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Wednesday, 3 April 2024

Reference: JN7174

Rob Bakes
Board Member
Kyneton and District Town Square Co-Op
info@kynetononline.org

**Quantified Tree Risk Assessment Report on Ten (10) trees at Kyneton Show Grounds
184 Mollison Street Kyneton 3444.**

Dear Rob,

I am pleased to provide you with this quantified tree risk assessment report for Ten trees at the above address.

The methodologies, conclusions and recommendations contained in this report have been formulated in accordance with best industry practices and methodologies stated on page 2 of the report.

Should you have any questions or queries, please don't hesitate to contact me further.

Best regards,

Adam Demler
Consulting Arborist
AQF Level 8 (Grad.dip) Arboriculture



Quantified Tree Risk Assessment Report



JN7174

3 April 2024

1. Summary

- 1.1 Ten (10) trees underwent visual inspection at a site located at Kyneton Show Grounds (184 Mollison Street Kyneton 3444) following concerns for tree health, structure, and viability raised by members of the Kyneton and District Town Square Co-Op.
- 1.2 The tree(s) were assessed for the probability of part or whole tree failure causing injury/death, damage to properties, or disruption to events and services in accordance with Quantified Tree Risk Assessment (QTRA) methodologies.
- 1.3 As a result of this assessment, practical recommendations were formulated in accordance with best practice and sustainable environmental outcomes as follows:

Tree ID	Species	QTRA	Recommendation
1	Ulmus procera	<1/1M (Broadly acceptable)	Decompaction, Fertilising, Irrigation, Mulching
2	Ulmus procera	<1/1M (Broadly acceptable)	Decompaction, Fertilising, Irrigation, Mulching
3	Ulmus procera	<1/1M (Broadly acceptable)	Decompaction, Fertilising, Irrigation, Mulching
4	Ulmus procera	<1/1M (Broadly acceptable)	Decompaction, Fertilising, Irrigation, Mulching
5	Ulmus procera	<1/1M (Broadly acceptable)	Decompaction, Fertilising, Irrigation, Mulching, Remove deadwood 50-100mm diameter
6	Ulmus procera	<1/1M (Broadly acceptable)	Decompaction, Fertilising, Irrigation, Mulching
7	Ulmus procera	<1/1M (Broadly acceptable)	Decompaction, Fertilising, Irrigation, Mulching
8	Ulmus procera	<1/1M (Broadly acceptable)	Decompaction, Fertilising, Irrigation, Mulching
9	Ulmus procera	1/400K (Tolerable where imposed on others)	Remove and replace.
10	Ulmus procera	1/500K (Tolerable where imposed on others)	Decompaction, Fertilising, Irrigation, Mulching, Remove deadwood 50-100mm diameter

2. Introduction

- 2.1 Arborcraft Tree Services (Arborcraft) was engaged by Rob Bakes on behalf of Kyneton and District Town Square Co-Op (the Client). Adam Demler of Arborcraft Tree Services collected data on the subject trees on assessment date. Adam Demler examined the data, formulated recommendations, and compiled them into a report.
- 2.2 This site summary report has been based on inspection of the subject tree(s), from ground level, using principles of Visual Tree Assessment (VTA) as proposed by Mattheck (2007) with methods of tree risk assessment as proposed by Dunster et al (2017) and Ellison (2005).
- 2.3 A Preliminary Tree Assessment prepared by Homewood Consulting Pty Ltd on 4 May 2023 and endorsed by Macedon Ranges Shire Council was reviewed as part of the scope of this report.

2.4 Full use of this report is permitted subject to the conditions restricting its use, as outlined in Appendix A: Assumptions and Limitations.

3. Observations

3.1 The trees are located within the Macedon Ranges Local Government Area (LGA). The site is public open space used for passive and active recreational activities. The 'preferred option' for facilitating upgrades to netball courts identified in the Kyneton Showgrounds Master Plan would necessitate the trees removal.

3.2 Pursuant to the Macedon Ranges tree management policy, trees on roadsides or public land will require a permit to cut, destroy, damage, remove or interfere with any, including dead trees and fallen limbs or plants.

3.3 The subject trees are marked up on an aerial image in Figure 1 to facilitate on-site identification. The trees have a unique identification (ID) number adapted by the Homewood report. The trees have been assigned unique names by the Kyneton and District Town Square Co-Op which are referenced in the Tree Inspection Schedule below. No trees are physically tagged on-site.



