

# **EXPERT EVIDENCE STATEMENT**

## **‘Planning Panels Victoria’**

**Amendment C107 to the Banyule Planning Scheme**

**YARRA FLATS Park: 340-680 The Boulevard. Ivanhoe East**

### **OPEN SPACE MANAGEMENT**

**Statement by Andrew J Patrick – Principal Consultant**

(Adv Cert Hort. Dipl Hort/Arb. WTA Cert 4)

**25/06/2021**

## **1. INTRODUCTION**

I have been instructed to prepare this expert witness statement by PE Law on behalf of the proponent of Amendment C107 to the Banyule Planning Scheme.

The scope of this statement includes the following:

- a) Review a previous report by Mr Russell Kingdom of Advanced Treescape Consulting (NSW) dated 31/8/2018.
- b) Review a report by Mr Otto Leenstra of Leenstra & Associates Tree Management & Arboricultural Consultancy (Vic) for Banyule City Council.
- c) Review of documents by 'Ecology & Heritage Partners' for Council and 'Practical Ecology' for the proponent are also pertinent.
- d) Review of objections relating to 'Annulus Billabong Group - 2020' and 'Risk Alert' from David & Frances Gentle are also considered.
- e) A review of the draft Incorporated Document dated September - 2020.
- f) Review of the arboricultural report prepared by Advanced Treescape Consulting (per Russell Kingdom) – dated 21/6/2021.

I have physically numbered trees within the site area and provided a detailed 'Tree Photos Book' for reference. The numbered trees, the plan and the tree photos book are aligned correctly. \*Refer Tree Photos Book dated 21/6/2021 as a separate document attachment.

As part of my review I have also prepared a Tree Condition & Review Report dated 21<sup>st</sup> June 2021 as a separate attachment and herewith provided images of some similar adventure treetops courses that I have been involved with.

I first visited the site in December 2008. An incomplete report and relevant photos from that period (2008) are available showing that the site has not changed significantly in x13 Years, trees have grown in that period of time, there is no obvious degradation of trees, they have actually grown; some minor storm-damage is apparent to only a few trees.

My most recent site visits were on the following dates: Monday 17<sup>th</sup> May and Monday 1<sup>st</sup> & Tuesday 2<sup>nd</sup> June 2021. As set out below, I carried out additional tree surveys and tree numbering during this period.

## 2. DOCUMENTS REVIEWED

When preparing this evidence statement, I have reviewed the following documents:

- a) Banyule City Council Planning Scheme Draft Incorporated Document: C107 Index of Documents.
- b) Arboricultural Tree Health & Hazard Assessment: Update by ATC: Advanced Treescape Consulting (NSW) Mr Russell Kingdom - 31/8/2018
- c) PEER Review of Arboricultural Tree Health & Hazard Assessment of the Proposed Tree Top Climbing & Adventure Facility by Eco-line. Undertaken by Mr Otto Leenstra of Leenstra & Associates Tree Management & Arboricultural Consultancy (Vic) representing Banyule City Council – dated 2/6/2021
- d) Ecology & Heritage Partners: Peer Review of Ecological Reports for the proposed Banyule Planning Scheme Amendment C107 for a Treetops Adventure Ropes Course Development. Authored by Shannon LeBel – dated 8/6/2021
- e) Practical Ecology: Flora & Fauna Assessment. Yarra Flats Treetops Adventure Park December 2018. Authored by Liza James.
- f) Submissions by Mssrs McGregor + Coxall: Global Urban Forest no-date also reflecting additional relevant submissions by two objections by 'Annulus Billabong Group - 2020' and 'Risk Alert' from David & Frances Gentle for 'Friends of Yarra Flats Park'.
- g) Objection of Riverland Conservation Society of Heidelberg Inc. C107. Friends of Yarra Flats: Submission of Objection by Dr Andrew Lees - 10/12/2020.
- h) Treetops Adventures: Operational Management Statement – June 2021.
- i) Treetops Adventures Statement of Changes. Ex Mr Nic Dansin - 17<sup>th</sup> June 2021.
- j) CSIRO: Water for a Healthy Country. Scientific Notes. Taxon Attributes. River Red Gum: *Eucalyptus camaldulensis*. Updated July 2004 as evidence of Deep-rooting by OSM.
- k) Government of South Australia: Technical Notes 2009/2025. Dep't Water Land and Biodiversity Conservation. Method Manual for the Visual Assessment of Lower Murray River Flood-plain Trees: River Red Gums by NJ Souter. RA Watts. MG White. AK George & KJ McNicol - Published February 2009.
- l) River Red Gum Ecosystems: Riverina Environmental Education Centre – Jan` 2014.
- m) *Eucalyptus camamaldensis*: RRG Biogeochemistry an innovative tool for mineral exploration. Karen Hulme. University of Adelaide - April 2008.
- n) Cavity Sizes & Types in Australian Eucalypts from Wet & Dry Forest Types: By Lindenmayer. Cunningham. Pope. Gibbons & Donnelly. Forest & Ecology: Elsevier Publishing – 2000.

### 3. QUALIFICATIONS AND WORK HISTORY

My qualifications are as follows:

- Diploma in Horticulture (Arboriculture) ACAS 2003.
- Advanced Certificate in Horticulture, Melbourne University (V.C.A.H. Burnley) 1994
- Certificate 4 in Workplace Training & Assessment. (Trainsafe Australia) 2005
- 15 years Victorian Local Government - Parks & Gardens (Skilled Technical & Management).
- 21 years Principal Consultant and owner of OPEN SPACE MANAGEMENT Pty Ltd.
- 10 Years Specialist High Access Arboricultural Technician – Certified Climber and Faller.

My work history is as follows: August 2000 – Present: Independent Private Consultant to Industry. Government and NGO`s – nationally. Extensive tertiary teaching, syllabus writing & practical application / demonstration - TAFE & Corporate. I am a registered Vendor with DHA: Defence Housing Australia. GMW: Goulburn Murray Water. DEDJTR/DPI. Scouts Victoria. Multiple Schools and Caravan Parks in Victoria and Southern NSW. VCAT. Magistrates Court and the Supreme Courts in Victoria and NSW.

- 1995 – 2000: Superintendent - Parks & Gardens Dept, Alpine Shire (Victoria)
- 1994 -1995: Senior Arborist, City of Whitehorse (Victoria - Pre CCT Vic)
- 1987 – 1994: Foreman of Tree Maintenance City of Box Hill (Victoria)
- 1977 –1987: Specialist High Access Arboricultural Technician (Nationally)

Based on the above qualifications and work history, I believe I am suitably qualified to be an expert witness in the field of Arboriculture and will provide an unbiased opinion on these trees.

#### **Experience with similar facilities:**

I have reviewed many Tree-related Planning Applications across Melbourne and have given evidence before at VCAT. My Experience in this matter regarding Ecoline/Trees Adventure started with the Inaugural Tree Ropes Course at Glen Harrow in Belgrave in 2008. This was ratified against much objection but was established as the premier ropes access course in Australia at the time. Refer VCAT (Ref No. P3221/2008) with Architect Lynne Pepper from Millar & Merrigan and consequently endorsed via SOYR: Shire of Yarra Ranges Permit Application No. YR-2008/160 approved by Mr Kim Marriott Manager of Planning Services SOYR dated 2/7/2009 Ref No.13341.

- Subsequently I was asked by another company 'Adventure Forest' to review a similar project at the 'Enchanted Maze' at Purves Rd Arthurs Seat, which was also endorsed, as I understand it; relative to my input and peer review of Mr Leenstra`s initial appraisal of the Purves Rd site circa 2010.
- From there I was the project arborist for feasibility on another x7 seven sites for Trees Adventure, namely: \*Yarra Flats 2009. \*Lake Mountain 2011. \*Camp Manyung 2012. \*Howard Springs (NT) 2014. \*Hollybank (Tas) 2015. \*Mount Field (Tas) 2016. \*And a Peer Review for Compliance at Yarramundi (NSW) 2015-2018.
- I have also advised Scouts Victoria on the suitability of Pole-based Zip-lines and Micro-adventure facilities. I do all the Hazard Tree Assessments for Scouts Victoria at Gilwell and Clifford Parks (Vic).
- Regarding the currently working sites of Trees Adventure, namely; \*Glen Harrow. \*Camp Manyung. \*Hollybank and \*Yarramundi; I was responsible for servicing their annual safety audits and environmental compliances until 2018.

### **3. QUALIFICATIONS AND WORK HISTORY *continued....***

#### **Some relevant sample jobs: *continued...***

- I have experience writing Australian Quality Training Framework (AQTF) Subjects and TAFE Syllabus including Hazard Tree Assessment.
- I undertake hazard risk assessments for \*Goulburn Murray Water. \*CFA Victoria Fire Stations. \*Alpine Shire. \*Indigo Shire and \*Towong Shire. \*Mount Kosciuszko National Park Camp-sites. \*Scores of Victorian State & Secondary Schools. \*Large Private Educational Facilities in Vic & NSW including their Out-door Annexes. \*Valley Homestead Recreation Facility (Ovens Vic). \*YMCA Outdoor Facilities.
- I have co-written the SP Ausnet Hazard Tree Management Program - Circa 2010.
- Training for Victorian Police Search & Rescue High Access Climbing & Tree Rescue Skills & drafting of Safe Operating Procedures (SOPS).
- Hazard works including Medical, Tutorial & Recreational institutions including Dep't of Corrections.
- Specialist advice re` Tree Management Policy for a number of other Victorian Councils.
- My experience in VCAT is extensive and I have represented clients in the higher-courts.

