

Tree Risk Assessment 2025

For a single English oak at East Knoyle Playground



Instructed by Felltec Tree Services
On behalf of East Knoyle Parish Council
Church Road
East Knoyle
Salisbury
SP3 6AE

Inspected and Prepared by Nick Baxter BSc(Hons) MArborA
2nd December 2025

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1 Introduction

1.1 Background information

A mature oak tree is situated at the edge of East Knoyle Playground on The Street in East Knoyle (SP3 6AL). A large limb has recently shed and the contractor identified fungal brackets at the base of the tree which led to this survey.

As managers of the tree, East Knoyle Parish Council have a duty to ensure that site users, members of the public, staff and any occupants are not put at risk because of any failure to take all reasonable precautions to ensure their safety. Accordingly, there is a need to inspect trees in or near public places, or adjacent to buildings or working areas to assess whether they represent a risk to people or property, and to take remedial action as appropriate.

A check of the Wiltshire online mapping system informs me that the whilst tree is not protected by a Tree Preservation Order (TPO), it is situated in a conservation area.

1.2 Instructions

I have been instructed by Felltec services on behalf of East Knoyle Parish Council to visit the site and survey the oak tree to assess its condition, carry out risk assessments and to recommend suitable arboricultural management. A glossary, tree plan and schedule all accompany this report.

Table 1: *Information that accompanies this report.*

A glossary	A glossary of arboricultural terms that may be used throughout the report.
A tree schedule	A schedule listing the details of the tree and its management recommendations.
A tree plan	A numbered plan showing the location of the tree included in the survey.

1.3 Site visit and tree assessment methodology

I visited East Knoyle Playground on 2nd December 2025 to survey the oak tree. Weather conditions did not present any constraints during the survey.

The inspection took place from ground level aided by the Visual Tree Assessment method (as developed by Mattheck & Breloer, 1995).

1.4 The tree plan

The tree plan presented at the rear of this report shows the location of the tree in relation to surrounding properties and landscape features, the tree's position is approximate.

1.5 Limitations

The report refers to the condition of the trees and an assessment of the site on the day that the evaluation was undertaken.

The assessment was conducted from ground level only using the Visual Tree Assessment (VTA) method. Only a sounding hammer and trowel were deemed necessary tools for this assessment; as a result, an aerial tree inspection, invasive procedures and sub-soil investigations were outside

the scope of the survey. Should further assessment involving any of these be required, it will be highlighted in the report.

No account has been taken of the effects of leaves, fruit, exudation and insect activity associated with trees that may impact people or property. In addition, this report does not consider any aspect of tree-related building subsidence or any other tree-related nuisances. The assessment of risk was calculated with the current site usage so any changes in site use will require a reassessment of the trees. The estimated risk of harm posed by the trees remains relevant for 12 months from the date of the site visit in the absence of environmental change (including but not limited to major storms and ground works).

This report is only for typical weather conditions. Healthy trees or parts of healthy trees may fail in normal weather situations, although the risk is significantly increased in storm conditions and as the consequences of such weather events are unforeseeable, Nick Baxter cannot be held liable for any such failures.

2 The Tree Assessments

2.1 Assessing tree condition

An assessment of a tree's physiological condition and the environment around the tree gives an impression of its vitality and its expected tolerance to stress, wounding and pathogenic attack. The tree has been rated by its current physiological condition as illustrated in Table 2.

Table 2: *The system for defining tree condition.*

Condition	Description
Good	No evidence of crown dieback with signs of healthy new growth.
Fair	Minor crown dieback with initial symptoms of stress.
Poor	Major crown dieback with little or no evidence of recent growth. Secondary pathogens often apparent.
Dead	No sign of live growth. An obvious dead tree.