Figure 1: Aerial image of the site for identifying the tree(s) on-site. Image sourced from Google Earth. Imagery dated 13/01/2023.

3.4 The trees provide moderate to high significance to the local amenity mostly through social sentiment and shade/cooling. The trees are not specifically mentioned in any known heritage statement of significance although may be form part of:

- HO13: Avenue of Elm Trees along Beauchamp Street, Kyneton (from Mollison to Edgcombe Streets). The trees do not form consistent planting distance with roadside trees along Beauchamp Street however are consistent in species and age and are highly visible from Beauchamp Street.

- Shire of Kyneton Conservation (Heritage) Study Vol. 1 (*Bick, Murphy, Patrick, & Priestley, 1990*). Page 81, Objectives of Planning, 1. (c) states: The objectives of planning in this area (Mollison Street) are to encourage the retention of 19 early 20th century (pre-1930) plantings that are not individually listed where these elements make a positive contribution to the streetscape.
- 3.5 Useful Life Expectancy (ULE) forms part of basis of this report, which estimates how long a tree is likely to remain viable in the landscape based on species, stage of life (cycle), health, amenity, environmental services contribution, conflicts with adjacent infrastructure and risk. ULE has been provided in ranges based on a modified version of the Sustainable Retention Index Value (SRIV)© (*IACA, 2010*).
- 3.6 ULE is indicative of a tree at the time it was inspected based on variables and attributes which were known to the assessor at the time of the inspection, including health, structure, growing environment, site usage. ULE alone should not be considered a deciding factor when deciding on whether to retain trees, as the ULE score can change quickly along with its variables which are influenced by changes in climate, site use, or maintenance regime. Instead, ULE along with significance should be considered during the planning stages of any development.
- 3.7 Tree health is the ability for a tree to sustain its life's processes. At the time of inspection, the trees showed historical signs of stress, likely to be attributed to previous drought conditions, pests (primarily Elm Leaf Beetle) and, the previous (2011) development of the netball courts which would likely have conflicted with tree roots and compacted the growing environment. The trees showed an epicormic growth response which indicates they are managing by undergoing natural physiological growing processes. With a basic maintenance regime, such as implementing good cultural practices (i.e mulching and fertilising), the trees will remain viable beyond their ULE projections. Further and additionally, by investing resources such as decompaction and aeration (pulling back hard surfaces and injecting soils with compressed air to expand and fracture soils) the trees would likely thrive.
- 3.8 Tree 9 exhibited poor structure due to a highly modified crown, and a trunk with a long-standing cavity forming cracks. The lower trunk was sounded using a nylon sounding mallet comparing acoustic variations in the area adjacent to the cavity with areas presumed to have sound structure. The testing did not confirm unreasonable thresholds for failure although the structure was not able to support the crown reforming. Structure was unlikely to be sustainable without the requirement for excessive maintenance i.e ongoing pruning to maintain heavily modified size/shape. (Refer Figure 2 and Figure 3 below).
- 3.9 Trees 5 and 10 contained 50-100mm dead branches which could impact areas that are likely to be used for passive and active recreational activities. Deadwood has occurred during the previous 12 months, with minimal signs of new growth observed.



Figure 2: Image looking west at Tree 9 showing a cavity in its lower trunk which has cracks appearing adjacent to it (not visible in photo). Image taken on 12th March 2024 by Adam Demler.

Figure 3: Image looking north at Tree 9 illustrating a longitudinal crack forming adjacent to the previously mentioned cavity. Image taken on 12th March 2024 by Adam Demler.

3.10 Tree data has been collated into a Tree Inspection Schedule below:

Tree ID/ Client ref.	Species	Origin	Height (m)	DBH (cm)	Crown spread (m)	Health	Structure	Age class	ULE	Significance
1/ Infinity	Ulmus procera	Exotic	10-15	70	10-15	Fair to poor	Fair	Mature	15 < 40	Avenue Shade tree Support sentimental
2/ Rails	Ulmus procera	Exotic	10-15	65	5-10	Fair	Fair	Mature	15 < 40	Avenue Support sentimental
3/ Imagine	Ulmus procera	Exotic	10-15	60	10-15	Fair to poor	Fair	Mature	15 < 40	Avenue Shade tree cultural association
4/ Ned Kelly	Ulmus procera	Exotic	10-15	70	10-15	Fair to poor	Fair	Mature	15 < 40	Avenue Shade tree cultural association
5/ Estinajoe	Ulmus procera	Exotic	10-15	60	10-15	Fair to poor	Fair	Mature	15 < 40	Avenue Shade tree cultural association
6/ Brian	Ulmus procera	Exotic	5-10	50	5-10	Fair to poor	Fair	Mature	15 < 40	Avenue Shade tree Support sentimental
7/ Samaritan	Ulmus procera	Exotic	5-10	60	10-15	Fair to poor	Fair	Mature	1 < 15	Avenue Shade tree Support sentimental
8/ Codybay	Ulmus procera	Exotic	10-15	65	5-10	Fair to poor	Fair	Mature	1 < 15	Avenue Shade tree Support sentimental
9/ Hugh & Jenny	Ulmus procera	Exotic	5-10	5-10	5-10	Poor	Poor	Mature	1 < 15	Avenue Shade tree Support sentimental
10/ Margaret	Ulmus procera	Exotic	10-15	70	10-15	Poor	Fair to poor	Mature	1 < 15	Avenue Shade tree Support sentimental



