TREEMAP
ARBORICULTURE

Arboricultural Assessment & Report
1170z Mickleham Road, Greenvale

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November 2022

Prepared for:
Satterley Property Group P/L

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ARBORICULTURE

1 Name and address of consultant

Dean Simonsen (AQF Level 7)
Treemap Arboriculture
PO Box 465, Heidelberg, Victoria 3084

2 Instructions

2.1 The instructions provided to Treemap Arboriculture on 07/11/22 by Satterley Property Group P/L were to provide a revised Arboricultural assessment and report on trees located on or near to the subject site, the subject site being 1170z Mickleham Road, Greenvale. The site is located immediately north of Greenvale Reservoir.

3 Introduction

3.1 The owners/managers of the subject site are undertaking investigations to develop the property. As part of any rezoning, design and application process, the owners are undertaking a review of the vegetation located on or near the land. This report examines the arboricultural matters associated with this vegetation.

3.2 Under AS4970-2009 (Australian Standard – Protection of trees on development sites), the following report would be defined as a 'Preliminary assessment and arboricultural report'. The standard indicates that *"This information is to be used by planners, architects and designers, in conjunction with any planning controls and other legislation, to develop the design layout in such a way that trees selected for retention are provided with enough space."*

4 Key Objectives

4.1 To undertake a general assessment of trees located on or near the subject site.

4.2 To provide an assessment of the subject trees with respect to their overall condition, structure, safety and suitability for preservation.

4.3 To provide recommendations on the suitability of trees for removal or retention, and provide guidance on approved methods of tree protection if retention is recommended.

5 Method

5.1 A site and tree inspection were conducted on Friday 27th May 2022.

5.2 The tree assessment consisted of a visual inspection, which was undertaken with regard to modern arboricultural principles and practices. The assessment did not involve a detailed examination of below ground or internal tree parts. The assessment was undertaken from the ground to determine species type and condition. Measurements were taken to establish trunk and crown dimensions. No tree samples or site soil samples were taken unless specified. Dead trees were not examined or assessed unless they were indigenous. Trunk diameters for trees on adjoining properties may be estimated due to site access limitations.

5.3 The trees have been allocated a retention value rating which combines tree condition factors with functional and aesthetic characteristics in the context of an urban landscape. The retention or preservation of trees may not depend solely on arboricultural considerations; therefore, the ratings may act as a guide to assist in decisions relating to tree management and retention (Refer to Appendix 1).

5.4 A feature survey plan was not available for the site. Tree mapping was conducted using a combination of GNSS (Global Navigation Satellite System) real time differentially corrected point positions and orthorectified aerial imagery using field GIS (Geographic Information Systems) ESRI Arcpad software. GNSS positions were collected using a Javad GPS unit (Triumph 2, Glonass ready) and corrected using Vicmap Position - GPSnet™. GPSnet is a positioning and navigation correction service for Global Navigation Satellite System (GNSS) users, throughout Victoria.

5.4.1 Tree point accuracies collected using the GPS receivers typically range from 0.3m to 1.0m. The coordinate positions for each tree are projected to X and Y coordinates (metres) in Map Grid of Australia 1994 - Grid Coordinates (MGA94, Zone 55) and GDA94 longitude and latitude coordinates (decimal degrees).

5.5 The assessed trees have been presented on the prepared plans and overlaid with a title plan issued for the site titled - 29817__ACTION 7 (Former Action 6).dwg. (Appendix 3).

6 Observations

6.1 The site under review presented as a large semi-rural allotment (measuring approximately 63 hectares) and it contained no features apart from scattered trees. The site adjoins similar style properties to the north, residential subdivisions to the east and west, and the Greenvale Reservoir to the south. The subject site was mostly devoid of trees or shrubs, and was dominated by pasture grasses and Artichoke Thistle (*Cynara cardunculus*).

View west across site towards 4 trees identified as significant under NVPP

6.2 Thirty-four (34) trees were assessed in detail as part of the site review. This included 32 trees on the subject site and 2 neighbouring trees. The detail of each individual tree assessment is provided in table format at Appendix 1. Tree numbers within the assessment table correspond to those provided on the prepared plan (Appendix 3).

6.3 Trees that are native to Victoria would ordinarily be influenced by Clause 52.17 (Native vegetation) of the planning scheme because the site is larger than 0.4ha. This clause has particular obligations and requirements relating to indigenous trees, but there are also exemptions that apply under this clause for planted vegetation and regrowth that is less than 10 years old.

6.3.1 Exemptions apply to 52.17 if a Native Vegetation Precinct Plan applies to the land. The site is influenced by the Greenvale North [R1] – Precinct Structure Plan which includes Greenvale North R1 Native Vegetation Precinct Plan (September 2010).

6.3.2 Four trees on the site are identified in the Greenvale North R1 NVPP (Trees 1-4 and identified as Trees 24-27 in this report).

6.4 Native vegetation is defined as '*Plants that are indigenous to Victoria, including trees, shrubs, herbs, and grasses'* under the Definitions of the State Planning provisions – Clause 73.01.

6.5 Schedule 9 to Clause 42.01 (Environmental Significance Overlay) applies to the land and it states *A permit is not required: for the removal, destruction or lopping of any vegetation*.

