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ARBORICULTURAL SURVEY **REPORT**

RICHMOND BRIDGE SETTING

RICHMOND

11 February 2015 - DRAFT FOR CLIENT REVIEW

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SUMMARY

An assessment of the health, structural condition and remaining life expectancy of 113 individual trees from 21 species, and three mono-specific copse group features within the survey area of the Richmond Bridge setting was undertaken. From this assessment a prioritized works requirement was determined.

In general the tree population within the survey area is in good health and condition considering the tree age structure and growing conditions. Only five trees were identified as having a high hazard rating with a corresponding high works priority.

36 trees were identified as requiring remedial arboricultural work. The breakdown of these works is:

- Tree Removal – 13
- Deadwood Removal – 11
- Formative Pruning – 12

A schedule of all the required works is presented in **Appendix 4**.

A plan of the location of trees requiring work is included in **Appendix 5**.

Trees are dynamic living organisms that provide a broad, extensive range of benefits. Whilst the most recent industry standards with regards to tree health and risk assessment have been employed, the advice and recommendations in this report are limited to **twelve (12) months**, after which all responsibility regarding the site trees is that of Clarence City Council, which has responsibility for management of the subject trees.

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1 INTRODUCTION

1.1 Client Brief

1.1.1 This report was commissioned by Sarah Fitzgerald, Manager Environment & Planning, GHD Pty Ltd, Tasmania. The brief for the report was to assess the current health and remaining life expectancy of the tree population located within the general study area of the "Richmond Bridge and its setting" as prescribed in the *Clarence City Council Invitation for Quotation - Q1019-14*, described in the *Richmond Bridge Conservation Management Plan* (DIER ,2010) and outlined in **Section 2** below.

1.1.2 The purpose of the report is to identify any health and/or structural defects in each tree inspected that may represent a potential hazard to public safety or private property and infrastructure, together with recommendations for remedial action where required to mitigate such risks.

1.2 Scope

1.2.1 This report provides the following information for each tree inspected:

- Identification (botanical & common name)
- Maturity class
- Height Class
- Health
- Structural Condition
- Remaining life expectancy
- Risk rating
- Recommendation and prioritization of works required to mitigate hazardous tree risks identified
- GPS location
- Any relevant comments.

2 THE STUDY SITE

2.1.1 For the purposes of this report, the survey area included the following components:

- The land on the north east river bank owned by the Archdiocese of Hobart and known as 64 St Johns Circle and defined by Certificate of Title 104610/1 (PID 5888635);
- The two parcels of land on the south east river bank owned by the Crown and defined by Certificate of Title 10089/3 (PID 3003450) and Certificate of Title 10089/4 (PID 3003450);
- The area of public land located on the south east river bank adjacent to the Gatty Dam between approximate Australian Map Grid coordinates

536030E/5268181N (AGD 66) in the north to approximate Australian Map Grid coordinates 536097E/5268110N (AGD 66) in the south;

- The three parcels of land on the north west bank river bank owned by the Crown and defined by Certificates of Title 66866 folios 1, 2 and 3 (PID 2799418) and;
- The three parcels of land on the south west bank of the river. This includes:
 - The two parcels of land owned by the Crown and defined by Certificate of Title 146275/1 and potential PID 2068367; and
 - The narrow parcel of riverbank land owned by the Clarence City Council and defined by Certificate of Title 17/1777.



Figure 1: The Study Site (Source - thelist.tas.gov.au)

3 METHODOLOGY

3.1 Field Survey

- 3.1.1 The subject trees were inspected by Philip Jackson on the 19th January 2015. The comments and recommendations in this report are based on the findings from this site inspection. The trees were visually inspected from the ground. No aerial or climbing inspections, core testing, drilling; ultrasound diagnosis or excavations were undertaken.
- 3.1.2 The survey was generally limited to trees estimated to be 5 metres in height or greater. However trees less than 5m in height were included where such trees were potentially significant long-term landscape components or constituted a current prominent landscape feature.
- 3.1.3 Mono-specific copses of trees, especially those including numerous individuals derived from vegetative reproduction (i.e suckering), were assessed as group features. Where trees within these groups had features of particular note they were recorded as individuals.
- 3.1.4 Individually assessed trees and tree group features were attributed with unique identifying numbers. Tree numbers used in this report and appearing in column 1 of the tree assessment schedules (**Appendix 3 & 4**) correspond with the unique identifying numbers provided in the Tree Location Plans (**Appendix 5**) and the GIS data set (**Appendix 7**) compiled for the survey area.
- 3.1.5 Photographs of trees to be removed within group features were taken for further reference and are included in (**Appendix 6**).
- 3.1.6 Spatial data relating to tree locations was recorded on a Garmin eTrex handheld GPS unit and correlated with LISTmap orthorectified site aerial imagery.
- 3.1.7 Where sufficient identifying characteristics were present trees were identified to species level. Trees were assessed to determine their age class, structure and condition. Tree height class was estimated. Where groups trees were assessed, an estimate of the mean height class was made.

3.2 Field Survey and Reporting Limitations

- 3.2.1 Assessment exclusion zones applied to the following:
- The Coal River and its immediate banks.
 - Inundated riverside land included in the Crown land parcel PID 3003450.
- 3.2.2 The accuracy of the GPS location unit used is variable depending on limiting conditions at the time of recording. For the purposed of this report the data recorded is assumed to be accurate to 5m. For most of the trees recorded, correlation with the orthorectified aerial imagery increases the

accuracy to within the diameter of the trunk. Where the precise GPS location of closely spaced trees to be removed in groups was unable to be established a photographic detail of the trees is presented in **Appendix 6** to allow positive identification of the subject trees to their unique identification number.

- 3.2.3 The Tree Location Plans presented are based on LISTmap orthorectified aerial imagery. It should be noted that these images may vary with regards to trees, buildings or structures that may be new or no longer exist due to the date the image was taken. It should also be noted that the Tree Location Plans are not survey accurate.

3.3 Health & Condition Assessment

- 3.3.1 The inspection method undertaken followed the principles of Visual Tree Assessment (VTA), an internationally recognised systematic method of identifying tree defects and hazard potential, described by Matheck & Breloer (1994). It is also complied with the Limited Visual Assessment: Level 1 process described by the International Society of Arboriculture Best Management Practices handbook '*Tree Risk Assessment*' (ISA, 2011). The biological and mechanical features of the trees were assessed for health, condition and *obvious* defects and an informed opinion of the hazard/failure potential of the trees was reached.
- 3.3.2 The trees were visually inspected from the ground for external signs of health or disease including; fungal fruiting bodies, insect infestation, epicormic shoots, extent of dieback, mechanical trunk damage and crown foliage condition and density.
- 3.3.3 The structural condition of the subject trees was assessed by observing the form and growth habit, as modified by their environment (aspect, exposure to prevailing winds, competing vegetation). It was also assessed by inspecting the state of the scaffold (i.e. trunk and major branches) including previous pruning, mechanical wounding, structural defects such as included bark, cavities, cracks, crooked trunk or weak trunk/branch junctions. Any evidence of previous branch failure was also noted. Any visual signs of defects, disturbance or mechanical damage to major woody roots, or within the root zone of the tree were also noted.

3.3.4 The health and structural condition of the tree were rated as follows:

	HEALTH & VIGOUR	STRUCTURAL CONDITION
G	Good health and vigour exhibiting no apparent or minor pest/disease, good extension growth, normal foliage size, colour & density.	Good structure - stable and free from, or with minor visible defects and damage. Appears stable with no visible evidence of instability
F	Fair health and vigour - may exhibit moderate (non-life threatening) pest/disease, fair extension growth, small foliage size, abnormal colouration, thin foliage cover	Fair structure - containing defects and/or damage that may be able to be remediated to provide an acceptable level of risk.
P	Poor health and vigour - exhibiting extensive or untreatable pest/disease, poor extension growth, significant deadwood and dieback, evidence of rapid decline, sparse foliage cover, abnormal foliage colour or size.	Evidence of instability or contains defects and/or damage which render the tree potentially hazardous /prone to failure or cannot be successfully remediated.
D	Tree is dead	

3.4 Maturity Class

3.4.1 The maturity class of each tree has designated as follows:

OM	Over Mature (Senescent)	Greater than 80% of the life expectancy for the species. These trees are senescent, being in a state of gradual decline
M	Mature	50-80% of the life expectancy for the species
SM	Semi-mature	20-50% of the life expectancy for the species
S	Sapling (Young or immature)	less than 20% of the life expectancy for the species

3.5 Safe Useful Life Expectancy (SULE)

3.5.1 The remaining Safe Useful Life Expectancy of a tree (as developed and most recently described by Barrell, 2001) is an estimate of the sustainability of the tree in the landscape, based on an estimate of the average age of the species in its location, less its estimated current age. The life expectancy of the tree has been further modified where necessary in consideration of its current health, vigour and structural condition and suitability to the site. A detailed explanation of SULE is presented in **Appendix 1** and the estimated SULE of each tree is shown in **Appendix 3**.

