

Appendix 9 – Native Vegetation and Ecology Report

4719 Midland Highway
(Wombat Park) Daylesford
Vegetation Assessment

FINAL

Prepared for
Hygge Property

Prepared by:
Mark Trengove Ecological Services

April 2022

Table of Contents

1 Introduction	4
1.1 Project Background	4
1.2 Aims.....	4
1.3 Study Area	4
1.4 Potential Impacts	6
2 Survey Methods	7
2.1 Taxonomy.....	7
2.2 Literature and Database Review	7
2.3 Field methodology vegetation assessment.....	7
2.4 Limitations.....	7
2.5 Defining Vegetation Significance.....	7
2.6 Defining and Assessing Native Vegetation	8
3 Results	9
3.1 Ecological Vegetation Class	9
3.2 Flora	10
3.2.1 Indigenous Plant Species.....	10
3.2.2 Exotic Plant Species	10
3.2.3 Significant Plant Species.....	12
3.2.4 Condition of the Vegetation	12
3.3 State Native Vegetation Permitted Clearing Regulations	13
3.3.1 Description	13
3.3.2 Patch Native Vegetation.....	14
3.3.3 Scattered Tree Native Vegetation	14
3.3.4 Implications	14
3.3.5 Avoid and minimise	15
3.3.6 Offset Implications.....	16
3.3.7 Achieving offsets.....	16
3.4 Commonwealth.....	17
3.4.1 Environment Protection and Biodiversity Conservation Act (1999).....	17
3.5 ESO1 Proclaimed Catchment Protection.....	18
3.5 ESO2 Mineral Springs and Groundwater Protection.....	19
4 Conclusions	20
5 References	21
Appendix 1 - Assessing conservation significance.....	22
Appendix 2 Native vegetation removal report.....	23
Appendix 3 Report of available native vegetation credits	33
Appendix 4 Determining the Tree Protection Zone	35
Plates 1–5 Vegetation existing conditions	36

Document History

Version	Date	Prepared by
Draft	25 March 2022	Mark Trengove
Final	13 April 2022	Mark Trengove

Mark Trengove Ecological Services

PO Box 1502 Geelong 3220

mtrengove@pipeline.com.au

ph 0428 298087 mtes.net.au

Copyright © Mark Trengove Ecological Services

This document is subject to copyright and may only be used for the purposes for which it was commissioned. The use of this document in whole or part without the permission of Mark Trengove Ecological Services is an infringement of copyright.

Disclaimer

Although Mark Trengove Ecological Services have taken all the necessary steps to ensure that an accurate document has been prepared, no liability is accepted for any damages or loss incurred as a result of reliance placed upon the report or its contents.

1 Introduction

1.1 Project Background

This report was commissioned Hygge Property undertake an ecological assessment for the proposed new residential sub-division at part of 4719 Midland Highway Daylesford.

Under Clause 52.17 of the Victorian Planning Scheme, the State has gazetted the Native Vegetation Permitted Clearing Regulations. The regulations 'introduce a risk based approach to assessing applications to remove native vegetation' (DELWP Website vi). Refer to Section 3.3 for further discussion.

1.2 Aims

The aims of the study are to -

- Determine the extent of any native vegetation that exists in the study area.
- Describe the vegetation of the study area.
- Undertake an assessment of any native vegetation (patch or scattered tree) that may be impacted on by the proposal.
- Respond to relevant legislation (Clause 52.17, EPBC Act, ESO1, ESO2).
- Prescribe offset requirements for the removal of any native vegetation from the study area.

1.3 Study Area

The subject site consists of approximately 3.8 hectares of land located at 4719 Midland Highway Daylesford. The study area is the area as defined at Figure 1.

The study area is located within the Hepburn Shire Council, which is located within in the North Central Catchment Management Authority area. The study area is within the Central Victorian Uplands bioregion (DELWP website i). Under the Hepburn Planning Scheme, the study area is zoned Neighbourhood Residential Zone (NRZ1) and is subject to Environment Significance Overlay 1 (ESO1) and Environment Significance Overlay 2 (ESO2).

The study area includes an ephemeral drainage line that flows from south to north across the north-eastern sector of the property. This drainage line is a tributary of Bund Creek. Bund Creek flows into Spring Creek, through the Hepburn Springs area, and is within the Loddon River catchment. Refer to Figure 2 for the location of Bund Creek drainage lines.

Soil types within the study area are comprised of volcanic clay loams.

The property slopes gently from the south down to the north (to the Bund Creek tributary), with a fall of 16 metres over 200 metres distance.

The vegetation of the study area can be described as follows:

- Disturbed degraded vegetation with exotic plant species (open pasture).
- Planted exotic treed vegetation consisting of a linear plantation adjacent to the Midland Highway consisting of mostly of mature Cedar (*Cedrus* spp) and Fir (*Abies* spp) with a hedge row of Boxthorn (*Lycium ferocissimum*) occurring on the boundary line.

Planted exotic treed vegetation consisting of a linear plantation on the adjacent Midland Highway consists of mature Desert Ash (*Fraxinus angustifolia*) and Chestnut (*Castanea* spp) with an exotic understory.

Areas of native vegetation dominated by mature Manna Gum (*Eucalyptus viminalis*) occur on the adjacent land to the north. This vegetation is located beyond the impact area and is partially implicated (Table 3 and Figure 3).

Refer to Figure 1 for the location of the study area.



Figure 1. Study area location and proposed sub-division layout.

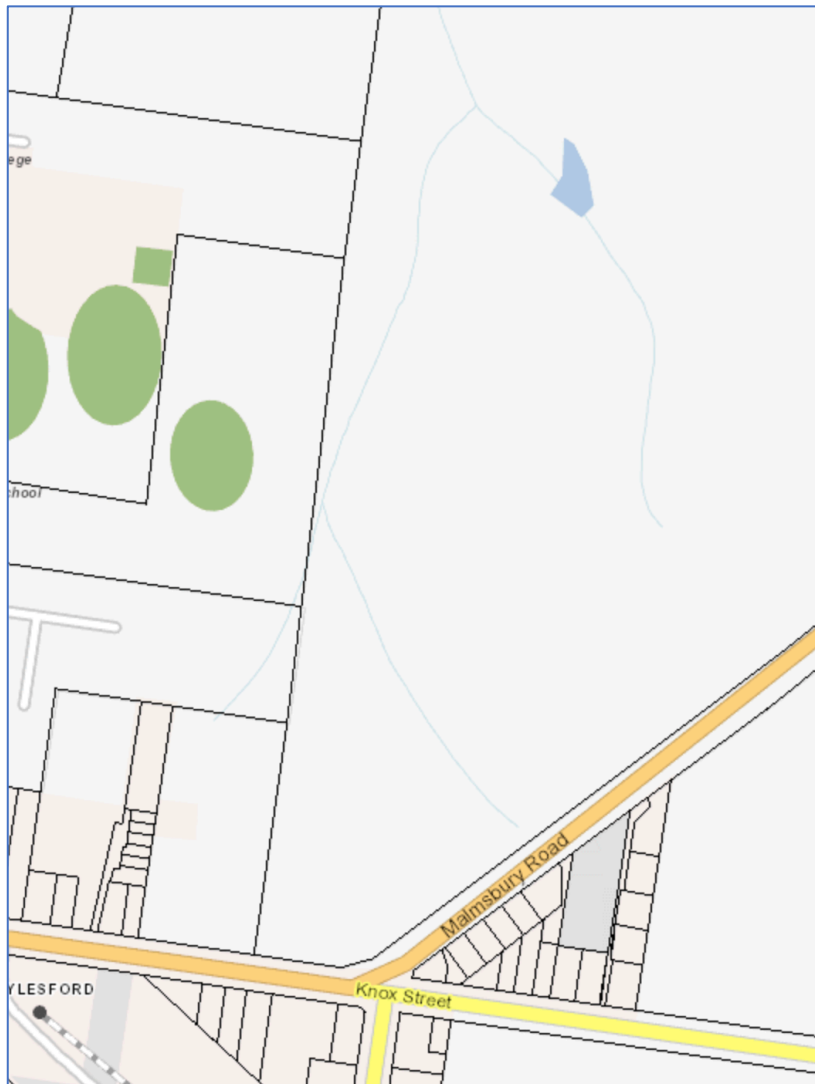


Figure 2. Bund Creek (DELWP NVIM data).