### **4. TREE ASSESSMENT:**

- I originally inspected the site at Yarra Flats on Wednesday 3<sup>rd</sup> & Thurs 4<sup>th</sup> December 2008.
  - I recently revisited the site on May 17<sup>th</sup> and June 1<sup>st</sup> + 2<sup>nd</sup> – 2021 to refamiliarize myself.
  - During the more recent visits I re-evaluated the site and reviewed Mr Russell Kingdoms Report. I compared my findings with his report dated 31/8/2018 and subsequently reviewed the peer review arboricultural report by Mr Otto Leenstra acting on behalf of BANYULE Council. I was asked to assess the additional trees for possible use, to assist in assessment of options for adaption in future, though these additional are not part of the proposed course. These trees are numbered and assessed for future reference, if required.
- a) My conclusions follow: Relative to their respective findings, in most cases I am in accord with the views of Russell Kingdom and Otto Leenstra; but as a general statement believe that of their recommendations require further consideration. Some of the concepts are hypothetical or apply more to a building-construction based theory concept.
- b) None-the-less, their experience & interpretation of this site is critical in the outcome here.
- i. I note that of the x58 Trees included in the course (T1-T58) there appears to be only two trees that are unsuited for the ropes-course and they are T28 and T58; they are not suitable because they are too small in height and trunk-dimension.
  - ii. T31 has two trunks, one of which is leaning, and the leaning trunk should be removed.
  - iii. Regarding Aboriginal Scar-trees. I did not observe any Scar-trees within the red-dashed Treetop Activity Area of my extended survey which sits within the area of the eastern portion of Crown Allotment 2E as described in the Banyule Planning Scheme Incorporated Document 2020.

## 5. Peer Review of Mr Kingdoms Report:

I generally agree with Mr Kingdoms Recommendations. His Conclusions are complimentary, but there will be no impact from the site-office due to minor recent changes by Treetops. The only issue is the Flow-chart which is resolved by process for daily check-lists already in place. I only noticed minor wind-damage to T8. T47. T49 & T72 (Severe) x4 Trees in total. I agree with his interpretation of the soil-type and characteristics. The critical use of SULE is to be applauded as it is utterly functional amongst experts and retains the 'Safe' component of ULE which has mysteriously disappeared from general-use but is intrinsically related to hazard potential & viability. I note that T28 is actually a small RRG not an Acacia, as is T37. There is various anomalies in tree numbering accuracy which has now been rectified by OSM. Re` Existing Tree Problems etc Points 4.2-4.3 P15 + P16, I fully concur. P17 is relevant although being familiar with the dynamics of these facilities I know that the Course-design can and must change and that the platform-fixing issues are no longer a problem for Treetops P/L; they never were in my experience, and I am in accord with the elimination of requisite TPZs except perhaps for stand-alone trees & groups that might appear in the additional tree numbering T59-T89 sought by Treetops and provided by OSM in the Tables.

### c) In dot-point form the following notes were taken relative to Mr Kingdoms Report:

- i. T28 & T37 both appear to be River Red Gums and not Acacias.
- ii. All trees in my opinion are not as old as Mr Kingdom suggests in his report.
- iii. The Hazard Rating used by ATC: Advanced Treescape Consulting are valid but overly complicated. The SULE Rating is Pertinent and the Critical Use of the VTA: Visual Tree Assessment process which is a three-step process is universally accepted and can be ultimately tested both mechanically and electronically as the need arises.
- iv. Heights and trunk-diameters vary considerably due to the passage of time and Mr Kingdoms initial visits back in 2010 compared to 2021. Also, the forest density and the extreme topography of the site also contributes to variability, generally; they are comparable and these variations do not change matters as each tree has grown.
- v. Relative to my original tree-survey in 2008 (tree numbers not aligned) its true to say that over the x13 Year period all River Red Gum trees have grown and only x4 RRG Trees out of a general quotient of 100-150 Trees in my observations have actually failed (T72) or lost limbs. This is remarkable for the passage of time (x12/13Yrs) and an indication of the vigour of the particular riparian forest biome in discussion here. Considering the high-use of mountain-bikers, joggers and walkers even through the driest Summer on record 2019/2020, the deep-rooted River Red Gums here have continued to thrive.
- vi. Mr Kingdom has used tree-numbering suffixes such as T58A and should have continued with this protocol for various other twin-trees such as T31. T23 and T47. I have rectified and continued this and edify it in my Tree Data Tables and Tree Photos Book for clarity.
- vii. Whilst our opinions vary slightly on minor subject matters, I consider that is allowable.
- viii. I am encouraged by the proper use of SULE used in Mr Kingdoms report. For those that understand it critically the sub-divisions which he cites are correct and object and allow for external discussion amongst relative professionals. For the record I have been supported by VCAT Decisions on x3 occasions recently by Senior Members who have confirmed the validity of the SULE as opposed to the erroneous use of the ULE Acronym with the Australian Standard for Protection of Trees on Development Sites – AS4970.
- ix. I note that there is a lot of peripheral information to the on-going viability of Trees T1-T58 nominated trees. I accept this as fully relevant but, ultimately; we are in accord.

**6. My Appraisal of Mr Leenstra`s Report in narrative:** Notated & Critiqued. Pages 1- P37:

I refer to Mr Leenstras Report: \*Background. \*Executive Summary and \*Recommendations:

\*Background: I agree with all of Mr Leenstra`s commentary in the Background although the Livewire at Lorne. Otway Fly and Otway Zip-line are technically different construction and experiences. They definitely reflect a number of common applications to trees that are also relevant to the proposed experience at Yarra Flats.

In my role as a peer-reviewer of Mr Leenstras report, I am familiar with the ropes course at the Enchanted Maze Garden & Sky Surfing Facility at Arthurs Seat and commend its construction and longevity due to Mr Leenstra`s maintenance regimes and arboricultural over-sight.

\*Executive Summary: P1: Second-last paragraph re` Pruning. I agree with all the comments but note that it is difficult with so many trees to be overly prescriptive on paper. My experience indicates that the minimal amount of pruning is required but sometimes thus might require that few larger limbs are actually pruned-off; this remains to be seen in permit conditions but be aware that pre-emptive pruning must take place before the actual facility is installed. This might be a combined interpretation between the Council representative and Treetops Project Arborist.

P2: Second paragraph relative to TPZs: Tree Protection Zones. I would disagree that "TPZs are certainly required" as their relevance normally occurs on a building site where proximity to structures and civil-works including root-loss is unavoidable. In this instance due to the subterranean deep-rooted nature of the nominated trees there is no need to indicate these TPZs, perhaps it might be relevant to free-standing trees or groups of small-trees; which can be simply managed by complete isolation of those trees. As a matter of evidence all the Treetops Parks diligently control pedestrian access. Am not discounting the need for TPZs within the site but previous experience indicates that TPZs have never been an issue of a TMP: Tree Management Plan. This proposal might be different on the basis that it has a shared public access with other traffic and perhaps those existing bike/walking routes could be managed specifically.

P2: The remainder of the page is critically astute but I am aware that Treetops currently has all the methods of appropriate currency with regard to cable-rope and platform attachments that are essentially universal to all of the industry facilities.

I reviewed the survey undertaken by Thomas & George Licensed Surveyors Ref No.216006 V1 – 3/3/2016. I confirm its accuracy although conditions relative to some of the trees shown has changed over the ensuing years.

A TMP: Tree Management Plan must be created for the Yarra Flats proposal as every facility is site-specific and this will inform the work of other Consultants. It must include provisions dealing with \*Pre-construction. \*Construction & \*Post Construction & \*Maintenance Phases. This item as per the last paragraph on P2 is covered in theory and practice by The Treetops Adventures Operational Management Statement June – 2021.

P3: Mr Leenstra states "*...there is no reason why the installation of platforms, cables and a ropes-course, in the selected trees should not occur.*" I fully agree with this statement.

P3: Last paragraph regarding soil compaction and wind-throw potential by Global Urban Forest seems somewhat erroneous to both myself and Mr Leenstra. River Red Gums and this particular Riparian Biome are indeed testimony to the resilience of Australia`s most ubiquitous native tree.

**RECOMMENDATIONS:** P14 Point 1-14: I agree with all points, but the TPZ issues are somewhat impractical in a recreational application within this site. Clarification is required.

## **7. Response to submissions:**

A: The issues of Limb-drop are not relevant to this site. There is no dramatic evidence within the site of recent or potential major limb-loss as the trees are simply not old enough nor large enough for typical limb-loss often associated with very old and very large River Red Gums. T49 appears to be the only tree with a large limb on the ground which might have fallen sometime within the last 13 Years. This tree is noted as being manageable by both Mr Kingdom and myself.

B: Compaction of soil issues are not relevant to this site as heavy grey-clays & alluvial soils intertwined with complex universal tree root matrices and fallen branch and leaf material simply add inaccessibility to most of the site but also contribute significant requisite organic mulch. The larger River Red Gum trees are known for their extraordinarily deep-root systems.

C: Future watering of the billabongs and tree stability, again, is related to the specific morphological characteristics of the River Red Gum per-se and the prospects of climatic and weather events including flooding that this species is perfectly adapted to, there are no apparent fallen trees except along the northern sections of the river bank away from the proposed facility. I understand that a single tree has fallen as indicated in the Annulus Billabong Group Report 2020 and this matter has been considered to be a separate and different situation outside the area of proposed treetops ropes course area.

D: I note that only T18 has a small cavity in its lower western bole towards the billabong. This is a large tree and the cavity is very small. Apparently not appropriate for sheltering fauna. Refer also reference to Cavity Sizes & Types in Australian Eucalypts from Wet & Dry Forest Types: Lindemeyer Et-al. Forest & Ecology: Elsevier Publishing – 2000.

E: There are no other issues raised by the submissions that I am qualified to comment on.

## 8. Review of Incorporated document:

The incorporated document has been critiqued & notated. I do not recommend any changes to the document except where stated below. Most of the following comments are matters of clarification.