3.5.2 The following ranges have been allocated to each tree:-

- Greater than 40 years (**Long**)
- Between 15 and 40 years (**Medium**)
- Between 5 and 15 years (**Short**)
- Dead or immediately hazardous (**Remove**)

3.6 Tree Risk Evaluation

3.6.1 A hazard is a potential risk imposed by a tree or part of a tree which has a structural defect, when combined with the presence of a target, is likely to cause personal injury or property damage. A target may be people, property or other physical assets within the range of the tree. The range is the distance within which the defective tree or part can have a potential impact.

3.6.2 Using the tree risk evaluation method developed by Matheny & Clark (1994) an overall **Tree Risk Rating** was determined. This qualitative numerical risk assessment method is widely used in Australia and is recognised by the International Society of Arboriculture. This method is useful in prioritising required works as part of large-scale tree surveys.

The Tree Risk Rating relates to the tree part(s) most likely to fail and considers the addition of three factors:

1. The nature & severity of the defect & the likelihood of failure, considering site factors such as level of exposure; (Failure Potential).
2. Size of the defective part.
3. The relationship of the tree to existing targets and the type and intensity of usage; and the consequence of failure or extent of potential damage/ severity of harm (Target Rating)

3.6.3 Each factor is given a value from 1-4 and an aggregate rating value is given (max. 12). **A risk rating value of 9 or above is generally regarded as unacceptably high.** Although the Tree Risk Rating arrived at is useful in making a decision on the priority for removal or remediation of a particular tree, it is only a guide and should not be used in isolation of other relevant site and subject factors. This is evidenced by the fact that trees with the same hazard rating can be fundamentally different in character and hazard potential, given the use of three independent factors in the rating scheme as set out below. The *Failure Potential* rating factor below identifies the most likely failure and rates the likelihood of the defect failing **within a given inspection period of 12 months**. A more detailed example of representative hazard rating parameters is presented in **Appendix 2**.

Table 1: Tree Risk Rating Parameters

Rating Factor	1	2	3	4
Failure Potential	Low	Medium	High	Severe
Size of Part To Fail (cm diameter)	<15	15-45	45-75	>75
Target Rating (use/occupancy)	Occasional	Intermittent	Frequent	Constant

Risk Rating = Failure Potential + Size Of Part + Target Rating

3.6.4 The higher the score (Risk Rating), the more significant the risk, greater potential for damage and the greater the consequence of failure. The aim of the risk rating system is to identify the level of risk and provide a basis for prioritizing treatment.

3.7 Tree Works Priority

3.7.1 A Works Priority rating has also been given for each tree to indicate the relative importance of the identified required works. The rating is shown in **Appendix 4**. The following ratings have been applied:

Table 2: Tree Works Priority

Hazard Rating Score	Works Priority	Description	
9-12	High	Potentially Hazardous	Remedial work should be undertaken as soon as practicable in order to avoid damage or injury.
6-8	Moderate	Important	The specified work is not critical, but should be undertaken as soon as practicable
1-5	Low	Not Critical	The specified work is considered important but not critical. The specified work should be carried out within a reasonable time frame to avoid future problems. This may include work that is desirable from a tree health perspective but essential or critical from a safety perspective.

4 OBSERVATIONS

5.1 Tree Population

115 trees were recorded within The Site comprising 21 different species. These species and their percentages of the tree population in the study area are presented in Table 3.

Table 3: Tree Species Distribution

Species	Number of Trees	% of Population
<i>Acacia dealbata</i> (silver wattle)	5	4
<i>Acacia melanoxylon</i> (blackwood)	28	25
<i>Acacia sp.</i> (wattle)	2	2
<i>Acer negundo</i> (box elder)	3	3
<i>Betula pendula</i> (silver birch)	1	1
<i>Eucalyptus sp.</i> (gum)	3	3
<i>Eucalyptus tenuiramis</i> (silver peppermint)	1	1
<i>Eucalyptus viminalis</i> (white gum)	9	8
<i>Fraxinus angustifolia</i> 'Raywood' (claret ash)	3	3
<i>Malus sp.</i> (crabapple)	1	1
<i>Melaleuca armillaris</i> (honey myrtle)	1	1
<i>Photinia glabra</i> (red leaf photinia)	1	1
<i>Pinus radiata</i> (radiata pine)	2	2
<i>Populus alba</i> (white poplar)	23	20
<i>Populus nigra</i> (lombardy poplar)	1	1
<i>Prunus cerasifera</i> (cherry plum)	1	1
<i>Prunus dulcis</i> (almond)	2	2
<i>Quercus sp.</i> (oak)	12	11
<i>Salix babylonica</i> (weeping willow)	1	1
<i>Schinus molle</i> (pepper tree)	3	3
<i>Ulmus x hollandica</i> (dutch elm)	12	11

- Numerous white poplars located within the group features numbered T23A & T94 were not recorded individually and do not form part of the above species distribution data.
- Due to rounding total percentages equal more than 100.

5.2 Tree Health

In general the trees displayed typical health across the tree population with 92% of the trees displaying Fair or better health, considered to be typical for the species growing in this environment under current conditions and following recent drought years. (refer to Table 4 below) .

Table 4: Tree Health

Health	Number of Trees	% of Population
Good	68	60
Fair	37	32
Poor	6	5
Dead	3	3

5.3 Tree Condition

In general the trees displayed typical structural condition across the tree population with 84% of the trees displaying Fair or better condition, considered to be typical for the species growing in this environment under current conditions. (refer to Table 5 below). Defects and deficiencies were observed as trees that had basal, trunk or limb decay associated with past limb failures or wounding, hollows or cavities, poor form from previous pruning and the presence of fungal fruiting bodies.

Table 5: Tree Condition

Condition	Number of Trees	% of Population
Good	68	60
Fair	27	24
Poor	16	14
Dead	3	3

Due to rounding total percentages equal more than 100.

5.4 Remaining Life Expectancy

The overall remaining life expectancy of the tree population is good with the greater majority of the trees expected to live between 15-40 years (table 6). The reasonably large percentage of trees with a long SULE is due to the contribution of the 12 newly planted oak trees. Those trees with a short remaining life expectancy are predominantly blackwoods. While all of the trees identified for removal are either silver poplar or silver wattle.

Table 6 SULE

SULE	Number of Trees	% of Population
Long: >40 years	23	20
Medium: 15-40 years	71	62
Short: 5-15 years.	7	6
Remove	13	11

Due to rounding total percentages equal less than 100.

5.5 Tree Works Priority

5.5.1 Currently eighty percent of the tree population has been assessed as requiring no works. The large number of trees not requiring work is

indicative of a predominantly healthy tree population with no over-mature or currently senescent trees.

- 5.5.2 All but three of the low priority works are for formative pruning of the newly planted oak trees. Although low priority in the context of hazard reduction, these works are still important for the maintenance and improvement of the long term structural condition and amenity value of these trees.
- 5.5.3 Nine of the moderate priority works relate to deadwood removal. The remaining seven moderate priority works are for the removal of trees with relatively low failure potential or are in low target areas.
- 5.5.4 The five high priority works are for the removal of large white poplars that have an unacceptably high hazard rating due to them having significant structural defects and being located in an area with a relatively high target rating.
- 5.5.4 Tree condition can change rapidly because of environmental and other influences. It is recommended that regular inspections be undertaken to identify changes to tree condition on or following local severe or damaging weather events.

Table 7: Tree Works Priority

Works Priority (hazard rating)	Number of Trees	% of Population
High (9-12)	5	4
Moderate (5-8)	16	14
Low (1-4)	13	11
No works Required	80	70

Due to rounding total percentages equal less than 100.

6 SPECIFIC MANAGEMENT ISSUES

6.1 Deadwood

- 6.1.1 A number of trees exhibit deadwood throughout the crown to varying extents. The formation of deadwood is likely to be a maintenance issue from time to time, particularly during extended dry periods and drought. It is difficult to mitigate this given the nature of the site, in particular the soil conditions and the tree locations (which limit the use of mulches or other ground cover that would otherwise improve moisture holding capacity). Removal of deadwood should be undertaken periodically to reduce hazards associated with falling deadwood, particularly overhanging high use areas, as specified in the schedule.