1.4 Potential Impacts

The area of potential impact is comprised of proposed new residential sub-division.

It is assessed that under Clause 52.17 a permit to remove native vegetation will be required. A permit to remove vegetation will be required under ESO1.

2 Survey Methods

2.1 Taxonomy

Scientific names for plants follow the Flora of Victoria (RBG website). Common names for plants follow the Flora of Victoria Vols 2-4 (Walsh and Entwisle 1994-1999).

2.2 Literature and Database Review

Relevant literature, online resources and databases were reviewed to provide an up to date assessment of ecological values associated with the study area and surrounds, including:

- The Victorian Department of Environment, Land, Water and Planning (DELWP) NVIM tool (DELWP website i) for:
 - Modelled data for remnant vegetation patches and habitat for rare or threatened species and
 - the extent of historic and current Ecological Vegetation Classes (EVC)s
- Aerial photography of the study area (Google maps).

2.3 Field methodology vegetation assessment

The site was inspected on foot on the 17th of March 2022. The entire site was traversed. Records were taken of all naturalised vascular plant species. Observations were made of the existing habitat values.

2.4 Limitations

The assessment was conducted during autumn, a time of year that is suitable for the detection of most flora species likely to occur on site. Due to the degraded nature of the study area and the favourable conditions for survey, the site inspection is considered to be sufficient to assess the ecological values of the proposed impact site. As a result, there are not considered to be any significant limitations to the finding of the study.

The survey includes only vascular flora. As Habitat Hectare assessments were not required (*refer to 3.3*) non-vascular flora (mosses, lichens, fungi, etc.) were not recorded. Fauna was not surveyed.

2.5 Defining Vegetation Significance

A number of criteria are applied in order to assess the significance of flora species and vegetation communities. The definition of the criteria is detailed in Appendix 1.

2.6 Defining and Assessing Native Vegetation

Native vegetation in Victoria has been defined by DELWP as belonging to two categories. These are:

Patch native vegetation

Patch native vegetation is either:

- any area of vegetation where at least 25 per cent of the total perennial understorey plant cover is native
- any area with three or more native canopy trees where the canopy foliage cover is overlapping.
- Areas of current wetlands as mapped by DELWP.

Scattered tree native vegetation

Scattered tree native vegetation is:

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

Habitat hectares

Habitat hectares (Vegetation Quality Assessment v1.3) is a site-based measure that combines extent and condition of native vegetation. The current condition of native vegetation is assessed against a benchmark for its Ecological Vegetation Class (EVC). EVCs are classifications of native vegetation types. The benchmark for an EVC describes the attributes of the vegetation type in its mature natural state, which reflects the pre-settlement circumstances. The condition score of native vegetation at a site can be determined through undertaking a habitat hectare assessment.

The habitat hectares of native vegetation is calculated by multiplying the current condition of the vegetation (condition score) by the extent of native vegetation. (DELWP Website vi).

3 Results

3.1 Ecological Vegetation Class

Ecological Vegetation Classes (EVCs) are the primary level of classification of vegetation communities within Victoria. An EVC contains one or more plant (floristic) community and represents a grouping of vegetation communities with broadly similar ecological attributes.

The EVC mapping of the study area undertaken by DELWP (DELWP website i) indicates that the study area and immediate surrounds contains vegetation that aligns with the characteristics of EVC 23 Herb-rich Foothill Forest.

The bioregional conservation status of EVC 23 Herb-rich Foothill Forest is 'Depleted'. Depleted is defined as an EVC where between 30-50% of pre-european extent remains.

The current survey recorded no native vegetation that accords with EVC 23 Herb-rich Foothill Forest.

Refer to Figure 3 for the distribution of pre 1750 EVCs (DELWP website i). Refer below (3.3) for further discussion.



Figure 3. Distribution of pre 1750 EVCs (DELWP data).

3.2 Flora

3.2.1 Indigenous Plant Species

No indigenous (native) vascular plant species were recorded for the study area.

Refer to Table 1 for a list of naturalised vascular plant species; including status recorded this survey. Refer to Table 2 for a list of tree species recorded this survey. Refer to Plates 1-5 for photographs of the vegetation existing conditions.

3.2.2 Exotic Plant Species

Table 1 Dominant Naturalised Exotic Plant Species recorded this assessment.

Botanical Name	Common Name	Status
<i>Agrostis capillaris</i>	Creeping Bent-grass	Exotic
<i>Anthoxanthum odoratum</i>	Sweet Vernal Grass	Exotic
<i>Bromus</i> spp.	Brome	Exotic
<i>Cirsium vulgare</i>	Spear Thistle	Exotic
<i>Cretageus monogyna</i>	Hawthorn	Exotic
<i>Cytisus scoparius</i>	English Broom	Exotic
<i>Dactylis glomeratus</i>	Cock's-foot Grass	Exotic
<i>Holcus lanatus</i>	Yorkshire Fog-grass	Exotic
<i>Hypochaeris radicata</i>	Flatweed	Exotic
<i>Lolium</i> spp.	Rye-grass	Exotic
<i>Lycium ferocissimum</i>	Boxthorn	Exotic
<i>Phalaris aquatica</i>	Canary-grass	Exotic
<i>Rubus laciniatus</i>	Blackberry	Exotic
<i>Rumex crispus</i>	Curled Dock	Exotic
<i>Silybum marinum</i>	Variegated Thistle	Exotic

Table 1. Botanical name, common name, status.

Table 2 Exotic Trees

Tree #	Botanical Name	Common Name	Status	52.17 Implications
Cluster 1	<i>Cedrus</i> spp.	Cedar	Exotic	Nil
Cluster 1	<i>Abies</i> spp.	Fir	Exotic	Nil

Table 2. Trees, botanical name, common name, status, and implications for Clause 52.17.

Refer to Figure 4 for location of trees.

