

Tree Risk Management Strategy 2020 - 2025

Contents

1. [Mission Statement](#)
2. [Policy Service Scope and Standards](#)
3. [The Benefits of Trees](#)
4. [The Risks from Trees](#)
5. [Legal Obligations of the Tree Owner/Manager](#)
 - 5.1 The Occupiers Liability Act 1957 & 1984
 - 5.2 The Health and Safety at Work Act 1974
 - 5.3 The Highways Act 1980
 - 5.4 The Countryside and Rights of Way (CROW) Act 2000
 - 5.5 Compensation Act 2006
 - 5.6 Conclusion
6. [Site Zoning](#)
7. [Frequency of Inspection](#)
8. [Interim Inspections](#)
9. [Level of Inspections](#)
 - 9.1 Formal Proactive Inspections
 - 9.2 Formal Reactive Inspections
 - 9.3 Detailed Inspections
 - 9.4 Competency of the Inspector
 - 9.5 Informal Observation
 - 9.6 Raising awareness for informal inspections
10. [Tree works](#)
11. [Record Keeping](#)
12. [Tree Inspection Process](#)
13. [Review](#)
14. [Audit](#)
15. [System Operation and Parameters](#)
16. [References](#)
17. [Appendix 1](#) °Key Performance Indicators
18. [Appendix 2](#) °Action Plan
19. [Appendix 3](#) °Relevant Court Precedent °Industry Best Practice

1. Mission Statement

The New Forest District is an area rich in trees, which bring considerable benefits to the local community. The risk associated with these trees is extremely low. However, to meet our legal obligations, reassure public concerns, ensure a joined-up approach and to comply with industry best practice. New Forest District Council (NFDC) has a formal policy to outline how and why it manages the risks from trees.

Since 2016 NFDC has used the Ezytreev tree management system to proactively and reactively survey and manage all its tree stock. This is on a 4-yearly cycle for the majority of our trees and with a more regular yearly inspection on trees with a higher risk factor, as per recommended best practice currently.



The District Council also undertakes proactive tree surveys on behalf of a number of local town and parish councils and offers a tree management service which is up to date, meets or exceeds industry best practice, fulfils legal obligations, is not unnecessarily complex and is proportionate to the actual risks, while providing value for money.

NFDC tree officers manage the safety and inspections for both council tree stock and Parish tree stock. They also address future survival rates through education, new tree planting, diversifying tree stock through responsible sourcing and trying to protect our trees.

Education day for a local school at Apple Tree Court



The requirement to meet an overzealous standard of inspection can reduce the effectiveness of corporate tree management, reducing the time available to focus on other tree management issues, as set out in The Corporate Tree Strategy.

The NFDC's tree stock is a valuable resource and needs to be allocated its recognised industry asset value and managed, not just in relation to risk, but also more widely in terms of maximising the benefits related to trees, and the long-term viability of the tree resource. Risk management must form an integral part of a wider process of strategic tree management.



Silver Birch tree deliberately poisoned and had to be removed.

CAVAT
SPREADSHEET TO CALCULATE VALUE OF INDIVIDUAL TREE STOCK

Only enter data in the green boxes

© Christopher Nelder
Created by Alexandra Sturt

CAVAT	Quantities you measure / look up	Calculated Values
Step One: Basic Value		
Stem Diameter (cm)	40-49.9	Value Bands Table
Unit Value Factor	15.88	
CTI Rating	100%	
CTI Value		£25,256
Step Two: Functional Value		
Functional Adjustment	100%	£25,256
Adjusted Value		
Step Three: Final Value		
Life Expect. Factor	20-40	£20,205
FINAL VALUE		

CAVAT value **£20,205**

Sample tree valuation of tree poisoned in Fawley area which has now been removed.

2. Policy, Service Scope and Standards

This policy relates to those trees which grow on land which is owned or under the responsibility of New Forest District Council. It is not designed to cover trees within private ownership. Private trees are protected through Tree Protection Orders and conservation status which is managed by NFDC planning tree department.

This policy is not intended to cover the risks associated with direct or indirect damage to property (i.e. damage via tree related subsidence or by the physical incremental growth of the tree interacting with property). These issues are addressed in the NFDC Corporate Tree Strategy document. It is however intended to cover the risks posed by the failure of trees, or parts of trees, with the potential to cause damage or injury.

This Corporate Tree Risk Management document is intended to form an integral part of the wider District Council Tree Strategy and will provide part of an audit trail of action taken in response to the potential risks posed by trees and will demonstrate that the Council has met its responsibilities and duty of care as a tree owner in a systematic and reasonable manner.

NFDC will manage its trees in such a way as to meet or exceed the minimum standards outlined by the accepted industry best practice documents; The National Tree Safety Group (2011) (NTSG) and HSE Sector Information Minute (2013) (HSE SIM). UK ROADS LIAISON GROUP (WELL-MANAGED HIGHWAY INFRASTRUCTURE: A CODE OF PRACTICE.) Oct 2016.

The Council will operate a prioritised system for managing the risk from trees whereby those trees which pose the greatest risk will be assessed and managed first.

The NFDC Tree Risk Management Strategy helps to fulfil the Council's objectives for strategic management of the environment and a commitment to managing public safety.

3. The Benefits of Trees

The benefits trees can provide are well documented. These include significant improvements in air quality, mitigation of the effects of climate change, the management of storm water runoff, improving the perception of the local area, reducing crime levels, psychological and physical health benefits and bring about a sense of community. Trees are also essential wildlife habitats, contributing significantly to local biodiversity and creating urban green corridors for wildlife to use.