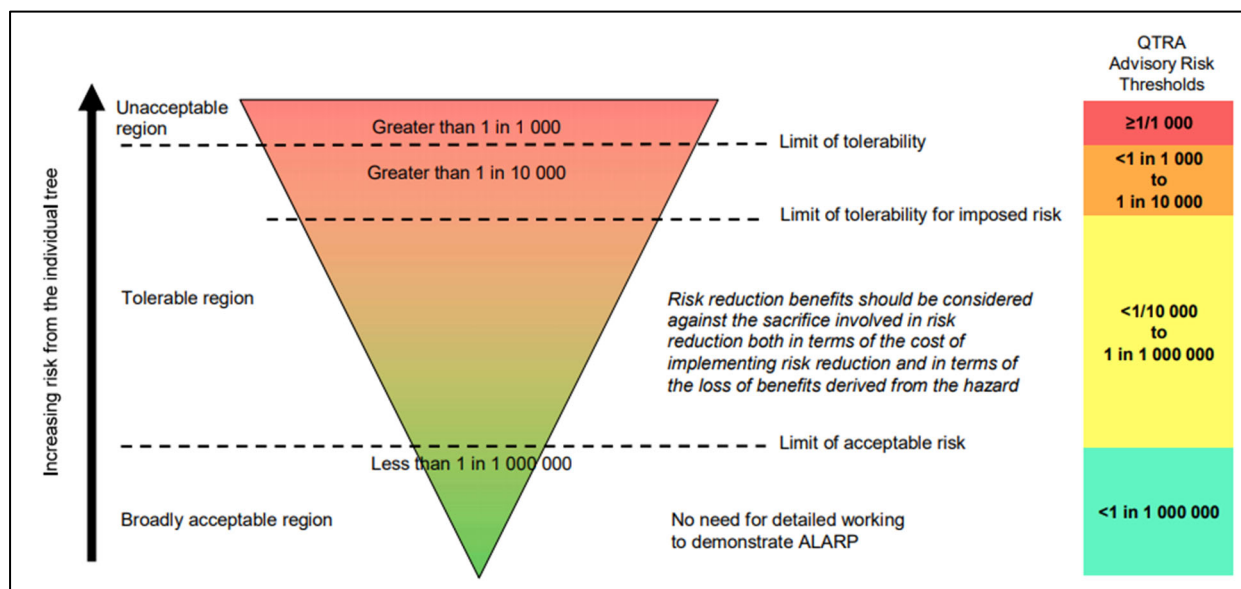
As part of the condition assessment the surveyor looks for signs of mechanical weakness in the tree that could lead to windthrow, trunk failure or branch shedding. These weaknesses are assessed in conjunction with the potential target of the hazard to determine a 'risk of harm' as detailed further in section 2.2.

2.2 The tree risk assessment

During tree risk assessments, features within the falling distance of the tree (targets) can be people, property or road traffic. When considering the risks posed by the tree, the inspection considered the usage of the target zone, the size of the part that could impact the target, and the likelihood of that part failing.

Obvious significant defects are assessed in more detail using the Quantified Tree Risk Assessment (QTRA) method (as developed by Ellison, 2015). The areas within falling distance of the tree are assessed for targets, the size of any hazardous tree parts is estimated and the probability of their

failure within the next year is recorded. A 'risk of harm' is then produced by using these three components in the QTRA calculator. The risk of harm is a figure that can be used to define the level of risk which are illustrated in Figure 1. They range from 1/1 (i.e. will definitely fail and strike a target within 1 year) to less than 1/1,000,000 per year. The risk of harm values can therefore be used to make management decisions about the tree, based on published advisory risk thresholds, or levels of risk which the tree owner is prepared to accept.



During the survey, recommendations may be written for trees with calculated risks of harm in the 'Unacceptable' and 'Tolerable' regions. It is the responsibility of the tree owners and managers to decide the level of risk that is acceptable to be imposed on others based on their situation, values and resources.

The calculated risk of harm has been used to prioritise works as shown in Table 3.

