

CoL OPEN SPACES DEPARTMENT POLICY: MANAGING TREE SAFETY

1. Policy Introduction and Context:

1.1 Each Division, for its geographic area of responsibility where it would be deemed as the occupier as defined by the Occupiers' Liabilities Acts, must have a risk limitation strategy for trees based upon the 5 key principles identified by the National Tree Safety Group in *Common Sense Management of Trees* (NTSG 2011) endorsed by the Health and Safety Executive (HSE).

The 5 key principles

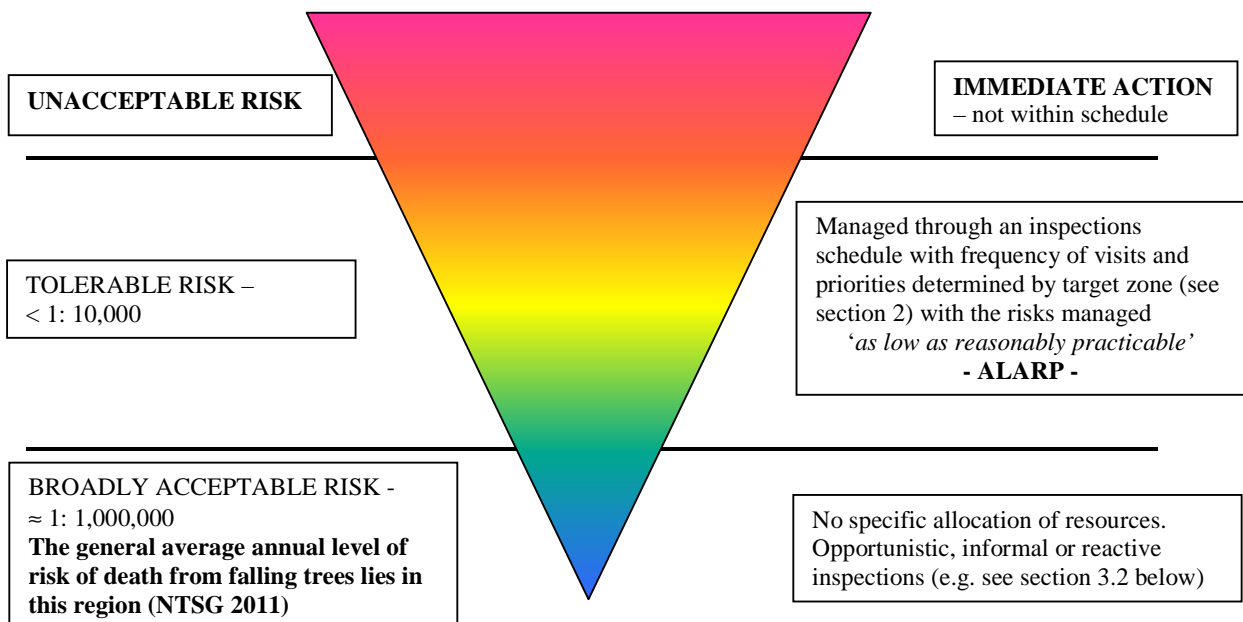
- trees provide a wide variety of benefits to society (including supporting significant biodiversity)
- trees are living organisms that naturally lose branches or fall
- the overall risk to human safety is extremely low
- tree owners have a legal duty of care
- tree safety management should be balanced & proportionate to risk/benefit.

1.2 As part of each Divisional Strategy there must be a:

- clear zoning system
- verifiable tree hazard inspection regime
- balanced, proportionate risk assessment
- clear risk management process.

1.3 The Tolerability of Risk (ToR) Framework set out in Figure 1 below will be the basis for each Divisional strategy. Therefore, in deciding upon actions, the evaluation of what is reasonable and proportionate intervention must be based upon a balance between the benefits and potential for harm. The risk of being killed by a falling branch or tree is extremely low according to the HSE (Figure 1).

Figure 1: Tolerability of Risk Framework



1.4 In general, NTSG 2011 states that “*the courts appear to indicate that the standard of inspection is proportional to the size of and resources available (in terms of expertise) to the landowner*”. In determining the resources the level of risk, which is very low (Fig. 1), is also key and a “*reasonable and prudent*” approach is required in this context.

1.5 The risk management process and tree hazard inspections should not lead to a loss of character or species diversity within Open Spaces. It should ensure that a balance is maintained between nature and landscape conservation, public access, recreation and enjoyment, and risks to safety posed by trees.

