

Tree survey / inspection methodology and ash tree dieback monitoring

Overview

The survey has 2 functions:

1. To generate data, works recommendations and location plans for trees considered to need works within a maximum of 24 months in order to reduce their unacceptable level of risk to a tolerable level. Those trees identified as requiring such works will be tagged with a tree tag bearing a unique number to aid positive ID.
2. To identify the locations of all ash trees within high risk areas and record the severity of die back, dbh and height for each. This is to inform planning regarding Chalara response.

Justification for, and aims of, tree inspections

The local authority recognises the many and diverse environmental, societal, landscape, aesthetic, health and economic values and benefits provided by trees and aims to manage their tree stock accordingly.

To allow trees on land owned and/or managed by the local authority to be retained it is necessary, in order to fulfil their duty of care as a reasonable and prudent landowner/manager, to demonstrate that all that is reasonably practicable has been done to ensure they present an acceptable level of risk of damage to property, injury or death from falling trees or branches.

It is reasonable to include the values and benefits provided by the trees in assessing what is reasonable when acting in the public interest. The presumption is that non-commercial trees be retained and allowed to complete their life cycle with minimal management intervention.

To achieve this, those trees located in areas frequently access by the public, or within falling distance of property, should be subject to periodic pro-active checks from ground level, by a competent person and on a scheduled regime, for clear visual symptoms indicative of unacceptable risk.

Results should be recorded and remedial action recommended and monitored for completion within a defined timeframe appropriate to the risk.

Definition of risk areas and plan format

Google Earth Pro aerial images will be used during a desk study of the survey areas, to identify risk zoning for each location based on the published 'Matrix for risk zoning and tree inspection' download at flac.uk.com (Appendix 1) as follows:

- All trees located within Risk Zones 1, 2 and 3 will be categorised as HIGH risk.

- All trees located within Risks Zone 4, 5 and 6 here will be categorised as LOW risk.

Methodology for tree risk inspection

A folder for each location will be created containing Google Earth kmz files that shade the high (red) and low (yellow) risk areas. The zoning will be initially defined during a desk study but can be potentially modified during the site visit if the risk zoning is found inappropriate.

Areas which meet the criteria for more than 1 risk category will be assigned to the higher.

The survey will be a walk-over type conducted by DDDC's Trees Officer within areas identified by the desk study as having high risk. Low risk areas will not be surveyed due to limited staff time being available. In the event that the public reports a suspected tree related safety issue in an area identified as low risk, then the Tree Officer will investigate at the earliest opportunity and request remedial works be scheduled and undertaken as necessary.

Only trees with a stem diameter at approx. 1.5m above ground level exceeding approx. 300mm will be included in the surveys. Smaller trees are not considered to present sufficient level of risk to justify inspection.

A process flow diagram illustrating how the inspection will be undertaken is provided at Appendix 2.

Trees will be assessed from ground level by the naked eye for clear symptoms that indicate sufficiently impaired structural and/or physiological condition using VTA method such that the tree presents an unacceptable level of risk.

The level of risk is determined by the hazard the tree presents (eg size of potentially falling part, height it falls from, likelihood of failure) and its target(s) (eg occupancy level, vehicle speeds, property).

Risk will not be formally quantified (eg. 1 in xxx chance of failure before the next survey) but will simply be qualitatively described as 'acceptable risk of failure before next scheduled inspection' or 'not acceptable risk of failure before next scheduled inspection'.

Where a cavity or decay is observed in a tree at a height that can be investigated from ground level using a probe, or by sounding using a hammer, then this will be done to help inform interpretation of the significance defect.

In terms of risk presented by deadwood, branches with a diameter less than approx. 75mm are considered to pose acceptable risk and are thus excluded from consideration.

A metal tag will be attached at approx. 2m above ground level to each tree presenting unacceptable risk.

Any part of a tree obscured by ivy will not be assessed, though a recommendation that the ivy is severed at ground level, or that it be removed, to facilitate future inspection may be made.

No excavation will be undertaken to assess the condition of the rooting system.

In certain circumstances further investigation of a tree's structural condition may be recommended (eg. climbing survey, technical assessment of decay extent).

In instances in which it is considered unsafe to access a tree, or a tree can only be viewed from limited angles due to its location close to a road, close to water, dense undergrowth, etc then only a limited assessment will be made.

For each tree identified as presenting unacceptable risk, recommended works will be described which will reduce the level of risk until the next scheduled inspection to become acceptable. A recommendation for the time scale for the works will be made, within a 5 category range from 'emergency works needed; to 'within 24 months'.

Data to be recorded:

1. On Google Earth –

- Location as coloured pin for individual trees / shaded area for groups of trees as separate kmz files for each 'urgency of work' category within the folder for each location.

White = emergency: very severe risk requiring immediate action

Red = within 1 month

Orange = within 6 months

Yellow = within 12 months

Blue = within 24 months

- Tag number
- Common name

2. Data to be recorded on excel spreadsheet –

- Tag number
- Description of location
- Common name
- Risk area category (high / low)
- Urgency of work category (E / 1 / 6 / 12 / 24)
- Targets

- Description of works required to reduce risk to acceptable level until next scheduled inspection

Methodology for ash dieback monitoring

A walk over survey will be undertaken to identify and locate all ash trees with a dbh of over approx. 300mm that are located within the high risk areas (as defined for the tree risk inspections).

A tree tag stamped with a unique number will be attached to each ash tree at approx. 2m above ground level to facilitate positive ID.

Data to be recorded:

1. On Google Earth –

- Location of ash trees on separate kmz file within the folder for each location showing ID number for each tree.

2. On excel spreadsheet –

- A unique ID number for each ash tree at each location
- Description of location
- Targets
- Dbh
- Height
- Current severity of die back (categories: dead – severe – moderate – slight - no signs of infection).

Frequency of inspections

1. Tree hazard inspections:

- For locations identified as HIGH risk, trees will be re-inspected approx. every 18 months (alternate inspections will be summer/winter).
- For locations identified as LOW risk, trees will be inspected only when a report of a hazard is received.

2. Ash tree dieback monitoring:

- Because it is necessary for the trees to be in leaf in order to be able to assess the severity of die back, and it is anticipated that the disease may spread rapidly and increase in severity rapidly, inspections will be made every summer.