Figure 4: Photo taken of Tree 1 (*Ulmus procera*) in its growing environment. Image taken on 12th March 2024 by Adam Demler.



Figure 5: Photo taken of Tree 2 (*Ulmus procera*) in its growing environment. Image taken on 12th March 2024 by Adam Demler.



Figure 6: Photo taken of Tree 3 (*Ulmus procera*) in its growing environment. Image taken on 12th March 2024 by Adam Demler.



Figure 7: Photo taken of Tree 4 (*Ulmus procera*) in its growing environment. Image taken on 12th March 2024 by Adam Demler.



Figure 8: Photo taken of Tree 5 (*Ulmus procera*) in its growing environment. Image taken on 12th March 2024 by Adam Demler.



Figure 9: Photo taken of Tree 6 (*Ulmus procera*) in its growing environment. Image taken on 12th March 2024 by Adam Demler.



Figure 10: Photo taken of Tree 7 (*Ulmus procera*) in its growing environment. Image taken on 12th March 2024 by Adam Demler.



Figure 11: Photo taken of Tree 8 (*Ulmus procera*) in its growing environment. Image taken on 12th March 2024 by Adam Demler.



Figure 12: Photo taken of Tree 9 (Ulmus procera) in its growing environment. Image taken on 12th March 2024 by Adam Demler. Figure 13: Photo taken of Tree 10 (Ulmus procera) in its growing environment. Image taken on 12th March 2024 by Adam Demler.

4. Quantified Tree Risk Assessment

- 4.1 The subject trees were assessed for risk in accordance with the QTRA methodologies as follows. Read further about the QTRA method in *Appendix B: Quantified Tree Risk Assessment*.
- 4.2 Given the trees structure at the time of assessment and infrequent target occupancy, the subject trees scored broadly acceptable and tolerable risk ratings. However, Trees 9 and 10 have defects which could be practicably managed in order to reduce risk. Therefore, management of the trees is required and has been recommended.

Tree no.	Target type	Size of Part	Probability of Failure	Risk Threshold
1	Human	110mm - 250mm dia	5 (1/10,000 - 1/100,000)	<1/1M (Broadly acceptable)
2	Human	110mm - 250mm dia	6 (1/100,000 > 1/1Million)	<1/1M (Broadly acceptable)
3	Human	110mm - 250mm dia	5 (1/10,000 - 1/100,000)	<1/1M (Broadly acceptable)
4	Human	110mm - 250mm dia	5 (1/10,000 - 1/100,000)	<1/1M (Broadly acceptable)
5	25mm - 100mm dia	25mm - 100mm dia	3 (1/100 -> 1/1000)	<1/1M (Broadly acceptable)
6	Human	25mm - 100mm dia	5 (1/10,000 - 1/100,000)	<1/1M (Broadly acceptable)
7	Property	110mm - 250mm dia	5 (1/10,000 - 1/100,000)	<1/1M (Broadly acceptable)
8	Property	110mm - 250mm dia	4 (1/1000 - >1/10,000)	<1/1M (Broadly acceptable)
9	Human	>450mm dia	3 (1/100 -> 1/1000)	1/400K (Tolerable where imposed on others)
10	Human	110mm - 250mm dia	3 (1/100 -> 1/1000)	1/500K (Tolerable where imposed on others)

