

Air Quality and Dust Monitoring Monthly Report – January 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.

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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 January 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

- Train freight movement.
- Deliveries entering wheel wash in place.

Sublot 2B3

Balsall Common Viaduct

- Piling works by SB3 joint venture team between Bachy Soletanche and Balfour Beatty Ground Engineering.
- Haul road traffic.
- Truggist lane traffic.

Park Lane

- Material stockpile and reload / moving plants.
- Piling works for M215 footbridge (public right of way) construction.
- Structures Piling for Lavender Overbridge.

Sublot 5S

Coleshill Heath Road

- Topsoil stripping.
- Utilities excavation.

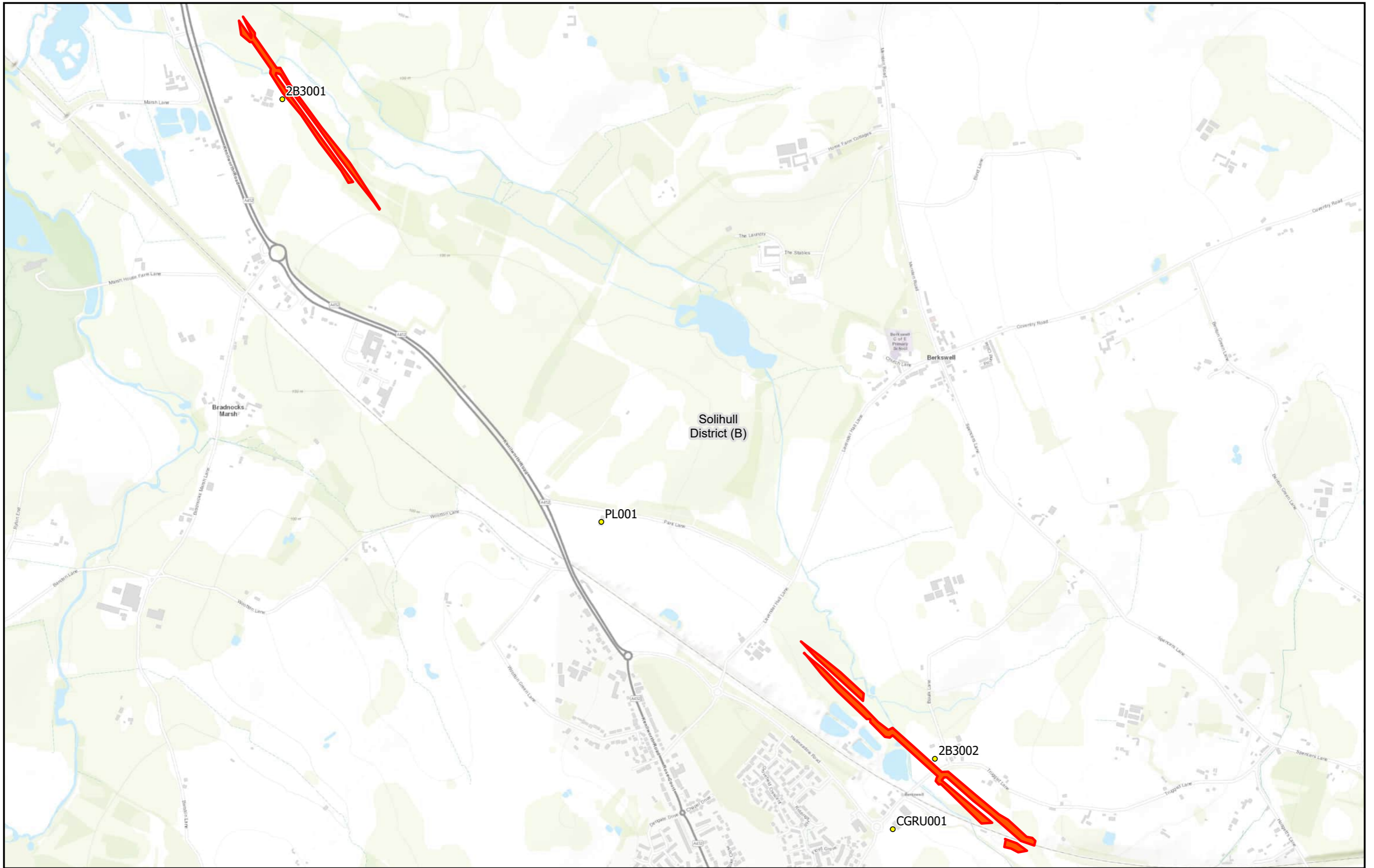
Coleshill Heath Road Underbridge

- Ditch works.
- Remove formwork.
- Pile cropping.
- Steel fixing.
- Breaking concrete.
- Rigid inclusions.
- Piling.

- 1.1.5 Eight (8) 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 No (0) dust trigger alerts were recorded during the monitoring period (January 2024).
- 1.1.9 Data capture was below 90% for multiple monitors due to less sunlight and overcast weather conditions in January meant that the batteries were not able charge sufficiently leading to the monitors being offline overnight resulting in more battery failures than normally expected in January. To mitigate this issue, more site visits were scheduled to refresh the batteries.
- 1.1.10 There were no (0) complaints received during this reporting period (January 2024).

Appendix A – Worksites and Monitoring Locations

Figures 1-3: Worksites and Monitoring Locations within SMBC



Legend
 ● Dust Monitor □ District Borough Unitary Boundaries
 ■ Worksite

Service Layer Credits: World Topographic Map: Esri UK, Esri, HERE, Garmin, INCREMENT P, Intermap, USGS, METI/NASA

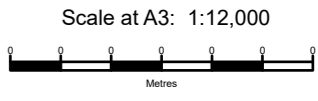
Map Number
 Map Name
**Worksite and Monitoring Locations
 In SMBC (Sheet 1)**
 Solihull Metropolitan Borough



