HS2

August 2024

Air Quality and Dust Monitoring Monthly Report – August 2024

Solihull Metropolitan Borough Council

gov.uk/hs2

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 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

- Hydrodemolition.
- Excavation.
- Tunnel excavation.

Carol Green Rail Underbridge

- Deck steel fixing.
- Concrete pour on North retaining wall NR5.
- Steel fixing north impact protection block.
- Deck concrete pour bay 2.
- North retaining wall force work installation.

Sublot 2B3

Balsall Common Viaduct

- Steel piling for Balsall Common viaduct.
- Pile cropping.

Park Lane

- Piling works for M214 overbridge.
- Material stockpile and reload.
- Digging out Park Lane Cutting.

- Steel fixing.
- Shutters for concrete pour.

Sublot 5S

Coleshill Heath Road

- Devegetation.
- Geogrid installation.
- Piling.
- Stabilisation works.
- Removal of piling platform.
- Removal of topsoil.
- Stockpile management.

Coleshill Heath Road Underbridge

- Stockpiling.
- Excavation.
- Devegetation.
- Steel fixing.
- Blackjack.
- SB3 (joint venture between Balfour Beatty Ground Engineering and Bachy Soletanche) piling.
- Construction of piling platform.
- Embankment fill.
- Dig and replace for piling platform.
- Landscape fill.
- Installation of channel finishings.
- Bentonite slab reinforcement.
- Removal of temporary bentonite slab.
- Backfill of bentonite slab.
- Stockpile management.

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 PM_{10} concentrations of 190 µg/m^3, 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.

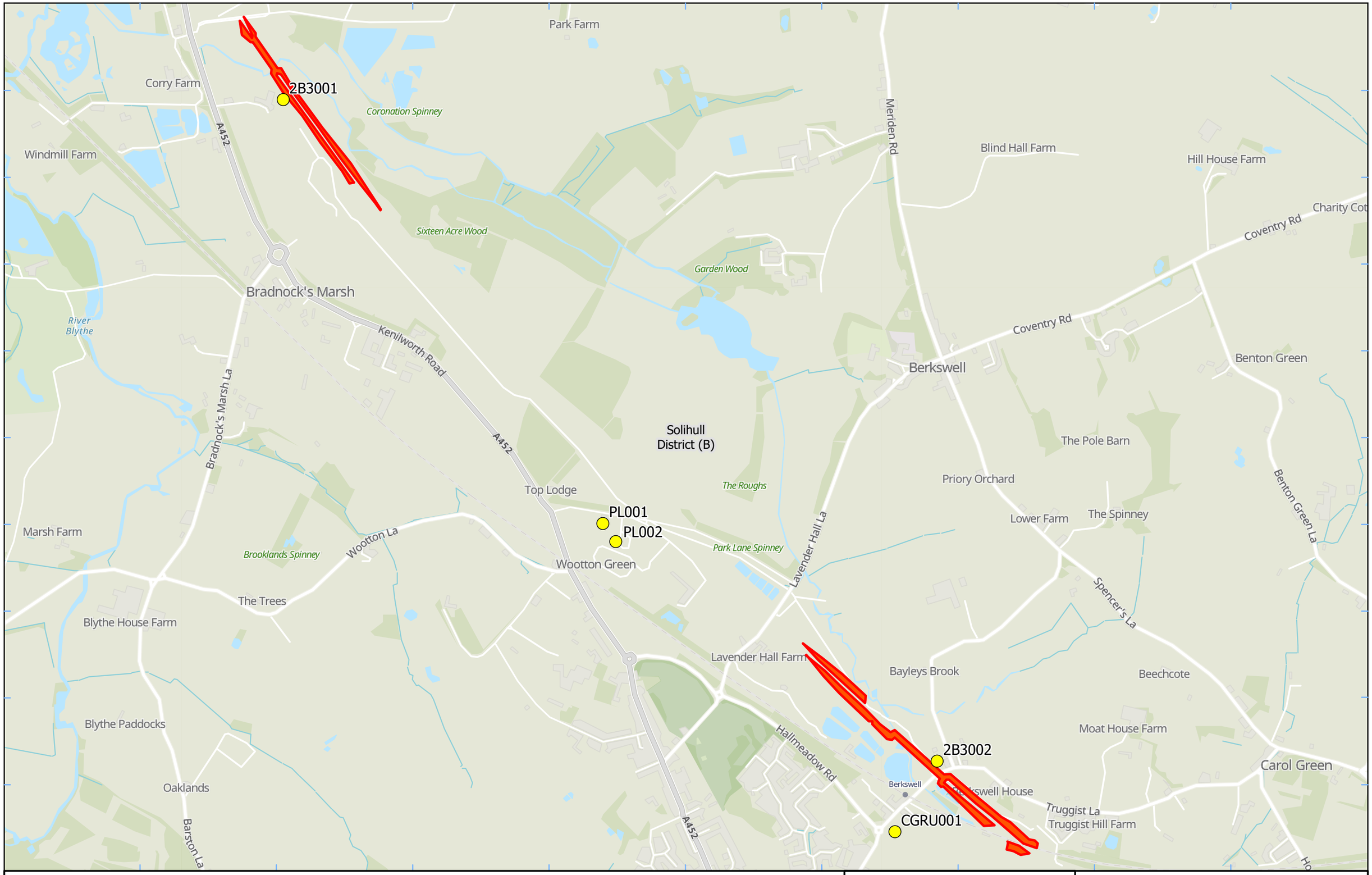
1.1.8 No (0) dust trigger alerts were recorded during the monitoring period (August 2024).

