

# Arboricultural assessment report

## Tintern Grammar School

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1 March 2024  
Treelogic Ref. 013168

Prepared for     Bridget McKid | McIldowie Partners  
                          on behalf of Tintern Grammar

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                          Consultant Arborist

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## Objectives

Treelogic was engaged by McIldowie Partners on behalf of Tintern Grammar to conduct a tree assessment and prepare an *arboricultural assessment report* for trees that maybe impacted by a to be proposed building extension works within the nominated area in Tintern Grammar School – Senior School. The site is located at 90 Alexandra Road, Ringwood East.

Undertake site inspection and assess only specified trees, identifying the tree species, collecting information on tree dimensions, conditions, and growing environment.

Establish the arboricultural merit and retention value of the assessed trees.

Allocate **tree protection zones** (TPZ) and **structural root zones** (SRZ) as outlined in the Australian Standard for protection of trees on development sites (AS4970 – 2020).

This report is to help inform the design footprint providing details of the arboricultural value of trees to determine the best candidates for retention. A further *arboricultural impact assessment* may be required to be completed where impacts are greater than 10% of the area of the TPZ of a tree that is to be retained.

## Site summary

The study area was located within the City of Maroondah and is subject to a significant landscape overlay – schedule 3 (SLO3), and vegetation protection overlay – schedule 1 (VPO1). The site is also subject to Clause 52.17.

Both SLO3 and VPO1 requires a permit to remove, destroy or lop any vegetation with some exemptions listed included planted vegetation which maybe applicable for some trees covered in this assessment.

Clause 52.17 does have exemptions for the maintenance of areas where native vegetation has previously been cleared and public safety. Records may also need to be kept of what vegetation has been removed under an exemption.

Planted vegetation is exempt under 52.17. However, vegetation that was planted with public funding for revegetation is not exempt.

In the published document “Native vegetation removal regulations Applicant’s guide”, (DEECA 2023), native vegetation is defined as “plants that are indigenous to Victoria”.

In total 15 trees were assessed.

The survey plans provided and used in this assessment was titled “Existing conditions plan” and was dated 18<sup>th</sup> August 2023. No design plans or concept drawings were provided.

Aerial imagery used was sourced from Nearmap.com (2023).

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## Method

The tree assessment was carried out on the 24<sup>th</sup> of October 2023 by Andrew Traczynski of Treelogic. The trees were inspected from the ground and observations were made of the growing environment and surrounding areas. The trees were not climbed, and no samples of the tree or site soil were taken.

Assessment details of individual trees are listed in the Tree Assessment Table in Appendix 1 A. Tree locations, along with tree protection zones can be seen in Appendix 2 A.

Observations were made of the trees and include:

- Identify the tree species,
- Tree heights measured with a Nikon Pro Forestry device or estimated in metres when canopy was obscured.
- **Diameter at breast height (DBH)** was measured at 1.4 m from ground level where possible with either a diameter tape or estimated where tree base was not accessible.
- Basal diameter just above root flare was measured where possible with either a diameter tape or estimated where tree base was not accessible.
- Canopy spread was paced and estimated in metres,
- Health and Structure,
- Make comments on any issues or any appropriate specific site characteristics.

Photographs of assessed trees and site conditions were taken for further reference and inclusion in the report. Photographs were taken on an iPhone 12 Pro with basic exposure and image sharpening made within Adobe Photoshop.

Each of the assessed trees were attributed an 'Arboricultural Rating'. The arboricultural rating correlates the combination of tree condition factors (health and structure) with tree amenity value. Definitions of arboricultural ratings can be seen in Appendix 3.

The assessed trees have been allocated TPZ and indicative SRZ as described in AS4970. This method provides a TPZ and an SRZ that addresses both the stability and growing requirements of a tree. TPZ distances are measured as a radius, from the centre of the trunk at (or near) ground level. SRZ distances are measured as a radius based on the measurement of the diameter just above root flare of the trunk. All TPZ and SRZ measurements for trees proposed for retention are provided in Appendix 1.

## Observations

The study area appears to be a mixed-use area within the school, primarily for maintenance staff and facilities as well as workers carpark and site sheds. The area to the front would be open access for the school students and teachers.

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The site has trees that border the site of various ages, species, and conditions. The site is also well used by the neighbouring primary school.

In total 15 trees were assessed.

## Provenance and species

Based on the species, age and location assessed, all but **Tree 5**, are of planted origin. It is unclear whether **Tree 5** is truly indigenous, meaning not planted, as it is maturing and is of a local species expected to be found in the area.

Based on the age, location, and species, one tree appears to be of a locally native species (**Tree 5**), while five trees are of a Victorian native species, four Australian native and five of an exotic species.

The tree species present were typical of those planted across parks, streets, and private gardens across the wider metropolitan Melbourne area.

As a whole, the tree population was in a reasonable condition, however, some of the trees had a history of failing parts.

**Trees 11 through 14** have some prominence on the landscape as they have attained some height and are grouped together. **Tree 1** also has some prominence, although restricted given its location to the rear of the buildings, on the landscape.

It must be noted that several species within the assessed trees are considered to be weed species with various levels of classification in various surrounding municipalities, including Box Elder (*Acer negundo*), Monterey Pine (*Pinus radiata*), and Willow-leaved Hakea (*Hakea salicifolia*).

## Tree attributes

The arboricultural rating of the assessed trees found that none were of a **high** rating, one was **moderate A**, four were **moderate B**, seven were **moderate C**, two were **Low** and one was **Very low**.

Definitions of arboricultural ratings can be seen in Appendix 3.

The **useful life expectancy** (ULE) of many (12) of the assessed trees was reasonably long being greater than 21 years, while two trees had a ULE of 11 to 20 years, and one tree had a ULE of 1 to 5 years.

## Tree condition (health and structure)

The health rating was assessed based on foliage colour, size, and density, shoot initiation and elongation as well as overall canopy density. Other factors such as decay and dead parts are also taken under consideration.

The health of the general population was fair.

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Issues noted included dieback, wounding with gum exudate, decay and cavities, and loss of foliage.

The structure rating was assessed on tree form, unions and branch attachments, root anchorage, as well as other factors.

Generally, the tree structure ranged between fair to fair to poor. Main issues noted included co-dominant and acute unions, deadwood, epicormic growth, wounding, and crossing parts.

Many trees had some restrictive growing conditions for tree roots from retaining walls, changes in soil levels, underground services and concrete pavement.

While **Tree 5** is not dead, it is dying (please refer to image 5). No obvious habitat opportunities such as birds' nests or habitat hollows were noted. If it was a dead tree it's DBH was 61 cm, which is defined as a requiring a permit for its removal under 52.17. While it is dying, it has not reached a stage where it is hazardous or where pruning works could improve its condition and extend its ULE.

**Trees 1, 2, 3, 6, and 10** are not native to Australia and are exempt from VPO1, SLO3 and 52.17.

Only **Tree 5** appears to require a permit under 52.17 and VPO1 for its removal as it is of an indigenous species, although it is unclear if it is of natural or planted origin. SLO3 does not require a permit to remove a "dead or dying tree" unless it provides habitat for local fauna.

**Trees 4, 7, 8, and 9** are not considered "native" plants under the definition from DEECA (2023) as they are not native to the state of Victoria and are of planted origin and are also exempt under SLO3 as they are considered weed species.

**Trees 11 through 15** are considered native plants under the definition from DEECA (2023) even though they are not native to the local area, they are of planted origin and would be exempt from 52.17 and VPO1.

## Tree impacts

The most important consideration for the successful retention of trees is to allow appropriate above and below ground space for the trees to continue to grow. This requires the allocation of TPZ and indicative SRZ for all retained trees.

### The Australian Standard for protection of trees on development sites

The Australian Standard for protection of trees on development sites (AS4970 - 2020) has been used as the method for calculating a TPZ and the indicative SRZ. The TPZ defines an area in which construction activity is either avoided, or at least controlled, to successfully sustain a tree. The indicative SRZ is an area that all activities must be excluded as this is the minimal area required for a tree to remain upright. Works are not permitted inside the SRZ without the consultation and guidance by the project arborist. These measurements are provided in the tree assessment data in Appendix 1. Tree locations with TPZ and indicative SRZ is included in Appendix 2.

A **minor encroachment** is where the proposed works occupy up to 10% of the TPZ. This is generally permissible provided encroachment is compensated for the recruitment and protection of an equivalent area of land contiguous with the TPZ.

A **major encroachment** is where the proposed works either occupy more than 10% of the TPZ and/or intrude into the SRZ of a retained tree. AS4970 requires the site arborist to show that where there is a major encroachment that the retained trees are not adversely affected by the proposal. This may require further investigation (i.e., root mapping), the use of construction methods and materials sympathetic to tree roots, or modifications to the design footprint.

It is recommended to place efforts of retention on the highest rated trees and those of significance, such as remnant trees. Also, for consideration those being the larger specimens of reasonable condition and those that provide the greater amenity/habitat.

Avoiding tree impacts is the best approach as it is almost impossible to rectify damage to trees that has occurred during construction activities. Tree protection cannot be achieved without a proactive approach. Similarly, a basic understanding of how trees grow and develop is needed. The planning and design stages of any construction project will determine the success of tree preservation.

The hierarchy of principles for tree protection are:

Avoid damage to trees

or

Minimise damage to trees

or

Replace trees and improve the landscape (as a last resort)

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## **Proposed works**

While it is unknown of the exact building footprint, the proposed works are understood to redevelop the existing building footprint within the study area. This would require some trees to be removed and a likelihood of changes in levels and associated built forms for other trees.

It would be considered reasonable to remove **Trees 4 through 10** to facilitate the proposed works as these trees are either in poor condition, have little impact to the visual amenity, or habitat value.

## **Tree impact reduction measures**

As the proposed design has not been finalised, there appears to be scope to accommodate the TPZ projections of trees to be retained into the design of the site. It is recommended to reduce the need for level changes and to construct the buildings in a way that reduced the need for major pruning of trees that have are to be retained.

Some reduction measures can include such reducing the need for excavation and having the pavement be of a permeable type with a construction methodology that reduced excavation and

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compaction. In some cases, tree roots will require pruning and is to be done so with clean and sharp tools.

Permeable pavement could also be incorporated into the design around trees. Several options do exist in the market for permeable pavements, such as bonded aggregate types, cell type, raised decking type, and their feasibility is recommended to be investigated. Some commercial solutions for permeable pavements can be sourced from companies such as Truegrid Paver, DriveTec from WaterPave, and FiltaPave.

Underground services are recommended to be directionally drilled under root systems where possible and open trenching avoided. In cases where open trenching is unavoidable, then a non-destructive approach is recommended, such as hydro-vac under the guidance of a project arborist, where the roots can be exposed, intact and retained.

Any new fencing is to be of a lightweight type where post footings are excavated by hand and located to avoid tree roots.

All trucks and vehicles entering and operating on the site are to be outside the TPZ of all retained trees. Only workers and small and light weight excavation powered equipment are to enter the TPZ of a retained tree and over appropriate ground protection.

## Tree protection

### General tree protection measures

All tree roots that are encountered within the works footprint and require pruning must be pruned with clean and sharp tools, not torn, ripped, or crushed by powered excavation equipment.

