

Air Quality and Dust Monitoring Monthly Report – July 2024

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.

High Speed Two (HS2) Limited,
Two Snowhill
Snow Hill Queensway
Birmingham B4 6GA

Telephone: 08081 434 434

General email enquiries: HS2enquiries@hs2.org.uk

Website: www.gov.uk/hs2

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 July 2024.
- 1.1.2 Figures 1 to Figure 3 in Appendix A present 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 2B2

Waste Lane Overbridge Satellite

- Galldris excavation works for Burton Green Tunnel.
- Jet washing the tunnel walls.

Carol Green Rail Underbridge

- Lascombe Culvert works.
- Water proofing protection concrete.
- Backfilling.
- Truggist Culvert excavation.
- Wheel washer operating.
- Deliveries.

Sublot 2B3

Balsall Common Viaduct

- Sheet piling works for cofferdam.
- Moving traffic.

Park Lane

- Material stockpile and reload.
- Moving plants.
- Park Lane traffic.

- Dig and replace works.
- Excavation for Embankment works.
- Articulated Dump Trucks (ADTs) and Excavators moving on haul road.

Sublot 5S

Coleshill Heath Road

- Sheet pile installation.
- Excavate and duct.
- Non contestable utility works.
- Geo-grid installation.
- Backfill.
- De-vegetation.

Coleshill Heath Road Underbridge

- Grouting works and headwall removed.
- Topsoil stripping.
- De-vegetation.
- Lower embankment fill.
- Construction of temporary drainage.
- SB3 piling.
- Blackjack.
- Steel fixing.
- Formwork installation.
- Fix reinforcement.
- Backfill.
- Pile head trimming.
- Shutter installation.
- Piling mat construction.
- Rebar installation.

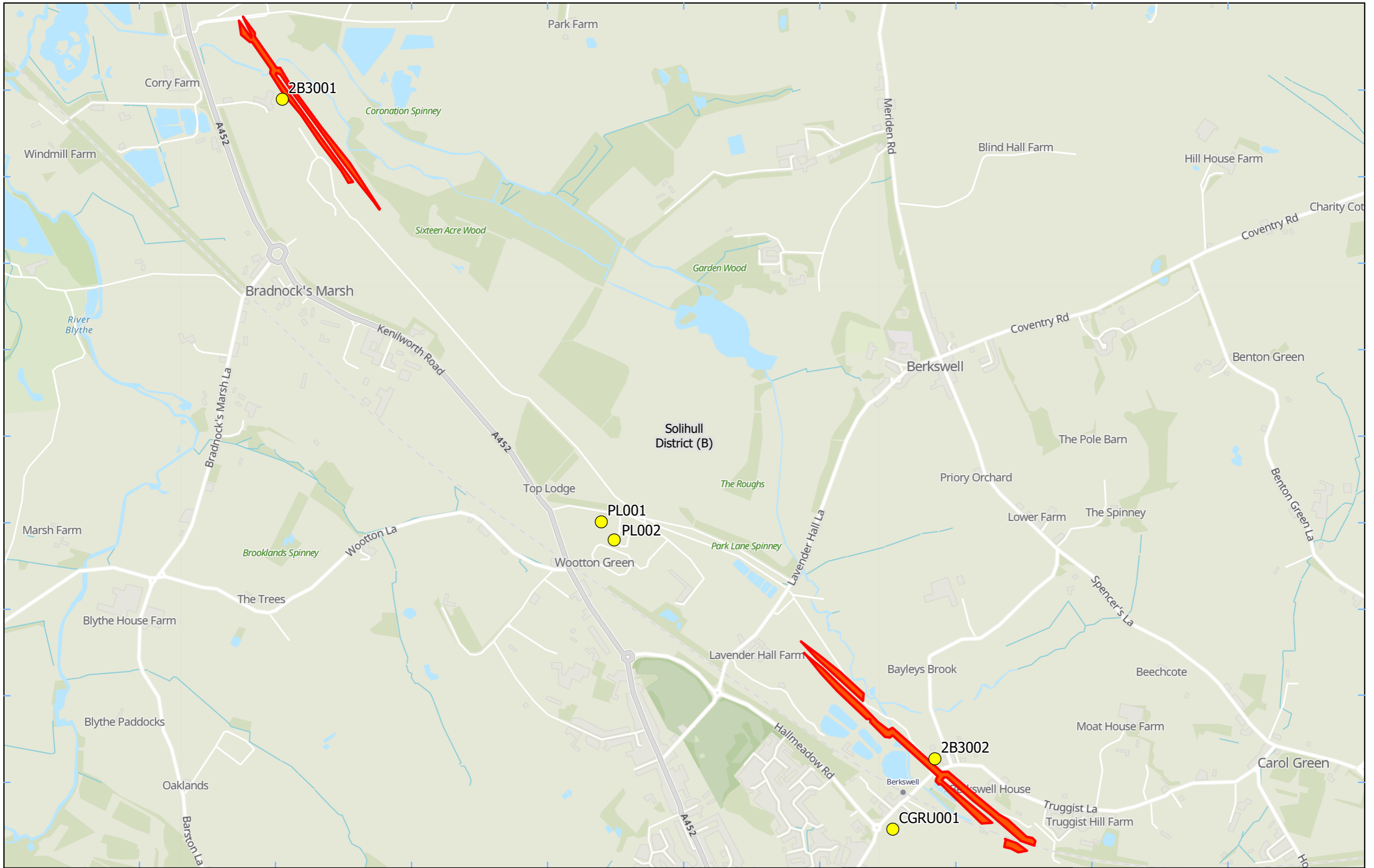
1.1.5 Ten (10) dust monitors are installed around these worksites, where works are underway. These sites returned a low to medium dust risk rating.