Table 3: The system for prioritising recommended tree work

Level of Risk	Risk of Harm (per year)	Works Priority	Timescale
Unacceptable	1 – 1/1000	Urgent	Immediately without any delay
Unacceptable	1/1000 – 1/10,000	High	As soon as reasonably practicable
Tolerable	1/10,000 – 1/1,000,000	Non-urgent	In order of priority & as funds allow
Acceptable	<1/1,000,000	N/A	N/A
None	-	Pragmatic	Before the next inspection
None	-	Advisory	N/A

3 Findings

3.1 Tree condition

There are obvious fungal scars present from fruiting bodies between two large buttresses on the north side and two desiccated *Ganoderma* sp. brackets directly below, one further fungal scar is located on the south side. The use of a sounding hammer only indicates notable hollowing on the eastern side of the northern buttress and all other buttressing appears sound. Two live stubs at 6-7m on the south-western side, one is from a recent fracture and the other appears to have fractured many years ago. An old scar is located on the underside of a branch on the eastern side at 7m but has healthy wound wood present. The lower internal crown has good healthy leaf coverage but parts of the upper crown on the northern side shows signs of dieback with a slightly lower vitality. Minor deadwood over the playground and road.



Figure 2: *Fungal scars between northern buttresses and desiccated fruiting body on the ground.*



Figure 3: Two live stubs with associated scars. Recent scar above and old scar below.



Figure 4: Patches of minor dieback in the upper canopy.

3.2 Age estimation

During the site visit, the girth of the tree was measured, and this has been used to estimate its age using the system developed by John White. This methodology for estimating the age of large and veteran trees is recommended by the Forestry Commission and is widely used.

I have estimated that this tree is in the region of 163-188 years old and so it would most likely to have been planted between the years of 1837 - 1862. It should be made clear that this calculation is based on the existing site layout and exposure which is likely to have changed since the 1800s so these are not exact dates.

3.3 The calculated risk of harm

QTRA has been used to calculate the risk of harm of minor deadwood falling onto the road. The method of this QTRA risk assessment is as follows;

- Target range = 3 (between 48-470 vehicles per day)
- Size of part = 4 (between 25mm-100mm in diameter)
- Probability of failure = 1 (1/1-1/10 per year)

The risk of harm has been calculated to be 1/50,000 per year which is a tolerable level of risk according to the tolerability of risk framework (Figure 1).

QTRA has also been used to calculate the risk of harm of whole tree failure. The method of this QTRA risk assessment is as follows;

- Target range = 2 (property damage of between £20k - £200k)
- Probability of failure = 6 (1/100k-1/1m per year)

The risk of harm has been calculated to be less than 1/1 000,000 per year which is a broadly acceptable level of risk according to the tolerability of risk framework (Figure 1).

4 Recommendations

4.1 Recommended tree work

The following recommendation has been prescribed for this tree,

“Reduce the crown periphery by no more than 1.0-1.5m whilst retaining all live growth below the pruning points. Remove the deadwood and stack close-by to retain some habitat.”

This recommended pruning is commonly known as retrenchment pruning. The purpose is to remove just the tips of the crown periphery to facilitate light beneath to stimulate growth of dormant buds. If the crown were reduced further, it would take away healthy, functional growth and require larger cuts. These larger cuts tend to trigger dense regrowth, which could worsen shading in the lower canopy—the opposite of the intended outcome.

The removal of the deadwood is recommended as a ‘Non-urgent’ priority and it should be carried out as and when the funds allow.

The pruning work is recommended as an ‘Advisory’ priority. There is no timescale for advisory works because it is not required for immediate risk management purposes, however it would be sensible for it to be carried out when the deadwood is removed.

4.2 Statutory tree protection

Since the tree is located in a conservation area, a notification to Wiltshire Council will be required before any pruning works may be carried out. Accordingly, I advise that an application for works to protected trees is made to Wiltshire Council, and that it is accompanied by a copy of this report.