All retained trees and their respective TPZ/SRZ projections must be included in all working documents to avoid confusion regarding tree protection. Tree protection fencing must also be clearly marked on these working drawings.

All work-related activities that enter the TPZ of retained trees are to be carried out in a manner that is sensitive to trees, including their root systems. This includes that:

- All vehicles and equipment are to remain outside the TPZ of a retained tree except when on hard paved surfaces. Where no hard-paved surfaces exist, and redirection of vehicles is not feasible, then appropriate ground protection is to be installed.
- The use of machinery, equipment or heavy traffic on unpaved sections requires the installation of extra ground protection, such as rumble boards or *track-mats* to minimise compaction and root damage. Project arborist is to be consulted.
- Powered equipment is to be located outside the TPZ where possible, with the bucket end of the excavator facing the tree trunk. The bucket is to **gently** scrape away the existing road surfaces and soil with the use of a spotter to alert the operator when a tree root is encountered. When roots are encountered, care is to be taken not to damage roots by ripping, tearing, or crushing. The roots are then to be assessed and pruned only if



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required, which is to be performed with clean and sharp tools under the guidance of the project arborist.

- Compaction within the TPZ is to be avoided unless within the works footprint.
- Installing tree protection fencing around the furthest extent possible around the TPZ of trees that are to be retained to stop unauthorised activities within the TPZ spaces.

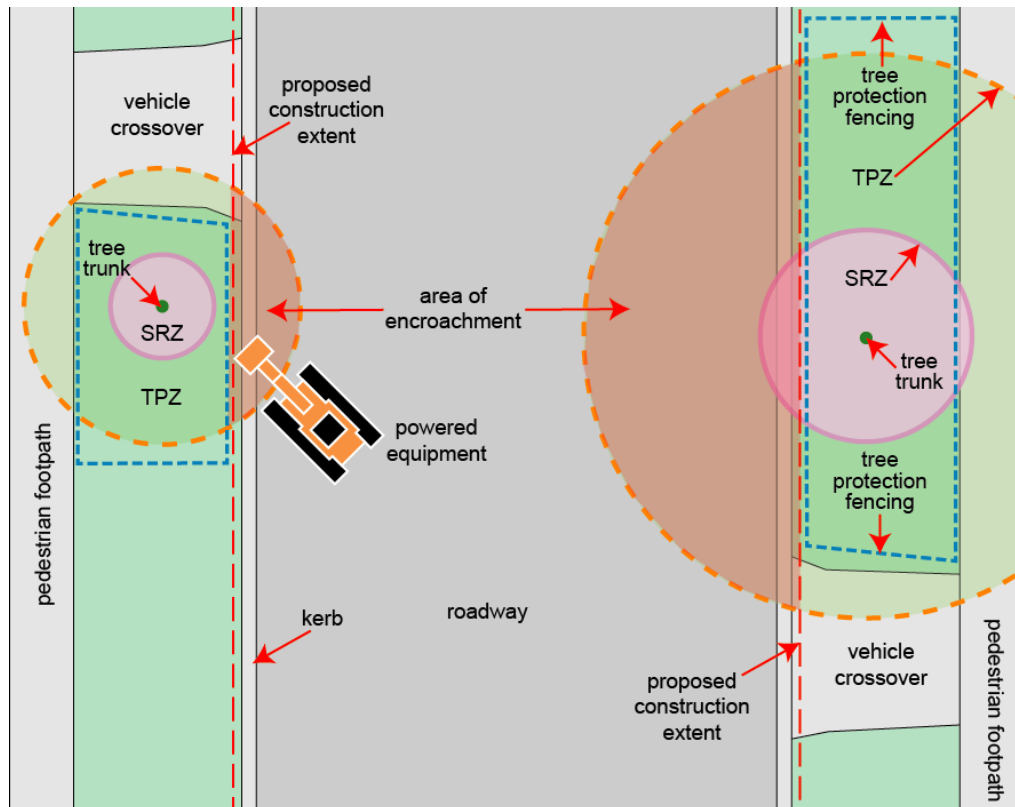


Figure 1: Example location of tree protection fencing in relation to proposed works and existing site characteristics as well as location of powered equipment. Note that powered equipment, where possible, should be located on existing hard paved surfaces with the bucket closest to the tree.

## Tree protection and work site culture

General tree protection requirements and measures are to be included in the site induction process for all those working on the site.

All those working on the site must also be reminded of the tree protection requirements and measures through regular discussions being included in 'Toolbox Talks' where this information can be easily disseminated.

The information can be relatively simple and procedural and is to include remaining outside the TPZ fencing of a retained tree, looking out for collision with tree parts, the use of spotters, working under branches and correct pruning of tree roots.

Avoiding mechanical impact damage to trunks and limbs that could result from the slewing action of plant and equipment or by construction traffic should be addressed by considering positioning of plant and machinery and operator caution to avoid occurrence of such impact.

The Site Supervisors should be made aware of all documents regarding tree protection.

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## Prohibited activities

The area of the **TPZ** is a **NO GO ZONE**, where ANY and ALL activities are prohibited unless agreed to by the project arborist or Council or are within the works footprint. This includes but not limited to:

- The traffic of personnel, equipment, or vehicles without adequate ground protection as guided by the project arborist and to the satisfaction of Council.
- The storage or parking of equipment, vehicles, toilets, materials, fill, soil, chemicals, seating,
- The preparation of chemicals, including preparation of cement products,
- The cleaning of equipment, personnel, materials,
- Existing soil grades must remain unaltered except for the construction footprint,
- Trenching for services or the placement of soil fill greater than 100 mm in depth must not occur within the TPZ of retained trees except for the construction footprint,
- Refuelling, dumping of waste, lighting of fires,
- Attaching temporary or permanent utilities and signs to tree parts,
- Physical damage to the tree.

## Fencing

AS4970 requires that appropriate fencing be installed prior to commencement of any works on the site, including any site clean-up and demolition works.

Tree protection fencing is to be erected to protect the trees that are not already protected by other protection measures, such as maintaining distance from the tree or its part.



This fencing is to be signed that the area is a ‘TREE PROTECTION ZONE’ and that access is only allowed upon permission from the site arborist. The signage should comply with AS1319. Please see Figure 2.

All tree protection fencing is to be installed to incorporate as much of the TPZ as possible. The fencing is not to be installed over the road, vehicle crossovers, or in a manner that impedes vehicle movements over existing roadways or pedestrian pathways.

Examples of tree protection fencing can be seen in Figures 3 and 4.

Figure 2: Example of TPZ signage.



*Figure 3: Tree protection fencing across a long section*



*Figure 4: Tree protection fencing around a single tree in a nature strip setting.*

The fencing should be modified to accommodate tree branches unless with the prior consent from Council.

The fencing is to stay in place for the entirety of the works within that area.

For more tree protection information please refer to appendix 4 in this document.

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## Recommendations

1. It would be considered reasonable to remove **Trees 4 through 10** to facilitate the proposed works as these trees are either in poor condition, have little impact to the visual amenity, or habitat value.
2. Only **Tree 5** would require a permit for its removal to satisfy 52.17 and the relevant planning overlays. All other trees are of planted origin and do not require a permit. Any offset requirements are recommended to be calculated by a suitably qualified Ecologist.
3. Investigate design footprint options to accommodate all other trees by including the TPZ of all retained trees into the plans. Investigate measures to reduce the impact to retained trees such as suspended sections, screw piles and permeable pavements, as well as installing underground services in a non-destructive manner (directional drilling or hydro-vac techniques).
4. When the plans become available then the project arborist is to prepare an *arboricultural impact assessment* that provides guidance and recommendations for trees to be retained that incur impacts.
5. The fencing is to be of a lightweight type where post footings are excavated by hand and located to avoid tree roots.
6. Undertake all works in a manner that is sensitive to trees and their root zones for retained trees.
7. Trees that are proposed to be removed are to be clearly marked on plans.
8. Tree locations and their respective TPZ and SRZ projections shall be included and incorporated on ALL plans for the project.
9. Locate all site offices, storage areas, parking, transit of vehicles, and movement of personnel to be outside the TPZ of trees.
10. TPZ fencing is to be installed at the furthest extent of the TPZ of any tree where works may enter their TPZ.
11. Tree roots are not to be torn, ripped, or crushed by excavation equipment.
12. Project arborist is to be consulted for any tree related issue that may arise.
13. All vehicles and equipment are to remain outside the TPZ of a retained tree except when on hard paved surfaces. Where no hard-paved surfaces exist, and redirection of vehicles is not possible, then appropriate ground protection is to be installed that can appropriately disperse any loads and movements. Smaller machinery and equipment can utilise rumble boards or track-mats.
14. Powered equipment is to be located outside the TPZ where possible, with the bucket end of the excavator facing the tree trunk unless on appropriate ground protection.

15. Use of a spotter to alert the operator of powered equipment of the proximity of tree parts to avoid collision and damage to the trees.
16. Any required works to any trees retained is to be performed by appropriately trained personnel and be in accordance with the Australian Standard for the Pruning of amenity trees (AS4373).

I am available to answer any questions arising from this report.

No part of this report is to be reproduced unless in full.



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#### **References:**

Australian Standard (4970-2020), *Protection of Trees on development sites*.  
Standards Australia, Sydney, NSW, Australia.

Clark, J.R. & Matheny, N.P. (1998), *Trees and Development: A technical guide to preservation of trees during land development*. I.S.A., Champaign, Illinois.

Standards Australia (2007), Australian Standard (4373-2007) - *Pruning of amenity trees*,  
Standards Australia, Sydney, NSW, Australia.

DEECA, (2023), *Native vegetation removal regulations Applicant's guide*, Department of  
Energy, Environment and Climate Action, Victoria, Australia.

