genista spp.	Broom species	Autumn-early winter	HP/CP/SS	Eradicate	Scattered throughout. Follow up treatment important.
Pittosporum undulatum	Sweet Pittosporum	All year	CP/DF/HP	Eradicate	Plants removed as within developable footprint. No impacts to native fauna expected.
Rubus fruticosus spp. agg.	Blackberry	During growing season	CP/DF/SS/CP or dig out	Control in sections	Minor outbreaks in southern and northern ends of creek. Seedlings and small plants can be pulled or dug out when soils are moist. Follow up treatment essential for new recruits and vegetative regrowth. Insignificant outbreak therefore removal should not affect native fauna.
Herbaceous and Graminoid Weeds					
Allium triquetrum	Angled Onion	Late winter-spring	Dig out/SS	Control	Scattered throughout lower elevations of creek banks. Ideally treat plants in early flowering stage when bulbs are resource poor (Muyt 2001). Control should cause no impacts to native fauna.
Callitriche stagnalis	Water Starwort	All year	HP	Eradicate if possible	Only one plant noted - hand pull entire plant – bag and carefully dispose
Cirsium vulgare	Spear Thistle	Early spring	SS/Hoe	Control	Outbreak on north-western bank. Spot spray or hoe – follow up treatment for seedlings
Conium maculatum	Hemlock	Early spring	SS/HP	Eradicate	Small number of plants – spot spray or remove

Scientific Name	Common Name	Timing	Control Method	Aim	Location and comments*
Cyperus eragrostis	Drain Flat-sedge	All year	SS/HP	Control	Scattered along creek – hand pull within stream, bag and dispose with care. Spray plants on banks ideally before seed set.
Egeria densa	Dense Waterweed	All year	HP	Eradicate	Only one plant noted - hand pull entire plant – bag and dispose
Foeniculum vulgare	Fennel	Spring - summer	SS/Hoe	Control	Plants may be chipped out. Prevent flowering.
Gladiolus sp.	Gladioli	Early spring	HP	Eradicate	One plant noted and hand pulled at time of assessment.
Osteospermum fruticosum	Shrubby Daisy	All year	HP	Eradicate	One plant noted can be hand pulled
Oxalis pes-caprae	Soursob	Prior to flower – late autumn - early winter	SS	Control	Irregularly scattered throughout banks of creek. Spot Spray – repeat treatment will be required for several years to control. Hand removal is not recommended as it is likely to dislodge bulbils.
Ranunculus repens	Creeping Buttercup	All year	HP/SS	Control	Throughout entire creek line. Requires ongoing treatment to control. Removal unlikely to impact native fauna.
Silybum marianum	Variegated Thistle	Early spring	SS/Hoe	Control	Herbicide most effective at seedling and rosette stage. Tap root must be removed if hoeing.
Solanum nigrum	Nightshade	Spring	SS/HP	Control	Minor occurrences along creek corridor. Ideally treat before seed set
Tradescantia fluminensis	Wandering Tradescantia	Spring-Autumn	HP/SS	Control	Severe outbreaks present. May recolonise from fragmented stolons therefore careful disposal is required. Removal unlikely to impact native fauna.

APPENDIX 2: NATIVE VEGETATION REMOVAL (NVR) REPORT

Native vegetation removal report

A report to support an application to remove, destroy or lop native vegetation in the **Intermediate** Assessment Pathway using the modelled condition score

This report provides information to support an application to remove native vegetation in accordance with the *Guidelines for the removal, destruction or lopping of native vegetation*. The report is not an assessment by DELWP or local council of the proposed native vegetation removal. Biodiversity information and offset requirements have been calculated using modelled condition scores contained in the *Native vegetation condition map*.

Date and time: **01 October 2021 07:28 AM**

Lat./Long.: -37.8864314007627,145.135480379832

Address: 444-454 WAVERLEY ROAD MOUNT WAVERLEY 3149

Native vegetation report ID: 348-20211001-001

Assessment pathway

The assessment pathway and reason for the assessment pathway

Assessment pathway	**Intermediate Assessment Pathway**
Extent of past plus proposed native vegetation removal	0.102 hectares
No. large trees	1 large tree(s)
Location category	Location 1 The native vegetation is not in an area mapped as an endangered Ecological Vegetation Class, sensitive wetland or coastal area. Removal of less than 0.5 hectares will not have a significant impact on any habitat for a rare or threatened species.