4.3 Nature conservation and tree works

Any arborist working at the site must comply with all statutory requirements concerning flora, fauna and habitat in accordance with relevant nature conservation legislation. The arborist should make sure that they are familiar with current best working practices to minimise disturbance to flora and fauna.

The arborist must consider the risk of impacting protected species prior to carrying out arboricultural works, especially when dealing with trees that have veteran characteristics. Natural England must be notified if there is reason to believe that arboricultural operations may disturb bats, because a licence for the works may be required. If nesting birds are found to be present then the tree work must not commence. If the tree surgery has already started and nesting birds are then discovered, then the work must stop immediately and be rescheduled for later in the year.

The responsibility for protecting wildlife will be held by the contractor but the need to protect wildlife may result in some works being delayed, and this requirement may also result in increased costs for tree management.

5 Project Management

5.1 General advice

Trees form a dynamic biological resource subject to the vagaries of pests and diseases, extremes of weather and the influence of human activities. Furthermore, as trees grow they may develop dead wood, cavities or other potential defects through the natural course of their life. Site managers must understand that all trees will drop branches during their lifetime and that no tree is 100% safe.

Trees can be damaged during high winds and so it would be sensible to check them after severe storms. A formal re-survey of the trees may be excessive following a storm, but I advise that a designated person walks around the site to look for any obvious damage that may need addressing.

Regular tree risk management surveys should be carried out at this property. In this case, I advise that a qualified arboriculturist is employed to carry out a tree risk assessment every 2-3 years.

All of the tree work must be undertaken in accordance with BS 3998:2010 – Recommendations for tree work. A glossary of terms used in the survey schedule is provided at the rear of this report.

If contractors need any advice on works specifications, or if they would like to discuss management options, they should contact Nick Baxter on 07415 890038 or nick@nbtreemanagement.co.uk.

Adventitious shoots/growth: Shoots that develop other than from apical, axillary or dormant buds.

As Low As Reasonably Practicable (ALARP): Determining the risks have been reduced to ALARP involves an evaluation of both the risk to be reduced and the sacrifice or cost involved in reducing that risk.

Bole: The main stem or trunk of a tree before it divides into branches.

Branch:

Primary: A first order branch arising from a stem.

Lateral: A second order branch, subordinate to a primary branch or stem and bearing sub-lateral branches.

Sub-lateral: A third order branch, subordinate to a lateral or primary branch, or stem and usually bearing only twigs.

Brown-rot: A type of wood decay in which cellulose is degraded, while lignin is only modified.

Buttress zone: The basal part of a tree, where the major lateral roots join the stem, with buttress-like formations on the upper sides of the junctions.

Canker: Disease-damaged area of a tree, usually caused by fungi or bacteria.

Canopy: The extent of the tree's crown. It can also be used to describe the topmost layer of twigs and foliage in a woodland or group of trees.

Co-dominant: Two or more stems of a similar size and position within the canopy.

Coppice: A coppiced tree is one cut near ground level and then allowed to produce new shoots from the stool.

Crown: That part of a tree where the greater mass of foliar bearing growth is present and is composed of limbs, branches and foliage.

Crown reduction: A specified reduction in crown size whilst preserving a natural tree shape as much as possible.

Crown lifting: The removal of limbs and small branches to a specified height above ground level.

Defect: A tree feature which detracts from the uniform distribution of mechanical stress, or which makes the tree mechanically unsuited to its environment.

Deadwood: A dead branch or stem. Deadwood is valued for the range of habitats that it supports and so, wherever possible, it should be retained within the crown.

Defect: In relation to tree hazards, any feature of a tree which detracts from the uniform distribution of mechanical stress, or which makes the tree mechanically unsuited to its environment.

Dieback: The death of part of a plant, usually starting from a distal point and often progressing proximally in stages.

Drip-line: The outermost extent of the tree's crown.

Dysfunction: In woody tissues, the loss of physiological function, especially water conduction, in sapwood

End-loading AKA 'Lions tailing': A term applied to a branch of a tree that has few if any side-branches except at its end, and is thus liable to snap due to end-loading.