It is relevant to note that the proponent has a proven record of national success and that their ability to adapt, and evolve their adventure-parks over a very broad-range of situations has been an inspiration to other Ecological Adventure Companies; some which I have experienced. The Inaugural creation of the 'Glen Harrow' at Belgrave facility seems to have set a foundation & hallmark for an inclusive Urban Wilderness Experience that has become more popular than was ever imagined in 2008 and seems to have become an adventure activity in high demand.

- **Sections 6.6 + 6.7 a-l and 6.8 (P5): TREE MANAGEMENT & PROTECTION PLAN (TMPP)**

Regarding the TM&PP: 6.6: The sample of Glen Harrow Belgrave is a relevant hallmark for all Treetops Adventures projects and has stood the test of time nationally since 2008. Treetops Adventures currently has x14 Operational facilities nation-wide; additional perspectives as mentioned in reports by both Mr Leenstra & Mr Kingdom are very helpful in this scenario.

- **Sections 6.7 a-l (P5): TM&PP: TREE MANAGEMENT & PROTECTION PLAN**

Regarding the TM&PP: 6.7: C): TPZs not relevant on plan as the plan would become illegible. Further due to Forest Characteristics the roots are all inter-twined and supporting of each-other.

**Note:** TPZs might be relevant as a concept for single, free-standing trees or small-groups, existing in that presentation elsewhere through-out the defined area as extra trees.

\*Regarding the TM&PP: 6.7: F): Most trees will require pruning and dead-wooding for safety.

\*Regarding the TM&PP: 6.7: G): No Scaffolding will be utilized in the set-up of the facility.

- **Sections 6.7 a-l (P5): TM&PP: TREE MANAGEMENT & PROTECTION PLAN:**

Regarding the TM&PP: 6.7: J): TPZs are not applicable here unless stipulated.

Regarding the TM&PP: 6.7: L): As per all previous Treetops Adventures projects.

Regarding the TM&PP: 6.7: L i-vi): Easily and already achievable over the x14 Sites currently operated by Treetops Adventures since 2008 and into 2021 – nationally.

### **Section 6.10: TREE PROTECTION ZONES:**

Point 6.10 A): Not Applicable in this scenario because it is a riparian-forest not a building-site. TPZs essentially relate to potential close proximity construction & potential root-loss.

Point 6.10 B ii): Only hand-dug post-holes inserted between the Buttress-roots of the tree will be used for support, the builder will compute the span-dimensions, all of this work will be under strict supervision of the Project Arborist; as per previous projects by 'Treetops'.

Point 6.10 B iii): Absolutely no roots over 25mm in diameter (AS 4970) will be severed.

Point 6.10 D i. ii. iii): Fencing. Not relevant in this case as it just adds extra un-necessary site activity & traffic at ground-level. This is not technically a 'Building / Development Site'.

Components of AS 4970-2009 would be relevant but only in agreed selected components.

**Section 6.11: VEGETATION REMOVAL:**

Point 6.11: Only Weeds and small dead striplings and x1 Stem from T31. \*Note: T72 can be pruned for safety rather than removed, simply to make safe within close proximity to exiting public walking / bike paths and serviceable trees such as T70 within the course, should it be allowed to be included in due course; additional to Trees T1-58; where T58 is nearby.

Point 6.12: Pending as Deadwood & Over-extended Limbs may (typically) need pruning.

**Section 6.26: CONSTRUCTION MANAGEMENT PLAN:**

6.26: As per all the other functioning 'Treetops Adventures' Parks facilities. There will be no vehicles within the site here. All construction take place necessarily and conditionally within permit and topographical allowances. The physical impact upon the ground is minimal and only relevant where defines paths are laid-down and where current natural egress allows weed removal and mulching for pertinent and permissible safety points within the facility.

I note that during construction activities Treetops Adventures has an elite team of highly experienced aerial/high access workers that will leave the site pristine and rubbish-free.

**END of Incorporated Document Commentary by Andrew Patrick:**

The incorporated document has been critiqued & notated. There are no changes within the document, my preceding comments are for clarification; I am able to comment further.

## 9. CONCLUSION.

Having completed my review of the site and considered the commentary by Consulting Arborists Mr Russell Kingdom and Mr Otto Leenstra, generally speaking, there is accord in supporting the project; subject to relevant and typical conditions. Some minor issues of variation in the tree sizes due to the passage of time is not very important here.

The Updated Site Survey & Number Tree Plan is now confirmed as accurate and every relevant tree has a temporary number attached.

A Tree Management Plan is essential but does not have to be overly complicated.

My only unresolved question at this stage is the implication of TPZs: Tree Protection Zones on the trees in this scenario, I don't think it is fully relevant here especially considering the species, geology and topography and complications of TPZs in mapping. Safety Pruning within the site is absolutely essential.

The risk of limb-drop is not a major hazard issue on this site due to the generally young age of the trees and the minimal history of any major limb-drop within the site area.

I have made all the inquiries that I believe are desirable and appropriate, no matters of significance, which I regard as relevant have, to the best of my knowledge; been withheld from The Panel.

Yours faithfully.

A handwritten signature in dark ink, appearing to read 'Andrew J. Patrick', with a stylized flourish at the end.

**ANDREW J. PATRICK**  
(Adv Cert Hort. Dipl Arb. WTA Cert 4)

25<sup>th</sup> June 2021

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# YARRA Flats Park: Tree Data Tables. T1-T89 & Others – Page 1.

TREE TOPS ADVENTURE

YARRA FLATS

June 2021

YARRA Flats. Tree Tops Adventure - May 2021. Trees T1-T58 and Additional Trees T59-T89 & Others. X95 Trees. Refer numbered trees plan.

Tree No.	Common Name	Age	Height Approx	Canopy Approx	DBH @ 1400	Condition	SULE Categories	Retention	Compare ATC 2018 Mr Russell Kingdom	Comments: Refer Tree Photos Book & Numbered Tree Plan.
1	River Red Gum	Mature	25	16	1030	Fair - Good	Medium	Yes	Agree	Twin-Leader @ 8mtrs. Limb Reduce. Dead Wood. Acceptable as the 'Home Tree' with specialist construction consideration as per ATC and Trees Adventure History.
2	River Red Gum	Semi Mature	27	9	540	Fair	Medium	Yes	Agree	Twin-Leader at Height. Bi Bi. *Cable Tree. Refer ATC Rpt 2018.
3	River Red Gum	Semi Mature	27	8	510	Good	Long	Yes	Agree	Good Form and Structure.
4	River Red Gum	Semi Mature	23	6	390	Fair	Medium	Yes	Agree	Bowed Trunk.
5	River Red Gum	Semi Mature	16	9	490	Fair	Medium	Yes	Agree	Good Trunk. Suppressed by T9.
6	River Red Gum	Semi Mature	18	8	460	Fair	Medium	Yes	Agree	Asymmetry East. Grouped with T6. T7 & T8. *Refer T7 & T8 Comments.
7	River Red Gum	Mature	25	12	670	Fair	Medium	Yes	Agree	Good Trunk. Well anchored. Asymmetry North. Prune. Grouped with T6. T7 & T8. *Refer ATC Rpt 2018 Mr Kingdom's Comments are pertinent.
8	River Red Gum	Mature	27	12	720	Fair	Medium	Yes	Agree	Large Hanger. Well anchored. Prune. Viable. Grouped with T6. T7 & T8. *Refer T6 & T7 Comments.
9	River Red Gum	Mature	29	15	1000	Fair - Good	Long	Yes	Agree	Twin-Leader @6m. Large Tree. Well anchored.
10	River Red Gum	Mature	29	10	770	Fair - Good	Long	Yes	Agree	Next to T11. Two Trees as One.
11	River Red Gum	Semi Mature	24	8	500	Poor - Fair	Medium	Yes	Agree	Asymmetry North/East. Limb Reduction. Viable.
12	River Red Gum	Mature	28	15	800	Good	Long	Yes	Agree	Slight Asymmetry South/East. Well Anchored.

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# YARRA Flats Park: Tree Data Tables. T1-T89 & Others – Page 2.

TREE TOPS ADVENTURE										YARRA FLATS				June 2021	
Tree No.	Common Name	Age	Height Approx	Canopy Approx	DBH @ 1400	Condition	SULE Categories	Retention	Compare ATC 2018 Mr. Kingdom	Comments: Refer Tree Photos Book & Numbered Tree Plan.					
13	River Red Gum	Mature	26	12	840	Poor - Fair	Medium	Yes	Agree	Joined with T14. Acute Lean South East. Prune. Limb Reduction. Viable.					
14	River Red Gum	Mature	23	10	570	Poor - Fair	Medium	Yes	Agree	Joined with T13. Asymmetry North. Prune. Limb Reduction. Viable.					
15	River Red Gum	Semi Mature	29	13	850	Good	Long	Yes	Agree	Twin-Leader @ 9m. Good Bole.					
16	River Red Gum	Mature	26	18	1040	Fair	Medium	Yes	Agree	Well Anchored. Asymmetry & Bias South. Prune. Limb Reduction.					
17	River Red Gum	Mature	25	17	1250	Good	Long	Yes	Agree	Well Anchored. Edge of Billabong. Prune.					
18	River Red Gum	Mature	25	12	1000	Fair	Medium	Yes	Agree	Asymmetry East to River. Edge of Billabong. Connected to T19. Small Bole Wound & Cavity. Prune .Viable					
19	River Red Gum	Semi Mature	24	10	750	Fair	Medium	Yes	Agree	Side Stem of T18. Edge of Billabong. Well Anchored.					
20	River Red Gum	Mature	28	18	1300	Good	Long	Yes	Agree	Directly over Billabong. Well Anchored and Deep. Prune.					
* 20A	River Red Gum	Mature+	12	8	1250	Poor	Yes/Don't Use			*Not Viable. Not Hazardous. Tis tree seems to have lost half of its height since ATC Survey in 2018 or Before. There is no evidence of the fallen Crown. Tree is Safe.					
21	River Red Gum	Semi Mature	23	8	570	Good	Long	Yes	Agree	Good Specimen.					
22	River Red Gum	Semi Mature	24	8	635	Good	Long	Yes	Agree	Trunk Bow at Height. Well Anchored.					
23	River Red Gum	Mature	27	17	950/735	Good	Long	Yes	Agree	Two (x2) Trees. Well Anchored. Prune. Dead Wood.					
24	River Red Gum	Semi Mature	23	8	520	Good	Long	Yes	Agree	Pristine.					
25	River Red Gum	Semi Mature	23	9	585	Fair - Good	Long	Yes	Agree	Small Trunk Wound. (PDF). Twin-Leader @3m. Viable.					