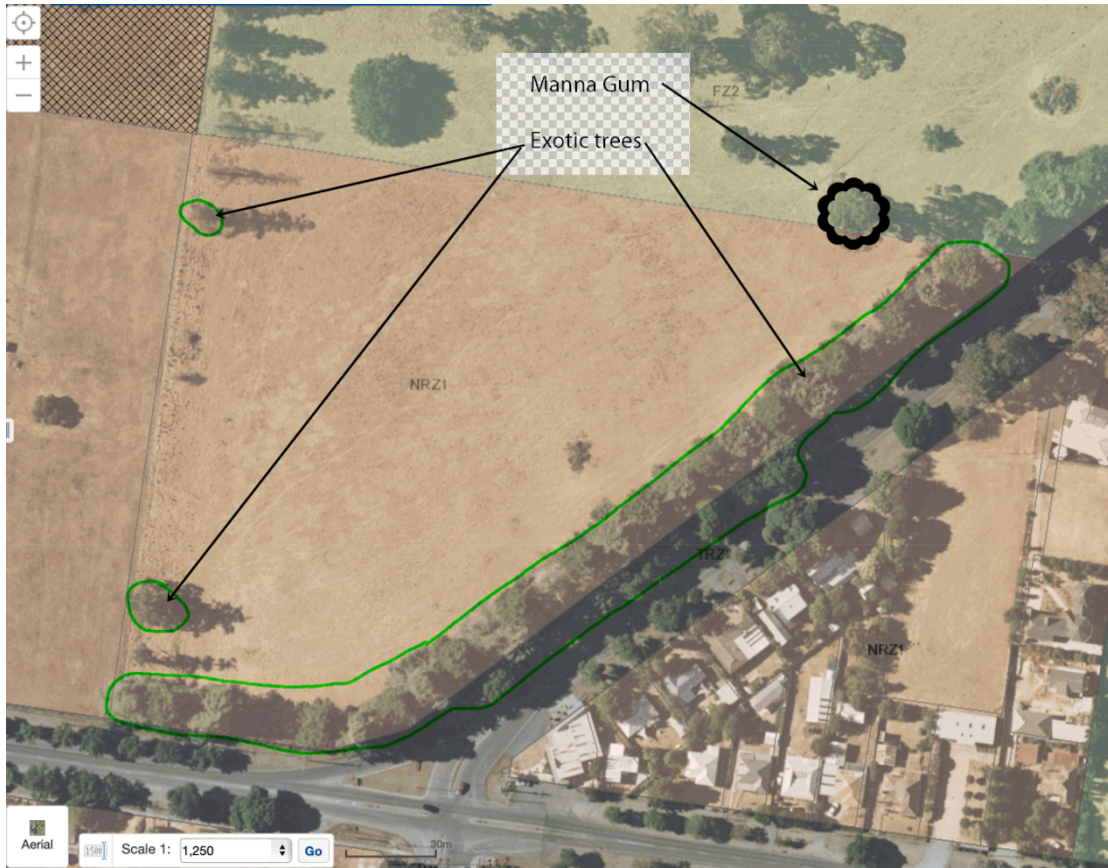


Figure 4. Location of trees. Manna Gum TPZ is located within the impact area. Plantations are mixed exotic species (*Cedrus* spp., *Abies* spp.).

Areas of native vegetation dominated by mature Manna Gum occur on the subject property to the north of the proposed sub-division. This vegetation is located beyond the impact area. However, one tree is implicated as the TPZ for the tree is assessed as being impacted due to the location of the new property boundary. (Table 3 and Figure 4). Refer to Table 3 for native tree data including DBH and TPZ calculations.

Table 3 Native trees beyond the impact area

Tree #	Botanical Name	DBH (cm)	TPZ (m)	Distance form property boundary (m)	Clause 52.17 Impact
A	<i>Eucalyptus viminalis</i>	2300	15	6	Yes

Table 3. Native trees, botanical name, diameter at breast height (DBH), tree protection zone (TPZ) and implications for Clause 52.17.

Tree protection zones are calculated in accordance with Australian Standard AS4970-2009 *Protection of trees on development sites*. Refer to Appendix 4.

3.2.3 Significant Plant Species

No native plant species were recorded for the study area. One native tree was recorded for adjacent to the study area. Refer to Table 1, Table 3 and Appendix 1.

3.2.4 Condition of the Vegetation

The vegetation of the study area is described as follows:

- **Relatively degraded exotic vegetation.** This vegetation occurs across the majority of the study area (the former farming land) and is dominated by pasture grasses and ruderal weeds,
- Exotic specimen trees plantations.
- Mature Manna Gum native vegetation occurs to the north of the proposed sub-division.
- Planted exotic treed vegetation consisting of a linear plantation on the adjacent Midland Highway consist of mature Desert Ash and Chestnut with an exotic understorey.

3.3 State Native Vegetation Permitted Clearing Regulations

3.3.1 Description

Under Particular Provision (Native Vegetation Clause 52.17) the State has gazetted the Native Vegetation Permitted Clearing Regulations. The Regulations introduce a risk based approach to assessing applications to remove native vegetation (DELWP website vi).

The objective for the permitted clearing of native vegetation (*refer to 2.6*) is that it results in no net loss. This means permitted clearing has a neutral impact on Victoria’s biodiversity.

When native vegetation removal is permitted, an offset must be secured which achieves a no net loss outcome for biodiversity. To achieve this, the offset makes a contribution to Victoria’s biodiversity that is equivalent to the contribution made by the native vegetation that was removed. The type and amount of offset required depends on the native vegetation being removed and the contribution it makes to Victoria’s biodiversity.

Under the Native Vegetation Permitted Clearing Regulations, any ‘patch’ or ‘scattered tree’ native vegetation that is proposed to be removed is subject to protection/and or recruitment offsets, depending upon the characteristics of the site.

Refer to Figure 5 for the distribution of vegetation in the study area according to ‘Location’. Implications for the current proposal are discussed as follows.

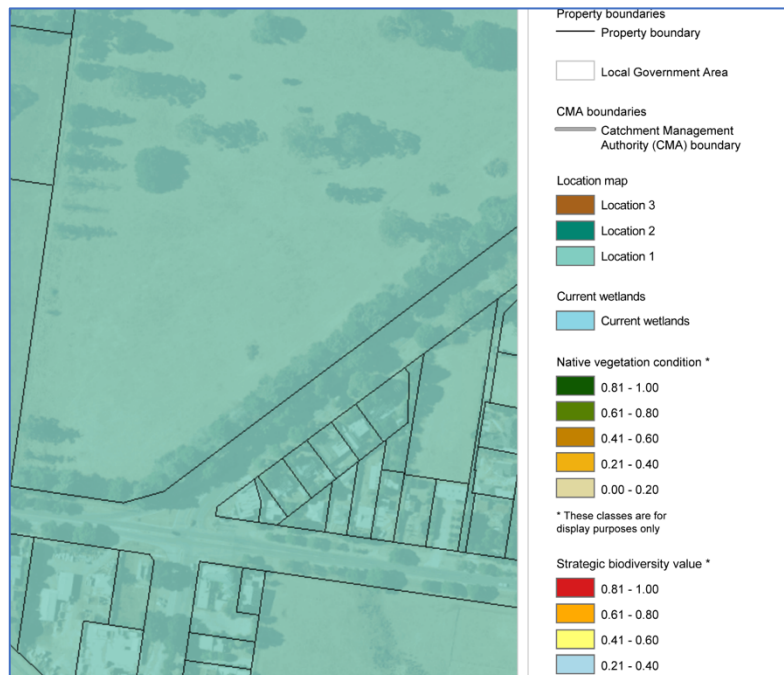


Figure 5. Distribution of vegetation according to ‘Location’. Light green equates to ‘Location 1’ (i.e. least risk) (DELWP Website i). The study area is sited within Location 1.

3.3.2 Patch Native Vegetation

Under the Native Vegetation Permitted Clearing Regulations, any areas of patch native vegetation that are proposed to be removed are subject to protection/and or recruitment offsets, depending upon the characteristics of the site.

No areas of patch native vegetation were recorded for the study area.

3.3.3 Scattered Tree Native Vegetation

Under the Native Vegetation Permitted Clearing Regulations, any scattered native canopy trees that are proposed to be removed are subject to protection/and or recruitment offsets, depending upon the characteristics of the site. Within the CVU bioregion, EVC 23 has *Eucalyptus* spp as 'canopy trees'.

No areas of scattered tree native vegetation were recorded for the study area. One scattered tree (Table 3 and Figures 4 and 6) is recorded beyond the study area, which due to the proximity to the study area and the size of the TPZ, is assessed as being impacted on as it encroaches into the proposed property boundary.

However, it is possible that this tree could be retained.

3.3.4 Implications

The subject land is zoned for residential purposes and is located within the Daylesford Structure Plan's identified township boundary, earmarked for future residential development. The subdivision layout has created lot sizes which align with Council's preferred density of the area, to avoid any detrimental impact upon the Manna Gum trees.

It is assessed that there are implications for the current proposal for Clause 52.17 Native vegetation.