6.2 Replacement of Removed Trees

- 6.2.1 It is important to factor in the replacement of trees as part of the removal process undertaken within the study area otherwise the net result is an incremental loss of trees to the site. Clearly such incremental losses have a deleterious affect on the amenity of the site and should be avoided.

7 RECOMMENDATIONS FOR REMEDIAL TREATMENT

7.1 General

- 7.1.2 All pruning work (including deadwooding) should be carried out in accordance with Australian Standard No. 4373: *Pruning of Amenity Trees*. All pruning work should be carried out by a qualified and experienced arborist (Australian Qualification Framework Level 3 or above) or tree surgeon (minimum 5 years industry experience).

7.2 Deadwooding

- 7.2.1 Where deadwood exists that is significant in length or diameter and is located over high use areas (such as pathways, picnic benches, parking areas etc), this is identified in the schedule (**Appendix 4**). All completely dead branches of greater than 20mm in diameter should be pruned back to the branch junction in accordance with Natural Target Pruning Techniques described in AS 4373: *Pruning of Amenity Trees*.

7.3 Formative Pruning

- 7.3.1 Young trees often develop growth defects and other problems in the early stages of development that can lead to more significant problems at maturity. If corrected early through an appropriate level of monitoring and treatment, most growth defects can be removed to form structurally sound trees in the long term. Without remedial action, some growth defects can lead to hazards, leading to greater costs, higher risk and potential liabilities.
- 7.3.2 Formative pruning is the selective pruning of a young tree to promote good form and branching structure typical of the natural growth habit of the species. The main aim of formative pruning is to identify and remove any growth defects or other structural problems that may have long-term implications early in the development of the tree.
- 7.4.3 There are several types of growth defects that can lead to structural flaws at maturity. Structurally defective portions of the tree are more likely to fail under adverse weather conditions than normal sound growth. Most of the defects that can be corrected by formative pruning relate to the improper development of the trunk or branching structure. Such defects may include:

- Crossing and rubbing branches
- Co-dominant leading stems with included bark
- Dominant lateral branches
- Included bark at branch junctions

7.4.3 Young trees should be periodically checked for growth defects or atypical growth habit and corrected as soon as possible using formative pruning in accordance with Natural Target Pruning Techniques as specified in AS 4373. Trees requiring formative pruning have been identified in the schedule and Tree Works Plan.

7.5 Tree Removal

7.5.1 Trees T25, T27, T28, T30 & T37 are recommended for removal due to potential instability because of structural defects. These trees are all listed as high priority and should be removed as soon as possible.

7.5.2 Any tree removed should be replaced with an appropriate species in an appropriate area of the site.



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APPENDIX 1- SULE CATEGORIES

SULE Category	Description
Long	Trees that appeared to be retainable at the time of assessment for more than 40 years with an acceptable level of risk.
1a	Structurally sound trees located in positions that can accommodate for future growth
1b	Trees that could be made suitable for retention in the long term by remedial tree care.
1c	Trees of special significance that would warrant extraordinary efforts to secure their long term retention.
Medium	Trees that appeared to be retainable at the time of assessment for 15-40 years with an acceptable level of risk.
2a	Trees that may only live for 15-40 years
2b	Trees that could live for more than 40 years but may be removed for safety or nuisance reasons
2c	Trees that could live for more than 40 years but may be removed to prevent interference with more suitable individuals or to provide for new planting.
2d	Trees that could be made suitable for retention in the medium term by remedial tree care.
Short	Trees that appeared to be retainable at the time of assessment for 5-15 years with an acceptable level of risk.
3a	Trees that may only live for another 5-15 years
3b	Trees that could live for more than 15 years but may be removed for safety or nuisance reasons.
3c	Trees that could live for more than 15 years but may be removed to prevent interference with more suitable individuals or to provide for a new planting.
3d	Trees that require substantial remedial tree care and are only suitable for retention in the short term.
Remove	Trees that should be removed within the next five years.
4a	Dead, dying, suppressed or declining trees.
4b	Dangerous trees because of instability or loss of adjacent trees
4c	Dangerous trees because of structural defects
4d	Damaged trees not safe to retain.
4e	Trees that could live for more than 5 years but may be removed to prevent interference with more suitable individuals or to provide for a new planting.
4f	Trees that are damaging or may cause damage to existing structures within 5 years.
Small	Small or young trees that can be reliably moved or replaced.
5a	Small trees less than 5m in height.
5b	Young trees less than 15 years old but over 5m in height.

(after Barrel, 2001)

APPENDIX 2: Tree Hazard Rating Table

Score	Failure potential	Size of part (diameter)	Target rating
1 (Low)	<ul style="list-style-type: none"> -Minor defects -Die back of twigs -Small wounds with good wound wood. -Small crossed branches 	<100mm	Occasional use Jogging, Cycling trail, no persons stationary in area.
2 (Medium)	<ul style="list-style-type: none"> -Cavity covering 10-25% of the circumference of the trunk. -Codominant stems without included bark. Small fruiting bodies. -Long horizontal branches -Small epicormic growth (<6 metres in length). 	100-450mm	Picnic area, day use parking,
3 (High)	<ul style="list-style-type: none"> -Cavity covering 30-50% of the circumference of the trunk. -Codominant stems with included bark. Included bark. -Large fruiting bodies. -Long horizontal branches with large canopy. -Dead canopy with leaves still attached. -Structural woody roots pruned. 	450-750mm	Seasonal camping, storage facilities,
4 (Severe)	<ul style="list-style-type: none"> -Cavity covering >50% of the circumference of the trunk. -Codominant stems with included bark and crack. -Included bark with crack present. -Large fruiting bodies with bulge around area. -Long horizontal branches with large canopy bending down (Heavy reaction wood present). -Dead canopy with wood soft to push. -Structural woody roots pruned. -Ground heaving or cracked around base of tree. -Structural woody roots have evidence of decay. 	>750mm	<ul style="list-style-type: none"> -Year round use for a number of hours each day. -Constant traffic through the day. -Seating or playground below canopy.

Adapted from:-

Matheny N.P. & Clark, J.R. (1994)

APPENDIX 3 - TREE HEALTH AND CONDITION ASSESSMENT SCHEDULE

Tree ID	Species	Height (m)	Maturity Class	Health	Condition	Remaining Safe Useful Lie Expectancy (SULE)
1	<i>Prunus cerasifera</i> 'nigra' (purple cherry plum)	6-10m	Mature	Fair	Fair	2a-Medium:15-40 years
2	<i>Acacia melanoxylon</i> (blackwood)	6-10m	Mature	Good	Fair	3a-Short:5-15 years
3	<i>Acacia dealbata</i> (silver wattle)	0-5m	Mature	Good	Good	2a-Medium:15-40 years
4	<i>Acacia dealbata</i> (silver wattle)	0-5m	Dead	Dead	Dead	4a-Dead, dying or declining: Remove
5	<i>Acacia dealbata</i> (silver wattle)	6-10m	Dead	Dead	Dead	4a-Dead, dying or declining: Remove
6	<i>Acacia dealbata</i> (silver wattle)	6-10m	Dead	Dead	Dead	4a-Dead, dying or declining: Remove
7	<i>Quercus</i> sp. (oak)	0-5m	Sapling	Fair	Fair	1a-Long: >40 years
8	<i>Quercus</i> sp. (oak)	0-5m	Sapling	Good	Good	1a-Long: >40 years
9	<i>Quercus</i> sp. (oak)	0-5m	Sapling	Good	Good	1a-Long: >40 years
10	<i>Quercus</i> sp. (oak)	0-5m	Sapling	Good	Good	1a-Long: >40 years
11	<i>Quercus</i> sp. (oak)	0-5m	Sapling	Good	Good	1a-Long: >40 years
12	<i>Quercus</i> sp. (oak)	0-5m	Sapling	Good	Good	1a-Long: >40 years
13	<i>Quercus</i> sp. (oak)	0-5m	Sapling	Good	Good	1a-Long: >40 years
14	<i>Quercus</i> sp. (oak)	0-5m	Sapling	Good	Good	1a-Long: >40 years
15	<i>Quercus</i> sp. (oak)	0-5m	Sapling	Good	Good	1a-Long: >40 years
16	<i>Quercus</i> sp. (oak)	0-5m	Sapling	Good	Good	1a-Long: >40 years
17	<i>Quercus</i> sp. (oak)	0-5m	Sapling	Good	Good	1a-Long: >40 years
18	<i>Quercus</i> sp. (oak)	0-5m	Sapling	Good	Good	1a-Long: >40 years
19	<i>Acacia melanoxylon</i> (blackwood)	6-10m	Mature	Good	Good	2a-Medium:15-40 years
20	<i>Populus alba</i> (white poplar)	6-10m	Sapling	Good	Good	2a-Medium:15-40 years
21	<i>Populus alba</i> (white poplar)	6-10m	Sapling	Good	Good	2a-Medium:15-40 years
22	<i>Populus alba</i> (white poplar)	16-20m	Mature	Good	Fair	2d-Medium: 15-40, minor works required.
23	<i>Populus alba</i> (white poplar)	16-20m	Mature	Good	Fair	2d-Medium: 15-40, minor works required.