Offset requirement

The offset requirement that will apply if the native vegetation is approved to be removed

Offset type	General offset
Offset amount	0.018 general habitat units
Offset attributes	
Vicinity	Port Phillip And Westernport Catchment Management Authority (CMA) or Monash City Council
Minimum strategic biodiversity value score	0.152
Large trees	1 large tree(s)

Biodiversity information about the native vegetation

Description of any past native vegetation removal

Any native vegetation that was approved to be removed, or was removed without the required approvals, on the same property or on contiguous land in the same ownership, in the five year period before the application to remove native vegetation is lodged is detailed below.

Permit/PIN number	Extent of native vegetation (hectares)
None entered	0 hectares

Description of the native vegetation proposed to be removed

Extent of all mapped native vegetation	0.102 hectares
Condition score of all mapped native vegetation	0.200
Strategic biodiversity value score of all mapped native vegetation	0.190
Extent of patches native vegetation	0.000 hectares
Extent of scattered trees	0.102 hectares
No. large trees within patches	0 large tree(s)
No. large scattered trees	1 large tree(s)
No. small scattered trees	1 small tree(s)

Additional information about trees to be removed, shown in Figure 1

Tree ID	Tree circumference (cm)	Benchmark circumference (cm)	Scattered / Patch	Tree size
A	235.6	220	Scattered	Large
B	194.8	220	Scattered	Small

Other information

Applications to remove, destroy or lop native vegetation must include all the below information. If an appropriate response has not been provided the application is not complete.

Photographs of the native vegetation to be removed

Recent, dated photographs of the native vegetation to be removed must be provided with the application. All photographs must be clear, show whether the vegetation is a patch of native vegetation or scattered trees, and identify any large trees. If the area of native vegetation to be removed is large, provide photos that are indicative of the native vegetation.

Ensure photographs are attached to the application. If appropriate photographs have not been provided the application is not complete.

Topographical and land information

Description of the topographic and land information relating to the native vegetation to be removed, including any ridges, crests and hilltops, wetlands and waterways, slopes of more than 20 percent, drainage lines, low lying areas, saline discharge areas, and areas of existing erosion, as appropriate. This may be represented in a map or plan. **This is an application requirement and your application will be incomplete without it.**

Avoid and minimise statement

This statement describes what has been done to avoid the removal of, and minimise impacts on the biodiversity and other values of native vegetation. **This is an application requirement and your application will be incomplete without it.**

Defendable space statement

Where the removal of native vegetation is to create defendable space, a written statement explaining why the removal of native vegetation is necessary. This statement must have regard to other available bushfire risk mitigation measures. This statement is not required if your application also includes an application under the Bushfire Management Overlay.

Offset statement

An offset statement that demonstrates that an offset is available and describes how the required offset will be secured. **This is an application requirement and your application will be incomplete without it.**

Next steps

Applications to remove, destroy or lop native vegetation must address all the application requirements specified in *Guidelines for the removal, destruction or lopping of native vegetation.*If you wish to remove the mapped native vegetation you are required to apply for a permit from your local council. This *Native vegetation removal report*must be submitted with your application and meets most of the application requirements. The following needs to be added as applicable.

Property Vegetation Plan

Landowners can manage native vegetation on their property in the longer term by developing a Property Vegetation Plan (PVP) and entering in to an agreement with DELWP.

If an approved PVP applies to the land, ensure the PVP is attached to the application.

Applications under Clause 52.16

An application to remove, destroy or lop native vegetation is under Clause 52.16 if a Native Vegetation Precinct Plan (NVPP) applies to the land, and the proposed native vegetation removal is not in accordance with the relevant NVPP. If this is the case, a statement that explains how the proposal responds to the NVPP considerations must be provided.

If the application is under Clause 52.16, ensure a statement that explains how the proposal responds to the NVPP considerations is attached to the application.

Authorised by the Victorian Government, 8 Nicholson Street, East Melbourne.

