

Air Quality and Dust Monitoring Monthly Report – July 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 dust monitoring undertaken in Solihull Metropolitan Borough (SMBC) during July 2023.
- 1.1.2 Figure 1 and Figure 2 in Appendix A indicate the current worksites together with 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 2, include:

Sublot 2B3

Balsall Common Viaduct

- Piling works within 30m of receptor; and
- Plant movements.

Park Lane

- Plant movements and material haulage/stockpiling within 50m of receptor;
- Lavender Hall Lane realignment. Large volumes of earthworks. Dumpers, dozers and rollers for new road;
- Plant movements. Large volumes of earthworks for overbridge. Base slab install for overbridge using dumpers, dozers and rollers; and
- As for Laurels plus compound install.

A452 Compound

- Piling for Marsh Farm Viaduct approx. 90m from receptor; and
- Piling for Marsh Farm Viaduct approx. 40m from receptor. Concrete wagon movements and washout.

Sublot 5S

Coleshill Heath Road Underbridge

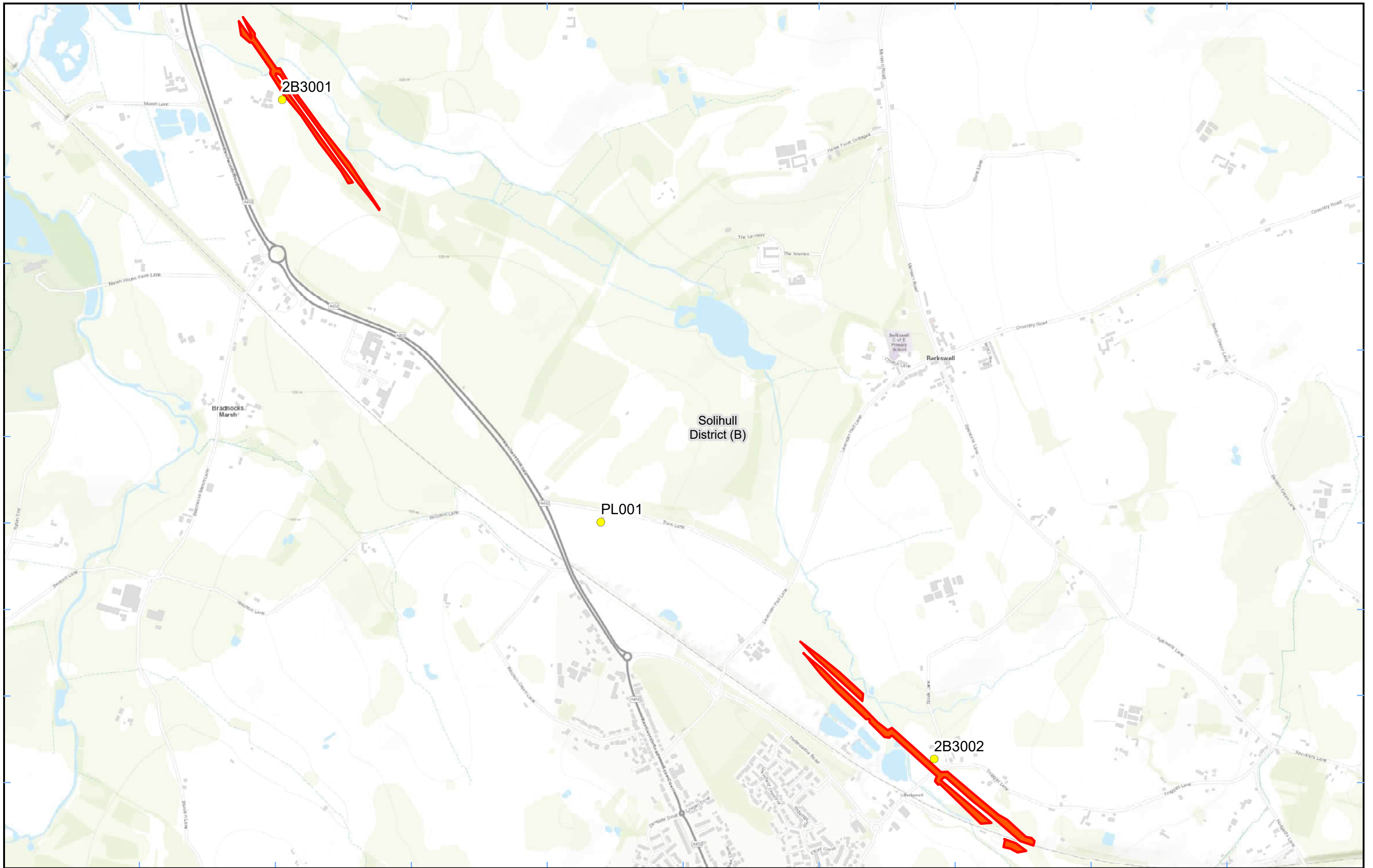
- Compound car park;

- Pile cropping;
- Steel fixing; and
- Piling.