Tree ID	Species	Height (m)	Maturity Class	Health	Condition	Remaining Safe Useful Life Expectancy (SULE)
24	<i>Populus alba</i> (white poplar)	16-20m	Mature	Good	Good	2a-Medium:15-40 years
25	<i>Populus alba</i> (white poplar)	16-20m	Mature	Good	Poor	4c-Dangerous / structural defect:Remove
26	<i>Populus alba</i> (white poplar)	16-20m	Mature	Good	Poor	2a-Medium:15-40 years
27	<i>Populus alba</i> (white poplar)	16-20m	Mature	Good	Poor	4c-Dangerous / structural defect:Remove
28	<i>Populus alba</i> (white poplar)	16-20m	Mature	Fair	Poor	4c-Dangerous / structural defect:Remove
29	<i>Populus alba</i> (white poplar)	16-20m	Mature	Fair	Poor	4c-Dangerous / structural defect:Remove
30	<i>Populus alba</i> (white poplar)	16-20m	Mature	Good	Poor	4c-Dangerous / structural defect:Remove
31	<i>Populus alba</i> (white poplar)	11-15m	Mature	Fair	Fair	2d-Medium: 15-40, minor works required.
32	<i>Populus alba</i> (white poplar)	11-15m	Mature	Good	Fair	2d-Medium: 15-40, minor works required.
33	<i>Populus alba</i> (white poplar)	11-15m	Mature	Good	Fair	2d-Medium: 15-40, minor works required.
34	<i>Populus alba</i> (white poplar)	11-15m	Mature	Good	Fair	2d-Medium: 15-40, minor works required.
35	<i>Populus alba</i> (white poplar)	11-15m	Mature	Fair	Fair	2d-Medium: 15-40, minor works required.
36	<i>Populus alba</i> (white poplar)	11-15m	Mature	Fair	Poor	4c-Dangerous / structural defect:Remove
37	<i>Populus alba</i> (white poplar)	16-20m	Mature	Fair	Poor	4c-Dangerous / structural defect:Remove
38	<i>Populus alba</i> (white poplar)	16-20m	Mature	Fair	Poor	4c-Dangerous / structural defect:Remove
39	<i>Ulmus procera</i> (english elm)	16-20m	Mature	Fair	Good	2d-Medium: 15-40, minor works required.
40	<i>Ulmus procera</i> (english elm)	11-15m	Mature	Fair	Good	2a-Medium:15-40 years
41	<i>Ulmus procera</i> (english elm)	21-25m	Mature	Fair	Good	2a-Medium:15-40 years
42	<i>Ulmus procera</i> (english elm)	21-25m	Mature	Fair	Good	2a-Medium:15-40 years
43	<i>Ulmus procera</i> (english elm)	16-20m	Mature	Fair	Good	2a-Medium:15-40 years
44	<i>Ulmus procera</i> (english elm)	11-15m	Mature	Fair	Good	2a-Medium:15-40 years
45	<i>Ulmus procera</i> (english elm)	11-15m	Mature	Fair	Good	2a-Medium:15-40 years
46	<i>Ulmus procera</i> (english elm)	11-15m	Mature	Fair	Good	2a-Medium:15-40 years
47	<i>Ulmus procera</i> (english elm)	16-20m	Mature	Fair	Good	2a-Medium:15-40 years
48	<i>Acacia melanoxylon</i> (blackwood)	11-15m	Mature	Good	Good	2a-Medium:15-40 years
49	<i>Acacia melanoxylon</i> (blackwood)	11-15m	Mature	Good	Fair	2a-Medium:15-40 years
50	<i>Acacia melanoxylon</i> (blackwood)	11-15m	Mature	Good	Good	2a-Medium:15-40 years

Tree ID	Species	Height (m)	Maturity Class	Health	Condition	Remaining Safe Useful Life Expectancy (SULE)
51	<i>Eucalyptus</i> sp. (gum)	6-10m	Mature	Fair	Fair	2a-Medium:15-40 years
52	<i>Eucalyptus</i> sp. (gum)	16-20m	Mature	Poor	Fair	3a-Short:5-15 years
53	<i>Pinus radiata</i> (radiata pine)	21-25m	Mature	Good	Good	1a-Long: >40 years
54	<i>Ulmus procera</i> (english elm)	6-10m	Sapling	Good	Good	1a-Long: >40 years
55	<i>Ulmus procera</i> (english elm)	6-10m	Sapling	Good	Good	1a-Long: >40 years
56	<i>Fraxinus excelsior</i> (common ash)	6-10m	Sapling	Good	Good	1a-Long: >40 years
57	<i>Acacia melanoxylon</i> (blackwood)	11-15m	Mature	Fair	Good	2a-Medium:15-40 years
58	<i>Melaleuca armilaris</i> (honey myrtle)	0-5m	Mature	Fair	Fair	2a-Medium:15-40 years
59	<i>Eucalyptus tenuiramis</i> (silver peppermint)	11-15m	Mature	Fair	Good	2a-Medium:15-40 years
60	<i>Acacia melanoxylon</i> (blackwood)	6-10m	Mature	Good	Good	2a-Medium:15-40 years
61	<i>Schinus molle</i> (pepper tree)	6-10m	Mature	Good	Fair	2a-Medium:15-40 years
62	<i>Ulmus procera</i> (english elm)	21-25m	Mature	Good	Good	2a-Medium:15-40 years
63	<i>Acacia melanoxylon</i> (blackwood)	6-10m	Mature	Good	Fair	2a-Medium:15-40 years
64	<i>Prunus dulcis</i> (almond tree)	6-10m	Mature	Fair	Fair	2a-Medium:15-40 years
65	<i>Malus</i> sp. (crabapple)	6-10m	Mature	Fair	Fair	2a-Medium:15-40 years
66	<i>Fraxinus excelsior</i> (common ash)	6-10m	Mature	Good	Fair	2a-Medium:15-40 years
67	<i>Fraxinus excelsior</i> (common ash)	6-10m	Mature	Good	Good	2a-Medium:15-40 years
68	<i>Prunus dulcis</i> (almond tree)	6-10m	Mature	Fair	Poor	2a-Medium:15-40 years
69	<i>Schinus molle</i> (pepper tree)	11-15m	Mature	Good	Good	2a-Medium:15-40 years
70	<i>Acacia</i> sp. (wattle)	6-10m	Mature	Fair	Fair	2a-Medium:15-40 years
71	<i>Acacia</i> sp. (wattle)	6-10m	Mature	Fair	Fair	2a-Medium:15-40 years
72	<i>Photonia glabra</i> (red leaf photinia)	6-10m	Mature	Good	Good	2a-Medium:15-40 years
73	<i>Acacia melanoxylon</i> (blackwood)	6-10m	Mature	Good	Good	2a-Medium:15-40 years
74	<i>Schinus molle</i> (pepper tree)	6-10m	Mature	Good	Good	2a-Medium:15-40 years
75	<i>Acacia melanoxylon</i> (blackwood)	6-10m	Mature	Good	Poor	4e- remove for better specimen
76	<i>Acacia melanoxylon</i> (blackwood)	11-15m	Mature	Good	Good	2a-Medium:15-40 years
77	<i>Eucalyptus viminalis</i> (white gum)	11-15m	Mature	Good	Good	2a-Medium:15-40 years