5. Recommendations

Tree no.	Recommendation
1	Decompaction, Fertilising, Irrigation, Mulching
2	Decompaction, Fertilising, Irrigation, Mulching
3	Decompaction, Fertilising, Irrigation, Mulching
4	Decompaction, Fertilising, Irrigation, Mulching
5	Decompaction, Fertilising, Irrigation, Mulching, Remove deadwood 50-100mm diameter
6	Decompaction, Fertilising, Irrigation, Mulching
7	Decompaction, Fertilising, Irrigation, Mulching
8	Decompaction, Fertilising, Irrigation, Mulching
9	Remove and replace.
10	Decompaction, Fertilising, Irrigation, Mulching, Remove deadwood 50-100mm diameter

5.1 At the time of assessment, the subject trees were within acceptable risk thresholds for retention and have been prescribed arboricultural works to enhance their structure and mitigate risk as follows:

1. Removal of Tree 9 including stump grinding to allow for replanting within the same location to maintain planting distance. Stump grinding should be supervised by an AQF Level 5 Arborist or responsible person from Macedon Ranges Council. The replacement should be in a 100L container size to minimise loss to the amenity. The

replacement plant should be sourced from a reputable supplier and assessed to conform with criteria in *AS2303:2018 Treestock for landscape use*.

2. Prune Trees 5 and 10 free of all deadwood, greater than 50mm in diameter (<50mm dia.) back to live branch tissue or suitable branch union, to support crown regeneration through an epicormic response. Pruning should conform with AS4373-2007 Pruning of amenity trees and be undertaken by an AQF Level 3 Arborist.
3. A documented plant health care plan for all trees to include:

3.1 Irrigation

- 3.1.1 Regular fortnightly checks to ensure the trees have adequate amount of soil-moisture. Most roots responsible for water uptake are in the top 10-30cm of soil. Basic soil moisture checks can be undertaken by hand digging up to 30cm below the crown. If the soil contains obvious signs of moisture, then water is not needed. Contrarily saturated soils can be favourable for plant pathogens and root rot.
- 3.1.2 Drip irrigation that provides even coverage and targets absorbing roots is most successful and encourages deeper root growth. Irrigating close to the trunk is unnecessary due to most fine roots located away from the trunk below the dripline (canopy edge). Irrigating halfway between the trunk and dripline will ensure water is most effectively used. Irrigating during cooler times such as morning and evening will reduce water loss to evaporation.

3.2 Mulching

- 3.2.1 Mulch should be applied to regulate soil moisture and temperature levels, suppress weeds, and mitigate soil compaction. A low-cost composted wood mulch is adequate in this scenario.
- 3.2.2 Mulch should be applied uniformly at 100mm depth above drip irrigation hoses, and away from the trunk. Mulch should aim to cover an area at least as large as the respective crown projection (and preferably larger) for it to be effective.
- 3.2.3 Poisoning of grass using a non-selective herbicide will negate grass from growing through mulch over time. Care should be taken when applying herbicides near trees or other significant plants. Ensure any weedy or undesired plants are spot sprayed or cut and painted and avoiding soil drenching will mitigate off target impacts.

3.3 Soil drenching

- 3.3.1 Plant fertilisers may aid health improvements in sick trees or be a suitable replacement for not being able to mulch below the dripline.

Drenching with plant tonic and growth stimulant involves applying diluted solutions directly to the root zone of a tree.

- 3.3.2 A broad-spectrum granule-fertiliser or soluble seaweed based solution should be applied quarterly in accordance with the manufacturer's specifications.
- 3.4 Future development should consider the trees first for retention and the benefits they can provide.
- 3.5 Consultation with a qualified (min. AQF Level 5) Arborist with experience in Protecting trees on development sites, at early stages of the development.
- 3.6 As far as practical, works should be excluded from within the area commonly referred to as the '*Tree Protection Zone (TPZ)*' (equal to 12x trunk diameter, measured at 1.4m above ground level).

4. References

- Bick, D., Murphy, P., Patrick, P., & Priestley, S. (1990). Shire of Kyneton Conservation (Heritage Study (Vol. 1).
- Dunster, J., Smiley, T. E., Matheny, N., & Lilly, S. (2017). Tree Risk Assessment Manual (2nd ed). Champaign: International Society of Arboriculture.
- Ellison, M. J. (2005). Quantified Tree Risk Assessment in Management of Amenity Trees. *Journal of Arboriculture*, 31(2), 57-65.
- IACA. (2010). SUSTAINABLE RETENTION INDEX VALUE. Retrieved from <http://www.iaca.org.au/>
- Mattheck, C. (2007). Updated Field Guide for Visual Tree Assessment (1st ed.). Karlsruhe: Forschungszentrum Karlsruhe GmbH.