6.6 The site is also influenced by a local vegetation control. A City of Hume Vegetation Protection Overlay (VPO) and Schedule 4 to the Overlay (VPO4) apply to the site. This is based on a planning property report for the site being obtained from www.planning.vic.gov.au/planning on 07/11/22. The '*Statement of nature and significance of vegetation to be protected'* in the schedule to the overlay states:

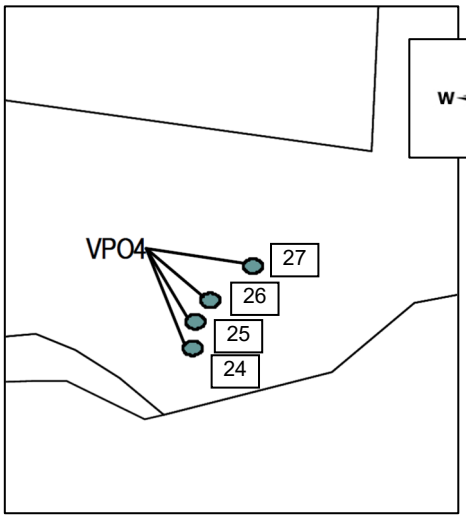
> *Four large Red Gums have been identified within the Greenvale Rise Development Site. These are considered to be the last remaining specimens of this species on the property. Although the ground flora below these eucalypts is almost completely exotic, the trees should be considered to be of regional or state significance. In particular, the two Red Gums southern trees have diameter of 2-3 metres and are potentially over 300 years old.*
>
> And under Permit Requirement it states:
>
> - *A permit is required to remove native vegetation.*
> - *An application to remove native vegetation must indicate:*
>   - *The total extent of vegetation on the property and the extent of native vegetation proposed to be cleared.*
>   - *The purpose of the proposed clearing and any proposals for revegetation, including proposed species, and ground stabilisation.*
>   - *A report by a suitable qualified person which describes the vegetation and habitat significance of the site, to the satisfaction of the Responsible Authority.*

6.7 There are exemptions provided under Clause 52.12 of the Victoria Planning Provisions (Bushfire Protection: Exemptions) in relation to any vegetation controls. Trees that are situated within 10m of an existing dwelling and within 2m of the property boundary fence line are exempt from any permit requirements relating to vegetation removal.

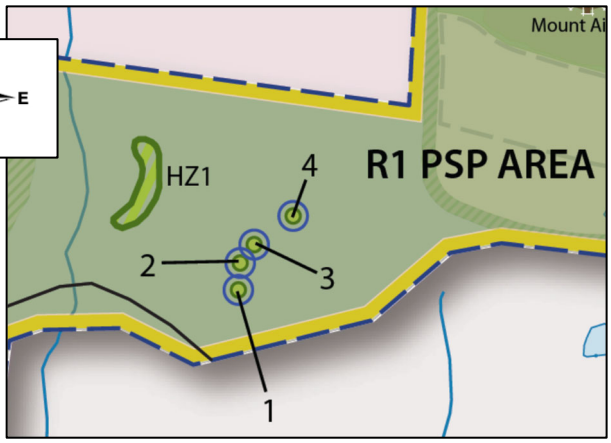
6.8 Schedule 4 to the Vegetation Protection Overlay (VPO4) and the Greenvale North R1 NVPP specifically influence Trees 24-27 as identified in this report and identified as the '*Four large Red Gums have been identified within the Greenvale Rise Development Site*' and identified as Trees 1-4 in the Greenvale North R1 NVPP. Tree 27 (Tree 4 in NVPP) is not a Red Gum (*Eucalyptus camaldulensis*). Tree 27 was identified as *Eucalyptus melliodora* (Yellow Box).

The Permit Requirements of VPO4 state that '*A permit is required to remove native vegetation*'. This clause would technically influence a further 11 trees recorded in the assessment (Tree 1, 2, 3, 5, 10, 13, 14, 17, 18, 33, 34), which are all specimens of dying or defective *Eucalyptus botryoides* (Southern Mahogany). The VPO4 is written in a way that the objectives of the overlay contradict the permit requirements. For the purposes of this report, it is assumed the overlay and NVPP seek to protect only the 4 trees identified by location on the VPO4 and NVPP plans (provided below).

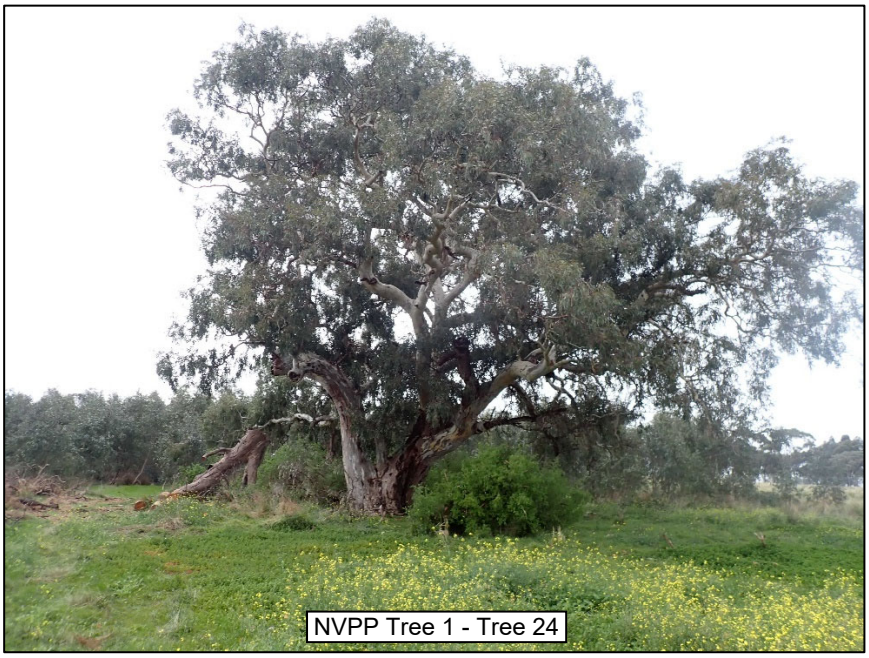
VPO4 (Section of plan)