Tree ID	Species	Height (m)	Maturity Class	Health	Condition	Remaining Safe Useful Life Expectancy (SULE)
78	<i>Acacia melanoxylon</i> (blackwood)	11-15m	Mature	Good	Good	2a-Medium:15-40 years
79	<i>Pinus radiata</i> (radiata pine)	16-20m	Mature	Good	Good	2a-Medium:15-40 years
80	<i>Eucalyptus viminalis</i> (white gum)	11-15m	Mature	Good	Good	1a-Long: >40 years
81	<i>Acacia melanoxylon</i> (blackwood)	11-15m	Mature	Good	Good	2a-Medium:15-40 years
82	<i>Acacia melanoxylon</i> (blackwood)	11-15m	Mature	Good	Good	2a-Medium:15-40 years
83	<i>Eucalyptus viminalis</i> (white gum)	11-15m	Mature	Good	Good	1a-Long: >40 years
84	<i>Eucalyptus viminalis</i> (white gum)	11-15m	Mature	Good	Good	1a-Long: >40 years
85	<i>Populus nigra</i> 'italica' lombardy poplar	16-20m	Mature	Good	Fair	2a-Medium:15-40 years
86	<i>Eucalyptus viminalis</i> (white gum)	11-15m	Mature	Good	Good	1a-Long: >40 years
87	<i>Acacia melanoxylon</i> (blackwood)	6-10m	Mature	Good	Good	2a-Medium:15-40 years
88	<i>Eucalyptus viminalis</i> (white gum)	6-10m	Mature	Poor	Good	3a-Short:5-15 years
89	<i>Acacia melanoxylon</i> (blackwood)	6-10m	Mature	Good	Good	2a-Medium:15-40 years
90	<i>Acacia melanoxylon</i> (blackwood)	6-10m	Mature	Fair	Good	2a-Medium:15-40 years
91	<i>Eucalyptus viminalis</i> (white gum)	6-10m	Mature	Fair	Good	2a-Medium:15-40 years
92	<i>Populus alba</i> (white poplar)	6-10m	Mature	Good	Good	2a-Medium:15-40 years
93	<i>Acacia melanoxylon</i> (blackwood)	6-10m	Mature	Poor	Poor	3a-Short:5-15 years
94	<i>Populus alba</i> (white poplar)	11-15m	Mature	Fair	Fair	2a-Medium:15-40 years
95	<i>Populus alba</i> (white poplar)	16-20m	Mature	Poor	Poor	3b-Short:5-15 but removed for safety/nuisance
96	<i>Populus alba</i> (white poplar)	6-10m	Mature	Poor	Poor	4c-Dangerous / structural defect:Remove
97	<i>Acer negundo</i> (box elder)	0-5m	Mature	Good	Good	1a-Long: >40 years
98	<i>Acer negundo</i> (box elder)	0-5m	Mature	Good	Good	1a-Long: >40 years
99	<i>Acer negundo</i> (box elder)	0-5m	Mature	Good	Good	1a-Long: >40 years
100	<i>Eucalyptus viminalis</i> (white gum)	6-10m	Mature	Fair	Good	2a-Medium:15-40 years
101	<i>Acacia melanoxylon</i> (blackwood)	0-5m	Mature	Good	Good	2a-Medium:15-40 years
102	<i>Eucalyptus viminalis</i> (white gum)	6-10m	Mature	Fair	Good	2a-Medium:15-40 years
103	<i>Eucalyptus</i> sp. (gum)	6-10m	Mature	Good	Good	2a-Medium:15-40 years
104	<i>Acacia melanoxylon</i> (blackwood)	0-5m	Mature	Poor	Poor	3b-Short:5-15 but removed for safety/nuisance

Tree ID	Species	Height (m)	Maturity Class	Health	Condition	Remaining Safe Useful Life Expectancy (SULE)
105	<i>Acacia melanoxylon</i> (blackwood)	0-5m	Mature	Fair	Poor	3b-Short:5-15 but removed for safety/nuisance
106	<i>Salix babylonica</i> (weeping willow)	11-15m	Mature	Fair	Fair	2a-Medium:15-40 years
107	<i>Acacia dealbata</i> (silver wattle)	0-5m	Sapling	Good	Good	2a-Medium:15-40 years
108	<i>Acacia melanoxylon</i> (blackwood)	0-5m	Mature	Good	Good	2a-Medium:15-40 years
109	<i>Acacia melanoxylon</i> (blackwood)	6-10m	Mature	Good	Good	2a-Medium:15-40 years
110	<i>Acacia melanoxylon</i> (blackwood)	6-10m	Mature	Fair	Fair	2a-Medium:15-40 years
111	<i>Acacia melanoxylon</i> (blackwood)	0-5m	Mature	Fair	Fair	2a-Medium:15-40 years
112	<i>Acacia melanoxylon</i> (blackwood)	6-10m	Mature	Fair	Fair	2a-Medium:15-40 years
113	<i>Acacia melanoxylon</i> (blackwood)	6-10m	Mature	Good	Good	2a-Medium:15-40 years
114	<i>Acacia melanoxylon</i> (blackwood)	6-10m	Mature	Good	Good	2a-Medium:15-40 years
115	<i>Betula pendula</i> (birch)	6-10m	Mature	Good	Good	2a-Medium:15-40 years

APPENDIX 4 - TREE HAZARD ASSESSMENT & RECOMMENDATIONS SCHEDULE

Id. No.	Species	Hazard Rating				Defect	Works Priority	Works Required	Comments
		Size of defective part	Failure Potential	Target rating	Hazard Rating / 12				
1	<i>Prunus cerasifera</i> 'nigra' (purple cherry plum)	1	1	1	3	No visual defects	n/a	No works required	
2	<i>Acacia melanoxylon</i> (blackwood)	2	2	1	5	Stem wounds	n/a	No works required	
3	<i>Acacia dealbata</i> (silver wattle)	1	1	1	3	No visual defects	n/a	No works required	
4	<i>Acacia dealbata</i> (silver wattle)	4	1	1	6	No visual defects	M	Remove tree.	
5	<i>Acacia dealbata</i> (silver wattle)	4	1	1	6	No visual defects	M	Remove tree.	
6	<i>Acacia dealbata</i> (silver wattle)	4	1	1	6	No visual defects	M	Remove tree.	
7	<i>Quercus</i> sp. (oak)	1	1	1	3	No visual defects	L	Formative prune	
8	<i>Quercus</i> sp. (oak)	1	1	1	3	No visual defects	L	Formative prune	
9	<i>Quercus</i> sp. (oak)	1	1	1	3	No visual defects	L	Formative prune	
10	<i>Quercus</i> sp. (oak)	1	1	1	3	No visual defects	L	Formative prune	
11	<i>Quercus</i> sp. (oak)	1	1	1	3	No visual defects	L	Formative prune	
12	<i>Quercus</i> sp. (oak)	1	1	1	3	No visual defects	L	Formative prune	
13	<i>Quercus</i> sp. (oak)	1	1	1	3	No visual defects	L	Formative prune	
14	<i>Quercus</i> sp. (oak)	1	1	1	3	No visual defects	L	Formative prune	
15	<i>Quercus</i> sp. (oak)	1	1	1	3	No visual defects	L	Formative prune	
16	<i>Quercus</i> sp. (oak)	1	1	1	3	No visual defects	L	Formative prune	
17	<i>Quercus</i> sp. (oak)	1	1	1	3	No visual defects	L	Formative prune	
18	<i>Quercus</i> sp. (oak)	1	1	1	3	No visual defects	L	Formative prune	
19	<i>Acacia melanoxylon</i> (blackwood)	1	1	1	3	No visual defects	n/a	No works required	
20	<i>Populus alba</i> (white poplar)	1	1	2	4	No visual defects	n/a	No works required	Copse of three
21	<i>Populus alba</i> (white poplar)	1	1	2	4	No visual defects	n/a	No works required	Copse of three
22	<i>Populus alba</i> (white poplar)	3	2	2	7	Included codominant stems	n/a	No works required	
23	<i>Populus alba</i> (white poplar)	2	2	3	7	Dead wood <50mm	M	Remove large diameter dead wood	Reduce end weight of branches over path
24	<i>Populus alba</i> (white poplar)	1	1	3	5	Dead wood <50mm	L	Remove minor dead wood	
25	<i>Populus alba</i> (white poplar)	4	3	3	10	Basal decay	H	Remove tree.	
26	<i>Populus alba</i> (white poplar)	2	2	3	7	Basal decay	n/a	No works required	Monitor decay
27	<i>Populus alba</i> (white poplar)	4	3	3	10	Basal decay	H	Remove tree.	
28	<i>Populus alba</i> (white poplar)	4	3	3	10	Basal decay	H	Remove tree.	Leaning tree
29	<i>Populus alba</i> (white poplar)	3	2	3	8	Basal decay	M	Remove tree.	
30	<i>Populus alba</i> (white poplar)	3	3	3	9	Basal decay	H	Remove tree.	Leaning over path