Trees can help improve health and attract investment to the area and give considerable visual interest throughout the year by their form, colour, leaves and fruits. Trees can help to break up harsh vistas and soften and give a sense of scale to our neighbourhoods. **Which is especially important as we live within the National Park Area which attracts tourism to our local villages improving economy.**



A more detailed consideration of tree related benefits can be found in the District Council's Corporate Tree Strategy document 2020 – 2025.

4. The Risks from Trees

Trees pose a very low risk to people and property. Approximately 6 people a year are killed in tree related incidents. In relation to the number of trees within falling distance of people or property this equates to a very low likelihood of harm occurring. The Health and Safety Executive (HSE) states that such a level of risk is broadly acceptable i.e. 1 in 10,000,000 risk of death.

To put this low risk in context, there is a 1 in 16,000 risk of death associated with driving but we all still drive our cars every day and witness incidents all the time.

Unfortunately, the news reports and sensationalises every tree that fails heightening the concerns from the public, but car incidents barely get a mention in the press.

Despite this low risk, the law requires that the risks from trees are managed in a reasonably practicable manner.



Trees close to but not touching the roof will not be cut back as they are not causing actual damage to the property.

5. Legal Obligations of the Tree Owner/Manager

The key statutory legislation (laws created by an Act of Parliament) relating to a duty of care for tree owners or those responsible for them is the Occupiers Liability Acts 1957 and 1984, the Health and Safety at Work Act 1974 and the Highways Act 1980.

- 5.1 **The Occupiers Liability Act 1957** confers a duty on an occupier to take reasonable care to ensure that visitors to the property are safe from harm. In 1984 the scope of the act was extended to include uninvited visitors including trespassers. This duty to the uninvited is limited to those dangers which the occupier is aware of, those dangers that the uninvited are likely to be foreseeably be exposed to (i.e. they will be in the area near hazardous trees) and those dangers which the occupier could be reasonably expected to take steps to protect visitors (invited or otherwise) from.

The 1957 Act also indicates in section 2(3) (a) that occupiers *'must be prepared for children to be less careful than adults'* and finally it includes a *'consideration of the circumstances of the occupier(s) and the reasonable availability of measure to prevent injury'*. (Julian Forbes-Laird 2009).

Prosecutions under this act are generally restricted to civil law cases and fall under the tort of negligence.

- 5.2 **The Health and Safety at Work Act 1974** This Act places a duty of care on employers to those who are not employees. Employers (when conducting their business) must ensure as far as reasonably practicable that persons not in their employment are not exposed to risks to their health and safety. This legislation is typically used in criminal law cases and Birmingham City Council was successfully prosecuted under this act by the Health and Safety Executive (HSE) following a tree failure which killed three people in 1999.

- 5.3 **The Highways Act 1980** places a statutory obligation on tree owners to prevent trees from causing an obstruction to roads and footpaths.

- 5.4 **The Countryside and Rights of Way (CROW) Act 2000** indicates that those who utilise their right of public access (under the Act) are not deemed to be *'visitors'*, and therefore their protection comes under the 1984 amendment of the Occupiers Liability Act, however, conversely Section 1 (b) of the Act states that there is no duty owed associated with risks from natural features (which includes trees). The Act also infers that the right of access shouldn't place an unreasonable burden on the occupier and identifies that maintaining the character of the countryside is important. In practice this could be interpreted to mean that potentially hazardous trees can be retained as valuable habitat or natural features (i.e. veteran trees). This also suggests that any control measures to mitigate the risk from trees is commensurate with the resources available to the owner (i.e. not an *'unreasonable burden'*).
- 5.5 Another Act which has some limited relevance to tree risk management is the **Compensation Act 2006**. This indicates that risk abatement measures shouldn't lead to the stopping or infringement of a desirable activity taking place. This reinforces the idea that control measures shouldn't be unnecessarily restrictive, and that some exposure to risk is acceptable, particularly when there are associated benefits.

There has been a raft of common law cases which are relevant to the management of the risks from trees. Decisions of the higher courts can set a precedent which is likely to influence future decisions on similar cases. Decisions from the lower courts can still provide a useful insight into the Court's interpretation of the law. (For an overview of relevant case law and best practice see Appendix 3 – Relevant Court Precedent).

5.6 Conclusion

The following conclusions can be drawn from both statute and common law:

- Tree owners and employers have a duty of care to take reasonable steps to protect people from harm.
- What is reasonable is influenced by the level of risk and the level of sacrifice required to control those risks.
- If tree (or limb) failure isn't reasonably foreseeable then the tree owner is unlikely to be found liable for any damages.
- If it's not reasonably foreseeable that persons will be in the vicinity of a tree on private land, the tree owner is unlikely to be found liable for any damages arising from tree failure.
- If it is reasonably foreseeable that people may be in the vicinity of the tree (visitors or trespassers) and if the presence of visible defects renders tree failure foreseeable. The tree owner is likely to be liable for any damages associated with failure if the tree isn't under any form of inspection regime.
- To fulfil their duty of care tree owners should have some form of inspection system in place. This needn't necessarily be carried out by arboricultural specialists, however, judgements in the lower courts indicate that the level and scope of inspection should be commensurate with the means of the tree owner.
- The Courts indicate that it is likely to be acceptable for homeowners to informally assess their own trees providing they can identify obvious defects. It follows that a local authority or large estate owner would be expected to have a more rigorous system of inspection than a private householder. However, all parties should as a minimum have some system in place.
- Lower levels of land use or lower targets will require correspondingly lower levels of inspection.

