NOVEMBER 2023

Canterbury, Leeds and Paisley among the areas of the UK where new mapping reveals a much greater risk from radon gas than previously thought

- In light of Radon Awareness Week (this week), the UK Radon Association has flagged some of the areas that have recently been designated as 'Radon Affected Areas'
- Improved geological mapping led to the release of an updated risk map* which predicts the likelihood of a property in a given area being affected by high levels of radon gas
- Areas near Canterbury, Leeds and Paisley have all been reclassified from being thought to be at low risk, to now potentially having as many as 1 in 3 homes containing high levels
- Radon is one of the leading causes of lung cancer in the UK, after smoking, and is responsible for over 1100 deaths from the disease each year

As Radon Awareness Week gets underway (6th to 12th November), the team at www.radonassociation.co.uk continue to make it their mission to raise awareness of what radon is, who it can affect most within the UK and the health effects that it can have when exposed over a prolonged period of time.

Radon is an invisible, odourless and potentially life-threatening radioactive gas that originates from the natural decay of Uranium-238 within the Earth's crust, seeping through rocks, soil, some building materials and even through well water. It enters buildings through surfaces in contact with the ground and, unless a radon test has been carried out, there is no way of knowing how much radon is in any given building.

A study by UK Radon Association recently found just that one in 10 UK adults have heard of radon before, data which was backed up by Dr. Chris Witty, Chief Medical Office for England, in his most recent Annual Report on Air Pollution**: "most people don't even know what it is. That's why it's so important to raise awareness about radon and encourage people to test their homes."

The UK Health Security Agency (UKHSA) and British Geological Survey (BGS) published a new map at the end of 2022 which indicates the likelihood of high levels of radon being found in different parts of the country. As the understanding of how different geologies affect radon emissions increases, and more indoor radon testing is carried out, scientists have been able to refine the maps, which were last published in 2007. Any area where the risk of a property containing a high level of radon (above 200 Bq/m3 in the UK) is greater than 1% is designated as a radon 'affected area'.

Some areas of the country where it was previously thought the risk of having high radon levels in your home would be less than 1 in 100 have been reclassified as 'affected areas', and the reported risk has now increased to as much as 1 in 3. Below are just a handful of examples of locations where the reported risk has increased significantly (pre and post 2022 reported risk given)

- An area south of Canterbury: Previously 1-3% risk, now greater than 30% risk
- An area near Paisley, Scotland: Previously less than 1% risk, now greater than 30% risk
- An area north of Oxford: Previously less than 1% risk, now 10-30% risk

- An area west of Leeds: Previously less than 1% risk, now 5-10% risk
- A coastal area near Scarborough: Previously less than 1% risk, now 5-10% risk
- An area surrounding Coventry: Previously less than 1% risk, now 5-10% risk

It is important to recognise that the radon levels have not suddenly increased in these areas, so the risk has always been the same, but it previously wasn't expected to be, nor reported as being as high.

Conversely, in a small number of areas the reported risk has decreased although most remain in designated affected areas, albeit in lower risk bands.

Rebecca Coates, spokesperson for UK Radon Association said: "We've come a long way in the past 15 years, and this has thankfully led to more precise risk maps being produced. Informal analysis that we carried out on a list of approximately 850 addresses across the UK revealed that the reported risk had increased in just under 20% of locations. During this year's Radon Awareness Week, we want to ensure that everyone becomes radon aware and knows the current risk for their own home, whether they have researched it previously or not. The maps are only indicative of the risk, however, and the only way to know just what the radon concentration in your home is, is to test. Regardless of where you live within the UK, we recommend purchasing a radon test kit for peace of mind. It costs less than an MOT for your car, and we spend a lot longer in our homes than we do our cars so it's a small price to pay to ensure the safety of our families."

She continued, "Radon is one of the leading causes of lung cancer, after smoking, causing an estimated 1,100 lung cancer deaths per year in the UK. While it takes years of exposure to cause health concerns, if people simply don't know about radon, the effects, and the risk they may be at, it's likely they won't realise anything is wrong until it's too late. We want to prevent that, and with this week being Radon Awareness Week there really is no better time to do some quick research into the risk in your area. It's free to search the latest indicative risk map at www.ukradon.org."

