HS2

December 2024

Air Quality and Dust Monitoring Monthly Report – December 2024

Solihull Metropolitan Borough Council

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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 Solihull Metropolitan Borough Council (SMBC) during December 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

- Bridge construction works
- Tunnel excavation works
- Road diversion works.

Carol Green Rail Underbridge

- Road diversion works.

Sublot 2B3

Balsall Common Viaduct

- Rebar installation
- Formwork installation
- Backfilling of pile caps.

Park Lane

- Overbridge works
- Dig/replace culvert works.

Sublot 5S

Coleshill Heath Road

- Backfill of anchorage block
- Excavation of ditches and general levelling
- Reload of stockpile/embankment to pilling platform
- Scaffolding access for concrete pour
- Peir shaft reinforcement
- Stanchion install pour
- Backfill between pile caps
- Pilling platform construction
- Stockpile management.

Coleshill Heath Road Underbridge

- Import of 6FS from roadhead
- Diversion of haul road, inc. embankment cut to landscape fill
- Digging grips along platform
- Peir shaft reinforcement
- 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 (December 2024).

1.1.9 Data capture was below 90% for multiple monitors due to:

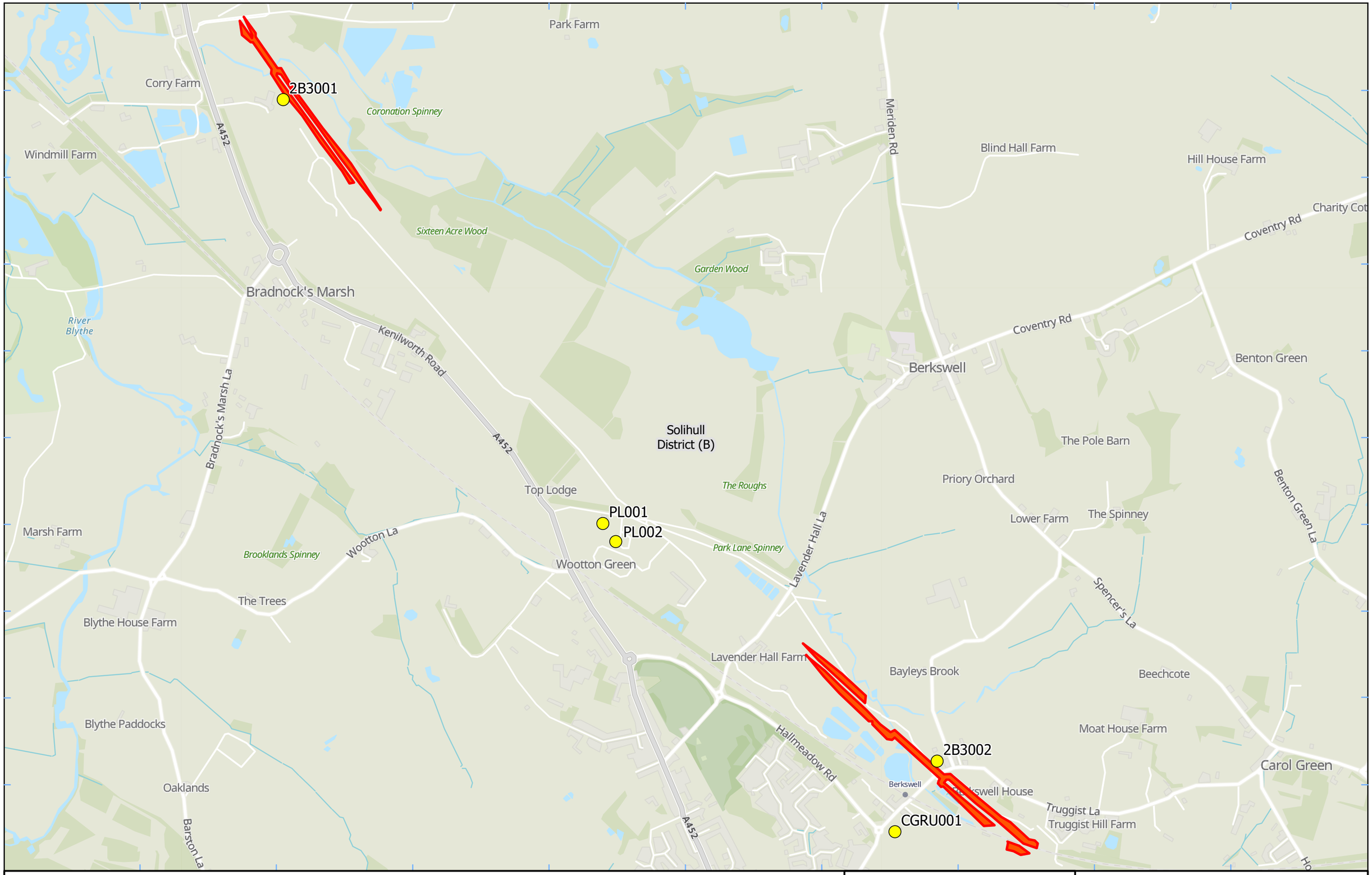
- Monitor 2B3001 – A field calibration was done on 8th January 2025, but this has not solved the power supply issues. A site visit is to be scheduled for resolve the power supply issues.
- Monitor 2B3002 – A full calibration and battery refresh were done on 17th December 2024. A field calibration and monitor swap out are scheduled for 14th January 2025.

