



ARBORICULTURAL IMPACT ASSESSMENT

Quarter sessions Road, Westleigh.

Prepared for: Hornsby Council

Prepared by: Australian Tree Consultants

Date: December 28, 2019.



Executive Summary

The proposed development at Westleigh Park and Sydney Water Thornleigh Reservoir includes the construction of a roadway in one of two locations, either within Westleigh Park or within the Sydney Water property adjacent.

The site is home to several threatened species and five vegetation communities, including;

- Sydney Turpentine Ironbark Forest (Critically Endangered Ecological Community)
- Duffy's Forest (Endangered Ecological Community)
- Scribbly Gum Open Woodland
- Bloodwood Scribbly Gum Woodland
- Peppermint - Angophora Forest

The presence of the first four (4) of these communities was confirmed by the species which were dominating the collection data and associated understorey plants and shrubs which were not captured as part of this assessment.

The scope of this assessment was to survey all trees within ten (10) metres of the edge of the existing track or the existing vegetation line.

A total of six hundred and thirty-five trees were surveyed as part of this assessment.

A total of five (5) trees (47-48-260-417-541) contained hollows which may have the potential to provide current or future nesting opportunities for native birds or arboreal mammals.

Detailed maps showing tree numbers and tree protection zones will be provided in separate files, along with Excel spreadsheets with coordinates that can be uploaded into CAD files if so desired during the design process.

The current designs are at concept stage and are lacking in sufficient detail to allow all of the impacts to be fully assessed at this time. Once the designs have been finalised and construction drawings have been prepared, the findings of this report should be cross-checked to ensure accuracy of information.

Generic tree protection measures are provided in Appendix 2.

A site-specific tree protection plan will also need to be compiled to specify the tree protection requirements relative to each tree to be retained, once designs have been finalised.



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Introduction

Australian Tree Consultants Pty Ltd have been engaged by Hornsby Council to provide an Arboricultural Impact Assessment (AIA) in relation to the feasibility of constructing a roadway in either of two (2) proposed locations shown in figure 1 below.

The Arboricultural Impact Assessment will be limited to the following scope, provided by the client:

Assessment data required:

- Number each tree – affix a suitable horticultural aluminium tag with a number to each tree to be assessed, in a manner which can be easily identified by Council’s Surveyor.
- Identify each species.
- Determine the following for each tree:
 - o Height
 - o Trunk diameter - (DBH)
 - o Crown spread
 - o Vigour - Good, Normal, Fair, Poor
 - o Condition Rating 1 (dead or declining),2,3,4,5 (excellent)
 - o Structural Root Zone (SRZ) - (Trees rated 3,4,5)
 - o Tree Protection Zone (TPZ) - (Trees rated 3,4,5)
 - o Safe Useful Life Expectancy (SULE) - (Trees rated 3,4,5)
 - o Presence of tree hollows potentially suitable for wildlife use.



Figure 1-Image showing the areas to be surveyed marked in red. Image provided by Hornsby Council.

Hornsby Council- Assessment of trees-
Westleigh Park & Sydney Water Thornleigh Reservoir-Quarter Sessions Rd, Westleigh.



Methodology

An initial site visit was conducted on Thursday 24th October 2019 to inspect the site and clarify the scope of the assessment.

Subsequent visits were conducted in November and December to collect all of the relevant data.

Assessment was undertaken of all trees within the prescribed areas shown in figure 1 and any larger trees outside the prescribed areas which may be affected by the proposed development.

The site is located within the municipality of Hornsby Shire Council. Hornsby council's website states the following in relation to the vegetation present on the site. "The site is bounded to the north by Dog Pound Creek bushland (Bio-Banking site), to the east by Waitara Creek bushland and to the west by Berowra Valley National Park. The site itself is home to several threatened species and five vegetation communities, including;

- Sydney Turpentine Ironbark Forest (Critically Endangered Ecological Community)
- Duffy's Forest (Endangered Ecological Community)
- Scribbly Gum Open Woodland
- Bloodwood Scribbly Gum Woodland
- Peppermint - Angophora Forest

Assessment of the trees was undertaken using the framework of the visual tree assessment procedure (VTA) as prescribed by Mattheck & Broeler 1994.¹

Tree Protection Zones and Structural Root Zones were calculated in accordance with AS4970-2009- The Protection of Trees on Development Sites ²(see appendix 1.2). Safe Useful Life Expectancy was allocated in accordance with the S.U.L.E³ (see appendix 1.3). Tree AZ ratings were allocated in accordance with the Tree AZ rating system⁴ (see appendix 1.4).

Trees within the survey area were geo-located using a Trimble G07X and tagged with a plastic tag with an individual tree number and QR code enabling the data of each tree to be accessed via smartphone.

The data collected has been imported into ArborCad V.7 and a KMZ file has been created showing the tree locations, tree protection zones and structural root zones on Google Earth.

- No internal diagnostic testing has been completed.
- No sub surface root testing or soil testing has been completed.
- All observations were made from the ground only.
- Tree heights have been estimated and diameters have been measured with a diameter tape where access allowed.

¹ Mattheck & Broeler 1994- The Body Language of Trees.

² Standards Australia- AS4970-2009- The Protection of Trees on Development Sites

³ Safe Useful Life Expectancy (S.U.L.E)- Barrell Tree Care

⁴ Tree AZ- Barrell Tree Care



Site Details

The site is known as Westleigh Park and Sydney Water-Thornleigh Reservoir and is located on Quarter sessions Road, Westleigh.



Figure 2- The surveyed trees shown with google map overlay. Detailed maps will be provided in separate files.



Tree schedule

Tree no.	Scientific Name	Common Name	Height (M)	Spread (M)	DBH (mm)	DAB (mm)	TPZ (mm)	SRZ (mm)	Vigour	Condition	SULE	Tree/AZ	Hollows	Notes/Comments
1	<i>Eucalyptus sieberi</i>	Black Ash	12	5	300	370	3600	2180	Good	4	1 (Long SULE)	A2	No	
2	<i>Eucalyptus sieberi</i>	Black Ash	5	1	100	150	2000	1500	Poor	1	4 (Remove)	Z4	No	Growing from stump
3	<i>Eucalyptus globoidea</i>	White Stringybark	28	12	700	1000	8400	3309	Good	4	1 (Long SULE)	A2	No	
4	<i>Syncarpia glomulifera</i>	Turpentine	9	5	300	350	3600	2129	Good	4	1 (Long SULE)	A2	No	
5	<i>Syncarpia glomulifera</i>	Turpentine	9	5	300	350	3600	2129	Good	4	1 (Long SULE)	A2	No	
6	<i>Angophora costata</i>	Smooth-barked Apple Myrtle	12	4	200	300	2400	1996	Good	4	1 (Long SULE)	A2	No	
7	<i>Angophora costata</i>	Smooth-barked Apple Myrtle	20	15	400	450	4800	2366	Good	4	1 (Long SULE)	A2	No	
8	<i>Eucalyptus pilularis</i>	Blackbutt	28	18	750	900	9000	3166	Good	4	1 (Long SULE)	A2	No	
9	<i>Eucalyptus pilularis</i>	Blackbutt	26	12	600	900	7200	3166	Good	4	1 (Long SULE)	A2	No	
10	<i>Eucalyptus pilularis</i>	Blackbutt	26	10	400	550	4800	2575	Good	4	1 (Long SULE)	A2	No	
11	<i>Eucalyptus pilularis</i>	Blackbutt	13	2	150	200	2000	1683	Good	4	1 (Long SULE)	A2	No	

Tree no.	Scientific Name	Common Name	Height (M)	Spread (M)	DBH (mm)	DAB (mm)	TPZ (mm)	SRZ (mm)	Vigour	Condition	SULE	Tree/AZ	Hollows	Notes/Comments
12	<i>Eucalyptus pilularis</i>	Blackbutt	13	2	150	220	2000	1752	Good	4	1 (Long SULE)	A2	No	
13	<i>Eucalyptus pilularis</i>	Blackbutt	13	2	220	300	2640	1996	Good	4	1 (Long SULE)	A2	No	
14	<i>Eucalyptus pilularis</i>	Blackbutt	15	4	320	380	3840	2204	Good	4	1 (Long SULE)	A2	No	
15	<i>Angophora costata</i>	Smooth-barked Apple Myrtle	13	5	320	370	3840	2180	Good	4	1 (Long SULE)	A2	No	
16	<i>Eucalyptus pilularis</i>	Blackbutt	14	5	240	290	2880	1968	Good	4	1 (Long SULE)	A2	No	
17	<i>Eucalyptus pilularis</i>	Blackbutt	24	8	360	390	4320	2228	Good	4	1 (Long SULE)	A2	No	
18	<i>Eucalyptus pilularis</i>	Blackbutt	19	3	160	190	2000	1647	Good	4	1 (Long SULE)	A2	No	
19	<i>Eucalyptus pilularis</i>	Blackbutt	28	19	800	1000	9600	3309	Good	5	1 (Long SULE)	A3	No	
20	<i>Angophora costata</i>	Smooth-barked Apple Myrtle	16	12	300	380	3600	2204	Good	4	1 (Long SULE)	A2	No	
21	<i>Eucalyptus pilularis</i>	Blackbutt	24	9	400	460	4800	2388	Good	4	1 (Long SULE)	A2	No	
22	<i>Corymbia gummifera</i>	Red Bloodwood	26	12	430	510	5160	2494	Good	4	1 (Long SULE)	A2	No	



Tree no.	Scientific Name	Common Name	Height (M)	Spread (M)	DBH (mm)	DAB (mm)	TPZ (mm)	SRZ (mm)	Vigour	Condition	SULE	Tree/AZ	Hollows	Notes/Comments
23	<i>Dead Tree</i>	Dead Tree	12	2	180	220	2160	1752	Dead	1	4 (Remove)	Z4	No	
24	<i>Angophora costata</i>	Smooth-barked Apple Myrtle	14	6	160	210	2000	1718	Good	4	1 (Long SULE)	A2	No	
25	<i>Angophora costata</i>	Smooth-barked Apple Myrtle	14	6	170	190	2040	1647	Good	4	1 (Long SULE)	A2	No	
26	<i>Eucalyptus pilularis</i>	Blackbutt	14	3	170	200	2040	1683	Good	4	1 (Long SULE)	A2	No	
27	<i>Angophora costata</i>	Smooth-barked Apple Myrtle	15	5	240	250	2880	1849	Good	4	1 (Long SULE)	A2	No	
28	<i>Eucalyptus globoidea</i>	White Stringybark	23	10	340	410	4080	2276	Good	4	1 (Long SULE)	A2	No	
29	<i>Eucalyptus globoidea</i>	White Stringybark	14	4	180	240	2160	1817	Fair	3	2 (Medium SULE)	A2	No	
30	<i>Corymbia gummifera</i>	Red Bloodwood	21	7	300	330	3600	2077	Good	4	1 (Long SULE)	A2	No	
31	<i>Eucalyptus pilularis</i>	Blackbutt	19	8	390	580	4680	2633	Good	4	1 (Long SULE)	A2	No	
32	<i>Eucalyptus pilularis</i>	Blackbutt	19	6	280	340	3360	2104	Good	4	1 (Long SULE)	A2	No	
33	<i>Eucalyptus pilularis</i>	Blackbutt	27	14	580	830	6960	3060	Good	4	1 (Long SULE)	A2	No	



Tree no.	Scientific Name	Common Name	Height (M)	Spread (M)	DBH (mm)	DAB (mm)	TPZ (mm)	SRZ (mm)	Vigour	Condition	SULE	Tree/AZ	Hollows	Notes/Comments
34	<i>Eucalyptus globoidea</i>	White Stringybark	21	6	300	380	3600	2204	Good	4	1 (Long SULE)	A2	No	
35	<i>Eucalyptus globoidea</i>	White Stringybark	28	10	360	450	4320	2366	Good	4	1 (Long SULE)	A2	No	
36	<i>Eucalyptus globoidea</i>	White Stringybark	29	11	330	400	3960	2252	Normal	3	2 (Medium SULE)	A2	No	
37	<i>Eucalyptus globoidea</i>	White Stringybark	24	8	280	290	3360	1968	Normal	3	2 (Medium SULE)	A2	No	
38	<i>Angophora costata</i>	Smooth-barked Apple Myrtle	20	10	370	430	4440	2322	Good	4	1 (Long SULE)	A2	No	
39	<i>Eucalyptus globoidea</i>	White Stringybark	13	5	230	350	2760	2129	Normal	3	2 (Medium SULE)	A2	No	
40	<i>Corymbia gummifera</i>	Red Bloodwood	25	10	350	410	4200	2276	Normal	4	1 (Long SULE)	A2	No	
41	<i>Angophora costata</i>	Smooth-barked Apple Myrtle	19	10	380	410	4560	2276	Normal	4	1 (Long SULE)	A2	No	
42	<i>Angophora costata</i>	Smooth-barked Apple Myrtle	14	6	210	360	2520	2155	Normal	4	1 (Long SULE)	A2	No	
43	<i>Angophora costata</i>	Smooth-barked Apple Myrtle	18	8	270	310	3240	2024	Normal	4	1 (Long SULE)	A2	No	
44	<i>Angophora costata</i>	Smooth-barked Apple Myrtle	15	5	180	200	2160	1683	Fair	3	2 (Medium SULE)	A2	No	



Tree no.	Scientific Name	Common Name	Height (M)	Spread (M)	DBH (mm)	DAB (mm)	TPZ (mm)	SRZ (mm)	Vigour	Condition	SULE	Tree/AZ	Hollows	Notes/Comments
45	<i>Angophora costata</i>	Smooth-barked Apple Myrtle	16	7	230	260	2760	1879	Normal	4	1 (Long SULE)	A2	No	
46	<i>Corymbia gummifera</i>	Red Bloodwood	23	10	320	390	3840	2228	Fair	4	1 (Long SULE)	A2	No	
47	<i>Corymbia gummifera</i>	Red Bloodwood	10	3	180	220	2160	1752	Poor	3	3 (Short SULE)	Z4	Yes	
48	<i>Eucalyptus globoidea</i>	White Stringybark	29	18	680	950	8160	3239	Normal	4	1 (Long SULE)	A2	Yes	
49	<i>Angophora costata</i>	Smooth-barked Apple Myrtle	17	9	560	390	6720	2228	Normal	3	2 (Medium SULE)	A2	No	
50	<i>Eucalyptus globoidea</i>	White Stringybark	6	3	160	330	2000	2077	Normal	4	1 (Long SULE)	A2	No	
51	<i>Corymbia gummifera</i>	Red Bloodwood	18	8	280	420	3360	2299	Normal	4	1 (Long SULE)	A2	No	
52	<i>Eucalyptus globoidea</i>	White Stringybark	25	11	350	400	4200	2252	Fair	3	2 (Medium SULE)	A2	No	
53	<i>Angophora costata</i>	Smooth-barked Apple Myrtle	12	3	150	190	2000	1647	Fair	3	2 (Medium SULE)	A2	No	
54	<i>Angophora costata</i>	Smooth-barked Apple Myrtle	9	2	160	180	2000	1611	Normal	4	1 (Long SULE)	A2	No	
55	<i>Syncarpia glomulifera</i>	Turpentine	14	3	390	390	4680	2228	Good	4	1 (Long SULE)	A2	No	



Tree no.	Scientific Name	Common Name	Height (M)	Spread (M)	DBH (mm)	DAB (mm)	TPZ (mm)	SRZ (mm)	Vigour	Condition	SULE	Tree/AZ	Hollows	Notes/Comments
56	<i>Eucalyptus acmenioides</i>	White Mahogany	10	5	190	250	2280	1849	Normal	4	1 (Long SULE)	A2	No	
57	<i>Eucalyptus globoidea</i>	White Stringybark	18	6	320	420	3840	2299	Normal	4	1 (Long SULE)	A2	No	
58	<i>Angophora costata</i>	Smooth-barked Apple Myrtle	17	7	430	470	5160	2410	Normal	4	1 (Long SULE)	A2	No	
59	<i>Eucalyptus globoidea</i>	White Stringybark	26	14	520	600	6240	2670	Fair	3	2 (Medium SULE)	A2	No	
60	<i>Angophora costata</i>	Smooth-barked Apple Myrtle	25	18	650	1300	7800	3695	Normal	5	1 (Long SULE)	A3	No	
61	<i>Eucalyptus globoidea</i>	White Stringybark	31	24	650	700	7800	2849	Fair	3	3 (Short SULE)	A2	No	
62	<i>Eucalyptus globoidea</i>	White Stringybark	28	15	560	660	6720	2779	Normal	3	2 (Medium SULE)	A2	No	
63	<i>Eucalyptus globoidea</i>	White Stringybark	8	2	160	180	2000	1611	Normal	4	1 (Long SULE)	A2	No	
64	<i>Eucalyptus pilularis</i>	Blackbutt	19	14	700	1010	8400	3323	Normal	4	1 (Long SULE)	A2	No	
65	<i>Angophora costata</i>	Smooth-barked Apple Myrtle	9	4	240	290	2880	1968	Normal	4	1 (Long SULE)	A2	No	
66	<i>Angophora costata</i>	Smooth-barked Apple Myrtle	15	19	520	540	6240	2555	Poor	3	3 (Short SULE)	Z4	No	



Tree no.	Scientific Name	Common Name	Height (M)	Spread (M)	DBH (mm)	DAB (mm)	TPZ (mm)	SRZ (mm)	Vigour	Condition	SULE	Tree/AZ	Hollows	Notes/Comments
67	<i>Angophora costata</i>	Smooth-barked Apple Myrtle	10	3	550	720	6600	2883	Poor	2	4 (Remove)	Z4	No	
68	<i>Angophora costata</i>	Smooth-barked Apple Myrtle	20	8	340	440	4080	2344	Normal	4	1 (Long SULE)	A2	No	
69	<i>Eucalyptus globoidea</i>	White Stringybark	9	3	360	340	4320	2104	Fair	3	2 (Medium SULE)	A2	No	
70	<i>Angophora costata</i>	Smooth-barked Apple Myrtle	28	14	520	750	6240	2933	Fair	4	2 (Medium SULE)	A2	No	
71	<i>Angophora costata</i>	Smooth-barked Apple Myrtle	24	5	260	330	3120	2077	Fair	4	1 (Long SULE)	A2	No	
72	<i>Angophora costata</i>	Smooth-barked Apple Myrtle	24	9	310	360	3720	2155	Fair	3	2 (Medium SULE)	A2	No	
73	<i>Angophora costata</i>	Smooth-barked Apple Myrtle	15	5	250	350	3000	2129	Normal	4	1 (Long SULE)	A2	No	
74	<i>Angophora costata</i>	Smooth-barked Apple Myrtle	19	7	310	350	3720	2129	Good	4	1 (Long SULE)	A2	No	
75	<i>Eucalyptus globoidea</i>	White Stringybark	10	7	190	220	2280	1752	Normal	4	1 (Long SULE)	A2	No	
76	<i>Eucalyptus globoidea</i>	White Stringybark	27	12	440	520	5280	2515	Normal	4	1 (Long SULE)	A2	No	
77	<i>Eucalyptus globoidea</i>	White Stringybark	13	7	230	290	2760	1968	Good	4	1 (Long SULE)	A2	No	



Tree no.	Scientific Name	Common Name	Height (M)	Spread (M)	DBH (mm)	DAB (mm)	TPZ (mm)	SRZ (mm)	Vigour	Condition	SULE	Tree/AZ	Hollows	Notes/Comments
78	<i>Angophora costata</i>	Smooth-barked Apple Myrtle	11	1	160	180	2000	1611	Normal	4	1 (Long SULE)	A2	No	
79	<i>Syncarpia glomulifera</i>	Turpentine	11	1	160	180	2000	1611	Normal	4	1 (Long SULE)	A2	No	
80	<i>Eucalyptus globoidea</i>	White Stringybark	29	11	350	750	4200	2933	Normal	3	2 (Medium SULE)	A2	No	
81	<i>Angophora costata</i>	Smooth-barked Apple Myrtle	25	9	360	380	4320	2204	Normal	4	1 (Long SULE)	A2	No	
82	<i>Angophora costata</i>	Smooth-barked Apple Myrtle	19	5	310	500	3720	2470	Normal	3	2 (Medium SULE)	A2	No	
83	<i>Angophora costata</i>	Smooth-barked Apple Myrtle	26	7	370	460	4440	2388	Good	4	1 (Long SULE)	A2	No	
84	<i>Syncarpia glomulifera</i>	Turpentine	13	4	170	270	2040	1910	Normal	4	1 (Long SULE)	A2	No	
85	<i>Eucalyptus globoidea</i>	White Stringybark	28	18	510	610	6120	2689	Normal	4	1 (Long SULE)	A2	No	
86	<i>Syncarpia glomulifera</i>	Turpentine	13	3	290	400	3480	2252	Good	4	1 (Long SULE)	A2	No	
87	<i>Eucalyptus globoidea</i>	White Stringybark	24	8	200	370	2400	2180	Normal	4	1 (Long SULE)	A2	No	
88	<i>Syncarpia glomulifera</i>	Turpentine	8	3	200	230	2400	1785	Normal	4	1 (Long SULE)	A2	No	