For more information contact the DELWP Customer Service Centre 136 186

www.delwp.vic.gov.au

Figure 1 – Map of native vegetation to be removed, destroyed or lopped

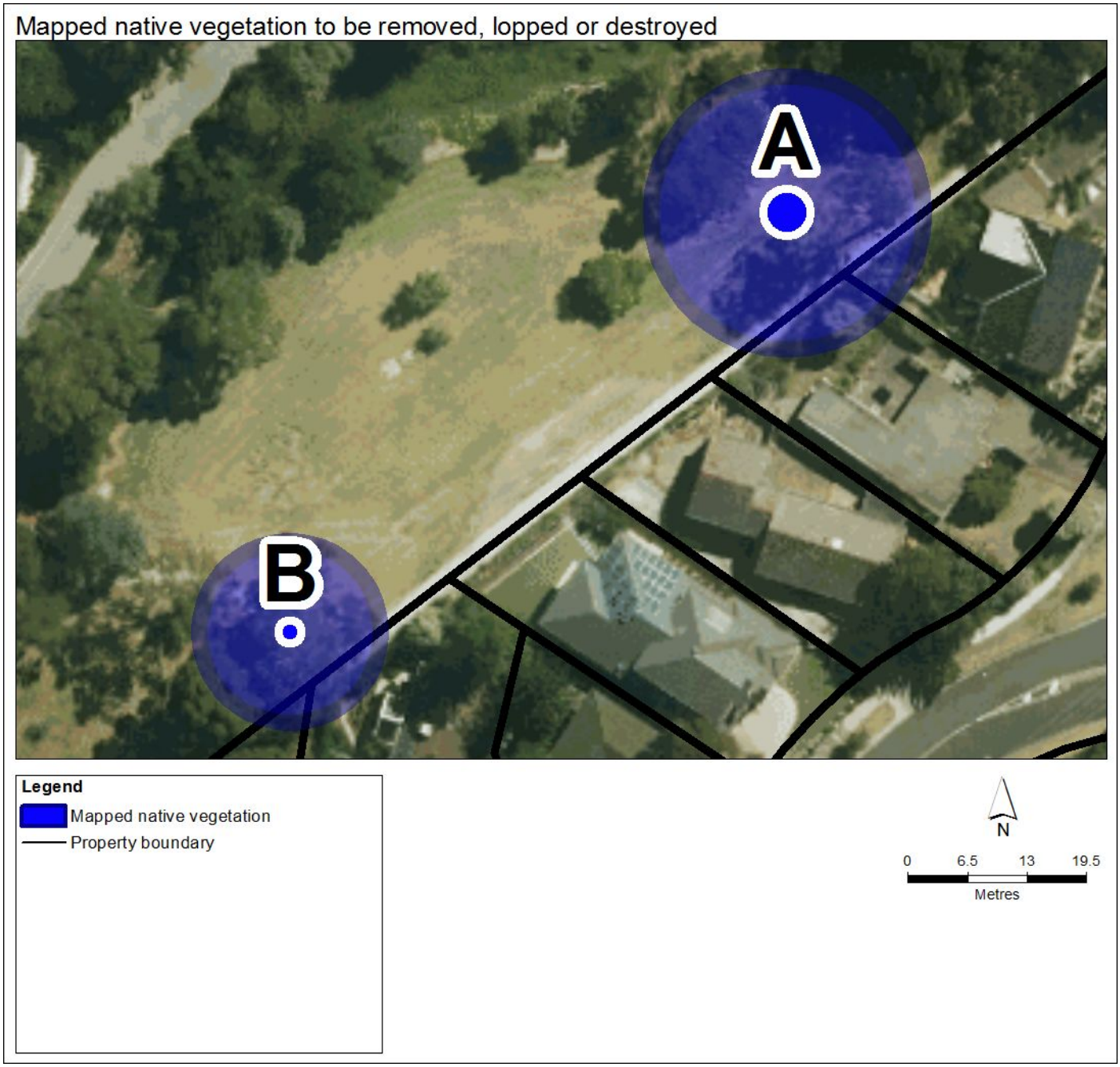