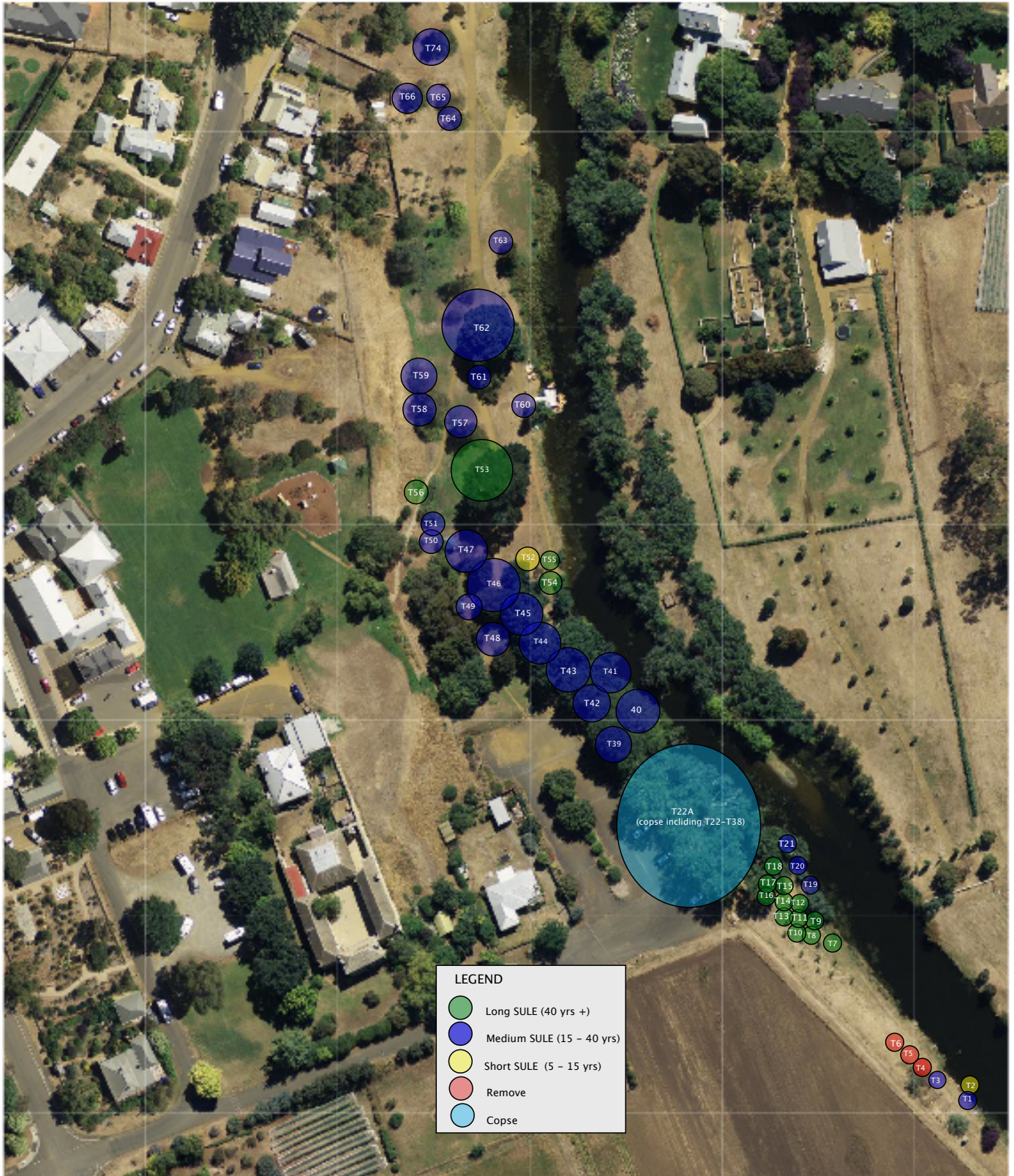
31	<i>Populus alba</i> (white poplar)	3	1	3	7	Pronounced lean	M	Remove large diameter dead wood	Leaning over path
32	<i>Populus alba</i> (white poplar)	2	2	3	7	Multiple attached stems	n/a	No works required	
33	<i>Populus alba</i> (white poplar)	2	2	3	7	Multiple attached stems	n/a	No works required	
34	<i>Populus alba</i> (white poplar)	2	2	3	7	Multiple attached stems	n/a	No works required	
35	<i>Populus alba</i> (white poplar)	2	1	3	6	Dead wood <50mm	M	Remove minor dead wood	Copse of trees
36	<i>Populus alba</i> (white poplar)	3	2	3	8	Basal decay	M	Remove tree.	Leaning over path
37	<i>Populus alba</i> (white poplar)	3	3	3	9	Fruiting body (large)	H	Remove tree.	
38	<i>Populus alba</i> (white poplar)	3	2	3	8	Basal decay	M	Remove tree.	
39	<i>Ulmus procera</i> (english elm)	3	1	3	7	Dead wood >50mm	M	Remove large diameter dead wood	
40	<i>Ulmus procera</i> (english elm)	1	1	3	5	No visual defects	n/a	No works required	
41	<i>Ulmus procera</i> (english elm)	2	1	3	6	No visual defects	n/a	No works required	
42	<i>Ulmus procera</i> (english elm)	2	1	3	6	No visual defects	n/a	No works required	
43	<i>Ulmus procera</i> (english elm)	2	1	3	6	No visual defects	n/a	No works required	
44	<i>Ulmus procera</i> (english elm)	2	1	3	6	No visual defects	n/a	No works required	
45	<i>Ulmus procera</i> (english elm)	2	1	3	6	No visual defects	n/a	No works required	
46	<i>Ulmus procera</i> (english elm)	2	1	3	6	No visual defects	n/a	No works required	
47	<i>Ulmus procera</i> (english elm)	2	1	3	6	No visual defects	n/a	No works required	
48	<i>Acacia melanoxylon</i> (blackwood)	2	1	3	6	No visual defects	n/a	No works required	
49	<i>Acacia melanoxylon</i> (blackwood)	2	1	3	6	Included codominant stems	n/a	No works required	
50	<i>Acacia melanoxylon</i> (blackwood)	2	1	3	6	No visual defects	n/a	No works required	
51	<i>Eucalyptus</i> sp. (gum)	2	1	3	6	No visual defects	n/a	No works required	
52	<i>Eucalyptus</i> sp. (gum)	2	1	3	6	No visual defects	n/a	No works required	
53	<i>Pinus radiata</i> (radiata pine)	3	1	3	7	Dead wood >50mm	M	Remove large diameter dead wood	
54	<i>Ulmus procera</i> (english elm)	1	1	3	5	No visual defects	n/a	No works required	
55	<i>Ulmus procera</i> (english elm)	1	1	3	5	No visual defects	n/a	No works required	
56	<i>Fraxinus excelsior</i> (common ash)	1	1	3	5	No visual defects	n/a	No works required	
57	<i>Acacia melanoxylon</i> (blackwood)	1	1	3	5	No visual defects	n/a	No works required	
58	<i>Melaleuca armilaris</i> (honey myrtle)	1	1	3	5	No visual defects	n/a	No works required	
59	<i>Eucalyptus tenuiramis</i> (silver peppermint)	2	1	3	6	No visual defects	n/a	No works required	
60	<i>Acacia melanoxylon</i> (blackwood)	2	1	3	6	No visual defects	n/a	No works required	
61	<i>Schinus molle</i> (pepper tree)	2	1	3	6	Dead wood >50mm	M	Remove large diameter dead wood	
62	<i>Ulmus procera</i> (english elm)	2	1	3	6	No visual defects	n/a	No works required	
63	<i>Acacia melanoxylon</i> (blackwood)	1	1	3	5	Stem wounds	n/a	No works required	
64	<i>Prunus dulcis</i> (almond tree)	1	1	3	5	No visual defects	n/a	No works required	
65	<i>Malus</i> sp. (crabapple)	2	1	3	6	No visual defects	n/a	No works required	
66	<i>Fraxinus excelsior</i> (common ash)	2	1	3	6	No visual defects	n/a	No works required	
67	<i>Fraxinus excelsior</i> (common ash)	1	1	3	5	No visual defects	n/a	No works required	