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## Images



Image 1: Shows **Trees 1, 2 and 3.**

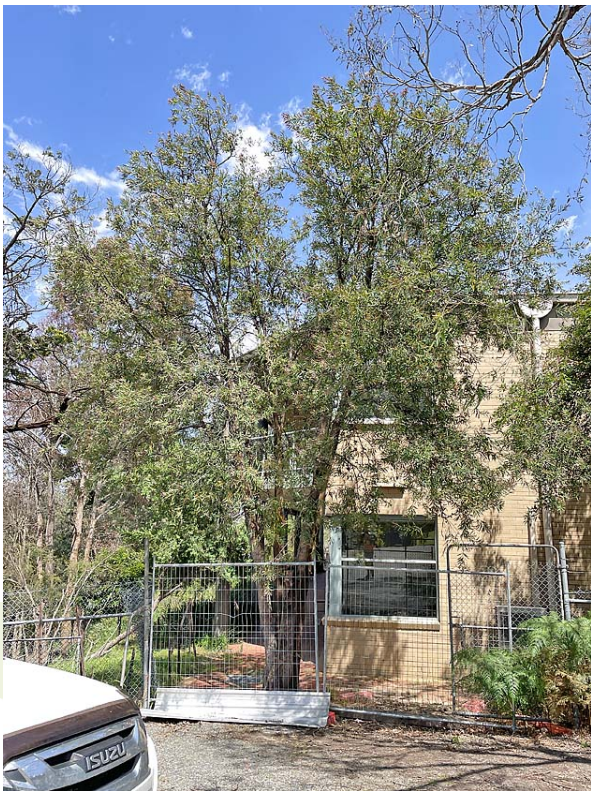


Image 2: Shows **Tree 4.**

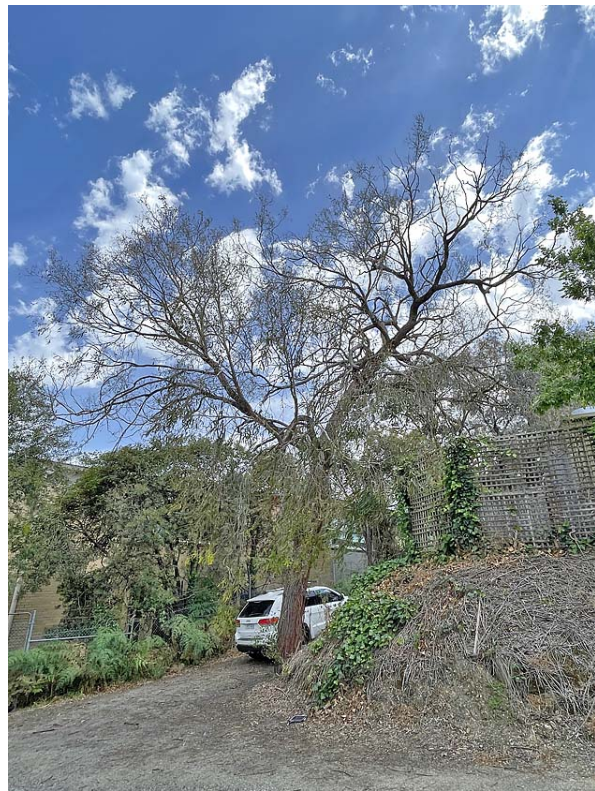


Image 3: Shows **Tree 5** with the loss of foliage.

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Image 4: Show the retaining wall south of **Trees 8, 9 and 10**.

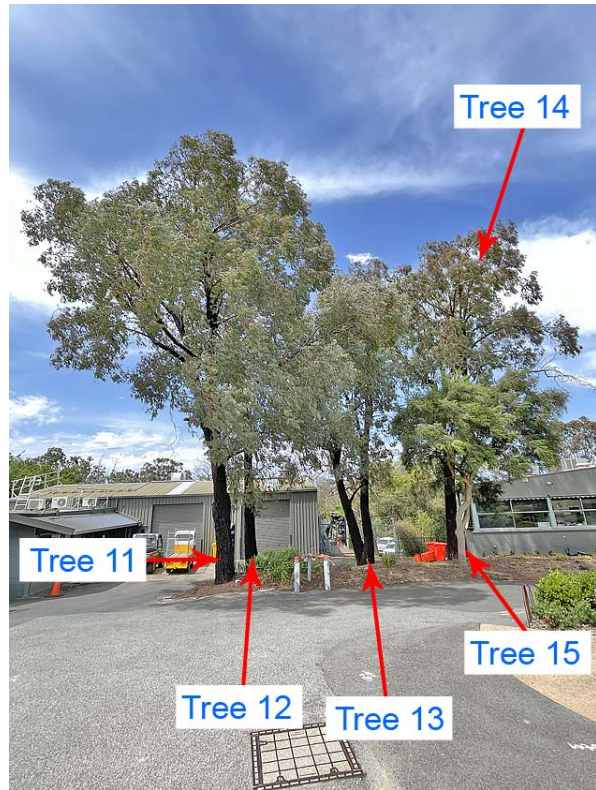


Image 5: Shows **Trees 11 through 15** with the pavement, and some underground services.

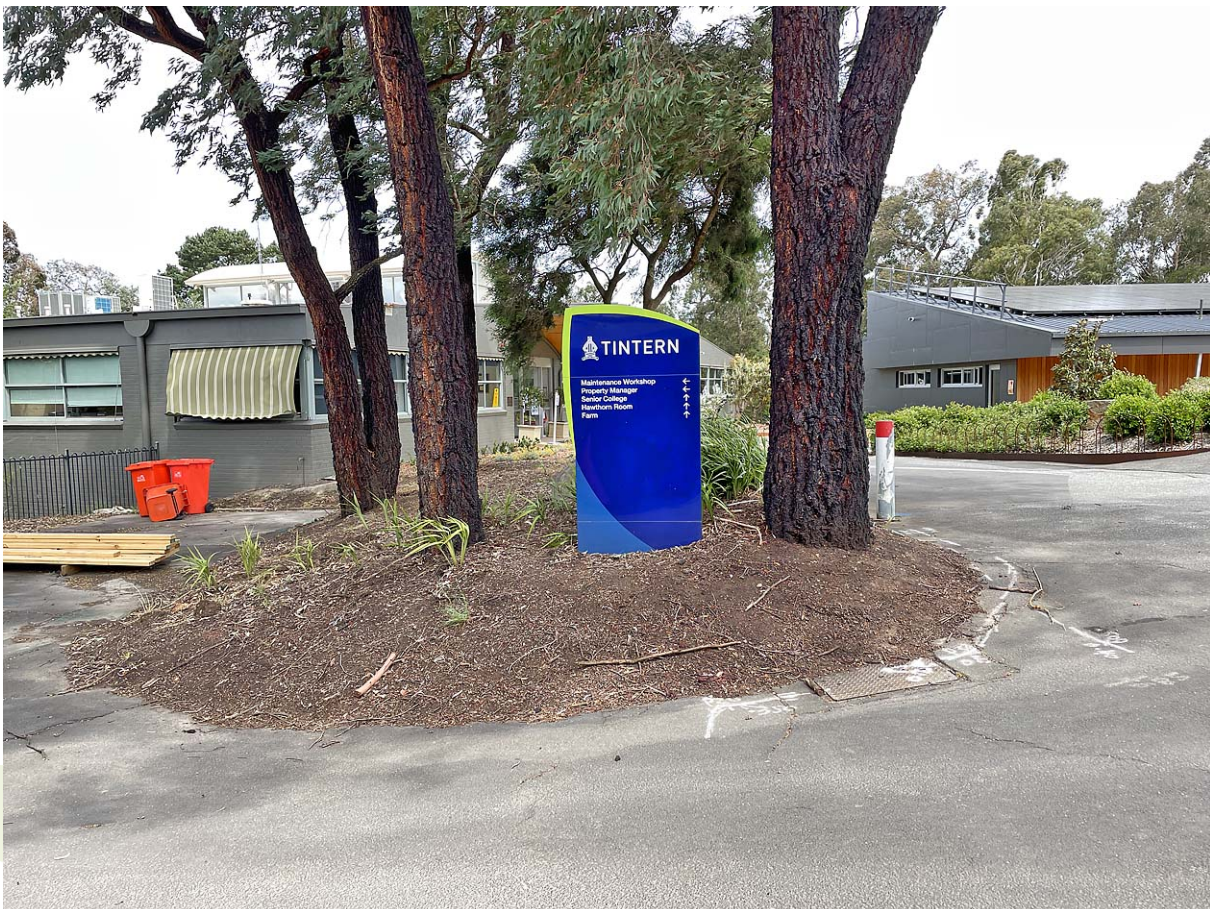


Image 6: Shows **Trees 11 through 15** looking southwards.

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Image 7: Shows **Trees 11 through 15** looking westwards.



Image 8: Shows the trunks of **Trees 11 through 15** and the garden bed where it appears there were recent changes in levels.



## Appendix 1: Tree assessment numbers and details

**DBH** = diameter at breast height (measured in centimetres at 1.4 m above ground unless otherwise stated). **TPZ** = tree protection zone (metre radius). **SRZ** = structural root zone. Radius distances measured in metres from the centre of trunk. **ULE** = useful life expectancy. For tree locations and numbering refer Appendix 2. See Appendix 3 for tree descriptors.

Tree No.	Species (Common Name)	Origin	DBH (cm)	Height x Canopy (m)	Health	Structure	Age	ULE (years)	Arb Rating	Comments	AS4970 TPZ	AS4970 SRZ
1	Quercus robur (English Oak)	Exotic	83 @0.5 m	9 x 19	Good	Fair	Maturing	>40	Moderate A	low branching spreading form, , co-dominant, crossing parts	9.96	3.09
2	Betula pendula (Silver Birch)	Exotic	13	5 x 4	Fair	Fair to Poor	Early-mature	21 to 40	Moderate C	, light fence, asymmetric, suppressed,	2.00	1.57
3	Betula pendula (Silver Birch)	Exotic	20	8 x 6	Fair	Fair	Early-mature	>40	Moderate C	sharp drop at fence line, , hangers	2.40	1.85
4	Hakea salicifolia (Willow-leaved Hakea)	Australian native	20,19,16, 15 est.	9 x 8	Fair	Fair to Poor	Maturing	21 to 40	Moderate C	construction temp fencing leaning on one stem, car park, parts removed, bleeding, multi stemmed from base	4.23	2.47
5	Eucalyptus macrorhyncha (Red Stringybark)	Indigenous	61	12 x 15	Poor	Fair to Poor	Maturing	1 to 5	Very low	, car park, embankment, reduced foliage vigour, dieback, defoliated, basal growth, some epicormic growth	7.32	2.85
6	Acer negundo (Box Elder)	Exotic	11,8	6 x 5	Good	Fair	Early-mature	21 to 40	Moderate C	weed sp., embankment,	2.00	1.57
7	Hakea salicifolia (Willow-leaved Hakea)	Australian native	Multiple stems	7 x 7	Fair	Fair to Poor	Maturing	21 to 40	Moderate C	ivy, light fence, car park, embankment, multi stemmed from base, failure wounds on trunk, failure wounds on branch, crossing parts	3.60	2.25
8	Hakea salicifolia (Willow-leaved Hakea)	Australian native	17,15 est.	7 x 6	Fair to Poor	Fair to Poor	Early-mature	21 to 40	Moderate C	ivy, embankment, co-dominant, acute unions	2.72	2.13
9	Hakea salicifolia (Willow-leaved Hakea)	Australian native	20,12 est.	8 x 6	Fair to Poor	Poor	Early-mature	11 to 20	Low	retaining wall, fence wire rubbing and wounding parts, , co-dominant, congested branch union	2.80	2.13
10	Pinus radiata (Monterey Pine)	Exotic	6	5 x 1	Good	Fair	Semi-mature	11 to 20	Low	close to neighbouring tree, retaining wall. dead stump nearby also, climbers, suppressed,	2.00	1.50
11	Eucalyptus sideroxylon (Southern Red Ironbark)	Victorian native	60	16 x 14	Fair	Fair to Poor	Maturing	>40	Moderate B	stubs from poor pruning, underground services, heavily built surrounds, path, car park, concrete pavement, parts removed, co-dominant, acute unions	7.20	2.81
12	Eucalyptus sideroxylon (Southern Red Ironbark)	Victorian native	44	17 x 8	Fair	Fair	Maturing	>40	Moderate B	, group tree, co-dominant	5.28	2.53
13	Eucalyptus sideroxylon (Southern Red Ironbark)	Victorian native	46,45	17 x 12	Fair	Fair to Poor	Maturing	21 to 40	Moderate B	, group tree, reduce lesser co-dominant stem, co-dominant, acute unions	7.72	2.93
14	Eucalyptus sideroxylon (Southern Red Ironbark)	Victorian native	59	16 x 10	Fair	Fair to Poor	Maturing	21 to 40	Moderate B	, embankment, group tree, co-dominant	7.08	2.81
15	Melaleuca lanceolata (Moonah)	Victorian native	27	8 x 7	Fair	Fair to Poor	Early-mature	21 to 40	Moderate C	, suppressed, parts removed, co-dominant, some epicormic growth, failure wounds on trunk, failure wounds on branch	3.24	2.28