Figure 2 – Map of property in context

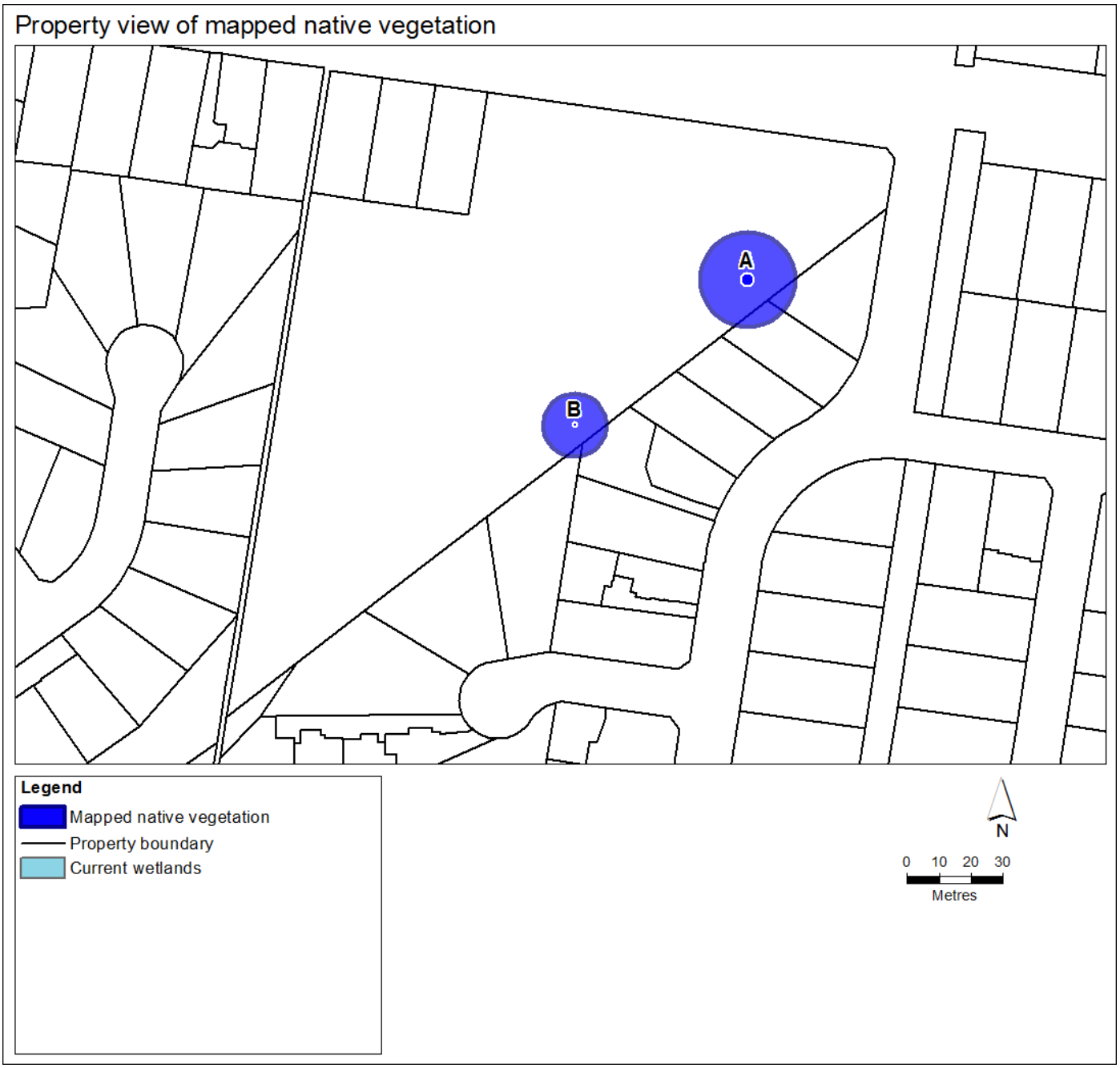
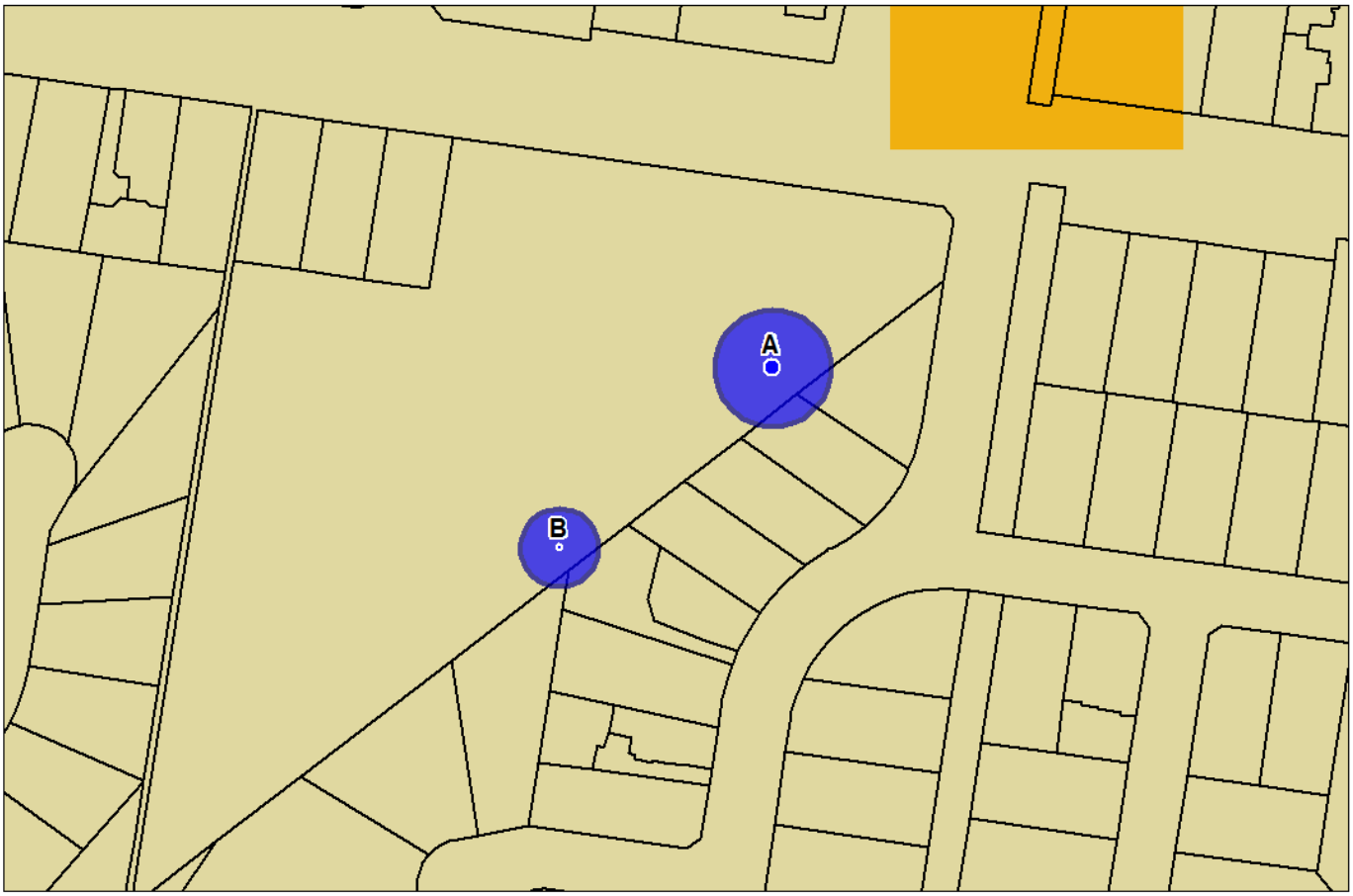


