PEACOCK
TREE CONSULTANCY

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Arboricultural Report

Title:	**Inspection of 13 weeping willow trees located at: Northchurch Recreation Ground, Tring Road, Berkhamsted HP4 3SF.**
Instructed by:	Mrs U Kilich Northchurch Parish Council PO Box 2603 Langley Hill Kings Langley WD4 4EJ
Prepared by:	**A S Peacock** ABC Level 6 Diploma in Arboriculture
Date:	16 March 2022
Reference:	APR140322/1

1.0 Instructions

I have been instructed by Mr U Kilich, Clerk to Northchurch Parish Council (via her email dated 28 February 2022), to carry out an inspection of 13 weeping willow trees located along the north-east edge of Northchurch Recreation Ground, Tring Road, Berkhamsted HP4 3SF. I am to report on the following:

a) safe condition and health of the trees;
b) quantify the risk posed by the trees;
c) recommend any future management needs, and
d) provide time-frames for any work to be completed.

2.0 Report Limitations

2.1 The inspections, with the aid of binoculars, nylon sounding hammer and probe, have been carried out from ground level only, using visual observation methods. These are preliminary inspections, and therefore detailed investigations, such as decay mapping or laboratory analysis of plant and soil samples, have not been completed. Should a more detailed inspection be required, then this will be highlighted under 'Summary of Management Recommendations' (paragraph 4.0).

2.2 This Report only relates to the 13 weeping willow trees plotted on the Tree Location Plan at Appendix 1. I did not have access to view the trees from within the adjacent private properties. My observations are confined to what was visible from within Northchurch Recreation ground and any public areas, e.g., footpaths and highways.

2.3 Trees are living organisms whose health and condition can change rapidly; the health, condition and safety of trees should be checked on a regular basis, preferably at least once a year. The recommendations are only valid for a maximum of two years from the date of this Report. This period of validity may be reduced in the case of any change in conditions to, or, in proximity to the trees.

2.4 I have assessed the site for Targets (i.e. something having the potential to be harmed by the tree). However, I have only seen a snapshot of the site usage, and site managers are advised to consider my appraisal against their knowledge of the site.

Photograph 1 - Illustrating the 13 weeping willow trees.

3.0 Introduction

3.1 Qualifications and Experience.

I am Alex Peacock, a qualified and independent arboriculturist. A summary of my qualifications, experience and professional memberships are included at Appendix 3.

3.2 Target Appraisal.

The trees are positioned at the far end of a large field which is predominantly used for public recreation. I have estimated the average pedestrian occupancy level beneath each tree within the mown field area, at 2 to 14 minutes per day (Target Range 3). This considers an increase in use at weekends, but also a decrease when the weather conditions are poor (i.e., when tree failures are more likely to occur). To the north-east side of the group of trees there is a boggy nature area which has low occupancy levels, e.g., 1 minute per week to 1 minute per month (Target Range 5).

3.3 Statutory Protection.

According to an interactive mapping system on the Dacorum Borough Council website (accessed on 14 March 2022), the trees are not protected by a Tree Preservation Order (TPO) or located within a Conservation Area.

3.4 Site Visit.

I carried out my inspections on 8 March 2022.

3.5 Method of Inspection.

My inspection of the trees was based on a technique called Visual Tree Assessment (VTA), in which symptoms, i.e. external growth features of the trees, are interpreted to identify internal defects. The VTA method is employed all over the world and has been the basis of many court decisions. Nevertheless, even trees without defects can fail, therefore there cannot be any absolute guarantee of safety since the circumstances or forces of nature are unavoidable.

3.6 Quantified Tree Risk Assessment (QTRA).

To quantify the level of risk posed by the trees I have applied the QTRA method (of which I am a Registered User). QTRA provides a framework for the assessment of the three primary components of tree-failure risk. The input values for these components are set out in broad ranges of Target, Size and Probability of Failure. Estimated values for each component are inputed into a manual calculator to calculate the Risk of Harm (RoH). A summary explaining QTRA is included at Appendix 4 and further information can be gained by visiting www.qtra.co.uk.

3.7 **Tree identification.**

Each individual tree has an aluminium number tag attached to its stem, which corresponds with the numbering on the Tree Schedules at Appendix 2. I have plotted the approximate locations of each tree on the Tree Location Plan (Appendix 1).