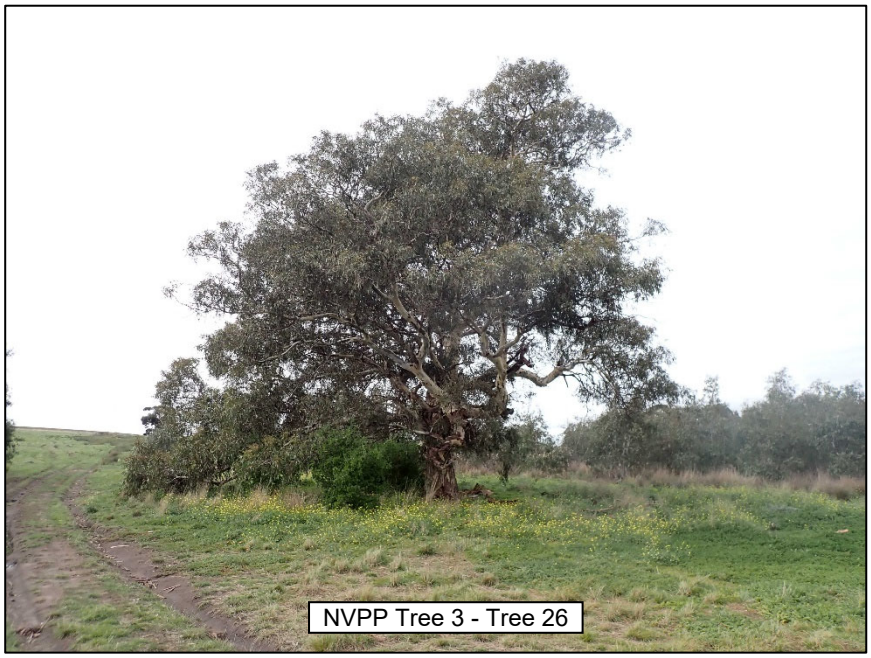
NVPP (Section of plan)



6.9 High and Moderate retention value trees

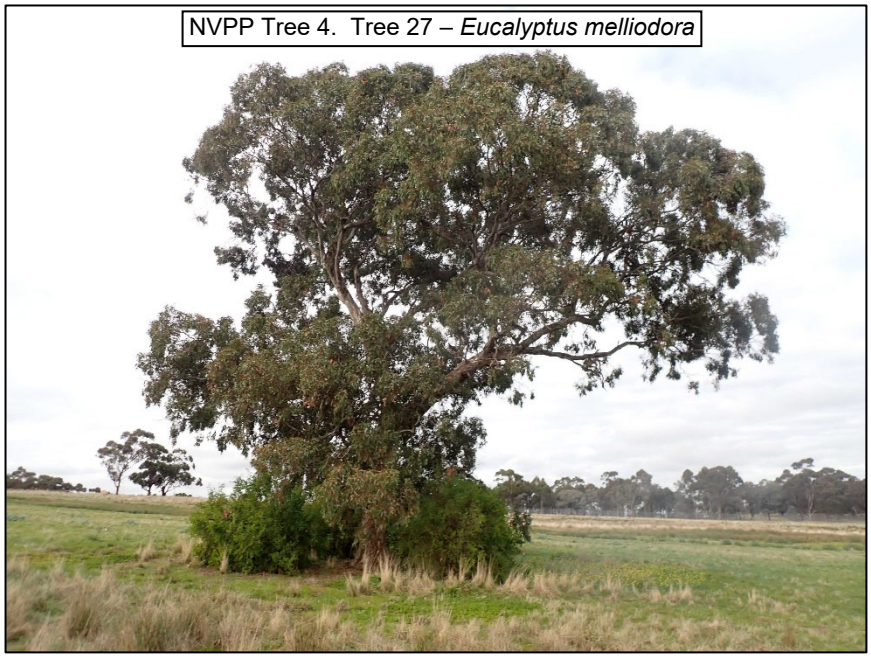

NVPP Tree 1 - Tree 24

NVPP Tree 2 - Tree 25



NVPP Tree 3 - Tree 26

NVPP Tree 4. Tree 27 – *Eucalyptus melliodora*



6.10 There was a large patch of River Red Gum (*Eucalyptus camaldulensis*) natural regrowth observed to the south and east of Trees 24-26, which contained hundreds of individual stems (Indicated on plan at Appendix 3) and evident in photographs of Tree 24-26 at Section 6.9.

7 Discussion

The Australian Standard (AS4970-2009) – 'Protection of trees on development sites' puts forward a process for undertaking tree inspections and reports on property where development is being considered. It recommends a preliminary assessment to help guide planners and property owners with regard to the preservation of existing trees; that is trees that might contribute to the completed proposal. The standard points out that the preliminary report 'information is to be used by planners, architects and designers, in conjunction with any planning controls and other legislation, to develop the design layout in such a way that trees selected for retention are provided with enough space'.

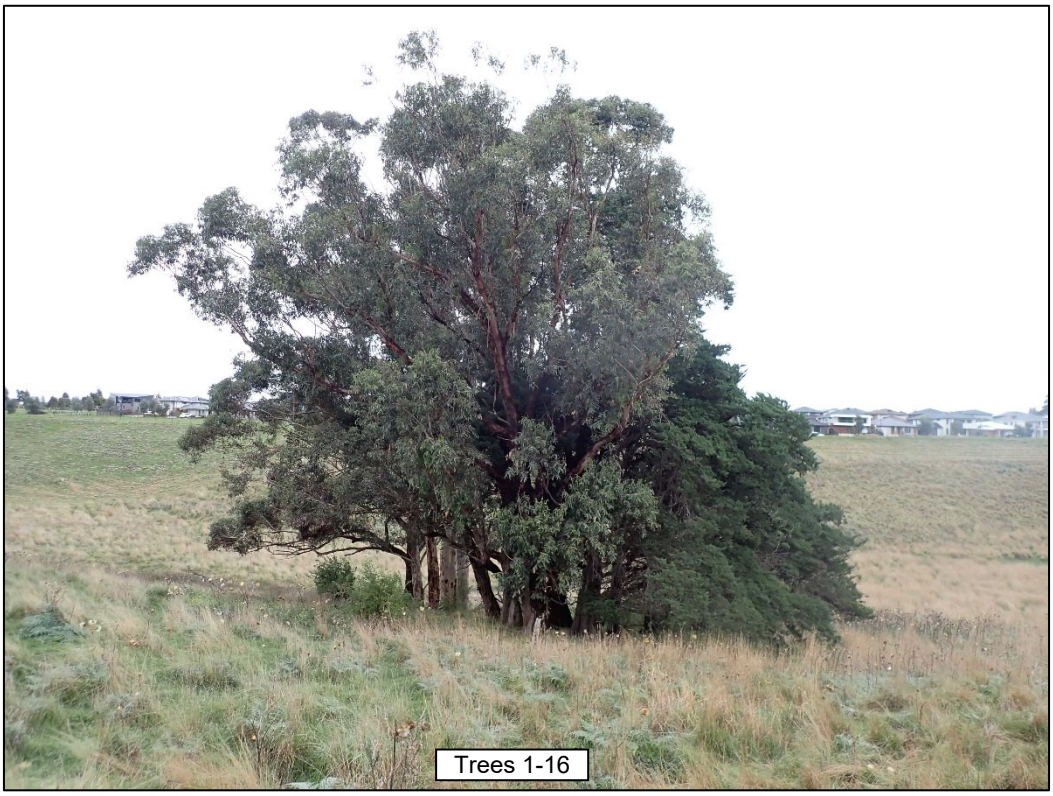
These assessments generally reveal a range of trees with differing attributes for health, structure and overall value. Some trees may be considered insignificant for their size, age, species type or condition, but they might still be considered for retention because they are situated conveniently on the site. Conversely, some trees may be exceptional for various reasons but there may be no scope for their retention because of their location and other site constraints. An objective of the tree assessment is to determine trees that may be preferable, in terms of preservation, and to identify poor or insignificant trees that may be easily replaced or replaced with better species.