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# YARRA Flats Park: Tree Data Tables. T1-T89 & Others – Page 3.

TREE TOPS ADVENTURE										YARRA FLATS			June 2021	
Tree No.	Common Name	Age	Height Approx	Canopy Approx	DBH @ 1400	Condition	SULE Categories	Retention	Compare ATC 2018 Mr. Kingdom	Comments: Refer Tree Photos Book & Numbered Tree Plan.				
26	River Red Gum	Semi Mature	25	12	810	Good	Long	Yes	Agree	Prune: Remove x1 Side Stem at Height. Dead Wood.				
27	River Red Gum	Semi Mature	25	9	520	Good	Long	Yes	Agree	Bow In Trunk at Height.				
*28	River Red Gum	Semi Mature	16	5	300	Fair	Yes/Don't Use			*Bark Included Bifurcation, Twin-Leader at Height. *NOTE: ATC Rpt 2018 Refers to an Acacia which cannot be identified. T28 is a RRG Stripling. Too small for use.				
29	River Red Gum	Semi Mature	25	9	595	Fair - Good	Long	Yes	Agree	Prune off Side Stem at Base. Minor Asymmetry South.				
30	River Red Gum	Semi Mature	23	8	500	Fair - Good	Long	Yes	Agree	Good Bole and Trunk. Dead Wood.				
31	River Red Gum	Semi Mature	26	12	730	Fair	Medium	Yes	Agree	*Actually Two Trees: Canopy Wound. (PDF) North Side. Twin-Leader at height. Limb Reduction or remove other Tree South/West Leaning. T31 is Viable.				
32	River Red Gum	Semi Mature	26	8	380/350	Fair	Medium	Yes	Agree	Two (x2) Stems from Ground Level. Asymmetry South.				
33	River Red Gum	Semi Mature	27	8	460	Fair - Good	Long	Yes	Agree	Within a Small Group.				
34	River Red Gum	Semi Mature	24	9	560	Good	Long	Yes	Agree	Pristine.				
35	River Red Gum	Semi Mature	15	8	410	Poor - Fair	Short - Medium	Yes	Agree	Contorted Specimen. Deadwood. Viable.				
36	River Red Gum	Semi Mature	20	9	530	Fair	Medium	Yes	Agree	Twisted Stem. Limb Loss at Height. Good Bole & Stem. Prune. Viable				
37	River Red Gum	Semi Mature	20	8	465	Good	Long	Yes	Agree	Small Side Stem. Remove side-stem. *NOTE: RRG. Not Acacia as per ATCs Rpt.				
38	River Red Gum	Semi Mature	23	8	490	Fair - Good	Long	Yes	Agree	Twin-Leader @ 6m. Viable. *NOTE: Check Canopy for Hanger as per ATCs Rpt. Not evident in recent survey by OSM. May have fallen-out.				
39	River Red Gum	Semi Mature	19	7	440	Fair - Good	Long	Yes	Agree	Twisted Stem. Twin-Leader at height. Viable.				

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# YARRA Flats Park: Tree Data Tables. T1-T89 & Others – Page 4.

TREE TOPS ADVENTURE										YARRA FLATS		June 2021	
Tree No.	Common Name	Age	Height Approx	Canopy Approx	DBH @ 1400	Condition	SULE Categories	Retention	Compare ATC 2018 Mr. Kingdom	Comments: Refer Tree Photos Book & Numbered Tree Plan.			
40	River Red Gum	Semi Mature	19	10	700	Fair - Good	Long	Yes	Agree	Asymmetry South. Prune x 2 Limbs.			
41	River Red Gum	Mature	26	18	910	Fair - Good	Medium - Long	Yes	Agree	Triple Stemmed @ 3m. Broad Canopy. Well Anchored. Prune. Limb Reduction. Dead Wood.			
42	River Red Gum	Mature	26	12	770	Fair	Medium	Yes	Agree	Asymmetry & Bias North. Well Anchored. Prune. Limb Reduction. Dead Wood.			
*43	River Red Gum	Mature	28	13	780	Fair - Good	Medium	Yes	Agree	Prune. Limb Reduction Upper Canopy. Dead Wood. Note: Small Cavity at Height. Refer ATC Rpt & Comments. Treat for Termites if present. Apparently Viable.			
44	River Red Gum	Semi Mature	16	8	580	Fair - Good	Medium - Long	Yes	Agree	Multi Stemmed at Height. Asymmetry & Bias South. Viable.			
45	River Red Gum	Semi Mature	24	10	710	Fair	Medium	Yes	Agree	Previous Limb Loss. Well Callused. Good Bole & Trunk. Viable.			
46	River Red Gum	Semi Mature	22	7	435	Good	Long	Yes	Agree	Pristine.			
*47	River Red Gum	Mature	28	12	710	Poor-Fair	Medium	Yes	Agree	Actually Two Trees: *Large Limb Separated @ 2.5m. Note: Adjacent Tree West is Leaning West (580 DBH): Remove? Refer ATCs Rpt. Apparently Viable.			
48	River Red Gum	Semi Mature	28	Group with Multiple Saplings	410	Fair - Good as a Group	Medium	Yes	Agree	Viable - Low. Not dangerous.			
49	River Red Gum	Mature+	26	15	990	Poor - Fair	Short - Medium	Yes	Agree	Climbing Inspection Required. Needs Extensive Pruning. Cavity at Height. Good Bole. Refer ATCs Report for cross-reference. High Possibility of use. Apparently Viable.			
50	River Red Gum	Mature	29	15	1190	Fair	Medium - Long	Yes	Agree	Triple Stemmed. Good Bole. Prune.			
51	River Red Gum	Mature	26	12	720	Fair	Medium - Long	Yes	Agree	Good Bole & Side Stem. Prune to make safe.			
52	River Red Gum	Semi Mature	28	16	750/500	Fair - Good	Long	Yes	Agree	Multi Stemmed at Height. Good Structure.			
53	River Red Gum	Mature	30	14	900	Poor - Fair	Short - Medium	Yes	Agree	Twin-Leader @ 5m. Bark Included Bifurcation. Good Bole & Trunk. *Cable. Viable.			

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# YARRA Flats Park: Tree Data Tables. T1-T89 & Others – Page 5.

TREE TOPS ADVENTURE										YARRA FLATS		June 2021
Tree No.	Common Name	Age	Height Approx	Canopy Approx	DBH @ 1400	Condition	SULE Categories	Retention	Compare ATC 2018 Nt. Kingdom	Comments: Refer Tree Photos Book & Numbered Tree Plan.		
54	River Red Gum	Semi Mature	26	10	645	Fair	Medium	Yes	Agree	Good Bole. Multi Stemmed. Refer ATCs Rpt. Small cavity. Not noticed by OSM.		
55	River Red Gum	Semi Mature	28	9	570	Poor - Fair	Short - Medium	Yes	Agree	Etiolated. Exudates.		
56	River Red Gum	Mature	32	16	1100/970	Fair - Good	Long	Yes	Agree	Twin-Leader @ 1.5m. Multi Stemmed at Height. Apparently Good.		
57	River Red Gum	Semi Mature	28	9	510	Good	Long	Yes	Agree	Pristine.		
58	River Red Gum	Semi Mature	27	9	520	Good	Long	Yes	Agree	Multi Stemmed at Height. Good Trunk.		
58A	River Red Gum	Semi Mature	17	6	370	Fair - Good	Medium	Yes	NA	*NOTE: Too Small to Use. Noted as a TBM: Trig Base Marker on plan.		
59	River Red Gum	Semi Mature	17	9	585	Fair	Medium	Yes	Extra Tree by OSM	Twin-Leader @ 1.5m. Asymmetry West. Good Bole & Trunk		
60	River Red Gum	Semi Mature	26	8	520	Good	Long	Yes	Extra Tree by OSM	Pristine. Upright Form. Good Bole & Trunk. Bark Included Bifurcations. X1 Limb Fallen. Prune to make safe. Viable.		
61	River Red Gum	Mature+	30	20	1290	Fair	Medium - Long	Yes	Extra Tree by OSM	Good Bole & Trunk. PDF West Bole. Extensive RTPM: Remedial Tree pruning Maintenance - Universal. Some Cavities. Viable.		
62	River Red Gum	Semi Mature	25	9	610	Fair - Good	Long	Yes	Extra Tree by OSM	Upright Form. Good Bole & Trunk.		
63	River Red Gum	Semi Mature	26	9	620	Fair - Good	Long	Yes	Extra Tree by OSM	Bowed Trunk. Good Bole & Stem.		
64	River Red Gum	Semi Mature	26	9	550	Poor - Fair	Short - Medium	Yes	Extra Tree by OSM	Previous Limb Loss. Good Bole & Trunk. Crown Reduce. Marginal Viability.		
65	River Red Gum	Mature	29	18	980	Good	Long	Yes	Extra Tree by OSM	Pristine.		
66	River Red Gum	Semi Mature	30	12	890	Fair - Good	Medium	Yes	Extra Tree by OSM	Twin-Leader @ 6m. Triple Leader at Height. Good Bole & Trunk. Cable.		

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# YARRA Flats Park: Tree Data Tables. T1-T89 & Others – Page 6.

