

Risk Statement

Outcome of Detailed Inspection of Chalford Playing Field, Valley Road, Chalford under Part 2A of the Environmental Protection Act 1990.

This is a written statement prepared in accordance with Section 78A (2) of the 1990 Act and Paragraphs 5.2 to 5.4 of the Statutory Guidance, recording the outcome of the detailed site inspection at the Chalford Playing Field, Valley Road, Chalford.

The Playing Field is located to the south of Chalford High Street and can be found at the National Grid Reference E390452 N202571.



Detailed Inspection of the site commenced in July 2025 following notification from the Parish Council that mole activity at the site was bringing shards of glass and ceramics to the surface and more recently, suspected fragments of asbestos containing material (ACMs). The playing field was closed to members of the public, as a precautionary measure, whilst investigations were ongoing.

Site Investigations

Sanctus Ltd undertook a preliminary site investigation in August 2025 and a supplementary investigation in October 2025. The supplementary investigation concentrated on sampling for PAHs (Polyaromatic Hydrocarbons) only. The investigations included:

- 30 trial pits (20 initial, 10 additional shallow PAH pits)
- Soil, leachate and surface water sampling of the river

- Asbestos screening and quantification for all 20 initial pits
- Asbestos dustiness testing on two samples: STP11 and STP17
- Background air monitoring during intrusive works (all <0.010 f/ml — no exceedance)
- Laboratory analysis for metals, PAHs, TPH, VOCs, asbestos

The report concluded that there is no evidence that the fill material is contaminating the River Frome. No soil levels exceeded the assessment criteria for metals, TPH & VOCs. There were initially a few exceedances of PAH, but the supplementary investigation has been able to demonstrate that it is a low risk.

Asbestos was the only remaining contaminant of concern. Chrysotile was found as asbestos containing material (ACM) and as loose fibres within the soil matrix across the majority of the samples. Crocidolite and amosite were found as fibre bundles in the soil matrix at depth, within one location. There are no assessment criteria for asbestos in an environmental setting. To assess the potential harm from asbestos, a lines of evidence approach is used along with modelling using techniques such as dustiness tests, to establish an excess lifetime cancer risk.

Sanctus took a precautionary approach to risk and recommended that remediation is required before the site can be reopened to the public.

SDC had concerns about the robustness of the risk estimation that had been undertaken and sought an independent review from Dr Paul Nathanail of Land Quality management (LQM). LQM undertook a risk evaluation using the existing data and the updated SoBRA 2021 methodology. This suggested that there was a combined excess lifetime risk for lung cancer and mesothelioma of less than 10^{-6} which is a conservative level of minimal risk. However, there were concerns that this was based on non-representative data.

LQM undertook further sampling in April 2026. This consisted of taking two samples from ten molehills spread across the site. Ten samples were sent to Normac DETS for respirable dust release tests and ten samples were sent to Normac i2 for fibre release tests. Five of the molehills had measured asbestos fibre release. In all cases the fibres released were below the method limit of detection and all asbestos found was chrysotile.

Human Health Risk Assessment for Site Users

Assessment based on exposure for the whole life from birth to 60 years of age. A user has been assumed to be exposed for 4 hours a day for 104 days per year for 60 years.

This results in a calculated combined lifetime risk of mesothelioma and lung cancer of

2×10^{-5} (2 per 100,000).

Defra considers an excess lifetime cancer risk (ELCR) of $1\text{E-}05$ (1 in 100,000) to be a minimal level of risk. Defra's methodology for Category 4 Screening Levels (C4SLs)—which Defra considers to be strongly precautionary but more pragmatic and realistic than the "minimal" risk framework—utilizes a slightly higher risk estimate of 1 in 50,000 ($2\text{E-}5$) or $2\text{E-}5$ as the basis for the low level of toxicological concern. A ELCR in excess of $1\text{E-}04$ (1 in 10,000) would be considered to be unacceptable.

When corrected for the fact that molehills cover only 0.25% of the site (based 60 molehills), the risk becomes 1.1×10^{-8} , equivalent to:

- **0.0011 per 100,000**
- approximately **1 in 91 million**.

