

Good Practice Guide 4

Tree Risk Management

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1. Introduction

1.1 Purpose of this guide

This guide outlines how High Peak Borough Council currently manages risk associated with trees. A need to develop this system further has been identified and is currently under review.

The guide concentrates on the risk associated with someone being killed or seriously injured by whole or partial failure of a tree. There are other risks associated with trees such as damage to property and minor nuisance which are dealt with in detail in Tree Management Guidance - GPG 2.

1.2 Trees and risk

The risk of being killed by a falling tree is extremely low:

“Each year between 5 and 6 people in the UK are killed when trees fall on them. Thus the risk of being struck and killed by a tree falling is extremely low – the risk of being struck and killed by a tree growing in a public space is even lower. Up to 3 people are killed each year by trees in public spaces, but as almost the entire population of the UK is exposed, the risk is about one in 20 million.” (HSE, 2007)*

The average risk is within the ‘broadly acceptable’ region of the risk triangle published by HSE’s *“Reducing Risks Protecting People”*. However this is only a general guide and not necessarily a statement of what is reasonably practicable in law.

Although the actual risk is low it is not generally perceived in this way by the public, often because when incidents do occur they often attract a lot of public attention. It is important that an appropriate balance is reached which minimises risk but ensures that large trees are not lost from the landscape.

2. Current status

2.1 General approach

At present whenever a tree is inspected by the Council’s Arboricultural Officer for whatever reason consideration is always given to the potential hazard that the tree poses and appropriate action taken when a significant risk is identified. Tree inspections are generated in a variety of ways; the majority of inspections are reactive and in response to a request or enquiry usually from the public or a council officer. The identification of hazardous trees or those requiring inspection also arise from arboricultural staff from Derbyshire County Council and the Peak

Park Authority which have overlapping geographical areas with High Peak Borough Council. Also grounds maintenance staff and the Council's arboricultural contractor will report any concerns about trees that they see whilst working in the borough.

2.2 Scheduled surveys – High Peak Borough Council land

Proactive inspections of trees are undertaken in the major parks in the borough and of mature urban highway trees. Detailed inspection of trees in major parks has commenced to identify any work required and those trees which require monitoring because of their condition or location. Re-inspection of individual trees will depend on the level of risk associated with them, however a walk over survey of the major parks will be undertaken every year to identify any hazards and undertake tree works necessary for safety. The intention is to extend this survey to include all areas of land owned by the council and prioritise a proactive re-inspection regime according to the level of risk.

2.3 Scheduled surveys – Highway trees

Mature trees adjacent to the highway in urban areas are recorded and have been part of an ongoing maintenance and re-inspection regime for several years. Currently this survey is being extended in partnership with Derbyshire County Council to identify the location of all trees on highway land or posing a threat to the highway and assess the need for a regime of re-inspection.

More detail on the current status of tree inspection is given at the table at appendix 1.

2.4 Private trees

When trees in private ownership which pose a risk neighboring property to public land are brought to the attention of the council, the owner of the trees will be advised of the hazard and asked to take action. In cases where the owner of the tree fails to take action the council where appropriate uses its powers under The Local Government (Miscellaneous Provisions) Act 1976, to ensure that the tree is made safe. If the trees is a threat to a public highway the matter is reported to Derbyshire County Council who use their powers under the Highways Act, 1980

2.5 Recording tree related risk

When a tree that poses a significant risk is identified work to make the tree safe or fell the tree will be undertaken as appropriate. In some cases, however an identified risk may not be sufficiently severe to warrant immediate action but the tree will require ongoing monitoring, for example a reassessment of the tree may

be required in the summer to assess the trees vigor. In these cases were the tree is not within an area currently within a proactive inspection regime it will be recorded separately on a register of ongoing tree risk assessments.

