

Street view

Based on their extensive experience of tree inspections for highways agencies and local authorities, Chartered Arboriculturists **Jez Lawton** and **Paolo Bavaresco** consider the challenges that duty holders face in meeting their obligations.

Highway trees provide important ecosystem and amenity benefits, yet they also account for the majority of serious tree-related incidents in the UK.¹ The difficulty for duty holders is determining whether they are doing all that is reasonably practicable to balance risks,

costs and benefits in fulfilling their duty and how much precious resource to allocate.

Because there are no reliable benchmarks, measures of reasonableness are intangible and only likely to be tested in the event of court proceedings. Even where higher courts have ruled, extrapolating good practice is limited to the specifics of each case.

In court and in the absence of clear industry guidance, expert witnesses may testify that more could be done, with opinions of reasonableness and good practice that may bear little relation to the realities of the day-to-day challenges and experience of managers and inspectors.

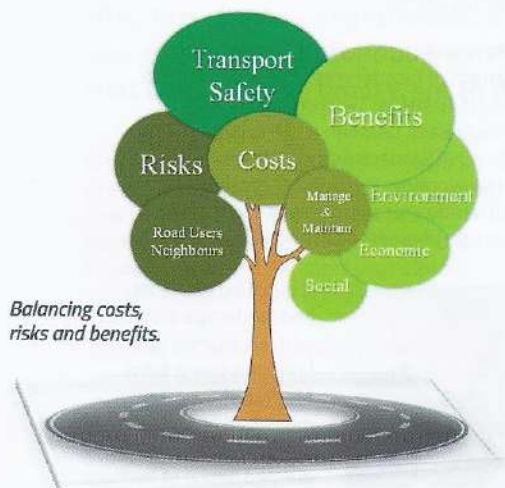
To some it seems a formality to closely inspect all of the tree stock, remove ivy and

identify the risk of tree failures in the absence of obvious defects. But it is challenging for managers to achieve this, particularly where there are dwindling resources and organisational expectations of achieving more for less. The manager's reality is the prospect of inspecting tens of thousands of trees across hundreds of kilometres of highway verge. The difficulties are further compounded by areas that can be hard to access and trees covered with dense ivy, often amongst impenetrable undergrowth.

Based upon our experiences we have set out some key points for managers and inspectors to consider.

In-house expertise

Some organisations have the benefit of in-house arboricultural expertise, but increasingly this is becoming a rare commodity and responsibilities for tree management are often placed with people who have little expertise. This is not a criticism but it



¹ National Tree Safety Group (2011), Common Sense Risk Management of Trees: Guidance on Trees and Public Safety in the UK for Owners, Managers and Advisers, *The Forestry Commission*, ch. 4, p. 47.



Is it reasonable to inspect the top of that steep verge?

is the reality of a trend across many public services in the current economic climate.

Protocol (approach)

A protocol is essential as a clear memorandum of understanding between managers, tree inspectors and administrators. It should be clear, consistent, measurable and defensible, and specific to the organisation's undertaking. It needs to be regularly reviewed in response to arboricultural and organisational changes, and adhered to in a consistent manner by all parties.

A Google search of tree inspection protocols identifies a very common approach between many organisations buying into the same generic systems and procedures. There can be significant risks in adopting another organisation's approach, however. It is not only the positives that are imported but also the inherent disadvantages. The 'borrowed or bought' approach is either too generic or too specific to another's undertaking. Inevitably this may lead not only to administration issues and errors (such as overlooking important data) but also to the risk of placing considerable reliance on another's due diligence, especially core health and safety responsibilities.²

A robust protocol will try to avoid these pitfalls by considering the following:

A dynamic approach to tree risk assessment

Whilst it is tempting to dwell upon 'set levels' of inspection, in our experience, when dealing with thousands of trees at different sites with differing access and inspection conditions, a qualitative and dynamic approach is essential. This should be achieved by using tree inspectors with proven experience and competency not only to identify defects but also to determine:

- the significance of tree-related hazards and the exposure of people and property to them;
- the appropriate, proportionate and practicable control options – including the need for further investigation, or more frequent inspection; and
- the reasonable prioritisation of controls scheduled appropriately through the inspection period (as previously agreed with risk managers).

Experienced inspectors will respond appropriately to changing site and inspection limitations and clearly convey where the default inspection period should be reduced, so the manager can take appropriate action.

There is an increasing trend towards the sale and use of proprietary systems as an 'off-the-peg solution'. Some of these are even conveniently placed into field data collection systems and give a convincing display of scientific rigour. These may well fit the needs of an organisation, but it is

important to consider that they are not 'benchmarks' endorsed by professional organisations or rigorously peer reviewed. Also, in the absence of stringent competence pre-requisites for users and testing through the courts, the manager should consider how defensible and suitable such systems are.