6. Site Zoning

All trees under the responsibility of the District Council will be zoned according to the risk they could pose to people or property. Zones will be assigned based on two distinct features:



Targets

'Persons' or property, or other things of value, which might be harmed by mechanical failure of the tree, or by objects falling from it (Lonsdale 2010). These could be static (i.e. a house) or mobile (a car/pedestrian).

Frequency of Use/Occupancy

What is the likelihood of damage or injury occurring (how often or for how long is the 'target' within falling distance of the tree?).

This approach follows the recommendations set out in industry guidance (particularly HSE SIM and NTSG documents) and allows a prioritised approach to risk.

Three distinct zones will be identified as Low, Medium and High

Some sites (particularly larger areas) will be attributed to more than one zone to reflect different levels of land use across the site. However, where practical, in the interests of clarity, a site will be allocated to a specific overall zone, individual trees or areas may need additional visits for higher risks posed by trees on the site

Following the initial inspection of each site the zone allocation will be reviewed and if appropriate the site will be reclassified to reflect the actual level of risk.

Zones will be continually reviewed to ensure that they reflect the current situation on the ground and will be updated on an ad hoc basis as site usage changes, or situation change

High Zone: e.g. Main roads (A and B roads), pose significant risk to residential and business properties, Council depots, Leisure centres, high use footpaths, car parks (typically full all day). Trees adjacent to busy railway lines, school playgrounds and play areas.

Inspected formally every one to two years and inspected reactively in response to enquiries. Also subject to informal observation during normal Council activities.

Medium Zone: Lower use roads (C and D roads), open spaces with regular use, cemeteries, regularly used footpaths, intermittently used car parks (rarely full). Trees adjacent to domestic gardens and/or low use outbuildings.

Inspected formally every four to five years and inspected reactively in response to enquiries. Also subject to informal observation during normal Council activities. (This is covered by the 4-yearly rotation of tree stock inspections)

Low Zone: Low use footpaths (Minimal footfall per day), trees alongside waterways, low use open spaces, adjacent to low use outbuilding.

A formal walk or drive by (overview) group inspection, every 5 years, around the perimeter of the site and along any routes of access such as footpaths. Trees only to be assessed individually if the group 'overview' inspection identifies an obvious hazard. Also subject to informal observation during normal Council activities.

This is unlikely to be highly onerous and will also be useful in informing the management decisions for lower use sites - i.e. potential for replanting, pest and disease management etc.

Zones will be recorded on the tree management data base so that inspectors have clear information as to what is to be surveyed and when.

Research from the USA indicates that trees with a diameter greater than 150mm (measured at 1.5m height) are most likely to fail. This also follows the generally accepted understanding that younger trees are less likely to fail, and that if a low diameter tree fails it is likely to have a less significant impact than a tree of larger dimensions. Based on these assumptions it is reasonable to limit resource allocation to the inspection of those trees with a diameter of more than 150mm. This will not remove the ability of the inspector to prescribe remedial works to trees of lower diameter however it will allow resources to be focused on those trees which present the greatest risk.

The inspection of zones will be rotated when feasible to allow trees to be assessed at different seasons of the year when new structural form is more apparent (i.e. in winter), crown condition is visible (mid-summer) and annual fruit bodies of decay (fungi) may be present (generally spring to autumn).

7. Frequency of Inspection

There is little formal guidance on appropriate time scales or intervals for tree inspections. The industry consensus is generally that between 1 and 5 years is appropriate (The Department for Transport's 'Well Maintained Highways' (2016) recommends that highway trees require an arboricultural inspection every 5 years).

Case law suggests that 2 years (*Guildford v Payne* 2006) or 3 years (*Chapman v London Borough of Barking & Dagenham* 1998) is a reasonable inspection interval for high use sites and the National Tree Safety Group 2011 (NTSG) suggests that it is likely to be reasonable that high use sites are inspected every 2-3 years, and possibly annually, via a drive by for highway trees. UK ROADS LIAISON GROUP (WELL-MANAGED HIGHWAY INFRASTRUCTURE: A CODE OF PRACTICE.) Oct 2016 (Establishment of an effective regime of inspection, survey and recording is the most crucial component of highway infrastructure maintenance. The characteristics of the regime, including types and frequency of inspection, items to be recorded and nature of response, should be defined following an assessment of the relative risks associated with potential circumstances of location, agreed level of service condition. These should be set in the context of the authorities' overall asset management strategy).

As outlined above, trees within falling distance of people or property within high risk zones will be assessed every 2-3 years and within medium risk zones will be assessed every 4-5 years. Trees within low risk zones will be subject to an overview group inspection (typically walk or drive-by as determined by practicability) every 5 years.

It is clear from guidance that it is not essential for all trees to be proactively inspected. The key to a reasonable system is to prioritise those trees which pose the greatest risk and to focus resources on their management. Because of the very low risk that trees pose, it is reasonable not to individually inspect trees on low use sites. This is also borne out by case law, tree risk guidance (NTSG and HSE SIM) and other industry best practise.

NFDC will however monitor the condition of trees on low use sites both formally and informally and this will be incorporated into the general management of such sites (i.e. consideration of improvement works, replanting etc).

8. Interim Inspections

Where individual trees present a particularly significant risk due to their location, condition or other variable (i.e. veteran trees, neglected pollards etc) and this risk is considered to require a higher level of inspection frequency than the allotted zone prescribes, these will be designated an individual re-inspection interval via a tree risk category. This designation will be maintained on the tree database, to produce a list of individual trees for inspection. It is anticipated that this will not be overly onerous as the majority of trees will be in such a condition (potentially following remedial works) that they will not require an interim inspection but will mimic the risk zone allocated to a site.