3. Method of risk assessment

3.1 Quantified tree risk assessment (Qtra)

There are various tools which exist to assess the risk associated with trees. At present when a detailed risk assessment of a tree or group of trees is required the Quantified Tree Risk Assessment (Qtra) system is used. This is a system which applies established and accepted risk management principles to tree safety management. Qtra compares the risks associated with the retention of trees with a broadly acceptable level of risk.

The assessment of tree risk is made up of the following three components.

- 1) Target – The target is anything of value that could be harmed in the event of tree failure. This is assessed on the frequency of occupation within the area. Therefore an area which is highly frequented such as a busy road will have a higher value than an area with a low frequency occupation such as a tree in a wood not adjacent to a public path.
- 2) Impact potential – The potential for the tree (or part of a tree) that is being assessed to do harm. For example a small branch is unlikely to cause significant damage, where as if a large limb were to fail it could cause serious injury or significant damage to a structure.
- 3) Probability of failure – This is an assessment of the likelihood of a part of the tree or the whole tree failing.

Using the QTRA system an assessment of the level of risk posed can be given expressed as a probability of harm in any one year eg 1:100,000.

3.2 Acceptable level of Risk

Once the level of risk has been established it is necessary to decide whether this level of risk is acceptable. The legal framework does not require the elimination of risk altogether, but that the risk is minimised to an acceptable level. Several publications have suggested that this level is 1/10,000 per year, notably the Health and Safety Executive (1996):

"For members of the public who have a risk imposed on them 'in the wider interest' HSE would set this limit at 1/10,000 per annum"

On the basis of this the acceptable level of risk has been set at 1:10,000.

It may be possible to reduce the risk associated with a tree by pruning or moving the target e.g rerouting a footpath.

There may be exceptional occasions when a higher risk may be acceptable for example if there is a tree of particular additional value or for reasons of heritage. In these circumstances the general advice of the HSE will be followed:

Occasionally a duty holder will decide, usually for heritage reasons, to maintain a particular tree, despite the fact that it is very old or has serious structural faults that cannot be remedied. A specific assessment for that tree and specific management measures, including regular and detailed inspections are likely to be appropriate. (HSE 2007)

In addition to this further arboricultural advice or investigations in to the condition of the tree may be sought from an independent consultant, to verify the opinion of the Arboricultural Officer.

3.3 Types of risk assessment inspection

At present four levels of inspection are used to identify the level of risk associated with trees dependent on the circumstances. Not all trees require individual assessment by the Arboricultural Officer. There are options for the types of inspection required and the degree of competency of the person undertaking the inspection. The HSE (2007) considers that someone to be competent requires a working knowledge of trees and their defects, but need not be an arboricultural specialist.

Non-specialist survey

Other members of the parks team, highway inspectors and housing officers all undertake surveys of land under council control and as a result bring trees in need of more detailed inspection to the attention of the Arboricultural Officer. It is acknowledged that the role of these officers could be enhanced with some additional training to raise awareness of potentially hazardous trees.

Drive-by survey- Principally used for highway trees to identify firstly roads which have trees on and a general level of risk. The most obvious hazard trees will easily be identified by this method. Where roads with mature trees are identified a walk over survey to identify the trees will be required and in the case of some trees detailed inspection.

Walk over survey – When a site is visited only those trees with defects are noted and recorded. Particular attention is given to trees in high risk areas, e.g by high occupancy areas, roads and buildings. If a defect in a tree is noted a detailed assessment will be made.

Detailed inspection – a comprehensive inspection and QTRA of the tree in question with all relevant details recorded and specific management recommendations made. This type of inspection will only be undertaken by the Arboricultural Officer or other suitability qualified person.

4. Summary

- The system is currently under review.
- The risk associated with trees is generally relatively low
- The identification of risk associated with trees is always considered when a tree is inspected.
- A strategy of pro-actively surveying trees in high use areas has commenced and is being expanded to cover more areas.
- The Quantified Risk assessment (Qtra) method of establishing the degree of risk is used.

5. More information

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