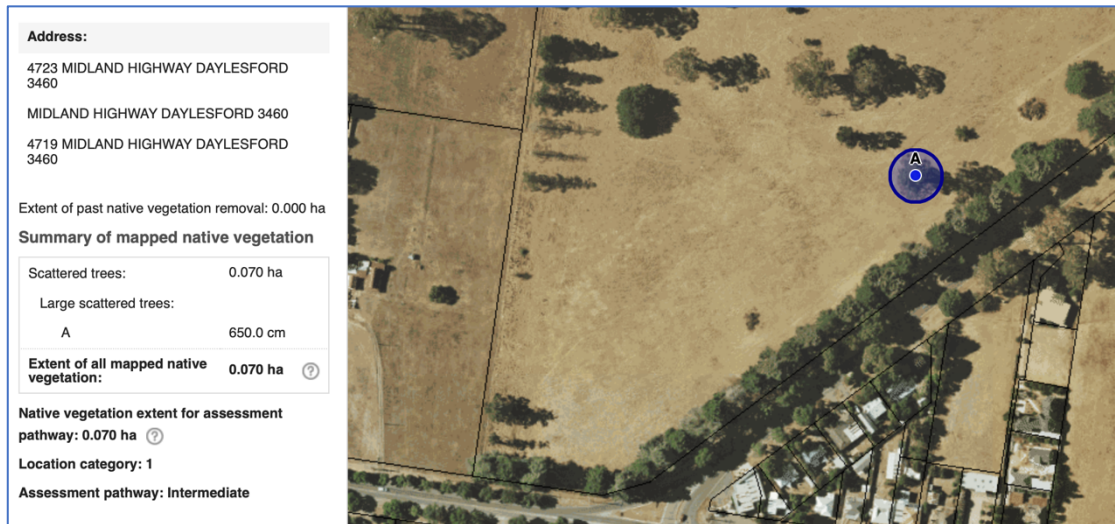


Figure 6. Location of native vegetation impacted on.

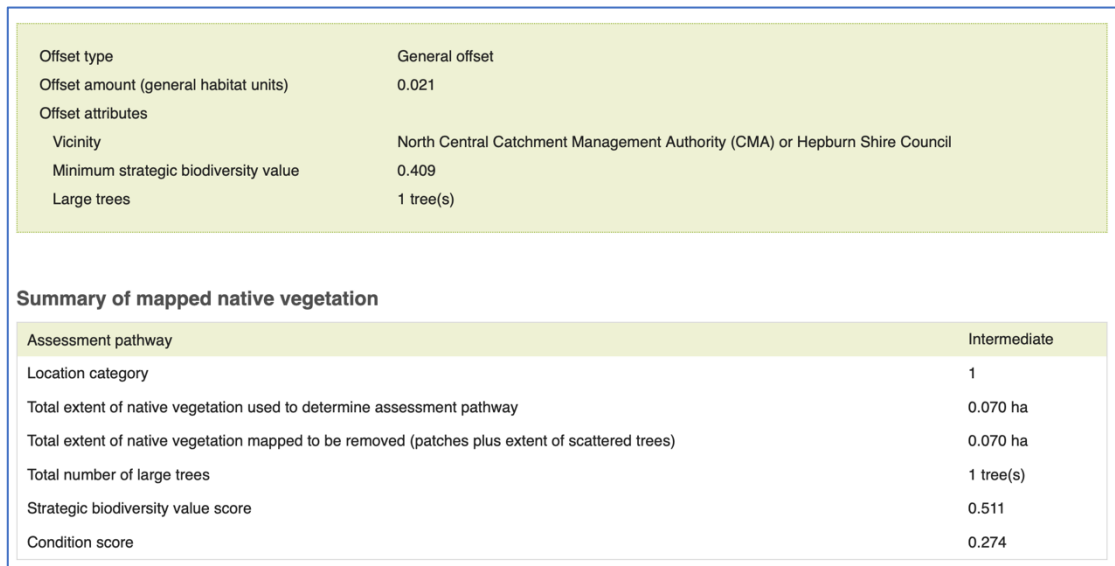


Figure 7. Summary of offset implications.

3.4.5 Avoid and minimise

Areas of degraded native vegetation are exploited, thereby minimizing impacts.

No native vegetation is proposed to be removed. However, due to the proposed boundary one scattered tree native vegetation is assessed as being impacted on.

3.4.6 Offset Implications

As native vegetation is assessed to be impacted on, there are implications for the Native Vegetation Permitted Clearing Regulations.

A total of 0.070 ha of native vegetation is required to be offset. In keeping with the Regulations, the DELWP NVIM tool is utilised to generate a Native vegetation removal report (Report ID 329-20220323-020) to determine offset requirements (refer to Appendix 2). The application is an Intermediate Assessment Pathway application.

Assuming a permit for removal of the above identified native vegetation was granted, the offset requirements for that removal would be the generation of 0.021 general habitat units, with a minimum strategic biodiversity score of 0.409, plus one large tree, to be achieved within the North Central CMA or Hepburn Shire Council region. Refer to Figure 7 for a summary of offset requirements. Refer to Appendix 2 for the Native vegetation removal report.

3.4.7 Achieving offsets.

Vegetation offsets are to be achieved by 3rd party offset purchase. There is reasonable assurance that offset will be available. Refer to Appendix 3 Report on available native vegetation credits.
(<https://nvcr.delwp.vic.gov.au/Search/GHU>).

3.4 Commonwealth

3.4.1 Environment Protection and Biodiversity Conservation Act (1999)

The Environment Protection and Biodiversity Conservation (EPBC) Act (1999) was established to 'promote the conservation of biodiversity by providing strong protection for listed species and communities in the Commonwealth and for protected areas, Ramsar sites, Commonwealth Reserves, conservation zones and World Heritage sites, etc.' No listed EPBC Act ecological communities or species are recorded for the study area.

Implications

The removal of vegetation would not require referral under the EPBC Act as the vegetation is exotic. Consequently, there is not considered to be any implications for the current proposal under the EPBC Act.

3.5 ESO1 Proclaimed Catchment Protection

Statement of environmental significance

Hepburn Shire is situated in the Central Highlands at the source of a number of catchments linked to Port Phillip Bay or the Murray River. Protection of the quality of this water has significant local and regional implications, especially where these catchments provide domestic water supply.

Environmental objective to be achieved

To protect the quality of domestic water supplies within the Shire and the broader region.

To maintain and where practicable enhance the quality and quantity of water within watercourses.

To prevent increased runoff or concentration of surface water leading to erosion or siltation of watercourses.

To prevent erosion of banks, streambeds adjoining land and siltation of watercourses, drains and other features.

To prevent pollution and increased turbidity and nutrient levels of water in natural watercourses, water bodies and storages.

Vegetation

A permit is not required to remove, destroy, or lop vegetation, including dead vegetation unless the removal, destruction or lopping involves:

Any vegetation on site area greater than 1 ha. Vegetation within 30 metres of a waterway.

(http://planningschemes.dpcd.vic.gov.au/schemes/hepburn/ordinance/42_01s01_hepb.pdf)

Implications

The subject land is zoned for residential purposes and is located within the Daylesford Structure Plan's identified township boundary, earmarked for future residential development. The subdivision layout has created lot sizes which align with Council's preferred density of the area, with an effort to avoid any detrimental impact upon the Manna Gums.

Note that all the proposed Lots are to be connected to the deep sewer.

Under ESO1 a permit will be required for the removal of vegetation as the vegetation is more than 1 ha in size and is within 30 from a waterway (Bund Creek).

3.5 ESO2 Mineral Springs and Groundwater Protection

Statement of environmental significance

The mineral springs that occur within the Hepburn Shire have natural, cultural and economic significance. The protection of the springs, their aquifers and their environs from the impacts of waste disposal and drainage is a fundamental component of the future management of this asset.

Environmental objective to be achieved

To protect the mineral springs, their aquifers and their environs from the impacts of effluent and drainage.

To protect water bores that provide town water supply.

(http://planningschemes.dpcd.vic.gov.au/schemes/hepburn/ordinance/42_01s02_hepb.pdf)

Implications

The subject land is zoned for residential purposes and is located within the Daylesford Structure Plan's identified township boundary, earmarked for future residential development. The subdivision layout has created lot sizes which align with Council's preferred density of the area, with an effort to avoid any detrimental impact upon the Manna Gums.

It is assessed that the removal of vegetation, as proposed, is unlikely to impact upon the values of ESO2.

4 Conclusions

The subject site consists of approximately 3.8 hectares of land located at 4719 Midland Highway Daylesford.

This report finds that the study area is comprised of naturalised exotic vegetation (pasture) as well as planted exotic trees. One mature native Manna Gum tree occurs in proximity to the proposed sub-division. It is assessed that this tree is impacted on, although it is possible the tree can be retained.