Figure 3 – Biodiversity information maps

Mapped native vegetation and the *Native vegetation location map*

Mapped native vegetation and the *Native vegetation condition map*



Legend

Mapped native vegetation

Property boundary

Native vegetation condition*

0.81 - 1.00

0.61 - 0.80

0.41 - 0.60

0.21 - 0.40

0.00 - 0.20

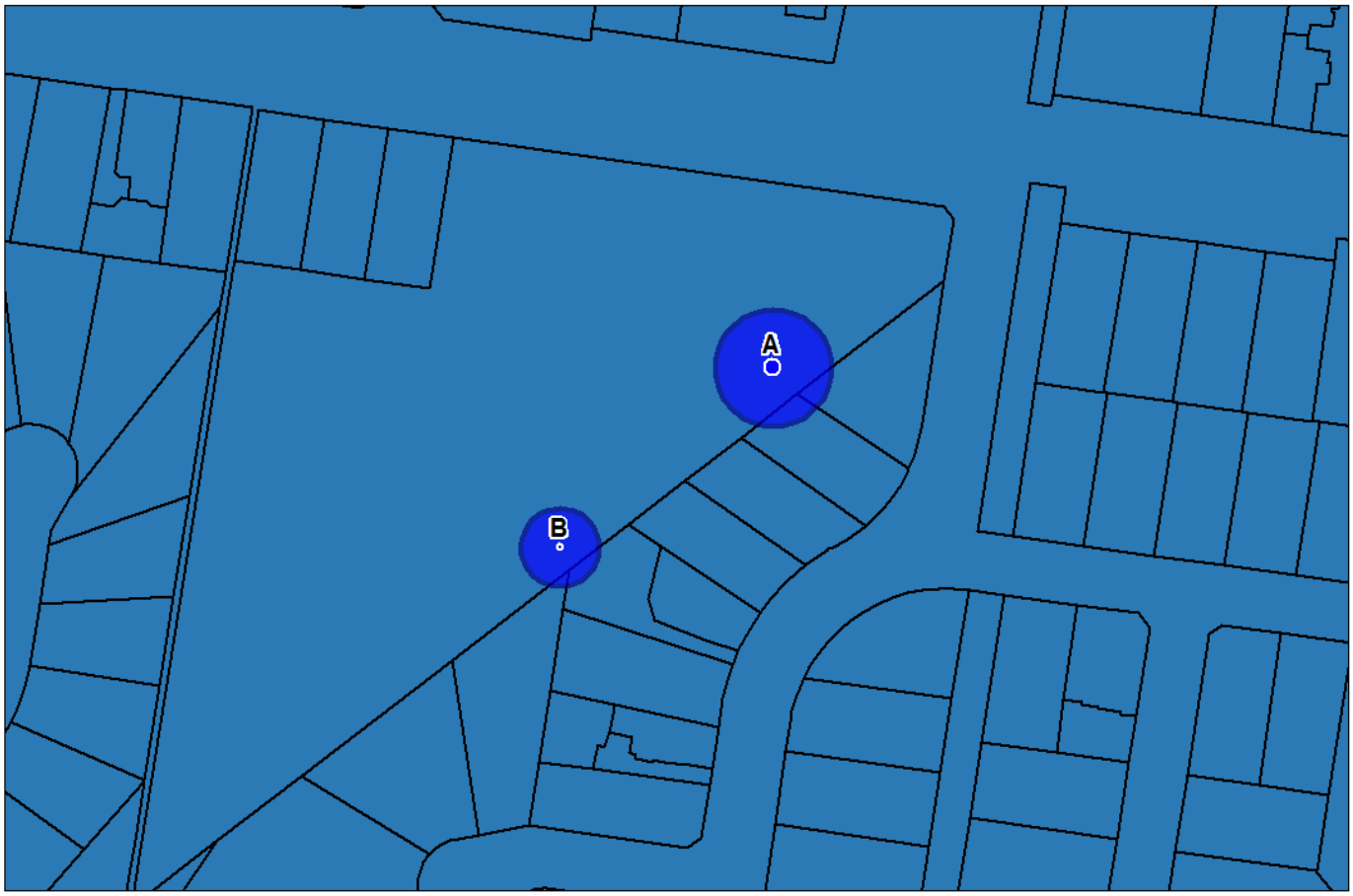
* These classes are for display purposes only