TREE TOPS ADVENTURE										YARRA FLATS		June 2021
Tree No.	Common Name	Age	Height Approx	Canopy Approx	DBH @ 1400	Condition	SULE Categories	Retention	Extra Tree by OSM	Comments: Refer Tree Photos Book & Numbered Tree Plan.		
67	River Red Gum	Semi Mature	32	15	810	Fair - Good	Long	Yes	Extra Tree by OSM	Slight Lean South. Good Bole & Trunk.		
67A	River Red Gum	Semi Mature	26	7	420	Good	Long	Yes	Extra Tree by OSM	Tall and Thin. Good Bole & Trunk.		
68	River Red Gum	Mature	28	18	1050	Good	Long	Yes	Extra Tree by OSM	Pristine. Well Balanced. Good Bole & Trunk.		
69	River Red Gum	Semi Mature	25	9	500	Very Poor	Short	Yes	Extra Tree by OSM	Growing with Silver Wattle. Not Viable. Don't Use.		
70	River Red Gum	Semi Mature	27	12	690	Good	Long	Yes	Extra Tree by OSM	Good Bole & Trunk. Open Canopy. Near T72.		
71	River Red Gum	Mature	26	17	880	Fair - Good	Long	Yes	Extra Tree by OSM	On River Bank. Apparently Sound. Good Bole & Trunk. Viable.		
*72	River Red Gum	Senescent	30	18	830	*Hazardous	Short Cat 4d	No	Extra Tree by OSM	*Remove or Prune for Safety. Large Open Split. Falling Apart. Twin-Leaders.		
73	River Red Gum	Mature	27	25	795/660 /630	Poor - Fair	Short - Medium	Yes	Extra Tree by OSM	Triple Stemmed. Open Canopy. Universal Pruning. Cables. Viable.		
74	River Red Gum	Semi Mature	28	5	410	Fair	Medium	Yes	Extra Tree by OSM	Tall and Thin. Twisted Trunk. Good Bole and Stem. Viable		
75	River Red Gum	Mature	28	17	660	Fair - Good	Medium - Long	Yes	Extra Tree by OSM	Twin-Leader @4.5m (PDF). Good Bole & Trunk. Limb Reduction at height. Viable.		
76	River Red Gum	Semi Mature	24	6	395	Fair	Long	Yes	Extra Tree by OSM	Good Bole & Trunk. Tall and Thin. Viable.		
77	River Red Gum	Semi Mature	26	12	540	Fair - Good	Long	Yes	Extra Tree by OSM	On River Bank. Well Anchored. Good Bole & Trunk. Vertical.		
78	River Red Gum	Semi Mature	26	10	470	Good	Long	Yes	Extra Tree by OSM	On River Bank. Well Anchored. Good Bole & Trunk. Vertical.		
79	River Red Gum	Mature	30	25	1065	Good	Long	Yes	Extra Tree by OSM	Large Tree. On River Bank. Well Anchored. Broad Open Canopy. Note River-bank Batter.		

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# YARRA Flats Park: Tree Data Tables. T1-T89 & Others – Page 7.

TREE TOPS ADVENTURE										YARRA FLATS		June 2021
Tree No.	Common Name	Age	Height Approx	Canopy Approx	DBH @ 1400	Condition	SULE Categories	Retention	Extra Tree by OSM	Comments: Refer Tree Photos Book & Numbered Tree Plan.		
80	River Red Gum	Mature	29	14	615	Fair - Good	Long	Yes	Extra Tree by OSM	Tall and Thin. Growing on River Bank. Well Anchored. Good Bole & Trunk. Straight Tree. Growing close to T81. Note River-bank Batter.		
81	River Red Gum	Mature	32	18	980	Good	Long	Yes	Extra Tree by OSM	Large Tree. On River Bank. Good Bole & Trunk. Broad Open Upper Canopy. Dead Wood. Note River-bank Batter.		
82	River Red Gum	Mature+	27	12	850	Fair	Medium	Yes	Extra Tree by OSM	Twin-Leader @ 3.5m. Bole Cavity. Trunk Cavity. Viable. Crown Reduce. Viable.		
83	River Red Gum	Mature	26	16	1070	Fair - Good	Medium - Long	Yes	Extra Tree by OSM	Open Canopy. Old Trunk Wound South. Prune. Viable.		
84	River Red Gum	Semi Mature	23	9	575	Fair	Medium	Yes	Extra Tree by OSM	Asymmetry West. Viable.		
85	River Red Gum	Semi Mature	23	10	550	Fair - Good	Medium - Long	Yes	Extra Tree by OSM	Leaning West. Viable.		
86	River Red Gum	Semi Mature	25	9	610	Fair	Medium	Yes	Extra Tree by OSM	Twin-Leader @3.5m. Multi Stemmed. Upright Form.		
87	River Red Gum	Semi Mature	24	9	470	Good	Long	Yes	Extra Tree by OSM	Straight Tree. Viable.		
88	River Red Gum	Semi Mature	25	11	500	Good	Long	Yes	Extra Tree by OSM	Upright Tree. Good Bole & Trunk.		
89	River Red Gum	Semi Mature	24	8	325	Fair	Short - Medium	Yes	Extra Tree by OSM	Tall and Thin. Upper Canopy Bias West. Marginal viability.		
90	OTHERS								NA	Note: There are x95 Trees inclusive of this survey. Other Viable trees are apparent.		
END	Note Multiple weed-trees: Osage Orange, Wattles & Box Elders, Chinese Celts. Many Grass Weeds. *Note: Violet Tree: <i>Melicytus dentatus</i> - an endemic native shrub; weedy. Others unidentified.									<b>NOTE:</b> Most trees will probably require some RTPM; Remedial Tree Pruning Maintenance, this includes trees nearby that might impact the ropes-course. There is only two trees requiring Removal/Pruning for immediate safety *T72 and half of *T31. Also there are only x3 Trees that apparently cannot be used: T20A, T28, T72. *Note: There are x95 Trees inclusive of this survey. Other Viable trees are apparent.		

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## Sample Photographs:

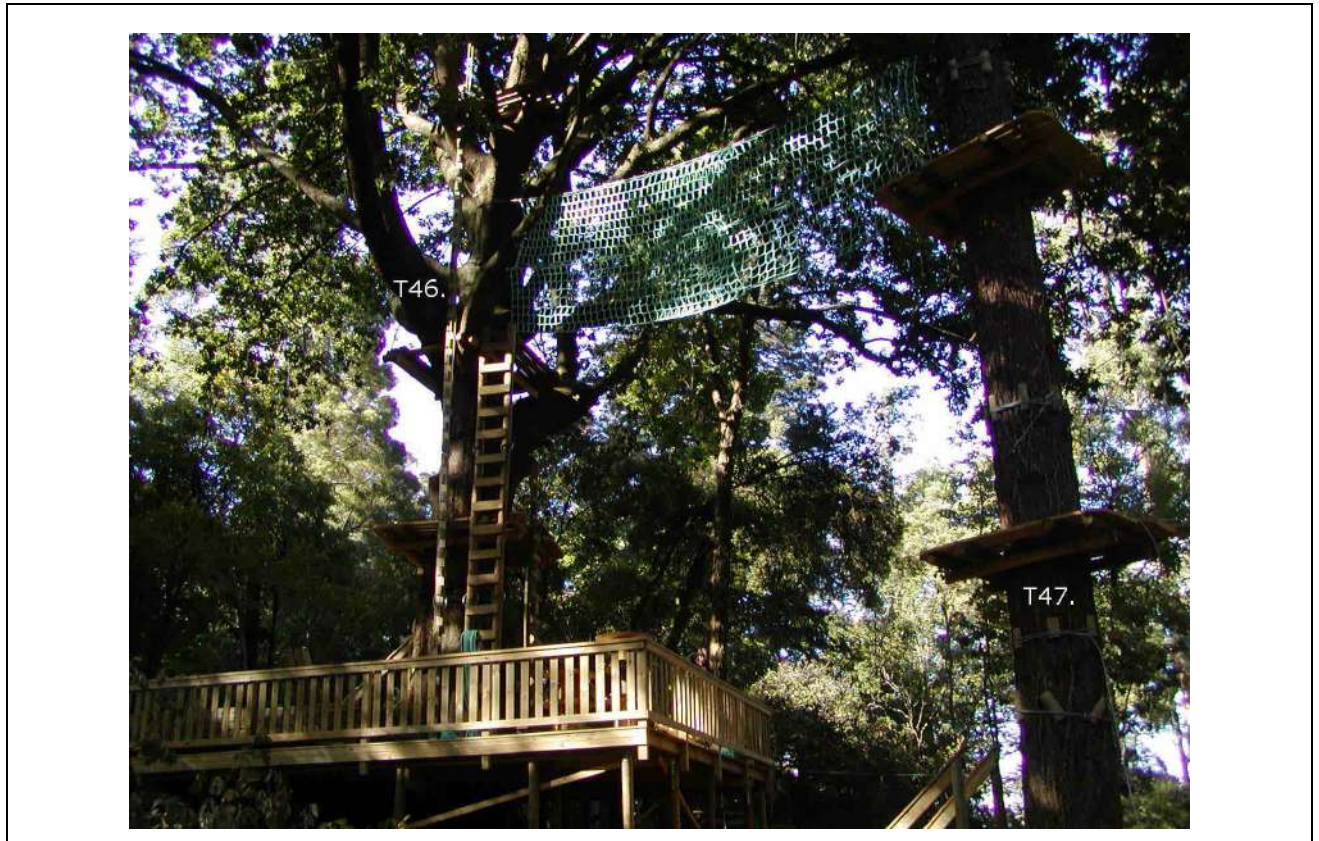


T97: Mountain Ash: Glen Harrow 2009/2010.

