Trees & the Law

BY JULIAN DUNSTER

Thinking About Risks

The first step in understanding tree risk assessment is a thorough knowledge of the terminology

The term risk is often misunderstood, and misused. Risk deals with probabilities, and is defined as the probability of an undesirable event occurring, and if it did, the probability of one or more people being injured, or of property being damaged. If enough data exists, risk can be statistically quantified. In the absence of a large data set, we must deal with uncertainty, and it is important to understand that uncertainty is not quantifiable. It always exists, in many forms. Probability is measured on a scale of zero to one, or zero to 100%, where zero means the event will never occur, and 1 or 100% means it definitely will occur. Uncertainty is maximised at 0.5 or 50%. At 50% we lack enough knowledge to determine if the event and potential damage is more, or less likely.

Hazard is a widely misused term. A hazard, or a hazardous condition only exists when the associated level of risk exceeds our threshold of acceptability. For the uninitiated, tree climbing might well be considered as very hazardous. That is, the activity is perceived to be unacceptable at a low threshold of risk (low tolerance). By contrast, a skilled and experienced climber may watch a colleague climbing, and perceive the activity to be very acceptable (high tolerance) until truly extreme conditions are encountered. Acceptable risk tolerance thresholds, and therefore, how we define hazards, are subjective, and very much a matter of perception. Often these thresholds are defined by panels of scientists, or bureaucrats, in order to form a basis for public policy, and therefore, regulations. Thus water quality standards use parts per million for contaminants considered to be hazardous to our health. If the contaminant exceeds the threshold, it is hazardous; if not, it is acceptable.

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risk assessment in that area. If targets are present, then the trees are assessed on a priority basis, where the highest value, or most highly used areas are assessed first. Lesser value, or lower used areas are a second or third order priority. Once the risk assessment is undertaken, the results are passed on to the risk manager. This person is responsible for allocating resources to a wide range of problems, of which tree risks may be just one. The risk manager will determine how much budget is to be allocated to additional assessment, ongoing management, risks mitigation, time priorities, and how tree risks are to be integrated into other risk management problems.

The risk manager relies on the risk assessor. Attempting to manage risk in the absence of risk assessment data is called guesswork. It is not recommended. Typically, the risk manger allocates resources (money and time) to obtain risk assessment data. Once that is done, the manager can then make informed decisions. The risk assessor has a key role to play in deciding which trees are to be assessed, where, when and how. Part 2 of the series will examine those issues in more detail.

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