3.8 **Recording of Data.**

The Tree Schedules contain all data collected during my inspections, including a description of the significant defects observed, and my recommendations for any management required. I have summarised my recommendations in paragraph 4.0 below.

4.0 Summary of Management Recommendations

4.1 The risks posed by the trees in Table 1 below are 'Unacceptable' and action is needed to control the risk. I strongly recommend that the following management is completed as soon as practically possible:

Tag Number	Species	Management Recommendations
1030	Weeping willow	Reduce tree height and spread by 2 metres. Remove all hanging branches and any dead wood <5 centimetres in diameter.
1031	Weeping willow	Reduce by 2 metres, the length of branches on the south-west side of the tree. Remove three hanging branches and a further branch with a split (at 8 metres height to the south-west). Remove all dead wood <5 centimetres in diameter.
1032	Weeping willow	Option 1 - Reduce tree height and spread by 3 metres. Remove all hanging branches and any dead wood <10 centimetres in diameter. Option 2 - Remove the tree.

Table 1

4.2 The risks posed by the trees in Table 2 are in the 'Tolerable' threshold, and the corresponding management recommendations must be completed within 1 year. Nevertheless, site managers may undertake an analysis, to determine whether the overall costs of risk control is balanced with the benefits of reduced risk, i.e., to ensure the management is proportionate and practicable to the individual circumstances of the site. Guidance for the cost/benefit analysis can be found in the Quantified Tree Risk Assessment Practice Note, available at to http://www.qtra.co.uk/cms/index.php?section=25

Tag Number	Species	Management Recommendations
1022	Weeping willow	Reduce tree height and spread by 2 metres. Remove all hanging branches and any dead wood <10 centimetres in diameter.
1024, 1025 1027, 1033 and 1034	Weeping willow	Reduce by 2 metres, the length of branches on the south-west side of the tree.
1026	Weeping willow	Remove a large hanging branch at 6 metres height.
1028	Weeping willow	Shorten by 2 metres, the length of the last remaining lateral branch (to the south). Remove two branch stubs (located at 4 and 5 metres height to the south) and clear the fallen branch.
1029	Weeping willow	Reduce by 2 metres, the length of branches on the south-west side of the tree. Remove a large dead branch (15 centimetres in diameter) at 5 metres height to the south-east side of the stem.

Table 2

5.0 Additional Management Considerations

5.1 My inspections have highlighted that the majority of the trees are becoming increasingly liable to branch failures, and subsequently require management to mitigate the elevated levels of risk they pose.

5.2 However, is important to recognise that the trees in this group collectively hold a very high aesthetic value, providing other social, ecological and environmental benefits to the recreation ground and the wider community.

5.3 The pruning work described in Tables 1 and 2 is likely to be expensive, both financially, and in terms of decreasing the amenity value of the group. Furthermore, the pruning may also negatively impact the longevity and health of individual trees, affecting their ability to defend against pests and pathogens.

5.4 I therefore advise that consideration is given to the following two alternative options:

1. Completely remove the entire group of trees, grind their stumps to 300 millimetres below ground level, then re-instate the ground with topsoil and seed with grass. Re-plant with 13 trees of the same species (12-14cm stem circumference, in 45 litre containers.
2. Instal a fixed barrier that is fit for the purpose of excluding people from within the drip line of trees, e.g. a wooden 3 bar, post and rail fence. Then avoid mowing the area to allow dense undergrowth to develop (enhancing inaccessibility of the high risk area). All-weather warning signs shall be attached to the barrier at 5m intervals with wording: 'HAZARDOUS TREES - NO ACCESS'

5.5 My preferred option is to fence off the trees, as it is the cheapest option and will preserve the important aesthetic, ecological and social benefits the trees provide to the park. By removing the target from the predominant hazard (i.e. falling branches), the risk will be decreased to acceptable levels.

6.0 Re-inspection

6.1 All of the trees are to be re-inspected within two years of the date on this Report by a qualified arboriculturist.

6.2 It is strongly advised that interim inspections are completed by site managers after periods of extreme weather, such as high winds and heavy snowfall, to check for damage to their trees.