Epicormic growth: Growth derived from a dormant or adventitious bud on a main stem or branch. Such growth within the crown of fully mature and veteran trees is valued for longevity and its protection and promotion is an important aspect of veteran tree management. Basal epicormic growth is common on some trees, particularly lime trees.

Exudation: A flow of viscous liquid (cf. bleeding from bark) exuded onto the surface of the bark from the underlying tissues.

Girdling root: A root which circles and constricts the stem or roots possibly causing death of phloem and/or cambial tissue.

Haloing: Removing or pruning trees from around the crown of another (usually mature or post-mature) tree to prevent it becoming suppressed.

Hazard: A tree-failure hazard is the tree or branch that has potential to cause harm

Hazard beam: An upwardly curved part of a tree in which strong internal stresses may occur without being reduced by adaptive growth; prone to longitudinal splitting.

Included bark union: Bark of adjacent parts of a tree (usually forked stems, acutely joined branches or basal flutes) which is in face-to-face contact; i.e. without a woody connection. Such a structure lacks inherent strength but is in many instances strongly reinforced by a surrounding "shell" of wood.

Lateral limbs: Crown limbs that grow horizontally away from the trunk.

Limbs: The main branches that make up the framework of the crown. In these specifications 'branches' are smaller and originate on crown limbs.

Loading: A mechanical term describing the force acting on a structure from a particular source; e.g. the weight of the structure itself or wind pressure.

Longitudinal: Along the length (of a stem, root or branch).

Minor deadwood: Deadwood of a diameter less than 25mm and or unlikely to cause significant harm or damage upon impact with a target beneath the tree.

Major deadwood: Deadwood of a diameter greater than 25mm.

Mulch: Composted wood-chip and leaf material often laid over the root zone to suppress weeds, retain moisture and encourage earthworms to decompact the soil.

Occlusion: The process whereby a wound in a tree is progressively closed by the formation of new wood and bark around it.

Pathogen: A micro-organism which causes disease in another organism.

Pollarding: The complete or partial removal of the crown of a tree so as to encourage the development of numerous branches.

Primary branch: A major branch, generally having a basal diameter greater than 0.25 x stem diameter.

Pruning: The removal or cutting back of twigs, branches or roots; in some contexts applying only to twigs or small branches, but more often used to describe all kinds of work involving cutting.

Reactive Growth/Reaction Wood: Production of woody tissue in response to altered mechanical loading; often in response to internal defect or decay and associated strength loss (cf. adaptive growth).

Ring-barking (girdling): The removal of a ring of bark and phloem around the circumference of a stem or branch, normally resulting in an inability to transport photosynthetic assimilates below the area of damage. Almost inevitably results in the eventual death of the affected stem or branch above the damage.

Risk: Risk is the combination of the probability of an event occurring and its consequence.

Risk of harm: The QTRA output is termed the Risk of Harm and is a measure of the likelihood x consequence of tree failure,

Root zone: Area of soils containing absorptive roots of the tree/s described. The Primary root zone is that which we consider of primary importance to the physiological well-being of the tree.

Secondary branch: A branch, generally having a basal diameter of less than 0.25 x stem diameter.

Sever ivy: Remove a 5–10cm section of all the ivy stems around the circumference of the tree's trunk. This should be carried out as close to ground level as possible.

Soft-rot: A kind of wood decay in which a fungus degrades cellulose within the cell walls, without any general degradation of the wall as a whole.

Stem: The principal portion of the woody structure (i.e. the trunk), or one of a number of such portions with similar size and status.

Squirrel damage: Stripping of the bark from stems or branches by squirrels. This can result in the death of branches or even entire trees.

Target Canker: A kind of perennial canker, containing concentric rings of dead occluding tissues.

Targets: In tree hazard assessment (and with somewhat incorrect use of English), persons or property or other things of value which might be harmed by mechanical failure of the tree or by objects falling from it.