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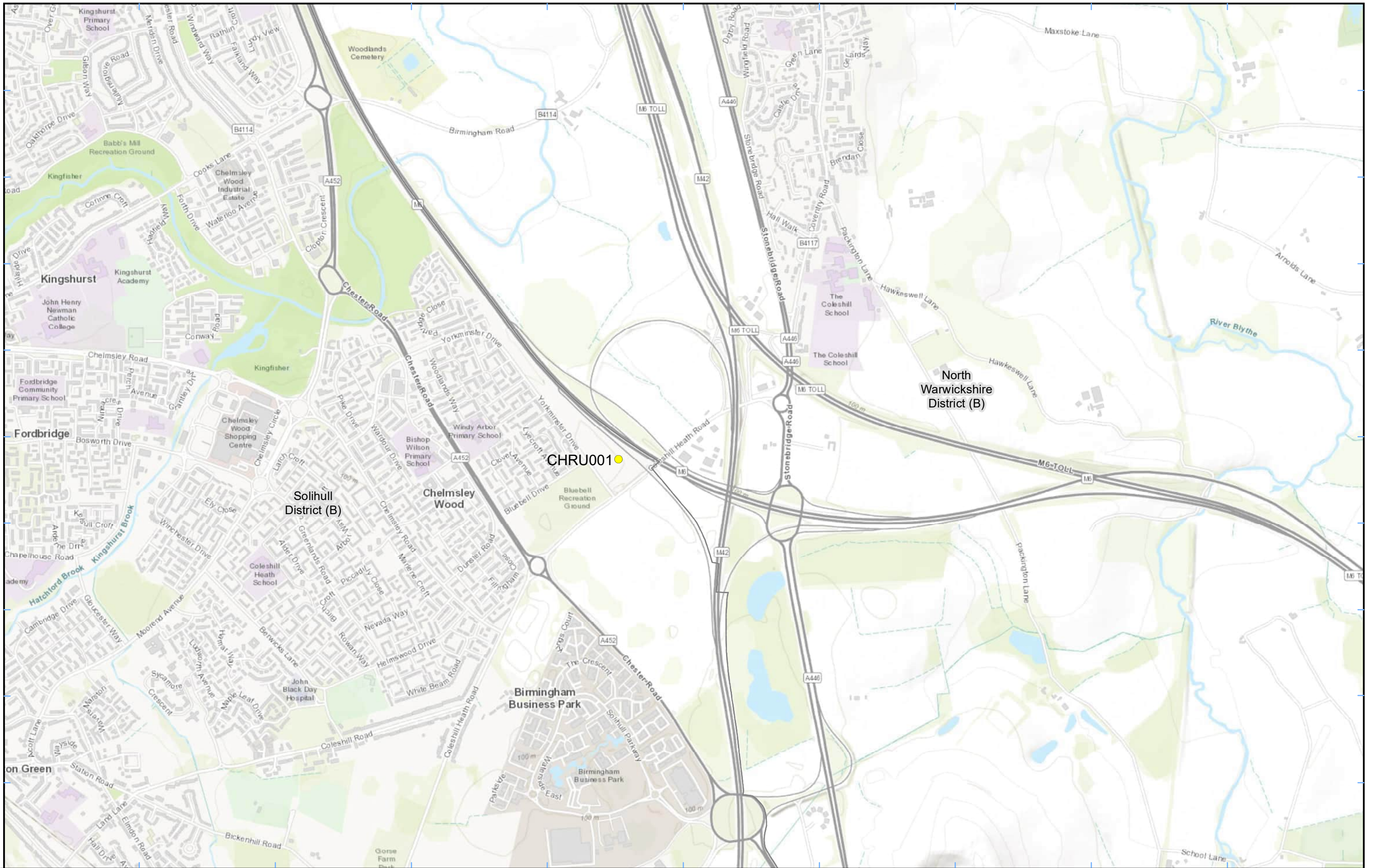


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Legend
 ● Dust
 □ District Borough Unitary Boundaries