7.0 Other Considerations

It is important that wherever possible, any tree work is carried out to the standards in BS 3998 (2010) *Recommendations for Tree Work.* It is advisable to select a contractor approved by the Arboricultural Association; their Register of Contractors is available free from The Malthouse, Stroud Green, Standish, Stonehouse GL10 3DL - Telephone 01242 522152 - website: www.trees.org.uk

8.0 Disclaimers

This report is for the sole use of the above named client and refers to only those trees identified within; use by any other person(s) in attempting to apply its contents for any other purpose renders the report invalid for that purpose.

Alex Peacock

Alex Peacock *Dip Arb L6 (ABC), MArborA*
Director of Peacock Tree Consultancy Ltd

Appendix 1 - Tree Location Plan

SITE ADDRESS:
Nortchurch Recreation Ground,
Tring Road, Berkhamsted HP4 3SF.

CLIENT:
Mrs Usha Kilich
Northchurch Parish Council

REPORT REFERENCE:
APR140322/1

DATE:
9 March 2022

N

KEY:

Individual tree where the risks are 'Unacceptable'. Requires action as soon as practically possible.

Individual tree where the risks are 'Unacceptable' (where imposed on others). Requires action as soon as practically possible.

Individual tree where the risks are 'tolerable'. Action is required within 1 year where a significant benefit might be achieved at a reasonable cost.

Individual tree where the risks are 'Broadly Acceptable'. No action is currently required.

Peacock Tree Consultancy Ltd
61 Miswell Lane, Tring HP23 4DR.

The original of this drawing was produced in colour, a monochrome copy should not be relied upon.

Appendix 2 - Tree Schedules

SITE: Northchurch Recreation Ground, Tring Road, Berkhamsted HP4 3SF.	**SURVEYOR:** Alex Peacock.
CLIENT: Mrs U Kilich - Northchurch Parish Council.	**ASSESSMENT DATE:** 8 March 2022.
BRIEF: Individual Inspection of 13 weeping willow trees and assessment of the risks posed.	**VIEWING CONDITIONS:** Sunny with light cloud.
	REPORT REFERENCE: APR140322/1.

HEADINGS AND ABBREVIATIONS

Tag Number: Individual reference number for each tree.
Species: Scientific name of the species being recorded.
Age Range: **Y** = young, **SM** = semi mature, **EM** = early mature, **M** = mature, **PM** = post mature.
Height: Measured or estimated height of each tree, or the tallest tree in the group (dimensions which have been measured are suffixed with a *).
Stem diameter: Stem diameter of the tree, or the largest for the group - measured at a height of approximately 1.5 metres (or at ground level for multi-stemmed trees).
Vitality: A measure of physiological condition using visual assessment of extension growth, crown transparency, and branch architecture, then comparing with what I consider is normal for that species. **D** = dead, **MD** = moribund, **P** = poor, **R** = reduced for the species and age, **N** = within the normal range for the species and age.
Target Range: QTRA target range. Where there is constant occupation of the target by more than one person, or a property target has a repair or replacement value that is greater than VOSL. This is expressed as a 'multiple target' e.g. constant occupation by 10 people would be expressed as target range 1(10t). The 'multiple target' is then carried through to the risk of harm to identify the increased consequence .
Size Range: QTRA size range of the tree or branch that has been assessed.
POF Range: QTRA range of probability of failure within 12 months.
Reduced Mass %: Where the mass of a branch is reduced by degradation. The risk of harm is multiplied by a fraction of either ¼ or ½ to reflect the remaining proportion of the original branch.
Risk of Harm: The risk of harm for the coming year.
Risk Assessment Description: Description of the tree/branch and target that have been assessed.

Tag No.	Species	Age Range	Height (m)	Dia'. (mm)	Vitality	Risk assessment of (Tree/Branch & Target)	Target Range	Size Range	POF Range	Red. Mass	Risk of Harm	MANAGEMENT EXPEDIENCY
1022	*Salix babylonica*	M	19	735*	N	Branch failures onto the playing field.	3	3	2	-	1/50K	1 year
FINDINGS: The tree has a history of branch failures, with two wounds (from past failed branches) at 5 and 6 metres height to the south side (approximately 30 centimetres in diameter). Further branch failures are highly foreseeable, particularly during windy weather conditions. Hanging branches and dead wood (approximately 5-10 centimetres in diameter) are contained within the crown. The tree has an imbalanced form due to competition with other trees in the group.							**MANAGEMENT:** Reduce tree height and spread by 2 metres. Remove all hanging branches and any dead wood <10 centimetres in diameter. NB Please consider the alternative management options detailed in paragraph 5.					