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 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 mitigation.

- 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 PL002 monitor was installed and commissioned on 23rd July 2024. The data capture for the period in which the monitor was active was 100%.
- 1.1.10 Data capture was below 90% for DLE001 due to an issue with the monitor. A monitor swap out is scheduled for 1st August 2024. After the monitor swap out, the issue with the monitor was resolved.
- 1.1.11 There were no (0) complaints received during this reporting period (July 2024).

Appendix A – Worksites and Monitoring Locations

Figures 1-3: Worksites and Monitoring Locations within SMBC



Legend

- Dust Monitor
- Worksite
- District Borough Unitary Boundaries

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

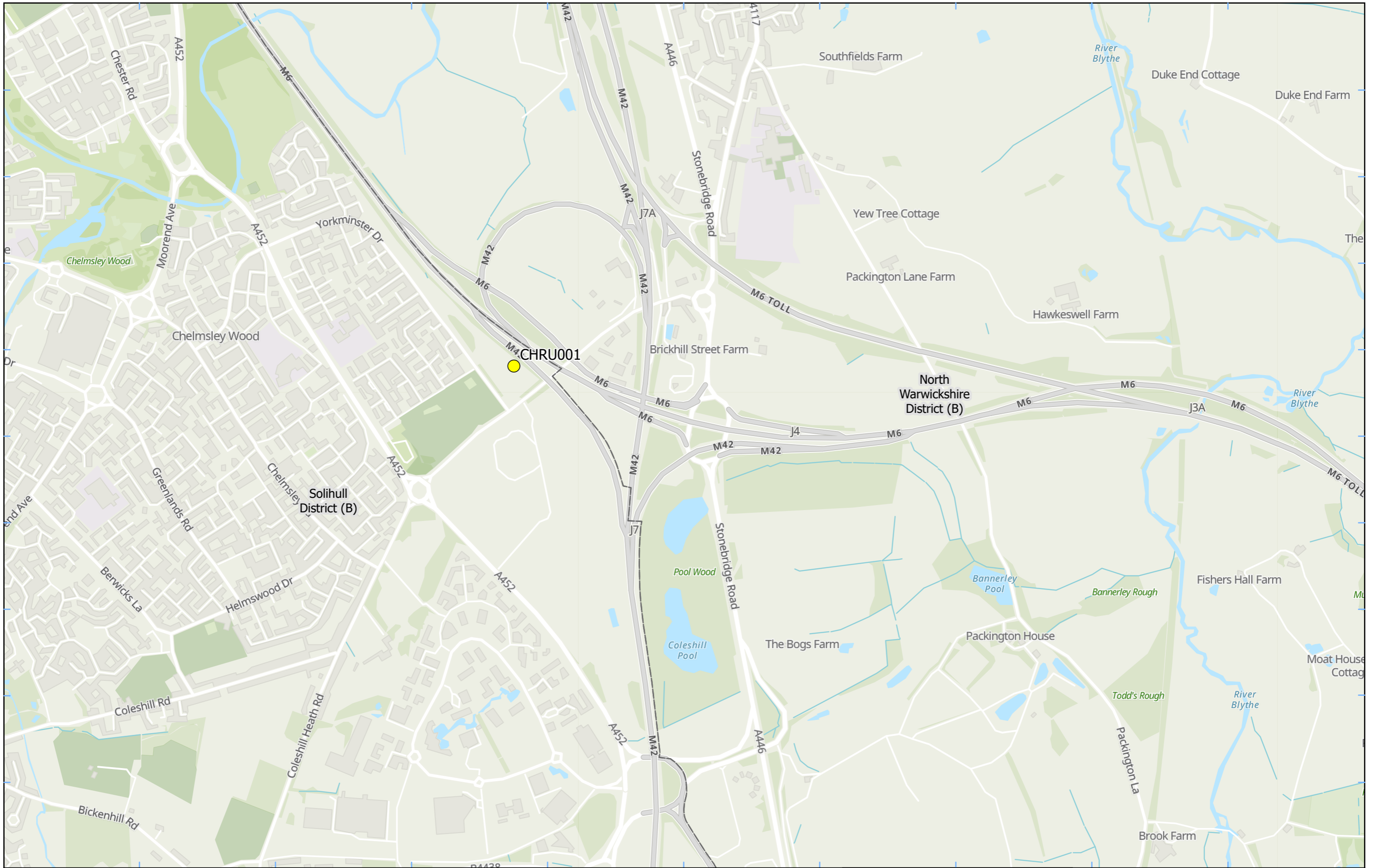
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Legend
 Dust Monitor
 District Borough Unitary Boundaries