- Monitor BBE001 - A battery refresh was done on 3rd December 2024. A field calibration was done on 8th January 2025, but this has not solved the power supply issues. A site visit is to be scheduled for resolve the power supply issues.
- Monitor DLE001 – A lab calibration swap out and battery refresh was done on 18th December 2024, and a field calibration and another battery refresh were done on 9th January 2025. After the field calibration and battery refresh done on 9th January 2025, the power supply issues were resolved.
- Monitor DLE002 – A battery refresh was done on 17th December 2024. A field calibration and another battery refresh are scheduled for 14th January 2025.
- Monitor PL001 – A battery refresh was done on 18th December 2024, and a field calibration was done on 7th January 2025. After the field calibration, the power supply issues were resolved.
- Monitor CGRU001 - A battery refresh was done on 4th December 2024, and a field calibration was done on 18th December 2024. A full calibration is scheduled for 14th January 2025.
- Monitor CHRU001 – A monitor swap out and field calibration is scheduled for 11th December 2024. A battery refresh is scheduled for 14th January 2025.
- Monitor PL002 – A monitor swap out, battery refresh and field calibration were all done on 7th January 2025. After this site visit, the monitor issues were resolved.

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

Appendix A – Worksites and Monitoring Locations

Figures 1-3: Worksites and Monitoring Locations within SMBC



Legend

Dust Monitor
District Borough Unitary Boundaries
Worksite

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Map Number

Map Name

Worksite and Monitoring Locations In SMBC (Sheet 1)