Tag No.	Species	Age Range	Height (m)	Dia'. (mm)	Vitality	Risk assessment of (Tree/Branch & Target)	Target Range	Size Range	POF Range	Red. Mass	Risk of Harm	MANAGEMENT EXPEDIENCY
1023	*Salix babylonica*	M	19	734*	N	Dead branches falling onto the playing field.	3	4	3	50%	<1/1M	N/A
FINDINGS: Dead branches (approximately 20 millimetres in diameter) are contained within the tree crown. The tree has an imbalanced form due to competition with other trees in the group. No other significant defects were observed at the time of inspection.							**MANAGEMENT:** No action necessary.					

Tag No.	Species	Age Range	Height (m)	Dia'. (mm)	Vitality	Risk assessment of (Tree/Branch & Target)	Target Range	Size Range	POF Range	Red. Mass	Risk of Harm	MANAGEMENT EXPEDIENCY
1024	*Salix babylonica*	M	17	700*	N	Branch failures onto the playing field.	3	3	2	-	1/50K	1 year
FINDINGS: The tree has a history of branch failures, with two wounds (from past failed branches) at 11 metres height to the south-west side (approximately 30 centimetres in diameter). Further branch failures are highly foreseeable, particularly during windy weather conditions. Dead wood (approximately 40-50 millimetres in diameter) is contained within the crown. The tree has an imbalanced form due to competition with other trees in the group.							**MANAGEMENT:** Reduce by 2 metres, the length of branches on the south-west side of the tree. NB Please consider the alternative management options detailed in paragraph 5.					

Tag No.	Species	Age Range	Height (m)	Dia'. (mm)	Vitality	Risk assessment of (Tree/Branch & Target)	Target Range	Size Range	POF Range	Red. Mass	Risk of Harm	MANAGEMENT EXPEDIENCY
1025	*Salix babylonica*	M	17	724*	N	Branch failures onto the playing field.	3	3	3	-	1/500K	1 year
FINDINGS: The tree has a history of branch failures, with wounds (from past failed branches) at 8 metres to the south, and two at 11 metres to the north (approximately 15-30 centimetres in diameter). Further branch failures are highly foreseeable, particularly during windy weather conditions. Dead wood (approximately 5-6 centimetres in diameter) is contained within the crown. The tree has an imbalanced form due to competition with other trees in the group.							**MANAGEMENT:** Reduce by 2 metres, the length of branches on the south-west side of the tree. NB Please consider the alternative management options detailed in paragraph 5.					

Tag No.	Species	Age Range	Height (m)	Dia'. (mm)	Vitality	Risk assessment of (Tree/Branch & Target)	Target Range	Size Range	POF Range	Red. Mass	Risk of Harm	MANAGEMENT EXPEDIENCY
1026	*Salix babylonica*	M	15	497*	N	Hanging branch falling onto nature area.	5	3	1	50%	1/1M	1 year
FINDINGS: A large branch has fallen from the adjacent tree and is hanging in the centre of this tree at 6 metres height. Nevertheless, it is likely to fall onto the nature area which has low occupancy levels, therefore to RoH is 'Broadly acceptable'. Dead wood (approximately 5-6 centimetres in diameter) is contained within the crown. The tree has an imbalanced form due to competition with other trees in the group.							**MANAGEMENT:** Remove a large hanging branch at 6 metres height.					

Tag No.	Species	Age Range	Height (m)	Dia'. (mm)	Vitality	Risk assessment of (Tree/Branch & Target)	Target Range	Size Range	POF Range	Red. Mass	Risk of Harm	MANAGEMET EXPEDIENCY
1027	*Salix babylonica*	M	15	628*	N	Branch failures onto the playing field.	3	3	3	-	1/500K	1 year
FINDINGS: The tree has a history of branch failures, with two wounds (from past failed branches) at 9 metres height to the north-east side and 8 metres height to the west side (approximately 10-25 centimetres in diameter). Further branch failures are highly foreseeable, particularly during windy weather conditions. Dead wood (approximately 50-60 millimetres in diameter) is contained within the crown. The tree has an imbalanced form due to competition with other trees in the group.							**MANAGEMENT:** Reduce by 2 metres, the length of branches on the south-west side of the tree. NB Please consider the alternative management options detailed in paragraph 5.					

