Shenstone Park 1069.1 PSP
Arboricultural Assessment Report

Site
Donnybrook Road,
Donnybrook VIC 3064

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City of Whittlesea
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1 Executive summary

Treetec was engaged by the City of Whittlesea on behalf of the Victorian Planning Authority to map and assess all trees of high, or very high Arboricultural Retention Value (ARV) within the boundaries of the proposed Shenstone Park 1069.1 PSP, and the adjoining buffer zone to the south and east.

The site assessments were undertaken between mid-October and mid-November 2016.

Shenstone Park 1069.1 PSP is bound by Donnybrook Road to the north, the Wollert suburb boundary to the south, the Urban Growth Boundary to the east, and the Sydney/Melbourne railway corridor to the west.

The northern boundary of the assessment area adjoining Donnybrook Road is zoned as Urban Growth Zone (UGZ), the south east section of the site is zoned as Rural Conservation Zone – Schedule 1 (RCZ1) and the south west section is zoned as both Farming Zone (FZ) and Special Use Zone – Schedule 4 (SUZ4).

The additional assessment area is covered by an Environmental Significance Overlay, specifically schedules 1, 4 and 5 (ESO1, ESO4 & ESO5).

All trees within the subject area were assessed, a total of 379 trees were identified as being of high or very high ARV. The dominant species being River Red Gum, (*Eucalyptus camaldulensis*).

- Fifty-one (51) trees were assessed as having very high ARV.
- Three hundred and twenty-eight (328) as having high ARV.

The trees assessed are primarily located in five larger clusters also with some smaller groups and scattered trees (see maps in section 3), The trees overlap from within the Shenstone Park 1069.1 PSP area into the buffer zone of approximately 250m to the south and east.

The trees detailed in this report include all higher ARV trees in the area and therefore if they are retained and protected then the majority of the arboricultural related amenity at the site will be preserved.

Individual trees and tree groups can be retained and protected within development areas so long as adequate protection measures are taken. These measures primarily relate to:

- allocating adequate space around retained trees, and
- ensuring trees are not damaged during the development process.

Large old trees provide significant value and amenity in urban areas, also they present additional hazards; risk can be controlled by minimising use of areas under and surrounding trees along with ongoing tree care and maintenance.
2 Introduction

2.1 Purpose

The purpose of this report is to inform the City of Whittlesea and the Victorian Planning Authority on the identification of significant areas of arboricultural value.

Treetec understands that the data collected during the field assessment will be used to inform the precinct structure planning process. Treetec has identified those trees that:

- Contribute significantly to the natural amenity of the precinct.
- Provide significant ecological value.
- Are of sufficient vitality and condition to persist long term if protected.

2.2 Scope

1. To identify all trees within the precinct and nominated additional assessment area that are of high or very high Arboricultural Retention Value (ARV).
2. Collect and document data on the subject trees including (but not limited to) the species, dimensions (trunk diameter, height, spread), estimated age category, origin, vitality of the tree (health, structure), Useful Life Expectancy (ULE), Arboricultural Retention Value (ARV), and a photograph.
3. Present the locations of the assessed trees visually.
4. Provide recommendations relating to the protection of the subject trees.

2.3 Method

2.3.1 Site inspection

An arboricultural assessment was undertaken by Treetec staff between 14th October and 15th November 2016.

The City of Whittlesea provided a list of those properties for which permission for access had been granted, as well as the associated names and contact details of landowners.

One property within the Shenstone Park 1069.1 PSP was not accessed due to refusal of access; this area has been highlighted on the site map in section 3.1.

2.3.2 Inspection method

Electronic data collection forms were used during fieldwork in conjunction with handheld GPS units.

- All observations were taken at ground level, using the Visual Tree Assessment (VTA) method (Mattheck and Breloer 1994).
- The nominated additional assessment area was approximately 250m south and east of Shenstone Park 1069.1 PSP.
- Trunk diameter was measured with a DBH measure for calculation of protection zones.
- Data and location was recorded using GPS/GIS enabled handheld devices.
- A photograph of each tree was collected.
2.3.3 Arboricultural Retention Value (ARV)

Arboricultural Retention Value is defined by the consulting Arborist as being:

A rating assigned to a tree or group of trees related to the value of retaining those trees in situ. The judgement is based on tree condition (Health, Structure & Form), Useful Life Expectancy (ULE), Origin and Age.

Age is a primary consideration as it is the determining factor when considering how long it would take to replace the amenity lost when trees are removed.

| Very High       | • Mature tree in good condition, long lived species with very high amenity value.  
                 | • Semi-mature or mature rare species in fair to good condition. |
|-----------------|-------------------------------------------------------------------|
| High            | • Semi-mature to mature tree in fair to good condition, long lived species with a high amenity rating.  
                 | • Juvenile rare species.                                         |
|                 | • Trees of moderate condition that offer exceptional amenity due to factors such as species, size or ecological value. |
| Medium          | All trees that don’t fit in the alternative categories and are assessed to have fair/poor or lower rating for either health of structure. |
| Low             | • Juvenile trees (not including rare species).                   |
|                 | • weeds that offer medium or high amenity value.                |
| Nil             | Contribution in the landscape is of no value or detrimental – usually associated with small dead or dangerous trees or environmental weeds. |

2.4 Limitations

The following limitations apply:

- Excavation at the site was not undertaken. Root condition has not been included unless above ground signs such as soil heaving or cracking were observed.
- Aerial examination (tree climbing) was not undertaken.
- Tree height and canopy width were estimated.
- TPZ calculation within the data table is based on AS 4970 -2009, refer to the City of Whittlesea scattered tree retention practices for applicable TPZ calculation method.
- Nearly all inspected trees contained some amount of deadwood within the canopy, this is normal for most trees and as such, no comment was made regarding low or moderate deadwood as a defect.
- Access to one property was not granted, the property was not inspected.
3  Findings

3.1  Assessment area

- Access not granted, area requiring further assessment at the planning permit stage.
- Area assessed within Shenstone PSP.
- Additional assessment area (buffer ~250m).
3.2 Shenstone PSP Maps

Boundary and buffer lines are indicative only.
Department of Environment, Land, Water and Planning (DELWP)
Scattered Trees/ Newly assessed trees.
3.3 Photographic examples of excluded trees

Plate 1 – Tree with poor health

Plate 2 – Tree with poor structure. 2013 grassfire damage

Plate 3 – Dead tree
4 Observations / discussions

4.1 Site summary

The area assessed is predominantly open pasture and/or grazing with scattered trees, some areas with a high proportion of invasive weed species.

The dominant tree species was River Red Gum, there were others including non-indigenous native, exotic, and indigenous species scattered across the site. The exotic species are predominantly low ARV and confined to wind rows or private garden space surrounding existing dwellings, there are planted native specimens in clusters or planted along fence lines as wind rows.

The Mountain View Quarry is encompassed within the assessment area. The property contains a number of high ARV trees (# 375-386) in proximity to the main entry gate. The vegetation surrounding the quarry pit is a mix of planted native and exotic species of low-medium significance.

4.1.1 Hybridisation

_Eucalyptus camaldulensis_ is known to hybridise with a number of other species, including _Eucalyptus ovata_. It appears likely that there are trees within this precinct that are hybrids including Tree 26. These hybrids share features of _Eucalyptus camaldulensis and Eucalyptus ovata_, although the dominant features observed appear to be _Eucalyptus camaldulensis_. For the purpose of this report these trees have been categorised as _Eucalyptus camaldulensis_.

4.1.2 Medium ARV Trees

Seven (7) trees were included in the data (Appendix 3) that are of medium ARV. These seven trees are outside the scope of this report but are at the high end of the medium classification, and have been included to provide an indication of the boundary between High and Medium ARV. Generally, a large tree would receive a medium rating when structural condition contributed to a higher risk potential.

4.1.3 Site habitat significance

The faunal habitat significance of most trees included within this report was considered to be high to very high. The large River Red Gums assessed typically supported numerous hollows with evidence of faunal habitation in the form of scats, nests and claw marks on trunks. There were a number of trees with notably large nesting material such as sticks and small branches consistent with large birds of prey.

4.1.4 TPZ Calculation (AS / Whittlesea / DELWP)

All trees within this report are within the City of Whittlesea and are therefore subject to the local tree protection calculation. Due to the high significance of River Red Gums, the City of Whittlesea has developed a TPZ calculation method that gives consideration to not only the tree trunk diameter (DBH) but also the tree height, spread and crown shape/extent. Through the Wollert, Quarry Hills and Donnybrook Woodstock PSPs, the Department of Environment Land Water and Planning (DELWP) endorsed the City of Whittlesea’s TPZ standards.

The Australian standard (AS4970) TPZ calculation is an area isolated from construction disturbance so that the tree remains viable. Under AS4970 the radius of the TPZ is usually calculated for each tree by multiplying its DBH x 12 (TPZ = DBH x 12).

The Whittlesea TPZ calculation is determined by the shape of the individual tree canopy and
should be applied to all River Red Gums that are to be retained, refer to the City of Whittlesea scattered tree retention practices for the detailed TPZ calculation method.

5 Conclusion

Treetec was commissioned by the City of Whittlesea on behalf of the Victorian Planning Authority to map and assess any trees of high or very high Arboricultural Retention Value that exist within the Shenstone Park 1069.1 boundary and the additional assessment area (buffer) of approximately 250m to the south and east of the PSP area.

The field investigations were undertaken during October and November 2016, one property could not be accessed and (as instructed) data was not included for this site.

The Shenstone precinct supports many very large River Red Gums of significant amenity and ecological value including Hybrid River Red Gum / Swamp Gum. The majority of higher value trees are located in five clusters (see maps in section 3), these clusters overlap from the assessment area into the buffer to the south and east.

A total of 379 trees were identified as being of high or very high ARV. The dominant species being River Red Gum, (*Eucalyptus camaldulensis*).

- Fifty-one (51) trees were assessed as very high ARV.
- Three hundred and twenty-eight (328) as high ARV.

All River Red Gums within the City of Whittlesea have region specific protection requirements under the Shires regulations (Clause 22.10); including the calculation of Tree Protection Zones using the Whittlesea council’s method. (Ref. Technical Note 1 – issued November 2014: REV A and refer to SDL.2.01.)

6 Recommendations

All trees should be considered during the initial design stages of the site subdivision, and adequate space allocated to higher value individual trees and clusters of trees to avoid development related impacts.

Plans should be cognisant of the increased risk associated with large old trees, designs should not result in increased public use of the areas under or surrounding trees.
7 References


Costermans, L. 1981, Native trees and shrubs of south-eastern Australia, New Holland publishers (Australia) Pty Ltd, Sydney


City of Whittlesea, 2013, Scattered Tree Retention in the City of Whittlesea. Draft Only-prepared for The Department of Environment, Land, water and Planning. (DELWP)

Standards Australia. 2009, AS 4970-2009 Protection of trees on development sites

Standards Australia, 2007, AS 4373-2007 Pruning of amenity trees

8 Assumptions and limiting conditions

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