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## Appendix 2: Mapping – trees in current site context



### APPENDIX 2 — TREE LOCATIONS AND PROTECTION ZONES

**PROJECT**  
Tintern Grammar School

**TL REF.**  
013168

**DATE**  
2023-10-31

**MAP NO.**  
1 / 1

**CLIENT**  
Mildowie Partners

#### LEGEND

- |            |            |        |
|------------|------------|--------|
| Study Area | Moderate B | AS4970 |
| Tree       | Moderate C | SRZ    |
| High       | Low        | TPZ    |
| Moderate A | Very low   |        |

**TREE LOCATION DISCLAIMER**  
Tree locations are approximate

**DATA SOURCES**  
NearMap and supplied survey plans

**COORDINATE REFERENCE SYSTEM**  
EPSG: 28355 | GDA 94 MGA Zone 55

ABN: 95 030 021 610  
TEL: 1300 656 926

**TREELOGIC PTY LTD**  
4 / 21 Eugenie Terrace  
Ringwood, VIC  
Australia 3134



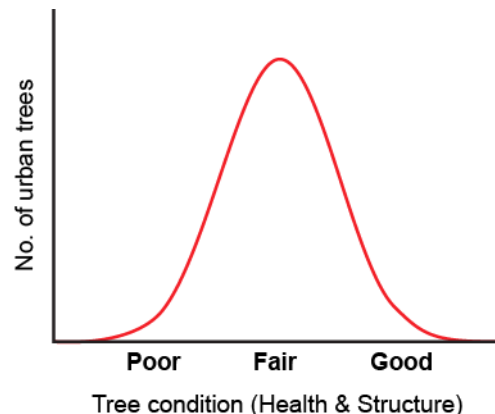
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## Appendix 3: Arboricultural Descriptors (January 2019)

Note that not all of the described tree descriptors may be used in a tree assessment and report. The assessment is undertaken with regard to contemporary arboricultural practices and consists of a visual inspection of external and above-ground tree parts.

### 1. Tree Condition

The assessment of tree condition evaluates factors of health and structure. The descriptors of health and structure attributed to a tree evaluate the individual specimen to what could be considered typical for that species growing in its location under current climatic conditions. For example, some species can display inherently poor branching architecture, such as multiple acute branch attachments with included bark. Whilst these structural defects may technically be considered arboriculturally poor, they are typical for the species and may not constitute an increased risk of failure. These trees may be assigned a structural rating of fair-poor (rather than poor) at the discretion of the assessor.



**Diagram 1:** Indicative normal distribution curve for tree condition

Diagram 1 provides an indicative distribution curve for tree condition to illustrate that within a normal tree population the majority of specimens are centrally located within the condition range (normal distribution curve). Furthermore, that those individual trees with an assessed condition approaching the outer ends of the spectrum occur less often.

### 2. Tree Name

Provides botanical name, (genus, species, variety and cultivar) according to accepted international code of taxonomic classification, and common name.

### 3. Tree Type

Describes the general geographic origin of the species and its type e.g. deciduous or evergreen.

Category	Description
Indigenous	Occurs naturally in the area or region of the subject site. Remnant.
Victorian native	Occurs naturally within some part of the State of Victoria (not exclusively) but is not indigenous (component of EVC benchmark). Could be planted indigenous trees.
Australian native	Occurs naturally within Australia but is not a Victorian native or indigenous
Exotic deciduous	Occurs outside of Australia and typically sheds its leaves during winter
Exotic evergreen	Occurs outside of Australia and typically holds its leaves all year round
Exotic conifer	Occurs outside of Australia and is classified as a gymnosperm
Native conifer	Occurs naturally within Australia and is classified as a gymnosperm
Native Palm	Occurs naturally within Australia. Woody monocotyledon
Exotic Palm	Occurs outside of Australia. Woody monocotyledon

### 4. Height and Width

Indicates height and width of the individual tree; dimensions are expressed in metres. Crown heights are measured with a height meter where possible. Due to the topography of some sites and/or the density of vegetation it may not be possible to do this for every tree. Tree heights may be estimated in line with previous height meter readings in conjunction with assessor's

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experience. Crown widths are generally paced (estimated) at the widest axis or can be measured on two axes and averaged. In some instances, the crown width can be measured on the four cardinal direction points (North, South, East and West).

Crown height and crown spread are generally recorded to the nearest half metre (crown spread would be rounded up) for dimensions up to 10 m and the nearest whole metre for dimensions over 10 m. Estimated dimensions (e.g. for off-site or otherwise inaccessible trees where accurate data cannot be recovered) shall be clearly identified in the assessment data.

## 5. Trunk diameters

The position where trunk diameters are captured may vary dependent on the requirements of the specific assessment and an individual tree specific characteristics. DBH is the typical trunk diameter captured as it relates to the allocation of tree protection distances. The basal trunk diameter assists in the allocation of a structural root zone. Some municipalities require trunk diameters be captured at different heights, with 1.0 m above grade being a common requirement. The specific planning schemes will be checked to ascertain requirements.

Stem diameters shall be recorded in centimetres, rounded to the nearest 1 cm (0.01 m).

### ***Diameter at Breast Height (DBH)***

Indicates the trunk diameter (expressed in centimetres) of an individual tree measured at 1.4m above the existing ground level or where otherwise indicated, multiple leaders are measured individually. Plants with multiple leader habit may be measured at the base. The range of methods to suit particular trunk shapes, configurations and site conditions can be seen in Appendix A of Australian Standard AS 4970-2009 *Protection of trees on development sites*. Measurements undertaken using foresters tape or builders tape.

### ***Basal trunk diameter***

The basal dimension is the trunk diameter measured at the base of the trunk or main stem(s) immediately above the root buttress. Used to ascertain the Structural Root Zone (SRZ) as outlined in AS4970.

## 6. Health

Assesses various attributes to describe the overall health and vigour of the tree.

Category	Vigour, Extension growth	Decline symptoms, Deadwood, Dieback	Foliage density, colour, size, intactness	Pests and or disease
<b>Good</b>	Above typical. Excellent. Full canopy density	Negligible	Better than typical	Negligible
<b>Fair</b>	Typical vigour. >80% canopy density	Minor or expected. Little or no dead wood	Typical. Minor deficiencies or defects could be present.	Minor, within damage thresholds
<b>Fair to Poor</b>	Below typical - low vigour	More than typical. Small sub-branch dieback	Exhibiting deficiencies. Could be thinning, or smaller	Exceeds damage thresholds
<b>Poor</b>	Minimal - declining	Excessive, large and/or prominent amount & size of dead wood	Exhibiting severe deficiencies. Thinning foliage, generally smaller or deformed	Extreme and contributing to decline
<b>Dead</b>	N/A	N/A	N/A	N/A

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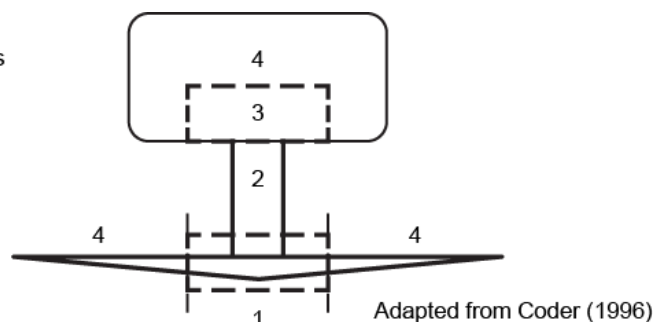
## 7. Structure

Assesses principal components of tree structure (Diagram 2).

Descriptor	Zone 1 Root plate & lower stem	Zone 2 Trunk	Zone 3 Primary branch support	Zone 4 Outer crown and roots
<b>Good</b>	No obvious damage, disease or decay; obvious basal flare / stable in ground	No obvious damage, disease or decay; well tapered	Well formed, attached, spaced and tapered. No history of failure.	No obvious damage, disease, decay or structural defect. No history of failure.
<b>Fair</b>	Minor damage or decay. Basal flare present.	Minor damage or decay	Generally, well attached, spaced and tapered branches. Minor structural deficiencies may be present or developing. No history of branch failure.	Minor damage, disease or decay; minor branch end-weight or over-extension. No history of branch failure.
<b>Fair to Poor</b>	Moderate damage or decay; minimal basal flare.	Moderate damage or decay; approaching recognised thresholds	Weak, decayed or with acute branch attachments; previous branch failure evidence.	Moderate damage, disease or decay; moderate branch end-weight or over-extension. Minor branch failure evident.
<b>Poor</b>	Major damage, disease or decay; fungal fruiting bodies present. Excessive lean placing pressure on root plate	Major damage, disease or decay; exceeds recognised thresholds; fungal fruiting bodies present. Acute lean. Stump re-sprout	Decayed, cavities or has acute branch attachments with included bark; excessive compression flaring; failure likely. Evidence of major branch failure.	Major damage, disease or decay; fungal fruiting bodies present; major branch end-weight or over-extension. Branch failure evident.
<b>Very Poor</b>	Excessive damage, disease or decay; unstable / loose in ground; altered exposure; failure probable	Excessive damage, disease or decay; cavities. Excessive lean. Stump re-sprout	Decayed, cavities or branch attachments with active split; failure imminent. History of major branch failure.	Excessive damage, disease or decay; excessive branch end-weight or over-extension. History of branch failure.

**Diagram 2:** Tree structure zones

1. Root plate & lower stem
2. Trunk
3. Primary branch support
4. Outer crown & roots



Structure ratings will also take into account general branching architecture, stem taper, live crown ratio, crown symmetry (bias or lean) and crown position such as tree being suppressed amongst more dominant trees.

The lowest or worst descriptor assigned to the tree in any column could generally be the overall rating assigned to the tree. The assessment for structure is limited to observations of external

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and above ground tree parts. It does not include any exploratory assessment of underground or internal tree parts unless this is requested as part of the investigation. Trees are assessed and then given a rating for a point in time. Generally, trees with a poor or very poor structure are beyond the benefit of practical arboricultural treatments.

The management of trees in the urban environment requires appropriate arboricultural input and consideration of risk. Risk potential will take into account the combination of likelihood of failure and impact, including the perceived importance of the target(s).

## 8. Age class

Relates to the physiological stage of the tree's life cycle.

Category	Description
Young	Sapling tree and/or recently planted. Approximately 5 or less years in location.
Semi-mature	Tree increasing in size and yet to achieve expected size in situation. Primary developmental stage.
Early-mature	Tree established, generally growing vigorously. > 50% of attainable age/size.
Mature	Specimen approaching expected size in situation, with reduced incremental growth.
Over-mature	Mature full-size with a retrenching crown. Tree is senescent and in decline. Significant decay generally present.

## 9. Useful life expectancy

Assessment of useful life expectancy provides an indication of health and tree appropriateness and involves an estimate of how long a tree is likely to remain in the landscape based on species, stage of life (cycle), health, amenity, environmental services contribution, conflicts with adjacent infrastructure and risk to the community. It would enable tree managers to develop long-term plans for the eventual removal and replacement of existing trees in the public realm. It is not a measure of the biological life of the tree within the natural range of the species. It is more a measure of the health status and the trees positive contribution to the urban landscape.