Appendix A: Assumptions & Limitations

This Report is prepared for the sole and exclusive use of the person(s) named on the covering page (Client) and may not be used or acted upon by any other party, distributed ArborCraft Tree Services does not warrant the accuracy any measurements, diagrams, graphs, drawings, images, satellite photographs or other information contained or referred to in this Report are accurate or suitable to be relied upon for any purpose or use of the Client or any other party. To the maximum extent permitted by law, ArborCraft Tree Services shall not be liable for any loss, damage, liability or claim resulting from or relating to, whether directly or indirectly, the contents of this Report. No director, officer, employee or contractor of ArborCraft Tree Services shall be required to give a testimony or attend court in relation to this Report unless validly subpoenaed or under subsequent contractual arrangements, which may include payment of an additional fee. ArborCraft Tree Services remains at all times the owner of the copyright in this Report and may use it in any way it sees fit.

Appendix B: Quantified Tree Risk Assessment

Arborcraft Tree Services uses the QTRA system to balance tree risk mitigation with the costs of performing tree works. Costs associated with performing tree works can include both the allocation of resources (financial outlay) to mitigate applicable risks and the loss of environmental benefits from performing said works. The QTRA system applies established and accepted risk management principles to tree safety management.

A suitably qualified and experienced Arborcraft tree assessor uses the QTRA system to analyse risk in three key stages:

- 1) **Target** (land use) – who or what will be impacted in the event of failure. To accurately determine who or what the target may be, records of occupancy may be reviewed, or the assessor(s) may measure a sample of occupancy during a period which best represents the median target range.
- 2) **Consequence of failure** – the result of damages from tree failure. The size of the tree part most likely to fail and impact the target is typically considered to determine consequence. The assessor(s) will combine arboricultural knowledge and training with a determination to the damage(s) that will result from tree failure. This is typically categorised as injury/death, damage to property and/or, disruption to services or events.
- 3) **Probability of failure** – the likelihood of said tree or tree branch failing. The assessor(s) will consider the mechanical and botanical characteristics of the tree(s) with a broad assessment of ‘typical’ weather patterns. Typical weather patterns include weather generally predictable by the lay person at a given time of year which may be typical of that area excluding inclement weather such as cyclones.

Once these values have been determined a QTRA output (termed Risk of Harm) can be calculated by manually entering them into a calculator or software application. Risk of Harm is presented as a threshold which is comparative to the baseline of a fatality within the coming year. The thresholds can be seen graphically in Table 1 below to inform the tree manager/owner who is ultimately responsible for implementing risk management.

Establishing that risks have been minimised to the greatest extent that is realistically feasible (As Low As Reasonably Practicable – ALARP) entails a careful assessment of both the risk itself and the costs including (any) loss of amenity associated with reducing that risk. If it can be proven that there is a substantial disparity between the risk's significance and the associated sacrifice or cost, with the risk being minor compared to the sacrifice or cost, further risk reduction may not be considered 'practically feasible'.

Even when trees fall within generally acceptable thresholds, there may still be valid reasons for making recommendations for tree management that go beyond risk reduction. Instances where tree-related actions can be advantageous include enhancing tree structure and extending its useful lifespan, pre-emptively addressing, or minimising the likelihood of future defects, and enhancing the tree's overall appeal and visual qualities.

Table 1 - QTRA Advisory Risk Thresholds

QTRA Advisory Risk Thresholds

Thresholds	Description	Action
>1:1 000	<p>Unacceptable</p> <p>Risks will not ordinarily be tolerated</p>	<ul style="list-style-type: none"> Control the risk
1:1 000	<p>Unacceptable (where imposed on others)</p> <p>Risks will not ordinarily be tolerated</p>	<ul style="list-style-type: none"> Control the risk Review the risk
	<p>Tolerable (by agreement)</p> <p>Risks may be tolerated if those exposed to the risk accept it, or the tree has exceptional value.</p>	<ul style="list-style-type: none"> Control the risk unless there is broad stakeholder agreement to tolerate it, or the tree has exceptional value Review the risk
1:10 000	<p>Tolerable (where imposed on others)</p> <p>Risks are tolerable if ALARP</p>	<ul style="list-style-type: none"> Assess costs and benefits of risk control Control the risk only where a significant benefit might be achieved at a reasonable cost Review the risk
1:1 000 000	<p>Broadly Acceptable</p> <p>Risk is already ALARP</p>	<ul style="list-style-type: none"> No action currently required Review the risk

Appendix C: Characteristics Descriptors

The descriptors used within this report are based on a modified version of commonly accepted industry standards and methodologies, adjusted for localised environmental factors.