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

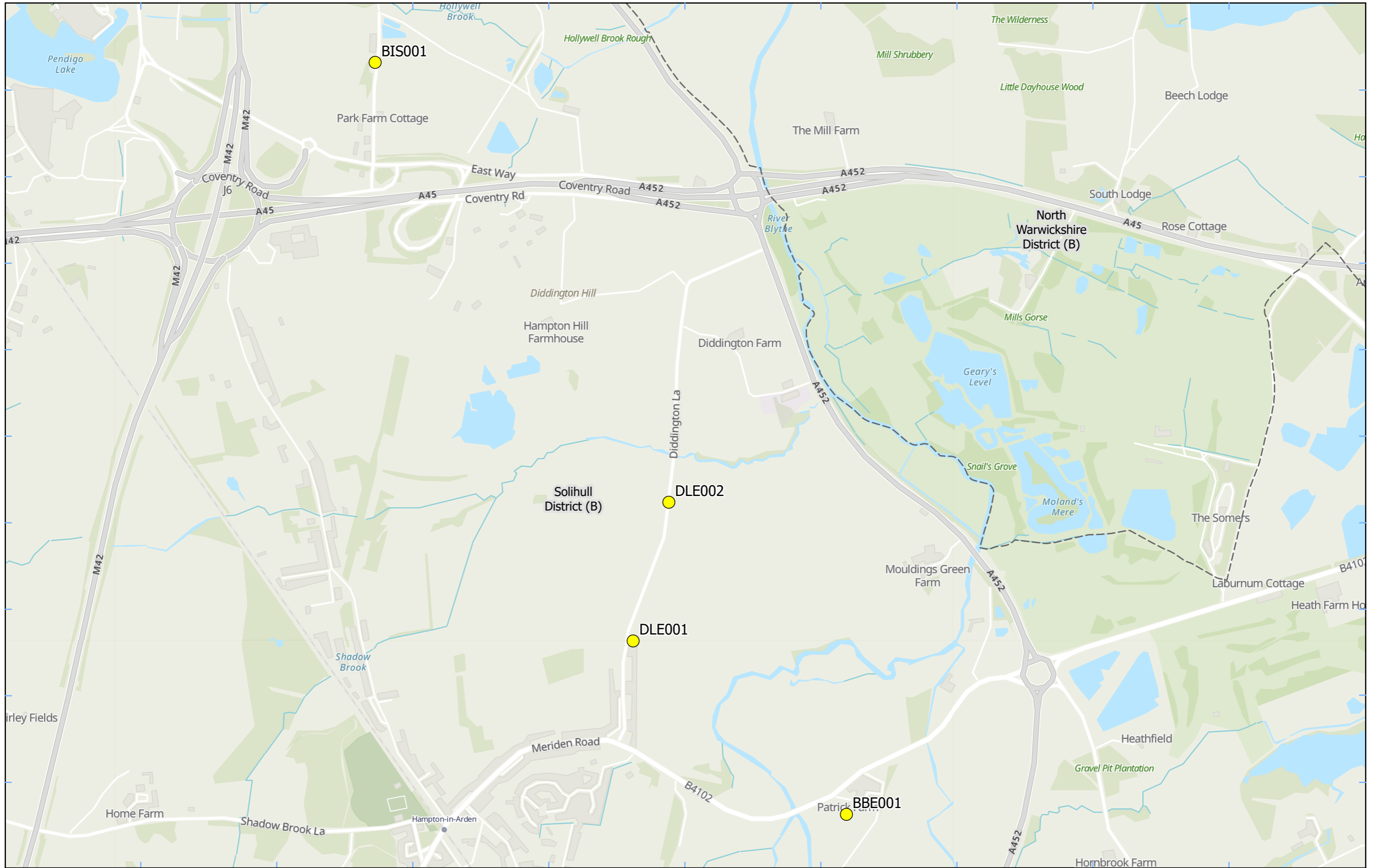
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Legend