Tree no.	Scientific Name	Common Name	Height (M)	Spread (M)	DBH (mm)	DAB (mm)	TPZ (mm)	SRZ (mm)	Vigour	Condition	SULE	Tree/AZ	Hollows	Notes/Comments
89	<i>Eucalyptus globoidea</i>	White Stringybark	9	3	210	260	2520	1879	Normal	4	1 (Long SULE)	A2	No	
90	<i>Eucalyptus globoidea</i>	White Stringybark	9	3	150	180	2000	1611	Normal	4	1 (Long SULE)	A2	No	
91	<i>Syncarpia glomulifera</i>	Turpentine	9	3	170	250	2040	1849	Good	4	1 (Long SULE)	A2	No	
92	<i>Syncarpia glomulifera</i>	Turpentine	9	3	210	240	2520	1817	Normal	4	1 (Long SULE)	A2	No	
93	<i>Syncarpia glomulifera</i>	Turpentine	11	3	200	250	2400	1849	Normal	4	1 (Long SULE)	A2	No	
94	<i>Eucalyptus globoidea</i>	White Stringybark	25	12	500	600	6000	2670	Good	4	1 (Long SULE)	A2	No	
95	<i>Syncarpia glomulifera</i>	Turpentine	11	4	170	220	2040	1752	Normal	4	1 (Long SULE)	A2	No	
96	<i>Syncarpia glomulifera</i>	Turpentine	11	2	160	200	2000	1683	Normal	4	1 (Long SULE)	A2	No	
97	<i>Syncarpia glomulifera</i>	Turpentine	12	4	270	370	3240	2180	Normal	4	1 (Long SULE)	A2	No	
98	<i>Syncarpia glomulifera</i>	Turpentine	11	2	150	180	2000	1611	Normal	4	1 (Long SULE)	A2	No	
99	<i>Syncarpia glomulifera</i>	Turpentine	11	2	150	180	2000	1611	Normal	4	1 (Long SULE)	A2	No	



Tree no.	Scientific Name	Common Name	Height (M)	Spread (M)	DBH (mm)	DAB (mm)	TPZ (mm)	SRZ (mm)	Vigour	Condition	SULE	Tree/AZ	Hollows	Notes/Comments
100	<i>Eucalyptus acmenioides</i>	White Mahogany	11	2	150	180	2000	1611	Poor	2	3 (Short SULE)	Z4	No	
101	<i>Eucalyptus acmenioides</i>	White Mahogany	25	6	300	310	3600	2024	Normal	4	1 (Long SULE)	A2	No	
102	<i>Syncarpia glomulifera</i>	Turpentine	24	9	550	670	6600	2797	Normal	4	1 (Long SULE)	A2	No	
103	<i>Eucalyptus globoidea</i>	White Stringybark	19	11	310	840	3720	3076	Fair	3	3 (Short SULE)	A2	No	
104	<i>Corymbia gummifera</i>	Red Bloodwood	19	7	280	650	3360	2762	Fair	3	3 (Short SULE)	A2	No	
105	<i>Syncarpia glomulifera</i>	Turpentine	18	5	240	500	2880	2474	Normal	4	1 (Long SULE)	A2	No	
106	<i>Eucalyptus globoidea</i>	White Stringybark	18	5	210	280	2520	1939	Normal	4	1 (Long SULE)	A2	No	
107	<i>Angophora costata</i>	Smooth-barked Apple Myrtle	12	5	240	380	2880	2204	Normal	4	1 (Long SULE)	A2	No	
108	<i>Syncarpia glomulifera</i>	Turpentine	19	9	260	440	3120	2344	Normal	4	1 (Long SULE)	A2	No	
109	<i>Syncarpia glomulifera</i>	Turpentine	23	8	270	340	3240	2104	Normal	4	1 (Long SULE)	A2	No	
110	<i>Eucalyptus acmenioides</i>	White Mahogany	23	12	330	440	3960	2344	Normal	4	1 (Long SULE)	A2	No	



Tree no.	Scientific Name	Common Name	Height (M)	Spread (M)	DBH (mm)	DAB (mm)	TPZ (mm)	SRZ (mm)	Vigour	Condition	SULE	Tree/AZ	Hollows	Notes/Comments
111	<i>Eucalyptus globoidea</i>	White Stringybark	22	5	270	310	3240	2024	Normal	4	1 (Long SULE)	A2	No	
112	<i>Angophora costata</i>	Smooth-barked Apple Myrtle	10	5	170	200	2040	1683	Normal	4	1 (Long SULE)	A2	No	
113	<i>Syncarpia glomulifera</i>	Turpentine	15	8	250	300	3000	1996	Normal	4	1 (Long SULE)	A2	No	
114	<i>Eucalyptus globoidea</i>	White Stringybark	20	5	250	300	3000	1996	Good	4	1 (Long SULE)	A2	No	
115	<i>Angophora costata</i>	Smooth-barked Apple Myrtle	25	11	770	1080	9240	3418	Good	4	1 (Long SULE)	A2	No	
116	<i>Eucalyptus globoidea</i>	White Stringybark	25	11	400	480	4800	2431	Normal	4	1 (Long SULE)	A2	No	
117	<i>Eucalyptus globoidea</i>	White Stringybark	25	11	400	440	4800	2344	Fair	4	1 (Long SULE)	A2	No	
118	<i>Eucalyptus globoidea</i>	White Stringybark	25	15	360	440	4320	2344	Fair	4	1 (Long SULE)	A2	No	
119	<i>Dead Tree</i>	Dead Tree	10	1	180	220	2160	1752	Dead	1	4 (Remove)	Z4	No	
120	<i>Eucalyptus globoidea</i>	White Stringybark	10	4	170	200	2040	1683	Fair	3	3 (Short SULE)	A2	No	
121	<i>Eucalyptus globoidea</i>	White Stringybark	22	15	350	410	4200	2276	Fair	4	1 (Long SULE)	A2	No	



Tree no.	Scientific Name	Common Name	Height (M)	Spread (M)	DBH (mm)	DAB (mm)	TPZ (mm)	SRZ (mm)	Vigour	Condition	SULE	Tree/AZ	Hollows	Notes/Comments
122	<i>Angophora costata</i>	Smooth-barked Apple Myrtle	20	10	270	400	3240	2252	Normal	4	1 (Long SULE)	A2	No	
123	<i>Eucalyptus globoidea</i>	White Stringybark	18	5	210	230	2520	1785	Normal	4	1 (Long SULE)	A2	No	
124	<i>Corymbia gummifera</i>	Red Bloodwood	22	10	300	340	3600	2104	Normal	4	1 (Long SULE)	A2	No	
125	<i>Angophora costata</i>	Smooth-barked Apple Myrtle	10	4	240	270	2880	1910	Normal	4	1 (Long SULE)	A2	No	
126	<i>Corymbia gummifera</i>	Red Bloodwood	21	12	350	470	4200	2410	Good	4	1 (Long SULE)	A2	No	
127	<i>Eucalyptus acmenioides</i>	White Mahogany	12	2	170	220	2040	1752	Poor	2	3 (Short SULE)	Z4	No	
128	Dead Tree	Dead Tree	10	2	170	220	2040	1752	Dead	1	4 (Remove)	Z4	No	
129	<i>Eucalyptus globoidea</i>	White Stringybark	15	5	200	220	2400	1752	Good	3	2 (Medium SULE)	A2	No	
130	<i>Corymbia gummifera</i>	Red Bloodwood	24	12	350	390	4200	2228	Good	4	1 (Long SULE)	A2	No	
131	<i>Corymbia gummifera</i>	Red Bloodwood	18	6	240	280	2880	1939	Good	4	1 (Long SULE)	A2	No	
132	<i>Corymbia gummifera</i>	Red Bloodwood	12	4	170	240	2040	1817	Good	4	1 (Long SULE)	A2	No	



Tree no.	Scientific Name	Common Name	Height (M)	Spread (M)	DBH (mm)	DAB (mm)	TPZ (mm)	SRZ (mm)	Vigour	Condition	SULE	Tree/AZ	Hollows	Notes/Comments
133	<i>Eucalyptus globoidea</i>	White Stringybark	8	3	170	300	2040	1996	Poor	3	4 (Remove)	Z4	No	
134	<i>Eucalyptus globoidea</i>	White Stringybark	11	3	150	600	2000	2670	Poor	3	4 (Remove)	Z4	No	
135	<i>Angophora costata</i>	Smooth-barked Apple Myrtle	18	10	310	370	3720	2180	Fair	2	3 (Short SULE)	A2	No	
136	<i>Angophora costata</i>	Smooth-barked Apple Myrtle	18	10	320	440	3840	2344	Fair	2	3 (Short SULE)	A2	No	
137	<i>Syncarpia glomulifera</i>	Turpentine	15	6	380	520	4560	2515	Fair	4	1 (Long SULE)	A2	No	
138	<i>Eucalyptus pilularis</i>	Blackbutt	24	12	350	580	4200	2633	Normal	4	1 (Long SULE)	A2	No	
139	<i>Corymbia gummifera</i>	Red Bloodwood	14	2	230	290	2760	1968	Poor	2	3 (Short SULE)	Z4	No	
140	<i>Corymbia gummifera</i>	Red Bloodwood	19	6	260	320	3120	2051	Fair	4	2 (Medium SULE)	A2	No	
141	<i>Eucalyptus globoidea</i>	White Stringybark	20	6	330	360	3960	2155	Fair	4	2 (Medium SULE)	A2	No	
142	<i>Eucalyptus globoidea</i>	White Stringybark	12	10	250	270	3000	1910	Fair	3	3 (Short SULE)	A2	No	
143	<i>Corymbia gummifera</i>	Red Bloodwood	12	5	220	270	2640	1910	Fair	4	2 (Medium SULE)	A2	No	



Tree no.	Scientific Name	Common Name	Height (M)	Spread (M)	DBH (mm)	DAB (mm)	TPZ (mm)	SRZ (mm)	Vigour	Condition	SULE	Tree/AZ	Hollows	Notes/Comments
144	<i>Corymbia gummifera</i>	Red Bloodwood	12	5	220	260	2640	1879	Good	4	2 (Medium SULE)	A2	No	
145	<i>Eucalyptus pilularis</i>	Blackbutt	28	19	710	950	8520	3239	Normal	4	1 (Long SULE)	A2	No	
146	Dead Tree	Dead Tree	8	2	170	200	2040	1683	Dead	1	4 (Remove)	Z4	No	
147	<i>Corymbia gummifera</i>	Red Bloodwood	5	2	160	160	2000	1533	Poor	2	4 (Remove)	Z4	No	
148	<i>Angophora costata</i>	Smooth-barked Apple Myrtle	12	2	150	160	2000	1533	Good	4	1 (Long SULE)	A2	No	
149	<i>Eucalyptus pilularis</i>	Blackbutt	19	5	280	420	3360	2299	Good	4	1 (Long SULE)	A2	No	
150	<i>Eucalyptus pilularis</i>	Blackbutt	30	23	500	750	6000	2933	Good	4	1 (Long SULE)	A2	No	
151	<i>Corymbia gummifera</i>	Red Bloodwood	6	4	250	240	3000	1817	Fair	3	2 (Medium SULE)	A2	No	
152	<i>Eucalyptus pilularis</i>	Blackbutt	28	30	670	770	8040	2965	Normal	4	1 (Long SULE)	A2	No	
153	<i>Corymbia gummifera</i>	Red Bloodwood	15	4	290	360	3480	2155	Fair	3	3 (Short SULE)	A2	No	
154	<i>Corymbia gummifera</i>	Red Bloodwood	18	20	500	800	6000	3013	Fair	4	1 (Long SULE)	A2	No	



Tree no.	Scientific Name	Common Name	Height (M)	Spread (M)	DBH (mm)	DAB (mm)	TPZ (mm)	SRZ (mm)	Vigour	Condition	SULE	Tree/AZ	Hollows	Notes/Comments
155	<i>Corymbia gummifera</i>	Red Bloodwood	12	4	260	340	3120	2104	Fair	4	1 (Long SULE)	A2	No	
156	<i>Syncarpia glomulifera</i>	Turpentine	20	12	430	570	5160	2613	Good	4	1 (Long SULE)	A2	No	
157	<i>Corymbia gummifera</i>	Red Bloodwood	25	10	270	330	3240	2077	Normal	4	1 (Long SULE)	A2	No	
158	<i>Corymbia gummifera</i>	Red Bloodwood	20	5	270	350	3240	2129	Normal	4	1 (Long SULE)	A2	No	
159	<i>Corymbia gummifera</i>	Red Bloodwood	20	5	290	400	3480	2252	Normal	4	1 (Long SULE)	A2	No	
160	<i>Corymbia gummifera</i>	Red Bloodwood	12	5	200	250	2400	1849	Normal	4	1 (Long SULE)	A2	No	
161	<i>Eucalyptus eugenioides</i>	Thin-leaved Stringybark	12	5	380	500	4560	2474	Normal	4	1 (Long SULE)	A2	No	
162	<i>Corymbia gummifera</i>	Red Bloodwood	12	2	160	180	2000	1611	Fair	3	3 (Short SULE)	A2	No	
163	<i>Eucalyptus pilularis</i>	Blackbutt	29	30	730	1300	8760	3695	Good	5	1 (Long SULE)	A3	No	
164	<i>Corymbia gummifera</i>	Red Bloodwood	12	3	180	250	2160	1849	Normal	4	1 (Long SULE)	A2	No	
165	<i>Angophora costata</i>	Smooth-barked Apple Myrtle	10	4	250	280	3000	1939	Good	4	1 (Long SULE)	A2	No	



Tree no.	Scientific Name	Common Name	Height (M)	Spread (M)	DBH (mm)	DAB (mm)	TPZ (mm)	SRZ (mm)	Vigour	Condition	SULE	Tree/AZ	Hollows	Notes/Comments
166	<i>Angophora costata</i>	Smooth-barked Apple Myrtle	21	6	350	700	4200	2849	Normal	4	1 (Long SULE)	A2	No	
167	<i>Corymbia gummifera</i>	Red Bloodwood	18	5	280	370	3360	2180	Fair	3	2 (Medium SULE)	A2	No	
168	<i>Corymbia gummifera</i>	Red Bloodwood	9	2	180	190	2160	1647	Poor	2	3 (Short SULE)	Z4	No	
169	<i>Corymbia gummifera</i>	Red Bloodwood	25	8	350	450	4200	2366	Good	4	1 (Long SULE)	A2	No	
170	<i>Eucalyptus racemosa</i>	Scribbly Gum	6	2	170	180	2040	1611	Fair	3	2 (Medium SULE)	A2	No	
171	<i>Eucalyptus racemosa</i>	Scribbly Gum	3	1	350	650	4200	2762	Poor	2	4 (Remove)	Z4	No	
172	<i>Eucalyptus racemosa</i>	Scribbly Gum	28	17	500	930	6000	3210	Good	4	1 (Long SULE)	A2	No	
173	<i>Eucalyptus globoidea</i>	White Stringybark	11	5	250	320	3000	2051	Poor	3	3 (Short SULE)	Z4	No	
174	<i>Corymbia gummifera</i>	Red Bloodwood	6	4	210	730	2520	2900	Fair	3	2 (Medium SULE)	A2	No	
175	<i>Eucalyptus racemosa</i>	Scribbly Gum	6	4	570	770	6840	2965	Normal	4	1 (Long SULE)	A2	No	
176	<i>Eucalyptus acmenioides</i>	White Mahogany	15	4	170	200	2040	1683	Normal	4	1 (Long SULE)	A2	No	



Tree no.	Scientific Name	Common Name	Height (M)	Spread (M)	DBH (mm)	DAB (mm)	TPZ (mm)	SRZ (mm)	Vigour	Condition	SULE	Tree/AZ	Hollows	Notes/Comments
177	<i>Corymbia gummifera</i>	Red Bloodwood	24	8	310	400	3720	2252	Normal	4	1 (Long SULE)	A2	No	
178	<i>Corymbia gummifera</i>	Red Bloodwood	7	3	170	200	2040	1683	Fair	3	2 (Medium SULE)	A2	No	
179	<i>Corymbia gummifera</i>	Red Bloodwood	21	9	340	380	4080	2204	Normal	4	1 (Long SULE)	A2	No	
180	<i>Eucalyptus globoidea</i>	White Stringybark	18	7	270	400	3240	2252	Fair	3	2 (Medium SULE)	A2	No	
181	<i>Eucalyptus acmenioides</i>	White Mahogany	16	9	360	460	4320	2388	Fair	3	2 (Medium SULE)	A2	No	
182	<i>Corymbia gummifera</i>	Red Bloodwood	23	9	330	410	3960	2276	Good	4	1 (Long SULE)	A2	No	
183	<i>Eucalyptus globoidea</i>	White Stringybark	15	5	190	200	2280	1683	Normal	4	2 (Medium SULE)	A2	No	
184	Dead Tree	Dead Tree	11	1	170	200	2040	1683	Dead	1	4 (Remove)	Z4	No	
185	<i>Eucalyptus pilularis</i>	Blackbutt	22	20	440	520	5280	2515	Good	4	1 (Long SULE)	A2	No	
186	<i>Eucalyptus globoidea</i>	White Stringybark	22	24	670	840	8040	3076	Good	4	1 (Long SULE)	A2	No	
187	<i>Corymbia gummifera</i>	Red Bloodwood	24	9	530	550	6360	2575	Normal	4	1 (Long SULE)	A2	No	



Tree no.	Scientific Name	Common Name	Height (M)	Spread (M)	DBH (mm)	DAB (mm)	TPZ (mm)	SRZ (mm)	Vigour	Condition	SULE	Tree/AZ	Hollows	Notes/Comments
188	<i>Corymbia gummifera</i>	Red Bloodwood	15	10	310	390	3720	2228	Good	4	1 (Long SULE)	A2	No	
189	<i>Corymbia gummifera</i>	Red Bloodwood	10	10	280	320	3360	2051	Good	4	1 (Long SULE)	A2	No	
190	<i>Corymbia gummifera</i>	Red Bloodwood	10	10	280	320	3360	2051	Good	4	1 (Long SULE)	A2	No	
191	<i>Corymbia gummifera</i>	Red Bloodwood	12	10	320	410	3840	2276	Good	4	1 (Long SULE)	A2	No	
192	<i>Eucalyptus globoidea</i>	White Stringybark	10	10	310	580	3720	2633	Good	4	1 (Long SULE)	A2	No	
193	Dead Tree	Dead Tree	6	2	160	210	2000	1718	Dead	1	4 (Remove)	Z4	No	
194	<i>Corymbia gummifera</i>	Red Bloodwood	20	15	470	760	5640	2949	Good	4	1 (Long SULE)	A2	No	
195	<i>Corymbia gummifera</i>	Red Bloodwood	24	15	320	480	3840	2431	Good	4	1 (Long SULE)	A2	No	
196	<i>Eucalyptus racemosa</i>	Scribbly Gum	10	5	180	240	2160	1817	Good	4	1 (Long SULE)	A2	No	
197	<i>Eucalyptus acmenioides</i>	White Mahogany	20	25	520	620	6240	2707	Fair	3	2 (Medium SULE)	A2	No	
198	<i>Corymbia gummifera</i>	Red Bloodwood	10	5	180	220	2160	1752	Normal	4	1 (Long SULE)	A2	No	



Tree no.	Scientific Name	Common Name	Height (M)	Spread (M)	DBH (mm)	DAB (mm)	TPZ (mm)	SRZ (mm)	Vigour	Condition	SULE	Tree/AZ	Hollows	Notes/Comments
199	<i>Angophora costata</i>	Smooth-barked Apple Myrtle	10	5	190	280	2280	1939	Normal	4	1 (Long SULE)	A2	No	
200	<i>Corymbia gummifera</i>	Red Bloodwood	18	12	320	350	3840	2129	Good	4	1 (Long SULE)	A2	No	
201	<i>Angophora costata</i>	Smooth-barked Apple Myrtle	18	12	270	420	3240	2299	Fair	3	2 (Medium SULE)	A2	No	
202	<i>Eucalyptus racemosa</i>	Scribbly Gum	10	14	320	360	3840	2155	Normal	4	1 (Long SULE)	A2	No	
203	<i>Eucalyptus racemosa</i>	Scribbly Gum	12	2	400	550	4800	2575	Poor	2	4 (Remove)	Z4	No	
204	<i>Eucalyptus globoidea</i>	White Stringybark	20	15	400	530	4800	2535	Normal	4	2 (Medium SULE)	A2	No	
205	<i>Eucalyptus racemosa</i>	Scribbly Gum	15	15	340	950	4080	3239	Good	4	1 (Long SULE)	A2	No	
206	<i>Corymbia gummifera</i>	Red Bloodwood	15	12	320	390	3840	2228	Good	4	1 (Long SULE)	A2	No	
207	<i>Corymbia gummifera</i>	Red Bloodwood	10	5	180	210	2160	1718	Good	4	1 (Long SULE)	A2	No	
208	<i>Eucalyptus racemosa</i>	Scribbly Gum	20	17	550	780	6600	2981	Good	4	1 (Long SULE)	A2	No	
209	<i>Corymbia gummifera</i>	Red Bloodwood	10	5	190	200	2280	1683	Poor	2	4 (Remove)	Z4	No	