Under Clause 52.17, a planning permit to remove native vegetation would be required from the Hepburn Shire Council for the impacts upon one mature Manna Gum tree.

Assuming a permit for removal of the above identified native vegetation was granted, the offset requirements for that removal would be the generation of 0.021 general habitat units, with a minimum strategic biodiversity score of 0.409, plus one large tree, to be achieved within the North Central CMA or Hepburn Shire Council region. Refer to Figure 7 for a summary of offset requirements. Refer to Appendix 2 for the Native vegetation removal report.

Removal of the vegetation of the study area would not have implications for the relevant Commonwealth (i.e., EPBC Act) legislation.

A permit for the removal of vegetation will be required under ESO1 from the Hepburn Shire Council.

There are no significant limitations to the findings of this report.

5 References

Conn, B J (1993). Natural regions and vegetation of Victoria. Pp. 79-158 In Foreman, D B and Walsh, G (eds.) 'Flora of Victoria Volume 1: Introduction.' Inkata Press, Melbourne.

DELWP. Planning Maps Online: Interactive map.
<https://nvm.delwp.vic.gov.au/Biodiversity> Victorian Department of Land, Environment Water and Planning, Melbourne, VIC.

DELWP. Victorian Biodiversity Atlas: Interactive map.
<https://vba.dse.vic.gov.au/vba/>.. Victorian Department of Land, Water and Planning, Melbourne, VIC.

DELWP. Native Vegetation Information Management tool.
<https://nvm.delwp.vic.gov.au/>..

DELWP.
<https://www.environment.vic.gov.au/native-vegetation/native-vegetation>
Department of Department of Land, Environment Water and Planning, Melbourne, VIC.

<http://planningschemes.dpcd.vic.gov.au/schemes/hepburn>

Google maps, 2021. <https://www.google.com.au/maps/>

Flora of Victoria Royal Botanic Gardens Melbourne
<https://vicflora.rbg.vic.gov.au>

North Central Catchment Management Authority 'North Central Native Vegetation Plan' NCCMA Website.

Walsh, N G & Entwisle, T (1994-1999): 'Flora of Victoria Vol 2-4' Inkata Press, Melbourne.

Oates, A. & Taranto, M. (2001). 'Vegetation Mapping of the Port Phillip & Westernport Region' Arthur Rylah Institute for Environmental Research, DNRE, Victoria.

Parkes, D., Newell, G. & Cheal, D. (2003). 'Assessing the Quality of Indigenous Vegetation: The Habitat Hectares Approach' Parks, Flora & Fauna Division, DNRE, Victoria.

Standards Australia (2009). *Protection of trees on development sites*. AS4970-2009. Standards Australia Ltd Sydney.

Appendix 1 - Assessing conservation significance

Conservation significance is assessed at a range of scales, including national, state, regional and local. Criteria used for determining the conservation significance of flora at national to local scales are presented below for botanical conservation significance.

Botanical Significance

National botanical significance applies to an area when it supports one or more of the following attributes:

a population of at least one nationally threatened plant species listed by Briggs and Leigh (1996) or plant species listed on the schedules to the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999*.

A nationally threatened ecological community listed on the schedules of the *Environment Protection and Biodiversity Conservation Act 1999*.

State botanical significance applies to an area when it supports one or more of the following attributes:

A population of at least one plant species on the schedules to the Victorian *Flora and Fauna Guarantee Act 1988*.

An ecological community considered threatened in Victoria through its listing on the schedules of the *Flora and Fauna Guarantee Act 1988*.

Regional botanical significance applies to an area that supports one or more of the following attributes:

Supports a population of one or more regionally depleted species defined in a valid regional assessment of biodiversity (eg. Regional Native Vegetation Plan, Environment Conservation Council Report or Comprehensive Regional Assessment documents).

An ecological vegetation class that is considered endangered or vulnerable in a particular bioregion (based on Conn 1993 and the Regional Native Vegetation Plan).

An ecological vegetation class that is considered depleted in a particular bioregion (based on Conn 1993 and the Regional Native Vegetation Plan).

Local botanical significance applies to all remnant native vegetation that does not meet the above criteria. In much of Victoria native vegetation has been so depleted by past clearing and disturbance that all remaining vegetation must be considered to be of at least local conservation significance.

Appendix 2 Native vegetation removal 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 <i>Guidelines for the removal, destruction or lopping of native vegetation</i> . The report is <u>not</u> 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 <i>Native vegetation condition map</i> .	
Date and time:	23 March 2022 16:36 PM
Lat./Long.:	-37.3392111703265,144.157579905701
Address:	4723 MIDLAND HIGHWAY DAYLESFORD 3460 MIDLAND HIGHWAY DAYLESFORD 3460 4719 MIDLAND HIGHWAY DAYLESFORD 3460
	Native vegetation report ID: 329-20220323-020
Assessment pathway	
The assessment pathway and reason for the assessment pathway	
Assessment pathway	Intermediate Assessment Pathway
Extent of past plus proposed native vegetation removal	0.070 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	0.021 general habitat units
Offset attributes	
Vicinity	North Central Catchment Management Authority (CMA) or Hepburn Shire Council
Minimum strategic biodiversity value score	0.409
Large trees	1 large tree(s)
Native vegetation removal report – report ID 329-20220323-020	

Native vegetation removal report

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	0.070 hectares
Condition score of all mapped native vegetation	0.274
Strategic biodiversity value score of all mapped native vegetation	0.511
Extent of patches native vegetation	0.000 hectares
Extent of scattered trees	0.070 hectares
No. large trees within patches	0 large tree(s)
No. large scattered trees	1 large tree(s)
No. small scattered trees	0 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	650	220	Scattered	Large

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.**

relatively flat land no drainage lines

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.**

Avoided as possible tree is to be retained

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.

N/A

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.**

3rd party offset

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.

© The State of Victoria Department of Environment, Land, Water and Planning Melbourne 2022.

This work is licensed under a Creative Commons Attribution 4.0 International licence. You are free to re-use the work under that licence, on the condition that you credit the State of Victoria as author. The licence does not apply to any images, photographs or branding, including the Victorian Coat of Arms, the Victorian Government logo and the Department of Environment, Land, Water and Planning logo. To view a copy of this licence, visit <http://creativecommons.org/licenses/by/3.0/au/deed.en>

