

Air Quality and Dust Monitoring Monthly Report – August 2023 **Solihull Metropolitan Borough Council**



Department for Transport

High Speed Two (HS2) Limited has been tasked by the Department for Transport (DfT) with managing the delivery of a new national high speed rail network. It is a non-departmental public body wholly owned by the DfT.

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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 Solihull Metropolitan Borough Council (SMBC) during August 2023.
- 1.1.2 Figure 1 to Figure 3 in Appendix A indicate the current worksites together with the dust monitoring locations.
- 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 to Figure 3, include:

Sublot 2B3

Balsall Common Viaduct

- Haul Road Traffic/ Use of vibratory rollers.

Park Lane

- Stockpile of material/moving plants;
- Collins Earthworks/ Moving Traffic;
- M215 footbridge construction - Rollers and diggers; and
- Collins Earthworks/ Moving Traffic.

A452

- Piling rig/A452 Embankment works.

Sublot 5S

Coleshill Heath Road Underbridge

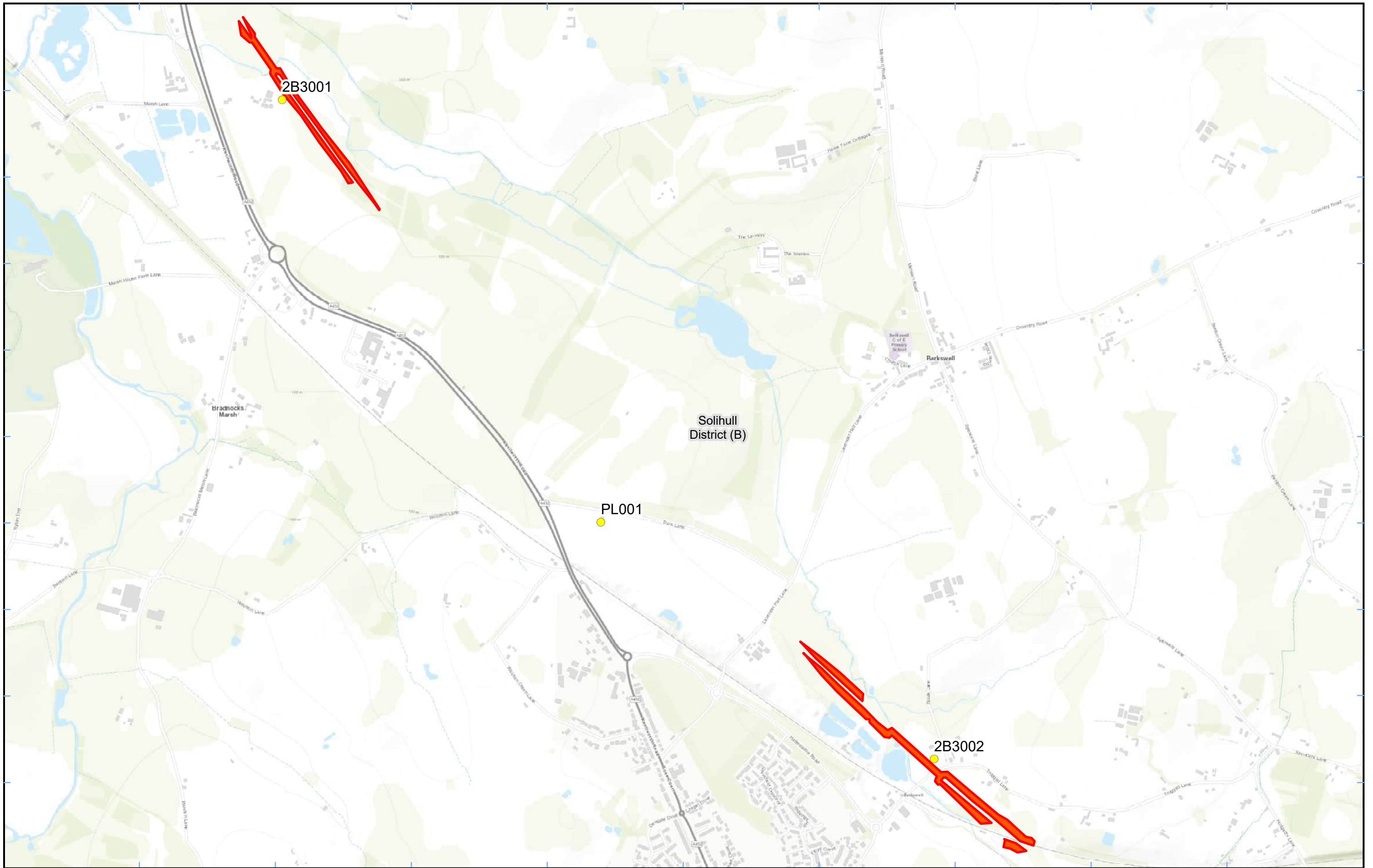
- Steel fixing;
- Pile cropping & trimming;