Within an urban landscape context, particularly in relation to street trees, it could be considered a point where the costs to maintain the asset (tree) outweigh the benefits the tree is returning.

The assessment is based on the site conditions not being significantly altered and that any prescribed maintenance works are carried out (site conditions are presumed to remain relatively constant and the tree would be maintained under scheduled maintenance programs).

Useful Life Expectancy (ULE)	Typical characteristics
<1 year (No remaining ULE)	Tree may be dead or mostly dead. Tree may exhibit major structural faults. Tree may be an imminent failure hazard. Excessive infrastructure damage with high risk potential that cannot be remedied.
1-5 years (Transitory, Brief)	Tree is exhibiting severe chronic decline. Crown is likely to be less than 50% typical density. Crown may be mostly epicormic growth. Dieback of large limbs is common (large deadwood may have been pruned out). Tree may be over-mature and senescing. Infrastructure conflicts with heightened risk potential. Tree has outgrown site constraints.

6-10 years (Short)	Tree is exhibiting chronic decline. Crown density will be less than typical and epicormic growth is likely to present. The crown may still be mostly entire, but some dieback is likely to be evident. Dieback may include large limbs.  Over-mature and senescing or early decline symptoms in short-lived species.  Early infrastructure conflicts with potential to increase regardless of management inputs.
11-20 years (Moderate)	Tree not showing symptoms of chronic decline, but growth characteristics are likely to be reduced (bud development, extension growth etc.). Tree may be over-mature and beginning to senesce.  Potential for infrastructure conflicts regardless of management inputs.
21-40 years (Moderately long)	Trees displaying normal growth characteristics, but vigour is likely to be reduced (bud development, extension growth etc.). Tree may be growing in restricted environment (e.g. streetscapes) or may be in late maturity. Semi-mature and mature trees exhibiting normal growth characteristics. Juvenile trees in streetscapes.
>40 years (Long)	Generally juvenile and semi-mature trees exhibiting normal growth characteristics within adequate spaces to sustain growth, such as in parks or open space. Could also pertain to maturing, long-lived trees.  Tree well suited to the site with negligible potential for infrastructure conflicts.

Note that ULE may change for a tree dependent on the prevailing climatic conditions, sudden changes to a tree's growing environment creating an acute stress or impact by pathogens.

The ULE may not be applicable for trees that are manipulated, such as topiary, or grown for specific horticultural purposes, such as fruit trees.

There may be instances where remedial tree maintenance could extend a tree's ULE.

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## 10. Arboricultural Rating

Relates to the combination of assigned tree condition factors, including health and structure (arboricultural merit) and ULE, and conveys an amenity value (An amenity tree can occupy a site that complements its surroundings in a useful manner which culminates in the aid, protection, comfort and emotional response of humans. Adapted from Coder, 2004). Amenity relates to the trees biological, functional and aesthetic characteristics (Hitchmough, 1994) within an urban landscape context. The presence of any serious disease or tree-related hazards that would impact risk potential are considered.

The arboricultural rating can be used by applying only the main category high, moderate, low or very low without using the sub categories. The sub-categories can assist in differentiating a trees value and/or characteristic in more detail within the specific tree assessment context, such as a development site.

Category	Description		
High	<p>Exemplary specimen due to multiple factors which could include; good condition and vitality, large size/canopy and prominence in the landscape. Likely to be a very long-term component in the landscape with a long ULE.</p> <p>Other factors that could contribute to a high rating:</p> <ul style="list-style-type: none"> <li>• Particularly good example of the species; rare or uncommon.</li> <li>• Tree has visual importance as a landscape feature; provides substantial contribution to landscape character.</li> <li>• Tree may have significant ecological or conservation value.</li> <li>• *Tree has historical, commemorative or other distinct social/cultural significance.</li> </ul> <p>Trees in this category must be considered for retention and/or incorporated within design proposals.</p>		
Category	Description	Sub cat.	Description
Moderate	<p>Tree of moderate quality, in fair or typical condition. Tree may have a condition, and or structural problem that will respond to arboricultural treatment.</p> <p>These trees have the potential to be moderate- to long-term components of the landscape (moderate to long ULE) if managed appropriately.</p> <p>The sub-categories relate predominately to age, size and amenity.</p> <p>Trees in this category should be considered for retention and/or incorporated within design proposals.</p>	A	<p>Moderate to large, maturing tree. Suited to the site &amp; contributes to the landscape character.</p> <p>Tree may have conservation or other cultural/social value.</p>
		B	<p>Moderate sized, established tree, &gt; 50% of attainable age/size. Suited to the site &amp; contributes to the landscape character (other attributes covered under 'Moderate' description)</p>
		C	<ul style="list-style-type: none"> <li>• Young to semi-mature, generally a smaller tree, established, &gt;15 cm DBH, &gt;5 years in the location. Not a dominant canopy. No significant qualities currently but has the potential to become a higher value tree &amp; long-term component of the landscape. Replacement of tree is likely to take up to 6 - 10 years to attain similar attributes.</li> <li>• Semi- to mature tree with accumulating deficiencies and reducing ULE, trending towards Low arboricultural value.</li> </ul>
Low	<p>Unremarkable tree of low quality or little amenity value. Tree in either poor health and/or with poor structure. Short to transitory useful life expectancy (&lt;10 years).</p> <ul style="list-style-type: none"> <li>• Tree is not prominent in the landscape due to its size or age, such as young trees with a stem diameter below 15 cm. Tree &lt; 5 years in location. These trees are easily replaceable or capable of being transplanted.</li> <li>• Tree (species) is functionally inappropriate to the specific location. Is causing excessive damage/nuisance to adjacent infrastructure or would be expected to be problematic if retained (i.e. palm tree under power lines).</li> <li>• Unremarkable tree of no material landscape, conservation or other cultural value. Not visible from surrounding landscapes.</li> <li>• Tree infected with pathogens that could lead to its decline.</li> </ul>		



Category	Description
	<ul style="list-style-type: none"> <li>• Tree has potential to be an environmental woody weed (may be dependent on location of tree in an urban landscape).</li> <li>• Tree impacting or suppressing trees of better quality.</li> </ul> <p>Retention of such trees may be considered if not requiring a disproportionate expenditure of resources for a tree in its condition and location.</p>
Very low	<p>Trees of low quality with a brief to no remaining ULE (&lt;5 years).</p> <ul style="list-style-type: none"> <li>• Tree has either a severe structural defect or health problem or combination that cannot be sustained with practical arboricultural techniques and the loss of the tree or tree part would be expected in the short term.</li> <li>• Tree whose retention would not be viable after the removal of adjacent trees, such as trees that have developed in close spaced Tree Groups and would not be expected to adapt to severe and sudden alterations to environmental &amp; site conditions, e.g. removal of adjacent shelter trees.</li> <li>• Small or young tree, &lt;5m in height, &lt;10cm DBH. Easily replaced in short-term or capable of being transplanted.</li> <li>• Acknowledged environmental woody weed species. Tree has a detrimental effect on the environment, for example, the tree has weed potential and is likely to spread into waterways or natural areas if nearby.</li> <li>• Tree infected with pathogens that will lead to decline and has potential to spread to adjacent trees.</li> <li>• Tree is dead (dead tree may offer habitat values) or is showing signs of significant, immediate, and irreversible overall decline.</li> </ul> <p>Tree cannot realistically be retained and should be considered for removal.</p>

Other considerations - Even though a tree may be declining or dead, a tree could be retained for other purposes such as habitat or soil stabilisation. These trees would still need to be managed appropriately to reduce risk.

\*A tree may have (attract) a high value by the community for historical, commemorative or other distinct social/cultural significance factors, albeit the tree may not be in good condition. In the context of an assessment, for multiple reasons, but more so for development, if it is a noted 'significant' tree it should receive higher consideration during the planning process.

### Bibliography:

Coder, K D. (1996), *Construction damage assessments: trees and sites*, University of Georgia, USA.

Hitchmough, J.D. (1994), *Urban landscape management*, Inkata Press, Australia.

Gooding, R.F., Ingram, J.B., Urban, J.R., Bloch, L.B., Steigerwaldt, W.M, Harris, R.W. and Allen, E.N. (2000), *Guide for plant appraisal, 9th edition*, International society of Arboriculture, USA.

Pollard, A. H. (1974) *Introductory statistics: a service course*, Pergamon Press Australia, Australia.

Australian Standard (4970-2009), Protection of Trees on development sites. Standards Australia, Sydney, NSW, Australia.

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## Appendix 4: Tree protection zones (2015)

### Introduction

- In order to sustain trees on a development site consideration must be given to the establishment of tree protection zones.
- The physical dimensions of tree protection zones can sometimes be difficult to define. The projection of a tree's crown can provide a guide but is by no means the definitive measure. The unpredictable nature of roots and their growth, differences between species and their tolerances, and observable and hidden changes to the trees growing environment, as a result of development, are variables that must be considered.
- Most vigorous, broad canopied trees survive well if the area within the drip-line of the canopy is protected. Fine root density is usually greater beneath the canopy than beyond (Gilman, 1997). If few to no roots over 3cm in diameter are encountered and severed during excavation the tree will probably tolerate the impact and root loss. A healthy tree can sustain a loss of between 30% and 50% of absorbing roots (Harris, Clark, Matheny, 1999), however encroachment into the structural root system of a tree may be problematic.
- The structural root system of a tree is responsible for ensuring the stability of the entire tree structure in the ground. A tree could not sustain loss of structural root system and be expected to survive let alone stand up to average annual wind loads upon the crown.

### Allocation of tree protection zone (TPZ)

The method of allocating a TPZ to a particular tree will be influenced by site factors, the tree species, its age and developed form.

Once it has been established, through an arboricultural assessment, which trees and Tree Groups are to be retained, the next step will require careful management through the development process to minimise any impacts on the designated trees. The successful retention of trees on any particular site will require the commitment and understanding of all parties involved in the development process. The most important activity, after determining the trees that will be retained is the implementation of a TPZ.