It is envisaged that the majority of trees will not stay on the re-inspection register for long periods but, following re-inspection, will either be allocated to the zone associated with the site (potentially following remedial works) or will be removed and replaced as per our policy. This will facilitate a degree of flexibility within the system which will be reasonable and achievable.

The reinspection times for higher risk trees will be given on a case by case decision by the tree officers.



9. Level of Inspection

9.1 Formal Proactive Inspections

These inspections are programmed into the tree management system and an individual site will be visited with the specific intention of carrying out a visual assessment of those trees which pose a risk to a target (i.e. a person or property).

In situations where trees are not within falling distance of areas frequented by people or property (i.e. in woodland, well clear of paths, roads and property), a formal inspection will not be required. However, the trees will be considered by the inspector on site and, if deemed appropriate, (because of their size, condition or the potential for change in frequency of use) they may be included in the formal inspection.

For low use zones, a formal 'group' overview assessment will take place. This will generally be conducted via a walk or drive by survey.

9.2 Formal Reactive Inspections

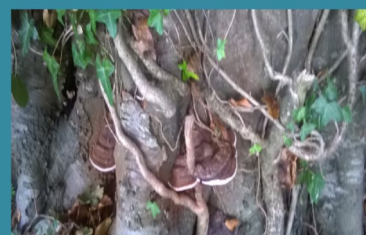
Such work occurs in response to enquiries from the public or other Council staff (resulting from their informal observations). When reactive inspections take place, the inspector will have the opportunity to carry out a brief superficial observation of adjacent trees to observe any obvious defects, this can be recorded on the tree management system as a site inspection.

All enquiries from the public, Council employees or other bodies (i.e. police, highways etc) will be reported to the NFDCCorporatetrees@nfdc.gov outlook box. Tree enquiries will be allocated a priority based on the information obtained at the point of contact and existing site knowledge. If necessary, a follow up call will be made by the Tree Officer to clarify the likely level of risk posed by the tree in question. The assigned priority will determine the maximum time between the initial enquiry and a site visit being made. This is important as it provides a reliable audit trail regarding the response to and resolution of enquiries and reduces the risk of reported tree issues being 'lost in the system' if they are only handled informally. In the event of a tree failure following an enquiry the Council will be able to demonstrate that it the Corporate tree team responded in a reasonable manner.

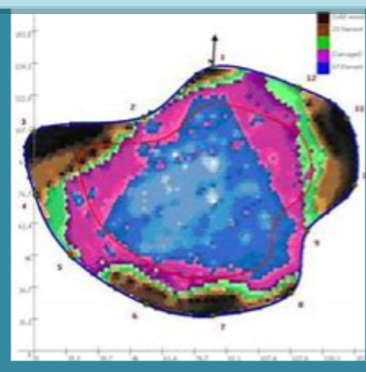
Priorities will be classified as **high** (as soon as reasonably possible, within a maximum of 1 week), **medium** (within 1 month) and **low** (within 3 months).

9.3 Detailed Inspections

Such inspections will be carried out when an individual tree inspection identifies a significant defect which requires further investigation to inform a reasonable management decision. This includes the use of aerial inspections to assess defects such as cavities which cannot be adequately assessed from ground level. An assessment of the roots and lower stem base may be required via hand digging/compressed air or the use of diagnostic decay detection devices in order to establish the extent of decay in the tree. Where further investigation requires equipment unavailable to the Corporate Tree Team, or where the issue requires specific expertise, a suitably qualified consultant, with experience in the relevant field, will be commissioned to inform the decision-making process (i.e. Chartered Forester, AA approved consultant, Level 6 Arboricultural qualification etc).



Beech tree with fungus at base adjacent a road/footpath, a detection scan indicated significant decay within the tree.



9.4 Competency of the Inspector

Formal proactive and reactive inspections will be carried out by Council employees who hold the Lantra Professional Tree Inspection Certificate as a minimum and ideally hold or be working towards an NQF level 3 arboricultural qualification. This level of qualification meets and exceeds industry best practice and case law interpretations of what is reasonable. They are members of the Arboricultural Association and regularly attend training to stay up to date with the latest recommendations and guidance for trees.

9.5 Informal Observation

The vast majority of trees for which NFDC are responsible will be subject to regular informal observation by Council employees as they go about their normal work activities. Many Council staff (Building Works, Open spaces officer, Planning, Refuse Collectors etc) spend a considerable amount of time out on a variety of sites in the course of their work. Such staff are a useful resource to report signs of obvious hazards. Further to this, Grounds maintenance operatives are given information, training and specific instruction to monitor the condition of the tree stock, and any issues of concern will be raised as an enquiry with the Tree Officer and, if deemed appropriate, a formal reactive inspection will take place.

9.6 Raising awareness for informal inspections

The Corporate Tree Officers have prepared a short presentation and handout for Grounds Maintenance staff and others who are regularly out on Council owned land outlining obvious signs of hazard including standing dead trees, decay fungi and root heaved trees. This will help support the process of observation and reporting which is already in place within the authority. Many of these staff arguably already have a reasonable working knowledge of trees and the local area use and are well placed to provide informal inspections. New information on emerging pests, diseases or conditions can be communicated effectively by this method and through the attendance of tree officers to staff meetings.

The use of digital cameras and site visits will help to inform the Tree Officers and will encourage a joined-up approach, promoting an increased shared knowledge of trees, defects and appropriate remedial action. This information will be passed to the Corporate tree email box which is monitored during staff absences.

10. Tree Works

Resulting remedial works will be discussed with and approved by the Corporate Tree Team and arranged with the Corporate Tree Contractor for completion within the following time scale.