- 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 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	No	6.3	0.3	32.2	0	100.0
2B3002	424601, 277729	Sublot 2B3, at Cherry Tree Cottage	M	Yes	No	6.4	0.2	50.3	0	100.0
CHRU001	419300, 286793	Bluebell Drive, Coleshill Heath Road Underbridge	L	Yes	No	4.0	0.1	64.3	0	99.7
PL001	423436, 278557	Park Lane	M	Yes	No	8.4	1.1	87.9	0	100.0
PL002	423481, 278494	Final Home, Park Lane	M	Yes	N/A	13.1	0.6	81.0	0	27.6
DLE001	421035, 281818	Diddington Lane	M	Yes	No	25.7	0.8	4113.6	2	73.5
DLE002	421139, 282222	Hampton Hill Farmhouse	M	Yes	No	4.9	0.1	40.8	0	96.9
BIS001	420284, 283503	Hollywell Brook	M	Yes	No	5.7	0.7	29.3	0	100.0
CGRU001	424454, 277483	Annora House	M	Yes	No	1.3	0.1	13.5	0	97.3

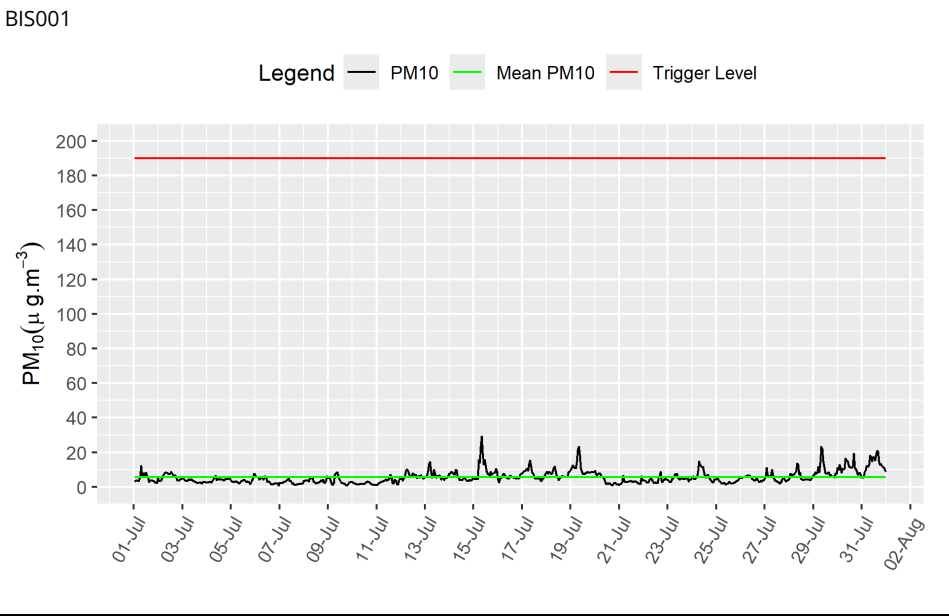
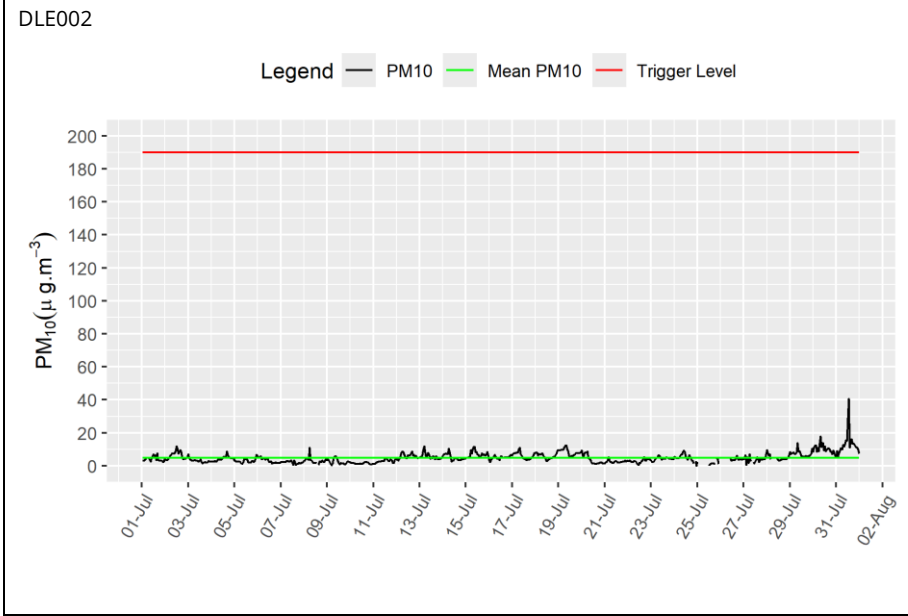
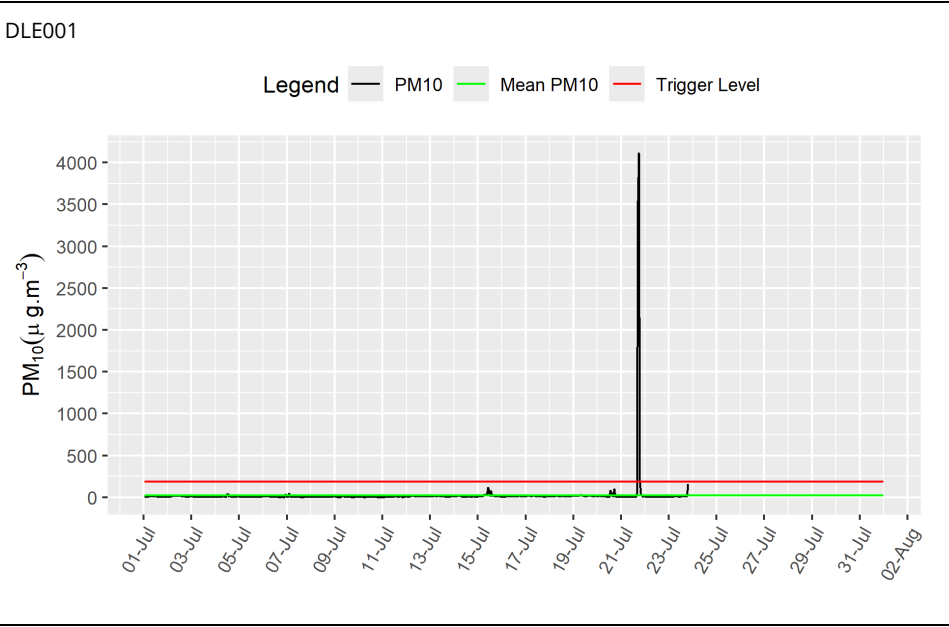
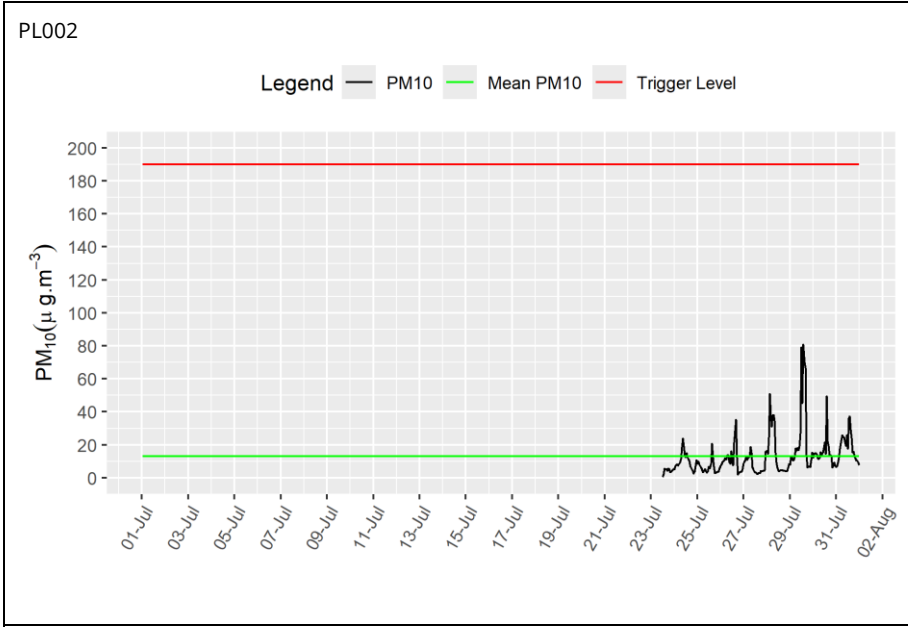
Monitoring site ID	Coordinates (X,Y)	Location description	Dust risk rating for site	Monitoring site active during period	Change to site since previous period report	Mean 1-hour PM ₁₀ concentration (µg/m ³)	Minimum 1-hour PM ₁₀ concentration (µg/m ³)	Maximum 1-hour PM ₁₀ concentration (µg/m ³)	Number of 1-hour periods exceeding trigger level of 190 µg/m ³	Data capture Month (%)
BBE001	421656, 281313	Patrick Farmhouse	M	Yes	No	6.0	0.3	41.0	0	100.0