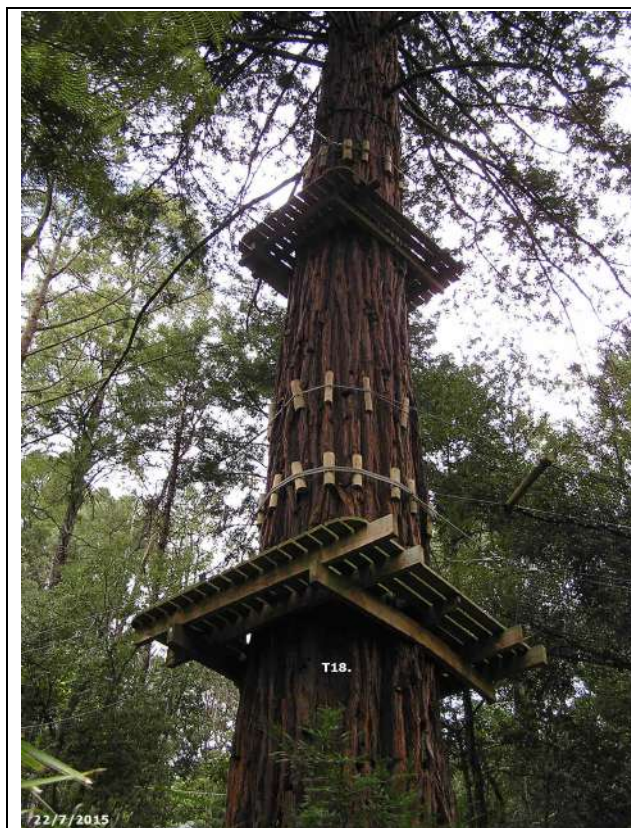


TREES T96 & T97: Mountain Ash at Glen Harrow - 2015

**Sample Photographs *continued*...**



T46: Glen Harrow: Home Tree - 2010.

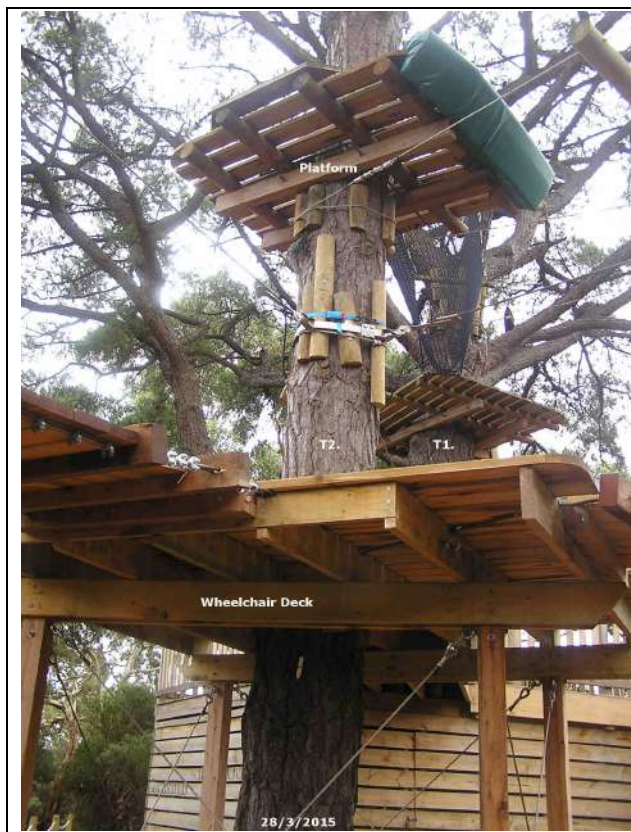


T18: Glen Harrow - 2015

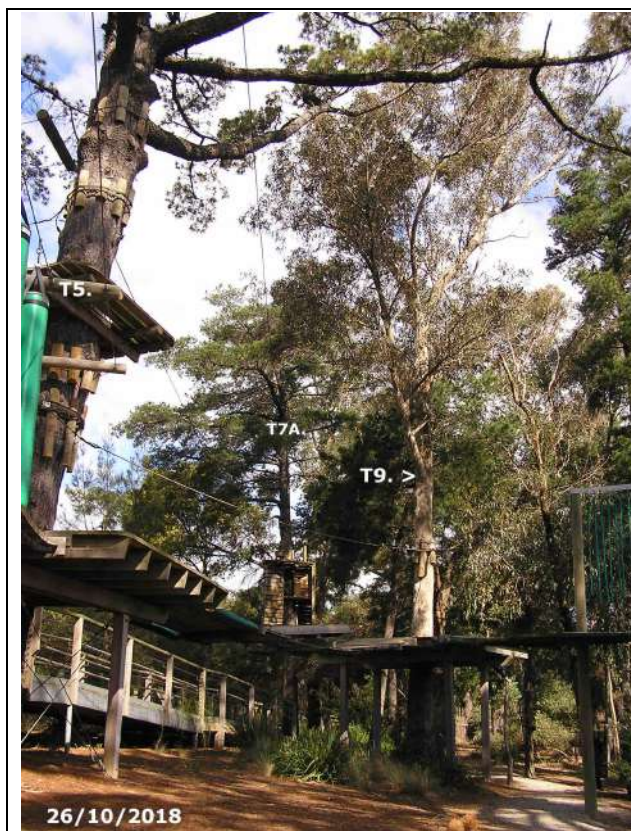


T49: Glen Harrow - 2015

**Sample Photographs *continued*...**



YMCA Camp Manyung: Mt Eliza - 2015



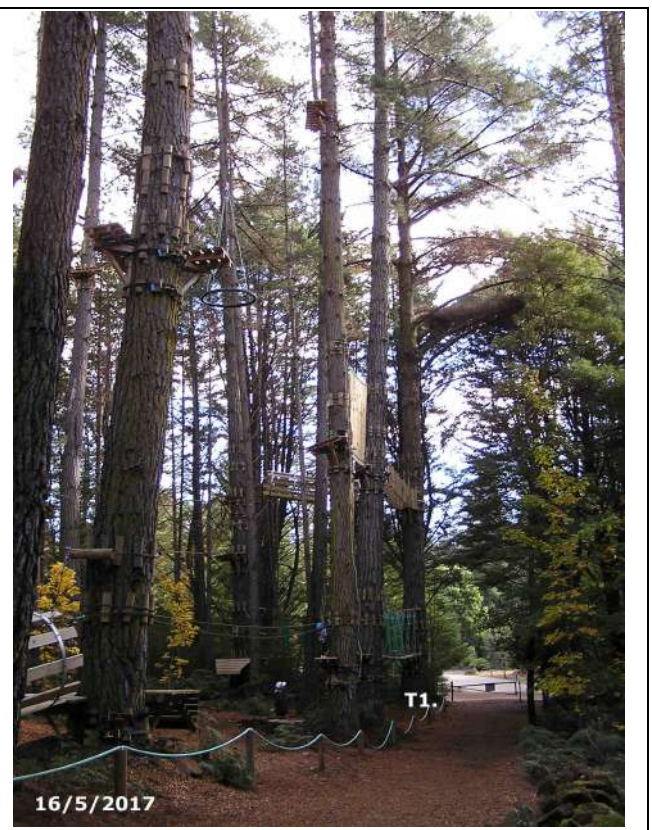
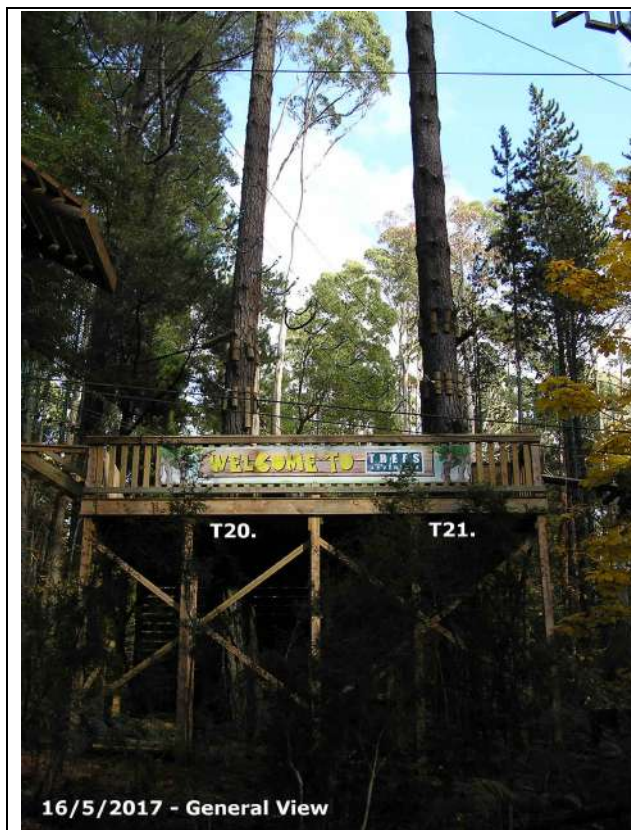
YMCA Camp Manyung: Mt Eliza - 2018

**Sample Photographs *continued...***

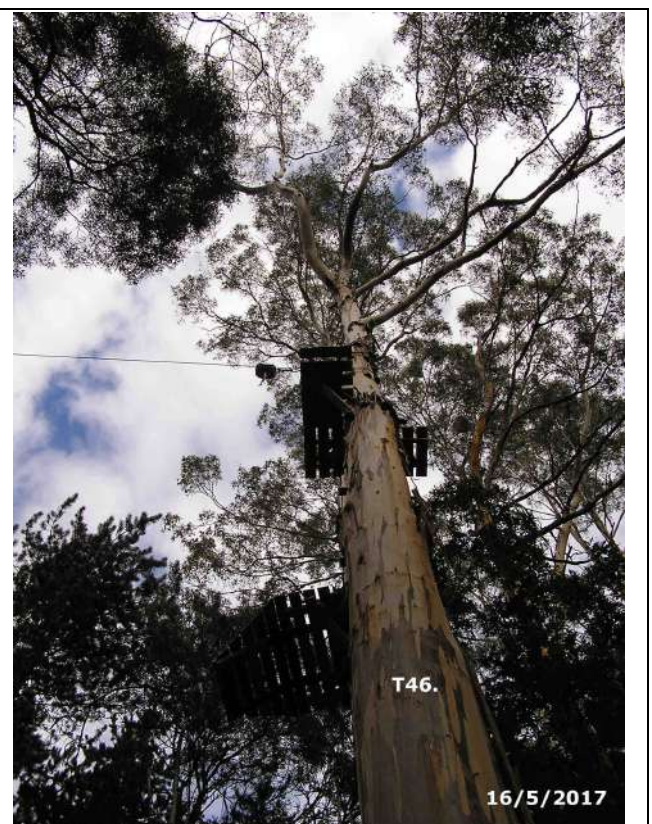


T12: Hollybank Tasmania – 2017. Platform Attachment.