Tree no.	Scientific Name	Common Name	Height (M)	Spread (M)	DBH (mm)	DAB (mm)	TPZ (mm)	SRZ (mm)	Vigour	Condition	SULE	Tree/AZ	Hollows	Notes/Comments
210	<i>Eucalyptus globoidea</i>	White Stringybark	18	14	380	440	4560	2344	Fair	4	2 (Medium SULE)	A2	No	
211	<i>Eucalyptus racemosa</i>	Scribbly Gum	22	18	640	800	7680	3013	Good	4	1 (Long SULE)	A2	No	
212	<i>Corymbia gummifera</i>	Red Bloodwood	20	10	280	320	3360	2051	Good	4	1 (Long SULE)	A2	No	
213	<i>Corymbia gummifera</i>	Red Bloodwood	10	5	220	280	2640	1939	Fair	3	3 (Short SULE)	A2	No	
214	<i>Corymbia gummifera</i>	Red Bloodwood	12	5	200	260	2400	1879	Fair	3	3 (Short SULE)	A2	No	
215	<i>Eucalyptus globoidea</i>	White Stringybark	20	12	260	400	3120	2252	Fair	3	3 (Short SULE)	A2	No	
216	<i>Eucalyptus racemosa</i>	Scribbly Gum	18	12	250	300	3000	1996	Fair	3	3 (Short SULE)	A2	No	
217	<i>Eucalyptus racemosa</i>	Scribbly Gum	20	15	260	420	3120	2299	Fair	3	3 (Short SULE)	A2	No	
218	<i>Eucalyptus racemosa</i>	Scribbly Gum	22	15	340	430	4080	2322	Fair	3	3 (Short SULE)	A2	No	
219	<i>Corymbia gummifera</i>	Red Bloodwood	15	10	300	320	3600	2051	Normal	4	1 (Long SULE)	A2	No	
220	<i>Corymbia gummifera</i>	Red Bloodwood	12	3	200	240	2400	1817	Normal	4	1 (Long SULE)	A2	No	



Tree no.	Scientific Name	Common Name	Height (M)	Spread (M)	DBH (mm)	DAB (mm)	TPZ (mm)	SRZ (mm)	Vigour	Condition	SULE	Tree/AZ	Hollows	Notes/Comments
221	<i>Corymbia gummifera</i>	Red Bloodwood	10	4	150	190	2000	1647	Fair	3	2 (Medium SULE)	A2	No	
222	<i>Corymbia gummifera</i>	Red Bloodwood	15	10	240	280	2880	1939	Fair	4	2 (Medium SULE)	A2	No	
223	<i>Corymbia gummifera</i>	Red Bloodwood	10	5	200	230	2400	1785	Fair	4	2 (Medium SULE)	A2	No	
224	<i>Eucalyptus racemosa</i>	Scribbly Gum	20	10	250	480	3000	2431	Good	4	1 (Long SULE)	A2	No	
225	<i>Corymbia gummifera</i>	Red Bloodwood	15	5	220	270	2640	1910	Good	4	1 (Long SULE)	A2	No	
226	<i>Eucalyptus haemastoma</i>	Scribbly Gum	20	15	430	590	5160	2652	Good	4	1 (Long SULE)	A2	No	
227	<i>Corymbia gummifera</i>	Red Bloodwood	15	5	270	390	3240	2228	Normal	4	1 (Long SULE)	A2	No	
228	<i>Corymbia gummifera</i>	Red Bloodwood	15	10	320	320	3840	2051	Normal	4	1 (Long SULE)	A2	No	
229	<i>Corymbia gummifera</i>	Red Bloodwood	22	15	350	600	4200	2670	Normal	4	1 (Long SULE)	A2	No	
230	<i>Corymbia gummifera</i>	Red Bloodwood	12	5	200	300	2400	1996	Normal	4	1 (Long SULE)	A2	No	
231	<i>Corymbia gummifera</i>	Red Bloodwood	22	10	380	520	4560	2515	Good	4	1 (Long SULE)	A2	No	



Tree no.	Scientific Name	Common Name	Height (M)	Spread (M)	DBH (mm)	DAB (mm)	TPZ (mm)	SRZ (mm)	Vigour	Condition	SULE	Tree/AZ	Hollows	Notes/Comments
232	<i>Corymbia gummifera</i>	Red Bloodwood	14	7	290	360	3480	2155	Good	4	1 (Long SULE)	A2	No	
233	<i>Corymbia gummifera</i>	Red Bloodwood	23	15	440	470	5280	2410	Good	4	1 (Long SULE)	A2	No	
234	<i>Corymbia gummifera</i>	Red Bloodwood	22	15	320	360	3840	2155	Normal	4	2 (Medium SULE)	A2	No	
235	<i>Eucalyptus racemosa</i>	Scribbly Gum	23	24	980	850	11760	3091	Good	5	1 (Long SULE)	A3	No	
236	<i>Banksia serrata</i>	Saw-toothed Banksia	6	3	280	320	3360	2051	Good	4	1 (Long SULE)	A2	No	
237	<i>Eucalyptus pilularis</i>	Blackbutt	10	2	150	160	2000	1533	Good	4	1 (Long SULE)	A2	No	
238	<i>Banksia serrata</i>	Saw-toothed Banksia	10	10	320	420	3840	2299	Good	4	1 (Long SULE)	A2	No	
239	<i>Eucalyptus haemastoma</i>	Scribbly Gum	12	10	250	290	3000	1968	Normal	4	1 (Long SULE)	A2	No	
240	<i>Eucalyptus racemosa</i>	Scribbly Gum	8	5	220	260	2640	1879	Normal	4	1 (Long SULE)	A2	No	
241	<i>Eucalyptus racemosa</i>	Scribbly Gum	12	10	360	430	4320	2322	Normal	4	1 (Long SULE)	A2	No	
242	<i>Eucalyptus racemosa</i>	Scribbly Gum	8	4	170	220	2040	1752	Normal	4	1 (Long SULE)	A2	No	



Tree no.	Scientific Name	Common Name	Height (M)	Spread (M)	DBH (mm)	DAB (mm)	TPZ (mm)	SRZ (mm)	Vigour	Condition	SULE	Tree/AZ	Hollows	Notes/Comments
243	<i>Eucalyptus racemosa</i>	Scribbly Gum	12	8	300	350	3600	2129	Fair	3	2 (Medium SULE)	A2	No	
244	<i>Allocasuarina littoralis</i>	Black She-oak	10	7	220	300	2640	1996	Fair	4	1 (Long SULE)	A2	No	
245	<i>Eucalyptus racemosa</i>	Scribbly Gum	10	6	300	350	3600	2129	Fair	4	1 (Long SULE)	A2	No	
246	<i>Angophora hispida</i>	Dwarf Apple	3	3	190	220	2280	1752	Fair	4	1 (Long SULE)	A2	No	
247	<i>Tristaniopsis laurina</i>	Kanooka	5	6	170	240	2040	1817	Good	4	1 (Long SULE)	A2	No	
248	<i>Syncarpia glomulifera</i>	Turpentine	14	4	170	240	2040	1817	Good	4	1 (Long SULE)	A2	No	
249	<i>Eucalyptus globoidea</i>	White Stringybark	28	19	810	1140	9720	3497	Good	5	1 (Long SULE)	A3	No	
250	<i>Angophora costata</i>	Smooth-barked Apple Myrtle	12	12	360	500	4320	2474	Good	4	1 (Long SULE)	A2	No	
251	<i>Angophora costata</i>	Smooth-barked Apple Myrtle	25	24	640	700	7680	2849	Good	5	1 (Long SULE)	A3	No	
252	<i>Angophora costata</i>	Smooth-barked Apple Myrtle	15	12	450	580	5400	2633	Good	4	1 (Long SULE)	A2	No	
253	<i>Corymbia gummifera</i>	Red Bloodwood	12	12	360	430	4320	2322	Good	3	2 (Medium SULE)	A2	No	



Tree no.	Scientific Name	Common Name	Height (M)	Spread (M)	DBH (mm)	DAB (mm)	TPZ (mm)	SRZ (mm)	Vigour	Condition	SULE	Tree/AZ	Hollows	Notes/Comments
254	<i>Angophora costata</i>	Smooth-barked Apple Myrtle	12	8	260	290	3120	1968	Fair	3	2 (Medium SULE)	A2	No	
255	<i>Syncarpia glomulifera</i>	Turpentine	19	6	380	470	4560	2410	Fair	3	2 (Medium SULE)	A2	No	
256	<i>Angophora costata</i>	Smooth-barked Apple Myrtle	12	6	210	230	2520	1785	Fair	3	2 (Medium SULE)	A2	No	
257	<i>Angophora costata</i>	Smooth-barked Apple Myrtle	12	6	200	200	2400	1683	Fair	3	2 (Medium SULE)	A2	No	
258	<i>Eucalyptus globoidea</i>	White Stringybark	9	4	150	190	2000	1647	Normal	4	1 (Long SULE)	A2	No	
259	<i>Angophora costata</i>	Smooth-barked Apple Myrtle	8	4	200	250	2400	1849	Normal	4	1 (Long SULE)	A2	No	
260	<i>Angophora costata</i>	Smooth-barked Apple Myrtle	23	27	950	1170	11400	3535	Good	5	1 (Long SULE)	A3	Yes	
261	<i>Eucalyptus sieberi</i>	Black Ash	10	10	500	900	6000	3166	Good	4	1 (Long SULE)	A2	No	
262	<i>Eucalyptus sieberi</i>	Black Ash	10	8	300	450	3600	2366	Good	2	2 (Medium SULE)	A2	No	
263	<i>Eucalyptus sieberi</i>	Black Ash	10	8	250	350	3000	2129	Good	3	2 (Medium SULE)	A2	No	
264	<i>Eucalyptus acmenioides</i>	White Mahogany	16	12	550	750	6600	2933	Good	4	1 (Long SULE)	A2	No	



Tree no.	Scientific Name	Common Name	Height (M)	Spread (M)	DBH (mm)	DAB (mm)	TPZ (mm)	SRZ (mm)	Vigour	Condition	SULE	Tree/AZ	Hollows	Notes/Comments
265	<i>Eucalyptus acmenioides</i>	White Mahogany	13	4	200	350	2400	2129	Good	4	1 (Long SULE)	A2	No	
266	<i>Eucalyptus sieberi</i>	Black Ash	12	10	350	500	4200	2474	Good	4	1 (Long SULE)	A2	No	
267	<i>Eucalyptus sieberi</i>	Black Ash	13	11	450	620	5400	2707	Good	4	1 (Long SULE)	A2	No	
268	<i>Angophora costata</i>	Smooth-barked Apple Myrtle	12	11	400	500	4800	2474	Good	4	1 (Long SULE)	A2	No	
269	<i>Eucalyptus racemosa</i>	Scribbly Gum	16	12	500	650	6000	2762	Good	2	2 (Medium SULE)	A2	No	
270	<i>Corymbia gummifera</i>	Red Bloodwood	8	4	160	180	2000	1611	Good	3	2 (Medium SULE)	A2	No	
271	<i>Corymbia gummifera</i>	Red Bloodwood	8	2	170	180	2040	1611	Good	3	2 (Medium SULE)	A2	No	
272	<i>Corymbia gummifera</i>	Red Bloodwood	10	5	300	360	3600	2155	Normal	3	2 (Medium SULE)	A2	No	
273	<i>Corymbia gummifera</i>	Red Bloodwood	13	2	210	230	2520	1785	Poor	2	3 (Short SULE)	Z4	No	
274	<i>Corymbia gummifera</i>	Red Bloodwood	10	5	260	300	3120	1996	Fair	3	3 (Short SULE)	A2	No	
275	<i>Corymbia gummifera</i>	Red Bloodwood	15	6	310	350	3720	2129	Fair	3	2 (Medium SULE)	A2	No	



Tree no.	Scientific Name	Common Name	Height (M)	Spread (M)	DBH (mm)	DAB (mm)	TPZ (mm)	SRZ (mm)	Vigour	Condition	SULE	Tree/AZ	Hollows	Notes/Comments
276	<i>Corymbia gummifera</i>	Red Bloodwood	12	8	290	340	3480	2104	Good	4	1 (Long SULE)	A2	No	
277	<i>Acacia decurrens</i>	Green Wattle	6	3	180	240	2160	1817	Poor	1	3 (Short SULE)	Z4	No	
278	<i>Acacia decurrens</i>	Green Wattle	6	3	180	240	2160	1817	Poor	1	3 (Short SULE)	Z4	No	
279	Dead Tree	Dead Tree	6	3	200	200	2400	1683	Dead	1	4 (Remove)		No	
280	<i>Corymbia gummifera</i>	Dead Tree	15	6	300	340	3600	2104	Fair	3	2 (Medium SULE)	A2	No	
281	<i>Corymbia gummifera</i>	Dead Tree	17	6	340	400	4080	2252	Fair	3	2 (Medium SULE)	A2	No	
282	<i>Syncarpia glomulifera</i>	Turpentine	13	10	360	500	4320	2474	Good	4	1 (Long SULE)	A2	No	
283	<i>Corymbia gummifera</i>	Dead Tree	15	10	650	550	7800	2575	Normal	4	1 (Long SULE)	A2	No	
284	<i>Eucalyptus haemastoma</i>	Scribbly Gum	18	9	410	500	4920	2474	Normal	4	1 (Long SULE)	A2	No	
285	<i>Eucalyptus racemosa</i>	Scribbly Gum	14	8	450	520	5400	2515	Normal	4	1 (Long SULE)	A2	No	
286	<i>Eucalyptus acmenioides</i>	White Mahogany	10	3	210	330	2520	2077	Normal	4	1 (Long SULE)	A2	No	



Tree no.	Scientific Name	Common Name	Height (M)	Spread (M)	DBH (mm)	DAB (mm)	TPZ (mm)	SRZ (mm)	Vigour	Condition	SULE	Tree/AZ	Hollows	Notes/Comments
287	<i>Eucalyptus sieberi</i>	Dead Tree	18	4	190	190	2280	1647	Normal	4	1 (Long SULE)	A2	No	
288	<i>Corymbia gummifera</i>	Dead Tree	15	10	410	540	4920	2555	Normal	4	1 (Long SULE)	A2	No	
289	<i>Eucalyptus sieberi</i>	Dead Tree	10	5	260	310	3120	2024	Normal	4	1 (Long SULE)	A2	No	
290	<i>Eucalyptus racemosa</i>	Scribbly Gum	14	10	290	360	3480	2155	Good	4	1 (Long SULE)	A2	No	
291	<i>Eucalyptus acmenioides</i>	White Mahogany	8	7	220	540	2640	2555	Normal	4	1 (Long SULE)	A2	No	
292	<i>Corymbia gummifera</i>	Red Bloodwood	12	6	390	430	4680	2322	Fair	3	2 (Medium SULE)	A2	No	
293	<i>Corymbia gummifera</i>	Red Bloodwood	10	6	330	350	3960	2129	Normal	4	1 (Long SULE)	A2	No	
294	<i>Corymbia gummifera</i>	Red Bloodwood	8	6	230	250	2760	1849	Normal	4	1 (Long SULE)	A2	No	
295	<i>Eucalyptus haemastoma</i>	Scribbly Gum	15	10	520	600	6240	2670	Normal	3	2 (Medium SULE)	A2	No	
296	<i>Eucalyptus acmenioides</i>	White Mahogany	19	12	470	520	5640	2515	Normal	4	1 (Long SULE)	A2	No	
297	<i>Corymbia gummifera</i>	Red Bloodwood	8	4	190	220	2280	1752	Poor	2	3 (Short SULE)	Z4	No	



Tree no.	Scientific Name	Common Name	Height (M)	Spread (M)	DBH (mm)	DAB (mm)	TPZ (mm)	SRZ (mm)	Vigour	Condition	SULE	Tree/AZ	Hollows	Notes/Comments
298	<i>Corymbia gummifera</i>	Red Bloodwood	10	5	220	250	2640	1849	Fair	3	2 (Medium SULE)	A2	No	
299	<i>Corymbia gummifera</i>	Red Bloodwood	15	8	360	440	4320	2344	Normal	4	1 (Long SULE)	A2	No	
300	<i>Corymbia gummifera</i>	Red Bloodwood	12	8	340	380	4080	2204	Fair	3	2 (Medium SULE)	A2	No	
301	<i>Eucalyptus acmenioides</i>	White Mahogany	12	6	310	350	3720	2129	Fair	3	2 (Medium SULE)	A2	No	
302	Dead Tree	Dead Tree	7	2	200	200	2400	1683	Dead	1	4 (Remove)		No	
303	<i>Corymbia gummifera</i>	Red Bloodwood	7	3	160	180	2000	1611	Dead	1	4 (Remove)		No	
304	<i>Corymbia gummifera</i>	Red Bloodwood	9	3	200	220	2400	1752	Normal	4	1 (Long SULE)	A2	No	
305	<i>Eucalyptus sieberi</i>	Black Ash	6	4	170	190	2040	1647	Normal	4	1 (Long SULE)	A2	No	
306	<i>Corymbia gummifera</i>	Red Bloodwood	12	10	420	480	5040	2431	Normal	4	1 (Long SULE)	A2	No	
307	<i>Corymbia gummifera</i>	Red Bloodwood	10	5	290	330	3480	2077	Normal	4	1 (Long SULE)	A2	No	
308	<i>Eucalyptus acmenioides</i>	White Mahogany	15	12	450	520	5400	2515	Fair	3	2 (Medium SULE)	A2	No	



Tree no.	Scientific Name	Common Name	Height (M)	Spread (M)	DBH (mm)	DAB (mm)	TPZ (mm)	SRZ (mm)	Vigour	Condition	SULE	Tree/AZ	Hollows	Notes/Comments
309	<i>Eucalyptus acmenioides</i>	White Mahogany	20	8	290	320	3480	2051	Normal	3	2 (Medium SULE)	A2	No	
310	<i>Corymbia gummifera</i>	Red Bloodwood	14	9	360	440	4320	2344	Poor	3	3 (Short SULE)	A2	No	
311	<i>Eucalyptus acmenioides</i>	White Mahogany	17	12	320	650	3840	2762	Fair	4	1 (Long SULE)	A2	No	
312	<i>Eucalyptus acmenioides</i>	White Mahogany	10	10	230	500	2760	2474	Fair	3	2 (Medium SULE)	A2	No	
313	<i>Corymbia gummifera</i>	Red Bloodwood	16	10	350	400	4200	2252	Dead	4	1 (Long SULE)	A2	No	
314	<i>Eucalyptus acmenioides</i>	White Mahogany	12	11	400	700	4800	2849	Poor	1	3 (Short SULE)	Z4	No	
315	<i>Eucalyptus sieberi</i>	Black Ash	14	8	250	400	3000	2252	Good	4	1 (Long SULE)	A2	No	
316	<i>Eucalyptus sieberi</i>	Black Ash	10	8	260	380	3120	2204	Fair	2	2 (Medium SULE)	A2	No	
317	<i>Eucalyptus sieberi</i>	Black Ash	10	5	180	400	2160	2252	Normal	4	1 (Long SULE)	A2	No	
318	<i>Eucalyptus haemastoma</i>	Scribbly Gum	8	8	200	250	2400	1849	Fair	3	2 (Medium SULE)	A2	No	
319	<i>Eucalyptus racemosa</i>	Scribbly Gum	12	10	330	360	3960	2155	Normal	4	1 (Long SULE)	A2	No	



Tree no.	Scientific Name	Common Name	Height (M)	Spread (M)	DBH (mm)	DAB (mm)	TPZ (mm)	SRZ (mm)	Vigour	Condition	SULE	Tree/AZ	Hollows	Notes/Comments
320	<i>Eucalyptus acmenioides</i>	White Mahogany	8	6	200	250	2400	1849	Normal	4	1 (Long SULE)	A2	No	
321	<i>Eucalyptus acmenioides</i>	White Mahogany	8	6	200	250	2400	1849	Normal	4	1 (Long SULE)	A2	No	
322	<i>Corymbia gummifera</i>	Red Bloodwood	8	4	230	230	2760	1785	Fair	3	2 (Medium SULE)	A2	No	
323	<i>Eucalyptus haemastoma</i>	Scribbly Gum	7	4	200	300	2400	1996	Normal	4	1 (Long SULE)	A2	No	
324	<i>Corymbia gummifera</i>	Red Bloodwood	16	10	480	500	5760	2474	Fair	3	3 (Short SULE)	A2	No	
325	<i>Eucalyptus globoidea</i>	White Stringybark	19	10	650	700	7800	2849	Normal	3	2 (Medium SULE)	A2	No	
326	<i>Angophora costata</i>	Smooth-barked Apple Myrtle	18	10	320	450	3840	2366	Normal	4	1 (Long SULE)	A2	No	
327	<i>Eucalyptus pilularis</i>	Blackbutt	20	12	440	460	5280	2388	Normal	2	2 (Medium SULE)	A2	No	
328	<i>Eucalyptus pilularis</i>	Blackbutt	24	15	340	400	4080	2252	Normal	3	2 (Medium SULE)	A2	No	
329	<i>Eucalyptus pilularis</i>	Blackbutt	20	10	340	380	4080	2204	Normal	4	1 (Long SULE)	A2	No	
330	<i>Eucalyptus pilularis</i>	Blackbutt	20	10	390	450	4680	2366	Normal	4	1 (Long SULE)	A2	No	