- 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 the dust monitors presented in Figure 3. 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 No (0) dust trigger alerts were recorded during the monitoring period (July 2023).
- 1.1.9 Data capture was below 90% for multiple monitors in July 2023. For monitor 2B3002 this was due to unreliable data from 21st July onwards. Low data capture rates at DLE001 and DLE002 were due to the monitors not being active for the whole month: DLE001 was installed on 11th July 2023 and DLE002 was installed on 6th July 2023. Data capture at DLE002 was also affected by the removal of erroneous data from 27th July 2023 onwards. A site visit was carried out on 8th August 2023 to resolve the issue.
- 1.1.10 There were no (0) complaints received during this reporting period.

Appendix A – Worksites and Monitoring Locations

Figure 1 and Figure 2: Worksites and Monitoring Locations in 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

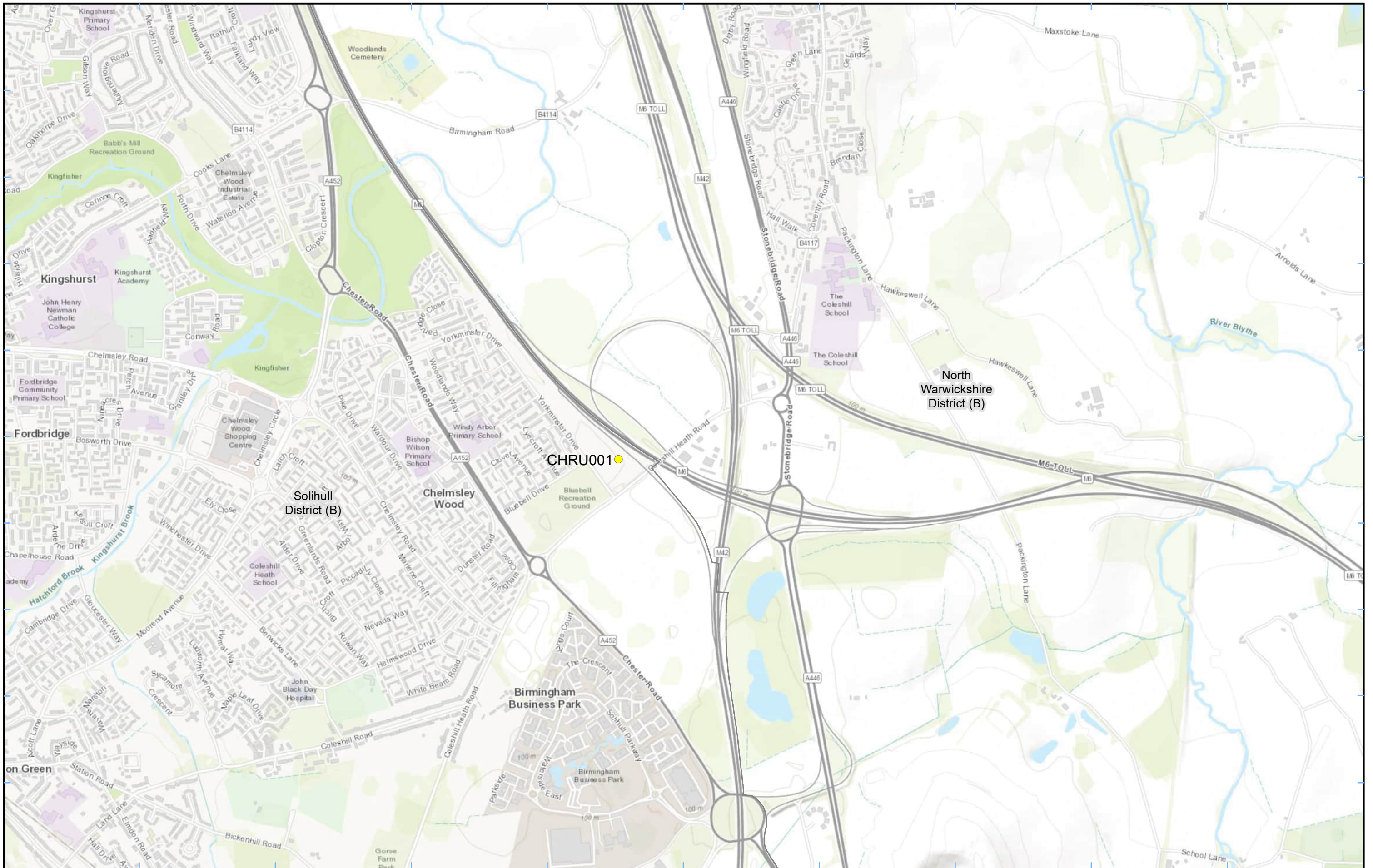
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Legend
 ● Dust
 □ District Borough Unitary Boundaries