1.1.9 Data capture was below 90% for the DLE001 monitor due to an issue with the monitor. The monitor was swapped out for investigation on 1st August 2024. A damaged solar panel connected to the monitor was replaced on 15th August 2024. A full dust work up was done on 21st August 2024. After these site visits, the issue with the monitor has been resolved.

1.1.10 There were no (0) complaints received during this reporting period (August 2024).

Appendix A – Worksites and Monitoring Locations

Figures 1-3: Worksites and Monitoring Locations within SMBC



Legend

Dust Monitor
District Borough Unitary Boundaries
Worksite

Map Number

Map Name
Worksite and Monitoring Locations In SMBC (Sheet 1)

Solihull Metropolitan Borough

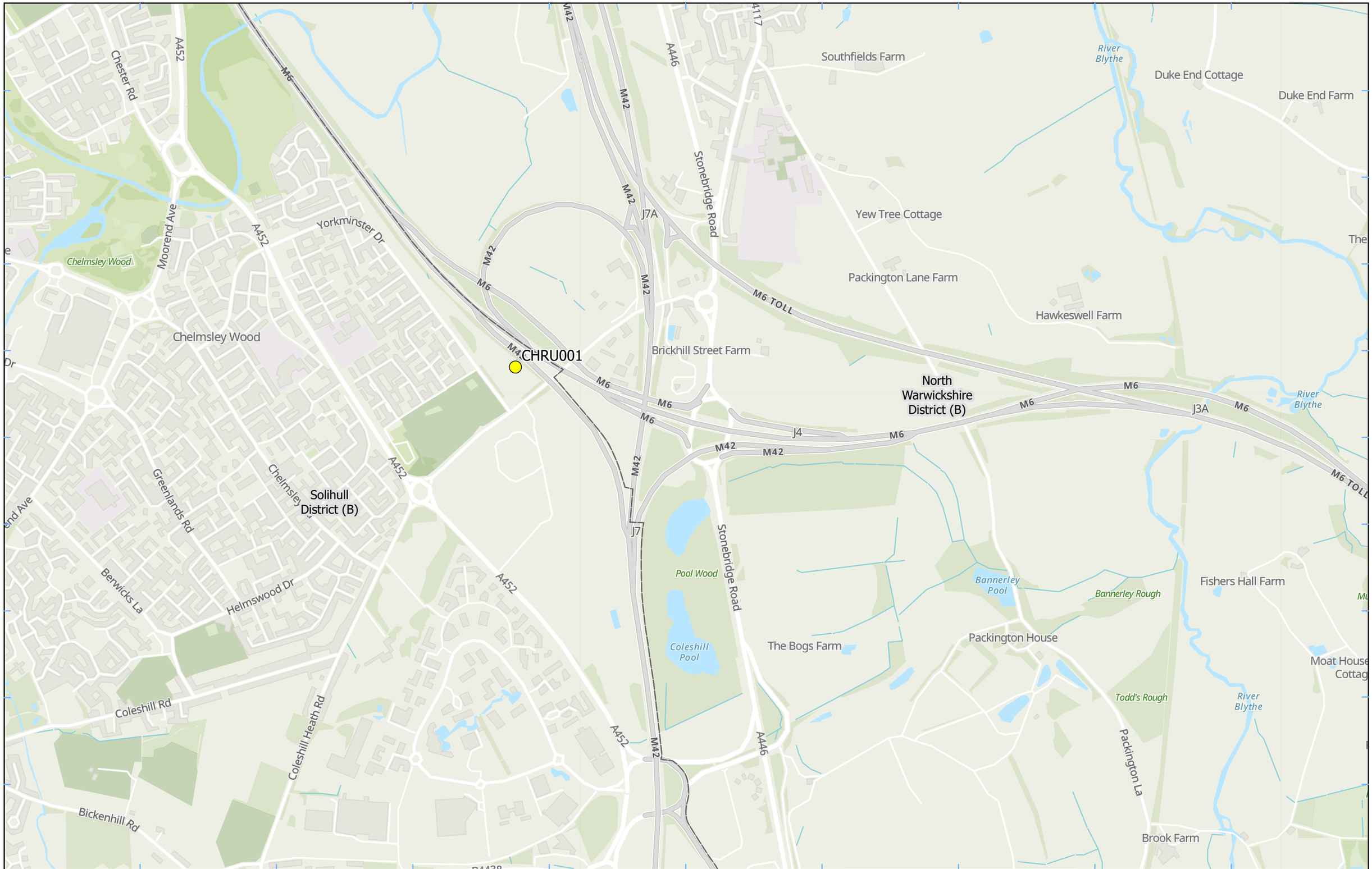
Registered in England. Registration number 06791686.
Registered office: 2 Snowhill, Queensway, Birmingham B4 6GA.

