

Fact Sheet

Recognising Tree Hazards

What is a tree hazard?

Trees provide tremendous benefits to our homes, towns and cities, but occasionally they can cause problems and sometimes become hazardous. Dealing with hazards can ensure the safety of people and property and can prolong the life of the tree.

Trees are inherently safe structures but in extremes of weather or because of in built weaknesses, they can become dangerous. Trees, or parts of trees, may fall and cause injury to people or damage to property. We call trees in such situations **hazardous**, to signify the risk involved with their presence.

It is an owner's responsibility to provide for the safety of trees on his or her property. This fact sheet provides some tips for identifying the common defects associated with tree hazards. However, evaluating the seriousness of these defects is best done by a professional arborist.

Regular tree care will help identify hazardous trees and the risk they present. Once the hazard is recognized, steps may be taken to reduce the likelihood of the tree falling and injuring someone.

Tree hazard checklist

Consider these questions

- Are there large dead branches in the tree?
- Are there detached branches hanging in the tree?
- Does the tree have cavities or rotten wood along the 2 trunk or in major branches?
- Are mushrooms present at the base of the tree?
- Are there cracks or splits in the trunk or where branches are attached?
- Have any branches fallen from the tree?
- Have adjacent trees fallen over or died?
- Has the trunk developed a strong lean?
- Do many of the major branches arise from one point on the trunk?

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- Have the roots been broken off, injured, or damaged by lowering the soil level, installing pavement, repairing footpaths, or digging trenches?
- Has the site recently been changed by construction, raising the soil level, or installing lawns?
- Have the leaves prematurely developed an unusual colour or size?
- Have trees in adjacent wooded areas been removed?
- Has the tree been topped or otherwise heavily pruned?
- Does the tree have any of the above and is within falling distance of people or property?

Hazard Tree Identification

Widow Maker (Previous Failures) Failure history is a key element in predicting future failures.

Weak Branch Unions

A weak union occurs when two or more similarly sized branches grow so closely together that bark grows between the branches, inside the union.

> Old Wounds Old wounds serve as a potential source of wood rot and decay.

Ooze/Fungal Activity

Fungal activity, including mushrooms, conks, ooze, and brackets growing on root flares, stems, or branches is an indication of advanced decay.

Trunk Taper

The diameter of the trunk should be largest at the base and decrease with tree height. Lack of a taper may indicate root failure. Sharp Bends Predictable failure points.

> Nesting Holes Nesting holes serve as a potential site of decay columns.

Multiple Pruning Wounds &

Poor Weight Distribution (Lion Tailing) Excessive pruning that strips out interior branches increases opportunity for decay at wound sites and failure when weight is concentrated at the end of the branch

Shear Plane Cracks Result of wood tissue pulling apart.

Wounds/Broken Branches with Poor Wound Closure Potential source of wood rot and decay.

Epicormic Growth New growth stimulated by pruning, damage, or infection. Indication that tree is under stress.

Cavity

Cavities in trees are an indication of advanced decay, stability of tree is determined by the ratio of sound to decayed wood.

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Targets

The defects highlighted above do not form a complete list. The defect on its own does not make a tree dangerous. If the defect can lead to failure of a branch or the whole tree and is likely to hit someone or something, then it becomes hazardous.

A target is a term used in the tree industry to identify a person, property or other object which can be damaged by trees. These include:

- Pedestrians
- Vehicles
- Buildings
- Power lines
- Street furniture
- Walls and fences

The correct identification of defects can help a tree owner manage their trees more effectively.

Managing tree hazards

A qualified arborist can help you manage the trees on your property and can provide treatments that may help make your tree safer, reducing the risk associated with hazardous trees. An arborist familiar with hazard tree evaluation may suggest one or more of the following:

• **Remove the target.** While a home or a nearby power line cannot be moved, it is possible to move picnic tables, cars, landscape features, or other possible targets to prevent them from being hit by a falling tree.

• **Prune the tree.** Remove the defective branches of the tree. Because inappropriate pruning may weaken a tree, pruning work is best done by a qualified tree care professional.

• Cable and brace the tree. Provide physical support for weak branches and stems to increase their strength and stability.

• **Provide routine care.** Mature trees need routine care in the form of water, fertiliser, mulch, and pruning as dictated by the season and their structure.

• **Remove the tree.** Some hazardous trees are best removed. If possible, plant a new tree in an appropriate place as a replacement.

Recognizing and reducing tree hazards not only increases the safety of your property and that of your neighbours but also improves the tree's health and may increase its longevity.

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For more information contact:

Telephone:01302 736000 and ask to speak to a Trees and Woodlands OfficerEmail:customer.services@doncaster.gov.ukWebsite:www.doncaster.gov.uk

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