Tag No.	Species	Age Range	Height (m)	Dia'. (mm)	Vitality	Risk assessment of (Tree/Branch & Target)	Target Range	Size Range	POF Range	Red. Mass	Risk of Harm	MANAGEMENT EXPEDIENCY
1028	*Salix babylonica*	M	7	399*	R	Branch failures onto the playing field.	3	3	3	-	1/500K	1 year
FINDINGS: A small tree which is suppressed by others in the group. On the floor there is a fallen branch (20 centimetres in diameter). Two wounds (from past failed branches) are located at 4 and 5 metres height to the south side. Failure of the last remaining lateral branch (to the south) is highly foreseeable, particularly during windy weather conditions. The tree has an imbalanced form due to competition with other trees in the group.							**MANAGEMENT:** Shorten by 2 metres, the length of the last remaining lateral branch (to the south). Remove two branch stubs (located at 4 and 5 metres height to the south) and clear the fallen branch. NB Please consider the alternative management options detailed in paragraph 5.					

Tag No.	Species	Age Range	Height (m)	Dia'. (mm)	Vitality	Risk assessment of (Tree/Branch & Target)	Target Range	Size Range	POF Range	Red. Mass	Risk of Harm	MANAGEMENT EXPEDIENCY
1029	*Salix babylonica*	M	18	727*	N	Branch failures onto the playing field.	3	3	3	-	1/500K	1 year
FINDINGS: Hanging branches and dead wood (approximately 5 centimetres in diameter) are contained within the crown, plus one larger dead branch (15 centimetres in diameter) at 5 metres height to the south-east side of the stem. The tree has an imbalanced form due to competition with other trees in the group. The tree has a history of branch failures, notably two wounds (from past failed branches) at 6 metres to the south-west and at 10 metres to the north-west (approximately 15 centimetres in diameter). Further branch failures are highly foreseeable, particularly during windy weather conditions.							**MANAGEMENT:** Reduce by 2 metres, the length of branches on the south-west side of the tree. Remove a large dead branch (15 centimetres in diameter) at 5 metres height to the south-east side of the stem. NB Please consider the alternative management options detailed in paragraph 5.					

Tag No.	Species	Age Range	Height (m)	Dia'. (mm)	Vitality	Risk assessment of (Tree/Branch & Target)	Target Range	Size Range	POF Range	Red. Mass	Risk of Harm	MANAGEMENT EXPEDIENCY
1030	*Salix babylonica*	M	19	649*	N	Branch failures onto the playing field.	3	2	2	-	1/10K	Immediate
FINDINGS: The tree has a history of branch failures, with multiple wounds (from past failed branches) evident throughout the tree crown (approximately 10-25 centimetres in diameter). Furthermore, the loss of a branch from tree 1029 has increased exposure to wind loading, especially to the south side. Further branch failures are highly foreseeable, particularly during windy weather conditions. The tree has an imbalanced form due to competition with other trees in the group. Dead wood (approximately 5-10 centimetres in diameter) is contained within the crown.							**MANAGEMENT:** Reduce tree height and spread by 2 metres. Remove all hanging branches and any dead wood <5 centimetres in diameter. NB Please consider the alternative management options detailed in paragraph 5.					

Tag No.	Species	Age Range	Height (m)	Dia'. (mm)	Vitality	Risk assessment of (Tree/Branch & Target)	Target Range	Size Range	POF Range	Red. Mass	Risk of Harm	MANAGEMENT EXPEDIENCY
1031	*Salix babylonica*	M	18	823*	N	Failure of hanging branches onto playing field.	3	3	1	-	1/5K	Immediate
FINDINGS: The tree has suffered multiple branch failures and there are three hanging branches (10-20 centimetres in diameter) within the tree crown. Areas of the tree crown appear exposed as a result of the lost branches, especially one large branch to the south (at 12 metres height). Further branch failures are highly foreseeable, particularly during windy weather conditions. Dead wood (approximately 15 centimetres in diameter) is contained within the crown. The tree has an imbalanced form due to competition with other trees in the group. At 8 metres height to the south-west there is a branch with a split.							**MANAGEMENT:** Reduce by 2 metres, the length of branches on the south-west side of the tree. Remove three hanging branches and a further branch with a split (at 8 metres height to the south-west). Remove all dead wood <5 centimetres in diameter. NB Please consider the alternative management options detailed in paragraph 5.					