Tree no.	Scientific Name	Common Name	Height (M)	Spread (M)	DBH (mm)	DAB (mm)	TPZ (mm)	SRZ (mm)	Vigour	Condition	SULE	Tree/AZ	Hollows	Notes/Comments
331	<i>Eucalyptus pilularis</i>	Blackbutt	17	6	320	360	3840	2155	Normal	4	1 (Long SULE)	A2	No	
332	<i>Eucalyptus pilularis</i>	Blackbutt	17	6	320	350	3840	2129	Normal	4	1 (Long SULE)	A2	No	
333	<i>Eucalyptus pilularis</i>	Blackbutt	24	11	340	460	4080	2388	Normal	4	1 (Long SULE)	A2	No	
334	<i>Eucalyptus saligna x botryoides</i>	Hybrid Sydney Blue Gum	20	9	450	480	5400	2431	Fair	2	2 (Medium SULE)	A2	No	
335	<i>Eucalyptus saligna x botryoides</i>	Hybrid Sydney Blue Gum	25	13	380	500	4560	2474	Normal	4	1 (Long SULE)	A2	No	
336	<i>Eucalyptus saligna x botryoides</i>	Hybrid Sydney Blue Gum	20	10	230	240	2760	1817	Normal	4	1 (Long SULE)	A2	No	
337	<i>Angophora costata</i>	Smooth-barked Apple Myrtle	24	15	480	540	5760	2555	Normal	4	1 (Long SULE)	A2	No	
338	<i>Eucalyptus eugenioides</i>	Thin-leaved Stringybark	10	10	280	320	3360	2051	Fair	3	2 (Medium SULE)	A2	No	
339	<i>Eucalyptus pilularis</i>	Blackbutt	19	8	320	430	3840	2322	Normal	3	2 (Medium SULE)	A2	No	
340	<i>Eucalyptus eugenioides</i>	Thin-leaved Stringybark	10	4	200	240	2400	1817	Normal	3	2 (Medium SULE)	A2	No	



Tree no.	Scientific Name	Common Name	Height (M)	Spread (M)	DBH (mm)	DAB (mm)	TPZ (mm)	SRZ (mm)	Vigour	Condition	SULE	Tree/AZ	Hollows	Notes/Comments
341	<i>Eucalyptus pilularis</i>	Blackbutt	22	15	340	440	4080	2344	Normal	4	1 (Long SULE)	A2	No	
342	Dead Tree	Dead Tree	14	3	300	350	3600	2129	Dead	1	4 (Remove)		No	
343	<i>Eucalyptus sieberi</i>	Black Ash	10	5	230	280	2760	1939	Good	4	1 (Long SULE)	A2	No	
344	<i>Eucalyptus saligna x botryoides</i>	Hybrid Sydney Blue Gum	18	10	260	320	3120	2051	Normal	4	1 (Long SULE)	A2	No	
345	<i>Eucalyptus saligna x botryoides</i>	Hybrid Sydney Blue Gum	10	8	300	350	3600	2129	Fair	3	2 (Medium SULE)	A2	No	
346	<i>Eucalyptus saligna x botryoides</i>	Hybrid Sydney Blue Gum	10	4	200	250	2400	1849	Fair	3	3 (Short SULE)	A2	No	
347	<i>Eucalyptus eugenioides</i>	Thin-leaved Stringybark	11	4	250	280	3000	1939	Fair	3	3 (Short SULE)	A2	No	
348	Dead Tree	Dead Tree	9	3	200	200	2400	1683	Dead	1	4 (Remove)		No	
349	<i>Eucalyptus pilularis</i>	Blackbutt	13	6	230	270	2760	1910	Fair	3	2 (Medium SULE)	A2	No	
350	<i>Eucalyptus saligna x botryoides</i>	Hybrid Sydney Blue Gum	12	10	330	430	3960	2322	Fair	3	2 (Medium SULE)	A2	No	



Tree no.	Scientific Name	Common Name	Height (M)	Spread (M)	DBH (mm)	DAB (mm)	TPZ (mm)	SRZ (mm)	Vigour	Condition	SULE	Tree/AZ	Hollows	Notes/Comments
351	<i>Eucalyptus pilularis</i>	Blackbutt	8	3	160	180	2000	1611	Fair	3	2 (Medium SULE)	A2	No	
352	<i>Eucalyptus pilularis</i>	Blackbutt	18	10	350	390	4200	2228	Normal	4	1 (Long SULE)	A2	No	
353	<i>Syncarpia glomulifera</i>	Turpentine	10	6	340	450	4080	2366	Poor	2	3 (Short SULE)	Z4	No	
354	<i>Eucalyptus pilularis</i>	Blackbutt	10	7	220	260	2640	1879	Normal	4	1 (Long SULE)	A2	No	
355	Dead Tree	Dead Tree	6	2	200	200	2400	1683	Dead	1	4 (Remove)		No	
356	<i>Eucalyptus sieberi</i>	Black Ash	6	3	150	170	2000		Normal	4	1 (Long SULE)	A2	No	
357	<i>Eucalyptus acmenioides</i>	White Mahogany	23	14	380	460	4560	2388	Good	4	1 (Long SULE)	A2	No	
358	<i>Eucalyptus sieberi</i>	Black Ash	13	12	580	720	6960	2883	Good	4	1 (Long SULE)	A2	No	
359	<i>Eucalyptus acmenioides</i>	White Mahogany	14	8	340	400	4080	2252	Normal	4	1 (Long SULE)	A2	No	
360	<i>Eucalyptus pilularis</i>	Blackbutt	22	13	500	1200	6000	3570	Poor	2	3 (Short SULE)	Z4	No	
361	<i>Eucalyptus sieberi</i>	Black Ash	18	9	320	500	3840	2474	Good	4	1 (Long SULE)	A2	No	



Tree no.	Scientific Name	Common Name	Height (M)	Spread (M)	DBH (mm)	DAB (mm)	TPZ (mm)	SRZ (mm)	Vigour	Condition	SULE	Tree/AZ	Hollows	Notes/Comments
362	<i>Eucalyptus eugenioides</i>	Thin-leaved Stringybark	25	18	600	750	7200	2933	Normal	3	2 (Medium SULE)	A2	No	
363	<i>Syncarpia glomulifera</i>	Turpentine	8	10	400	600	4800	2670	Normal	4	1 (Long SULE)	A2	No	
364	<i>Eucalyptus sieberi</i>	Black Ash	12	10	300	450	3600	2366	Fair	3	2 (Medium SULE)	A2	No	
365	<i>Eucalyptus sieberi</i>	Black Ash	20	18	500	600	6000	2670	Normal	4	1 (Long SULE)	A2	No	
366	<i>Syncarpia glomulifera</i>	Turpentine	10	4	250	300	3000	1996	Normal	4	1 (Long SULE)	A2	No	
367	<i>Syncarpia glomulifera</i>	Turpentine	19	8	280	520	3360	2515	Normal	4	1 (Long SULE)	A2	No	
368	<i>Eucalyptus acmenioides</i>	White Mahogany	20	15	500	600	6000	2670	Fair	3	2 (Medium SULE)	A2	No	
369	<i>Eucalyptus sieberi</i>	Black Ash	12	8	180	220	2160	1752	Poor	2	3 (Short SULE)	Z4	No	
370	<i>Syncarpia glomulifera</i>	Turpentine	12	5	200	250	2400	1849	Normal	4	1 (Long SULE)	A2	No	
371	<i>Syncarpia glomulifera</i>	Turpentine	12	5	200	250	2400	1849	Normal	4	1 (Long SULE)	A2	No	
372	<i>Syncarpia glomulifera</i>	Turpentine	12	5	330	500	3960	2474	Normal	3	2 (Medium SULE)	A2	No	



Tree no.	Scientific Name	Common Name	Height (M)	Spread (M)	DBH (mm)	DAB (mm)	TPZ (mm)	SRZ (mm)	Vigour	Condition	SULE	Tree/AZ	Hollows	Notes/Comments
373	<i>Eucalyptus eugenioides</i>	Thin-leaved Stringybark	20	14	550	650	6600	2762	Normal	4	1 (Long SULE)	A2	No	
374	<i>Eucalyptus acmenioides</i>	White Mahogany	8	3	170	210	2040	1718	Normal	4	1 (Long SULE)	A2	No	
375	<i>Syncarpia glomulifera</i>	Turpentine	10	3	190	200	2280	1683	Normal	3	2 (Medium SULE)	A2	No	
376	<i>Eucalyptus eugenioides</i>	Thin-leaved Stringybark	23	16	460	600	5520	2670	Normal	4	1 (Long SULE)	A2	No	
377	<i>Eucalyptus sieberi</i>	Black Ash	14	10	450	540	5400	2555	Good	3	2 (Medium SULE)	A2	No	
378	<i>Eucalyptus acmenioides</i>	White Mahogany	15	4	400	460	4800	2388	Poor	1	4 (Remove)		No	
379	<i>Eucalyptus sieberi</i>	Black Ash	10	2	200	240	2400	1817	Normal	3	2 (Medium SULE)	A2	No	
380	<i>Allocasuarina torulosa</i>	Forest She-oak	14	6	330	430	3960	2322	Normal	4	1 (Long SULE)	A2	No	
381	<i>Syncarpia glomulifera</i>	Turpentine	10	4	260	320	3120	2051	Normal	4	1 (Long SULE)	A2	No	
382	<i>Eucalyptus acmenioides</i>	White Mahogany	10	5	220	280	2640	1939	Normal	4	1 (Long SULE)	A2	No	
383	<i>Syncarpia glomulifera</i>	Turpentine	10	5	260	320	3120	2051	Normal	4	1 (Long SULE)	A2	No	



Tree no.	Scientific Name	Common Name	Height (M)	Spread (M)	DBH (mm)	DAB (mm)	TPZ (mm)	SRZ (mm)	Vigour	Condition	SULE	Tree/AZ	Hollows	Notes/Comments
384	<i>Eucalyptus eugenioides</i>	Thin-leaved Stringybark	23	20	480	600	5760	2670	Normal	3	2 (Medium SULE)	A2	No	
385	<i>Eucalyptus eugenioides</i>	Thin-leaved Stringybark	8	3	200	250	2400	1849	Poor	1	4 (Remove)		No	
386	<i>Syncarpia glomulifera</i>	Turpentine	7	2	160	180	2000	1611	Normal	4	1 (Long SULE)	A2	No	
387	<i>Eucalyptus eugenioides</i>	Thin-leaved Stringybark	19	15	500	700	6000	2849	Poor	2	3 (Short SULE)	Z4	No	
388	<i>Syncarpia glomulifera</i>	Turpentine	7	4	260	300	3120	1996	Normal	3	2 (Medium SULE)	A2	No	
389	<i>Syncarpia glomulifera</i>	Turpentine	8	4	240	300	2880	1996	Normal	4	1 (Long SULE)	A2	No	
390	<i>Syncarpia glomulifera</i>	Turpentine	9	4	260	340	3120	2104	Normal	4	1 (Long SULE)	A2	No	
391	<i>Eucalyptus paniculata</i>	Grey Ironbark	9	4	320	400	3840	2252	Poor	1	3 (Short SULE)	Z4	No	
392	<i>Eucalyptus pilularis</i>	Blackbutt	17	15	450	600	5400	2670	Fair	3	2 (Medium SULE)	A2	No	
393	<i>Eucalyptus paniculata</i>	Grey Ironbark	15	13	450	600	5400	2670	Normal	4	1 (Long SULE)	A2	No	
394	<i>Eucalyptus racemosa</i>	Scribbly Gum	12	10	420	540	5040	2555	Normal	3	2 (Medium SULE)	A2	No	



Tree no.	Scientific Name	Common Name	Height (M)	Spread (M)	DBH (mm)	DAB (mm)	TPZ (mm)	SRZ (mm)	Vigour	Condition	SULE	Tree/AZ	Hollows	Notes/Comments
395	<i>Eucalyptus racemosa</i>	Scribbly Gum	12	8	350	430	4200	2322	Fair	3	2 (Medium SULE)	A2	No	
396	<i>Eucalyptus haemastoma</i>	Scribbly Gum	10	6	250	400	3000	2252	Fair	3	2 (Medium SULE)	A2	No	
397	<i>Corymbia gummifera</i>	Red Bloodwood	13	10	360	400	4320	2252	Normal	4	1 (Long SULE)	A2	No	
398	<i>Eucalyptus haemastoma</i>	Scribbly Gum	12	10	350	480	4200	2431	Fair	2	2 (Medium SULE)	A2	No	
399	<i>Eucalyptus racemosa</i>	Scribbly Gum	18	19	430	1100	5160	3440	Good	4	1 (Long SULE)	A2	No	
400	<i>Corymbia gummifera</i>	Red Bloodwood	13	5	280	340	3360	2104	Fair	3	2 (Medium SULE)	A2	No	
401	<i>Corymbia gummifera</i>	Red Bloodwood	8	3	150	170	2000		Fair	3	2 (Medium SULE)	A2	No	
402	<i>Corymbia gummifera</i>	Red Bloodwood	18	12	360	400	4320	2252	Normal	4	1 (Long SULE)	A2	No	
403	<i>Corymbia gummifera</i>	Red Bloodwood	15	10	260	320	3120	2051	Fair	3	2 (Medium SULE)	A2	No	
404	<i>Eucalyptus haemastoma</i>	Scribbly Gum	16	17	550	900	6600	3166	Normal	3	2 (Medium SULE)	A2	No	
405	<i>Eucalyptus haemastoma</i>	Scribbly Gum	15	15	430	500	5160	2474	Normal	3	2 (Medium SULE)	A2	No	



Tree no.	Scientific Name	Common Name	Height (M)	Spread (M)	DBH (mm)	DAB (mm)	TPZ (mm)	SRZ (mm)	Vigour	Condition	SULE	Tree/AZ	Hollows	Notes/Comments
406	<i>Eucalyptus haemastoma</i>	Scribbly Gum	15	15	380	460	4560	2388	Normal	3	2 (Medium SULE)	A2	No	
407	<i>Eucalyptus haemastoma</i>	Scribbly Gum	12	15	600	700	7200	2849	Normal	4	1 (Long SULE)	A2	No	
408	<i>Eucalyptus haemastoma</i>	Scribbly Gum	14	15	500	800	6000	3013	Normal	4	1 (Long SULE)	A2	No	
409	<i>Eucalyptus haemastoma</i>	Scribbly Gum	14	4	200	250	2400	1849	Normal	4	1 (Long SULE)	A2	No	
410	<i>Eucalyptus haemastoma</i>	Scribbly Gum	8	5	250	300	3000	1996	Normal	4	1 (Long SULE)	A2	No	
411	<i>Eucalyptus haemastoma</i>	Scribbly Gum	12	5	250	300	3000	1996	Normal	4	1 (Long SULE)	A2	No	
412	<i>Eucalyptus haemastoma</i>	Scribbly Gum	9	3	150	200	2000	1683	Normal	4	1 (Long SULE)	A2	No	
413	<i>Eucalyptus haemastoma</i>	Scribbly Gum	12	5	240	300	2880	1996	Normal	4	1 (Long SULE)	A2	No	
414	<i>Eucalyptus haemastoma</i>	Scribbly Gum	14	16	700	800	8400	3013	Good	4	1 (Long SULE)	A2	No	
415	<i>Eucalyptus haemastoma</i>	Scribbly Gum	10	10	430	580	5160	2633	Fair	3	2 (Medium SULE)	A2	No	
416	<i>Eucalyptus haemastoma</i>	Scribbly Gum	14	15	600	600	7200	2670	Normal	4	1 (Long SULE)	A2	No	



Tree no.	Scientific Name	Common Name	Height (M)	Spread (M)	DBH (mm)	DAB (mm)	TPZ (mm)	SRZ (mm)	Vigour	Condition	SULE	Tree/AZ	Hollows	Notes/Comments
417	<i>Eucalyptus haemastoma</i>	Scribbly Gum	16	15	700	1000	8400	3309	Poor	2	3 (Short SULE)	Z4	Yes	
418	<i>Eucalyptus haemastoma</i>	Scribbly Gum	6	7	300	400	3600	2252	Poor	1	3 (Short SULE)	Z4	No	
419	<i>Eucalyptus haemastoma</i>	Scribbly Gum	8	6	350	600	4200	2670	Fair	3	2 (Medium SULE)	A2	No	
420	<i>Eucalyptus pilularis</i>	Blackbutt	16	4	250	300	3000	1996	Normal	4	1 (Long SULE)	A2	No	
421	<i>Eucalyptus haemastoma</i>	Scribbly Gum	14	6	360	550	4320	2575	Poor	2	3 (Short SULE)	Z4	No	
423	<i>Eucalyptus haemastoma</i>	Scribbly Gum	14	14	600	650	7200	2762	Fair	3	2 (Medium SULE)	A2	No	
424	<i>Eucalyptus racemosa</i>	Scribbly Gum	14	12	400	470	4800	2410	Normal	4	1 (Long SULE)	A2	No	
425	<i>Eucalyptus haemastoma</i>	Scribbly Gum	8	8	300	350	3600	2129	Fair	3	2 (Medium SULE)	A2	No	
426	<i>Eucalyptus haemastoma</i>	Scribbly Gum	8	6	250	380	3000	2204	Fair	2	2 (Medium SULE)	A2	No	
427	<i>Eucalyptus haemastoma</i>	Scribbly Gum	10	11	350	450	4200	2366	Fair	2	2 (Medium SULE)	A2	No	
428	<i>Eucalyptus haemastoma</i>	Scribbly Gum	12	12	550	700	6600	2849	Fair	2	2 (Medium SULE)	A2	No	



Tree no.	Scientific Name	Common Name	Height (M)	Spread (M)	DBH (mm)	DAB (mm)	TPZ (mm)	SRZ (mm)	Vigour	Condition	SULE	Tree/AZ	Hollows	Notes/Comments
429	<i>Eucalyptus racemosa</i>	Scribbly Gum	12	10	380	430	4560	2322	Fair	4	1 (Long SULE)	A2	No	
430	<i>Eucalyptus racemosa</i>	Scribbly Gum	12	10	450	1000	5400	3309	Fair	4	1 (Long SULE)	A2	No	
431	<i>Eucalyptus racemosa</i>	Scribbly Gum	12	4	220	260	2640	1879	Fair	4	1 (Long SULE)	A2	No	
432	<i>Corymbia gummifera</i>	Red Bloodwood	26	25	900	1400	10080	3810	Good	4	1 (Long SULE)	A2	No	
433	<i>Eucalyptus haemastoma</i>	Scribbly Gum	14	18	1100	1200	13200	3570	Normal	4	1 (Long SULE)	A2	No	
434	<i>Eucalyptus haemastoma</i>	Scribbly Gum	8	4	300	450	3600	2366	Poor	2	3 (Short SULE)	Z4	No	
435	Dead Tree	Dead Tree	2	3	160	210	2000	1718	Poor	1	3 (Short SULE)	Z4	No	
436	<i>Corymbia gummifera</i>	Red Bloodwood	15	15	360	450	4320	2366	Normal	4	1 (Long SULE)	A2	No	
437	<i>Corymbia gummifera</i>	Red Bloodwood	15	8	330	420	3960	2299	Normal	4	1 (Long SULE)	A2	No	
438	<i>Corymbia gummifera</i>	Red Bloodwood	16	12	500	700	6000	2849	Normal	4	1 (Long SULE)	A2	No	
439	Dead Tree	Dead Tree	14	3	350	470	4200	2410	Dead	1	4 (Remove)		No	
440	<i>Eucalyptus haemastoma</i>	Scribbly Gum	10	8	340	600	4080	2670	Fair	3	2 (Medium SULE)	A2	No	