- **Urgent**

Immediate or as soon as reasonably practicable (generally within 24 hours)

- **High Priority**

Up to 1 month

- **Medium Priority**

1 month to 3 months

- **Low Priority**

3 months to 12 months

11 Record Keeping

All formal, group or individual tree inspections will be recorded on the tree management database. The date of inspection and the name of the inspector will be updated at each inspection, along with any relevant details relating to the condition of the tree, changes to site usage, or any necessary remedial works.

For woodland sites or large groups of trees, the group as a whole will be plotted using the 'group' outline on the tree management database. A general description of the group, including an estimate of the number of trees present, relevant zone and risk category can be described along with a list of the main species and predominant average estimated dimensions.

In the interests of clarity on such sites only those trees with significant defects will be recorded as individuals, as plotting and recording every tree would result in an incomprehensible plan.

All trees within falling distance of a target will be assessed as prescribed by the allocated zone.

All tree failures are recorded on the tree database and can be searched to highlight any areas of concern or for replanting.

12 Tree Inspection Process

Trees will be visually assessed from ground level using Visual Tree Assessment (VTA); this involves the systematic assessment of all parts of the tree from the rooting area, base, stem, limbs, branches, twigs to the leaves/buds. VTA is based on an understanding of the '*body language of trees*' (Mattheck Breloer 1994) and has three stages:

- a. A visual inspection of the tree, assessing vitality, defects and other symptoms. If no significant concerns are found the inspection is complete.
- b. If a defect is suspected, it must then be confirmed by further examination.
- c. If a defect is found it must be measured and the strength of the remaining part of the tree must be evaluated.

The VTA system forms the basis of the industry accepted method of tree assessment; it is also an integral part of the Lantra PTI course and has been recognised in court cases across the world.

Information to be Recorded

The survey of all (individual) trees will record the following information, which will be updated as necessary at each subsequent inspection.

- Date of inspection and name of inspector
- Tree species, age class and estimated dimensions (height, spread and stem diameter at 1.5m)
- An overview of tree condition (good, reasonable, poor, dead).
- Any significant defects (if no such defects are visible this will be left blank and can be interpreted to read 'no significant defects recorded').
- Any remedial works required including a time scale (as specified above).
- Remedial works completed (including date).

Some trees will have additional flags as follows:

Red/Fell	Tree to be removed.
Yellow/monitor	Tree has significant structural defects for which remedial works are not considered appropriate at this time to enable further assessment and monitoring.
Blue/private	Uncertain ownership (seek clarification).
Pink/Unable to access tree	Not possible to access the tree during the proactive survey. Alternative arrangements required to facilitate inspection.
SSSI	Site of Special Scientific Interest
Con Area	Tree within a conservation area
SANGs	Tree within sights of alternative natural green space.
Memorial	Tree planted as a memorial.
Restricted	Tree within a back garden or hard to reach area.

It is worth noting that the majority of trees have already been historically plotted on the tree database with only three colours (red - fell, yellow – significant defects and green-no significant defects) as based on the 1992 risk management system. The reclassification of colour coding will take place at all subsequent inspections. It is therefore anticipated that all sites will reflect the above system of coding within 4-5 years.

Tree work orders will be generated via the tree database system and will provide an additional audit trail of works passed to the contractor for completion. The subsequent detailed invoice (including a breakdown of tree work orders) will also provide a proof of completion.

Random sites will be subject to a follow up checks to ensure that the work has been completed to the appropriate standard. The Corporate Tree Team will also conduct at least one recorded site safety audit every month to check the contractor's work on site and compliance with best practice.

13. Review

The risk management system will be reviewed every 5 years by the tree management working group. The zoning system will be refined as sites are assessed and can be updated on an *ad hoc* basis to reflect changes in land use.

Prior to implementation this risk management policy will be compared and contrasted with other local authority risk management policies and will also be passed for consultation with experienced tree managers and other company representatives for their comment.

The five yearly review will involve an assessment of whether the system complies with current industry best practice and consider areas for improvement and the potential re- allocation of resources.

The performance indicators will be reviewed to see if the policy has been implemented successfully and if it has effectively met its aims and objectives. A new suite of performance indicators and objectives will be laid out following the review and this in turn will be assessed at the next period of review.

14. Audit

An internal or external audit should be carried out to inform the 5-yearly review. This will help to validate the risk management system, highlight any areas for improvement and ensure that it is fit for purpose.

This should be conducted in a checklist format to review the system. Details to assess will include the quality, accuracy and consistency of data recorded, whether the inspection timescales are being met, if works are being completed within their allocated time scales and other objectives set out in the Action Plan (Appendix II). This process will assess whether the system parameters have been adhered to and if key performance indicators (Appendix I) have been met.

Senior management should be advised of the results of this process along with recommendations for improvement. It is important that all parties are aware of the risks of non-compliance with the strategy (i.e. potential liability). Future reviews should consider whether recommendations are being fulfilled.

15. System Operation and Parameters

The following quantifiable parameters outline the boundaries of the risk management system and must be adhered to. Any failure to follow the strategy will undermine its effectiveness and will reduce its defensibility in court.

- I. 95% of trees will be inspected within their designated inspection times (except with prior approval with the Head of Service).
- II. 95% of high and medium priority tree works will be completed within their allocated time scales.
- III. Comprehensive records will be kept including the date of inspection, the name of the inspector and records of any trees found with significant defects and subsequent action taken.
- IV. All persons formally inspecting trees will be appropriately qualified (LANTRA Professional Tree Inspection qualification as a minimum), training programmes will be followed and suitable records kept including the date of training, qualification achieved, along with copies of any certificates.
- V. Current industry best practice in relation to tree risk management will be adhered to.