The intention of tree protection zones is to:

- mitigate tree hazards;
- provide adequate root space to sustain the health and aesthetics of the tree into the future;
- minimise changes to the trees growing environment, which is particularly important for mature specimens;
- minimise physical damage to the root system, canopy and trunk; and
- define the physical alignment of the tree protection fencing

### Tree protection

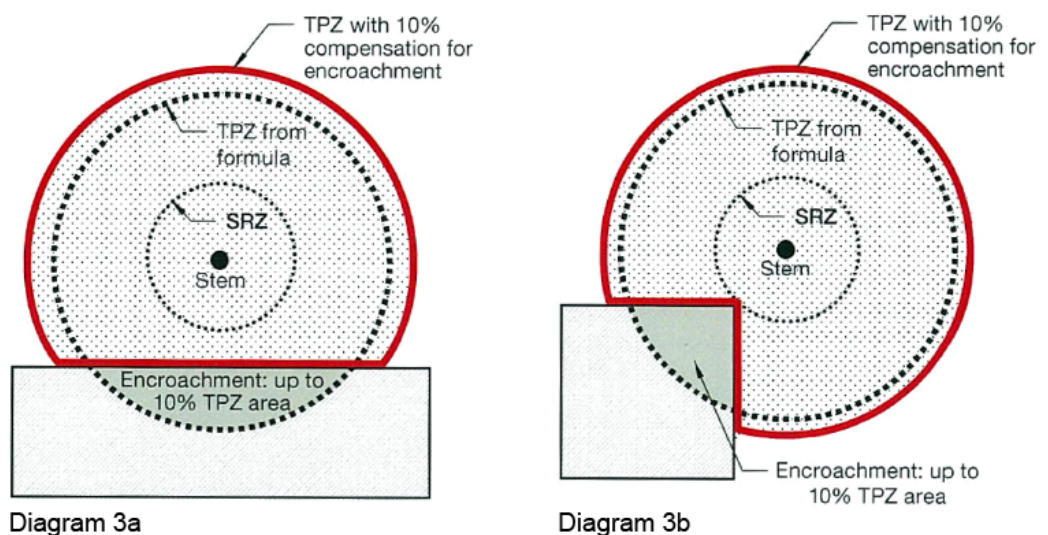
The most important consideration for the successful retention of trees is to allow appropriate above and below ground space for the trees to continue to grow. This requires the allocation of tree protection zones for retained trees.

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The Australian Standard AS 4970-2009 Protection of trees on development sites has been used as a guide in the allocation of TPZs for the assessed trees.

The TPZ for individual trees is calculated based on trunk (stem) diameter (DBH), measured at 1.4 metres up from ground level. The radius of the TPZ is calculated by multiplying the trees DBH by 12. The method provides a TPZ that addresses both the stability and growing requirements of a tree. TPZ distances are measured as a radius from the centre of the trunk at (or near) ground level. The minimum TPZ should be no less than 2m and the maximum no more than 15m radius. The TPZ of palms should be not less than 1.0m outside the crown projection.

Encroachment into the TPZ is permissible under certain circumstances though is dependent on both site conditions and tree characteristics. Minor encroachment, up to 10% of the TPZ, is generally permissible provided encroachment is compensated for by recruitment of an equal area contiguous with the TPZ. Examples are provided in Diagram 1. Encroachment greater than 10% is considered major encroachment under AS4970-2009 and is only permissible if it can be demonstrated that after such encroachment the tree would remain viable.



**Diagram 3: Examples of Minor encroachment into TPZ,**  
(Extract from : AS4970-2009, Appendix D, P30 of 32)

The 10% encroachment on one side equates to approximately  $\frac{1}{3}$  radial distance. Tree root growth is opportunistic and occurs where the essentials to life (primarily air and water) are present. Heterogeneous soil conditions, existing barriers, hard surfaces and buildings may have inhibited the development of a symmetrically radiating root system.

Existing infrastructure around some trees may be within the TPZ or root plate radius. The roots of some trees may have grown in response to the site conditions and therefore if existing hard surfaces and building alignments are utilised in new designs the impacts on the trees should be minimal. The most reliable way to estimate root disturbance is to find out where the roots are in relation to the demolition, excavation or construction works that will take place (Matheny & Clark, 1998). Exploratory excavation prior to commencement of construction can help establish the extent of the root system and where it may be appropriate to excavate or build.

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The TPZ should also give consideration to the canopy and overall form of the tree. If the canopy requires severe pruning in order to accommodate a building and in the process the form of the tree is diminished it may be worthwhile considering altering the design or removing the tree.

## General tree protection guidelines

The most important factors are:

- Prior to construction works the trees nominated for tree works should be pruned to remove larger dead wood. Pruning works may also identify other tree hazards that require remedial works.
- Installation of tree protection fencing. Once the tree protection zones have been determined the next step is to mulch the zone with woodchip and erect tree protection fencing. This must be completed prior to any materials being brought on-site, erection of temporary site facilities or demolition/earth works. The protection fencing must be sturdy and withstand winds and construction impacts. The protection fence should only be moved with approval of the site supervisor. Other root zone protection methods can be incorporated if the TPZ area needs to be traversed.
- Appropriate signage is to be fixed to the fencing to alert people as to importance of the tree protection zone.
- The importance of tree preservation must be communicated to all relevant parties involved with the site.
- Inspection of trees during excavation works.

## Exploratory excavation

The most reliable way to estimate root disturbance is to find out where the roots are in relation to the demolition, excavation or construction works that will take place (Matheny & Clark, 1998).

Exploratory excavation prior to commencement of construction can help establish the extent of the root system and where it may be appropriate to excavate or build. This also allows management decisions to be made and allows time for redesign works if required.

Any exploratory excavation within the allocated TPZ is to be undertaken with due care of the roots. Minor exploration is possible with hand tools. More extensive exploration may require the use of high pressure water or air excavation techniques. Either hydraulic or pneumatic excavation techniques will safely expose tree roots; both have specific benefits dependent on the situation and soil type. An arborist is to be consulted on which system is best suited for the site conditions.

Substantial roots are to be exposed and left intact.

Once roots are exposed decisions can be made regarding the management of the tree. Decisions will be dependent on the tree species, its condition, its age, its relative tolerance to root loss, and the amount of root system exposed and requiring pruning.

Other alternative measures to encroaching the TPZ may include boring or tunnelling.

## How to determine the diameter of a substantial root

The size of a substantial root will vary according to the distance of the exposed root to the trunk of the tree. The further away from the trunk of a tree that a root is, the less significant the root is likely to be to the tree's health and stability.

The determination of what is a substantial root is often difficult because the form, depth and spread of roots will vary between species and sites. However, because smaller roots are connected to larger roots in a framework, there can be no doubt that if larger roots are severed, the smaller roots attached to them will die. Therefore, the larger the root, the more significant it may be.

Gilman (1997) suggests that trees may contain 4-11 major lateral roots and that the five largest lateral roots account (act as a conduit) for 75% of the total root system.

These large lateral roots quickly taper within a distance to the tree, this distance is identified as the Structural Root Zone (SRZ). Within the SRZ distance, all roots and the soil surrounding the roots are deemed significant.

No root or soil disturbance is permitted within the SRZ.

In the area outside the SRZ the tree may tolerate the loss of one or a number of roots. The table below indicates the size of tree roots, outside the SRZ that would be deemed substantial for various tree heights. The assessment of combined root loss within the TPZ would need to be undertaken by an arborist on an individual basis because the location of the tree, its condition and environment would need to be assessed.

**Table 1:** *Estimated significant root sizes outside SRZ*

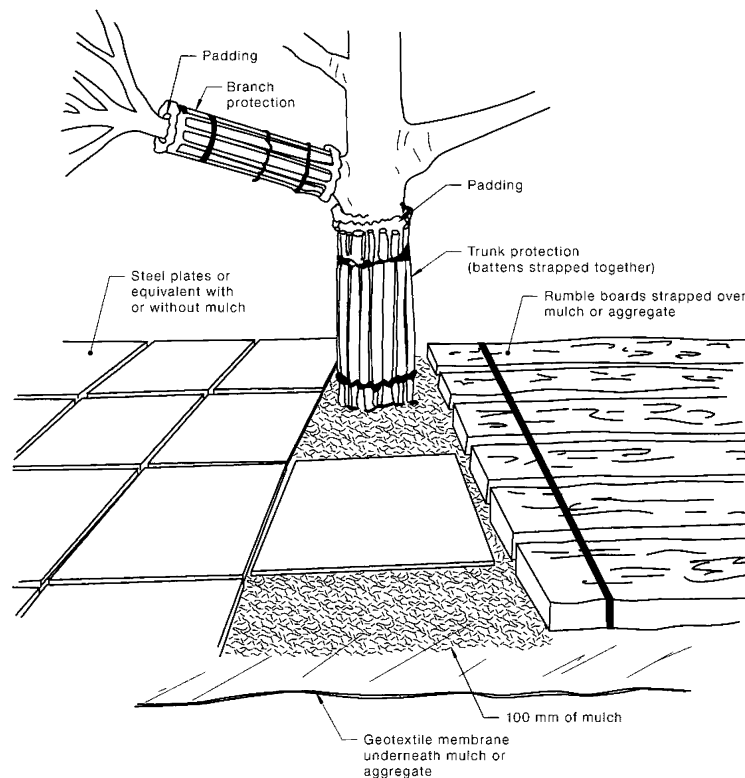
Height of tree	Diameter of root
Less than 5m	≥ 30mm
Between 5m - 15m	≥ 50mm
More than 15m	≥ 70mm

## Ground buffering

Where works are required to be undertaken within the Tree root zone without penetration of the surface, ground buffering and trunk and limb protection must be provided to minimise the potential for soil to become compacted and avoid potential for impact wounds to occur to surface roots, trunk or limbs. Refer below.

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### NOTES:

- 1 For trunk and branch protection use boards and padding that will prevent damage to bark. Boards are to be strapped to trees, not nailed or screwed.
- 2 Rumble boards should be of a suitable thickness to prevent soil compaction and root damage.

**Diagram 4:** Examples of ground buffering and trunk and limb protection.

### Construction Guidelines

The following are guidelines that must be implemented to minimise the impact of the proposed construction works on the retained trees.

- The Tree Protection Zone (TPZ) is fenced and clearly marked at all times. The actual fence specifications should be a minimum of 1.2 - 1.5 metres of chain mesh or like fence with 1.8 meter posts (e.g. treated pine or star pickets) or like support every 3-4 metres and a top line of high visibility plastic hazard tape. The posts should be strong enough to sustain knocks from on site excavation equipment. This fence will deter the placement of building materials, entry of heavy equipment and vehicles and also the entry of workers and/or the public into the TPZ. Note: There are many different variations on the construction type and material used for TPZ fences, suffice to say that the fence should satisfy the responsible authority.
- Contractors and site workers should receive written and verbal instruction as to the importance of tree protection and preservation within the site. Successful tree preservation occurs when there is a commitment from all relevant parties involved in designing, constructing and managing a development project. Members of the project team need to interact with each other to minimise the impacts to the trees, either through design decisions or construction practices. The importance of tree preservation must be communicated to all relevant parties involved with the site.

- The consultant arborist is on-site to supervise excavation works around the existing trees where the TPZ will be encroached.
- A layer of organic mulch (woodchips) to a depth of no more than 100mm should be placed over the root systems within the TPZ of trees, which are to be retained so as to assist with moisture retention and to reduce the impact of compaction.
- No persons, vehicles or machinery to enter the TPZ without the consent of the consulting arborist or site manager.
- Where machinery is required to operate inside the TPZ it must be a small skid drive machine (i.e Dingo or similar) operating only forwards and backwards in a radial direction facing the tree trunk and not altering direction whilst inside the TPZ to avoid damaging, compacting or scuffing the roots.
- Any underground service installations within the allocated TPZ should be bored and utility authorities should common trench where possible.
- No fuel, oil dumps or chemicals shall be allowed in or stored on the TPZ and the servicing and re-fuelling of equipment and vehicles should be carried out away from the root zones.
- No storage of material, equipment or temporary building should take place over the root zone of any tree.
- Nothing whatsoever should be attached to any tree including temporary services wires, nails, screws or any other fixing device.
- Supplementary watering should be provided to all trees through any dry periods during and after the construction process. Proper watering is the most important maintenance task in terms of successfully retaining the designated trees. The areas under the canopy drip lines should be mulched with woodchip to a depth of no more than 100mm. The mulch will help maintain soil moisture levels. Testing with a soil probe in a number of locations around the tree will help ascertain soil moisture levels and requirements to irrigate. Water needs to be applied slowly to avoid runoff. A daily watering with 5 litres of water for every 30 mm of trunk calliper may provide the most even soil moisture level for roots (Watson & Himelick, 1997), however light frequent irrigations should be avoided. Irrigation should wet the entire root zone and be allowed to dry out prior to another application. Watering should continue from October until April.