**Sample Photographs *continued*...**



Hollybank Tasmania – 2017.



Hollybank Tasmania – 2017.

**Sample Photographs *continued*...**



Yarramundi – 2015.

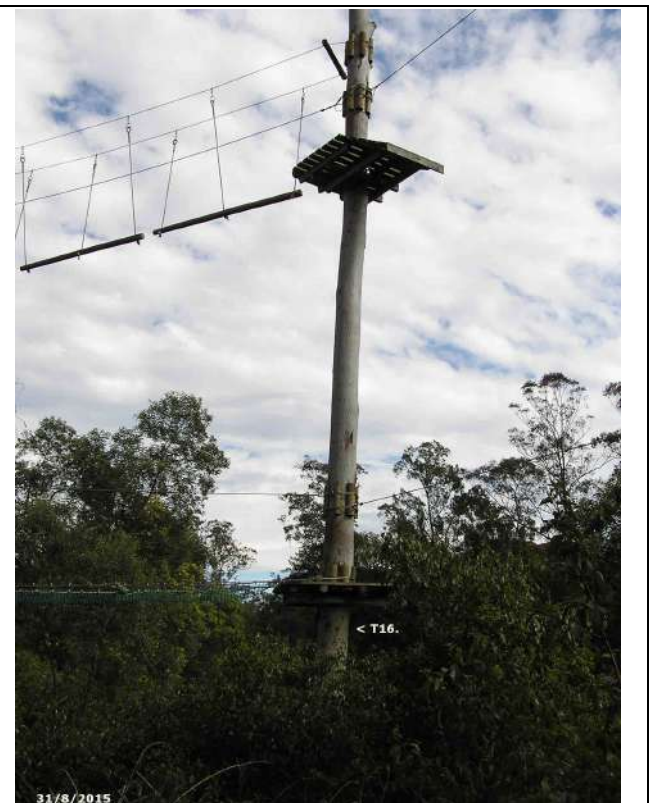


Yarramundi – 2015

**Sample Photographs *continued*...**



Yarramundi – 2015



Yarramundi – 2015

**Sample Photographs *continued*...**

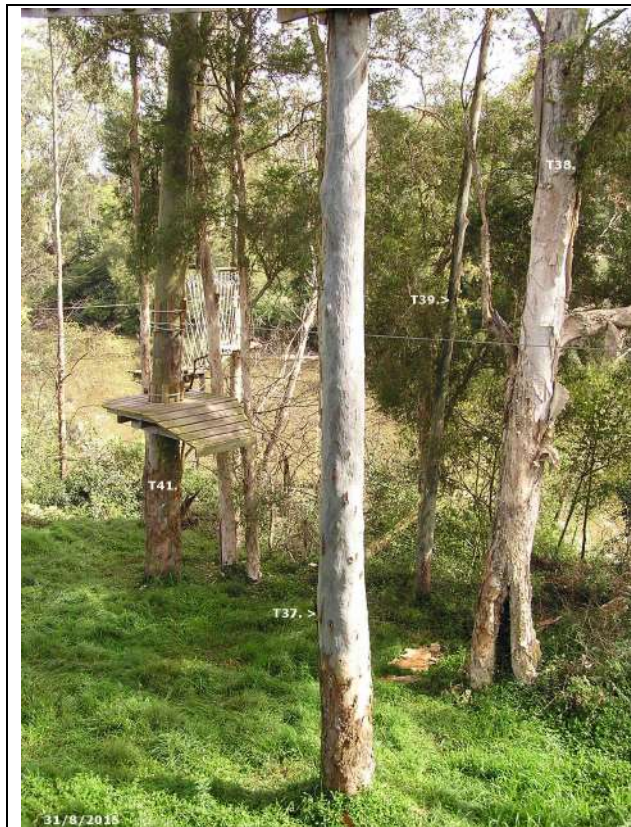


Yarramundi – 2015



Yarramundi – 2015

**Sample Photographs *continued*...**



Yarramundi – 2015



Yarramundi – 2015

**Sample Photographs *continued*...**



Yarramundi – 2015



Yarramundi – 2015

**Sample Photographs *continued*...**



Yarramundi – 2015



Yarramundi – 2015

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## ***SULE: Its use and status into the new millennium***

### **Appendix 3**

#### **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.

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**Figure 1: TREE - AZ Categories (Version 7.05ANZ)**

**CAUTION:** TREE-AZ 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.treecaz.com.au](http://www.treecaz.com.au).

**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

<b>Z1</b>	Young or insignificant small trees, i.e. below the local size threshold for legal protection, etc
<b>Z2</b>	Too close to a building, i.e. exempt from legal protection because of proximity, etc
<b>Z3</b>	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

<b>Z4</b>	Dead, dying, diseased or declining
<b>Z5</b>	Severe damage and/or structural defects where a high risk of failure cannot be satisfactorily reduced by reasonable remedial care, i.e. cavities, decay, included bark, wounds, excessive imbalance, overgrown and vulnerable to adverse weather conditions, etc
<b>Z6</b>	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

<b>Z7</b>	Excessive, severe and intolerable inconvenience to the extent that a court or tribunal would be likely to authorise tree removal, i.e. dominance, debris, interference, etc
<b>Z8</b>	Excessive, severe and intolerable damage to property to the extent that a court or tribunal would be likely to authorise tree 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

<b>Z9</b>	Severe damage and/or structural defects where a high risk of failure can be temporarily reduced by reasonable remedial care, i.e. cavities, decay, included bark, wounds, excessive imbalance, vulnerable to adverse weather conditions, etc
<b>Z10</b>	Poor condition or location with a low potential for recovery or improvement, i.e. dominated by adjacent trees or buildings, poor architectural framework, etc
<b>Z11</b>	Removal would benefit better adjacent trees, i.e. relieve physical interference, shading, etc
<b>Z12</b>	Unacceptably expensive to retain, i.e. severe defects requiring high 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 categorisation 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**

<b>A1</b>	No significant defects and could be retained with minimal remedial care
<b>A2</b>	Minor defects that could be addressed by remedial care and/or work to adjacent trees
<b>A3</b>	Special significance for historical, cultural, commemorative or rarity reasons that would warrant extraordinary efforts to retain for more than 10 years
<b>A4</b>	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 categorisation hierarchy and should be given the highest weight in any selection process.

TREE-AZ is designed by Barrell Tree Consultancy ([www.barrelltreecare.co.uk](http://www.barrelltreecare.co.uk)) and is reproduced with their permission

**Figure 1: TREE - AZ Categories (Version 7.05ANZ)**

**CAUTION:** TREE-AZ 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.treecaz.com.au](http://www.treecaz.com.au).

**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

<b>Z1</b>	Young or insignificant small trees, i.e. below the local size threshold for legal protection, etc
<b>Z2</b>	Too close to a building, i.e. exempt from legal protection because of proximity, etc
<b>Z3</b>	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

<b>Z4</b>	Dead, dying, diseased or declining
<b>Z5</b>	Severe damage and/or structural defects where a high risk of failure cannot be satisfactorily reduced by reasonable remedial care, i.e. cavities, decay, included bark, wounds, excessive imbalance, overgrown and vulnerable to adverse weather conditions, etc
<b>Z6</b>	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

<b>Z7</b>	Excessive, severe and intolerable inconvenience to the extent that a court or tribunal would be likely to authorise tree removal, i.e. dominance, debris, interference, etc
<b>Z8</b>	Excessive, severe and intolerable damage to property to the extent that a court or tribunal would be likely to authorise tree 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

<b>Z9</b>	Severe damage and/or structural defects where a high risk of failure can be temporarily reduced by reasonable remedial care, i.e. cavities, decay, included bark, wounds, excessive imbalance, vulnerable to adverse weather conditions, etc
<b>Z10</b>	Poor condition or location with a low potential for recovery or improvement, i.e. dominated by adjacent trees or buildings, poor architectural framework, etc
<b>Z11</b>	Removal would benefit better adjacent trees, i.e. relieve physical interference, shading, etc
<b>Z12</b>	Unacceptably expensive to retain, i.e. severe defects requiring high 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 categorisation 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**

<b>A1</b>	No significant defects and could be retained with minimal remedial care
<b>A2</b>	Minor defects that could be addressed by remedial care and/or work to adjacent trees
<b>A3</b>	Special significance for historical, cultural, commemorative or rarity reasons that would warrant extraordinary efforts to retain for more than 10 years
<b>A4</b>	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 categorisation hierarchy and should be given the highest weight in any selection process.