N

0 10 20 30

Metres

Mapped native vegetation and the *Strategic biodiversity value map*



Appendix 1 - Details of offset requirements

Native vegetation to be removed

Extent of all mapped native vegetation (for calculating habitat hectares)	0.102	The area of land covered by a patch of native vegetation and/or a scattered tree, measured in hectares. Where the mapped native vegetation includes scattered trees, each tree is assigned a standard extent and converted to hectares. A small scattered tree is assigned a standard extent defined by a circle with a 10 metre radius and a large scattered tree a circle with a 15 metre radius. The extent of all mapped native vegetation is an input to calculating the habitat hectares.
Condition score*	0.200	The condition score of native vegetation is a site-based measure that describes how close native vegetation is to its mature natural state. The condition score is the weighted average condition score of the mapped native vegetation calculated using the *Native vegetation condition map.*
Habitat hectares	0.020	Habitat hectares is a site-based measure that combines extent and condition of native vegetation. It is calculated by multiplying the extent of native vegetation by the condition score: ***Habitat hectares = extent x condition score***
Strategic biodiversity value score	0.190	The strategic biodiversity value score represents the complementary contribution to Victoria's biodiversity of a location, relative to other locations across the state. This score is the weighted average strategic biodiversity value score of the mapped native vegetation calculated using the *Strategic biodiversity value map*.
General landscape factor	0.595	The general landscape factor is an adjusted strategic biodiversity value score. It has been adjusted to reduce the influence of landscape scale information on the general habitat score.
General habitat score	0.012	The general habitat score combines site-based and landscape scale information to obtain an overall measure of the biodiversity value of the native vegetation. The general habitat score is calculated as follows: ***General habitat score = habitat hectares x general landscape factor***

* **Offset requirements for partial removal:** If your proposal is to remove parts of the native vegetation in a patch (for example only understorey plants) the condition score must be adjusted. This will require manual editing of the condition score and an update to the calculations that the native vegetation removal tool has provided: habitat hectares, general habitat score and offset amount.

Offset requirements

Offset type	General offset	A general offset is required when the removal of native vegetation does not have a significant impact on any habitat for rare or threatened species. All proposals in the Basic and Intermediate assessment pathways will only require a general offset.
Offset multiplier	1.5	This multiplier is used to address the risk that the predicted outcomes for gain will not be achieved, and therefore will not adequately compensate the biodiversity loss from the removal of native vegetation.
Offset amount (general habitat units)	0.018	The general habitat units are the amount of offset that must be secured if the application is approved. This offset requirement will be a condition to any permit or approval for the removal of native vegetation. ***General habitat units required = general habitat score x 1.5***
Minimum strategic biodiversity value score	0.152	The offset site must have a strategic biodiversity value score of at least 80 per cent of the strategic biodiversity value score of the native vegetation to be removed. This is to ensure offsets are located in areas with a strategic biodiversity value that is comparable to the native vegetation to be removed.
Vicinity	Port Phillip And Westernport CMA or Monash City Council	The offset site must be located within the same Catchment Management Authority boundary or municipal district as the native vegetation to be removed.
Large trees	1 large tree (s)	The offset site must protect at least one large tree for every large tree removed. A large tree is a native canopy tree with a Diameter at Breast Height greater than or equal to the large tree benchmark for the local Ecological Vegetation Class. A large tree can be either a large scattered tree or a large patch tree.

APPENDIX 3: AVAILABLE NATIVE VEGETATION CREDITS

Report of available native vegetation credits

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: 01/10/2021 07:46 **Report ID: 11173**

What was searched for?

General offset

General habitat units	Strategic biodiversity value	Large trees	Vicinity (Catchment Management Authority or Municipal district)	
0.018	0.152	1	CMA	Port Phillip and Westernport
			or LGA	Monash City

Details of available native vegetation credits on 01 October 2021 07:46

These sites meet your requirements for general offsets.