Tree no.	Scientific Name	Common Name	Height (M)	Spread (M)	DBH (mm)	DAB (mm)	TPZ (mm)	SRZ (mm)	Vigour	Condition	SULE	Tree/AZ	Hollows	Notes/Comments
441	<i>Corymbia gummifera</i>	Red Bloodwood	15	10	340	410	4080	2276	Fair	3	2 (Medium SULE)	A2	No	
442	<i>Corymbia gummifera</i>	Red Bloodwood	16	10	650	800	7800	3013	Fair	4	1 (Long SULE)	A2	No	
443	<i>Corymbia gummifera</i>	Red Bloodwood	15	9	400	600	4800	2670	Fair	3	2 (Medium SULE)	A2	No	
444	<i>Eucalyptus haemastoma</i>	Scribbly Gum	9	4	150	200	2000	1683	Normal	4	1 (Long SULE)	A2	No	
445	<i>Eucalyptus haemastoma</i>	Scribbly Gum	6	3	200	270	2400	1910	Fair	3	2 (Medium SULE)	A2	No	
446	<i>Eucalyptus haemastoma</i>	Scribbly Gum	14	10	550	700	6600	2849	Normal	4	1 (Long SULE)	A2	No	
447	<i>Eucalyptus haemastoma</i>	Scribbly Gum	18	12	360	600	4320	2670	Poor	1	3 (Short SULE)	Z4	No	
448	<i>Corymbia gummifera</i>	Red Bloodwood	24	6	440	600	5280	2670	Fair	3	2 (Medium SULE)	A2	No	
449	<i>Syncarpia glomulifera</i>	Turpentine	21	9	300	380	3600	2204	Fair	3	2 (Medium SULE)	A2	No	
450	<i>Allocasuarina littoralis</i>	Black She-oak	19	7	330	400	3960	2252	Fair	3	2 (Medium SULE)	A2	No	
451	<i>Corymbia gummifera</i>	Red Bloodwood	18	6	250	300	3000	1996	Fair	3	2 (Medium SULE)	A2	No	



Tree no.	Scientific Name	Common Name	Height (M)	Spread (M)	DBH (mm)	DAB (mm)	TPZ (mm)	SRZ (mm)	Vigour	Condition	SULE	Tree/AZ	Hollows	Notes/Comments
452	<i>Corymbia gummifera</i>	Red Bloodwood	18	6	310	360	3720	2155	Poor	2	3 (Short SULE)	Z4	No	
453	<i>Eucalyptus haemastoma</i>	Scribbly Gum	10	3	320	400	3840	2252	Fair	3	2 (Medium SULE)	A2	No	
454	<i>Allocasuarina littoralis</i>	Black She-oak	10	5	200	340	2400	2104	Dead	4	1 (Long SULE)	A2	No	
455	<i>Corymbia gummifera</i>	Red Bloodwood	15	10	400	500	4800	2474	Fair	4	1 (Long SULE)	A2	No	
456	<i>Syncarpia glomulifera</i>	Turpentine	12	6	210	300	2520	1996	Fair	4	1 (Long SULE)	A2	No	
457	<i>Corymbia gummifera</i>	Red Bloodwood	15	4	350	450	4200	2366	Normal	4	1 (Long SULE)	A2	No	
458	<i>Eucalyptus racemosa</i>	Scribbly Gum	12	10	300	350	3600	2129	Normal	4	1 (Long SULE)	A2	No	
459	<i>Corymbia gummifera</i>	Red Bloodwood	10	3	230	300	2760	1996	Normal	4	1 (Long SULE)	A2	No	
460	<i>Syncarpia glomulifera</i>	Turpentine	10	3	220	280	2640	1939	Normal	4	1 (Long SULE)	A2	No	
461	<i>Eucalyptus sieberi</i>	Black Ash	10	6	170	220	2040	1752	Fair	3	2 (Medium SULE)	A2	No	
462	<i>Syncarpia glomulifera</i>	Turpentine	12	3	210	300	2520	1996	Normal	4	1 (Long SULE)	A2	No	



Tree no.	Scientific Name	Common Name	Height (M)	Spread (M)	DBH (mm)	DAB (mm)	TPZ (mm)	SRZ (mm)	Vigour	Condition	SULE	Tree/AZ	Hollows	Notes/Comments
463	<i>Corymbia gummifera</i>	Red Bloodwood	12	3	260	320	3120	2051	Normal	4	1 (Long SULE)	A2	No	
464	<i>Allocasuarina littoralis</i>	Black She-oak	8	4	160	220	2000	1752	Normal	4	1 (Long SULE)	A2	No	
465	<i>Corymbia gummifera</i>	Red Bloodwood	12	5	260	320	3120	2051	Normal	4	1 (Long SULE)	A2	No	
466	<i>Eucalyptus pilularis</i>	Blackbutt	18	12	500	500	6000	2474	Fair	3	2 (Medium SULE)	A2	No	
467	<i>Syncarpia glomulifera</i>	Turpentine	10	4	350	400	4200	2252	Normal	4	1 (Long SULE)	A2	No	
468	<i>Syncarpia glomulifera</i>	Turpentine	10	4	350	400	4200	2252	Normal	4	1 (Long SULE)	A2	No	
469	<i>Eucalyptus pilularis</i>	Blackbutt	25	17	800	1100	9600	3440	Normal	4	1 (Long SULE)	A2	No	
470	<i>Syncarpia glomulifera</i>	Turpentine	12	3	200	220	2400	1752	Normal	4	1 (Long SULE)	A2	No	
471	<i>Syncarpia glomulifera</i>	Turpentine	10	3	200	220	2400	1752	Normal	4	1 (Long SULE)	A2	No	
472	<i>Eucalyptus sieberi</i>	Black Ash	23	20	550	700	6600	2849	Good	4	1 (Long SULE)	A2	No	
473	<i>Eucalyptus pilularis</i>	Blackbutt	25	14	550	650	6600	2762	Normal	4	1 (Long SULE)	A2	No	



Tree no.	Scientific Name	Common Name	Height (M)	Spread (M)	DBH (mm)	DAB (mm)	TPZ (mm)	SRZ (mm)	Vigour	Condition	SULE	Tree/AZ	Hollows	Notes/Comments
474	<i>Syncarpia glomulifera</i>	Turpentine	12	2	400	500	4800	2474	Normal	4	1 (Long SULE)	A2	No	
475	<i>Eucalyptus pilularis</i>	Blackbutt	15	10	500	600	6000	2670	Normal	4	1 (Long SULE)	A2	No	
476	<i>Eucalyptus pilularis</i>	Blackbutt	10	1	420	550	5040	2575	Poor	1	3 (Short SULE)	Z4	No	
477	Dead Tree	Dead Tree	10	1	300	450	3600	2366	Dead	1	4 (Remove)		No	
478	<i>Syncarpia glomulifera</i>	Turpentine	8	2	490	600	5880	2670	Poor	2	3 (Short SULE)	Z4	No	
479	<i>Eucalyptus pilularis</i>	Blackbutt	15	5	200	250	2400	1849	Fair	3	2 (Medium SULE)	A2	No	
480	<i>Eucalyptus pilularis</i>	Blackbutt	25	10	420	530	5040	2535	Normal	3	2 (Medium SULE)	A2	No	
481	<i>Syncarpia glomulifera</i>	Turpentine	18	10	480	590	5760	2652	Normal	3	2 (Medium SULE)	A2	No	
482	<i>Eucalyptus pilularis</i>	Blackbutt	27	10	450	550	5400	2575	Normal	4	1 (Long SULE)	A2	No	
483	Dead Tree	Dead Tree	10	2	300	370	3600	2180	Dead	1	4 (Remove)		No	
484	<i>Eucalyptus acmenioides</i>	White Mahogany	17	8	490	600	5880	2670	Normal	3	2 (Medium SULE)	A2	No	
485	<i>Eucalyptus sieberi</i>	Black Ash	14	4	280	440	3360	2344	Normal	4	1 (Long SULE)	A2	No	



Tree no.	Scientific Name	Common Name	Height (M)	Spread (M)	DBH (mm)	DAB (mm)	TPZ (mm)	SRZ (mm)	Vigour	Condition	SULE	Tree/AZ	Hollows	Notes/Comments
486	<i>Eucalyptus pilularis</i>	Blackbutt	30	28	1300	1500	15000	3920	Good	5	1 (Long SULE)	A3	No	
487	<i>Eucalyptus pilularis</i>	Blackbutt	28	10	500	650	6000	2762	Normal	4	1 (Long SULE)	A2	No	
488	<i>Syncarpia glomulifera</i>	Turpentine	10	3	270	310	3240	2024	Normal	4	1 (Long SULE)	A2	No	
489	<i>Eucalyptus pilularis</i>	Blackbutt	32	30	900	1100	10080	3440	Normal	5	1 (Long SULE)	A3	No	
490	<i>Syncarpia glomulifera</i>	Turpentine	9	30	150	180	2000	1611	Normal	4	1 (Long SULE)	A2	No	
491	<i>Eucalyptus acmenioides</i>	White Mahogany	15	10	460	580	5520	2633	Normal	3	2 (Medium SULE)	A2	No	
492	<i>Syncarpia glomulifera</i>	Turpentine	12	3	400	520	4800	2515	Normal	2	2 (Medium SULE)	A2	No	
493	<i>Eucalyptus pilularis</i>	Blackbutt	32	19	800	1400	9600	3810	Poor	5	1 (Long SULE)	A3	No	
494	<i>Eucalyptus acmenioides</i>	White Mahogany	25	18	460	590	5520	2652	Normal	4	1 (Long SULE)	A2	No	
495	<i>Dead Tree</i>	Dead Tree	12	2	380	500	4560	2474	Dead	1	4 (Remove)		No	
496	<i>Eucalyptus pilularis</i>	Blackbutt	31	25	650	850	7800	3091	Normal	4	1 (Long SULE)	A2	No	



Tree no.	Scientific Name	Common Name	Height (M)	Spread (M)	DBH (mm)	DAB (mm)	TPZ (mm)	SRZ (mm)	Vigour	Condition	SULE	Tree/AZ	Hollows	Notes/Comments
497	<i>Syncarpia glomulifera</i>	Turpentine	10	4	180	300	2160	1996	Normal	4	1 (Long SULE)	A2	No	
498	<i>Syncarpia glomulifera</i>	Turpentine	12	4	300	450	3600	2366	Fair	3	2 (Medium SULE)	A2	No	
499	Dead Tree	Dead Tree	12	4	300	450	3600	2366	Dead	1	4 (Remove)		No	
500	<i>Syncarpia glomulifera</i>	Turpentine	16	12	350	450	4200	2366	Normal	4	1 (Long SULE)	A2	No	
501	<i>Eucalyptus acmenioides</i>	White Mahogany	14	10	200	450	2400	2366	Poor	1	3 (Short SULE)	Z4	No	
502	<i>Eucalyptus sieberi</i>	Black Ash	22	20	750	800	9000	3013	Good	4	1 (Long SULE)	A2	No	
503	<i>Syncarpia glomulifera</i>	Turpentine	14	5	300	400	3600	2252	Normal	4	1 (Long SULE)	A2	No	
504	<i>Allocasuarina torulosa</i>	Forest She-oak	10	4	170	250	2040	1849	Normal	4	1 (Long SULE)	A2	No	
505	<i>Syncarpia glomulifera</i>	Turpentine	12	6	200	500	2400	2474	Normal	4	1 (Long SULE)	A2	No	
506	<i>Eucalyptus acmenioides</i>	White Mahogany	15	10	300	350	3600	2129	Fair	3	2 (Medium SULE)	A2	No	
507	<i>Allocasuarina littoralis</i>	Black She-oak	10	5	180	200	2160	1683	Fair	3	2 (Medium SULE)	A2	No	



Tree no.	Scientific Name	Common Name	Height (M)	Spread (M)	DBH (mm)	DAB (mm)	TPZ (mm)	SRZ (mm)	Vigour	Condition	SULE	Tree/AZ	Hollows	Notes/Comments
508	<i>Eucalyptus sieberi</i>	Black Ash	30	20	1500	1700	15000	4140	Good	5	1 (Long SULE)	A3	No	
512	<i>Eucalyptus sieberi</i>	Black Ash	30	15	500	550	6000	2575	Normal	4	1 (Long SULE)	A2	No	
513	<i>Syncarpia glomulifera</i>	Turpentine	18	8	250	350	3000	2129	Fair	3	2 (Medium SULE)	A2	No	
514	<i>Eucalyptus acmenioides</i>	White Mahogany	18	7	250	350	3000	2129	Fair	3	2 (Medium SULE)	A2	No	
515	<i>Syncarpia glomulifera</i>	Turpentine	15	5	200	240	2400	1817	Fair	3	2 (Medium SULE)	A2	No	
516	<i>Syncarpia glomulifera</i>	Turpentine	18	8	350	420	4200	2299	Fair	3	2 (Medium SULE)	A2	No	
517	<i>Syncarpia glomulifera</i>	Turpentine	15	5	200	260	2400	1879	Fair	4	1 (Long SULE)	A2	No	
518	<i>Syncarpia glomulifera</i>	Turpentine	15	5	200	260	2400	1879	Fair	4	1 (Long SULE)	A2	No	
519	<i>Syncarpia glomulifera</i>	Turpentine	12	4	180	220	2160	1752	Normal	4	1 (Long SULE)	A2	No	
520	<i>Eucalyptus sieberi</i>	Black Ash	12	6	260	280	3120	1939	Normal	4	1 (Long SULE)	A2	No	
521	<i>Syncarpia glomulifera</i>	Turpentine	12	4	170	210	2040	1718	Normal	4	1 (Long SULE)	A2	No	



Tree no.	Scientific Name	Common Name	Height (M)	Spread (M)	DBH (mm)	DAB (mm)	TPZ (mm)	SRZ (mm)	Vigour	Condition	SULE	Tree/AZ	Hollows	Notes/Comments
522	<i>Syncarpia glomulifera</i>	Turpentine	12	4	170	210	2040	1718	Normal	4	1 (Long SULE)	A2	No	
523	<i>Eucalyptus sieberi</i>	Black Ash	28	16	550	1000	6600	3309	Fair	3	2 (Medium SULE)	A2	No	
524	<i>Syncarpia glomulifera</i>	Turpentine	12	3	240	300	2880	1996	Normal	4	1 (Long SULE)	A2	No	
525	<i>Syncarpia glomulifera</i>	Turpentine	12	3	200	250	2400	1849	Normal	4	1 (Long SULE)	A2	No	
526	<i>Syncarpia glomulifera</i>	Turpentine	12	3	200	250	2400	1849	Normal	4	1 (Long SULE)	A2	No	
527	<i>Syncarpia glomulifera</i>	Turpentine	12	3	200	250	2400	1849	Normal	4	1 (Long SULE)	A2	No	
528	<i>Syncarpia glomulifera</i>	Turpentine	12	3	200	250	2400	1849	Normal	4	1 (Long SULE)	A2	No	
529	<i>Allocasuarina torulosa</i>	Forest She-oak	7	4	170	200	2040	1683	Normal	4	1 (Long SULE)	A2	No	
530	<i>Eucalyptus eugenioides</i>	Thin-leaved Stringybark	26	20	1000	900	12000	3166	Fair	3	2 (Medium SULE)	A2	No	
531	<i>Syncarpia glomulifera</i>	Turpentine	13	6	400	540	4800	2555	Normal	4	1 (Long SULE)	A2	No	
532	<i>Syncarpia glomulifera</i>	Turpentine	14	6	300	350	3600	2129	Normal	4	1 (Long SULE)	A2	No	



Tree no.	Scientific Name	Common Name	Height (M)	Spread (M)	DBH (mm)	DAB (mm)	TPZ (mm)	SRZ (mm)	Vigour	Condition	SULE	Tree/AZ	Hollows	Notes/Comments
533	<i>Syncarpia glomulifera</i>	Turpentine	18	6	350	500	4200	2474	Normal	4	1 (Long SULE)	A2	No	
534	<i>Syncarpia glomulifera</i>	Turpentine	18	6	300	350	3600	2129	Normal	4	1 (Long SULE)	A2	No	
535	<i>Syncarpia glomulifera</i>	Turpentine	7	2	150	180	2000	1611	Normal	4	1 (Long SULE)	A2	No	
536	<i>Eucalyptus sieberi</i>	Black Ash	28	15	650	800	7800	3013	Normal	4	1 (Long SULE)	A2	No	
537	<i>Syncarpia glomulifera</i>	Turpentine	15	5	320	450	3840	2366	Normal	4	1 (Long SULE)	A2	No	
538	<i>Eucalyptus acmenioides</i>	White Mahogany	28	10	450	580	5400	2633	Normal	3	2 (Medium SULE)	A2	No	
539	<i>Eucalyptus acmenioides</i>	White Mahogany	20	10	330	450	3960	2366	Fair	3	2 (Medium SULE)	A2	No	
540	<i>Syncarpia glomulifera</i>	Turpentine	12	4	360	550	4320	2575	Fair	3	2 (Medium SULE)	A2	No	
541	<i>Eucalyptus sieberi</i>	Black Ash	32	25	700	950	8400	3239	Poor	2	3 (Short SULE)	Z4	Yes	
542	<i>Syncarpia glomulifera</i>	Turpentine	14	6	290	340	3480	2104	Normal	4	1 (Long SULE)	A2	No	
543	<i>Syncarpia glomulifera</i>	Turpentine	14	6	290	340	3480	2104	Normal	4	1 (Long SULE)	A2	No	



Tree no.	Scientific Name	Common Name	Height (M)	Spread (M)	DBH (mm)	DAB (mm)	TPZ (mm)	SRZ (mm)	Vigour	Condition	SULE	Tree/AZ	Hollows	Notes/Comments
544	<i>Eucalyptus acmenioides</i>	White Mahogany	14	6	290	350	3480	2129	Poor	2	3 (Short SULE)	Z4	No	
545	<i>Eucalyptus acmenioides</i>	White Mahogany	30	20	700	850	8400	3091	Fair	3	2 (Medium SULE)	A2	No	
546	<i>Eucalyptus acmenioides</i>	White Mahogany	18	5	300	410	3600	2276	Normal	3	2 (Medium SULE)	A2	No	
547	<i>Eucalyptus acmenioides</i>	White Mahogany	20	12	340	440	4080	2344	Normal	3	2 (Medium SULE)	A2	No	
548	<i>Syncarpia glomulifera</i>	Turpentine	12	4	230	280	2760	1939	Normal	4	1 (Long SULE)	A2	No	
549	<i>Syncarpia glomulifera</i>	Turpentine	10	1	170	200	2040	1683	Fair	3	2 (Medium SULE)	A2	No	
550	Dead Tree	Dead Tree	10	2	300	400	3600	2252	Dead	1	4 (Remove)		No	
551	<i>Syncarpia glomulifera</i>	Turpentine	13	2	180	230	2160	1785	Normal	4	1 (Long SULE)	A2	No	
552	<i>Syncarpia glomulifera</i>	Turpentine	14	5	230	300	2760	1996	Normal	4	1 (Long SULE)	A2	No	
553	<i>Syncarpia glomulifera</i>	Turpentine	14	5	230	300	2760	1996	Normal	4	1 (Long SULE)	A2	No	
554	<i>Eucalyptus sieberi</i>	Black Ash	28	20	600	800	7200	3013	Normal	4	1 (Long SULE)	A2	No	



Tree no.	Scientific Name	Common Name	Height (M)	Spread (M)	DBH (mm)	DAB (mm)	TPZ (mm)	SRZ (mm)	Vigour	Condition	SULE	Tree/AZ	Hollows	Notes/Comments
555	<i>Syncarpia glomulifera</i>	Turpentine	10	4	200	260	2400	1879	Normal	4	1 (Long SULE)	A2	No	
556	<i>Syncarpia glomulifera</i>	Turpentine	14	6	300	420	3600	2299	Normal	4	1 (Long SULE)	A2	No	
557	<i>Syncarpia glomulifera</i>	Turpentine	14	6	210	300	2520	1996	Normal	4	1 (Long SULE)	A2	No	
558	<i>Eucalyptus resinifera</i>	Red Mahogany	28	20	500	620	6000	2707	Normal	4	1 (Long SULE)	A2	No	
559	<i>Syncarpia glomulifera</i>	Turpentine	14	5	200	300	2400	1996	Normal	4	1 (Long SULE)	A2	No	
560	<i>Syncarpia glomulifera</i>	Turpentine	14	5	200	300	2400	1996	Normal	4	1 (Long SULE)	A2	No	
561	<i>Syncarpia glomulifera</i>	Turpentine	10	2	150	200	2000	1683	Normal	4	1 (Long SULE)	A2	No	
562	<i>Eucalyptus paniculata</i>	Grey Ironbark	28	20	850	850	10020	3091	Normal	4	1 (Long SULE)	A2	No	
563	<i>Syncarpia glomulifera</i>	Turpentine	10	4	200	220	2400	1752	Normal	4	1 (Long SULE)	A2	No	
564	<i>Syncarpia glomulifera</i>	Turpentine	18	10	450	580	5400	2633	Normal	4	1 (Long SULE)	A2	No	
565	<i>Syncarpia glomulifera</i>	Turpentine	18	7	450	580	5400	2633	Normal	4	1 (Long SULE)	A2	No	