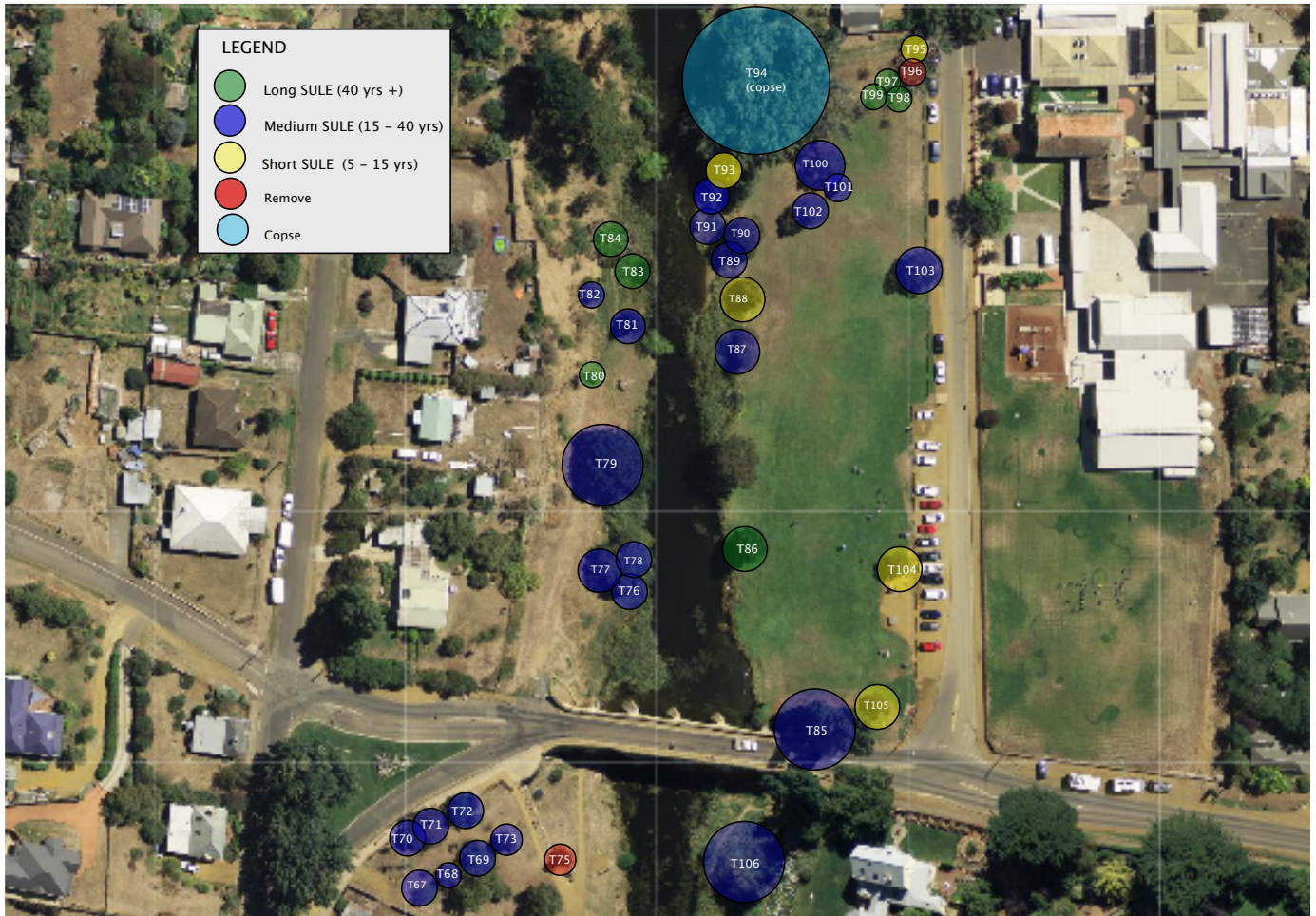
68	<i>Prunus dulcis</i> (almond tree)	3	1	3	7	Dead wood >50mm	M	Remove large diameter dead wood	
69	<i>Schinus molle</i> (pepper tree)	3	1	3	7	Dead wood <50mm	M	Remove minor dead wood	
70	<i>Acacia sp.</i> (wattle)	2	1	4	7	No visual defects	n/a	No works required	
71	<i>Acacia sp.</i> (wattle)	2	1	4	7	No visual defects	n/a	No works required	
72	<i>Photonia glabra</i> (red leaf photinia)	1	1	4	6	No visual defects	n/a	No works required	
73	<i>Acacia melanoxylon</i> (blackwood)	1	1	3	5	No visual defects	n/a	No works required	
74	<i>Schinus molle</i> (pepper tree)	1	1	3	5	No visual defects	n/a	No works required	
75	<i>Acacia melanoxylon</i> (blackwood)	1	1	3	5	Stem wounds	L	Remove tree.	
76	<i>Acacia melanoxylon</i> (blackwood)	1	1	1	3	No visual defects	n/a	No works required	
77	<i>Eucalyptus viminalis</i> (white gum)	2	1	1	4	No visual defects	n/a	No works required	
78	<i>Acacia melanoxylon</i> (blackwood)	1	1	1	3	No visual defects	n/a	No works required	
79	<i>Pinus radiata</i> (radiata pine)	2	1	1	4	Dead wood >50mm	L	Remove large diameter dead wood	
80	<i>Eucalyptus viminalis</i> (white gum)	1	1	1	3	No visual defects	n/a	No works required	
81	<i>Acacia melanoxylon</i> (blackwood)	1	1	1	3	No visual defects	n/a	No works required	
82	<i>Acacia melanoxylon</i> (blackwood)	1	1	1	3	No visual defects	n/a	No works required	
83	<i>Eucalyptus viminalis</i> (white gum)	1	1	1	3	No visual defects	n/a	No works required	
84	<i>Eucalyptus viminalis</i> (white gum)	1	1	1	3	No visual defects	n/a	No works required	
85	<i>Populus nigra</i> 'italica' lombardy poplar	2	1	3	6	No visual defects	n/a	No works required	Copse
86	<i>Eucalyptus viminalis</i> (white gum)	1	1	3	5	No visual defects	n/a	No works required	
87	<i>Acacia melanoxylon</i> (blackwood)	1	1	3	5	No visual defects	n/a	No works required	
88	<i>Eucalyptus viminalis</i> (white gum)	2	1	3	6	Foliar pest	n/a	No works required	
89	<i>Acacia melanoxylon</i> (blackwood)	1	1	3	5	No visual defects	n/a	No works required	
90	<i>Acacia melanoxylon</i> (blackwood)	1	1	3	5	No visual defects	n/a	No works required	
91	<i>Eucalyptus viminalis</i> (white gum)	2	1	3	6	No visual defects	n/a	No works required	
92	<i>Populus alba</i> (white poplar)	1	1	3	5	No visual defects	n/a	No works required	
93	<i>Acacia melanoxylon</i> (blackwood)	3	2	1	6	Stem decay	n/a	No works required	
94	<i>Populus alba</i> (white poplar)	2	2	2	6	No visual defects	n/a	No works required	Copse
95	<i>Populus alba</i> (white poplar)	4	1	3	8	Crown dieback	M	Remove large diameter dead wood	
96	<i>Populus alba</i> (white poplar)	3	2	3	8	Stem wounds	M	Remove tree.	
97	<i>Acer negundo</i> (box elder)	1	1	3	5	No visual defects	n/a	No works required	
98	<i>Acer negundo</i> (box elder)	1	1	3	5	No visual defects	n/a	No works required	
99	<i>Acer negundo</i> (box elder)	1	1	3	5	No visual defects	n/a	No works required	
100	<i>Eucalyptus viminalis</i> (white gum)	1	1	3	5	No visual defects	n/a	No works required	
101	<i>Acacia melanoxylon</i> (blackwood)	1	1	3	5	No visual defects	n/a	No works required	
102	<i>Eucalyptus viminalis</i> (white gum)	1	1	3	5	No visual defects	n/a	No works required	
103	<i>Eucalyptus sp.</i> (gum)	1	1	3	5	No visual defects	n/a	No works required	
104	<i>Acacia melanoxylon</i> (blackwood)	3	2	3	8	Stem wounds	n/a	No works required	
105	<i>Acacia melanoxylon</i> (blackwood)	3	2	3	8	Stem wounds	n/a	No works required	