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## References

Bernatzky, A. 1978. Tree Ecology and Preservation. New York: Elsevier Publishing.

British Standard 5837. 1991. Guide for Trees in relation to construction. British Standards Institute.

Gilman, E. F. 1997. Trees for Urban and Suburban Landscapes. Delmar.

Harris, R. W, Clark J.R. & Matheny N.P. 1999. Arboriculture: Integrated Management of Landscape Trees, Shrubs and Vines, Third Edition. Prentice - Hall, New Jersey.

Helliwell, D. R. 1985. Trees on Development Sites. Arboricultural Association UK.

Matheny, N. & Clark, J. R. 1998. Trees and development – A technical guide to preservation of trees during land development. International Society of Arboriculture, Publishers.

Mattheck, C. & Breloer, H. 1994. The Body Language of Trees HMSO

Mattheck C. 2002. Tree Mechanics, Forschungszentrum Karlsruhe GMBH

Tattar, T. A. 1989. Diseases of Shade Trees, 2nd ed. San Diego: Academic Press.

Watson, G. W. & Himelick, E. B. 1997. Principals and Practices of Planting Trees and Shrubs. International Society of Arboriculture.

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# Native Vegetation Removal Report

NVRR ID: 342\_20240409\_IWF

This report provides information to support an application to remove, destroy or lop native vegetation in accordance with the [Guidelines for the removal, destruction or lopping of native vegetation](#) (the Guidelines). This report **is not an assessment by DEECA** of the proposed native vegetation removal. Offset requirements have been calculated using modelled condition scores.

## Report details

**Date created:** 09/04/2024

**Local Government Area:** MAROONDAH CITY

**Registered Aboriginal Party:** Wurundjeri

**Coordinates:** 145.25871, -37.81579

**Address:**

ALEXANDRA ROAD RINGWOOD EAST 3135

90 ALEXANDRA ROAD RINGWOOD EAST 3135

51 MORINDA STREET RINGWOOD EAST 3135

## Summary of native vegetation to be removed

Assessment pathway	Basic Assessment Pathway		
<b>Location category</b>	<b>Location 1</b> The native vegetation extent map indicates that this area is not typically characterised as supporting native vegetation. It does not meet the criteria to be classified as Location Category 2 or 3. The removal of less than 0.5 hectares of native vegetation in this area will not require a Species Offset.		
<b>Total extent including past and proposed removal (ha)</b> <i>Includes endangered EVCs (ha): 0.031</i>	<b>0.031</b>	<i>Extent of past removal (ha)</i>	0
		<i>Extent of proposed removal - Patches (ha)</i>	0.000
		<i>Extent of proposed removal - Scattered Trees (ha)</i>	0.031
<b>No. Large Trees proposed to be removed</b>	<b>0</b>	<i>No. Large Patch Trees</i>	0
		<i>No. Large Scattered Trees</i>	0
<b>No. Small Scattered Trees</b>	1		

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## Offset requirements if approval is granted

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

General Offset amount <sup>1</sup>	0.005 General Habitat Units
Minimum strategic biodiversity value score <sup>2</sup>	0.108
Large Trees	0
Vicinity	Melbourne Water CMA or MAROONDAH CITY LGA

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

The availability of third-party offset credits can be checked using the Native Vegetation Credit Register (NVCR) Search Tool - <https://nvcr.delwp.vic.gov.au>

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

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



## Application requirements

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.

### Application Requirement 1 - Native vegetation removal information

If the native vegetation removal is mapped correctly, the information presented in this Native Vegetation Removal Report addresses Application Requirement 1.

### Application Requirement 2 - Topographical and land information

This statement describes the topographical and land features in the vicinity of the proposed works, including the location and extent of any ridges, hilltops, wetlands and waterways, slopes of more than 20% gradient, low-lying areas, saline discharge areas or areas of erosion.

The study area is effectively flat. The site does not support any ridges, hilltops, wetlands and waterways, slopes of more than 20% gradient, low-lying areas, saline discharge areas or areas of erosion.

### Application Requirement 3 - Photographs of the native vegetation to be removed

Application Requirement 3 is not addressed in this Native Vegetation Removal Report. All applications must include recent, timestamped photos of each Patch, Large Patch Tree and Scattered Tree which has been mapped in this report.

### Application Requirement 4 - Past removal

If past removal has been considered correctly, the information presented in this Native Vegetation Removal Report addresses Application Requirement 4.

### Application Requirement 5 - Avoid and minimise statement

This statement describes what has been done to avoid and minimise impacts on native vegetation and associated biodiversity values.

The site is highly encumbered by existing built form, which poses significant constraints for the development of additional infrastructure. The area of native vegetation in the eastern portion of the site further restricts any proposed building plans. All trees within the eastern portion of the site have been avoided and only 1 small tree (Tree 5 – Red Stringybark Eucalyptus macrorhyncha, now possibly dead) is proposed for removal. The single, small tree is not representative of an Endangered EVC, is not hollow bearing and does not provide critical or limiting habitat for threatened species. The proposed area of works does not support sensitive wetlands or coastal areas, and is modelled entirely as Location category 1.


### Application Requirement 6 - Property Vegetation Plan

This requirement only applies if an approved Property Vegetation Plan (PVP) applies to the property  
Does a PVP apply to the proposal?

No

### Application Requirement 7 - Defendable space statement

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Where the removal of native vegetation is to create defensible space, this statement:

- Describes the bushfire threat; and
- Describes how other bushfire risk mitigation measures were considered to reduce the amount of native vegetation proposed for removal (this can also be part of the avoid and minimise statement).

This statement is not required if, the proposed defensible space is within the Bushfire Management Overlay (BMO), and in accordance with the 'Exemption to create defensible space for a dwelling under Clause 44.06 of local planning schemes' in Clause 52.12-5.

N/A

### **Application Requirement 8 - Native Vegetation Precinct Plan**

This requirement is only applicable if you are removing native vegetation from within an area covered by a Native Vegetation Precinct Plan (NVPP), and the proposed removal is not identified as 'to be removed' within the NVPP.

Does an NVPP apply to the proposal?

No

### **Application Requirement 9 - Offset statement**

This statement demonstrates that an offset is available and describes how the required offset will be secured. The Applicant's Guide provides information relating to this requirement.

Client has been provided with an offset search report.

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## Next steps

Applications to remove, destroy or lop native vegetation must address all the application requirements specified in the Guidelines. If you wish to remove the mapped native vegetation you are required to apply for approval from the responsible authority (e.g. local Council). This Native vegetation removal report must be submitted with your application and meets most of the application requirements. The following requirements need to be addressed, as applicable.

### **Application Requirement 3 - 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, Patch Tree or Scattered Tree, 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.

### **Application Requirement 6 - Property Vegetation Plan**

If a PVP is applicable, it must be provided with the application.

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## Appendix 1: Description of native vegetation to be removed

General Habitat Units for each zone (Patch, Scattered Tree or Patch Tree) are calculated by the following equation in accordance with the Guidelines.

**General Habitat Units = extent without overlap x condition score x general landscape factor x 1.5, where the general landscape factor = 0.5 + (strategic biodiversity value score/2)**

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

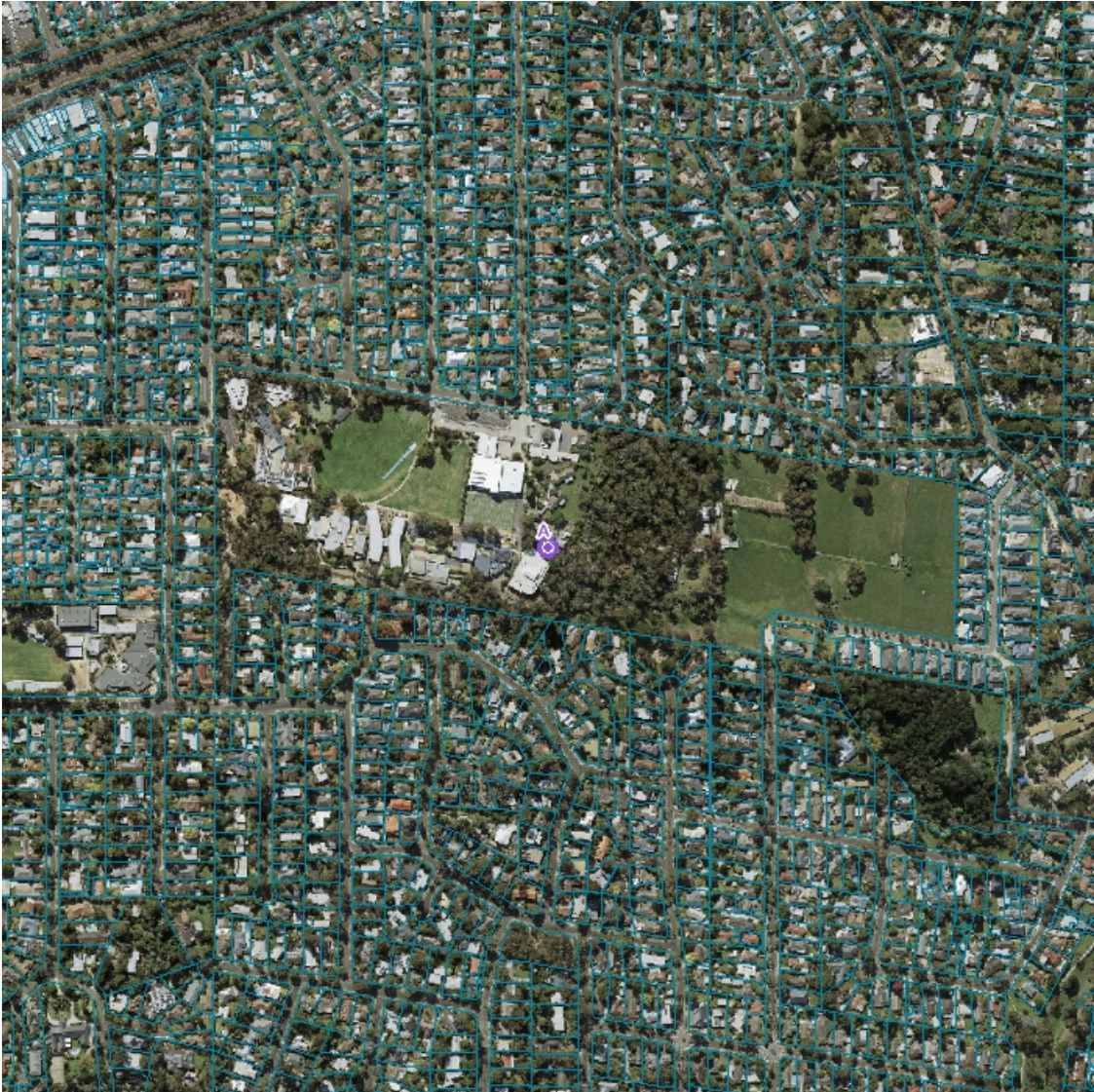
### Native vegetation to be removed



Information provided by or on behalf of the applicant			Information calculated by NVR Map							
Zone	Type	DBH (cm)	EVC code (modelled)	Bioregional conservation status	Large Tree(s)	Condition score (modelled)	Polygon extent (ha)	Extent without overlap (ha)	SBV score	General Habitat Units
A	Scattered Tree	61	GipP0127	Endangered	-	0.200	0.031	0.031	0.135	0.005