Tag No.	Species	Age Range	Height (m)	Dia'. (mm)	Vitality	Risk assessment of (Tree/Branch & Target)	Target Range	Size Range	POF Range	Red. Mass	Risk of Harm	MANAGEMENT EXPEDIENCY
1032	*Salix babylonica*	M	17	799*	R	Tree failure from ground level onto playing field.	3	1	2	-	1/4K	Immediate

FINDINGS: At ground level on the east side of the stem there is an internal cavity in which a probe could be inserted to 60 centimetres depth. Highly degraded wood fibres are evident within the cavity, and externally the stem appears swollen between ground level and 1.5 metres height. The estimated quantity of decay is close to the critical limit of 70%. Sparse bud coverage can be seen in the upper crown indicating the tree is in reduced vitality, however, this may also be as a result of root degradation. Previous branch failure at 5 metres height to the south-west. Large canker at 8 metres height to the centre of the tree. Dead wood (approximately 5-6 centimetres in diameter) is contained within the crown. The tree has an imbalanced form due to competition with other trees in the group.

MANAGEMENT:
Option 1 - Reduce tree height and spread by 3 metres. Remove all hanging branches and any dead wood <10 centimetres in diameter.
Option 2 - Remove the tree.

My preferred option is #2, as this will eliminate the risk and is more viable long term management,. However, it will begin to fragment the group.

NB Please consider the alternative management options detailed in paragraph 5.

Tag No.	Species	Age Range	Height (m)	Dia'. (mm)	Vitality	Risk assessment of (Tree/Branch & Target)	Target Range	Size Range	POF Range	Red. Mass	Risk of Harm	MANAGEMENT EXPEDIENCY
1033	*Salix babylonica*	M	16	718*	N	Branch failures onto the playing field.	3	3	3	-	1/500K	1 year

FINDINGS: The tree has a history of branch failures, with a lost branch evident at 10 metres height to the south-west side. A wound is evident on the underside of a branch at 2 metres height (resting on another branch from tree 1032). Further branch failures are highly foreseeable, particularly during windy weather conditions. Dead wood (approximately 40-50 millimetres in diameter) is contained within the crown. The tree has an imbalanced form due to competition with other trees in the group.

MANAGEMENT: Reduce by 2 metres, the length of branches on the south-west side of the tree.

NB Please consider the alternative management options detailed in paragraph 5.

Tag No.	Species	Age Range	Height (m)	Dia'. (mm)	Vitality	Risk assessment of (Tree/Branch & Target)	Target Range	Size Range	POF Range	Red. Mass	Risk of Harm	MANAGEMENT EXPEDIENCY
1034	*Salix babylonica*	M	15	714*	N	Branch failures onto the playing field.	3	3	3	-	1/500K	1 year
FINDINGS: The tree has a history of branch failures, with two wounds (from past failed branches) at 9 metres to the south and 9 metres to the north side. This has left a void in the crown profile to the south. Further branch failures are highly foreseeable, particularly during windy weather conditions. Dead wood (approximately 4-5 centimetres in diameter) is contained within the crown. The tree has an imbalanced form due to competition with other trees in the group.							**MANAGEMENT:** Reduce by 2 metres, the length of branches on the south-west side of the tree. NB Please consider the alternative management options detailed in paragraph 5.					

Appendix 3 - Qualifications and Experience of Alex Peacock

Qualifications and Training

- SEG Awards ABC Level 6 Diploma in Arboriculture
- Registered User of QTRA (no. 7183)
- Lantra Awards Professional Tree Inspection
- ABC Level 3 Technicians Certificate in Arboriculture (the current equivalent of ABC Level 4 Diploma in Arboriculture)

Memberships

- Professional Member of the Arboricultural Association
- Professional Member of the International Society of Arboriculture.

Experience

I have worked in the arboricultural industry continuously since 1999, and have over 22 years of experience working with trees.

In January 2000 I established a tree contracting company, Peacock Tree Ecology Limited, which achieved the highly accredited status of Arboricultural Association Approved Contractor in 2013.