The arborist must also exercise judgement and expertise with respect to the types of trees that are deemed suitable for retention, and they should also consider what stage the tree is at in its overall lifecycle.

The subject site presented as a semi-rural property with some 32 trees, of which 28 trees are planted with limited to no value, and 4 trees that are remnant indigenous trees. Trees 24-27 are identified as the 'Four large Red Gums (that) have been identified within the Greenvale Rise Development Site' under VPO4 and identified as Tree 1-4 within Greenvale North R1 NVPP. Tree 24-26 are River Red Gum (*Eucalyptus camaldulensis*) and Tree 27 is identified as *Eucalyptus melliodora* (Yellow Box). All 4 trees are worth retaining and they were assigned 'High' or 'Moderate' retention values.

Of the remaining 28 trees examined on the site, there are no other trees that should be considered for retention because of their low or non-existent retention values. The dominant species on the site was the Victorian native species *Eucalyptus botryoides* (Southern Mahogany), which is regarded as an environmental weed in the reference below.

- White, M., Cheal, D., Carr, G. W., Adair, R., Blood, K. and Meagher, D. (2018). Advisory list of environmental weeds in Victoria. Arthur Rylah Institute for Environmental Research Technical Report Series No. 287. Department of Environment, Land, Water and Planning, Heidelberg, Victoria.



Trees 1-16

Trees 19-23

Tree 1-21 and Trees 28-34 are recommended for removal.

Tree 22 & 23 - *Cupressus macrocarpa* (Monterey Cypress) appear to be located on the neighbouring land to the south. The title boundary appears to pass between Trees 21 & 22.

The only trees that warrant consideration for retention are the 4 trees identified by the location plan of VPO4 (Trees 24-27) and identified as Tree 1-4 within Greenvale North R1 NVPP.

The patch of regenerating self-seeded River Red Gum (*Eucalyptus camaldulensis*) to the south and east of Trees 24-26 contained more than 100 individual stems. This is a normal regeneration consequence when livestock is removed from the land. These saplings would not have grown if livestock were still grazing the land.

Clauses 52.16 and 52.17 both contain an exemption for Regrowth and state: *Native vegetation that is to be removed, destroyed or lopped that has naturally established or regenerated on land lawfully cleared of naturally established native vegetation.*

The site is located in the Victorian Volcanic Plain Bioregion and Naturekit (DELWP) identifies the main Ecological Vegetation Class (EVC) for the site as Plains Grassy Woodland (EVC 55) with a benchmark (DBH) for a Large Old Tree (LOT) of 80cm. River Red Gum (*Eucalyptus camaldulensis*) is the only listed character species for the EVC and the number of trees ordinarily found per hectare is eight.

Most of the regrowth observed near Trees 24-26 will eventually die, as individual trees become more dominant and suppress adjacent trees. Some trees may also perish because of competition for limited resources. All of the saplings in this patch would never survive to maturity, given the average trees per hectare is 8 and the area of the patch is 0.6 hectares.

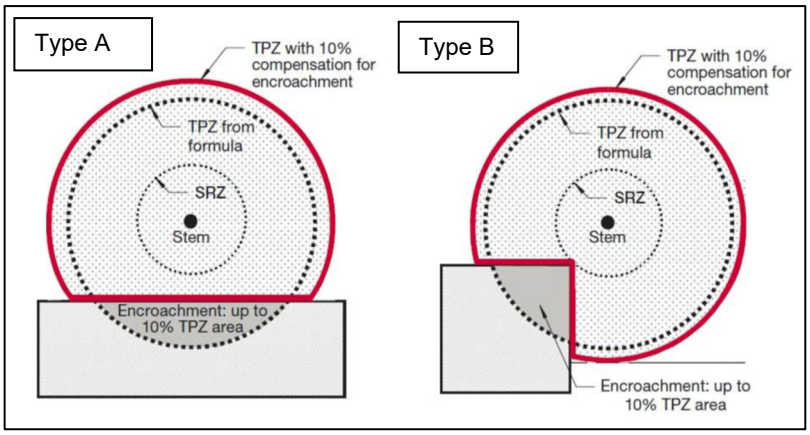
For the reasons aforementioned, the individual stems in the patch have been assigned a low retention value.

7.1 Tree protection zones on construction sites - AS4970.

The level of encroachment and the impact to specific trees can be estimated by comparing standard or modified tree protection clearances with those clearances provided to trees in the design. The overall impact on any given tree will be based on the severity of encroachment into the respective tree protection zones. The degree of root activity in the tree protection zone can vary significantly (because of existing structures or soil conditions), which can result in more or less severe impacts to trees. It is often difficult to accurately determine the level of root activity in these zones and root investigations are generally impractical. The alternative to undertaking root investigations is to assign appropriate tree protection zones.