16. References

Bennet, L (2010) Trees and Public Liability – Who Really Decides What is Reasonably Safe. Arboricultural Journal 2010, Vol. 33, pp.141-164

Department for Transport (2005) Well Maintained Highways: Code of practice for highway maintenance management.

Forbes-Laird, J (2009) Liability for death or injury caused by falling trees or branches: A review of the present position under English law in relation to tree safety inspection. Arboricultural Journal 2009 Vol.3, pp. 233-241.

Health and Safety Executive (2007 and 2013) Management of the risks from falling trees. HSE Sector Information Minute

Lonsdale, D (2010) Principles of Tree Hazard Assessment and Management. Research for Amenity Trees No. 7. The Stationary Office.

Mattheck, C and Breloer, H (1995) The Body Language of Trees: A handbook for failure analysis.

Mynors, C (2011) The Law of Trees Forests and Hedges. 2nd Edition.

National Tree Safety Group (2011) Common sense risk management of trees. Forestry Commission.

NTSG

17. Appendix 1

Key Performance Indicators

The following Key Performance Indicators are designed to be a measurable tool to illustrate the effectiveness of the risk management system.

- 95% of trees in the high use zone will be inspected within their designated time frame.
- 95% of works specified as 'Urgent' will be completed (or sites made safe) within 7 working days.
- The Failure Log will be completed in full for 95% tree failures.
- The Corporate Tree Risk Strategy (including the system of zoning) will be reviewed every 5 years and following the review action plans will be drawn up and implemented.
- 95% of fields specified as necessary on the Tree Specific Database will be completed for each tree recorded.
- The handout will be compiled and passed to all relevant operatives within 12 months in conjunction with a short presentation.

18. Appendix 2

Action Plan

Year 1-5

- Review the tree specific database system
- Zone all sites (on a priority basis)
- Carry out 50% of high zone inspections every 18 months
- Carry out 25% of medium zone inspections every 15 months
- Reclassify all trees inspected with updated coding and refine zones if appropriate.
- Carry out all remedial works within recommended time frame.
- Produce and distribute guidance relating to tree defects for relevant Council staff.

Year 5

- Audit and 5 yearly review
- Carry out overview survey of low category sites

19. Appendix 3_

Relevant Court

Precedent

Rylands v Fletcher (1868) In this case a landowner employed a private contractor to install a reservoir on his land. The contractor found unused mine shafts in the excavation and failed to seal them properly. When the reservoir was flooded water broke into the mine shaft and made its way into the mine shaft of the neighbouring property causing damage. This case set out the principle that where a person has something on his land which may harm a neighbour, he must keep it within his property. If this isn't maintained and his neighbour is harmed (or his property) then the owner is likely to be liable. The principles set out in this case have been applied to trees, particularly in relation to poisonous foliage (i.e. yew) and livestock (i.e. *Crowhurst v Amersham Burial Board 1878*).

Noble v Harrison (1926) Person injured by a falling branch. The tree had been recently inspected and the failure was not deemed to be foreseeable. Tree owner not liable.

Donoghue v Stevenson (1932) A Scottish woman brought and consumed a bottle of ginger beer in a cafe. A snail was found in the bottle and the woman later became ill and sued the manufacturer. It was found that the producer of the ginger beer had breached his duty of care by failing to ensure that the product didn't cause harm to its consumers. This important case set out the modern understanding of negligence and the duty of care owed by one person to another.

Shirvel v Hackwood Estates Co Ltd (1938) A tree standing in the grounds of a recently acquired large estate, with many dead and dangerous trees present, collapsed and killed an estate worker, who was working in a seldom visited part of the property. The tree owner was found not liable. This Appeal Court judgement indicates that the courts consider both the resources of the tree owner (there were many trees which required attention) and the frequency of use of the location.

Edwards v National Coal Board (1949) This significant case outlined the basis of what is reasonably practicable in relation to reducing risks. The case itself involved a miner who was killed in a rock fall; the claimant's argument was that the employer/landowner should have taken steps to control the risks. The key question in this issue was: Is it reasonable to shore up all tunnels in the mine to remove the risk of collapse. The judgement found that this wouldn't be reasonably practicable and that only those sections of tunnel which posed the highest risk needed remedial action. The judge (Asquith) described a reasonably practicable approach to risk management as follows: *"risk is placed in one scale and the sacrifice involved in the measures necessary for averting the risk (whether in time, trouble or money) is placed in the other"* he went on to suggest that if the sacrifice greatly outweighed the risks then this wouldn't be a reasonable response. This case highlights the requirement to assess the risks and to quantify the necessary control measures before making a balanced decision about what is a reasonably practicable approach.

Caminer v Northern & London Investment Trust Ltd (1951) This case related to a person injured by a falling branch. The tree was not under any form of inspection and as such the tree owner was considered negligent, however because the defect which led to the failure of the branch was not judged to be foreseeable the tree owner was found not liable. This case is significant because it highlights the requirement for some form of inspection to meet the tree owners' duty of care and also that if tree failure isn't foreseeable then the owner of the tree is unlikely to be liable for any associated damages, regardless of whether the tree had been inspected.

Brown v Harrison (1947) and Quinn v Scott (1965) The trees in these cases hadn't been inspected and defects which led to tree failure were considered to be foreseeable. The Defendants' were found to be liable. These cases are key because they highlight the importance of foreseeability of harm (i.e. obvious tree defects) and that in these situations failure to assess trees amounted to a failure in the tree owners' duty of care (negligence).

