



## Briefing Note on UK Summer Branch Drop

## The status of this Briefing Note

Through my involvement in several inquests and legal cases involving branch failures where Summer Branch Drop (SBD) may have been a factor, I have researched published technical references and anecdotal records found through internet searches and literature reviews. This Briefing Note is an informal summary of my findings to date, presented as an interim review to inform duty holders about the risks from SBD, in advance of a full paper.

## What is SBD?

SBD is a poorly researched phenomenon broadly characterised by long branches breaking from large mature trees with no obvious visible defects, following extended dry periods in summer. There has been little scientific investigation into the failure mechanism, but there is an accumulating body of anecdotal evidence providing some insights into how the risks of failure and harm might be managed. Although it is not yet possible to reliably identify the individual branches that may fail, there are emerging trends in the reported incidents that provide an indication of the most vulnerable tree types and the time that the risk of failure peaks.

## Where and when could SBD happen?

From my informal review of the accumulating catalogue of references and recorded incidents, there are commonalities indicating that SBD failures seem to be more frequent:

- in large mature oak, beech, horse chestnut, and cedar trees, although it does occur in other species;
- after heavy rainfall following dry periods longer than three to four weeks; and,
- in the early afternoon, often in calm conditions, immediately following the rainfall.

## Assessing the risk from SBD

Where people come close to trees, duty holders have an obligation to assess the risk of harm from tree failures and take proportionate measures to reduce significant risks. SBD is a known mechanism for branch failure and the potential for harm that arises from it should be considered in the risk assessment process. Typical locations where risk assessment is required include, *inter alia*, public parks, botanical gardens, temporary showgrounds, theme parks, highway boundaries, golf courses, and corporate/institutional facilities, etc.

## Managing the risk from SBD

For the purposes of this Briefing Note, the risk of failure is a conceptual term reflecting the chances of a branch breaking, and the risk of harm is the chance of harm to people or property arising from a failure. In practice, managers should identify large mature individuals of the most vulnerable species, assess whether harm could arise from a branch failure, and take reasonable and proportionate measures to reduce any significant risk of harm. Managers should consider that the anecdotal record indicates there is a **critical period** when the risk is highest, i.e. the risk of failure seems to increase as the length of prolonged dry spells increases, and that failures seem to happen more frequently early in the afternoon, often in calm weather, immediately following the first heavy rainfall after the dry period. If a risk assessment concludes that there is no significant risk from SBD, then there is no need to take any further action. If it is assessed that there is a significant risk from SBD, it will be for the duty holder to decide on proportionate and reasonable measures to manage that risk.

## Practical management options

There are a range of management interventions that are likely to reduce the risk of SBD occurring in vulnerable trees, and the risk of harm arising where it does occur, including, *inter alia*:

- Prune to reduce the length of the longest branches on vulnerable trees.
- Restrict access to vulnerable trees with barriers during **critical periods**.
- Place notices at public entrances or close to vulnerable trees to warn of the risk of harm during **critical periods**.
- Warn of the risk through website and social media posts.

## What should duty holders do?

Duty holders should be aware of the risk from SBD and factor it into their normal risk assessment procedures. They should specifically consider whether they have any vulnerable trees, the level of access near those trees, and the elevated risk during **critical periods**. Due to the uneven and erratic distribution of summer rainfall, **critical periods** will vary across the country, so managers should monitor their local weather patterns and be particularly vigilant shortly after heavy rain follows a prolonged dry period. If a failure that causes harm results in legal proceedings, it is likely that duty holders will be expected to have factored SBD into their risk management processes, and taken reasonable and proportionate measures to reduce significant risks of harm.

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13<sup>th</sup> July 2018



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