This report adopts AS4970-2009, Australian Standard – Protection of trees on development sites as the preferred tree protection method. The method provides a tree protection zone and a tree protection fencing distance (radial measurement from trunk centre) by using the width of the trunk at 1.4m above ground multiplied by 12. The prescribed TPZ distances are provided for each tree in Appendix 1, and they are also illustrated for each tree recommended to be retained at Appendix 3.

There is scope under the standard to reduce the tree protection zone area by 10% without any further investigations. The rationale for any reduced tree protection distance (as may be necessary for some trees) is detailed in AS4970-2009 (*Australian Standard – Protection of trees on development sites*). Under encroachment Type A, it is acceptable to reduce the Tree Protection Zone (TPZ) area by 10%. This translates to a reduction in radial clearance distance of approximately 33% on one side of the tree only. This can be applied if there is contiguous space around the tree for root development to occur. The following diagram (from AS4970-2009) is provided to illustrate the approach.



8 Summary & Recommendations

8.1 Trees 24-27 are identified as the 'Four large Red Gums (that) have been identified within the Greenvale Rise Development Site' under VPO4 and identified as Tree 1-4 within Greenvale North R1 NVPP. Tree 24-26 (NVPP Tree 1-3) are River Red Gum (*Eucalyptus camaldulensis*) and Tree 27 (NVPP Tree 4) is identified as *Eucalyptus melliodora* (Yellow Box). All 4 trees are worth retaining and they were assigned 'High' or 'Moderate' retention values.

8.2 The protection of Trees 24-27 (NVPP Trees 1-4) would rely on providing appropriate clearance space as detailed in Appendix 1 (Column - Tree Protection Zone), or as detailed by the very stringent requirements under Greenvale North R1 NVPP (twice the canopy distance).

8.2.1 The vegetation protection fence distance specified by the Greenvale North R1 NVPP is an older system (redundant) of determining protection fencing.

8.2.2 The Department of Environment, Land, Water and Planning have adopted AS4970-2009, Australian Standard – Protection of trees on development sites as the guidance for determining Tree Protection Zones.

8.3 There was a large patch of River Red Gum (*Eucalyptus camaldulensis*) natural regrowth observed to the south and east of Trees 24-26, which contained hundreds of individual stems.

8.3.1 Clauses 52.16 and 52.17 both contain an exemption for Regrowth and state: *Native vegetation that is to be removed, destroyed or lopped that has naturally established or regenerated on land lawfully cleared of naturally established native vegetation*.

8.3.2 All of the saplings in this patch would never survive to maturity, given the average number of trees per hectare under EVC 55 is 8 and the area of the patch is 0.6 hectares. For the reasons aforementioned, the individual stems in the patch have been assigned a low retention value.

8.4 Of the remaining 30 trees examined, there are no other trees that should be considered for retention. The dominant species on the site was the Victorian native species *Eucalyptus botryoides* (Southern Mahogany), which is regarded as an environmental weed.

- Tree 1-23 and Trees 28-34 are recommended for removal.

8.5 Tree 22 & 23 - *Cupressus macrocarpa* (Monterey Cypress) appear to be located on the neighbouring land to the south. The title boundary appears to pass between Trees 21 & 22.

8.6 Any vegetation in the study area that was not assessed as part of this report was considered insignificant, generally undesirable or sufficiently clear of any expected works.

Dean Simonsen (BAppSc *Melb*.)
Consultant Arborist

9 References

Australian Standard AS 4970, 2009. *Protection of trees on development sites*. Standards Australia

10 Definitions

The TPZ and SRZ are defined in AS4970-2009, Australian Standard – Protection of trees on development sites as:

Tree protection zone (TPZ)
A specified area above and below ground and at a given distance from the trunk set aside for the protection of a tree's roots and crown to provide for the viability and stability of a tree to be retained where it is potentially subject to damage by development.

Structural root zone (SRZ)
The area around the base of a tree required for the tree's stability in the ground. The woody root growth and soil cohesion in this area are necessary to hold the tree upright. The SRZ is nominally circular with the trunk at its centre and is expressed by its radius in metres. This zone considers a tree's structural stability

only, not the root zone required for a tree's vigour and long-term viability, which will usually be a much larger area.

11 Expertise of Arborist to prepare report

Qualifications and expertise of consultant

- Bachelor of Applied Science, Horticulture (Plant Production) – University of Melbourne, Burnley College.
- Diploma of Applied Science, Horticulture (Arboriculture) – University of Melbourne, Burnley College. Dux of Arboriculture.
- More than 25 years of experience in the arboriculture/horticulture industry (private and local government experience).
- Consultant Arborist and Director at Tree Logic Pty Ltd from June 1999 to September 2011.
- Manager of Arboriculture – Royal Botanic Gardens, Melbourne (27 Months 1997-1999).
- Secretary for the Victorian Tree Industry Organisation (VTIO) 2007-2012.
- Financial member of the International Society of Arboriculture (ISA).
- Presented paper at the International Society of Arboriculture Conference, 2011 at Parramatta, NSW.

Expertise to prepare report

- My qualifications and experience have primarily involved the management of tree issues in the urban landscape. Specifically, this has involved hazard, general or detailed assessment of tree condition on private and public land with recommendations made on preservation strategies or remedial works.
- Tree assessments to establish tree health, tree structure and arboricultural values are core components of Treemap Arboriculture's business activities.
- Prepared in excess of 4000 development reports.
- I have experience at Victorian Civil Administrative Tribunal and the magistrate's court as an expert witness on arboricultural matters.
- I have inspected and assessed well over one hundred thousand trees and managed assessment programs for at least ten times as many.