Understorey: A layer of vegetation beneath the main canopy of woodland or forest

Union: AKA 'tree fork' is a bifurcation in the trunk of a tree giving rise to two roughly equal diameter branches.

Veteran tree: Tree that, by recognised criteria, shows features of biological, cultural or aesthetic value that are characteristic of, but not exclusive to, individuals surviving beyond the typical age range for the species concerned. These characteristics might typically include a large girth, signs of crown retrenchment and hollowing of the stem.

White-rot: A range of kinds of wood decay in which lignin, usually together with cellulose and other wood constituents, is degraded.

Appendix 2 - Tree Schedule
Site: East Knoyle Playground

Surveyor: Nick Baxter
Date of Survey: 2nd December 2025



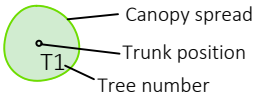
Tree Number	Species	dbh (cm)	Height (m)	Age Class	Physiological Condition	Notes on Structural Condition and Local Environment	Target Range	Size Range	Probability of Failure	Risk of Harm	Management Recommendations	Priority
T1	English oak	105	16	M	F	Obvious fungal scares present from fruiting bodies between two large buttresses on the north side and two desiccated Ganoderma sp. brackets below, one further fungal scar is located on the south side too. The use of a sounding hammer only indicates notable hollowing on the eastern side of the northern buttress but all other buttressing appears sound. Two live stubs at 6-7m on the south-western side, one is from a recent fracture and the other appears to have fractured many years ago. An old scar is located on the underside of a branch on the eastern side at 7m but has healthy wound wood present. The lower internal crown has good healthy leaf coverage but parts of the upper crown on the northern side shows signs of dieback with a slightly lower vitality. Minor deadwood over the playground and road.	3	4	1	1/100 000	Reduce the crown periphery by no more than 1.0-1.5m whilst retaining all live growth below the pruning points. Remove the deadwood and stack close-by to retain some habitat	Non-urgent

A key explaining each category is provided at the rear of the schedule.

Key Headings	Definition	Key Headings	Definition
Tree or Group Number	Reference number for tree as illustrated on the accompanying plan.	Target Range	Highest value target that the most significant part likely to fail could strike. Ranges from 1-6 where 1= high and 6= low value occupancy.
Species	Common name of the tree.	Size Range	Size category of the most significant part likely to fail. Ranges from 1-5 where 1= large and 5= small. Alternatively, P= Property if the most likely target is a building/structure or parked vehicle.
DBH	Diameter at Breast Height. Diameter of the main trunk measured at 1.5m.	Probability of Failure	Probability of failure from the relative hazard within 12 months. Ranges 1-7 where 1=high and 7= low.
Height	Estimated tree height (m) from ground level.	Risk of Harm	The result of the calculation where the target range, size range and probability of failure are quantified using the QTRA calculator. The result shows the probability of harm over the next 12 months.
Age Class	Y = Young, SM = Semi-Mature, EM = Early Mature, M = Mature, FM = Fully Mature & V = Veteran	Management Recommendations	Recommended arboricultural works.
Physiological Condition	A measure of physiological condition. G = Good, F = Fair, P = Poor and D = Dead.	Priority	Urgent = Control the risk immediately. High = As soon as is reasonably practical. Non-Urgent = As funds allow. Pragmatic = Before the next tree survey. Advisory = No time frame. N/A = No recommendations made.
Notes on Structural Condition and Local Environment	Observations of the trees structural integrity and notes of site features or property within falling distance.		



Key



Canopy spread
Trunk position
Tree number



NBTREEMANAGEMENT
Arboricultural Consultancy
www.nbtreetmanagement.co.uk
Tel: 07415 890038

Project Name:
East Knoyle Playground

Drawing Title:
Tree Plan

Drawing Number: TP-1	Revision
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Client:
East Knoyle
Parish Council

Date:
2-12-2025

Scale:
1:400 @ A4