

Cracks and mortar

Soaring temperatures and low rainfall bring stark subsidence warnings. *Jayne Dowle* reports



London has subsidence-prone clay soil
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There is one heatwave hot issue that no one is talking about, but it is set to hit record-breaking levels along with soaring temperatures this summer: subsidence. Experts are predicting a surge event, a sudden uptick in subsidence, when the ground can literally shift beneath the feet of a property, causing cracks and other severe structural problems; new extensions parting company with the existing back wall, houses leaning precipitously forwards or back, and bifolds refusing to budge.

In the UK subsidence is caused by unprecedented extremes of hot, dry weather, something on which experts from the loss adjusters at the

Association of British Insurers to climate change campaigners agree. There is also growing consensus that the frequency of surge events appears to be speeding up.

Typically over the past three decades, a surge event would happen every eight years or so, says Otso Lahtinen, the founder of the ground engineering company Geobear. “The last one was in 2018. The fact that we’re talking about the suggestion of another surge in 2022 suggests that the gap between events is becoming shorter. Exceptionally dry, hot summers cause tree roots to migrate deeper to seek water; this sucks greater moisture out of deeper clay soils and causes

more subsidence to happen.”

This has serious consequences for homeowners, particularly but not exclusively those living in areas with subsidence-prone clay — such as London — or sandy, gravelly soil.

Timothy Farewell, the head of science at the analyst Dye & Durham and one of the UK’s leading academics on ground hazards, says that in the hottest years the threat of subsidence spreads outwards from the driest parts of the country, exposing even properties in damper spots, such as Manchester, Birmingham and the northeast, to an increased risk of climate-related subsidence damage.

More than 7.65 million properties in Great Britain could be open to medium or high risk of soil subsidence by the 2080s, according to Dye & Durham. This is an increase of more than 1.89 million individual properties. In particular, parts of Middlesex, Hampshire, Berkshire, Hertfordshire and Surrey could move to the highest subsidence hazard classes by the 2050s, according to the data. There are also six counties and districts where more than 50 per cent of their total expanse could become exposed to “high” or “very high” soil subsidence risk in just 30 years’ time: Huntingdonshire (70 per cent), Essex (65 per cent), Middlesex (63 per cent), Bedfordshire (55 per cent),

Leicestershire (54 per cent) and Northamptonshire (51 per cent).

Put simply, subsidence increases the likelihood of downward movement in buildings. This has the potential to move foundations and crack walls and ceilings, and results in expensive repair bills, on average £12,000, according to the trades comparison service Checkatrade. Insurance premiums following a subsidence claim will usually rise too. Some experts predict the possibility of localised spikes in premiums in areas worst affected by subsidence, which could impact asking prices.

Farewell is anticipating an increase in the number of subsidence incidents and insurance claims whether we get an official surge or not. “You only have to look at the last surge event in 2018, when we experienced record heatwaves and sustained dry weather; that year we saw over 10,000 households making insurance subsidence claims worth £64 million within just a three-month period.”

Malcolm Tarling, a spokesman for the Association of British Insurers, says his organisation has not had confirmation of a 2022 surge event so far. “I know there has been some talk,” he says. “As far as property repairs are concerned, the cost of raw materials is rising; supply-chain issues have been exacerbated by the pandemic.”

Home insurance quotes detailing a history of subsidence claims have risen by a staggering 637 per cent over the past ten years, says GoCompare Home Insurance, the comparison site, with an average annual increase of 27.8 per cent from 2012 to last year.

“The largest rise has been in the last five years,” says Ceri McMillan, a home insurance expert at GoCompare. “Since 2017, there has been a 51 per cent increase in the number of quotes with previous subsidence claims, compared to the five years prior.”

The next six weeks will be critical when it comes to establishing whether this year is indeed a surge year because conditions take some time to establish. In addition, the effects of a surge event can also take time to show themselves.

Alex Cross, an insurance director at Tesco Bank, reports that subsidence claims are already beginning to come through from the recent hot, dry weather. “We expect the volume to keep growing,” he says. While Zurich, the insurance company, reports that subsidence claims dipped by 36 per cent between January and May this year, compared with the same period in 2021, probably because of the very wet February, another consequence of climate change.

However, the picture looks very different in the parched

landscape of high summer. “We aren’t there yet, but by looking at previous instances — most notably 2003 and 2018 — the likelihood is that we will experience a so-called surge event,” says Mike Grant, a climate-related risk expert and partner at the law firm Weightmans. “In these years we experienced consistently hot, dry weather for the full period of July to September, and if the weather forecast for the rest of August is anything to go by, we can expect that this will be the same in 2022.”

Not only will subsidence potentially diminish the underlying value of a property, but homeowners may also need to pay thousands for reinforcement to foundations to limit the risk of movement. There may also be costly repairs when damage occurs internally and externally, such as redecorating and re-rendering. Not all insurance policies cover such eventualities.

Subsidence may be present if you spot some or all of the following signs: new or expanding cracks in walls, ceilings, render and external brickwork; doors and windows sticking or not closing or opening; floors beginning to slope; wallpaper wrinkling where damp is not present; and cracks around an extension, which may indicate that the new element is gradually moving away from the original building

Subsidence can also be caused by a collapsed drain or

leaking water pipe, which will eventually wash away fine soil particles and make the ground unstable. “Maintain your home’s drains and keep on top of any vegetation that’s close to the property as these can both cause subsidence if not properly managed,” says McMillan.

In mining areas underground workings can move over time, and with new-build developments, especially where remedial works have been required to make up ground, faults can occur.

Traditional methods of dealing with subsidence, such as underpinning — strengthening the foundations — are costly and disruptive, and may involve residents moving out for weeks or even

months.

New technologies are providing quicker solutions. For example, Geobear, which originated in Finland, has developed a remedial method (with a ten-year underwritten guarantee) to inject expanding geopolymer resins into the ground. These force sunken parts upwards to restabilise affected properties.

“The resins are as strong and resilient as concrete, but weigh only 10 per cent as much,” Lahtinen says. “Because we only need to drill small injection holes, there is far less mess and we are usually only on site for one to two days, and properties often don’t need to be vacated at any point.”

In addition, because this

method is less disruptive than underpinning, fewer trees have to be removed from an affected site. Lahtinen claims this also saves time, as permission for tree removal from council planning departments is no longer required.

If you’re selling or buying a home that has had work done to fix subsidence, ask your solicitor about taking out indemnity cover against future problems in co-operation with your buyer/vendor.

“While subsidence may not be an issue everywhere in the UK today, I believe it is an issue that should be taken seriously as we look into the future, as this risk becomes more and more common and costly,” Farewell says. ■