IT IS ONLY A MATTER OF TIME...

By **Stuart Hallworth, BSc (Hons) MRICS, Chartered Surveyor**

If you reside in the Northwest of the UK, you'll know that the region has officially been in a drought for a while now. I've never known such a dry winter and spring. Apart from the first week of the year, a couple of damp days in February, and a wet Easter weekend, it was rain-free. I was then relieved at the end of May when some wet weather returned, but it was light, and by mid-June, more dry and very warm conditions were back.

As owners of multiple properties, we need to be nervous when there are prolonged periods of dry weather. Why is that?

A previous occasion when it was hot and dry for several months was in 2018. By mid-summer, I was getting called out regularly to examine cracks in walls of houses that had appeared quickly and alarmingly. In most cases, there was a tree somewhere, not too far away. Any growing vegetation takes moisture out of the ground to survive. The process is called 'transpiration.' Smaller plants may dry out and perish, but larger ones, including trees, have much more extensive and established root systems, which keep growing and growing in search of water.

In very dry conditions, the ground nearest the tree becomes 'desiccated.' It can extend a long way from the tree trunk, depending on how water-deprived the tree is. Desiccated ground has reduced volume, which means that any structure built upon it is at risk from moving in a downward direction, which is called subsidence. In most cases, subsidence damage is an insured risk but getting it remedied can be a very long, drawn-out process, sometimes taking years.

So, if any of your property portfolio is within influencing distance of even one tree, prolonged dry weather should be something to be concerned about.

Woodhead Reservoir during drought conditions, The reservoir, part of a system supplying drinking water to Greater Manchester, lies in North Derbyshire.

Of course, subsidence damage doesn't occur every time. It depends on a number of variables:

(a) the species of the tree. They have differing water demands

(b) distance of the tree from the house. Some species have very long root spans.

(c) size of the tree. Larger ones are likely to be more problematic

(d) type of soil. Some types are more shrinkable than others

(e) age of the house. Older ones have shallower foundations

So, a large high-water-demand tree, with a long root span, growing on a shrinkable subsoil is the most dangerous type, especially if it was planted after the house was built.

The two most dangerous tree species are the Weeping Willow and the Lombardy Poplar as they have the longest root spans, and both are high water demand species. Interestingly, they belong to the same 'tree family,' although you wouldn't know it, because they both look very, very different from one another.

Many other broadleaf trees, including Oak, Sycamore, Plane and Horse Chestnut also present significant risks. The coniferous types may be lower risk on average, but I've seen subsidence damage caused by large spruces and even bad old Leylandii. Some of these species have very shallow roots, which travel across the ground horizontally, just under the surface. You can use a mobile phone app to identify trees, but there's nothing better than being able to recognise the dangerous ones from a glance. If the app uses leaves for identification, it won't work well in the winter!

The type of soil is also an important issue. There are a number of different types. 'Clay'-

based soils and 'sandy'-based soils are the two main ones.

The risk of subsidence is worst with clay-based soils, as they are heavy and difficult to dig when wet. In the winter, you may see standing water on the surface. They are known as highly 'plastic.' If you hold a lump of wet clay soil, you can often squeeze it between your fingers. When clay soils dry out, they shrink and crack, and the risk to structures built on the surface is significant.

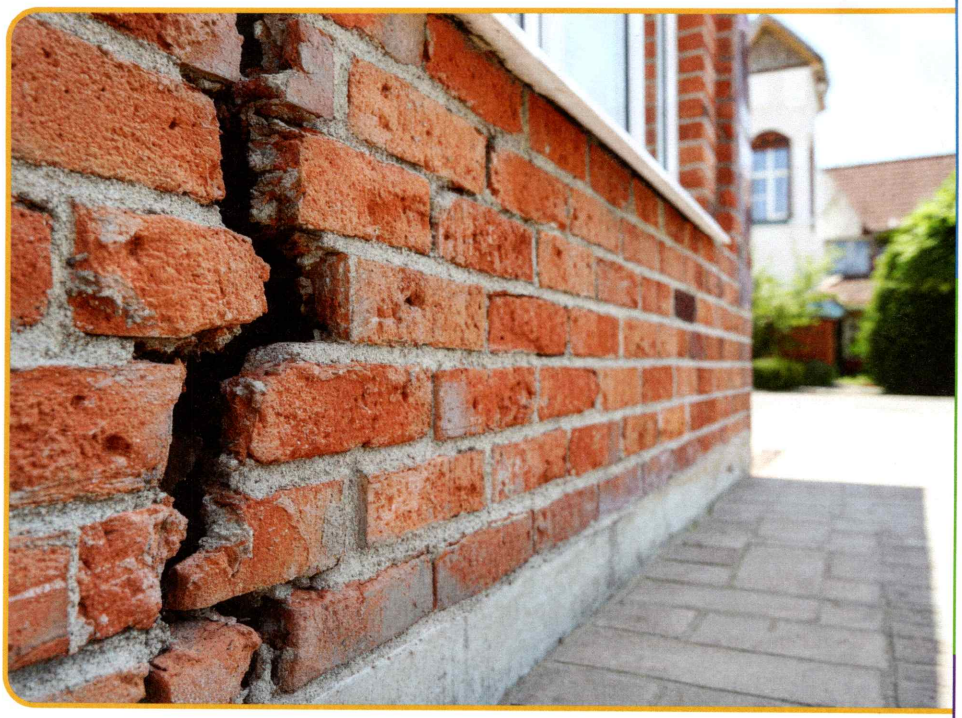
At the other end of the scale, sandy soils are not plastic. They are free draining, so water discharges away quickly. If you can get hold of a lump, it may crumble between your fingers. In dry conditions, they do not reduce so much in volume, so the risk of shrinkage and subsidence is much lower than for clay soils.