Zoning

Assessing the exposure of people and property to trees is a well-established risk management approach. Zoning the areas adjacent to trees can inform the scope of inspections and the use of resources. However, is relying on this as a desktop-based *risk assessment* robust enough to provide the assurances required?

Although the zoning principle is supported in industry guidance,³ the same guidance also advocates⁴ simply not inspecting relatively low-use areas on the basis of occupancy alone. It does not consider the pertinent facts:

- the size and species of trees
- the last inspection
- the resources to carry out an inspection
- the absence of higher use areas to inspect
- risks to adjacent third parties

³ National Tree Safety Group (2011), Common Sense Risk Management of Trees, ch. 4, p. 46.

⁴ National Tree Safety Group (2011), Common Sense Risk Management of Trees, ch. 4, p. 49: 'The risk of death or serious injury from trees in infrequently used areas is so low that it is reasonable that these should receive no formal inspection or visual check.'

² The Management of Health and Safety at Work Regulations 1999.



Clear on the approach to ivy and undergrowth?



Should this route be ignored based on occupancy alone?

Would the manager be comfortable with the prospect of defending a decision to allocate no resource or inspection priority to a tree only because the road is seldom travelled?

Drive-by inspections

Whilst drive-by inspections can play a part in the overall inspection regime, in our experience they did not reliably identify many serious defects later found by foot survey. We concluded that drive-by inspections:

- occasionally reveal obvious tree safety issues
- may inform a tree management strategy, such as pre-inspection road assessments; provide interim monitoring between professional inspections or after storm events

The default inspection period

A default inspection period should be determined by the manager, with input from the inspector and relevant guidance. It should be informed by the tree stock and location, but also by practicalities, e.g. will high-priority works be completed before the next inspection cycle? If not, the outstanding works of the previous management cycle may overlap and complicate the current inspection regime.

Inspection frequency

In some cases the default inspection period may be reduced.⁵ There should be clear logic behind this decision and a reason for taking it, informed and justified by facts. The protocol

should consider these circumstances and pre-empt with guidance for a consistent approach.

Monitoring

Clarify what 'monitoring' means, and when, why and how it is to be used, e.g. will a highway steward use this information to observe a particular tree in the course of their road inspections, or is a reduced inspection cycle by a professional more appropriate?

Further investigations

Set out how these are to be undertaken and by whom. The information from further investigations should be available to future inspectors 'on site' to facilitate correct decisions for properly informed on-going management.

Risk assessment and risk management decisions

Inspectors should stay focused on the facts at hand and present appropriate risk control options. It is the manager's role, on behalf of the organisation, to make the final decisions, because they have an understanding of and responsibility for the costs and benefits associated with managing the risk. It is the role of the manager, not the inspector, to decide which trees should and should not be inspected.

⁵ *Cavanagh vs. Witley & Shepherd (2017), High Courts of Justice Queen's Bench Division, Case No. HQ14PO5328.*

Limitations

In advance of inspections, decide upon the approach to issues such as ivy-covered trees and inaccessible areas: for example, the expectation to undertake a full/close inspection of some trees or perhaps the justification for a walk-over survey of groups of smaller trees.

Tree inspection and management software systems

These should be buyer-led and tailored to an organisation's needs, especially in processing key fields for follow-up action. Data collection should be brief, exacting and organised into searchable fields, with limited free text options. Simple and straightforward are best in our experience: resist the temptation to collect unnecessary and unusable data.

Standards and guidance

When specific publications are used as sources of guidance, consider the status of these documents and who they are aimed at informing.⁶



Do you know your business?

Duty holders have to navigate arboricultural advice that is bold on opinion yet shy on supporting facts. Therefore, beware the self-styled experts,⁷ quasi-qualifications and proprietary solutions giving the impression of scientific rigour.

Arboricultural organisations have endorsed UK guidance for tree managers⁸ which seems to support a position that anyone loosely familiar with trees can inspect them. The risk therefore is that even though arboriculture touts the importance and

value of trees, the commercial reality is a race to the bottom where one of our greatest natural assets is an inconvenient commodity.

In light of the above issues, when seeking advice and guidance it is essential to engage persons with appropriate expertise, professionalism and qualifications to support the specific organisation's undertaking.



Paolo Bavaresco
MICFor,
Chartered
Arboriculturist



Jez Lawton
MICFor,
Chartered
Arboriculturist

⁶ *Health & Safety Executive (2013), Sector Information Minute 1/2007/05. Accessed online 14/02/19 www.hse.gov.uk/foi/internalops/sims/ag_food/010705.htm.*

⁷ *S. Glen (2017), 'Guard Against "Self-Styled Experts"', Chartered Forester, Institute of Chartered Foresters, winter 2017/18, p. 13.*

⁸ *National Tree Safety Group (2011), Common Sense Risk Management of Trees, ch. 3, p. 33; ch. 4, p. 51.*