

## Managing the Risk of Trees – a draft proposal

### Background

There is now considerable concern and uncertainty within the arboricultural sector and amongst landowners about the management of trees from a safety perspective. This has been stimulated by a handful of court cases and other responses to incidents involving tree failure and the public. The challenge faced by the sector is not unique, being common to a number of other sectors that are responsible for ‘public’ risks.<sup>1</sup> There is a legal requirement under the Occupiers Liability Act to see that visitors are reasonably safe, and under the HSWA that risks are reduced so far as is reasonably practicable (SFAIRP).

The concepts of reasonableness and SFAIRP are important in our society but are by no means universally understood. This has contributed to behaviours ranging from acting in a way which reduces risk at any cost, to doing nothing at all. This is unfortunate because properly executed SFAIRP is a sensible doctrine, and to deviate from it is likely, from a societal perspective, to do more harm than good. A considerable amount of research has been conducted by economists and sociologists, many employed by government departments and regulators, to elucidate these concepts and thus make their application more consistent across sectors, and the HSE has produced its ‘Tolerability of risk’ framework which has, *inter alia*, been reviewed by HM Treasury who also have a deep interest in resource allocation.

But in the meantime, risk assessment and risk management have begun to acquire a dubious reputation, through the banning and demolition of many things that people have traditionally valued. This has spurred the prime minister and government ministers to speak out, the HSE to produce the document ‘Principles of sensible risk management,’ and various other agencies to call for calm and reason to prevail. But, understandably, the unease of duty holders persists.

This draft proposal seeks to provide a means by which this matter can be tackled, confidence restored, and an optimum tree management regime, consistent with wider societal aspirations, be implemented.

### Item 1: Determining and assessing the risk

A crucial factor in determining any strategy is to quantify the risk of harm. The industry sector has made some moves to do this and so has the HSE. It is proposed that effort be put into establishing a more detailed record of the safety of trees as they affect the public (primarily) and tree workers. There are several potential and actual data sources. These include existing data held by AA members and other agencies, some of which is already to hand, a further, possibly web-based, survey of AA members and others, use of HSE statistics, and for non-fatal injuries there is the old DTI data base now managed by RoSPA which holds national data from 1988 to 2002.

Once assembled these data would provide the most authoritative reference in the UK. Following this, the risk posed by trees could be placed in perspective. This can be done by a) comparison with other risks which people face, and b) by comparison against the criteria described by the HSE in its ‘Tolerability of Risk’ framework. The latter criteria originated from deliberations of The Royal Society.

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<sup>1</sup> Public risks refer here to risks that are non-occupational but are still deemed to come under the Health & Safety at Work Act.

## **Item 2: Public perception of risk**

The Sector Information Minute produced by the HSE in 2007 states that the risk posed to the public is low, but goes on to say that it “may not be perceived in this way by the public, particularly following an incident.” There is an implication here that the HSE thinks that the usual balance between the cost and difficulty of control of a hazard, and the benefits of control (risk reduction), implied by SFAIRP might need to be perturbed towards more control.

This is a potentially important issue which has been looked at in many sectors (outside of arboriculture e.g. London Underground Limited), and by academics on behalf of government agencies. It is referred to in HSE’s ‘Reducing risk protecting people’ under the heading of ‘societal concerns,’ and HM Treasury has also discussed the topic in its own Orange Book. It would be worthwhile to consider the evidence around the proposition that society at large perceives the risk of trees as warranting additional control, and if so, in what circumstances. We would propose to do this by the distillation of ideas from existing literature. An alternative approach would be to design a questionnaire to be answered by a sample of the public asking about the perceived risks (and benefits) of trees. While this would be of interest, we think the former approach is probably sufficient at this stage.

## **Item 3: Evaluation of future control regimes**

Following on from the advice of HM Treasury (Green Book), recommendations of The Better Regulation Commission, and in the spirit of SFAIRP, new interventions or changes to existing control systems should be subject to policy appraisal, particularly where they could have significant impacts. This type of appraisal is standard in some areas of work, being known as Regulatory Impact Assessment or Compliance Cost assessment.

This requires:

- a) an assessment of the cost of the baseline (existing) control system (control is non-uniform and this will introduce some uncertainty)
- b) an estimation of the incremental costs and benefits of any envisaged changes to the baseline control regime
- c) consideration of any other implications of a new control system (good or bad). For example, impacts on our ability to maintain an urban tree stock
- d) a decision about the optimum control regime bearing in mind all of the above plus any additional factors including public perception, legal, insurance etc.

We would tackle this by the use of standard appraisal techniques as recommended or used by various agencies including HM Treasury. To obtain input data eg on status quo, costs etc, it would be necessary to have extensive dialogue and communication with sector members.

## **Item 4: Promotion of the strategy**

It would be immensely beneficial and necessary to have the industry sector and other interested parties on board during the process. This part of the process we would expect to be carried out by the sector itself or via TEP’s seminar series or both.

### **Manpower, timescale and cost**

Items 1-3 could be conducted by the Centre for Decision Analysis & Risk Management (DARM) at Middlesex University with support from TEP. DARM specialises in work of this kind and has extensive experience in assisting various sectors assess risks and devise risk management strategies that are commensurate and socially acceptable. Staff involved would be David Ball (Professor of Risk Management), John Watt (Senior Lecturer in Risk Management), Huw Jones (statistical expert), Sean Lundy (expert in H&S practice and legislation), Neville Fay and colleagues (TEP), plus possibly a research assistant recruited for the purpose.

*Item 1 (Risk quantification):* This could be started from January 2008 and would take six months. It would require us to trawl for and analyse statistics in an appropriate fashion for the project's needs. We would expect to report back to the Steering Group periodically. A report would be produced at the conclusion describing the findings and interpreting them in the light of the Tolerability of Risk framework and other guides to risk acceptability. We would also provide data from other sectors on comparable risks to place the hazard of trees in perspective.

*Item 2 (Public perception):* This could be started from Feb/March 2007. We would expect to complete it mid-year at about the same time as Item 1. The output would be a report which could be combined with that of Item 1 as preferred.

*Item 3 (Evaluation of future control options):* We envisage that this would take about 12 months. Depending on requirements, this could commence after completion of Items 1 and 2, or could perhaps be started earlier than that after those components are well underway.

*Budget:* If we carry this work out as a research project it would be non-Vatable. This might not matter at your end, however. If we did it as a research project we could do Items 1 and 2 for £14,400. We estimate Item 3 would also cost £16,800. These prices are inclusive of travel, subsistence and other expenses.

	Items 1 & 2 Risk quantification and perception	Item 3 Evaluation of future control options and recommendations
Manpower costs	£11,000	£13,000
Travel/subsistence	£800	£1,200
Literature and data collection	£1,000	£1,000
Office expenses	£600	£600
Seminars	£1,000 (contribution to TEP only)	£1,000 (contribution to TEP only)
Total	£14,400	£16,800