Credit Site ID	GHU	LT	CMA	LGA	Land owner	Trader	Fixed price	Broker(s)
BBA-0277	8.016	464	Port Phillip and Westernport	Mornington Peninsula Shire	No	Yes	No	Abezco, Ethos, VegLink
BBA-0670	18.338	151	Port Phillip and Westernport	Cardinia Shire	No	Yes	No	Abezco, VegLink
BBA-0677	17.824	1527	Port Phillip and Westernport	Whittlesea City	No	Yes	No	Abezco, VegLink
BBA-0678	48.314	2637	Port Phillip and Westernport	Nillumbik Shire	No	Yes	No	VegLink
BBA-0678_2	0.388	59	Port Phillip and Westernport	Nillumbik Shire	No	Yes	No	VegLink
BBA-0931	0.034	2	Port Phillip and Westernport	Moorabool Shire	Yes	Yes	No	Bio Offsets
BBA-2774	0.021	11	Port Phillip and Westernport	Greater Geelong City	Yes	Yes	No	VegLink
BBA-2789	1.317	14	Port Phillip and Westernport	Baw Baw Shire	Yes	Yes	No	Contact NVOR
BBA-2790	2.911	116	Port Phillip and Westernport	Baw Baw Shire	Yes	Yes	No	Contact NVOR
BBA-2870	2.544	431	Port Phillip and Westernport	Yarra Ranges Shire	Yes	Yes	No	Contact NVOR
BBA-2871	16.335	1668	Port Phillip and Westernport	Yarra Ranges Shire	Yes	Yes	No	Contact NVOR
BBA-3013	0.089	138	Port Phillip and Westernport	Moorabool Shire	Yes	Yes	No	VegLink
BBA-3030	11.079	3	Port Phillip and Westernport	Moorabool Shire	Yes	Yes	No	VegLink

BBA-3045	0.121	8	Port Phillip and Westernport	Melton City	Yes	Yes	No	Bio Offsets
TFN-C1636	1.835	149	Port Phillip and Westernport	Yarra Ranges Shire	Yes	Yes	Yes	Yarra Ranges SC
TFN-C1650	0.182	20	Port Phillip and Westernport	Yarra Ranges Shire	Yes	Yes	Yes	Yarra Ranges SC
TFN-C1663	0.109	27	Port Phillip and Westernport	Yarra Ranges Shire	Yes	Yes	Yes	Yarra Ranges SC
TFN-C1664	3.157	87	Port Phillip and Westernport	Yarra Ranges Shire	No	Yes	No	Yarra Ranges SC
TFN-C1667	0.369	2	Port Phillip and Westernport	Yarra Ranges Shire	Yes	Yes	Yes	Yarra Ranges SC
TFN-C1750	1.753	11	Port Phillip and Westernport	Cardinia Shire	Yes	Yes	No	Bio Offsets
TFN-C1962	0.532	18	Goulburn Broken, Port Phillip and Westernport	Macedon Ranges Shire	No	Yes	No	Contact NVOR
VC_CFL-0838_01	0.214	716	Port Phillip And Westernport	Yarra Ranges Shire	Yes	Yes	No	VegLink
VC_CFL-3084_01	0.916	636	Port Phillip And Westernport	Cardinia Shire	Yes	Yes	No	VegLink
VC_CFL-3687_01	1.559	116	Port Phillip And Westernport	Baw Baw Shire	Yes	Yes	No	Baw Baw SC
VC_CFL-3700_01	2.119	3	Port Phillip And Westernport	French-Elizabeth-Sandstone Islands (Uninc)	Yes	Yes	No	VegLink
VC_CFL-3705_01	0.167	19	Port Phillip And Westernport	Melton City	Yes	Yes	No	VegLink
VC_CFL-3708_01	0.218	517	Port Phillip And Westernport	Yarra Ranges Shire	Yes	Yes	No	VegLink
VC_CFL-3709_01	0.390	404	Port Phillip And Westernport	Yarra Ranges Shire	Yes	Yes	No	VegLink
VC_CFL-3729_01	6.100	15	Port Phillip And Westernport	Melton City	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-3744_01	3.717	384	Port Phillip And Westernport	Macedon Ranges Shire	Yes	Yes	No	VegLink

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
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@delwp.vic.gov.au	www.environment.vic.gov.au/native-vegetation
Ecocentric	Ecocentric Environmental Consulting	0410 564 139	ecocentric@me.com	Not avaliable
Ethos	Ethos NRM Pty Ltd	(03) 5153 0037	offsets@ethosnrm.com.au	www.ethosnrm.com.au
Nillumbik SC	Nillumbik Shire Council	(03) 9433 3316	offsets@nillumbik.vic.gov.au	www.nillumbik.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

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