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

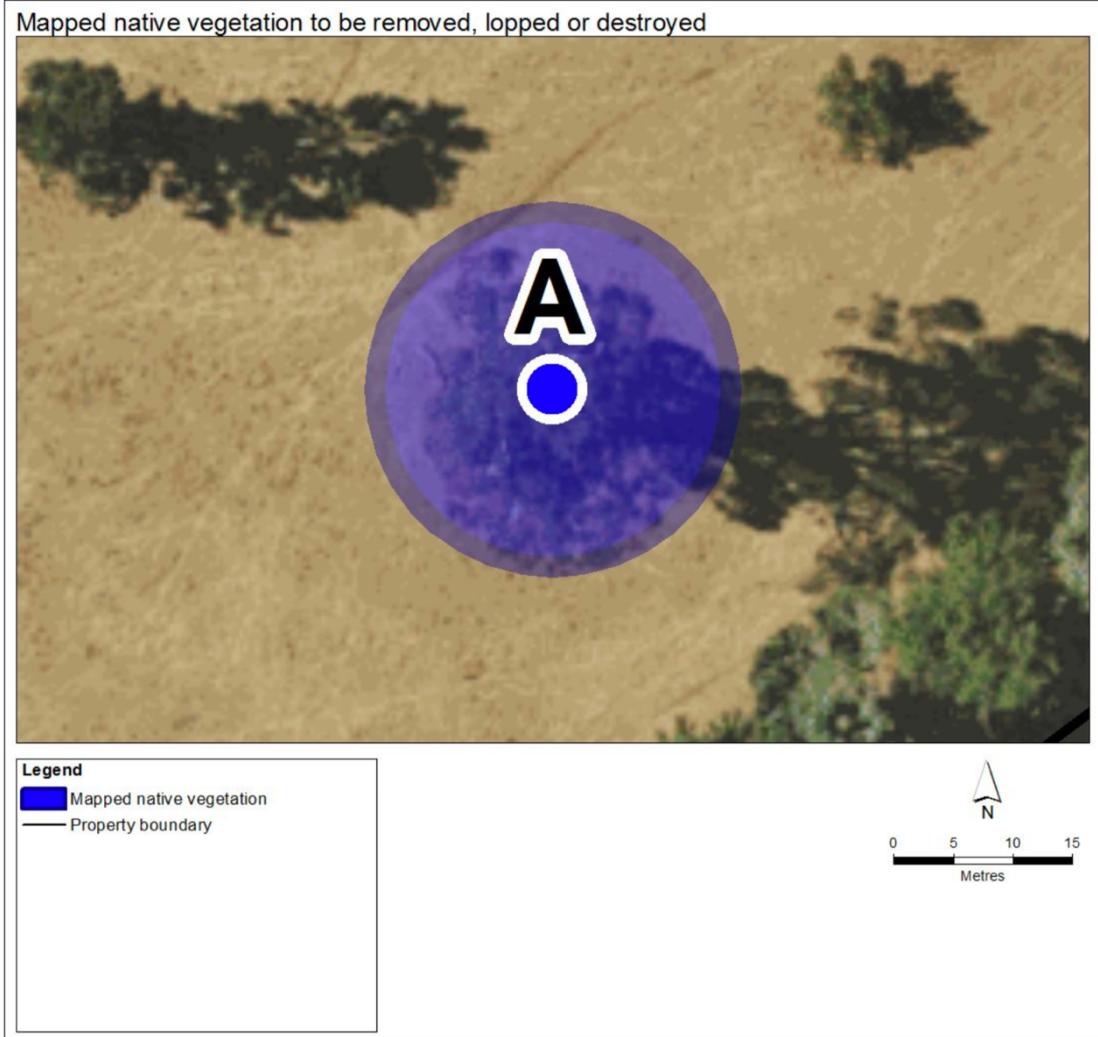
Disclaimer

This publication may be of assistance to you but the State of Victoria and its employees do not guarantee that the publication is without flaw of any kind or is wholly appropriate for your particular purposes and therefore disclaims all liability for any error, loss or other consequence which may arise from you relying on any information in this publication.

Obtaining this publication does not guarantee that an application will meet the requirements of Clauses 52.16 or 52.17 of planning schemes in Victoria or that a permit to remove native vegetation will be granted.

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 planning schemes in Victoria.

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



Native vegetation removal report – report ID 329-20220323-020

Figure 2 – Map of property in context

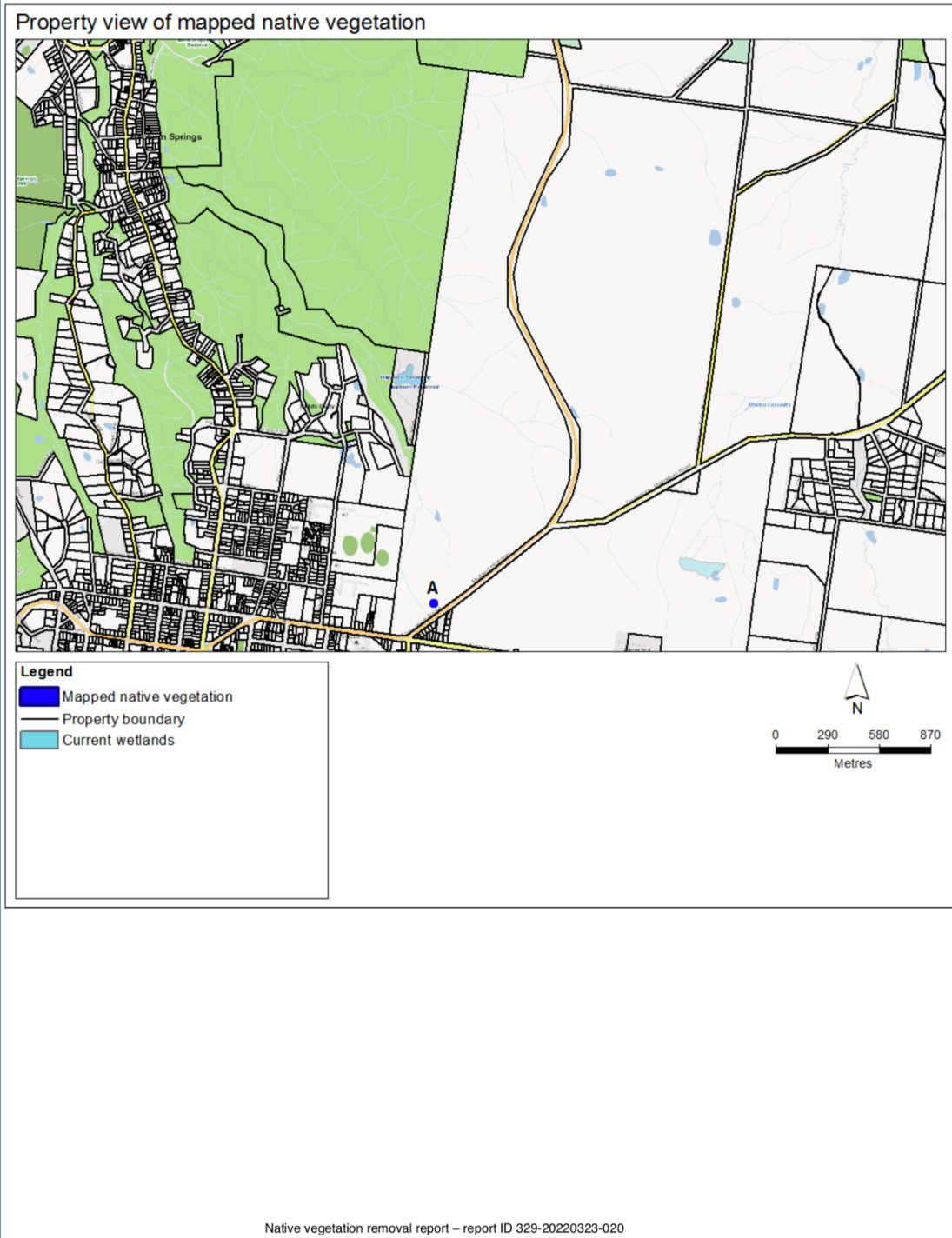
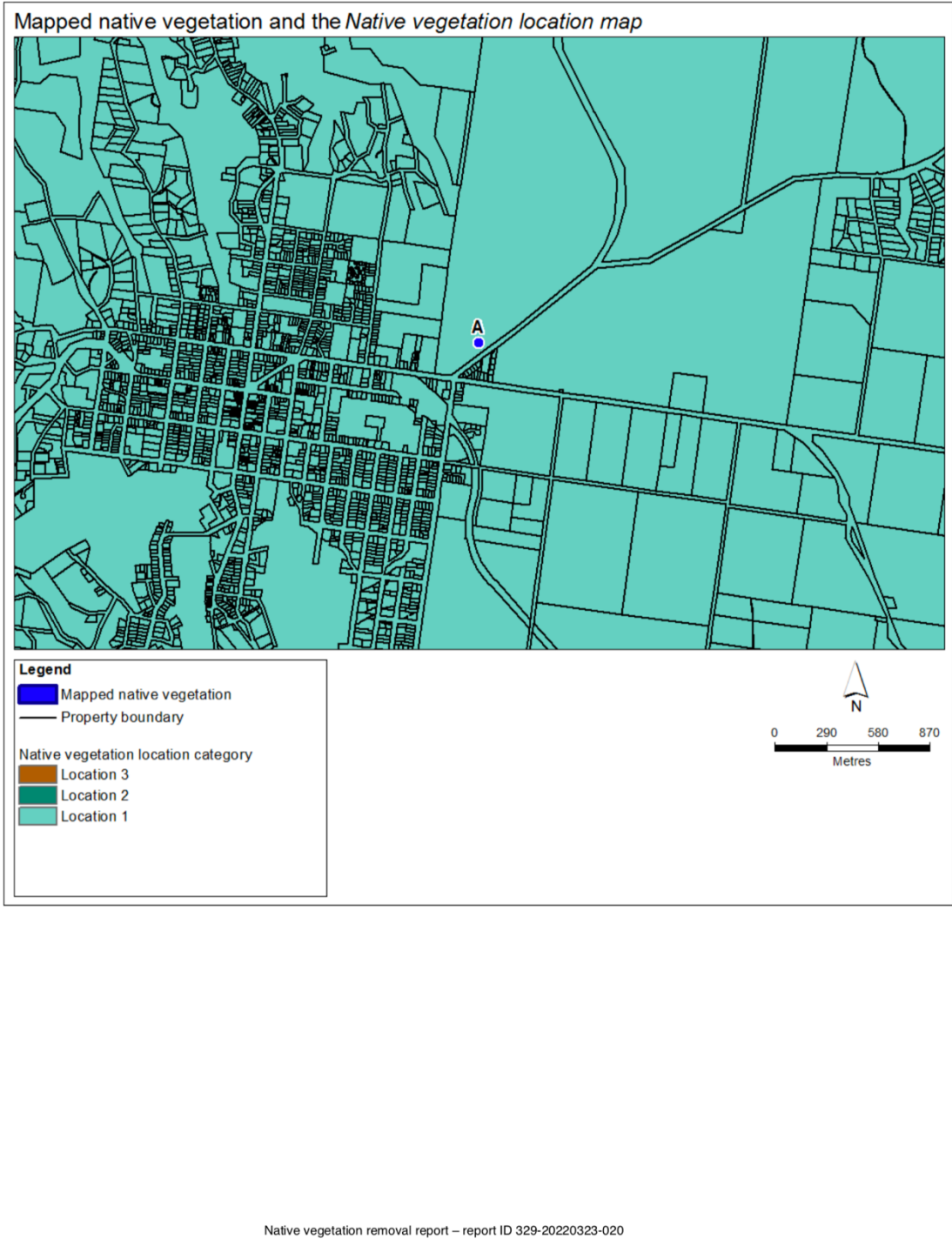
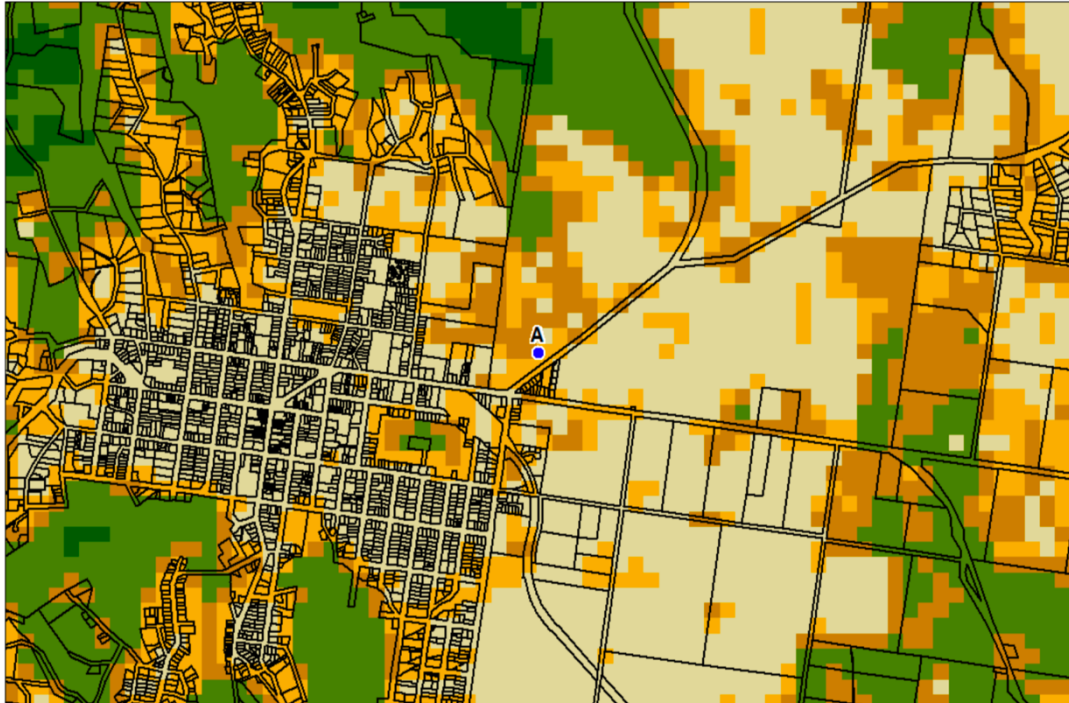