Age Class

Young	Trees which were propagated from seed or cutting within 5 years.
Juvenile	Trees which could not be propagated within 5 years. Trees which have established outside of the soil container volume, although does not currently represent a form consistent of a mature specimen.
Semi-mature	Trees 50% < 90% of the expected height/spread and form modified by the growing environment.
Mature	Trees which represent typical form and < 90% of the expected height/spread modified by the growing environment.
Over-mature/senescent	Trees which represent typical mature size which are no longer upwards or outwards. Health is declining, and the crown is retrenching.

Useful Life Expectancy

<1 years	<ul style="list-style-type: none"> • <i>Hazardous due to very poor structure and/or unacceptable risk.</i> • <i>The tree has the potential to cause significant environmental damage within its local surrounds.</i> • <i>Trees which are widely allergenic or irritative and likely to cause serious injury to the wider community.</i> • <i>Trees causing property damage which exceeds its environmental benefits to the community.</i>
1 < 15 years	<ul style="list-style-type: none"> • <i>Trees which may live for more than 15 years but should be removed due to safety concerns due to poor structure and/or undesirable species.</i> • <i>Trees with weedy tendencies within site context.</i> • <i>Trees which present tolerable risk only with excessive or unsustainable maintenance regimes.</i> • <i>Trees which exhibit defects generally known to cause pre-mature failure within the species within 15 years.</i> • <i>Over-mature/ senescent trees which are in irreversible decline.</i> • <i>Trees which are heavily restricted by their growing environment and will disrupt services to a community or major service</i>
15-40 years	<ul style="list-style-type: none"> • <i>Trees which may live for longer than 40 years but could be replaced with a more suitable species or superior specimen.</i> • <i>Trees which exhibit fair-to poor structure with defects that are generally tolerated by the species.</i> • <i>Trees which require ongoing maintenance which could otherwise be replaced with a specimen with the same environmental qualities and less maintenance.</i> • <i>Trees which are moderately restricted by their growing environment or will be before reaching maturity.</i>
> 40 years	<ul style="list-style-type: none"> • <i>Trees of fair or good health which present typical of the species.</i> • <i>Trees of high significance which could be retained with a maintenance regime.</i> • <i>Trees unrestricted by above- and below-ground constraints.</i> • <i>Trees growing within a favourable environment that will support a mature size.</i>

Health

	Vigour/Extension Growth	Decline symptoms/ Deadwood	Foliage density size, colour, intactness	Pests and or disease
Good	Above typical	None or minimal	Better than typical	None or minimal
Fair	Typical	Typical or expected	Typical	Typical, within damage thresholds
Fair to Poor	Below typical	More than typical	Showing deficiencies	Exceeds damage thresholds
Poor	Minimal	Excessive and large amount/sized	Showing severe deficiencies	Extreme and contributing to decline
Dead	N/A	N/A	N/A	N/A

Structure

	Root plate and low stem	Trunk	Structural limbs	Outer crown and roots
Good	No damage, disease, or decay; obvious basal flare/stable in ground	No damage, disease, or decay; well tapered	Well formed, attached, spaced, and tapered.	No damage, disease, decay, or structural defect.
Fair	Minor damage or decay. Basal flare present.	Minor damage or decay	Typically formed, attached, spaced, and tapered.	Minor damage, disease, or decay; minor branch end-weight or over-extension.
Fair to Poor	Moderate damage or decay; minimal basal flare	Moderate damage or decay; approaching recognised thresholds	Weak, decayed or with acute branch attachments; previous branch failure evidence.	Moderate damage, disease, or decay; moderate branch end-weight or over-extension.
Poor	Major damage, disease, or decay; fungal fruiting bodies present. Excessive lean placing pressure on root plate	Major damage, disease, or decay; exceeds recognised thresholds; fungal fruiting bodies present. Acute lean. Stump re-sprout.	Decayed, cavities or has acute branch attachments with included bark; excessive compression flaring; failure likely.	Major damage, disease, or decay; fungal fruiting bodies present; major branch end-weight or over-extension.
Very Poor	Excessive damage, disease, or decay; unstable/loose in ground; altered exposure; failure probable	Excessive damage, disease, or decay; cavities. Excessive lean. Stump re-sprout.	Decayed, cavities or branch attachments with active split failure imminent.	Excessive damage, disease, or decay; excessive branch end-weight or over-extension.