- Pile cap excavation;
- P2/P3 piling; and
- Wheel wash slab construction.

- 1.1.5 Six (6) dust monitors are installed around worksites, where works are underway. These sites returned a medium 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 each dust monitor, in Figure 4. 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 Dust trigger alerts were recorded during the monitoring period (August 2023) and are reported in Appendix B, Table 2.
- 1.1.9 Data capture was below 90% for monitor DLE002 due to the monitor being swapped out on the 8th August to investigate abnormally high readings. All data during the monitoring period for this monitor prior to 8th August 2023 was rejected as unreliable.
- 1.1.10 There were no (0) complaints received during this reporting period.

Appendix A – Worksites and Monitoring Locations

Figure 1 to Figure 3: Worksites and Monitoring Locations within SMBC



Legend
 Dust Monitor District Borough Unitary Boundaries
 Worksite

Service Layer Credits: Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community

Map Number
 Map Name
**Worksite and Monitoring Locations
 In SMBC (Sheet 1)**
 Solihull Metropolitan Borough



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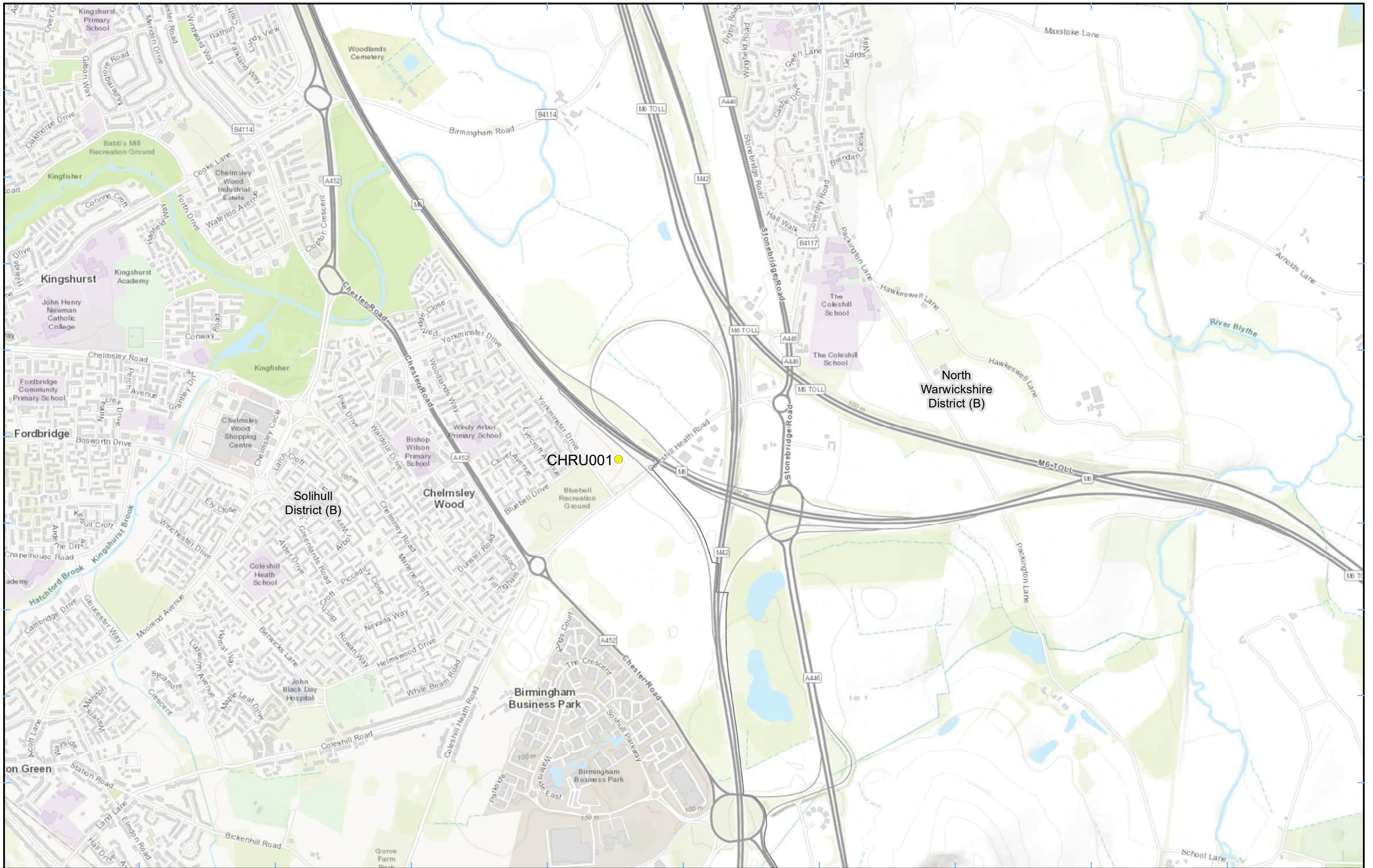
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Legend