Tree Assessment Detail - 1170z Mickleham Road, Greenvale **November 2022**

Appendix 1

No	SPECIES	COMMON NAME	DBH (cm)	TPZ (m)	SRZ (m)	HxW (m)	AGE	HEALTH	STRUCTURE	FORM	ULE	COMMENT	TREE TYPE	RETENTION VALUE	RECOMMEND	X Coordinate	Y Coordinate
1	*Eucalyptus botryoides*	Southern Mahogany	84	10.08	3.20	18x16	Maturing	Fair to Poor	Fair to Poor	Asymmetric	0 years	Woody weed, Acute branch attachments	Victorian native	None	Remove	314103.739	5835054.020
2	*Eucalyptus botryoides*	Southern Mahogany	62	7.44	2.82	16x9	Maturing	Very Poor	Poor	Asymmetric	0 years	Woody weed, In severe decline, Basal decay	Victorian native	None	Remove	314101.706	5835053.308
3	*Eucalyptus botryoides*	Southern Mahogany	51	6.12	2.60	15x9	Maturing	Poor	Poor	Asymmetric	0 years	Woody weed, In decline	Victorian native	None	Remove	314099.673	5835052.393
4	*Cupressus macrocarpa*	Monterey Cypress	95	11.40	3.37	15x11	Maturing	Poor	Poor	Asymmetric	5 to 15 years	witches broom	Exotic conifer	Low	Remove	314101.909	5835056.155
5	*Eucalyptus botryoides*	Southern Mahogany	88	10.56	3.26	20x16	Maturing	Fair to Poor	Very poor	Minor asymmetry	0 years	Woody weed, Active split, Bifurcation of main stem with included bark	Victorian native	None	Remove	314099.571	5835055.748
6	*Cupressus macrocarpa*	Monterey Cypress	47	5.64	2.51	11x7	Maturing	Very Poor	Fair to Poor	Asymmetric	5 to 15 years	In decline	Exotic conifer	Low	Remove	314100.486	5835057.578
7	*Eucalyptus cladocalyx*	Sugar Gum	80	9.60	3.14	22x14	Maturing	Fair to Poor	Poor	Minor asymmetry	0 years	Woody weed, Fungal bracket on lower trunk	Australian native	None	Remove	314093.812	5835048.938
8	*Eucalyptus cladocalyx*	Sugar Gum	58	6.96	2.74	20x12	Maturing	Fair to Poor	Fair to Poor	Asymmetric	0 years	Woody weed, Limbfall evidence	Australian native	None	Remove	314091.336	5835048.326
9	*Eucalyptus cladocalyx*	Sugar Gum	60	7.20	2.78	16x9	Maturing	Fair to Poor	Very poor	Asymmetric	0 years	Woody weed, Lost main leader	Australian native	None	Remove	314088.693	5835047.564
10	*Eucalyptus botryoides*	Southern Mahogany	97	11.64	3.40	18x14	Maturing	Fair to Poor	Poor	Asymmetric	0 years	Woody weed, Multiple major limb failures	Victorian native	None	Remove	314085.948	5835046.192
11	*Eucalyptus cladocalyx*	Sugar Gum	70	8.40	2.97	20x12	Maturing	Fair	Fair to Poor	Asymmetric	0 years	Woody weed	Australian native	None	Remove	314085.948	5835050.055
12	*Cupressus torulosa*	Bhutan Cypress	38	4.56	2.29	9x6	Maturing	Poor	Fair to Poor	Minor asymmetry	5 to 15 years		Exotic conifer	Low	Remove	314086.268	5835055.932
13	*Eucalyptus botryoides*	Southern Mahogany	72	8.64	3.00	16x12	Maturing	Dead	Failed	Minor asymmetry	0 years	Woody weed, Collapsed	Victorian native	None	Remove	314086.083	5835059.926
14	*Eucalyptus botryoides*	Southern Mahogany	40	4.80	2.34	11x4	Maturing	Dead	Poor	Minor asymmetry	0 years	Woody weed	Victorian native	None	Remove	314088.530	5835060.206
15	*Cupressus macrocarpa*	Monterey Cypress	75	9.00	3.05	12x12	Maturing	Poor	Poor	Minor asymmetry	5 to 15 years		Exotic conifer	Low	Remove	314087.626	5835063.932
16	*Cupressus macrocarpa*	Monterey Cypress	71	8.52	2.98	11x11	Maturing	Very Poor	Poor	Asymmetric	1 to 5 years		Exotic conifer	None	Remove	314093.587	5835061.274
17	*Eucalyptus botryoides*	Southern Mahogany	36	4.32	2.24	10x6	Maturing	Dead	Poor	Asymmetric	0 years	Woody weed	Victorian native	None	Remove	314096.267	5835055.748
18	*Eucalyptus botryoides*	Southern Mahogany	30,30,20 (46.9)	5.63	2.51	7x7	Maturing	Fair	Poor	Asymmetric	0 years	Woody weed	Victorian native	None	Remove	314110.473	5835020.937
19	*Cupressus macrocarpa*	Monterey Cypress	130	15.00	3.85	10x12	Maturing	Fair to Poor	Poor	Symmetric	5 to 15 years		Exotic conifer	Low	Remove	314274.445	5834791.965
20	*Cupressus macrocarpa*	Monterey Cypress	80	9.60	3.14	9x10	Maturing	Poor	Poor	Symmetric	5 to 15 years		Exotic conifer	Low	Remove	314269.245	5834767.344
21	*Cupressus macrocarpa*	Monterey Cypress	110	13.20	3.59	11x12	Maturing	Poor	Poor	Symmetric	5 to 15 years		Exotic conifer	Low	Remove	314267.554	5834750.615
22	*Cupressus macrocarpa*	Monterey Cypress	80	9.60	3.14	9x10	Maturing	Very Poor	Poor	Symmetric	1 to 5 years		Exotic conifer	Low	Neighbour's tree	314266.668	5834740.299
23	*Cupressus macrocarpa*	Monterey Cypress	130	15.00	3.85	12x12	Maturing	Fair to Poor	Poor	Symmetric	5 to 15 years		Exotic conifer	Low	Neighbour's tree	314264.933	5834726.824
24	*Eucalyptus camaldulensis*	River Red Gum	200	15.00	4.61	18x25	Maturing	Fair	Poor	Minor asymmetry	30 to 50 years	Major limbfall evidence, Deadwood, Overextended branches	Indigenous	High	Could be retained	314359.384	5834850.027
25	*Eucalyptus camaldulensis*	River Red Gum	164	15.00	4.24	22x21	Maturing	Fair	Fair to Poor	Minor asymmetry	50+ years		Indigenous	High	Could be retained	314362.853	5834904.376
26	*Eucalyptus camaldulensis*	River Red Gum	109	13.08	3.57	13x18	Maturing	Fair	Poor	Minor asymmetry	30 to 50 years	Multiple limb failures	Indigenous	Moderate	Could be retained	314389.530	5834931.616
27	*Eucalyptus melliodora*	Yellow Box	79	9.48	3.12	18x18	Maturing	Fair	Fair	Minor asymmetry	50+ years		Indigenous	High	Could be retained	314465.323	5834992.658
28	*Eucalyptus cladocalyx* 'Nana'	Bushy Sugar Gum	70	8.40	2.97	9x8	Maturing	Fair to Poor	Poor	Asymmetric	5 to 15 years	Major trunk decay	Australian native	Low	Remove	314640.942	5834960.325
29	*Eucalyptus cladocalyx* 'Nana'	Bushy Sugar Gum	35	4.20	2.22	6x6	Maturing	Fair to Poor	Very poor	Asymmetric	1 to 5 years	Multiple limb failures	Australian native	None	Remove	314641.486	5834956.340
30	*Eucalyptus cladocalyx* 'Nana'	Bushy Sugar Gum	33	3.96	2.16	6x6	Maturing	Fair	Poor	Asymmetric	1 to 5 years	Decrepit specimen	Australian native	None	Remove	314635.723	5834956.115
31	*Eucalyptus cladocalyx* 'Nana'	Bushy Sugar Gum	53	6.36	2.64	9x11	Maturing	Fair to Poor	Poor	Minor asymmetry	1 to 5 years	Major trunk decay	Australian native	None	Remove	314636.398	5834953.233
32	*Eucalyptus cladocalyx*	Sugar Gum	67	8.04	2.91	17x14	Maturing	Fair to Poor	Poor	Minor asymmetry	0 years	Woody weed, Major deadwood, In decline	Australian native	None	Remove	314621.847	5834892.605
33	*Eucalyptus botryoides*	Southern Mahogany	89	10.68	3.28	15x14	Maturing	Fair to Poor	Poor	Minor asymmetry	0 years	Woody weed, Major deadwood, In decline	Victorian native	None	Remove	314620.596	5834885.593
34	*Eucalyptus botryoides*	Southern Mahogany	83,41 (92.6)	11.11	3.34	15x14	Maturing	Poor	Poor	Minor asymmetry	0 years	Woody weed, Bifurcation with included bark, Major deadwood, In decline	Victorian native	None	Remove	314619.461	5834879.983