Tree no.	Scientific Name	Common Name	Height (M)	Spread (M)	DBH (mm)	DAB (mm)	TPZ (mm)	SRZ (mm)	Vigour	Condition	SULE	Tree/AZ	Hollows	Notes/Comments
566	<i>Eucalyptus sieberi</i>	Black Ash	28	12	500	1100	6000	3440	Normal	4	1 (Long SULE)	A2	No	
567	<i>Eucalyptus sieberi</i>	Black Ash	26	15	550	700	6600	2849	Poor	2	3 (Short SULE)	Z4	No	
568	<i>Syncarpia glomulifera</i>	Turpentine	14	3	190	210	2280	1718	Normal	4	1 (Long SULE)	A2	No	
569	<i>Syncarpia glomulifera</i>	Turpentine	14	8	360	450	4320	2366	Normal	4	1 (Long SULE)	A2	No	
570	<i>Eucalyptus acmenioides</i>	White Mahogany	25	18	600	750	7200	2933	Normal	4	1 (Long SULE)	A2	No	
571	Dead Tree	Dead Tree	22	8	600	800	7200	3013	Dead	1	4 (Remove)		No	
572	<i>Syncarpia glomulifera</i>	Turpentine	10	4	200	250	2400	1849	Normal	4	1 (Long SULE)	A2	No	
573	<i>Eucalyptus sieberi</i>	Black Ash	14	4	180	230	2160	1785	Good	4	1 (Long SULE)	A2	No	
574	<i>Syncarpia glomulifera</i>	Turpentine	14	4	230	280	2760	1939	Normal	4	1 (Long SULE)	A2	No	
575	<i>Syncarpia glomulifera</i>	Turpentine	14	4	230	280	2760	1939	Normal	4	1 (Long SULE)	A2	No	
576	<i>Eucalyptus acmenioides</i>	White Mahogany	25	10	500	600	6000	2670	Poor	2	2 (Medium SULE)	A2	No	



Tree no.	Scientific Name	Common Name	Height (M)	Spread (M)	DBH (mm)	DAB (mm)	TPZ (mm)	SRZ (mm)	Vigour	Condition	SULE	Tree/AZ	Hollows	Notes/Comments
577	<i>Eucalyptus paniculata</i>	Grey Ironbark	25	15	500	630	6000	2730	Poor	2	2 (Medium SULE)	A2	No	
578	<i>Eucalyptus sieberi</i>	Black Ash	25	8	410	500	4920	2474	Normal	4	1 (Long SULE)	A2	No	
579	<i>Syncarpia glomulifera</i>	Turpentine	24	7	500	600	6000	2670	Normal	4	1 (Long SULE)	A2	No	
580	<i>Syncarpia glomulifera</i>	Turpentine	18	10	400	600	4800	2670	Normal	4	1 (Long SULE)	A2	No	
581	<i>Eucalyptus sieberi</i>	Black Ash	24	8	400	500	4800	2474	Normal	4	1 (Long SULE)	A2	No	
582	<i>Syncarpia glomulifera</i>	Turpentine	26	20	750	1100	9000	3440	Normal	4	1 (Long SULE)	A2	No	
583	<i>Eucalyptus resinifera</i>	Red Mahogany	28	20	600	800	7200	3013	Normal	4	1 (Long SULE)	A2	No	
584	<i>Eucalyptus sieberi</i>	Black Ash	23	18	460	580	5520	2633	Fair	3	2 (Medium SULE)	A2	No	
585	<i>Eucalyptus resinifera</i>	Red Mahogany	28	15	600	770	7200	2965	Normal	4	1 (Long SULE)	A2	No	
586	<i>Eucalyptus sieberi</i>	Black Ash	24	15	600	700	7200	2849	Normal	4	1 (Long SULE)	A2	No	
587	<i>Eucalyptus sieberi</i>	Black Ash	10	2	170	200	2040	1683	Normal	4	1 (Long SULE)	A2	No	



Tree no.	Scientific Name	Common Name	Height (M)	Spread (M)	DBH (mm)	DAB (mm)	TPZ (mm)	SRZ (mm)	Vigour	Condition	SULE	Tree/AZ	Hollows	Notes/Comments
588	<i>Eucalyptus sieberi</i>	Black Ash	24	18	460	540	5520	2555	Normal	4	1 (Long SULE)	A2	No	
589	<i>Syncarpia glomulifera</i>	Turpentine	8	3	180	300	2160	1996	Normal	4	1 (Long SULE)	A2	No	
590	<i>Eucalyptus sieberi</i>	Black Ash	15	8	340	400	4080	2252	Normal	4	1 (Long SULE)	A2	No	
591	<i>Eucalyptus sieberi</i>	Black Ash	15	8	340	400	4080	2252	Normal	4	1 (Long SULE)	A2	No	
592	<i>Syncarpia glomulifera</i>	Turpentine	8	4	250	300	3000	1996	Normal	4	1 (Long SULE)	A2	No	
593	<i>Eucalyptus sieberi</i>	Black Ash	32	20	650	850	7800	3091	Good	4	1 (Long SULE)	A2	No	
594	<i>Eucalyptus sieberi</i>	Black Ash	11	8	240	350	2880	2129	Normal	4	1 (Long SULE)	A2	No	
595	<i>Eucalyptus sieberi</i>	Black Ash	32	20	600	750	7200	2933	Normal	4	1 (Long SULE)	A2	No	
596	<i>Eucalyptus sieberi</i>	Black Ash	10	4	160	220	2000	1752	Normal	4	1 (Long SULE)	A2	No	
597	<i>Allocasuarina littoralis</i>	Black She-oak	10	6	150	200	2000	1683	Normal	4	1 (Long SULE)	A2	No	
598	<i>Angophora costata</i>	Smooth-barked Apple Myrtle	8	4	180	240	2160	1817	Normal	4	1 (Long SULE)	A2	No	



Tree no.	Scientific Name	Common Name	Height (M)	Spread (M)	DBH (mm)	DAB (mm)	TPZ (mm)	SRZ (mm)	Vigour	Condition	SULE	Tree/AZ	Hollows	Notes/Comments
599	<i>Eucalyptus acmenioides</i>	White Mahogany	30	26	700	900	8400	3166	Normal	4	1 (Long SULE)	A2	No	
601	<i>Eucalyptus acmenioides</i>	White Mahogany	9	4	150	200	2000	1683	Fair	4	1 (Long SULE)	A2	No	
600	<i>Eucalyptus sieberi</i>	Black Ash	17	4	200	230	2400	1785	Normal	4	1 (Long SULE)	A2	No	
602	<i>Eucalyptus sieberi</i>	Black Ash	18	7	350	450	4200	2366	Normal	4	1 (Long SULE)	A2	No	
603	<i>Eucalyptus sieberi</i>	Black Ash	31	18	700	850	8400	3091	Good	4	1 (Long SULE)	A2	No	
604	<i>Eucalyptus acmenoides</i>	White Mahogany	10	8	300	380	3600	2204	Poor	2	3 (Short SULE)	Z4	No	
605	<i>Syncarpia glomulifera</i>	Turpentine	14	8	500	600	6000	2670	Normal	4	1 (Long SULE)	A2	No	
606	<i>Eucalyptus sieberi</i>	Black Ash	15	12	500	700	6000	2849	Normal	4	1 (Long SULE)	A2	No	Neighbors tree - tagged on fence/tree
607	<i>Syncarpia glomulifera</i>	Turpentine	18	10	500	600	6000	2670	Normal	4	1 (Long SULE)	A2	No	Neighbors tree - tagged on fence/tree
608	<i>Eucalyptus sieberi</i>	Black Ash	21	18	650	750	7800	2933	Normal	4	1 (Long SULE)	A2	No	Neighbors tree - tagged on fence/tree



Tree no.	Scientific Name	Common Name	Height (M)	Spread (M)	DBH (mm)	DAB (mm)	TPZ (mm)	SRZ (mm)	Vigour	Condition	SULE	Tree/AZ	Hollows	Notes/Comments
609	<i>Eucalyptus sieberi</i>	Black Ash	18	16	500	800	6000	3013	Poor	2	3 (Short SULE)	Z4	No	
610	<i>Syncarpia glomulifera</i>	Turpentine	14	8	700	850	8400	3091	Dead	3	2 (Medium SULE)	A2	No	
611	<i>Melia azedarach</i>	White Cedar	5	4	170	200	2040	1683	Normal	4	1 (Long SULE)	A2	No	
612	<i>Syncarpia glomulifera</i>	Turpentine	13	10	450	590	5400	2652	Fair	3	2 (Medium SULE)	A2	No	Neighbors tree - tagged on fence/tree
613	<i>Syncarpia glomulifera</i>	Turpentine	14	12	700	800	8400	3013	Fair	3	2 (Medium SULE)	A2	No	Neighbors tree - tagged on fence/tree
614	<i>Eucalyptus sieberi</i>	Black Ash	25	15	650	750	7800	2933	Normal	4	1 (Long SULE)	A2	No	Neighbors tree - tagged on fence/tree
615	<i>Syncarpia glomulifera</i>	Turpentine	18	14	1000	1500	12000	3920	Normal	4	1 (Long SULE)	A2	No	Neighbors tree not tagged
616	<i>Syncarpia glomulifera</i>	Turpentine	22	9	600	800	7200	3013	Normal	4	1 (Long SULE)	A2	No	Neighbors tree - tagged on fence/tree
617	<i>Syncarpia glomulifera</i>	Turpentine	16	8	500	600	6000	2670	Normal	4	1 (Long SULE)	A2	No	Neighbors tree - tagged on fence/tree



Tree no.	Scientific Name	Common Name	Height (M)	Spread (M)	DBH (mm)	DAB (mm)	TPZ (mm)	SRZ (mm)	Vigour	Condition	SULE	Tree/AZ	Hollows	Notes/Comments
618	<i>Eucalyptus sieberi</i>	Black Ash	30	20	1200	1300	14400	3695	Normal	4	1 (Long SULE)	A2	No	Neighbors tree - tagged on fence/tree
619	<i>Syncarpia glomulifera</i>	Turpentine	14	8	500	780	6000	2981	Normal	4	1 (Long SULE)	A2	No	Neighbors tree - tagged on fence/tree
620	<i>Syncarpia glomulifera</i>	Turpentine	10	5	300	400	3600	2252	Normal	4	1 (Long SULE)	A2	No	Neighbors tree - tagged on fence/tree
621	<i>Syncarpia glomulifera</i>	Turpentine	18	12	500	600	6000	2670	Normal	4	1 (Long SULE)	A2	No	Neighbors tree - tagged on fence/tree
622	<i>Eucalyptus sieberi</i>	Black Ash	25	20	650	750	7800	2933	Normal	4	1 (Long SULE)	A2	No	Neighbors tree - tagged on fence/tree
623	<i>Syncarpia glomulifera</i>	Turpentine	22	16	850	1000	10020	3309	Normal	4	1 (Long SULE)	A2	No	Neighbors tree - tagged on fence/tree
624	<i>Jacaranda mimosifolia</i>	Jacaranda	9	4	250	330	3000	2077	Normal	4	1 (Long SULE)	A2	No	Neighbors tree - tagged on fence/tree
625	<i>Syncarpia glomulifera</i>	Turpentine	23	18	750	1000	9000	3309	Normal	4	1 (Long SULE)	A2	No	



Tree no.	Scientific Name	Common Name	Height (M)	Spread (M)	DBH (mm)	DAB (mm)	TPZ (mm)	SRZ (mm)	Vigour	Condition	SULE	Tree/AZ	Hollows	Notes/ Comments
626	<i>Lophostemon confertus</i>	Queensland Box	9	8	500	550	6000	2575	Normal	4	1 (Long SULE)	A2	No	Neighbors tree - tagged on fence/tree
627	<i>Eucalyptus pilularis</i>	Blackbutt	38	24	1100	1400	13200	3810	Good	5	1 (Long SULE)	A3	No	Neighbors tree - tagged on fence/tree
628	<i>Eucalyptus punctata</i>	Grey Gum	28	19	650	850	7800	3091	Normal	4	1 (Long SULE)	A2	No	Neighbors tree - tagged on fence/tree
629	<i>Callistemon salignus</i>	Willow Bottlebrush	18	9	350	450	4200	2366	Normal	4	1 (Long SULE)	A2	No	Neighbors tree - tagged on fence/tree
630	<i>Jacaranda mimosifolia</i>	Jacaranda	12	12	450	550	5400	2575	Normal	4	1 (Long SULE)	A2	No	Neighbors tree - tagged on fence/tree
631	<i>Eucalyptus pilularis</i>	Blackbutt	12	10	470	550	5640	2575	Fair	3	2 (Medium SULE)	A2	No	Neighbors tree - tagged on fence/tree
632	<i>Syncarpia glomulifera</i>	Turpentine	20	10	500	650	6000	2762	Fair	3	2 (Medium SULE)	A2	No	Neighbors tree - tagged on fence/tree
633	<i>Syncarpia glomulifera</i>	Turpentine	15	8	400	550	4800	2575	Fair	3	2 (Medium SULE)	A2	No	Neighbors tree - tagged on fence/tree



Tree no.	Scientific Name	Common Name	Height (M)	Spread (M)	DBH (mm)	DAB (mm)	TPZ (mm)	SRZ (mm)	Vigour	Condition	SULE	Tree/AZ	Hollows	Notes/ Comments
634	<i>Syncarpia glomulifera</i>	Turpentine	15	8	550	600	6600	2670	Fair	3	2 (Medium SULE)	A2	No	Neighbors tree - tagged on fence/tree
635	<i>Eucalyptus pilularis</i>	Blackbutt	28	12	500	650	6000	2762	Fair	3	2 (Medium SULE)	A2	No	
636	<i>Eucalyptus acmenioides</i>	White Mahogany	25	18	500	650	6000	2762	Fair	3	2 (Medium SULE)	A2	No	Neighbors tree - tagged on fence/tree
637	<i>Syncarpia glomulifera</i>	Turpentine	25	10	600	700	7200	2849	Normal	4	1 (Long SULE)	A2	No	Neighbors tree - tagged on fence/tree
638	<i>Acer buergerianum</i>	Trident Maple	11	16	450	650	5400	2762	Normal	4	1 (Long SULE)	A2	No	Neighbors tree - tagged on fence/tree
639	<i>Liquidambar styraciflua</i>	Sweet Gum	20	25	800	1200	9600	3570	Normal	4	1 (Long SULE)	A2	No	Neighbors tree - tagged on fence/tree



S.U.L.E Ratings

SULE is a method of assessing the relative importance of individual trees within an identified group (normally a development site with finite boundaries). It is based on subjective assessment and cannot be considered an absolute judgement. Realistically, the best that can be achieved is a broad categorisation of good, medium and bad. Identifying the extremes of good and bad is not usually contentious; the medium category is normally the most difficult. SULE helps the making of informed judgements on which trees are the most important in planning decisions. The nature of trees and opinions on trees is extremely variable; this means that there are always exceptions to the rules and common sense is an important aspect of applying the method. Only a person experienced and knowledgeable in the management of trees can carry out a competent SULE assessment. SULE is a means of presenting complex tree information in a simplified form that professionals with no tree expertise can understand and use to make judgements in the wider context. These professionals are normally layout designers who have to decide which trees to keep and lose in planning new developments close to trees.⁵

The following chart shows the breakdown of S.U.L.E ratings across the surveyed trees.

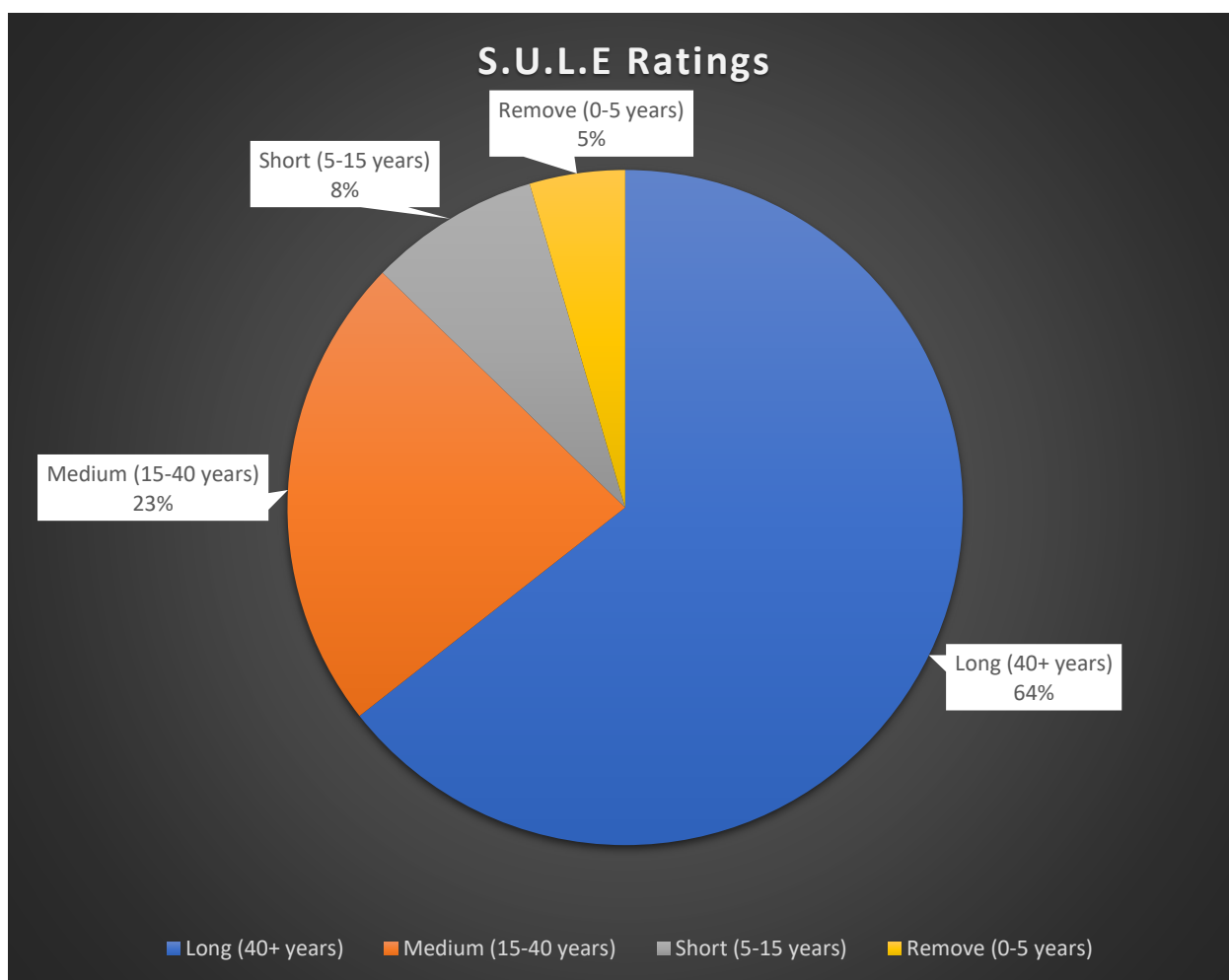


Figure 3- Pie Chart showing the S.U.L.E ratings of the surveyed trees.

⁵ Barrell Tree Consultancy- TreeAZ.com- S.U.L.E Its use and status into the new millennium.



Tree AZ Ratings

One of the most fundamental decisions affecting tree management concerns whether trees are suitable for retention or not. Traditionally, these decisions have been based on assessing characteristics that add obvious value, such as good form, long life expectancy and size. The dilemma with this approach is that it seems right, but determining value is notoriously unreliable because there are so many extremely complicated elements to consider. The TreeAZ method of tree assessment approaches this problem from another angle, effectively sidestepping many of these difficulties and providing a means for tree managers to make consistently reliable and defensible decisions. Instead of assessing all the good things about trees, which would be a particularly tricky task, it focuses on the bad things that would justify felling. If there are no valid reasons to fell a tree, then it is considered good by default and quantifying the amount of 'goodness' it has is frequently unnecessary. Instinctively, we all know that trees are good, but their many benefits are offset as individuals become more of a risk, more of a nuisance and more of a management problem. TreeAZ adopts this starting point that all trees are good; it then systematically reviews the factors that could reasonably result in them being felled and, if they pass all those tests, then they are worth retaining. Its systematic structure allows tree managers to reveal their decision-making process in a transparent way, significantly reducing the risk of any criticism, should any harm arise from their decision. The following chart shows the breakdown of tree AZ ratings across the surveyed trees.⁶

The following chart shows the breakdown of TreeAZ ratings across the surveyed trees.