- Dust
- District Borough Unitary Boundaries

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Map Number

Map Name
**Monitoring Locations
 In SMBC (Sheet 2)**

Solihull Metropolitan Borough

hs2

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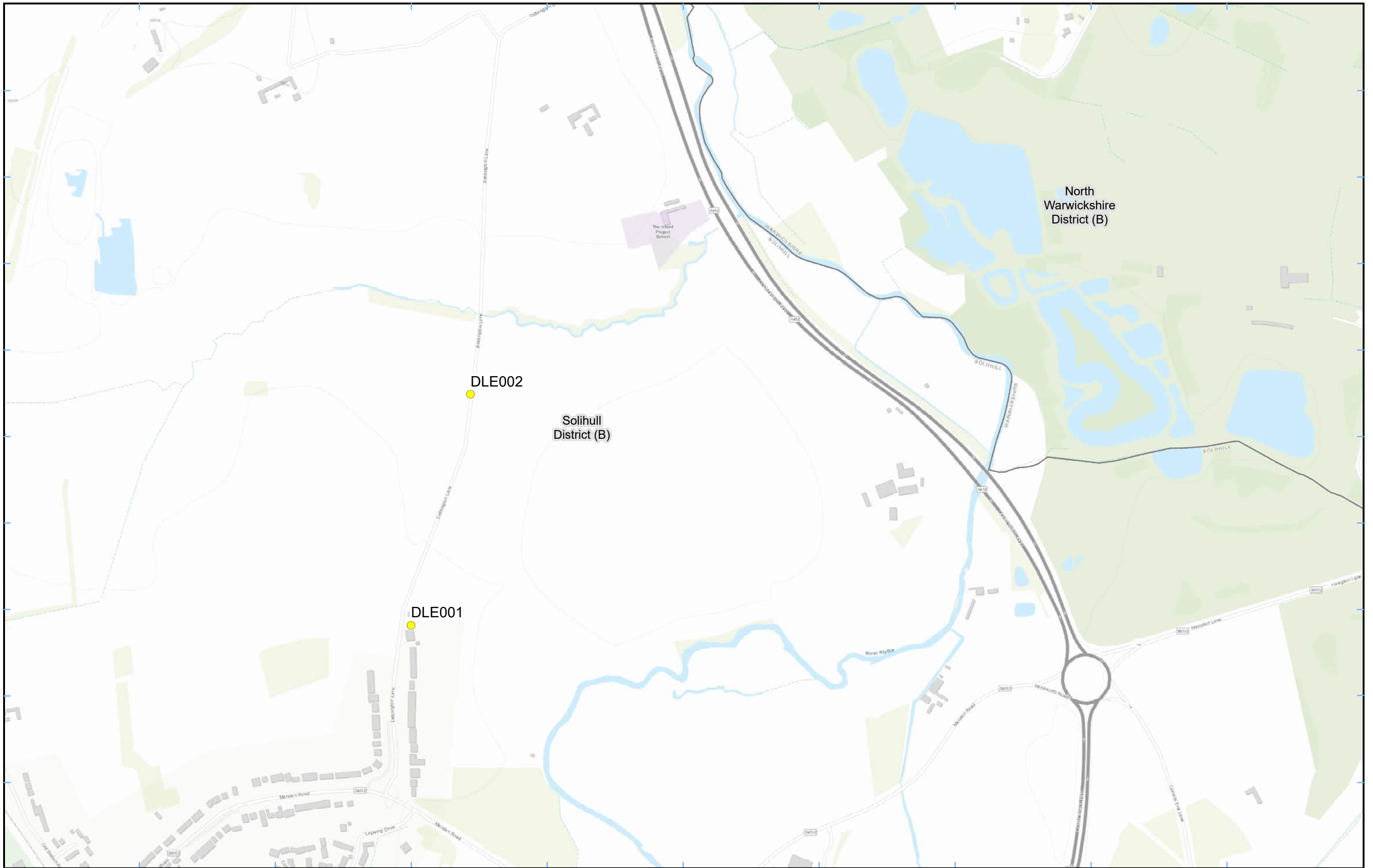
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Legend

- Dust Monitor
- District Borough Unitary Boundaries

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Map Number

Map Name
**Monitoring Locations
In SMBC (Sheet 3)**

Solihull Metropolitan Borough

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Appendix B – Dust Monitoring Results

Table 1: Dust Monitoring Locations and August 2023 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 Month (%)
2B3001	422322, 280034	Sublot 2B3, at Marsh Farm	M	Yes	n/a	5.9	0.0	95.3	0	100.0
2B3002	424601, 277729	Sublot 2B3, at Cherry Tree Cottage	M	Yes	n/a	1.9	0.0	61.1	0	100.0
CHRU001	419300, 286793	Bluebell Drive, Coleshill Heath Road Underbridge	M	Yes	n/a	3.7	0.2	32.9	0	100.0
PL001	423436, 278557	Park Lane	M	Yes	n/a	7.2	0.4	70.1	0	100.0
DLE001	421035, 281818	Diddington Lane	M	Yes	n/a	6.1	0.1	424.1	2	100.0
DLE002	421139, 282222	Hampton Hill Farmhouse	M	Yes	n/a	5.3	1.0	34.8	0	75.8

Table 2: Summary of exceedances of trigger level in August 2023

Monitoring site ID	Period exceeding trigger level	Investigation	Outcomes / Resolution / Remedial measures implemented
DLE001	12/08/2023 17:01 – 18:00; 277.6 µg/m ³ 18:01 – 19:00; 424.1 µg/m ³	The triggers alerts were recorded during periods where there was no BBV activity taking place and therefore were not related to BVV works.	n/a

Figure 4: Construction dust 1-hour mean indicative PM₁₀ concentration for dust monitors.