Table 2: Summary of exceedances during period (July 2024)

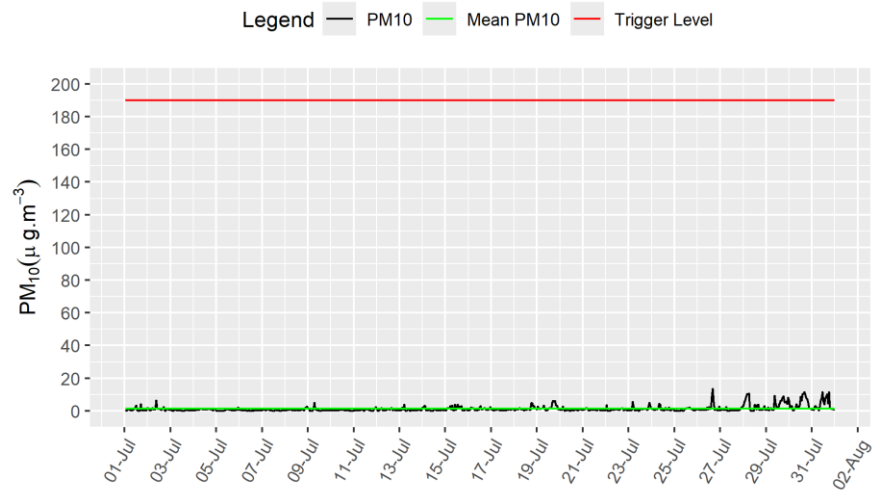
Monitoring site ID	Period exceeding trigger level	Investigation	Outcomes / Resolution / Remedial measures implemented
DLE001	21/07/2024: 16:01 - 17:00; 3546 µg/m ³ 17:01 - 18:00; 4114 µg/m ³	Exceedances were not associated with HS2 construction works as there were no works occurring at the times of the exceedances.	N/A

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





CGRU001



BBE001