Older houses are far more vulnerable to subsidence damage than modern counterparts due to the size and depth of their foundations. Modern foundations are huge compared to even those used in the earlier post-war decades. They are better able to withstand the effects of tree transpiration. Where houses are built close to existing trees, the foundations should be designed with modifications to prevent future damage. Ground desiccation will already be present, so trees that predate the building are less risky than those that are planted subsequently.

Compare with houses from the 19th century, which still make up a large proportion of our housing stock and investor portfolios—their foundations are relatively shallow. Often, these properties do not have any proper foundations. Sometimes walls were built off stone slabs positioned in trenches. More commonly, the base of the walls is formed from 'corbelled' brickwork, which means that the base of the wall is stepped outwards to create a wider footing. As you can imagine, 'foundations' like these become damaged easily, even when there is only a small amount of ground movement.

What should you do if a tenant reports that cracks have appeared in their walls? It is going to depend on how bad the damage is and whether the conditions that lead to it are set to continue. If an insurance claim is contemplated, you may need to act quickly so as not to void the policy. At the same time, this will cause problems if you were intending to sell the property in the near future.

Felling trees also brings problems. When an established tree is removed, the desiccated ground then begins to regain moisture until its natural moisture content is reached,



which can take a number of years to complete. As the desiccation disappears, the ground swells (increases in volume). Any structure built within the desiccated zone becomes vulnerable to more damage from 'heave.' This is the opposite of subsidence, i.e., upward movement rather than downward. Trees should therefore be reduced in size gradually to minimise the heave risk. Advice should be sought from an arboriculturist before any felling commences. ...and never fell any tree that is protected by a Tree Preservation Order (TPO), or you could end up in jail!

How good are you at recognising problem trees? Can you tell if the tree is within 'influencing distance of the house? Do you know what type of soil the house is built on? Have you allowed vegetation growing in the garden to get a bit out of hand? How do you deal with tree threats that are not located on your land?

How good are you at analysing cracks in walls to determine their cause, activity, and severity?

These are all things taught on 'Mastering the Art of Surveying Homes' (MASH). It's the only quick and easy way of learning surveying skills without enrolling in very expensive training courses, which take years to complete. Interested?

You'll probably have done some property investor training in the past. These courses never have any decent content on how to survey the house, yet this is such an important skill to have when you're in the business of buying, sourcing, or managing property.

MASH is photograph-based, with no theory, no textbooks, and no diagrams (except one!). It's about as close as you can get to having the surveyor with you on-site. It took me 25 years of survey practice to gather enough photographic evidence to be able to teach everything by visual example.

The 2025 MASH sessions are running at the moment, through to the end of the year. I should be pleased to speak with you about joining in 2026. The course runs once a week, on Monday evenings, for two hours. All the material goes on a membership site for you to review again or watch later when you can't attend live. There's also 1:2:1 help direct from me if you need it. To book a call with me for an informal chat about MASH 2026, scan the QR code.

About Stuart

Stuart has been professionally involved in property for 35 years and has carried out surveys of houses for the last 25 years. He remains an active self-employed chartered surveyor, whose practice is regulated by RICS. Stuart also started investing in property in 2001, has managed his own buy-to-let properties, and is accredited with the NRLA. He has also bought, renovated, and flipped properties using mortgage and JV finance.

Get in touch

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