1.6 Except where there is an imminent danger to life, before work is undertaken on any tree an assessment of its use by bats (and other protected species) as well as of the general requirements of any statutory wildlife protection of the site (e.g. SSSI/SAC) must be undertaken and advice sought from relevant authorities to prevent damage to those species or habitats. For bats a Bat Risk Assessment form should be completed to provide written evidence of procedure and to record the rationale for subsequent actions.

1.7 In order to undertake a tree risk assessment the two separate factors of *Risk* and *Hazard* must be addressed:

- **Risk** is an estimate of the likelihood and severity of an adverse event occurring. The NTSG (2011) principles upon which this policy is based recognise that overall the risk to human safety from trees is extremely low (see Figure 1 above). Risk is related to the location of the tree. It reflects the intensity of use of the immediate surroundings of the tree and the proximity of the tree to buildings or other structures. The intensity of use by the public, staff, volunteers and contractors within Open Spaces is not evenly distributed and, therefore, levels of risk may vary across a site. This fact must be recognised in an appropriate, site-specific tree inspection zoning system.

- **Hazard:** Trees are subject to decline, physical damage and infection. As trees deteriorate they are increasingly likely to shed limbs or fall in strong winds and the potential to cause harm increases. Remedial action is only necessary when there is clearly a significant risk to life or property. This might mean either removing part of the tree that is creating the hazard or reducing the level of public access in the vicinity or both.

2. Divisional Zoning System

2.1 The zone designation below will determine the priority and regularity of proactive inspections.

2.2 Divisional resources must be directed to the areas in proportion to the potential for harm to people and property. As such, zones must be related to identifiable, potential “targets”, both physical targets such as property and targets based on level of usage of an area by people. Both the nature and frequency of use of the “target” by people need to be taken into account. Where no data on levels or patterns of use are directly available for an area, the level of use by people should be a reasonable estimate based on local knowledge of the area and its particular features. A reasonable outcome of the zoning process may be the decision that some areas require no proactive inspections.

2.3 Decisions on zones and the definition of each zone need to be recorded and be accessible for inspection. Zoning systems at each Divisional area of responsibility should be reviewed periodically in order to take account of significant changes to site use, the uses of adjoining land or modifications to site boundaries.

2.4 Zoning will be achieved by each Division by designating each area of land under its responsibility into a minimum of three *Use Levels* requiring some level of proactive inspections based on the concepts of risk and hazard outlined above.

- **High Use targets** - coloured **red** on the tree inspection map.
- **Medium Use targets** - coloured **amber** on the tree inspection map.
- **Low Use targets** - coloured **green** on the tree inspection map.

2.5 Within the Open Spaces the variety of sites and situations, rural and urban, is very large and zoning needs to reflect local knowledge and divisional differences. It should be recognised that within each of the target zones, there may be a need to prioritize further based on availability of resources.

2.6 Areas deemed as of *broadly acceptable risk* (see Figure 1 above) because of low use and low target levels would require zoning so that the demarcation is clear but may not require proactive inspections. These will be demarcated but left **uncoloured** on the zone map.

3. Inspection regimes

3.1 Proactive Inspection Regime and Competence Level for Inspectors

3.1.1 The identified coloured zones above must each have a proactive, formal inspection regime defined and carried out at a frequency based on the level of use of the target. A competent Inspector will assess the tree. For all Open Spaces Department formal inspections, tree inspectors will be trained to LANTRA Professional Level, have passed the Professional Tree Inspection (PTI) course and possess demonstrable, recent experience of tree risk assessment work.

3.1.2 Defects on the trees will be recorded in order to assess the potential hazard and consider the risk posed by the defect. Given that the risk to human safety from trees is, in general, very low the assessment of defects needs to bear this in mind. However, where i) the risk to a target is considered high (see Figure 1 above); ii) the tree is of importance for nature conservation or has landscape value and iii) the nature of the hazard posed by the defect is uncertain (e.g. level of internal decay) more detailed assessments may be carried out before a decision on the type of action required is taken.

