

Air Quality and Dust Monitoring Monthly Report – December 2022 Lichfield District Council



Department for Transport

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A report prepared by EWCs and MWCCs on behalf of HS2 Ltd.

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Monthly Summary

1.1.1 This Summary Report is published in fulfilment of commitments detailed in the High Speed Rail (London-West Midlands) Environmental Minimum Requirements, Annex 1: Code of Construction Practice, for the nominated undertaker to present the results of air quality and dust monitoring undertaken in Lichfield District (LDC) during December 2022.

1.1.2 Figure 1 in Appendix A indicate the current worksites together with the dust monitoring locations for December 2022.

1.1.3 This summary should be read in conjunction with the overview monitoring report monthly available from www.gov.uk/government/collections/monitoring-the-environmental-effects-of-hs2, which highlights: the applicable standards and guidance, as well as the air quality and dust monitoring methodologies to be implemented by nominated undertakers throughout construction.

1.1.4 The current worksites, as presented in Appendix A, Figure 1, include:

Shaw Lane Embankment and Underbridge (Sublot 8.2)

- Construction of the haul road land clearance; and
- Construction of the embankment.

Streethay Cutting Retaining Structure (Sublot 8.3)

- Site clearance,
- Earthworks and
- Construction works (piling, concrete deliveries).

1.1.5 Four (4) dust monitors are installed at the worksite, where works are underway. These sites returned a low dust risk rating.

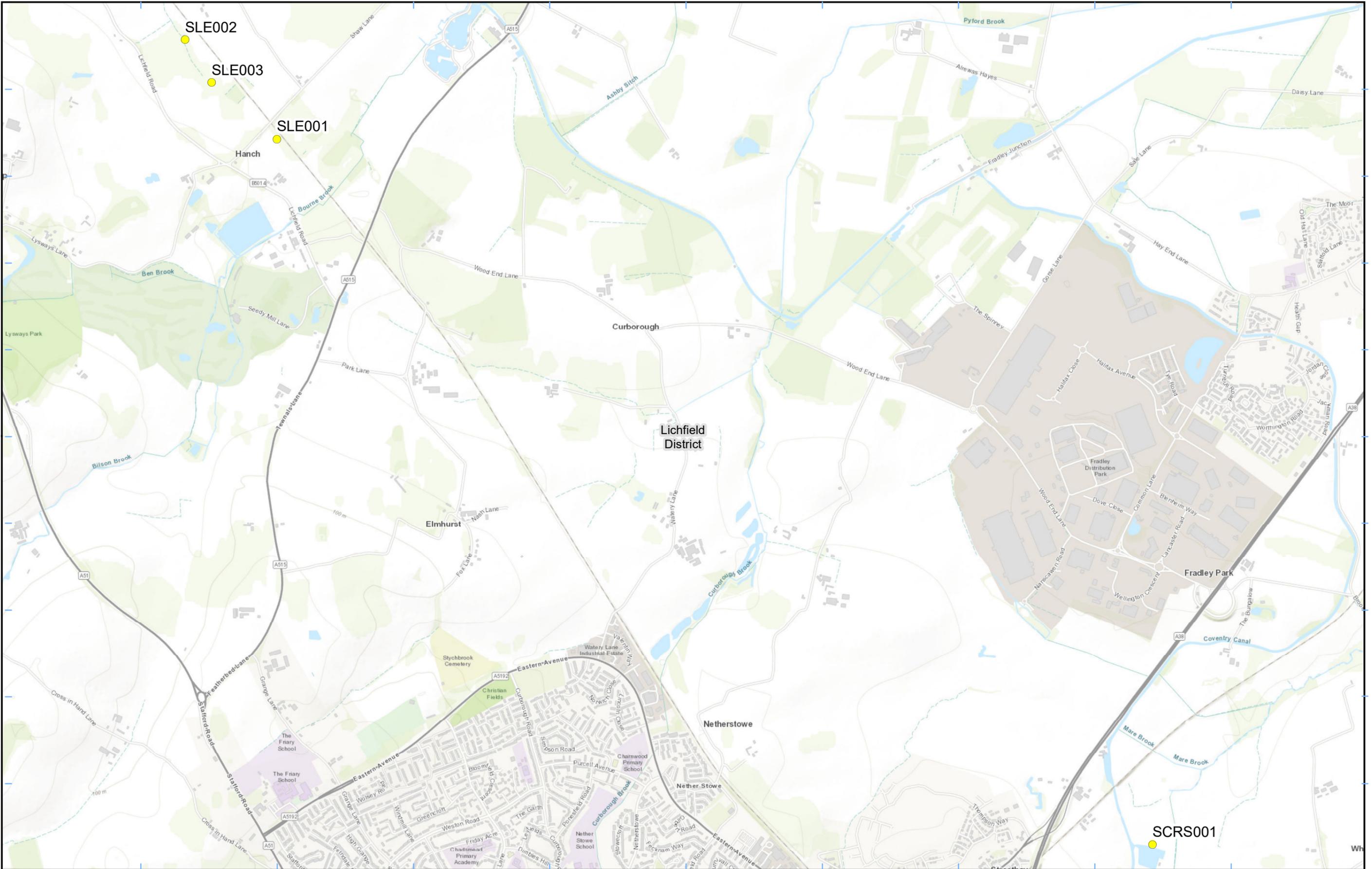
1.1.6 Dust monitoring locations and results are presented in Appendix B, Table 1, together with line charts of monthly data from the dust monitors presented in Figure 2. All continuous dust monitoring is undertaken using indicative monitors. Despite being Environment Agency (MCERTS) certified, indicative monitors carry a higher level of uncertainty than reference monitors, and therefore cannot be strictly compared with Air Quality Standards for human health and the environment. The purpose of the monitoring undertaken is to ensure the effectiveness of the on-site mitigations.