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

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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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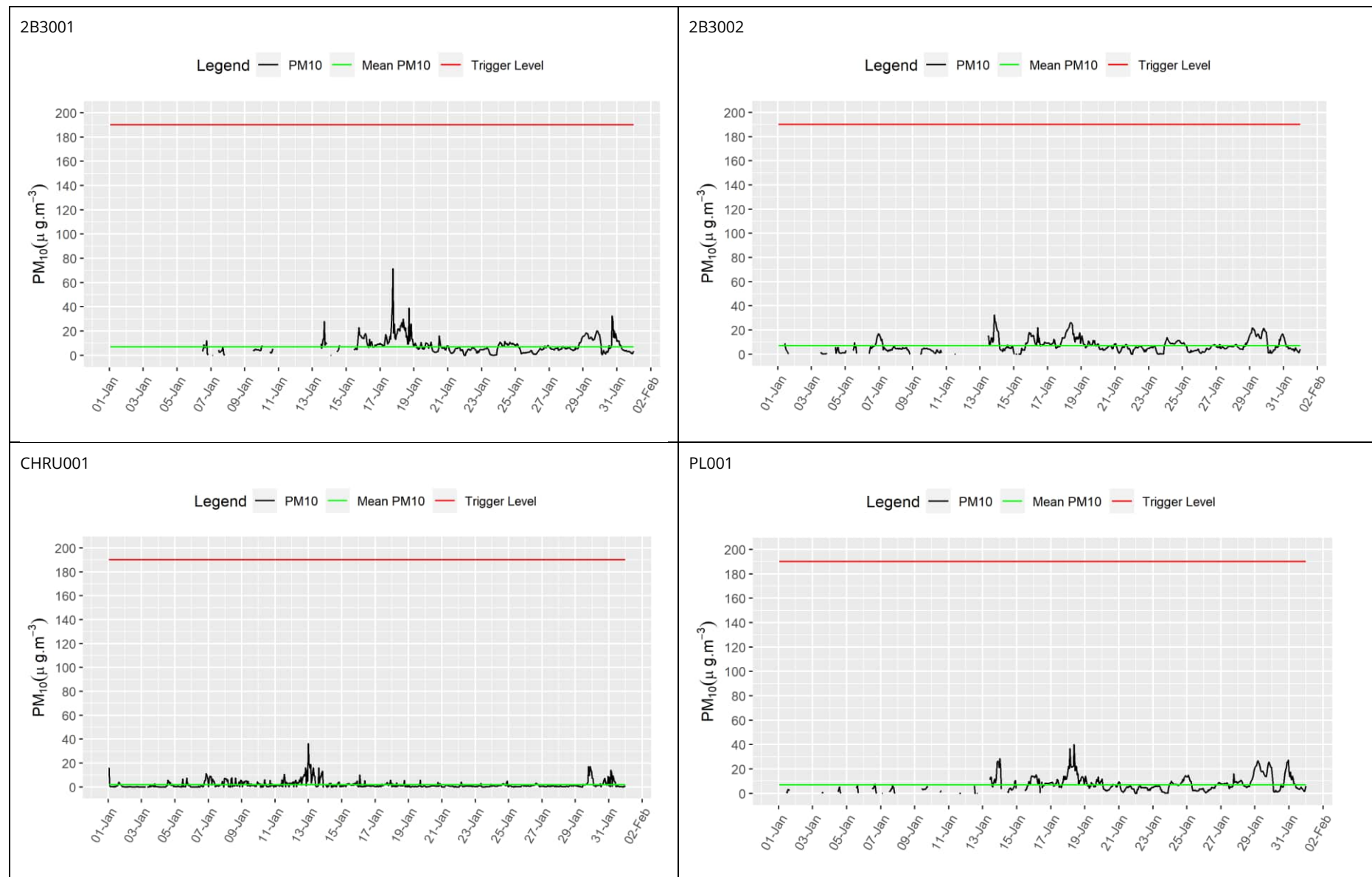
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Appendix B – Dust Monitoring Results

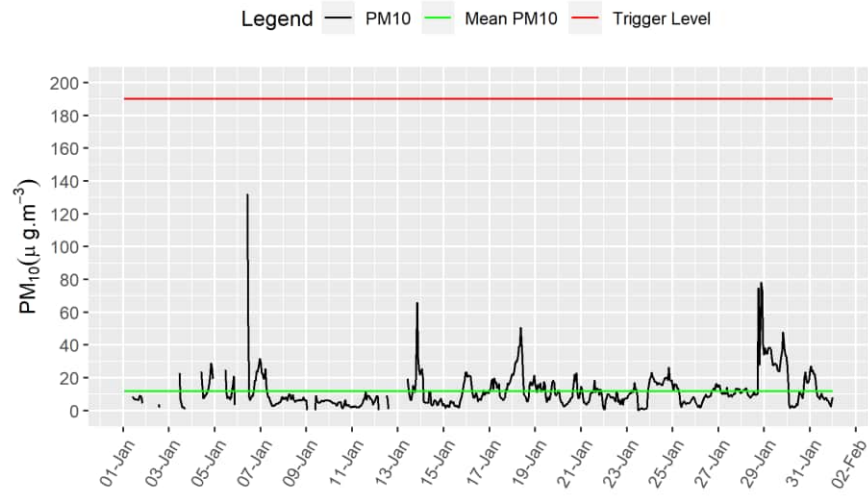
Table 1: Dust Monitoring Locations and Results