During my time as a contractor, as well as being an experienced climbing arborist, I managed all business activities, e.g. health and safety, biosecurity measures, training, administration and the general running of multiple tree surgery teams. I also regularly provided tree management advice to customers, including a tree consultancy service and producing professional arboricultural reports.

In 2017 I ceased trading as a contractor so that I could purely concentrate on arboricultural consultancy. I also returned to collage to study for the sought after professional qualification, the Level 6 Diploma in Arboriculture at the National Arboretum in Westonbirt (a qualification that I have now achieved).

My current role is an independent arboricultural consultant within my new company, Peacock Tree Consultancy Ltd. I regularly provide tree risk assessments for a wide range of private and commercial customers, including both large collections of multiple trees and individual trees. I also undertake detailed assessments of individual defect symptoms, using an Increment Borer and Fractometer for internal diagnostic investigations.

In addition to tree risk assessments, I provide advice relating to trees and the construction of new developments; producing detailed Arboricultural Impact Assessments, Arboricultural Method Statements and Tree Protection Plans to support planning applications.

I also regularly advise on woodland management, ancient tree management, tree planting and can cary out basic investigations into damage caused by trees to buildings and infrastructure.

Appendix 4 - What is Quantified Tree Risk Assessment?

Tree safety management is a matter of balancing the Risk of Harm from falling trees with the benefits from trees. Although it may seem counter intuitive, the condition of trees should not be the first consideration. Instead, tree managers should first consider the usage of the land on which the trees stand, which in turn will inform the process of assessing the trees.

Quantified Tree Risk Assessment (QTRA) applies established and accepted risk management principles to tree safety management in accordance with ISO 31000:2009, Risk management – Principles and guidelines, which is published by national standards agencies. By quantifying the Risk of Harm as a probability, QTRA enables the tree manager to manage the risk from tree failure to widely accepted risk thresholds.

Using the QTRA approach, the land-use (people and property) upon which trees could fail is assessed and quantified first. This enables tree managers to determine whether or not, and to what degree of rigour, a survey or inspection of the trees is required. Where necessary, the tree or branch is then considered in terms of both size (potential impact) and probability of failure. Values derived from the assessment of these three components are combined to calculate the risk of harm as a probability, which can then be compared to advisory levels of risk acceptability.

The method moves the management of tree safety away from labelling trees as either ‘safe’ or ‘unsafe’, thereby requiring definitive statements of tree safety from either tree surveyors or tree managers. Instead, QTRA quantifies the risk of significant harm from tree failure in a way that enables tree managers to balance safety with tree value and operate to predetermined risk thresholds.

By taking a QTRA approach to tree risk, tree managers commonly find they spend less resources on assessing and managing tree risk, whilst maximising the benefits their tree populations provide. Furthermore, in the event of a 'tolerable' or 'acceptable' tree risk being realised, they are in a robust position to demonstrate that they have acted reasonably and proportionately.

QUANTIFIED TREE RISK ASSESSMENT - RISK DECISION INFORMING FRAMEWORK

Risk Thresholds	Description	Action
	Unacceptable Risks will not ordinarily be tolerated	• Control the risk • Periodically review the risk
1/1 000	**Unacceptable** (where imposed on others) Risks will not ordinarily be tolerated	• Control the risk • Periodically review the risk
	Tolerable (by agreement) Risks may be tolerated if • those exposed to the risk accept it, or • the tree has exceptional value	• Control the risk unless there is broad stakeholder agreement to tolerate it, or the tree has exceptional value • Periodically review the risk
1/10 000	**Tolerable** (where imposed on others) Risks are generally tolerable	• Assess costs and benefits of risk control • Control the risk only where a significant benefit might be achieved at a reasonable cost • Periodically review the risk
1/1 000 000	**Broadly Acceptable**	• No action currently required • Periodically review the risk

Costs and Benefits of Risk Control.
Risk control measures bring benefits in terms of reducing or eliminating a risk, but those benefits come at a cost that should, in broad terms, be balanced against the benefits of risk control. For guidance on considering costs and benefits, please refer to the Quantified Tree Risk Assessment Practice Note, available at to http://www.qtra.co.uk/cms/index.php?section=25

Appendix 5 - Bibliography

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