3.1.3 During walk-by inspections within a surveyed zone, trees with no obvious defects, that appeared sound and that required no further level of inspection would not need to be recorded. A record of the visit to that zone by the inspector would be all that would be required. However, any trees subject to more detailed individual inspection, whether requiring subsequent action or not, would require a record. Once the work has been completed on these recorded trees, if they are retained rather than felled they do not necessarily require future recording unless a subsequent survey flags them up again as having obvious new defects requiring another inspection. However, in High Use Target zones, should time and resources allow, site managers may wish to continue individual inspection regimes once started. However, this is not a requirement of this policy and will be dependent on the characteristics of the trees involved and the nature of the site and its zones. The purpose of the annual inspection is to pick out obvious problems and prioritize them, not to repeat recording.

3.1.4 All records must be readily accessible to relevant staff and will be kept indefinitely. This will be especially important for those trees located next to Highways and other high use target zones.

3.1.5 Any tree works that are required must be prioritized according to risk, taking account of location (target level) and hazard, and there must be a recommended period for the work to be carried out. The range of this period might be from immediate action up to a recommendation for work within 12 months.

3.2 Reactive Inspections

3.2.1 Sites must have a local emergency plan that details the actions to be taken in the event of severe weather conditions or events, such as storms, flooding, drought and fire. This emergency plan would be additional to, over and above, the regular proactive inspection regime. There also may be the need for other reactive inspections over and above the proactive inspection regime where a new target is created or develops rapidly (e.g. an unplanned public event).

3.2.2 Therefore, in either enacting an emergency plan or responding to a new and changing situation, reactive inspections of trees should be focused on identifying *serious and present dangers* (NTSG 2011). Such inspections may be carried out by any person able to identify such threats and with a good local knowledge of the site. Such persons do not need to be qualified specifically for tree inspections. These reactive inspections do not constitute detailed inspections, as defined by NTSG 2011. However, follow-up detailed inspections of identified trees by PTI-qualified inspectors may be required in order to prioritize remedial action if large amounts of work are involved.

3.2.3 For reactive inspections following weather events, including drive-by checks, the top priority is to identify the areas of worst damage and then to prioritize the inspections in order of zonal priority but this may include areas not normally proactively inspected, if deemed necessary, because of new *serious and present dangers* created by the event or reported by others on the site.

4. Risk assessments and determining priorities

4.1 Risk assessments may be qualitative or quantitative to suit the needs and resources of each Division and each site. For larger, more complex sites with many targets and many trees, quantitative assessments, such as provided by a Target Risk Index (TRI), should be considered as an option to help stratify priorities and determine the order and speed with which remedial action is taken.

4.2 If a quantitative system is chosen it should be based on target sequencing to generate a Target Risk Index (TRI). Resource allocation should take an As-Low-As-Reasonably-Practicable (ALARP) approach as described in the NTSG guidance (2011 and see Figure 1 above).

4.3 A priority matrix should be formulated based on the hazard rating: - Tolerability of Risk (ToR) (see Figure 1 above) and the Target Risk Index (TRI). This matrix would then enable cost-effective decisions to be made with clear justifications.

What Documentation Should be Kept?

- Up-to-date tree zoning maps, zoning rationale and reviews
- Records of tree inspection visits/timesheets – signed and dated by inspector.
- Individual tree management recommendations and actions, preferably also on a computer GIS database (e.g. *Arbortrack*, *EzyTreev*) for larger sites
- Records of more detailed individual tree investigations if undertaken – (e.g. *Picus* tomography records of internal decay)
- Records and details of reactive inspections following severe weather events and any site closure programme.
- Records of any tree disease survey or other tree health monitoring activities.
- Records of training and copies of certificates for all relevant members of staff.
- Records of contractors and their competency checks.

Summary of Open Spaces Policy for Managing Trees

- Each Division must have tree safety management guidelines comprising of tree zone map(s), tree inspection regime, and tree risk assessment & management procedure.
- Deal with immediate threats to public safety as a priority.
- Keep records of the assessment of trees and the remedial actions taken.
- A competent person will undertake inspections of trees to assess the risks they pose. Keep records of tree safety training and monitor these to ensure training and certificates renewed.
- Inspect areas of high use levels as soon as is reasonably practicable and within five days of any storm event, and record the appropriate measures taken to make the site safe.
- Monitor the weather forecasts and print off the relevant information and display appropriately.
- Monitor the near miss records as per the tree safety management system and transfer records to tree safety recording forms/database.
- Undertake appropriate surveys of trees for environmental factors that are hazardous to human health e.g. Oak Processionary Moth. Take appropriate action and record the activity.

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