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## Appendix 2: Images of mapped native vegetation

### 1. Property in context



-  Proposed Removal
-  Property Boundaries



200 m

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## 2. Aerial photograph showing mapped native vegetation



□ Proposed Removal



30 m

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### 3. Location Risk Map



□ Proposed Removal

□ Location 1

□ Location 2

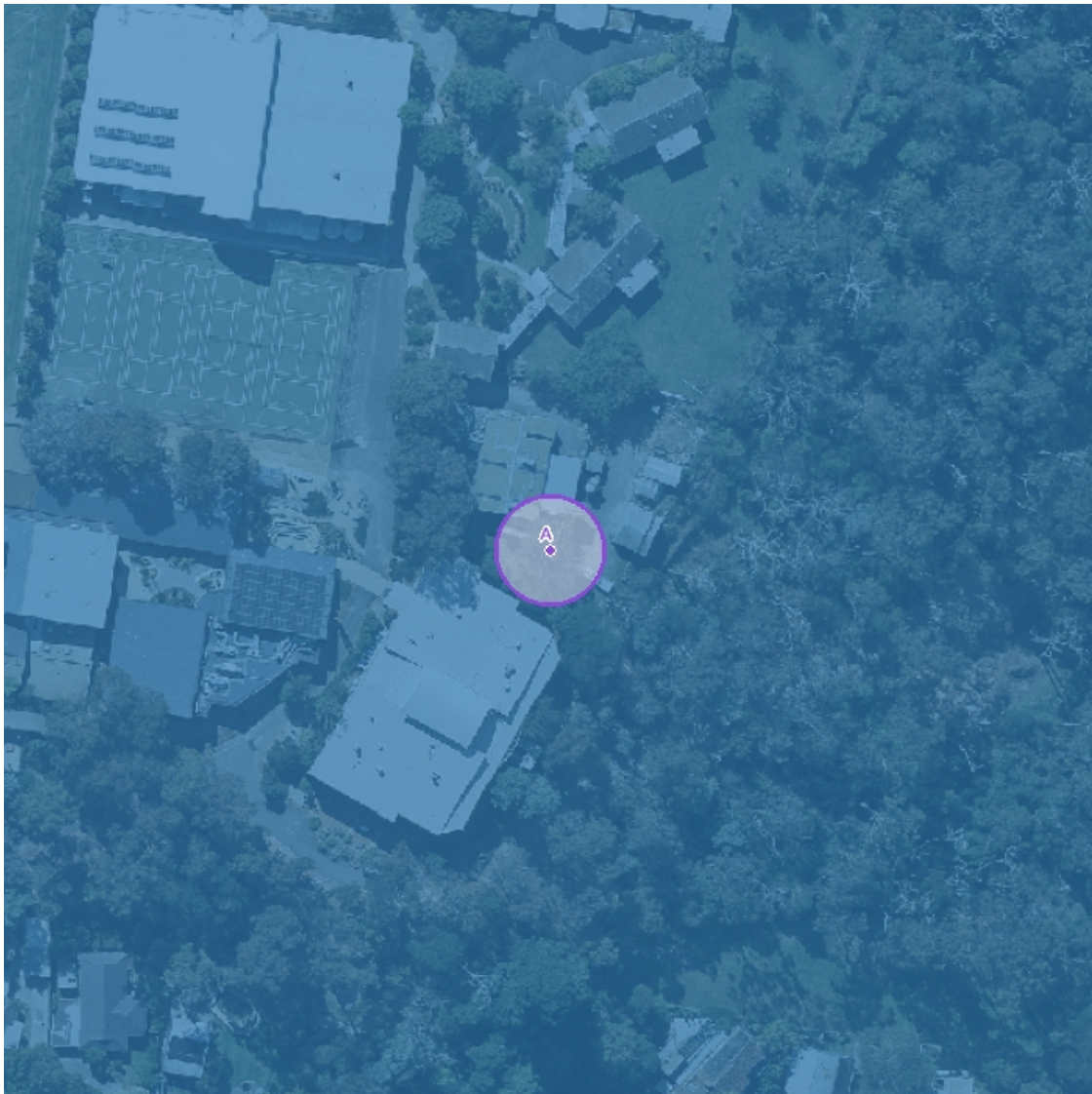
□ Location 3



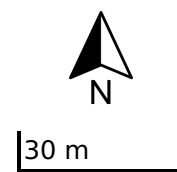
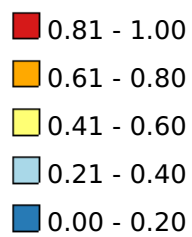
30 m

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#### 4. Strategic Biodiversity Value Score Map



Proposed Removal



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## 5. Condition Score Map



□ Proposed Removal

■ 0.81 - 1.00

■ 0.61 - 0.80

■ 0.41 - 0.60

■ 0.21 - 0.40

■ 0.00 - 0.20



30 m

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## 6. Endangered EVCs



-  Proposed Removal
-  Endangered 1750 Ecological Vegetation Classes



30 m

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# 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: 09/04/2024 03:54

Report ID: 23678

## What was searched for?

### General offset

General habitat units	Strategic biodiversity value	Large trees	Vicinity (Catchment Management Authority or Municipal district)	
0.005	0.108	0	CMA	Melbourne Water
			or LGA	Maroondah City

## Details of available native vegetation credits on 09 April 2024 03:54

### These sites meet your requirements for general offsets.

Credit Site ID	GHU	LT	CMA	LGA	Land owner	Trader	Fixed price	Broker(s)
BBA-0277	2.520	443	Melbourne Water	Mornington Peninsula Shire	No	Yes	No	Abezco, Ethos, VegLink
BBA-0670	16.273	107	Melbourne Water	Cardinia Shire	No	Yes	No	Abezco, VegLink
BBA-0677	9.018	1436	Melbourne Water	Whittlesea City	No	Yes	No	Abezco, VegLink
BBA-0678	43.090	2601	Melbourne Water	Nillumbik Shire	No	Yes	No	VegLink
BBA-0678_02	0.562	58	Melbourne Water	Nillumbik Shire	Yes	Yes	No	Abezco, VegLink
BBA-0931	1.258	0	Melbourne Water	Moorabool Shire	No	Yes	No	VegLink
BBA-0931	0.034	2	Melbourne Water	Moorabool Shire	Yes	Yes	No	Bio Offsets
BBA-2774	0.014	9	Melbourne Water	Greater Geelong City	Yes	Yes	No	VegLink
BBA-2789	1.317	14	Melbourne Water	Baw Baw Shire	Yes	Yes	No	Contact NVOR
BBA-2790	2.911	116	Melbourne Water	Baw Baw Shire	Yes	Yes	No	Contact NVOR
BBA-2832	0.081	0	Melbourne Water	Nillumbik Shire	Yes	Yes	Yes	Nillumbik SC
BBA-2853	0.010	46	Melbourne Water	Greater Geelong City	Yes	Yes	No	VegLink
BBA-2870	0.044	0	Melbourne Water	Yarra Ranges Shire	No	Yes	No	Contact NVOR
BBA-2870	2.544	431	Melbourne Water	Yarra Ranges Shire	Yes	Yes	No	VegLink
BBA-2871	14.851	1664	Melbourne Water	Yarra Ranges Shire	Yes	Yes	No	VegLink

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BBA-3017_02	1.984	0	Melbourne Water	Greater Geelong City	No	Yes	No	VegLink
TFN-C1636	0.045	111	Melbourne Water	Yarra Ranges Shire	Yes	Yes	No	Yarra Ranges SC
TFN-C1663	0.011	20	Melbourne Water	Yarra Ranges Shire	Yes	Yes	Yes	Yarra Ranges SC
TFN-C1664	1.051	53	Melbourne Water	Yarra Ranges Shire	Yes	Yes	No	Yarra Ranges SC
TFN-C1763_3	11.231	0	Melbourne Water	Mornington Peninsula Shire	Yes	Yes	No	Ecocentric
TFN-C1962	0.006	8	Goulburn Broken, Melbourne Water	Macedon Ranges Shire	No	Yes	No	Contact NVOR
TFN-C1962_2	0.011	0	Goulburn Broken, Melbourne Water	Macedon Ranges Shire	No	Yes	No	VegLink
TFN-C1980	0.019	0	Melbourne Water	Mornington Peninsula Shire	Yes	Yes	No	Ecocentric
VC_CFL-0838_01	0.184	648	Melbourne Water	Yarra Ranges Shire	Yes	Yes	No	VegLink
VC_CFL-3016_01	0.034	22	Melbourne Water	Yarra Ranges Shire	Yes	Yes	No	VegLink
VC_CFL-3084_01	0.010	9	Melbourne Water	Cardinia Shire	Yes	Yes	No	VegLink
VC_CFL-3084_02	0.038	38	Melbourne Water	Cardinia Shire	Yes	Yes	No	VegLink
VC_CFL-3682_01	1.834	0	Melbourne Water	Nillumbik Shire	Yes	Yes	No	Abezco
VC_CFL-3687_01	0.278	61	Melbourne Water	Baw Baw Shire	Yes	Yes	No	Baw Baw SC
VC_CFL-3705_01	0.008	3	Melbourne Water	Melton City	Yes	Yes	No	VegLink
VC_CFL-3708_01	0.198	507	Melbourne Water	Yarra Ranges Shire	Yes	Yes	No	VegLink
VC_CFL-3709_01	0.130	368	Melbourne Water	Yarra Ranges Shire	Yes	Yes	No	VegLink
VC_CFL-3710_01	6.300	322	Melbourne Water	Yarra Ranges Shire	Yes	Yes	No	VegLink
VC_CFL-3729_01	0.016	6	Melbourne Water	Melton City	Yes	Yes	No	VegLink
VC_CFL-3740_01	0.022	57	Melbourne Water	Cardinia Shire, Yarra Ranges Shire	Yes	Yes	No	Bio Offsets
VC_CFL-3740_01	0.085	16	Melbourne Water	Yarra Ranges Shire	Yes	Yes	No	Bio Offsets
VC_CFL-3744_01	1.258	361	Melbourne Water	Macedon Ranges Shire	Yes	Yes	No	VegLink
VC_CFL-3762_01	0.047	79	Melbourne Water	Moorabool Shire	Yes	Yes	No	VegLink
VC_CFL-3764_01	5.124	0	Melbourne Water	Yarra Ranges Shire	Yes	Yes	No	VegLink

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

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

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Credit Site ID	GHU	LT	CMA	LGA	Land owner	Trader	Fixed price	Broker(s)
VC_CFL-3746_01	4.962	563	Melbourne Water	Macedon Ranges Shire	Yes	Yes	No	VegLink

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
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

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

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

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

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