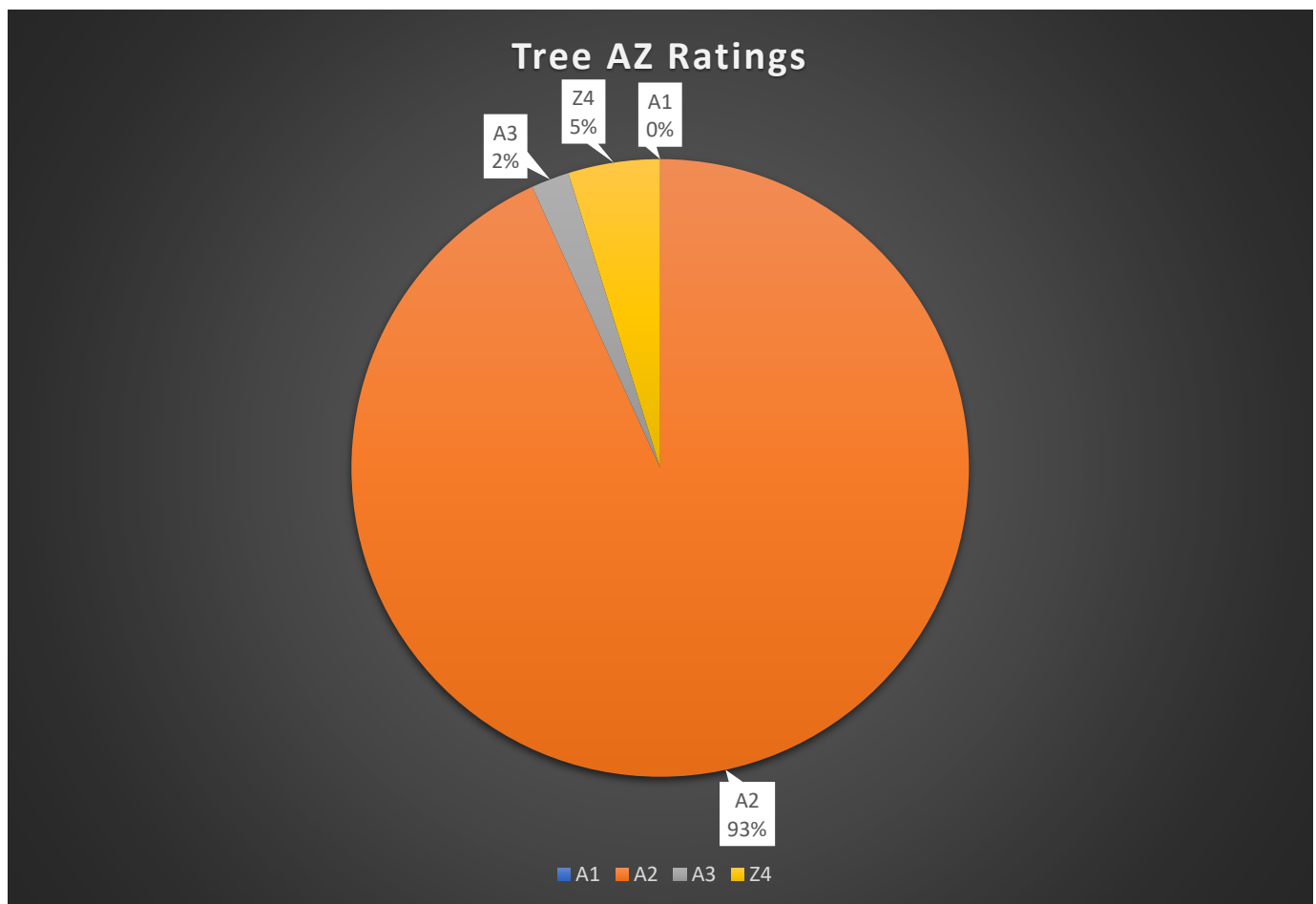


Figure 4- Pie chart showing the tree AZ ratings allocated to the surveyed trees.

⁶ Barrell Tree Consultancy- TreeAZ system- TreeAZ.com



Tree species identified

There were twenty-six (26) tree species captured during our assessment. The site was dominated by nine (9) species which account for 569 of the 635 surveyed trees, which amounts to 89.6% of the surveyed tree population. The dominant species and associated understorey appeared consistent with the list of tree communities and threatened endangered tree communities, listed on Hornsby Shire Councils website as existing in the location.

The following chart shows the breakdown of tree species across the surveyed area.

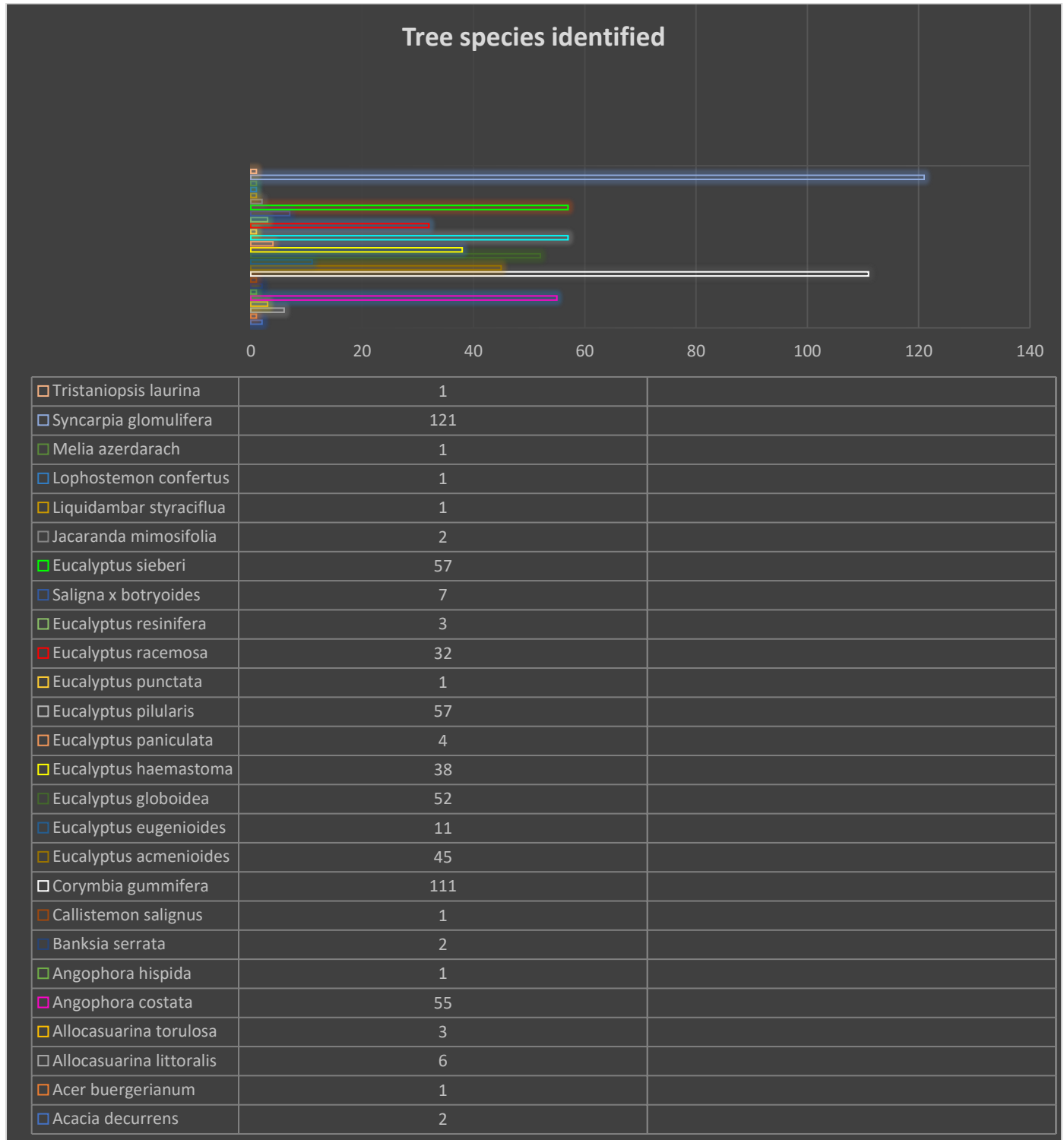


Figure 5- The figure above shows the total number of each tree species identified on site.



Conclusions

The proposed development at Westleigh Park and Sydney Water Thornleigh Reservoir includes the construction of a roadway in one of two locations, either within Westleigh Park or within the Sydney Water property adjacent.

The site is home to several threatened species and five vegetation communities, including;

- Sydney Turpentine Ironbark Forest (Critically Endangered Ecological Community)
- Duffy's Forest (Endangered Ecological Community)
- Scribbly Gum Open Woodland
- Bloodwood Scribbly Gum Woodland
- Peppermint - Angophora Forest

The presence of the first four (4) of these communities was confirmed by the species which were dominating the collection data and associated understorey plants and shrubs which were not captured as part of this assessment.

The scope of this assessment was to survey all trees within ten (10) metres of the edge of the existing track or the existing vegetation line.

A total of six hundred and thirty-five trees were surveyed as part of this assessment.

A total of five (5) trees (47-48-260-417-541) contained hollows which may have the potential to provide current or future nesting opportunities for native birds or arboreal mammals.

Detailed maps showing tree numbers and tree protection zones will be provided in separate files, along with Excel spreadsheets with coordinates that can be uploaded into CAD files if so desired during the design process.

The current proposal is still in concept stage, so is lacking in sufficient detail to allow all of the impacts to be fully assessed. Once the designs have been finalised and construction drawings have been prepared, the findings of this report should be cross-checked to ensure accuracy of information.

A site-specific tree protection plan will also need to be compiled to specify the tree protection requirements relative to each tree.

Generic tree protection measures are provided in Appendix 2.



References

- Mattheck, C. & Breloer, H. 1994, *The Body Language of Trees*.
The Stationery Office. London.
- Matheny, N. & Clark, J. 1994. *A Photographic Guide to the Evaluation of Hazard Trees in Urban Areas*.
International Society of Arboriculture. Illinois.
- Lonsdale, D. 1999. *Principles of Tree Hazard Assessment and Management*.
Arboricultural Association. Stonehouse (UK).
- Barrell, J. 2009. *SULE: Its use and status into the new millennium*.
Barrell Tree Consultancy. Hampshire, UK.
- Standards Australia. 2009. *AS4970-2009 Protection of trees on development sites*.
Standards Australia. Sydney.
- Google Maps. 2019. *The location of Westleigh Park*.
Accessed at <http://maps.google.com>
Accessed 28-12-19.



Disclaimer:

The information contained within this report is to be used solely for the purposes that were specified at the time of engagement.

All attempts have been made to ensure the legitimacy of any information which has been gathered in the process of compiling this report, however Truth About Trees cannot be held liable for inaccurate or misleading information which has been provided by others.

Any tree inspections or assessments which have been carried out for the purposes of this report are valid only at the time of inspection and are based on what could reasonably be seen or diagnosed from a visual inspection carried out from ground level.

All inspections, unless otherwise stated, are based upon Visual Tree Assessment (VTA) techniques, industry best practice and applied knowledge. No internal diagnostic testing or below ground investigation has been carried out, unless otherwise stated.

Trees are a dynamic living organism and as such they have a finite lifespan the end of which cannot always be predicted or understood, even apparently healthy trees can die suddenly or fall without warning. As such there is no warranty or guarantee provided, or implied, regarding the future risks associated with any tree.

Please feel free to contact me either via telephone or email if you have any questions regarding this report.

Kind regards

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Appendix 1: Tree assessment methodology

1.1 Visual Tree Assessment (VTA)

The VTA system is based on the theory of tree biology and physiology, as well as tree architecture and structure. This method is used by arborists to identify visible signs on trees that indicate good health, or potential problems. Symptoms of decay, growth patterns and defects are identified and assessed as to their potential to cause whole-tree, part-tree and/or branch failure. This system is based around methods discussed in *The Body Language of Trees*⁷. For the purpose of this report, elements of the VTA system will be used, along with industry standard literature, and other relevant studies that provide an insight into potential hazards in trees. This assessment is a snapshot of what could be reasonably seen or determined from a basic visual inspection. The VTA system is generally used as a means to identify hazardous trees; however it is important to realize that for a tree to be hazardous there must be a target; a hazard poses no risk if there is no exposure to the hazard.

1.1.1 Health and Vigour Assessment

The health and vigour of a tree is assessed by looking at the tree canopy and how it is performing. Certain indicators provide information on which to base the assessment. Abnormally small leaves, chlorosis (yellowing), sparse crown, wilting, and die-back can be signs of ill-health or decline but may also be related to a temporary imbalance due to drought or pest infestations. Epicormic growth can be a sign of stress and low energy reserves but can also be related to increased light levels through the removal or pruning of adjacent trees. Extension growth can be a good indicator of vigour but this can vary greatly between species and under differing climatic conditions. For these reasons, each individual symptom or observation needs to be assessed with objectivity and consideration of all available information.

1.1.2 Structural Assessment

The structural assessment of trees is carried out using the basic framework of Visual Tree Assessment. Signs and symptoms of defects are assessed to gauge the likelihood of failure, because not every defect constitutes a hazard e.g. *“...co-dominant stems are a structural defect. The severity of the defect is increased by included bark, large crowns and strong wind.”*⁸ If trees were removed purely on the basis that there were defects present without assessing the likelihood of failure or whether practical mitigation measures are available, the urban forest would cease to exist. A basic visual tree assessment is undertaken from ground level, if defects are suspected further investigation may be required and recommended. *“[When using] the Visual Tree Assessment (VTA) procedure for assessing trees, as the suspicion increases that defects are present, the examination becomes more thorough and searching.”*¹

*“Some defects, especially some forms of decay, do not give rise to external signs and therefore tend to escape detection in a purely visual survey. If there is no reason for suspecting a hidden defect to occur within a particular part of the tree, there is no reasonable basis for carrying out a detailed internal assessment. Although in theory an unsuspected defect might be detectable by the use of specialized diagnostic devices, this would be impracticable in the absence of some external sign to indicate the place which should be probed. Also, internal examination without good reason is undesirable, as it usually causes injury to the tree and is unreasonably time consuming and costly.”*⁹

⁷ Mattheck, C. & Broeler, H. 1994. *The Body Language of Trees*.

⁸ Matheny, N. & Clark, J. 1994. *A Photographic Guide to the Evaluation of Hazard Trees in Urban Areas*.

⁹ Lonsdale. 1999. *Principles of Tree Hazard Assessment and Management*.



1.2 Tree Protection Zone (TPZ) & Structural Root Zone (SRZ) Calculations

In accordance with Australian Standard *AS4970-2009 Protection of trees on development sites*¹⁰, Tree Protection Zone (TPZ) radius is calculated using the following procedure. Diameter of the trunk is measured at approximately 1.4m above ground level; this measurement is referred to as DBH (Diameter at Breast Height). $R_{TPZ} = DBH \times 12$. For multi-stemmed trees the formula used is $R_{TPZ} = \sqrt{[(DBH1)^2 + (DBH2)^2 + (DBH3)^2]}$. The TPZ is measured radially from the centre of the stem and must be protected on all sides.

The Structural Root Zone (SRZ) radius is calculated by measuring the diameter of the stem close to ground level, just above the basal flare. This measurement is taken as D and then used in the following formula: $R_{SRZ} = (D \times 50)^{0.42} \times 0.64$ and becomes the Structural Root Zone, measured radially from the centre of the stem.

It is important to realize that these calculations provide a notional figure only and tree dynamics, form and site conditions will greatly affect these zones, and it is the job of the arborist to interpret the information correctly.

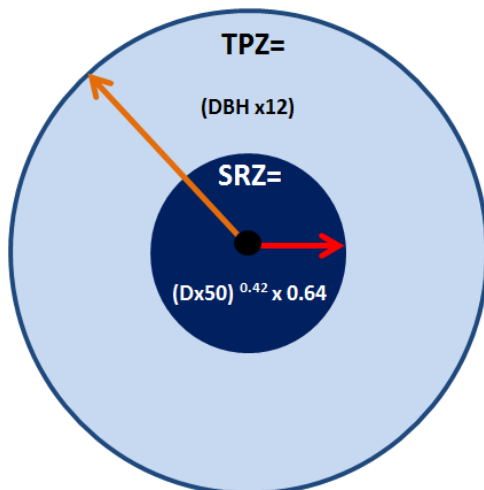


Figure 2 – A representation of TPZ & SRZ calculations.

For palms, cycads, tree ferns, and similar monocots, the TPZ is positioned at least 1m outside the crown projection. SRZs are not applicable to these plant types.

*AS4970-2009*³ states “a TPZ should not be less than 2m nor greater than 15m (except where crown protection is required)” and the minimum radius for an SRZ is 1.5m.

¹⁰ Standards Australia. 2009. *AS4970-2009 Protection of trees on development sites*.



1.3 Safe Useful Life Expectancy (S.U.L.E)

The reference sheet below explains the categories used within the S.U.L.E system of assessment.

Safe Useful Life Expectancy Categories (Updated 04/01)

This reference sheet should be included as supplementary information with all reports where a SULE assessment is an element. Additionally, it can be copied and covered with a laminated plastic protective sheet and used as a field sheet to help with data collection.

Safe Useful Life Expectancy Categories (Updated 01/04/01)

- 1: **Long SULE:** Trees that appeared to be retainable at the time of assessment for more than 40 years with an acceptable level of risk.
 - (a) Structurally sound trees located in positions that can accommodate future growth.
 - (b) Trees that could be made suitable for retention in the long term by remedial tree care.
 - (c) Trees of special significance for historical, commemorative or rarity reasons that would warrant extraordinary efforts to secure their long term retention.

- 2: **Medium SULE:** Trees that appeared to be retainable at the time of assessment for 15–40 years with an acceptable level of risk.
 - (a) Trees that may only live between 15 and 40 more years.
 - (b) Trees that could live for more than 40 years but may be removed for safety or nuisance reasons.
 - (c) Trees that could live for more than 40 years but may be removed to prevent interference with more suitable individuals or to provide space for new planting.
 - (d) Trees that could be made suitable for retention in the medium term by remedial tree care.

- 3: **Short SULE:** Trees that appeared to be retainable at the time of assessment for 5–15 years with an acceptable level of risk.
 - (a) Trees that may only live between 5 and 15 more years.
 - (b) Trees that could live for more than 15 years but may be removed for safety or nuisance reasons.
 - (c) Trees that could live for more than 15 years but may be removed to prevent interference with more suitable individuals or to provide space for new planting.
 - (d) Trees that require substantial remedial tree care and are only suitable for retention in the short term.

- 4: **Remove:** Trees that should be removed within the next 5 years.
 - (a) Dead, dying, suppressed or declining trees because of disease or inhospitable conditions.
 - (b) Dangerous trees because of instability or recent loss of adjacent trees.
 - (c) Dangerous trees because of structural defects including cavities, decay, included bark, wounds or poor form.
 - (d) Damaged trees that are clearly not safe to retain.
 - (e) Trees that could live for more than 5 years but may be removed to prevent interference with more suitable individuals or to provide space for new planting.
 - (f) Trees that are damaging or may cause damage to existing structures within 5 years.
 - (g) Trees that will become dangerous after removal of other trees for the reasons given in (a) to (f).
 - (h) Trees in categories (a) to (g) that have a high wildlife habitat value and, with appropriate treatment, could be retained subject to regular review.

- 5: **Small, young or regularly pruned:** Trees that can be reliably moved or replaced.
 - (a) Small trees less than 5m in height.
 - (b) Young trees less than 15 years old but over 5m in height.
 - (c) Formal hedges and trees intended for regular pruning to artificially control growth.



1.4 Tree AZ rating system

TreeAZ Categories Field Sheet (Version 10.04-ANZ)

CAUTION: TreeAZ assessments must be carried out by a competent person qualified and experienced in arboriculture. The following category descriptions are designed to be a brief field reference and are not intended to be self-explanatory. They must be read in conjunction with the most current explanations published at www.TreeAZ.com.

Category Z: Unimportant trees not worthy of being a material constraint

Local policy exemptions: Trees that are unsuitable for legal protection for local policy reasons including size, proximity and species

Z1	Young or insignificant small trees, i.e. below the local size threshold for legal protection, etc
Z2	Too close to a building, i.e. exempt from legal protection because of proximity, etc
Z3	Species that cannot be protected for other reasons, i.e. scheduled noxious weeds, out of character in a setting of acknowledged importance, etc
High risk of death or failure: Trees that are likely to be removed within 10 years because of acute health issues or severe structural failure	
Z4	Dead, dying, diseased or declining
Z5	Severe damage and/or structural defects where a high risk of failure <u>cannot</u> be satisfactorily reduced by reasonable remedial care, i.e. cavities, decay, included bark, wounds, excessive imbalance, overgrown and vulnerable to adverse weather conditions, etc
Z6	Instability, i.e. poor anchorage, increased exposure, etc
Excessive nuisance: Trees that are likely to be removed within 10 years because of unacceptable impact on people	
Z7	Excessive, severe and intolerable inconvenience to the extent that a locally recognized court or tribunal would be likely to authorize removal, i.e. dominance, debris, interference, etc
Z8	Excessive, severe and intolerable damage to property to the extent that a locally recognized court or tribunal would be likely to authorize removal, i.e. severe structural damage to surfacing and buildings, etc
Good management: Trees that are likely to be removed within 10 years through responsible management of the tree population	
Z9	Severe damage and/or structural defects where a high risk of failure can be <u>temporarily</u> reduced by reasonable remedial care, i.e. cavities, decay, included bark, wounds, excessive imbalance, vulnerable to adverse weather conditions, etc
Z10	Poor condition or location with a low potential for recovery or improvement, i.e. dominated by adjacent trees or buildings, poor architectural framework, etc
Z11	Removal would benefit better adjacent trees, i.e. relieve physical interference, suppression, etc
Z12	Unacceptably expensive to retain, i.e. severe defects requiring excessive levels of maintenance, etc

NOTE: Z trees with a high risk of death/failure (Z4, Z5 & Z6) or causing severe inconvenience (Z7 & Z8) at the time of assessment and need an urgent risk assessment can be designated as ZZ. ZZ trees are likely to be unsuitable for retention and at the bottom of the categorization hierarchy. In contrast, although Z trees are not worthy of influencing new designs, urgent removal is not essential and they could be retained in the short term, if appropriate.