- 1.1.7 The trigger level for PM₁₀ concentrations of 190 µg/m³, over a 1-hour period, in accordance with the updated guidance document '*Guidance on Monitoring in the Vicinity of Demolition and Construction Sites – (October 2018)*' has been applied.
- 1.1.8 Details of the trigger alert investigations and remediations are presented in Appendix B, Table 2.
- 1.1.9 Data capture was below 90% for multiple monitors due to lack of sunlight caused by the weather in the winter months. Battery swap outs were done to combat this issue.
- 1.1.10 No (0) complaints were received during the reporting period (December 2022).

Appendix A – Worksites and Monitoring Locations

Figure 1: Worksites and Monitoring Locations within the LDC





Legend
 Dust Monitor
 District Borough Unitary Boundaries

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Map Number
 Map Name
**Monitoring Locations
 In LDC (Sheet 1)**
 Lichfield District

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Appendix B – Dust Monitoring Results

Table 1: Dust Monitoring Locations and December 2022 Results

Monitoring site ID	Coordinates (X,Y)	Location description	Dust risk rating for site	Monitoring site active during period	Change to site since previous period report	Mean 1-hour PM ₁₀ concentration (µg/m ³)	Minimum 1-hour PM ₁₀ concentration (µg/m ³)	Maximum 1-hour PM ₁₀ concentration (µg/m ³)	Number of 1-hour periods exceeding trigger level of 190 µg/m ³	Data capture for Month (%)
SLE001	410383, 314185	Spinney Nurseries, Shaw Lane Embankment	L	Yes	No	20.4	0.1	100.8	0	81.3
SLE002	409903, 314705	New Farm Produce 1, Shaw Lane Embankment	L	Yes	No	1.3	0.1	31.1	0	71.0
SLE003	410041, 314481	New Lane Produce 2, Shaw Lane Embankment	L	Yes	No	8.6	0.1	30.3	0	97.7
SCRS001	414913, 310498	Streethay Cutting Retaining Structure, King's Orchard Marina	L	Yes	No	16.7	0.1	206.1	1	73.4

Table 2: Summary of exceedances during period (December 2022)

Monitoring Site ID	Period of trigger alert & Concentration recorded	Investigation	Outcomes / Resolution / Remedial measures implemented
SCRS001	16/12/2022: 18:00 – 18:59; 206.1 µg/m ³	This dust trigger alert occurred after works had finished for the day, so the likely cause of this dust trigger alert was a local source, outside of the construction work.	N/A

Figure 2: Construction dust 1-hour mean indicative PM10 concentration for all dust monitors