Solihull Metropolitan Borough

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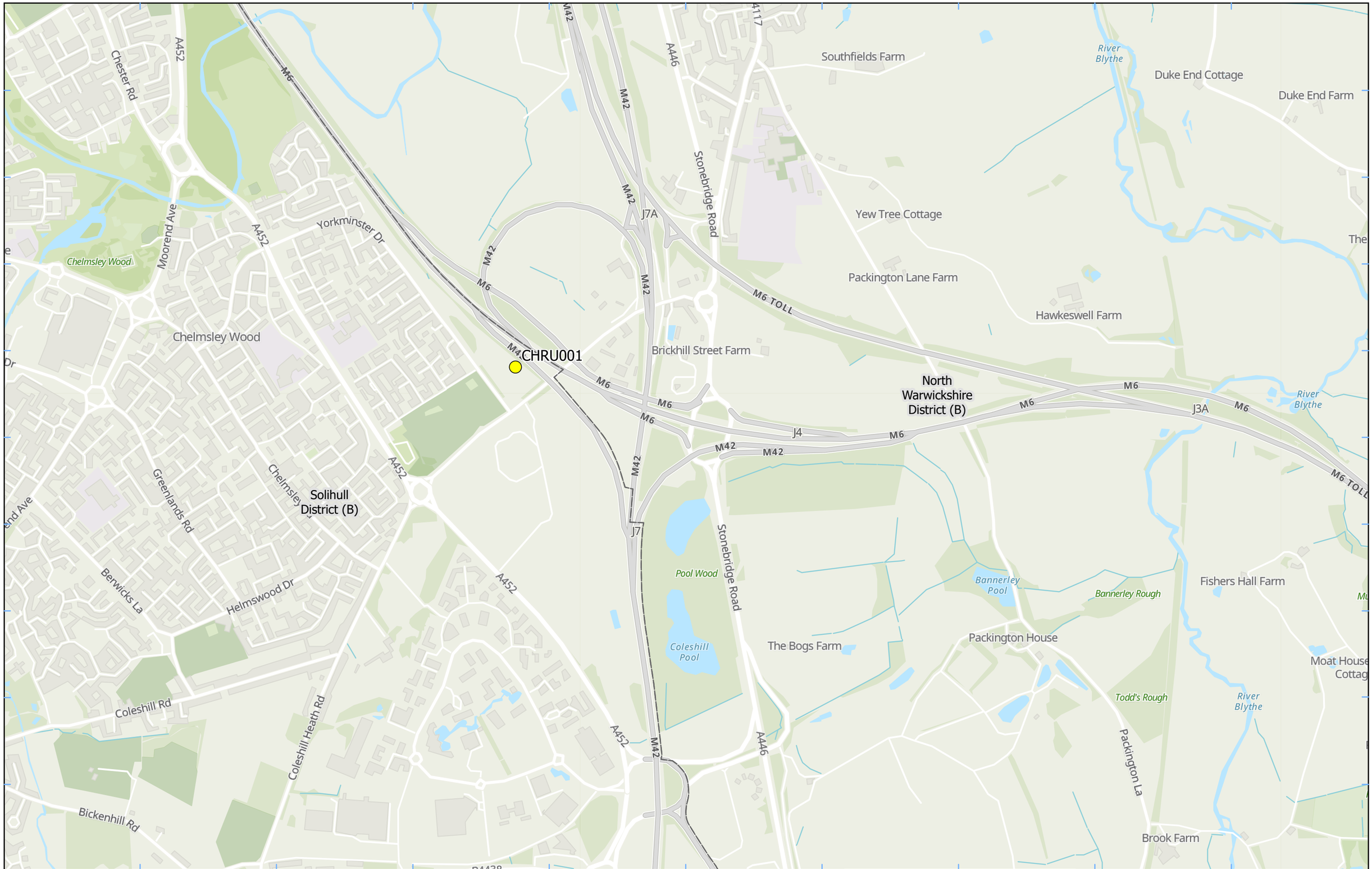
Metres

Doc Number:

Date: 12/09/24



Legend

- Dust Monitor
- District Borough Unitary Boundaries

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Map Number

Map Name

Monitoring Locations
In SMBC (Sheet 2)