The implications of the updated maps also spread to all employers, who have a legal responsibility to carry out a radon risk assessment for their workplaces. Radon testing must be carried out in any workplace located in a designated affected area. Employers failing to adequately assess the risk of radon in their workplace risks enforcement action from the Health and Safety Executive (HSE). In fact, the first prosecution for radon-related breaches was heard in court earlier this year when a private school in Bath was fined £50,000 for failing to protect staff and students from radon***.

Radon Awareness Week takes place during November each year, as the whole month is dedicated to lung cancer awareness internationally. According to the World Health Organization, radon is estimated to cause between 3% to 14% of all lung cancers in a country, depending on the national average radon level and smoking prevalence****.

ENDS

*https://www.ukradon.org/information/ukmaps

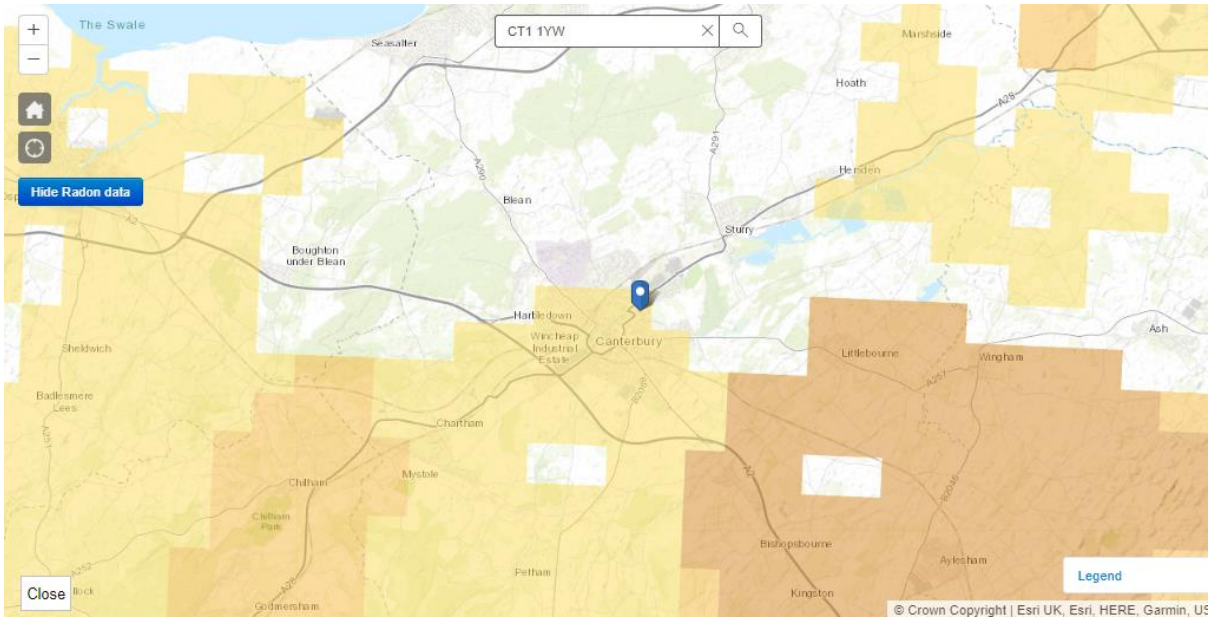
**https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1124738/chief-medical-officers-annual-report-air-pollution-dec-2022.pdf