Leaky v National Trust (1980) Established the principle that the owner of land owed a general duty of care to his neighbour in relation to a hazard on his land whether man made or natural (and a requirement to take reasonable steps to prevent foreseeable harm). In this instance it involved unstable cliffs that resulted in a land slip. The owner of the cliff was aware of the instability and failed to take action to stabilise the land which resulted in damage to the claimant's land. The defendant was found to be liable.

Chapman v Barking & Dagenham LBC (1997) A member of the public was injured by a falling branch. The court found that the Local Authority didn't have an appropriate formal inspection process in place which would have identified the hazard and they were found liable for damages.

Tomlinson v Congleton Borough Council (2003) A young man ignored warning signs and dived into a lake which was out of bounds and received severe spinal injuries. The claimant brought an action against the owner of the land under the *1984 Occupiers Liability Act* arguing that the landowner hadn't fulfilled their duty of care to him and that the state of the land led to his injuries. The court found that the Council had acted reasonably by erecting warning notices and patrolling the area. This case is important because it identifies the courts recognition that individuals must be responsible for their own actions. In the broader context this case also indicates that the public can be given access to potentially dangerous natural features at their own discretion. This has similarities to elements of the *Countryside Rights of Way Act 2000* which states that no duty of care is owed in relation to natural features to persons exercising their right of access.

McLellan v Forestry Commission (2005) A tree fell and killed a walker on a low use woodland footpath. The tree was regularly but informally assessed, and no defect was 'obvious'. This level of inspection was deemed to be appropriate in relation to the target and the defendant was found not liable.

Other Case Law from Lower Courts

A weakness of these cases is that they can be misleading and do not set a legal precedent, if treated with caution they can however still act as a useful indicator of the courts' interpretation of events.

Kent v Marquis of Bristol (1940) In this case a large elm fell in a storm and resulted in the death of a motorist. The tree had a foreseeable defect (decay cavity) and had not been inspected. The owner of the tree was found to be liable for damages.

Poll v Bartholomew and Bartholomew (2006) In this case a motorist collided with a fallen ash tree. The tree was multi stemmed and had been subject to a drive by inspection by a forester (not a 'level 2' inspector). The forester failed to appreciate that the multi stemmed ash could pose a risk and should have inspected it more closely (recognising the fact that a multi stemmed ash is likely to have included bark and would need closer inspection). There was a fungal bracket at the base of the tree which may also have been identified by a more competent inspection. This case found that this tree should have been assessed by a 'level 2 inspector' and found the tree owner liable. This case should be treated with caution however as it has been dismissed by some commentators as a misguided judgement which also doesn't constitute a precedent. Bennet (2010) states "*Poll cannot be taken at face value as authoritatively setting a generic requirement for 'Level 2' inspections*".

Corker v Wilson (2006) In this case a motorist was injured by a falling branch. The tree was owned by a private householder who regularly informally assessed his own trees. The failure of the branch was not deemed to be foreseeable and the tree owner was not found to be liable. Interestingly this case refers to the Poll case with descriptions of Level 1 and 2 Inspectors and suggests that the court found the homeowners inspection of his own trees acceptable. This case rests on the fact that the failure wouldn't have been foreseeable even to an expert. The results of this case suggest that for domestic properties an informal inspection by a lay person/householder is acceptable to meet their duty of care.

Atkins v Scott (2008) Involved a motorist who was injured by a falling oak limb. The tree had been inspected informally within the previous 12 months by a person who, though not a trained arboriculturist had a good working knowledge of trees. The defendant was found not liable because the defect/failure wouldn't have been foreseeable and the system of inspection (informal) in place was deemed to be adequate.

Selwyn-Smith v Gompels (2009) An Austrian pine fell onto a garage injuring the occupant and causing damage. The tree had only been subject to an *ad hoc* informal inspection by the defendant (a "mere householder" and lay person). The judge stated that "*the standard of the duty owed by a landowner to act in respect of natural circumstances on his land (and his corresponding duty of care) varies according to his resources*". The judge also commented that "*the law does not then require the landowner to engage an expert unless and until reasonable inspection by the standards of that knowledge discloses or should disclose that the tree might be unsafe*". In this case it was agreed that the failure of the tree wouldn't have been foreseeable to a layperson but may have been detected by an expert. Finally, the judge suggested that the homeowner had acted in a "practical and sensible manner commensurate with the size of his property" and found in the defendants' favour. It is significant that this case indicates that it may be acceptable for homeowners to assess their own trees for obvious signs of failure and thus meet their duty of care. This judgement reiterates the earlier similar judgement in *Corker v Wilson (2006)* adding further weight to the interpretation. This case is also interesting because it clarifies that even if failure may have been foreseeable to an experienced arboriculturist the homeowner may not be liable because they have acted reasonably by assessing the trees themselves with their limited knowledge of tree defects.

Micklewright v Surrey County Council (2010) A man was killed by a fallen oak limb which fell on a car park. The Highways Authority was responsible for the tree and had recently put in place a system of inspection (by competent assessors) which would in time have included the tree. At the time of failure however the tree hadn't been assessed. Even though an 'adequate system' had been put in place, because it had yet to include the tree it was not deemed to be 'adequate' yet. In this case a major feature was the foreseeability of the defect which led to the failure of the limb. The judge heard a detailed discussion of the foreseeability of the defect and found that in this instance it wasn't foreseeable and therefore the authority responsible for the tree was not liable. This case is interesting because of the detailed discussion of foreseeability and because the judge clarified that if a system of inspection is in place but hasn't yet assessed all the trees within its remit it cannot be deemed adequate. It is important to note however that the courts are likely to look more favourably on the tree owner with some system of inspection in place (even if it is incomplete) rather than those with none.