Scale at A3: 1:12,000

Metres

Doc Number:

Date: 12/09/24



Legend

- Dust Monitor
- District Borough Unitary Boundaries

Service Layer Credits: GB Topographic: Contains OS data © Crown Copyright and database right 2023
Contains data from OS Zoomstack

Map Number

Map Name

Monitoring Locations
In SMBC (Sheet 2)

Solihull Metropolitan Borough

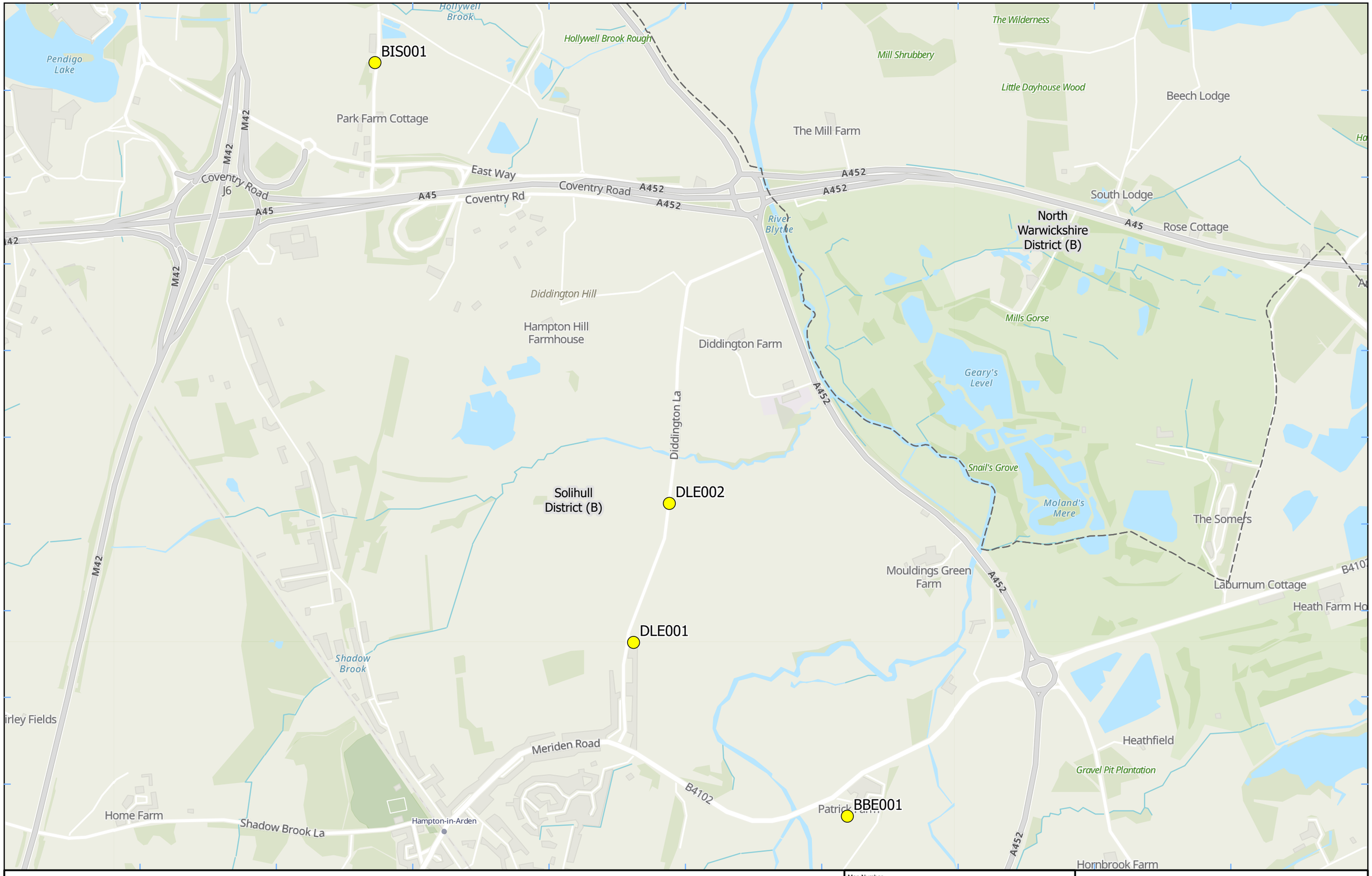
Registered in England. Registration number 06791686.
Registered office: 2 Snowhill, Queensway, Birmingham B4 6GA.

Scale at A3: 1:12,000

Metres

Doc Number:

Date: 26/03/24



Legend

- Dust Monitor
- District Borough Unitary Boundaries

Map Number

Map Name

Monitoring Locations In SMBC (Sheet 3)

Solihull Metropolitan Borough

Registered in England. Registration number 06791686.
Registered office: 2 Snowhill, Queensway, Birmingham B4 6GA.

Scale at A3: 1:10,000

Metres

Doc Number:

Date: 11/03/24

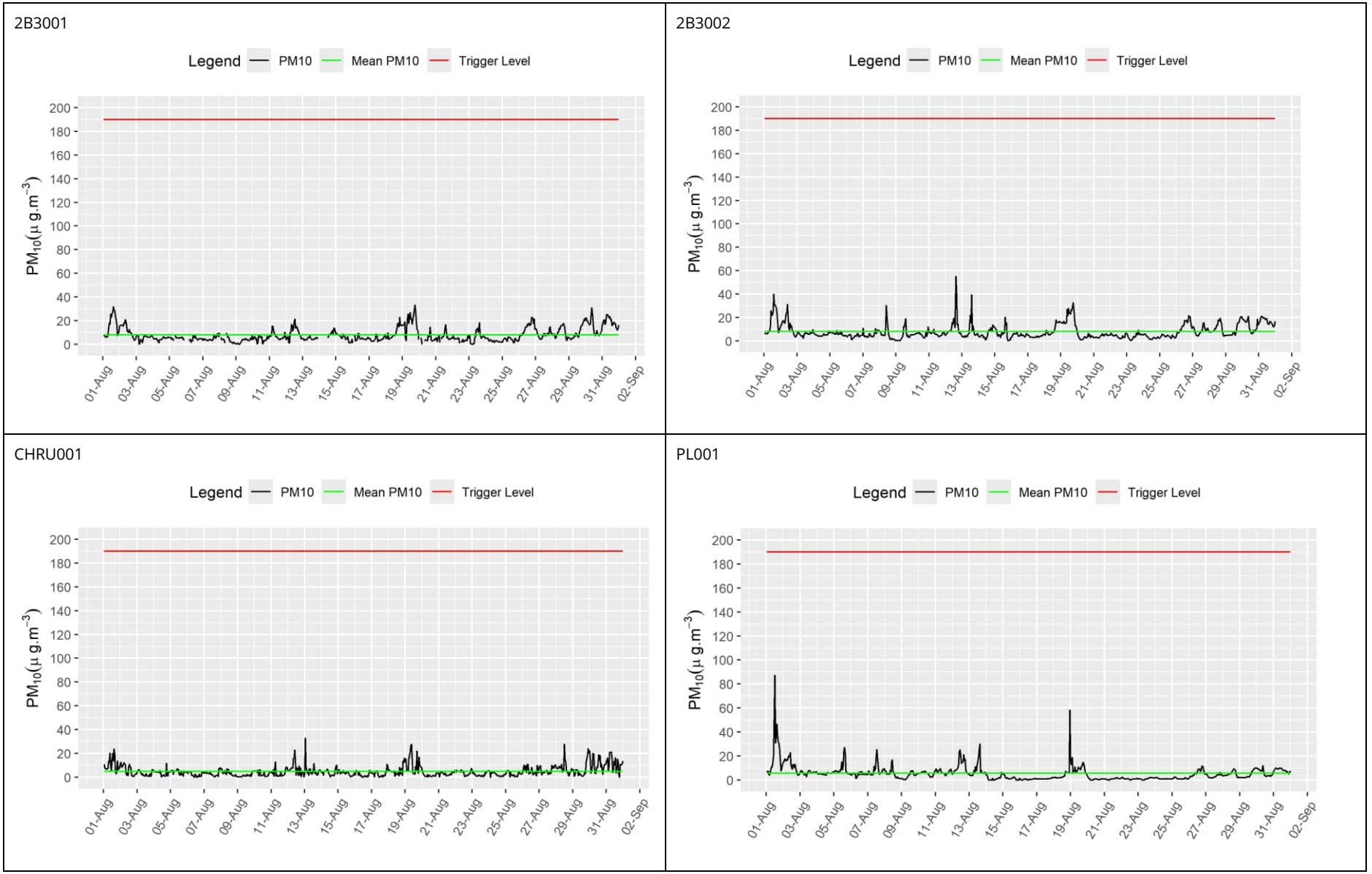
Appendix B – Dust Monitoring Results

Table 1: Dust Monitoring Locations and Results

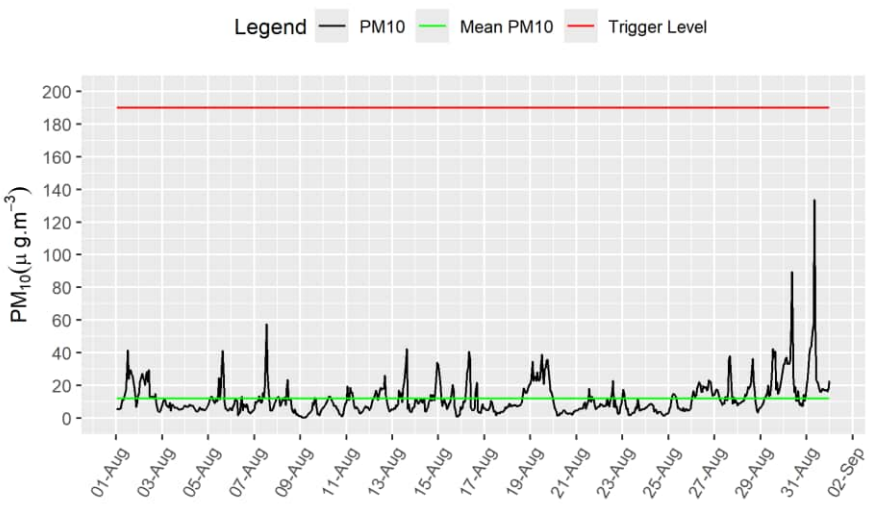
Monitoring site ID	Coordinates (X,Y)	Location description	Dust risk rating for site	Monitoring site active during period	Change to site since previous period report	Mean 1-hour PM_{10} concentration ($\mu g/m^3$)	Minimum 1-hour PM_{10} concentration ($\mu g/m^3$)	Maximum 1-hour PM_{10} concentration ($\mu g/m^3$)	Number of 1-hour periods exceeding trigger level of 190 $\mu g/m^3$	Data capture Month (%)
2B3001	422322, 280034	Sublot 2B3, at Marsh Farm	M	Yes	No	8.1	0.1	33.2	0	96.6
2B3002	424601, 277729	Sublot 2B3, at Cherry Tree Cottage	M	Yes	No	8.2	0.3	55.2	0	100.0
CHRU001	419300, 286793	Bluebell Drive, Coleshill Heath Road Underbridge	L	Yes	No	5.0	0.1	33.1	0	99.9
PL001	423436, 278557	Park Lane	M	Yes	No	5.7	0.1	87.2	0	98.7
PL002	423481, 278494	Final Home, Park Lane	M	Yes	No	12.1	0.4	133.5	0	100.0
DLE001	421035, 281818	Diddington Lane	M	Yes	No	8.0	0.7	55.5	0	74.5
DLE002	421139, 282222	Hampton Hill Farmhouse	M	Yes	No	5.4	0.1	23.7	0	96.1
BIS001	420284, 283503	Hollywell Brook	M	Yes	No	7.4	0.2	40.1	0	100.0
CGRU001	424454, 277483	Annora House	M	Yes	No	5.5	0.1	55.0	0	99.9