106	<i>Salix babylonica</i> (weeping willow)	3	2	2	7	Stem wounds on upper branches	n/a	No works required	
107	<i>Acacia dealbata</i> (silver wattle)	1	2	1	4	No visual defects	n/a	No works required	Copse
108	<i>Acacia melanoxylon</i> (blackwood)	1	1	1	3	No visual defects	n/a	No works required	
109	<i>Acacia melanoxylon</i> (blackwood)	1	1	1	3	No visual defects	n/a	No works required	
110	<i>Acacia melanoxylon</i> (blackwood)	1	1	1	3	Stem wounds	n/a	No works required	
111	<i>Acacia melanoxylon</i> (blackwood)	1	1	1	3	Stem wounds	n/a	No works required	
112	<i>Acacia melanoxylon</i> (blackwood)	1	1	1	3	Stem wounds	n/a	No works required	
113	<i>Acacia melanoxylon</i> (blackwood)	1	1	1	3	No visual defects	n/a	No works required	
114	<i>Acacia melanoxylon</i> (blackwood)	1	1	1	3	No visual defects	n/a	No works required	
115	<i>Betula pendula</i> (birch)	1	1	1	3	No visual defects	n/a	No works required	

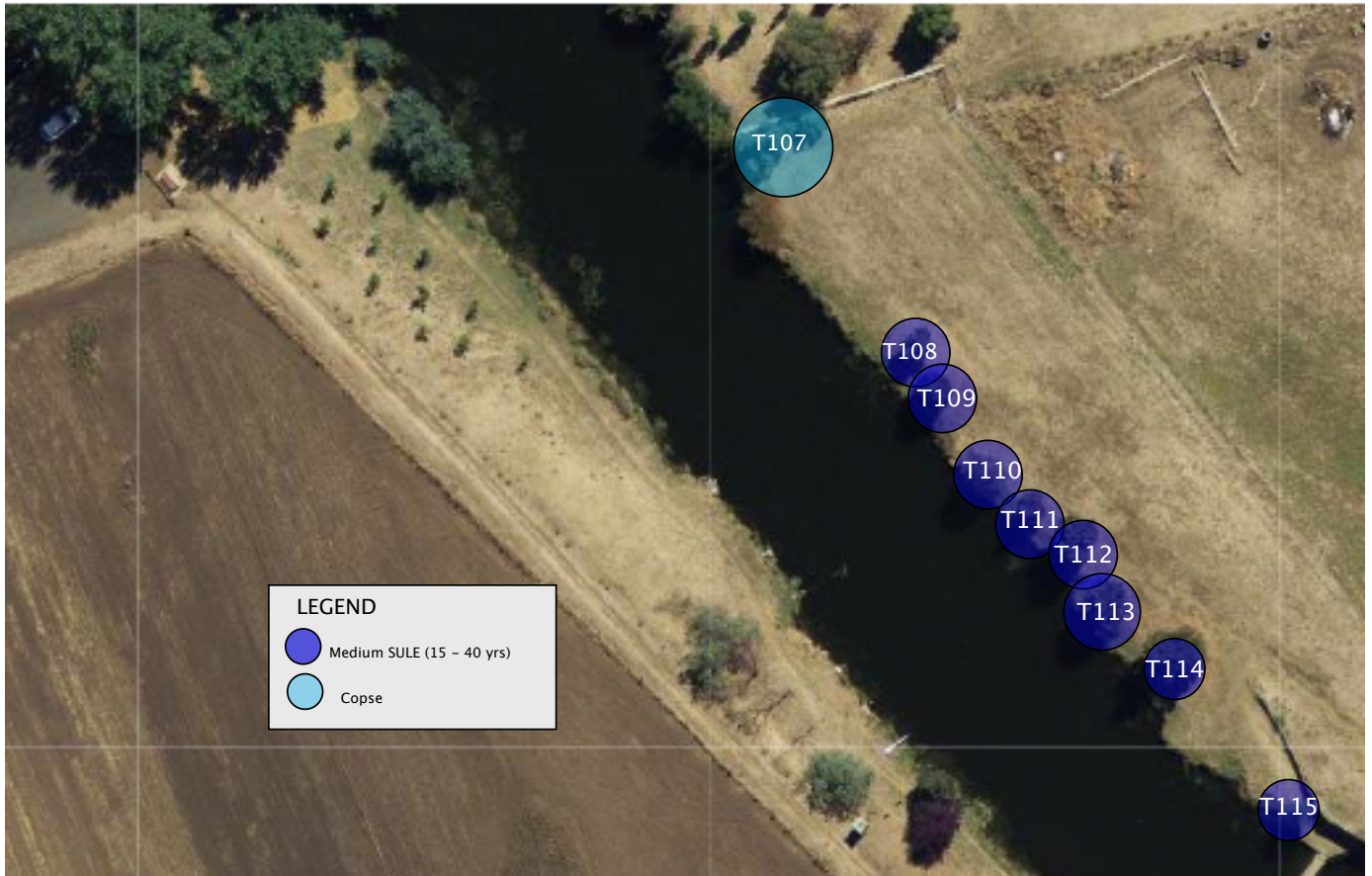
APPENDIX 5: TREE LOCATION PLANS SHOWING SAFE USEFUL LIFE EXPECTANCY (SULE)

PLAN A: Trees T1-T74



Plan B: Trees T67- T106

Plan C: T107-115



APPENDIX 6: PHOTOGRAPHS OF TREES TO BE REMOVED WITHIN COPSE GROUP FEATURES



Photo 1: Trees T22-T28 within group T22A. Trees numbered in red are to be removed



Photo 2: Trees T29 & T30 within group T22A. Both trees are to be removed



Photo 3: Tree T36 within group T22A. Tree to be removed



Photo 4: Tree T37 within group T22A. Tree to be removed



Photo 5: Tree T38 within group T22A. Tree to be removed

APPENDIX 7: TREE GPS LOCATION DATA

ID No.	Northing	Easting
T1	5268297	536147
T2	5268299	536148
T3	5268327	536102
T4	5268305	536135
T5	5268308	536132
T6	5268311	536130
T7	5268341	536107
T8	5268343	536101
T9	5268347	536102
T10	5268345	536097
T11	5268348	536097
T12	5268352	536098
T13	5268349	536093
T14	5268353	536093
T15	5268358	536094
T16	5268355	536088
T17	5268359	536088
T18	5268364	536090
T19	5268361	536099
T20	5268365	536096
T21	5268372	536093
T22	5268370	536083
T23	5268380	536058
T24	5268957	535662
T25	5268378	536061
T26	5268560	535878
T27	5268376	536060
T28	5268382	536061
T29	5268382	536063
T30	5268382	536065
T31	5268524	535878
T32	5268524	535878
T33	5268524	535878
T34	5268524	535878
T35	5268395	536054
T36	5268391	536054
T37	5268402	536049
T38	5268402	536048
T39	5268408	536042
T40	5268452	536033
T41	5268463	536086
T42	5268433	536018
T43	5268441	536014
T44	5268441	536012
T45	5268448	536012
T46	5268455	536011
T47	5268458	536010
T48	5268433	536006
T49	5268450	536002
T50	5268459	535999

T51	5268466	535994
T52	5268559	536016
T53	5268483	536005
T54	5268451	536024
T55	5268456	536023
T56	5268475	535983
T57	5268498	535997
T58	5268500	535985
T59	5268507	535985
T60	5268504	536014
T61	5268510	536002
T62	5268527	536003
T63	5268550	536008
T64	5268587	535994
T65	5268593	535991
T66	5268594	535981
T67	5268611	535964
T68	5268615	535968
T69	5268617	535975
T70	5268624	535960
T71	5268627	535963
T72	5268630	535971
T73	5268623	535981
T74	5268610	535990
T75	5268620	535993
T76	5268681	536007
T77	5268685	536006
T78	5268690	536008
T79	5268707	536006
T80	5268726	536000
T81	5268739	536010
T82	5268746	536001
T83	5268750	536013
T84	5268756	536007
T85	5268649	536053
T86	5268689	536035
T87	5268718	536027
T88	5268731	536035
T89	5268735	536035
T90	5268745	536035
T91	5268758	536035
T92	5268769	536035
T93	5268772	536032
T94	5268790	536038
T95	5268801	536077
T96	5268796	536070
T97	5268794	536062
T98	5268783	536067
T99	5268786	536062
T100	5268772	536052
T101	5268769	536056
T102	5268763	536049
T103	5268749	536073
T104	5268684	536068

T105	5268652	536064
T106	5268618	536035
T107	5268363	536131
T108	5268343	536146
T109	5268338	536148
T110	5268330	536152
T111	5268327	536157
T112	5268324	536161
T113	5268318	536164
T114	5268312	536171
T115	5268297	536183

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