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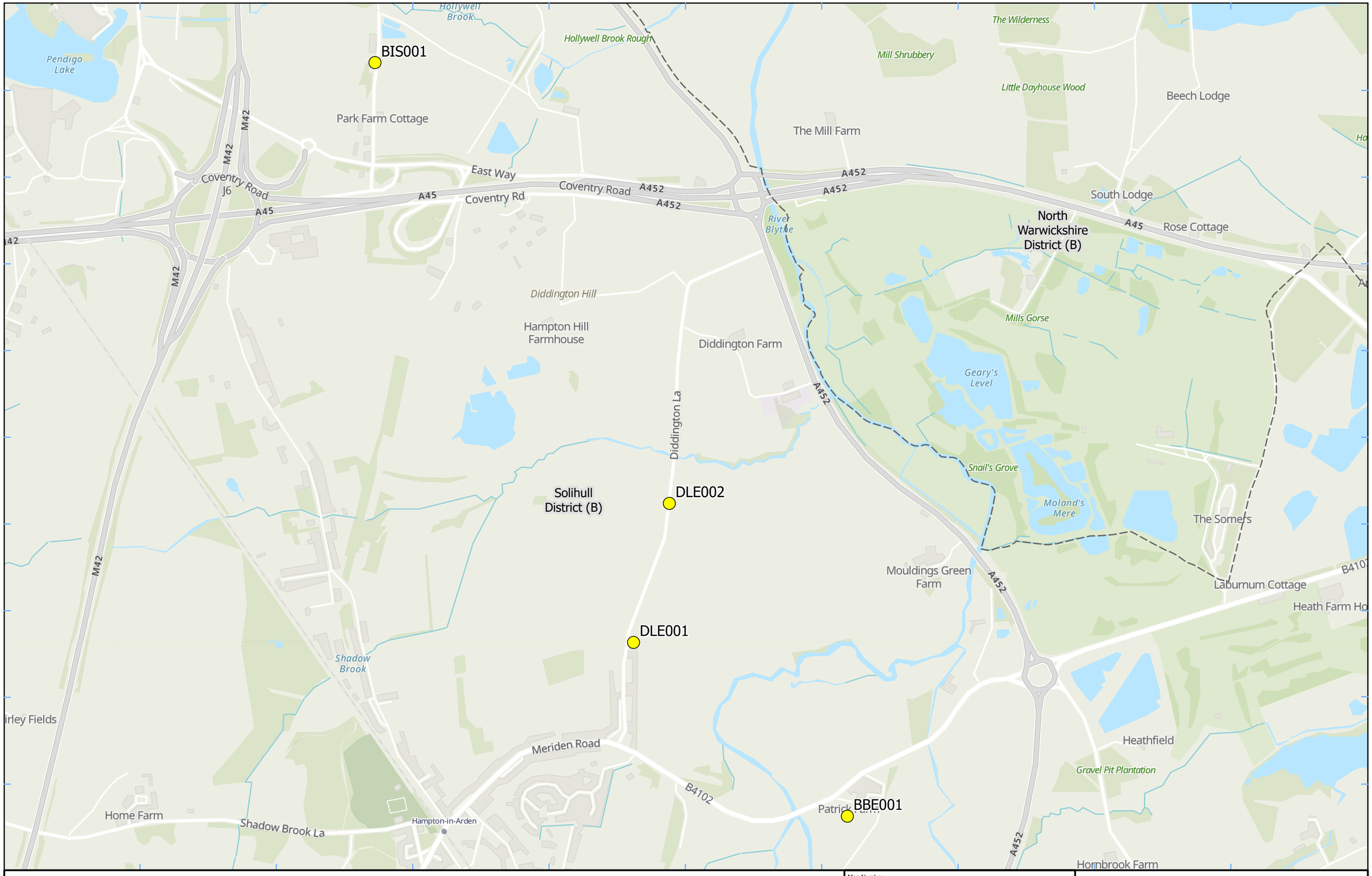

Legend

- Dust Monitor
- District Borough Unitary Boundaries

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Map Number

Map Name

Monitoring Locations In SMBC (Sheet 3)

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Doc Number:

Date: 11/03/24

Appendix B – Dust Monitoring Results

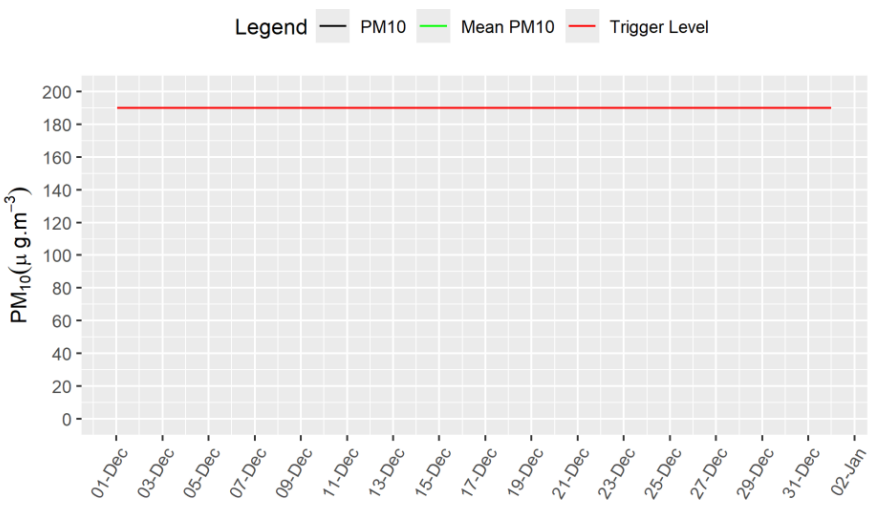
Table 1: Dust Monitoring Locations and Results