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 ($\mu g/m^3$)	Minimum 1-hour PM_{10} concentration ($\mu g/m^3$)	Maximum 1-hour PM_{10} concentration ($\mu g/m^3$)	Number of 1-hour periods exceeding trigger level of 190 $\mu g/m^3$	Data capture Month (%)
BBE001	421656, 281313	Patrick Farmhouse	M	Yes	No	7.6	0.2	46.1	0	100.0

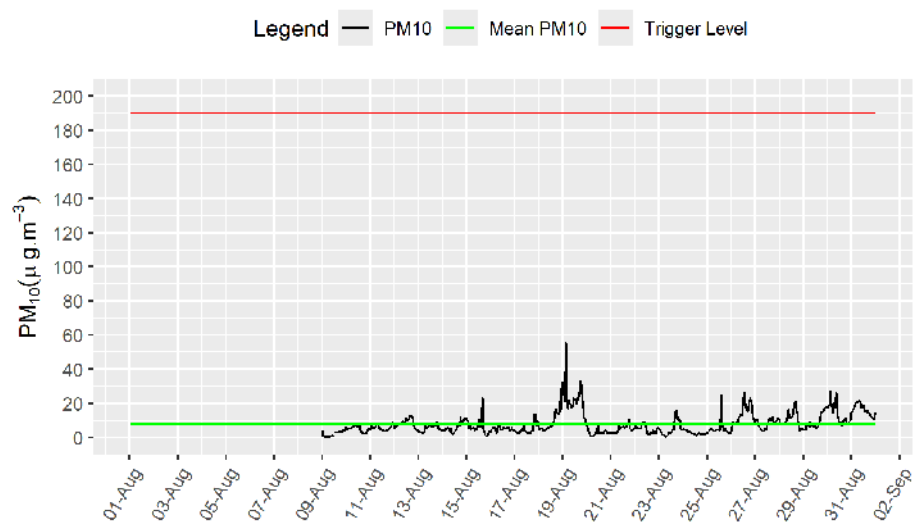
Figure 4: Construction dust 1-hour mean indicative PM_{10} concentration for all dust monitors