Category A: Important trees suitable for retention for more than 10 years and worthy of being a material constraint

A1	No significant defects and could be retained with minimal remedial care
A2	Minor defects that could be addressed by remedial care and/or work to adjacent trees
A3	Special significance for historical, cultural, commemorative or rarity reasons that would warrant extraordinary efforts to retain for more than 10 years
A4	Trees that may be worthy of legal protection for ecological reasons (Advisory requiring specialist assessment)

NOTE: Category A1 trees that are already large and exceptional, or have the potential to become so with minimal maintenance, can be designated as AA at the discretion of the assessor. Although all A and AA trees are sufficiently important to be material constraints, AA trees are at the top of the categorization hierarchy and should be given the most weight in any selection process.

TreeAZ is designed by Barrell Tree Consultancy (www.barrelltreecare.co.uk) and is reproduced with their permission

Further explanations to assist categorization

Z1	Any existing statutory definitions of trees that are too small to be legally protected should be applied and trees less than those heights or diameters will be Z1. If there are none, then if the tree has been planted for less than 5 years it is Z1. If it is less than 5m in height, it will be Z1 unless it is significant, i.e. clearly mature, but small trees are not Z1. If it is greater than 10m in height it is not Z1 unless it was planted in the last 5 years. Applying Z1 to trees between 5–10m is a matter of judgment; the most obvious test being that the tree could be easily and reliably moved or replaced. Ideally, the replacement tree should not be less than 20% of the replaced tree's trunk, height and spread dimensions.
Z2	Any existing statutory rules that prevent protection of trees within a fixed distance of a structure will allow a tree to be subcategorized as Z2.
Z3	Any existing statutory rules or guidance that prevent protection of trees for reasons other than size and proximity dictate Z3, i.e. invasive or alien species. If none exist, then Z3 cannot be applied.
Z4	This subcategory is for trees that are unlikely to recover from a serious health problem. The condition must be terminal with no obvious potential to recover, i.e. severe crown dieback related to excavation damage or root decay, to the extent that the structural branch framework is compromised. Trees that are likely to recover or improve should not be placed in this subcategory, i.e. trees suffering from a foliar problem that has little impact on the branch framework and varies from year to year.
Z5	Severe means so bad that there is no realistic chance of the tree achieving its full potential and there is a high of failure risk. In many cases, the risk of failure can be reduced by dramatic reduction in tree size, but this has severe health, maintenance cost and amenity implications, so is unlikely to be a sustainable management option. A common example is a severely unbalanced tree within a group that will be particularly vulnerable in adverse weather conditions and the adjacent trees mean there is no hope of remedial works resulting in an

Hornsby Council- Assessment of trees-

Westleigh Park & Sydney Water Thornleigh Reservoir-Quarter Sessions Rd, Westleigh.



	improvement. Topped trees do not automatically fit into this subcategory, although there is an obvious temptation. Species prone to decay, such as willow and poplar, often have severe decay at the origin of vigorous re-growth, creating a high risk of failure in adverse weather conditions. Z5 is clearly appropriate for them. However, this needs to be a careful judgment because topping in itself does not necessarily condemn a tree to this subcategory. Some trees, such as plane, oak and lime, are particularly good at coping with this treatment and often are able to mature with a low risk of failure. If remedial works will allow the tree to be retained with no significant adverse impact on amenity, health or maintenance costs, then it does not fit here.
Z6	Trees can become poorly anchored because of soil erosion through climatic factors, i.e. water or wind, wear from traffic - pedestrian or vehicular, changing soil conditions - increasing wetness, sudden and severe physical stress from storms and root damage such as decay or severance reducing root strength. In some case, i.e. storm induced instability, there may be a realistic chance of recovery and a subcategorization of Z6 may be premature. However, if excessive remedial work is required, it is likely that Z6 is a defensible subcategory. Alterations to tree exposure to the wind occurs because of changes in the shelter provided by adjacent objects such as buildings or trees. This often applies to groups of trees where one large dominant individual will be lost because of poor health or a structural problem, which then dramatically exposes the remaining trees.
Z7	Establishing thresholds of acceptable levels of inconvenience: In its broadest sense, inconvenience is the interference with the authorized use of land. In relation to trees, it can be in the form of roots disrupting landscaping and hard surfacing, parts of trees physically preventing land use, tree debris such as leaves and fruit falling and tree crowns causing excessive shade. The principles for establishing what are acceptable levels of inconvenience are the same irrespective of the cause. In a community context, it is generally accepted that trees provide a significant benefit to society and it is reasonable for individuals to tolerate some level of inconvenience from their presence. However, the precise location or value of these thresholds is not always obvious and is often a subjective interpretation rather than a definitive point. There will always have to be a balancing of the benefit to the community weighed against the inconvenience suffered by the individual. What is an acceptable, tolerable or reasonable level of inconvenience is often a matter of judgment for each specific situation, tempered by experience and common sense. This, in turn, should be guided by court, tribunal and planning decisions that have made informed judgments on these issues. Common examples: Very large trees near existing occupied buildings can dominate to the extent that the disbenefit from the anxiety of the occupants outweighs the benefit of the tree. Regular and severe staining caused by fallen debris to a swimming pool surround may be unacceptable because the stark contrast in colours creates a dirty impression whereas the same staining on a path or drive surface may be more acceptable. In contrast, falling leaves blocking gutters causing them to be cleaned once a year is not that much of a local inconvenience in the context of the wider benefits that trees impart. Making the decision: Assessing inconvenience is almost entirely a subjective judgment, based on experience and understanding of what is perceived as being reasonable and unreasonable for a normal person. As with all these judgments, a simple test is to imagine a court hearing where a judge has to decide if the levels of inconvenience are intolerable. If they are, then the tree is Z7; if they are not that bad, then the tree belongs in another subcategory.
Z8	Where more serious damage occurs to property from root action, then court/tribunal judgments on liability help to focus on what level of damage is deemed tolerable by society. The most common example is direct damage from roots, trunks and branches to structures and surfacing. Repairs to walls may require such extensive excavation and cutting of roots that the tree cannot be retained. However, the use of innovative techniques may reduce root damage, but still produce a viable boundary, allowing the tree to be retained. Root damage to surfacing is often a sustainable reason for removal if rectifying the damage will significantly adversely affect the tree. In contrast, the potential for roots to deform surfacing would be a less reliable basis for allocation to this subcategory because it is so unpredictable. As a general rule, there would need to be good evidence for ongoing damage, with little scope for remedial works, before a tree could be reliably allocated to this subcategory.
Z9	This is a similar subcategory to Z5, but where the defect is not so severe that remedial works have to be extensive and immediate. Quite often, there are less severe defects that are so bad there is no realistic potential for the tree to improve, but it could be retained in the short term with some significant remedial works. This would only be seen as a temporary measure because to continue applying the same principle would not be cost-effective compared to replacement. A typical example would be a tree with a large and progressive cavity that will clearly prevent it ever improving its condition or contribution to amenity. However, substantial thinning and reduction would allow it to be retained in the short term to allow other replacement trees to develop to buffer its inevitable loss. The benefit of retaining it in the short term might outweigh the cost of doing the works as a one-off, but not on a regular basis.
Z10	It is common to find trees that are obviously not good enough for long term retention because they look unhealthy or are so unbalanced or so tall and thin or that they will never improve. However, the problems are not so severe that there is a high risk of death or failure, and they cannot be discounted for that reason. This subcategory is for those trees and relies on the principle of sustained amenity to justify the allocation. Trees with no potential to improve are taking up space where new trees could be growing, which would be enhancing the desirable objective of an uneven age class structure. The replacements would obviously be small trees and these would then fall into the Z1 subcategory. As set out in the Z1 explanations, the precise location on the site is not often that critical, so these trees would not generally be considered worthy of being a material constraint.
Z11	This applies to trees in groups where one individual is destructively interfering with another. The judgment of which is the better tree is obviously subjective and would be informed by which tree had the best potential for sustainable retention. An obvious example is one tree growing up through another and directly rubbing causing damage. Retaining both would probably result in the loss of each, whereas removing one may allow the other to achieve its full potential. Another example would be one tree shading and preventing the sustainable development of a neighbour to the extent that both trees would be prematurely removed if left alone. The removal of one tree may be justified if it allowed the remaining tree to reach its full potential. If both trees could be retained as a group and achieve their full potential, then they should not be included in this subcategory.
Z12	This is a matter of judgment and may vary widely. It primarily applies to existing trees that are not suited to their location, but there is resistance to their replacement. As a general principle, all trees will incur some management costs and these would normally not be a valid reason for removal. However, as those costs increase, their acceptability decreases to a point where it will be more cost-effective to plant a new tree more suited to the location rather than incur the burden of repeated and excessive costs indefinitely. Typical examples include topped trees with excessive decay, pollarded trees to reduce subsidence risk, trees beneath power lines and trees close to buildings, roads and paths. All these examples will require high levels of maintenance that may not be financially acceptable unless the benefits that arise from retaining the trees are particularly high.
A1	Trees that do not require any specific remedial works above those that would be required for normal maintenance.
A2	Trees with minor defects likely to recover from remedial works to be retainable in the long term, i.e. pollards with little decay.
A3	'Special' means unusual, rare or uncommon, i.e. a tree of some historical/cultural significance, etc.
A4	Trees can be valuable ecological habitat that may be protected by legislation, which may be a material constraint on the type and timing of changes that can occur on a site. If an ecological assessment has not been carried out by the time of the survey, and the arborist suspects there may be habitat issues, the tree should be identified as A4, and specialist assessment should be sought.



Appendix 2- Tree protection

Tree protection measures are used to isolate the calculated tree protection zone from the impacts of construction activities. Tree protection measures come in many different forms and types depending on the type of protection required for the situation. The protection measures can be broadly considered as tree root protection, canopy protection or trunk and branch protection.

Tree root protection: TPZ Fencing- Figure 1

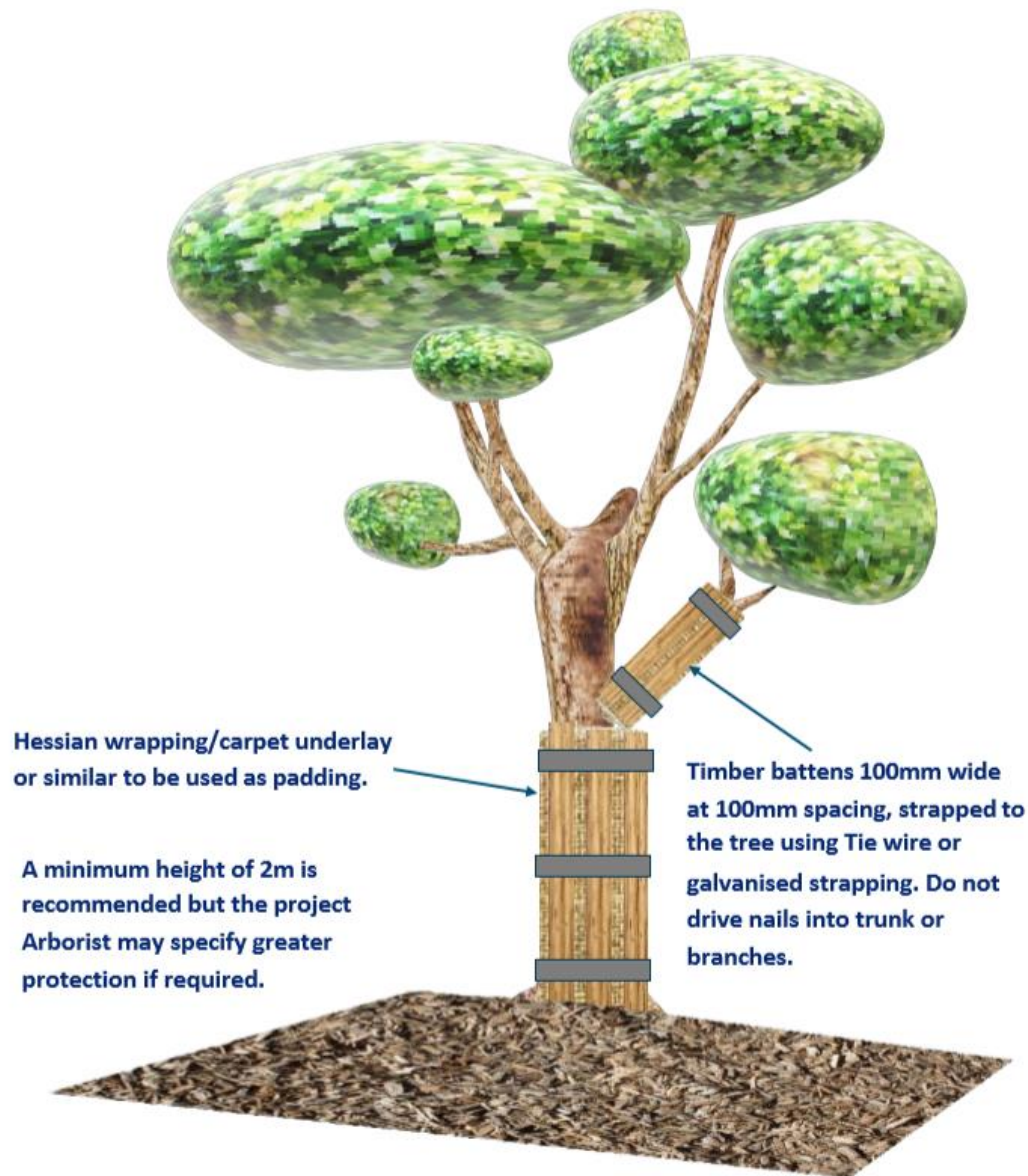
Tree root protection is generally achieved with the allocation and delineation of a tree protection zone (TPZ) in accordance with AS4970-2009- The Protection of Trees on Development Sites. Temporary fencing is used to isolate the area from construction activity and restrict unauthorized access. Where access into the TPZ is required and unavoidable, ground protection measures may be recommended to ensure that the tree roots which are to be protected remain undamaged during works within the TPZ. Any works within the allocated tree protection zones must be directly supervised by a project Arborist with a minimum AQF level 5 qualification. In situations where there are low lying tree branches to be protected, the TPZ may be extended beyond the calculated TPZ in order to incorporate canopy protection as shown below.



Ground protection: Access road within TPZ- Figure 2.



Trunk and branch protection- Figure 3.



Tree protection specifications:

In accordance with AS4970-2009- The Protection of Trees on Development Sites, activities restricted within the TPZ include but are not limited to:

- a) Machine excavation including trenching.
- b) Excavation for silt fencing.
- c) Cultivation.
- d) Storage of materials or machinery.
- e) Preparation of chemicals, including cement products.
- f) Parking of vehicles and plant.
- g) Refuelling of machinery.
- h) Dumping of waste.
- i) Wash down and cleaning of equipment.
- j) Placement of fill.
- k) Lighting fires.
- l) Soil level changes.
- m) Temporary or permanent installation of utilities and signs.
- n) Physical damage to the tree.

Tree protection fencing:

Tree protection fencing is to be installed prior to site establishment, demolition or commencement of any works on site.

All fencing must be chainmesh fencing 1.8m in height, secured with concrete 'feet' and in accordance with AS4678-Temporary Fencing and Hoardings. Depending on the type of development, shade cloth or similar may be recommended to reduce the spread of dust, particulate matter and liquids into the protected area. Silt fencing may also be required and may be incorporated into the TPZ fencing if required. Once the TPZ fencing has been installed the site Arborist must provide a letter of certification of tree protection measures to the client which may be forwarded on to the private certifier or council. Tree protection fencing is not to be moved, realigned, dismantled or tampered with in any way and shall only be relocated under instruction of the project Arborist. (See Figure 1) If the protective fencing requires temporary removal, trunk, branch and ground protection must be installed and must comply with AS 4970-2009 - Protection of trees on development sites. Existing fencing and site hoarding may be used as tree protection fencing, providing the TPZ remains isolated from construction activities. The purpose of ground protection is to prevent root damage and soil compaction within the TPZ. Ground protection may include a permeable membrane such as geotextile fabric beneath a layer of mulch, crushed rock or rumble boards.

Any additional construction activities within the TPZ of the subject trees must be assessed and approved by the project arborist and must comply with AS 4970- 2009 - Protection of trees on development sites.



Tree protection signage:

Tree protection zone signage must be installed and clearly visible from all angles within the site stating, "NO ENTRY TREE PROTECTION ZONE" and phone numbers for the site Arborist and site supervisor/foreman must be provided. TPZ signage must be laminated or otherwise protected to ensure that it remains legible for the duration of the project. (See Figure 1)

Ground protection:

Where access into the TPZ of a tree is necessary and unavoidable, the project Arborist must specify the methods of additional protection required. This may be ground protection in the form of 150mm depth of composted mulch beneath hardwood 'rumble boards' alternatively track mats or road plates may be used (See figure 2). Tree roots are essential for the uptake/absorption of water, oxygen and mineral ions (solutes). It is essential to prevent the disturbance of the soil beneath the dripline and within the TPZ of trees that are to be retained. Soil compaction within the TPZ will adversely affect the ability of roots to function correctly.

Generally, soil level changes within the TPZ of a tree is not recommended and is contrary to AS4970-2009 The Protection of Trees on Development Sites. Certain circumstances can arise where this may be necessary, and the requirements must be carefully considered by the project Arborist. If the grade is to be raised within the TPZ, the material should be coarser or more porous than the underlying material and the suitability of this action must be assessed by the project Arborist.

Trunk and branch protection:

Where there is the risk of accidental mechanical damage due to narrow access paths or large machinery movements, trunk and branch protection may also be recommended (see figure 3). The removal of bark or branches allows the potential ingress of micro-organisms which may cause decay. Furthermore, the removal of bark restricts the trees' ability to distribute water, mineral ions (solutes), and glucose.

Trunk protection shall consist of a layer of either Hessian wrapping, carpet underlay, geotextile fabric or similar wrapped around the trunk, followed by softwood timbers approximately 100mm wide, aligned vertically and spaced evenly around the trunk (with an approx. 100 mm gap between the timbers).

The timbers must be secured using galvanized hoop strapping or tie wire. The timbers shall be wrapped around the trunk but not fixed to the tree with nails, screws or other means, as this will cause injury/damage to the tree.

Crown protection:

Tree crowns/canopy may be injured or damaged by machinery such as; excavators, drilling rigs, trucks, cranes, plant and vehicles. Where crown protection is required, it will usually be located at least one meter outside the perimeter of the crown.

Crown protection may include the installation of a physical barrier, pruning selected branches to establish clearance, or the tying/bracing of branches.

Supervision of works within the TPZ:

If incursion/excavation amounting to greater than 10% of the TPZ is unavoidable, exploratory excavation (under the supervision of the Project Arborist) using non-destructive methods may be considered to evaluate the extent of the root system affected and determine if the tree can remain viable.

If the project arborist identifies conflicting roots that require pruning, they must be pruned with a sharp implement such as; secateurs, pruners, handsaws or a chainsaw back to undamaged tissue. All works within the TPZ of any tree to be retained must be completed under the direct supervision of the project Arborist. This may include non-destructive excavation or hand digging to locate individual piers or fence posts.

The project Arborist is to recommend measures to protect and preserve any roots uncovered during these activities, this may include wrapping the tree roots in hessian or similar and keeping them moist to prevent desiccation.

Any tree roots which are damaged are to be assessed by the supervising Arborist who is to determine the best course of action. If root pruning is recommended, the project Arborist should sever the damaged roots cleanly back to undamaged tissue and cover the exposed portion of root to prevent desiccation.

Where significant roots have been pruned, the project Arborist should complete a letter of certification including a root mapping report explaining the number and diameter of roots which were severed, what impacts are likely and provide recommendations for mitigation of such impacts if required.

All supervision works must be completed by an Arborist with a minimum AQF level 5 in Arboriculture.



Hold points/ certification:

Arborist involvement will be required throughout the development process at key milestones, at a minimum these are:

1. Certification of tree protection installation prior to site establishment
2. Monthly inspection of trees to ensure tree protection measures are effective.
3. Supervision and certification of any works within tree protection zones.
4. Removal of tree protection measures and final certification.

The approved tree protection plan must be available onsite prior to the commencement of works, and throughout the entirety of the project. To ensure the tree protection plan is implemented, hold points have been specified in the schedule of works for Arborist involvement. It is the responsibility of the principal contractor to complete each of the tasks. Once each stage is reached, the work will be inspected and certified by the project arborist and the next stage may commence. Alterations to this schedule may be required due to necessity. However, this shall be through consultation with the project arborist only.

A recommended schedule of works for Arborist involvement is as follows:

Pre-construction: Prior to demolition and site establishment indicate clearly (with spray paint on trunks) trees marked for removal only.

Tree protection (for trees that will be retained) shall be installed prior to demolition and site establishment, this will include mulching of areas within the TPZ.

Scheduled inspection of trees by the project arborist should be undertaken monthly during the construction period.

During Construction: Inspection of trees by project arborist after all major construction has ceased, following the removal of tree protection measures.

Post Construction: Final inspection of trees by project arborist to confirm tree condition and provide final letter of certification.