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	7.1	0.1	71.4	0	63.6
2B3002	424601, 277729	Sublot 2B3, at Cherry Tree Cottage	M	Yes	No	7.0	0.1	32.6	0	75.4
CHRU001	419300, 286793	Bluebell Drive, Coleshill Heath Road Underbridge	M	Yes	No	1.9	0.1	36.5	0	90.5
PL001	423436, 278557	Park Lane	M	Yes	No	6.9	0.1	40.0	0	68.8
DLE001	421035, 281818	Diddington Lane	M	Yes	No	11.8	0.1	132.2	0	84.4
DLE002	421139, 282222	Hampton Hill Farmhouse	M	Yes	No	7.0	0.1	43.7	0	87.2
BIS001	420284, 283503	Hollywell Brook	M	Yes	No	7.2	0.1	43.8	0	83.7
CGRU001	424454, 277483	Annora House	L	Yes	No	6.7	0.1	34.0	0	74.9

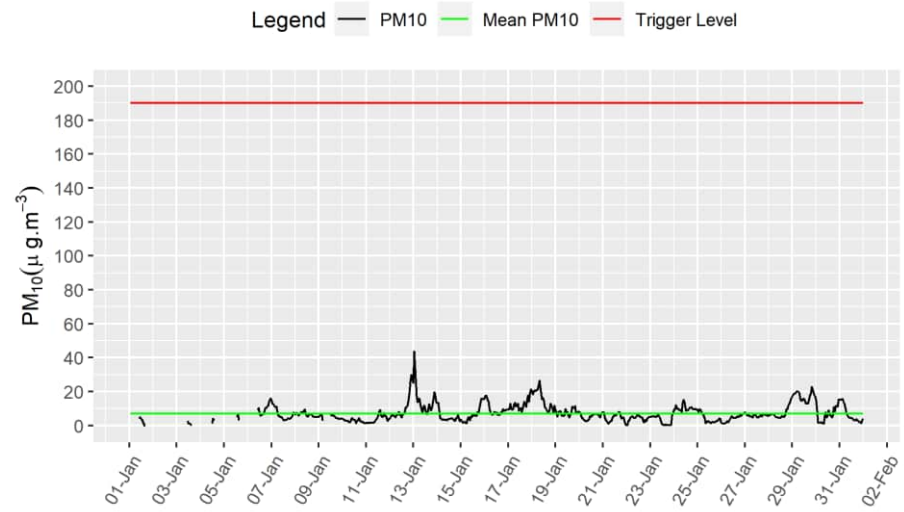
Figure 4: Construction dust 1-hour mean indicative PM₁₀ concentration for all dust monitors



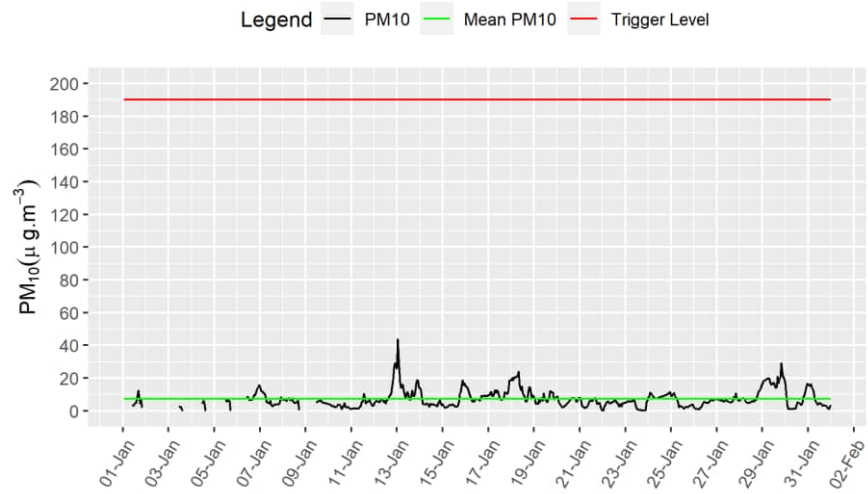
DLE001



DLE002



BIS001



CGRU001