Appendix 2
Descriptors (Version C - 2013)

Field name	Description
No.	Tree identification number. Unique numbers are assigned to each assessed individual tree or tree group.
Species	Identifies the tree using the international taxonomic classification system of binomial (or trinomial) nomenclature (genus, species, variety and cultivar).
Common Name	Provides the common name as occurs in current Australian horticultural literature. More than one common name can exist for a single tree species, or several species can share the same common name.
DBH (Diameter at breast height)	Indicates the trunk diameter (expressed in centimetres) of an individual tree usually measured at 1.4m above the existing ground level. Multiple stemmed trees are calculated using a formula to combine the stems into a single stem for tree protection zone calculations.
TPZ (Tree protection zone)	Tree protection zone expressed as a radial distance in metres, measured from trunk centre. Based on AS 4970
SRZ (Structural Root Zone)	Radial distance in metres measured from trunk centre to ensure tree stability according to AS4970
HxW (Height x Width)	Indicates height and width of single tree and measurement generally expressed in whole metres

Age	Description
Young	Sapling tree and/or recently planted
Semi-mature	Tree rapidly increasing in size and yet to achieve expected size in situation
Maturing	Specimen approaching expected size in situation, with reduced incremental growth
Over-mature	Tree is senescent and in decline

Health	Term assigned that provides a broad description of the health and vigour of the tree.					
Ratings	*Good*	*Fair*	*Fair to Poor*	*Poor*	*Very poor*	*Dead*

Structure	Term assigned that provides a broad description of the structure and stability of the tree.					
Ratings	*Good*	*Fair*	*Fair to Poor*	*Poor*	*Very poor*	*Failed*

Form	Description
Symmetric	Evenly balanced crown
Asymmetric	Crown biased in one direction; can be minor or major
Stump re-sprout	Adventitious shoots originating from stump or trunk
Manipulated	Hedge, pollard, topiary, windrow; managed for specific landscape use or aesthetic outcome

Comment	Additional comments that provide specific detail on the condition of the tree or management requirements

Tree type	Description
Indigenous	Occurs naturally in the area or region of the subject site (Planted means evidence was observed the tree was planted)
Victorian native	Occurs naturally within some part of Victoria (not exclusively) but is not indigenous
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
Palm	Woody monocotyledon
Other	Other descriptions as indicated