TREE-AZ is designed by Barrell Tree Consultancy ([www.barrelltreecare.co.uk](http://www.barrelltreecare.co.uk)) and is reproduced with their permission

### 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](http://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

<b>Z1</b>	Young or insignificant small trees, i.e. below the local size threshold for legal protection, etc
<b>Z2</b>	Too close to a building, i.e. exempt from legal protection because of proximity, etc
<b>Z3</b>	Species that cannot be protected for other reasons, i.e. scheduled noxious weeds, out of character in a setting of acknowledged importance, etc
<b>High risk of death or failure:</b> Trees that are likely to be removed within 10 years because of acute health issues or severe structural failure	
<b>Z4</b>	Dead, dying, diseased or declining
<b>Z5</b>	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
<b>Z6</b>	Instability, i.e. poor anchorage, increased exposure, etc
<b>Excessive nuisance:</b> Trees that are likely to be removed within 10 years because of unacceptable impact on people	
<b>Z7</b>	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
<b>Z8</b>	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
<b>Good management:</b> Trees that are likely to be removed within 10 years through responsible management of the tree population	
<b>Z9</b>	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
<b>Z10</b>	Poor condition or location with a low potential for recovery or improvement, i.e. dominated by adjacent trees or buildings, poor architectural framework, etc
<b>Z11</b>	Removal would benefit better adjacent trees, i.e. relieve physical interference, suppression, etc
<b>Z12</b>	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

<b>A1</b>	No significant defects and could be retained with minimal remedial care
<b>A2</b>	Minor defects that could be addressed by remedial care and/or work to adjacent trees
<b>A3</b>	Special significance for historical, cultural, commemorative or rarity reasons that would warrant extraordinary efforts to retain for more than 10 years
<b>A4</b>	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.

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#### Further explanations to assist categorization

<b>Z1</b>	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.
<b>Z2</b>	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.
<b>Z3</b>	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.
<b>Z4</b>	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.
<b>Z5</b>	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

**BARRELL TREE AZ: AS/NZ 2007: Bibliography Excerpt of AS 4970-2009. Detailed Descriptors.**

<b>Z5</b> <i>continued</i>	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.
<b>Z6</b>	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.
<b>Z7</b>	<p><b>Establishing thresholds of acceptable levels of inconvenience:</b> 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.</p> <p><b>Common examples:</b> 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.</p> <p><b>Making the decision:</b> 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.</p>
<b>Z8</b>	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.
<b>Z9</b>	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.
<b>Z10</b>	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.
<b>Z11</b>	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.
<b>Z12</b>	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.
<b>A1</b>	Trees that do not require any specific remedial works above those that would be required for normal maintenance.
<b>A2</b>	Trees with minor defects likely to recover from remedial works to be retainable in the long term, i.e. pollards with little decay.
<b>A3</b>	“Special” means unusual, rare or uncommon, i.e. a tree of some historical/cultural significance, etc.
<b>A4</b>	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.

## **TREE RETENTION Value Ratings: VCAH Burnley via Alma Mater - circa 1990.**

### **Retention Value Ratings: VCAH Burnley Circa 1990 via alma-mater...**

The retention values of the following trees were assessed as **‘high’** and are ‘worthy of retention’. The trees exhibit average to above average health for the site, with possibly some immediate Remedial Tree Pruning Work required to promote & make safe to extend their potential ULE. These trees should be retained on the basis of their overall structural integrity; health, form, and useful life expectancy. All proposed construction work must be planned and designed outside the Optimal Tree Protection Zone of each of the retained trees as noted in the tables of this report. They are trees #

**A total of: trees.**

The retention values of the following trees were assessed as **‘moderate’** and are ‘worthy of retention’. The trees exhibit average to below average health and further immediate Remedial Tree Pruning Work may be required if retained. These trees should be retained, if not directly impacted on by the proposed development, on the basis of their overall structural integrity; health, form and useful life expectancy. All proposed construction work must be planned and designed outside the Optimal Tree Protection Zone of each of the retained trees as noted in the tables of this report. They are trees #

**A total of: trees.**

The retention values of the following trees were assessed as **‘low’**. These trees could be retained if not directly impacted on by the proposed development. The tree exhibit below average health and further Remedial Tree Pruning Work is required if retained. All proposed construction work must be planned and designed outside the Optimal Tree Protection Zone of each of the retained trees as noted in the tables of this report.

They are trees #

**A total of: trees.**

The retention value of the following trees was assessed as **‘very low’** and ‘not worthy of retention’. These trees should be removed on the basis of their overall Poor or Hazardous structural integrity; health, form and useful life expectancy. They are trees #

**A total of: trees.**

The retention value of following trees was assessed as **‘none’**. These trees are recognised as being Not Viable within the site or ‘weed species’ and therefore should not require a permit for their removal. They are trees #

**A total of: trees.**

**NOTE:** Some trees on adjoining property boundaries could be directly affected by the proposed development.

**NOTE:** If no Optimal Tree Preservation Zone has been nominated then the Canopy Spread (Drip-line) of that specimen, as indicated on the Surveyors plans, is an appropriate and valid TPZ for construction purposes.

PS: Optimal Tree Protection Zones are not part of AS 4970. Tree Retention Classification does not exist as part of the ambit of AS 4970-2009. Tree Retention Classification is subjective or deemed to be 8-10Yrs Viability. AP.

## TREE DESCRIPTORS & TERMINOLOGY - OPEN SPACE MANAGEMENT

### AGE:

Young	Juvenile tree recently planted. Last 1- 5 yrs
Semi-mature	Tree still growing within the current environment.
Mature	Specimen has reached expected size in current situation.
Senescent	Tree is over mature and in decline or past its respective SULE for the site.

### FORM:

Good	Canopy full and symmetrical.
Fair	Minor asymmetry or suppression; considered typical for species in situation.
Poor	Canopy suppressed, major asymmetry. Stump re-growth.

### HEALTH:

Good	Crown full, with good density. Foliage entire with good colour with minimal or no pathogen damage. Good growth indicators, e.g. extension growth. No or minimal canopy dieback. Good wound-wood development.
Fair	Tree is exhibiting one or more of the following symptoms; Tree has <30% dead wood, or can have minor canopy dieback, Foliage generally with good colour, some discolouration may be present, minor pathogen damage present. Typical growth indicators, e, g. extension growth, leaf size, canopy density for species in location may be slightly abnormal.
Poor	Tree has >30% dead wood. Canopy Dieback present. Discoloured or distorted leaves and or excessive Epicormic Regrowth. Pathogen is present and or stress symptoms that could lead to or are leading to decline of tree.
Dead	Tree is partially, half or fully dead.

### STRUCTURE:

Good	Good branch attachment and or no minor structural defects. Trunk and scaffold branches sound or only minor damage. Good trunk and scaffold branch taper. No branch over extension. No damage to structural roots and or good buttressing present. No obvious root pests or diseases.
Fair	Some minor structural defects and or minor damage to trunk. Bark missing. Cavities could be present. Minimal or no damage to structural-roots. Typical structure for species in the situation.
Poor	Major structural defects and or trunk damaged and or missing bark. Large cavities, and or girdling or damaged roots that are problematical.
Hazardous	Tree poses immediate hazard potential that should be rectified as soon as possible.

### VIGOUR:

Good, Fair or Poor. This describes the ability of a tree to promote extension growth and wound-callus effectively; this is directly related to the annual progress of tree growth, including root systems, which are dependent on in-situ and environmental conditions.

### GENERAL CONDITION:

Describes a tree or group of trees in a broad term of convenient précis that considers all of these Tree Descriptors as mentioned in Documents & Tree Data Tables & Photos.

### SAFE USEFUL LIFE EXPECTANCY (SULE): **As per AS 4970-2009:**

Safe Useful Life Expectancy (SULE) means that in a planning context the length of time a tree can be maintained as a useful amenity and not a liability is by far the most important long-term consideration. SULE is contingent on a number of obvious management assumptions and the fundamental principles of public safety and usefulness in the landscape. Trees are a renewable resource.

## **Arboricultural Consultancy Assumptions and Limiting Conditions - OSM**

1. Any legal description provided to the consultant is assumed to be correct. Any titles and ownerships to any property are assumed to be good. No responsibility is assumed for matters legal in character. Information is supplied objectively in a spirit of good-intent.
2. It is assumed that any property/project is not in violation of any applicable codes, ordinances, statutes or other government regulations; especially authority policies.
3. Care has been taken to obtain all information from reliable sources; access may be limited. All data has been verified in so far as possible, however; the consultant can neither guarantee nor be responsible for the accuracy of the information provided by others. Sometimes variations and amendments can be misplaced in the transfer.
4. The consultant shall not be required to give testimony or to attend court by reason of this report unless subsequent contractual arrangements are made, including payment of an additional fee for such services; this would always be part of the engagement process.
5. Loss or alteration of any part of this report invalidates the entire report; refer attachments.
6. Possession of this report or a copy thereof does not imply right of publication or use for any purpose by anyone but the person to whom it is addressed, without the prior written consent of the consultant; in this case Mr Andrew J. Patrick of Open Space Management.
7. Neither all nor any part of the contents of this report, nor any copy thereof, shall be used for any purpose by anyone but the person to whom it is addressed, without the written consent of the consultant; not shall it be conveyed by anyone, including the client, to the public through advertising, public relations, news, sales or other media, without the written consent of the consultant or the Client Affiliates.
8. This report and any values expressed herein represent the opinion of the consultant and the consultant's fee is in no way contingent upon the reporting of the specified value, a stipulated result, the occurrence of a subsequent event, nor upon any findings reported.
9. Sketches diagrams, graphs and photographs in this report, being intended as visual aids, are not necessarily to scale and should not be construed as engineering or architectural reports or surveys. \*In this instance there are update changes to tree-numbering to T89.
10. Unless expressed otherwise: Information contained in this report covers only those items that were examined and reflect the condition of those items at inspection time.
11. The inspection is limited to visual examination accessible components without dissection, excavation or probing unless otherwise indicated within the report as shown in photos.
12. There is no warranty or guarantee, expressed or implied, that the problems or deficiencies of the plants or property in question may not arise in the future. In particular trees are dynamic and conditions change. Environmental and weather or climatic conditions are extremely variable. The sites usually remain stable within their topography and geography unless they are affected by peripheral influences of construction; Biotic and Abiotic influences. Vandalism is also a known environmental influence; sometimes intentional.