*** https://press.hse.gov.uk/2023/07/20/boarding-school-fined-50000-after-pupils-overexposed-to-radon-radioactive-gas/

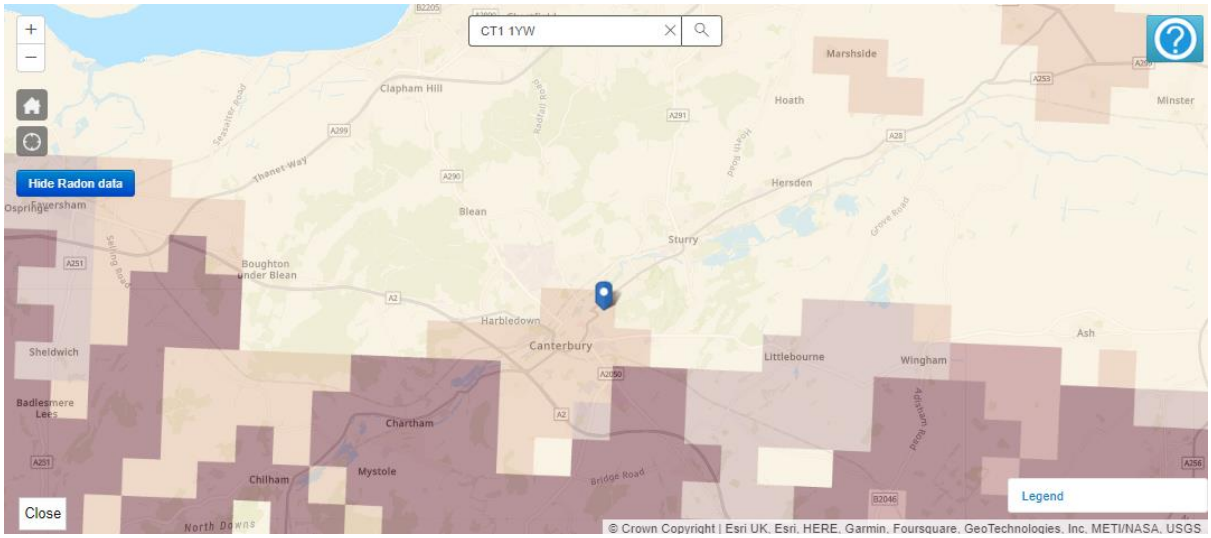
****https://www.who.int/news-room/fact-sheets/detail/radon-and-health

An example of the 2007 and 2022 maps for comparison is shown below, for Canterbury and Leeds areas. All images taken from www.ukradon.org interactive map. NB, the colour-coding of the maps changed in 2022, but on each map the darker the colour, the greater the risk band.

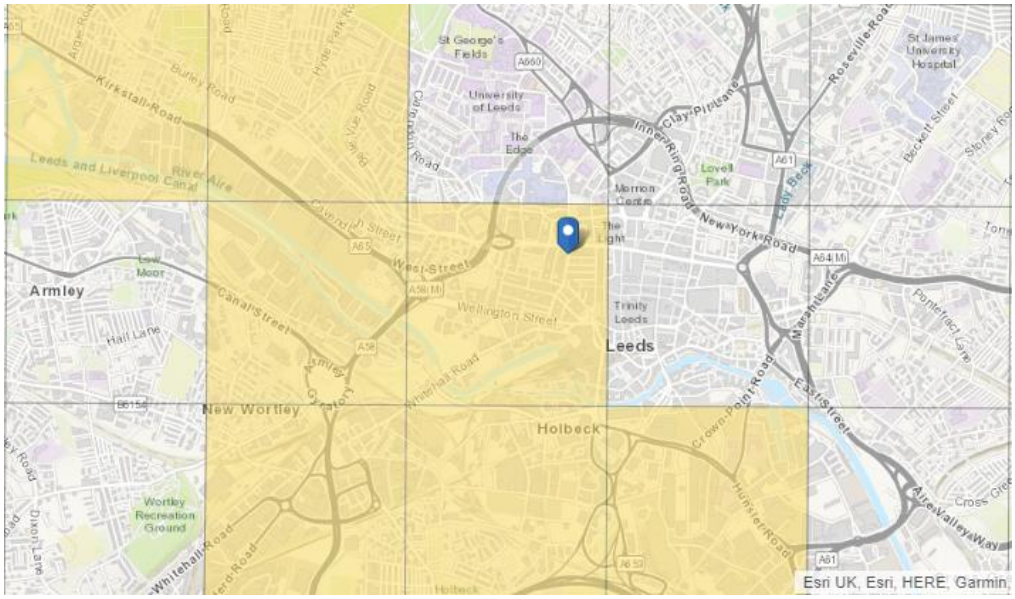
2007 Version



2022 Version



2007 Version



2022 Version