Appendix 2

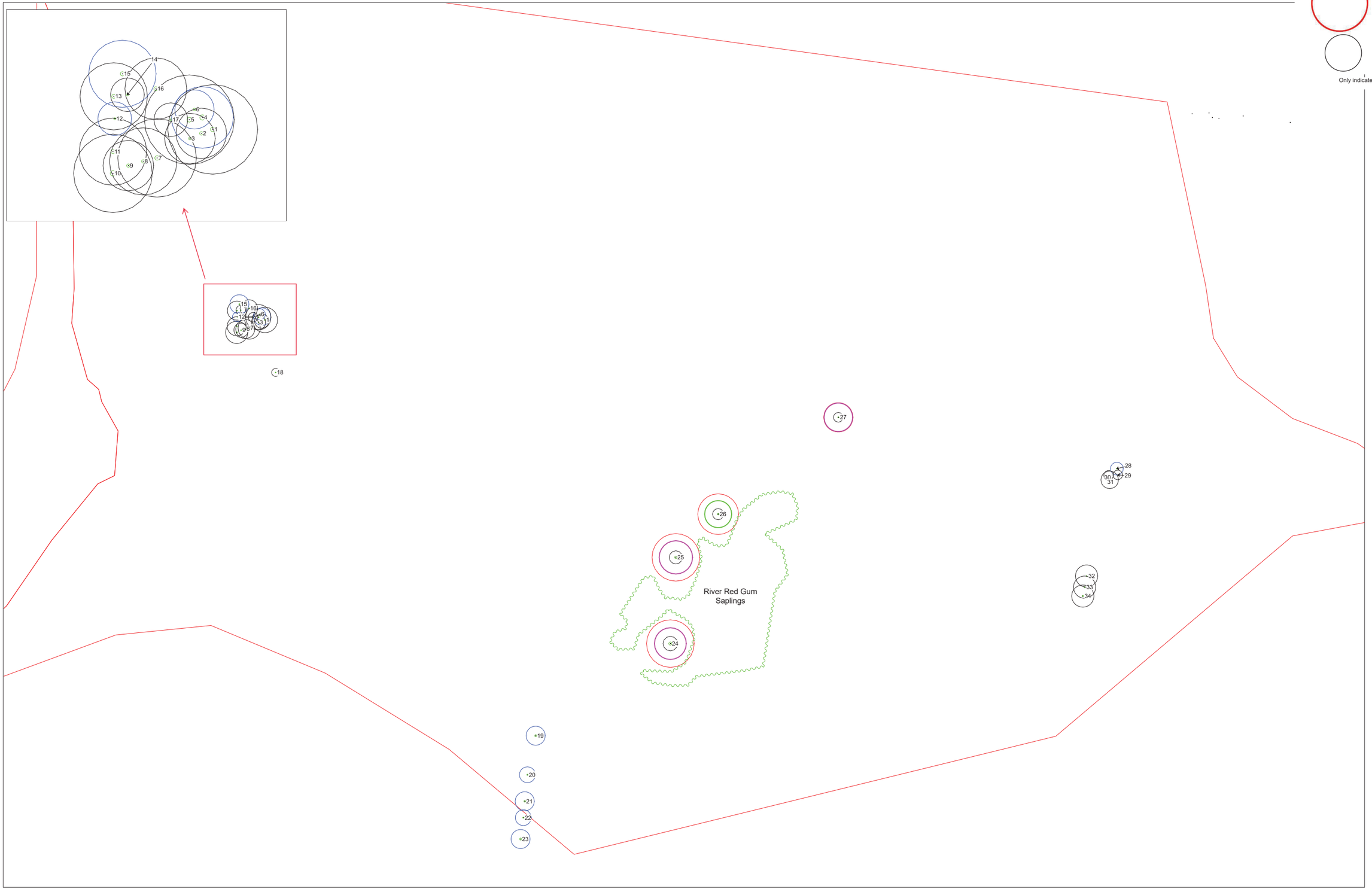
Retention value	Description
High	Tree of high quality in good to fair condition. Generally, a prominent arboricultural feature. Tree is capable of tolerating changes in its environment. These trees have the potential to be a medium- to long-term component of the landscape if managed appropriately. Retention of these trees is desirable.
Moderate	Tree of moderate quality, in fair or better condition. Tree may have a condition, and or structural problem that will respond to arboricultural treatment. Tree is capable of tolerating changes in its environment. These trees have the potential to be a medium- to long-term component of the landscape if managed appropriately. Retention of these trees is generally desirable.
Low	Tree of low quality and/or little amenity value. Tree in poor health and/or with poor structure. Tree unlikely to respond positively to changes in its environment and does not warrant design modification to preserve it. Tree is not significant for its size and/or young. These trees are easily replaceable. Tree (species) is functionally inappropriate to specific location and would be expected to be problematic if retained. Retention of such trees may be considered if not requiring a disproportionate expenditure of resources for a tree in its condition and location.
None	Tree has a severe structural defect and/or health problem that cannot be sustained with practical arboricultural techniques and the loss of tree would be expected in the short term. Tree whose retention would be unviable after the removal of adjacent trees (includes trees that have developed in close spaced groups and would not be expected to acclimatise to severe alterations to surrounding environment – removal of adjacent shelter trees) Tree has a detrimental effect on the environment, for example, the tree is a woody weed. These trees should be removed on the basis of sound arboricultural management.

Recommend	Recommended action based on condition of the tree with reference to proposed site changes							
Responses	*Retain*	*Could be retained*	*Consider removal*	*Remove*	*Street tree*	*Neighbour's Tree*	*Already removed*	*Transplant*

Descriptors reviewed annually and subject to change

TREEMAP ARBORICULTURE

Appendix 3



Assumptions and limiting conditions of arboricultural consultancy report

1. Any legal description provided to Treemap Arboriculture is assumed to be correct. Any titles and ownerships to any property are assumed to be correct. No responsibility is assumed for matters outside the consultant's control.

2. Treemap Arboriculture assumes that any property or project is not in violation of any applicable codes, ordinances, statutes or other local, state or federal government regulations.

3. Treemap Arboriculture has taken care to obtain all information from reliable sources. All data has been verified insofar as possible; however Treemap Arboriculture can neither guarantee nor be responsible for the accuracy of the information provided by others not directly under Treemap Arboriculture control.

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9. Unless expressed otherwise: 1) Information contained in this report covers only those items that were covered in the project brief or that were examined during the assessment and reflect the condition of those items at the time of inspection; and 2) The inspection is limited to visual examination of accessible components without dissection, excavation or probing unless otherwise stipulated.

10. There is no warranty or guarantee, expressed or implied by Treemap Arboriculture, that the problems or deficiencies of the plants or site in question may not arise in the future.

11. All instructions (verbal or written) that define the scope of the report have been included in the report and all documents and other materials that the Treemap Arboriculture consultant has been instructed to consider or to take into account in preparing this report have been included or listed within the report.

12. To the writer's knowledge all facts, matter and all assumptions upon which the report proceeds have been stated within the body of the report and all opinion contained within the report have been fully researched and referenced and any such opinion not duly researched is based upon the writers experience and observations.