Bowen and Others v National Trust (2011) This High Court case involving a large beech tree which failed onto a woodland path, revolved around the foreseeability of the tree failure, the frequency of inspection (every 2 years) and the competency of the inspector who had last assessed the tree. The Judge ruled that the defect was not reasonably foreseeable and that the inspector was suitably competent to assess the tree (as a forester he had a working knowledge of trees and had also undertaken specific tree inspection training). The National Trust was found not liable.

Much of the case law gives some assessment of whether the level of inspection was adequate, this is often offered regardless of whether the failure was foreseeable and gives some indication of how the lower courts interpret events.

Witey Parish council v Andrew Cavanagh October 2018

The case concerned a large, mature lime tree, leaning over a road, which fell following a storm, causing serious injury to the driver of a bus passing by. It subsequently emerged that the tree had some structural decay, which it was alleged could have been discovered if the tree had been inspected more frequently (it had been inspected on a three-yearly cycle, which was agreed by the experts to be normally adequate for roadside trees).

This case has given rise to concerns that landowners with responsibility for trees may have to undertake more extensive inspections, which may be onerous and in turn lead to pre-emptive felling of trees and deter new plantings. However, it is the view of the NTSG that the case is not a radical departure from standard industry guidance and practice, including that published by the NTSG. It is a case on its own facts. It does, however, highlight that zoning is material in safeguarding against risk to the public, and that some trees in locations with high levels of use (generally to be determined by landowner or agent) may warrant more frequent and thorough inspection than trees in other locations. Decisions will be informed by factors such as tree species, life-stage, condition and size. Whether inspections are two-yearly, or even more frequent, will depend on individual circumstances; equally, three-yearly, or less frequent, inspections may be appropriate in other circumstances. We intend to explore and make comment in our forthcoming revision of the NTSG guidance on certain of the remarks made by court relating to how risk from trees is assessed in the context of the likelihood of harm occurring. ([ref Arb association](#))

Industry Best Practice

Health and Safety Executive Sector Information Minute (HSE SIM) (2013)

This key document was written specifically for HSE enforcement officers to give guidance on the standard of risk management of trees. The remit of the document is to outline the minimum level of risk

management which would be sufficient to meet a tree owner's duty of care under Section 3 of the Health and Safety at Work (HSW) Act 1974. Whilst this guidance isn't intended as a guide to tree owners or employers it does give a useful indication of what the baseline or minimum acceptable level of inspection is likely to be. It's important to note that this guidance is specific to the viewpoint of the HSE in relation to the HSW Act and doesn't necessarily reflect the law in relation to the tree owners' duty of care (more specifically, civil law or the tort of negligence).

This document highlights the very low risk which trees pose (risk of death per person of one in ten million) which falls within the *"broadly acceptable region of the tolerability of risk triangle"*. It suggests that *"control measures that involve inspecting and recording every tree would appear to be grossly disproportionate to the risk"* and continues that tree risk management should form a part of the *"overall approach to tree management"* along with managing a healthy tree stock and environment. The HSE outline the importance of zoning sites in relation to frequency of use (level of target) and recommend that a minimum of two zones is established (high use and low use).

A summary of the HSE outline for an effective risk management system is as follows:

1. Assess the overall risk from trees. Establish a minimum of two zones to identify those areas with the greatest risk.
2. Put in place a *"system for periodic, proactive checks....quick visual checks for obvious signs (of instability)....be carried out by a person with a working knowledge of trees and their defects, but who need not be an arboricultural specialist"*. The system must be applied and monitored.
3. Maintain a simple record to note when a zone has been inspected, records of individual trees is unlikely to be required except under specific circumstances (where trees with significant defects are retained in high use zones).

4. Have in place a system to obtain specialist assistance when issues identified are beyond the scope of the inspector.
5. Procedures to ensure public safety during high winds (such as restricting access to formal open spaces).
6. Have in place a system to allow and record individuals to report tree issues. Monitoring should be in place to ensure that the system is effective.

National Tree Safety Group (NTSG)

This recently published document has the potential to be very significant. It could effectively replace the HSE SIM as the baseline for tree risk management. This will occur if it is widely accepted by the arboricultural industry as the minimum standard and therefore can be used by the courts to reflect the current industry consensus. This document attempts to address the disproportionate response to the very low risk of harm from falling trees. It interprets statute and common law and gives examples of the minimum level of risk management that is expected from those responsible for trees in a range of situations. The guidance suggests (in line with *HSE SIM*) that those carrying out tree inspections do not need to be arboriculturists, but that most hazardous trees are obviously hazardous and that experts do not need to be involved until obvious hazards have been identified or tree defects which require expert opinion are discovered. This document has a greater scope than *HSE SIM* as it encompasses all legal perspectives.

NTSG Case Study Summary

Local Government Organisation

The land holding should be reviewed, and zones established to indicate areas of high and low use. Staff with a good working knowledge of trees should carry out formal inspections of trees within high use zones and keep a record that the zone has been assessed, (low use zones may be assessed on a reactive or *ad hoc* basis when the Council employees are conducting their normal activities). Following this survey, a suitably qualified and insured competent person/arboriculturist (qualified to a minimum of NQF level 3 or equivalent) should be referred to for any assessments which are beyond the experience of the formal inspector. Records should be kept reflecting defects found and any action taken. The frequency of inspection will be commensurate with the level of risk/site usage but every 1 to 5 years is likely to be acceptable.