Figure 3 – Biodiversity information maps



Mapped native vegetation and the *Native vegetation condition map*



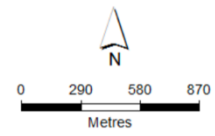
Legend

- Mapped native vegetation
- Property boundary

Native vegetation condition*

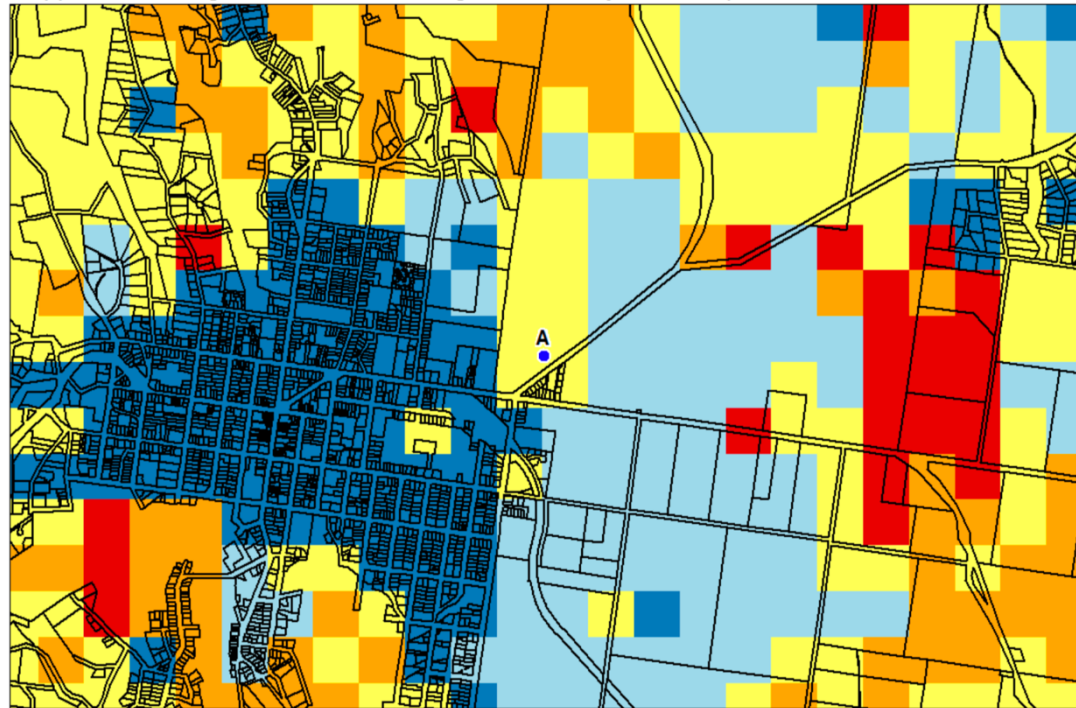
- 0.81 - 1.00
- 0.61 - 0.80
- 0.41 - 0.60
- 0.21 - 0.40
- 0.00 - 0.20