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	4.8	0.1	30.6	0	33.5
2B3002	424601, 277729	Sublot 2B3, at Cherry Tree Cottage	M	Yes	No	-	-	-	0	-
CHRU001	419300, 286793	Bluebell Drive, Coleshill Heath Road Underbridge	L	Yes	No	4.0	0.1	25.0	0	57.7
PL001	423436, 278557	Park Lane	M	Yes	No	2.7	0.1	17.0	0	79.2
PL002	423481, 278494	Final Home, Park Lane	M	Yes	No	-	-	-	0	-
DLE001	421035, 281818	Diddington Lane	M	Yes	No	4.0	0.1	50.1	0	80.6
DLE002	421139, 282222	Hampton Hill Farmhouse	M	Yes	No	4.3	0.1	27.3	0	67.5
BIS001	420284, 283503	Hollywell Brook	M	Yes	No	4.7	0.1	25.3	0	96.1
CGRU001	424454, 277483	Annora House	M	Yes	No	-	-	-	0	-

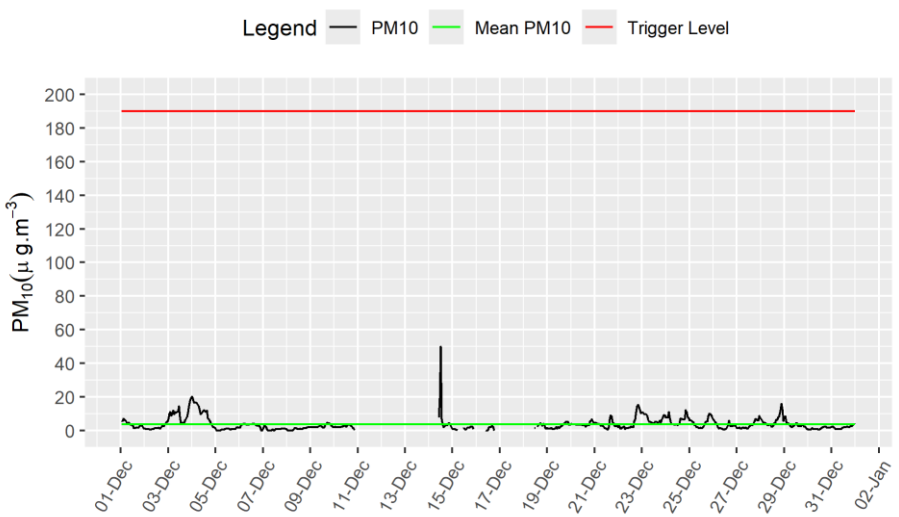
Monitoring site ID	Coordinates (X,Y)	Location description	Dust risk rating for site	Monitoring site active during period	Change to site since previous period report	Mean 1-hour PM_{10} concentration ($\mu g/m^3$)	Minimum 1-hour PM_{10} concentration ($\mu g/m^3$)	Maximum 1-hour PM_{10} concentration ($\mu g/m^3$)	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	3.8	0.1	20.3	0	67.3