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Map Number
 Map Name
**Monitoring Locations
 In SMBC (Sheet 2)**
 Solihull Metropolitan Borough

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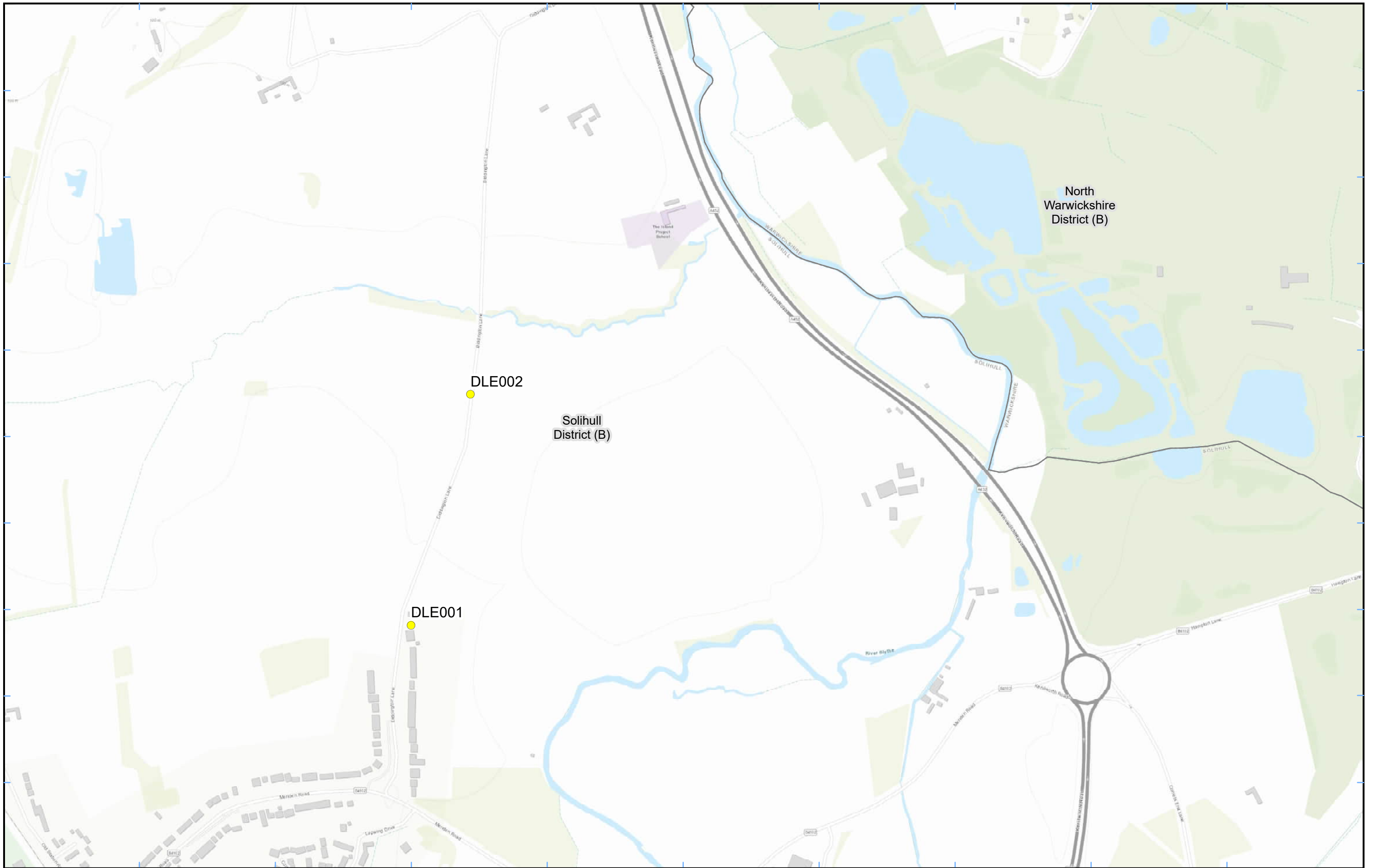
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0 140 280 420 560 Metres

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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 July 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	5.5	0.6	57.8	0	100.0
2B3002	424601, 277729	Sublot 2B3, at Cherry Tree Cottage	M	Yes	N	4.7	0.1	26.6	0	86.8
CHRU001	419300, 286793	Bluebell Drive, Coleshill Heath Road Underbridge	M	Yes	N	3.7	0.2	21.2	0	100.0
PL001	423436, 278557	Park Lane	M	Yes	N	6.2	0.2	59.1	0	100.0
DLE001	421035, 281818	Diddington Lane	M	Yes	n/a	4.1	0.3	118.3	0	66.3
DLE002	421139, 282222	Hampton Hill Farmhouse	M	Yes	n/a	5.0	0.6	23.4	0	69.0

Figure 3: Construction dust 1-hour mean indicative PM₁₀ concentration for dust monitors