* These classes are for display purposes only



Native vegetation removal report

Mapped native vegetation and the *Strategic biodiversity value map*



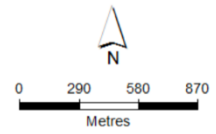
Legend

- Mapped native vegetation
- Property boundary

Strategic biodiversity value*

- 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



Native vegetation removal report

Appendix 1 - Details of offset requirements

Native vegetation to be removed

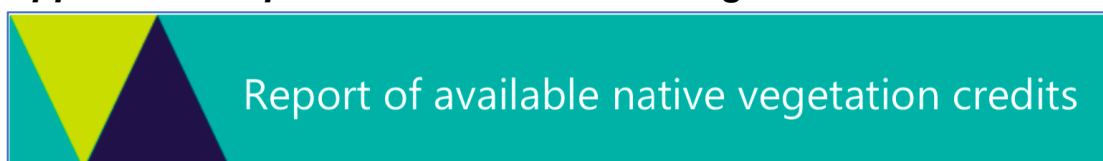
Extent of all mapped native vegetation (for calculating habitat hectares)	0.070	The area of land covered by a patch of native vegetation and/or a scattered tree, measured in hectares. Where the mapped native vegetation includes scattered trees, each tree is assigned a standard extent and converted to 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*	0.274	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 <i>Native vegetation condition map</i> .
Habitat hectares	0.019	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	0.511	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 <i>Strategic biodiversity value map</i> .
General landscape factor	0.756	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	0.014	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)	0.021	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	0.409	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	North Central CMA or Hepburn Shire 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 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: 23/03/2022 05:28

Report ID: 13308

What was searched for?

General offset

General habitat units	Strategic biodiversity value	Large trees	Vicinity (Catchment Management Authority or Municipal district)	
0.021	0.409	1	CMA	North Central
			or LGA	Hepburn Shire

Details of available native vegetation credits on 23 March 2022 05:28

These sites meet your requirements for general offsets.

Credit Site ID	GHU	LT	CMA	LGA	Land owner	Trader	Fixed price	Broker(s)
BBA-0074	0.088	1	North Central	Northern Grampians Shire	Yes	Yes	No	VegLink
BBA-0737	0.173	15	North Central	Northern Grampians Shire	Yes	Yes	No	Bio Offsets
BBA-0771	0.212	1	North Central	Loddon Shire	Yes	Yes	No	VegLink
BBA-1053	4.267	33	North Central	Gannawarra Shire	Yes	Yes	No	Contact NVOR
BBA-2389	0.132	1	North Central	Loddon Shire	Yes	Yes	No	VegLink
BBA-2606	0.056	11	North Central	Campaspe Shire	Yes	Yes	No	VegLink
BBA-3006	17.401	3	North Central	Greater Bendigo City	No	Yes	No	Ethos
BBA-3006	17.401	3	North Central	Greater Bendigo City	No	Yes	No	Contact NVOR
BBA-3031	9.299	174	North Central	Pyrenees Shire	Yes	Yes	No	VegLink
BBA-3052_01	12.980	269	North Central	Northern Grampians Shire	Yes	Yes	No	VegLink
TFN-C1640	0.854	3	North Central	Hepburn Shire	Yes	Yes	No	VegLink
TFN-C1702	16.952	16	North Central	Gannawarra Shire	Yes	Yes	No	TFN
VC_CFL-3071_01	3.299	148	North Central	Loddon Shire	Yes	Yes	No	VegLink
VC_CFL-3076_01	9.227	49	North Central	Pyrenees Shire	Yes	Yes	No	Bio Offsets
VC_CLO-2451_01	14.782	130	North Central	Greater Bendigo City	No	Yes	No	Contact NVOR
VC_CLO-3046_01	0.395	55	North Central	Greater Bendigo City	No	Yes	No	Contact NVOR

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-0771_03	8.345	19	North Central	Loddon Shire	Yes	Yes	No	VegLink
VC_CFL-3701_01	10.574	18	Goulburn Broken, North Central	Greater Bendigo City	Yes	Yes	No	Bio Offsets

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 available
Ethos	Ethos NRM Pty Ltd	(03) 5153 0037	offsets@ethosnrm.com.au	www.ethosnrm.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

© The State of Victoria Department of Environment, Land, Water and Planning 2022



This work is licensed under a Creative Commons Attribution 4.0 International licence. You are free to re-use the work under that licence, on the condition that you

credit the State of Victoria as author. The licence does not apply to any images, photographs or branding, including the Victorian Coat of Arms, the Victorian Government logo and the Department of Environment, Land, Water and Planning (DELWP) logo. To view a copy of this licence, visit <http://creativecommons.org/licenses/by/4.0/>

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

Disclaimer

This publication may be of assistance to you but the State of Victoria and its employees do not guarantee that the publication is without flaw of any kind or is wholly appropriate for your particular purposes and therefore disclaims all liability for any error, loss or other consequence which may arise from you relying on any information in this publication.

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

Appendix 4 Determining the Tree Protection Zone

Determining the Tree Protection Zone (TPZ)

The radius of the TPZ is calculated for each tree by multiplying its DBH x 12. TPZ = DBH x 12 (Australian Standard AS4970-2009 *Protection of trees on development sites*)

Where

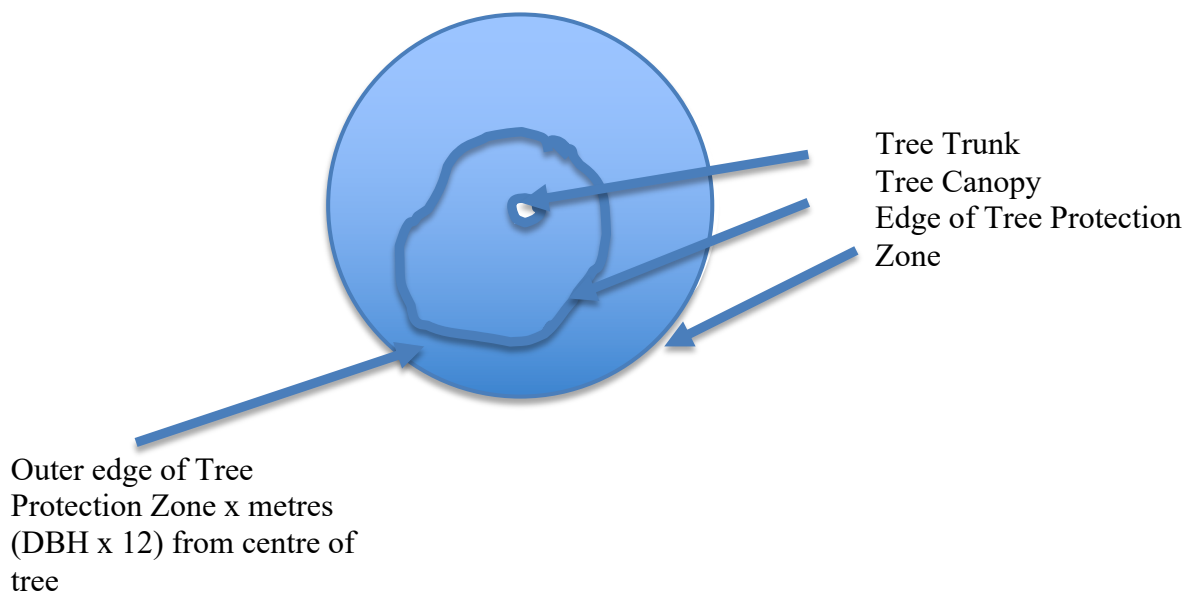
DBH = trunk diameter measured at 1.4 metres above ground.

Radius is measured from the centre of the stem at ground level.

A TPZ should not be less than 2 metres no greater than 15 metres (except where crown protection is required.). Some instances may require variations to the TPZ.

A tree is deemed to be impacted upon if greater than 10% of the TPZ area is to be disturbed.

Indicative Size of Tree Protection Zone



Plates 1–5 Vegetation existing conditions



Plate 1. Planted Cedar and Fir. Exotic vegetation, typical conditions.



Plate 2. Midland Highway Planted Ash. Exotic vegetation, typical conditions



Plate 3. Exotic vegetation, typical conditions. Bund Creek drainage line.



Plate 4. Planted Cedar and Fir. Exotic vegetation, typical conditions.



Plate 5. Native Manna Gum (Tree A in Table 3) located on property beyond the study area and proximity to fence.