PL002



DLE001



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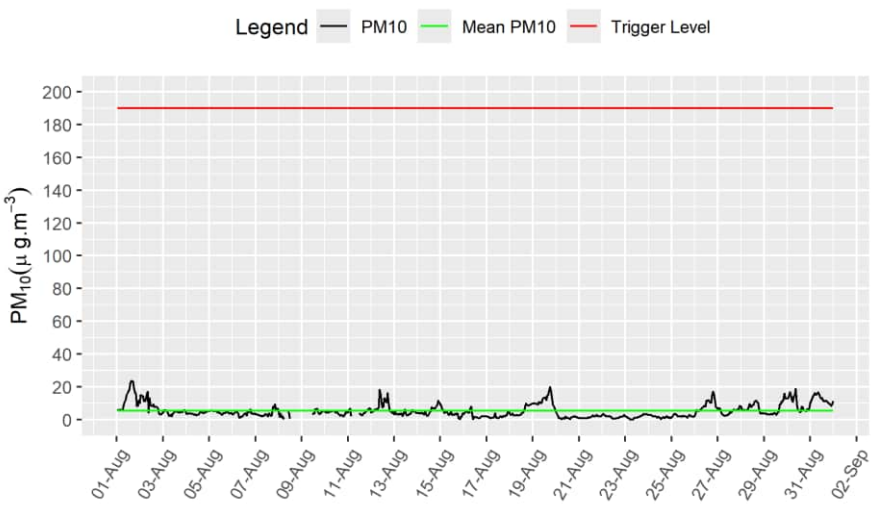
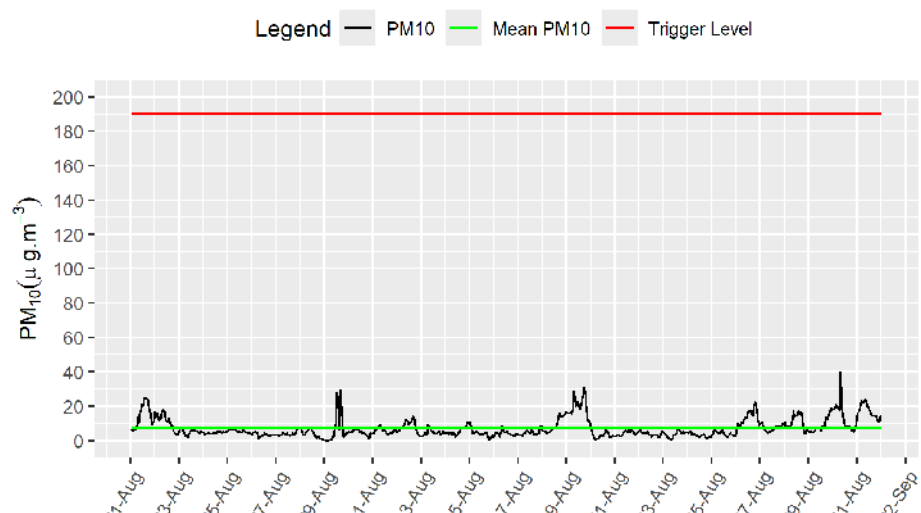
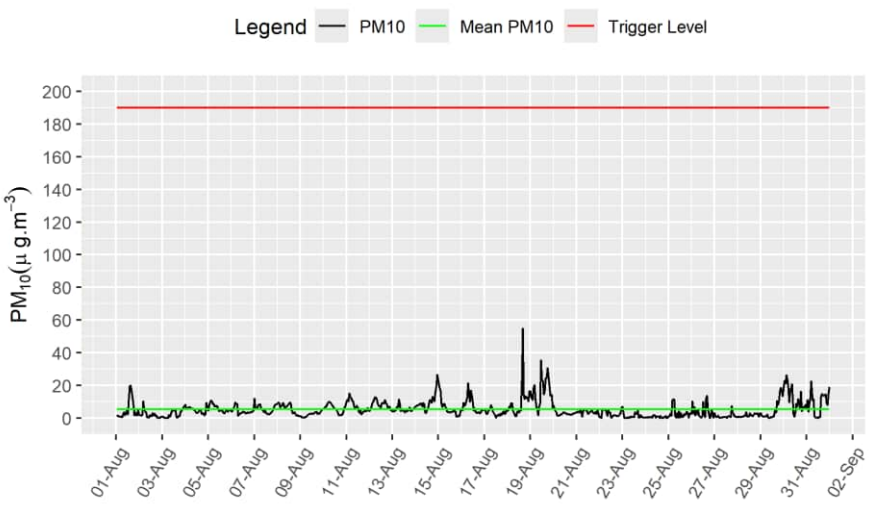


BIS001



CGRU001



BBE001