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

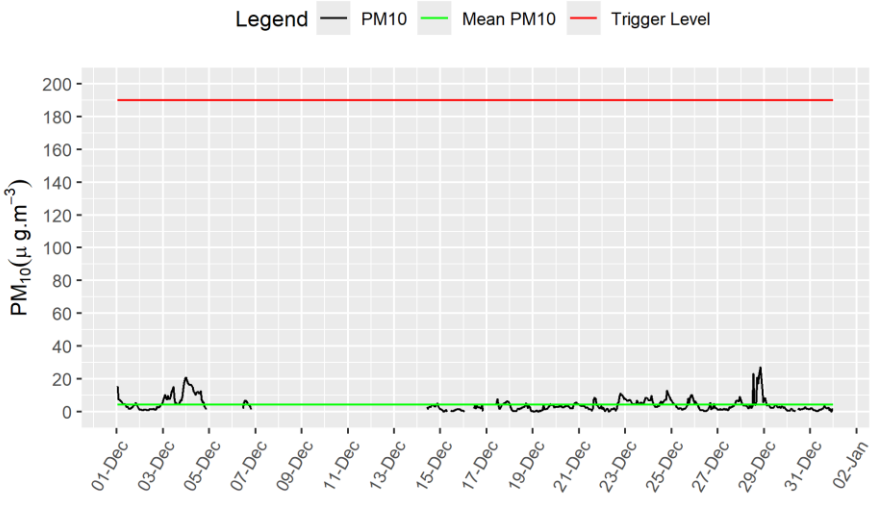
PL002



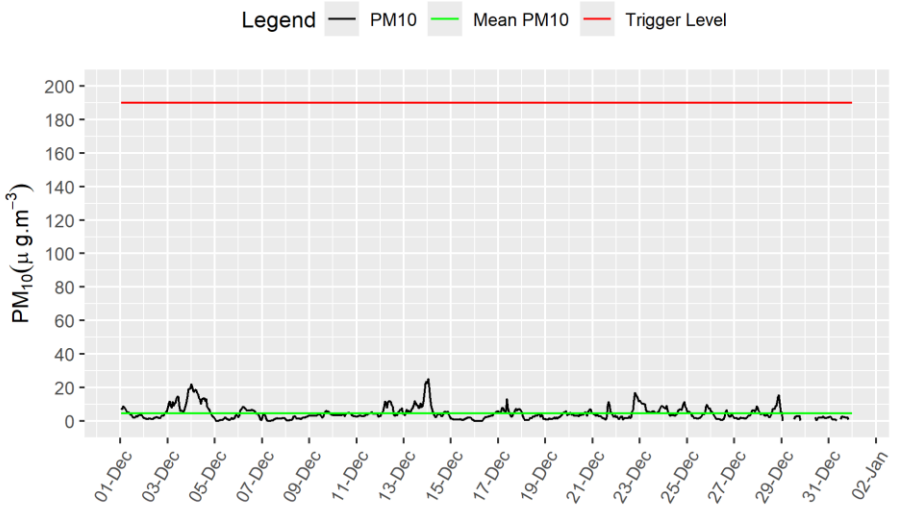
DLE001



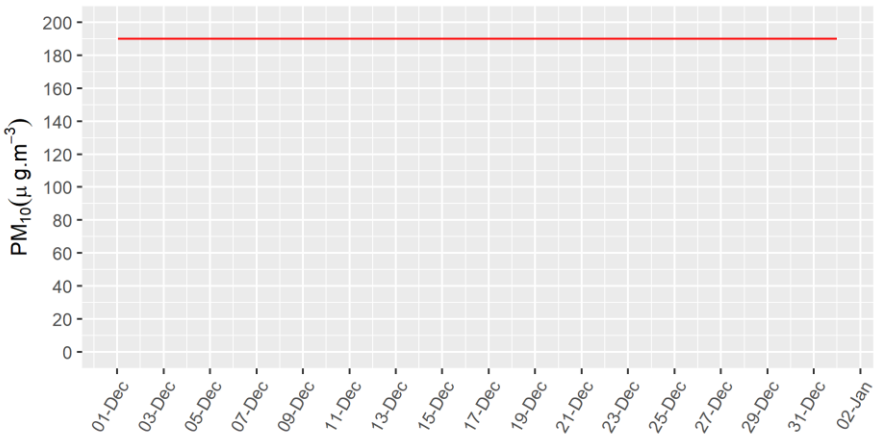
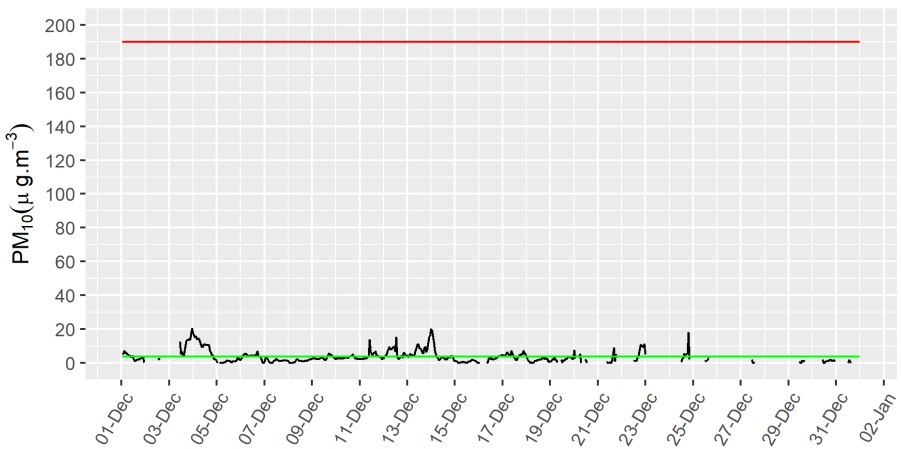
DLE002



BIS001



CGRU001



BBE001