The site falls well within **Category 4** under Part 2A, meaning there is no significant risk of significant harm.

(If there was no vegetation or other hard cover and the entire site released asbestos fibres akin to the release from molehill materials the risk would be at the upper end of what is considered minimal risk).

Human Health Risk Assessment for Ground Workers

While risks to visitors are very low, grounds maintenance activities such as mowing could:

- disturb molehill material,
- shatter asbestos-cement fragments,
- generate additional airborne fibres.

The hand picking of glass, ceramic and ACM fragments from molehills is a further exposure pathway but likely less significant than the above.

Ground workers could therefore be exposed to higher levels of airborne fibres for a short period of time that fibres are airborne. As the mower moves away from a molehill the concentration of asbestos fibres will diminish rapidly. While this is not expected to result in a level of risk that would reflect a significant possibility of significant harm, the risk is estimated to fall within **Category 3**. Not determinable as contaminated land under Part 2A, however placing land in this category would not stop others from taking action to reduce risks outside of the Part 2A regime.

The assessment has been based on airborne fibre levels 100 times greater than those reported by i2 and used in the risk estimation for site users; mowing lasts 2 hours and takes place every fortnight for 26 weeks a year and a ground worker who is employed for their entire working life from age 20 to age 60 (a 40-year exposure).

This results in a calculated combined lifetime risk of mesothelioma and lung cancer of

4.9×10^{-5} (4.9 per 100,000)

When corrected for the fact that molehills cover only 0.25% of the site, the risk becomes 2.64×10^{-8} , equivalent to:

- **0.00264 per 100,000**
- Approximately **1 in 38 million**

This reduces the risk to **Category 4** also.

Grounds maintenance constitutes "**work with asbestos**".

The **Control of Asbestos Regulations 2012 (CAR 2012)** therefore apply.

JIWG (Joint Industry Working Group) on asbestos CARSOIL assessment categorises the work as Non licenced Work

A climate change risk assessment has been undertaken, and it has been concluded that climate change and extreme weather events does not significantly change the risk evaluation.

Conclusions

The human health risk to site users is considered to be very low. The calculated combined excess lifetime cancer risk (ELCR) before adjusting for molehill coverage is 2×10^{-5} (2 per 100,000) and when corrected for the fact that the molehills cover only 0.25% of the site, the risk becomes 1.1×10^{-8} (the equivalent to 0.0011 per 100,000). Defra considers an ELCR of 1 in 100,000 to be a minimal risk level.

Whilst risks to visitors are very low, grounds maintenance activities such as mowing lead to additional exposures routes. Ground workers could therefore be exposed to higher levels of airborne fibres for short periods of time. Whilst this is not expected to result in a level of risk that would reflect a significant possibility of significant harm, the risk is estimated to fall within Category 3. The calculated combined excess lifetime cancer risk (ELCR) before adjusting for molehill coverage is 4.9×10^{-5} (4.9 per 100,000) and when corrected for the fact that the molehills cover only 0.25% of the site, the risk becomes 2.64×10^{-8} (the equivalent to 0.00264 per 100,000). Lowering the classification from Category 3 to a Category 4 site.

As such, the site falls within Category 4 under Part 2A, meaning there is no significant risk of significant harm.

Outcome

It is for the above reasons, that Stroud District Council have determined that the site is a **Category 4** site. The authority has ceased its inspection and assessment of land on grounds that there is little or no evidence to suggest that it is contaminated land and that the land does not meet the definition of contaminated land under Part 2A of the EPA 1990. This assessment is relevant to the current use of the site as a Playing Field.

The site owners should take note that the site is categorised as a Category 4 site, however, reasonable action should be taken to reduce the risks to ground workers under the requirements of the Health & Safety at Work Act 1974 and the Control of Asbestos Regulations 2012. Once these measures are in place, the site can be re-opened. Any future work involving ground disturbance would need to be planned and carried out in the knowledge that there is asbestos containing material beneath the surface.

Signed 

Dated: 5th August 2026

Sarah Clark, Head of Environmental Health