

Air Quality and Dust Monitoring Monthly Report – August 2024

North Warwickshire 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 North Warwickshire Borough Council (NWBC) during August 2024.
- 1.1.2 Figures 1 and Figure 2 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 Figure 1 and Figure 2, include:

Sublot 6BS

Gilson Embankment

- Gilson Road Realignment works.
- Stockpiling.
- Gilson Retaining Wall platform works.
- Temporary road installation.
- Plant used: 3 x Excavators, 2 x Dozers, 1 x 19 tonne roller, 3 x Articulated Dump Trucks (ADTs).

Attleboro Lane Overbridge

- Diversion of electric, water, BT and sewer mains.

Sublot 7

Faraday Avenue Embankment and Underbridge

- Diversion Breaking tarmac.
- Loading and unloading for material.
- Excavation.
- Digging out formation level.
- Stoning.
- Compacting.
- Lifting the kerb.
- Kerb installation.

- Install streetlight.
- Backfilling.
- Digging.
- Vacuum excavation.
- Installing gullies.
- Placed sign.
- Tarmacking.
- Rolling and compacting.
- Installed Lamp Columns.
- Plant used: 2 x 13 tonne rubber duck, 3 x 9 tonne excavators, 2 x 9 tonne hydremas, 2 x 135 tonne rollers, 1 x 19 tonne roller, 1 x grad wagon, 2 x 12 tonne dumpers, 2 x sweeper, 2 x vacuum excavators, 1 x 125 tonne roller, 1 x wagon, 4 x excavators, 1 x 35 tonne roller, 1 x paver, 4 x rollers, 2 x dozers and 2 x compact backhoe loader.

Marston Box

- Framework.
- Decking construction.
- Prefabrication of deck cages.
- Vegetation clearance.
- Plant used: 1x telehandler, 2x mobile elevating work platform, 1x scissor lift.

Sublot 6NC

- No works in August.

Sublot 5N

Chattle Hill Box Structure

- Installation of mobile crane.
- Installation of precast beams.
- Demobilisation of mobile crane.
- Installation access to deck.

1.1.5 Seven (7) 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 2, together with line charts of monthly data from each dust monitor 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 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 3.
- 1.1.9 Data capture was below 90% for multiple monitors due to BRD001 having an issue with the monitor. The monitor was swapped out for investigation on 9th August 2024 which didn't resolve the issue. Another monitor swap out is scheduled for 5th September 2024. After the swap out on 5th September 2024, the issue with the monitor was resolved. A lab calibration swap out was done on monitor AFE001 on 21st August 2024. A full dust work up was done on monitor GLD001 on 21st August 2024.
- 1.1.10 Table 1 provides a summary of the complaint information relating to dust or air quality received during the reporting period, together with the findings of any related investigations.

Table 1: Summary of complaints received during August 2024

Complaint Reference No.	Worksite Reference	Description of complaint	Results of investigation
HS2-24-45619-C	N/A	Dust from nearby site.	All mitigation measures are in place to reduce dust during works, monitors have been checked no exceedances were found and are within safe limits, resident updated.

Appendix A – Worksites and Monitoring Locations

Figures 1 and 2: Worksites and Monitoring Locations within NWBC



Legend

- Dust Monitor
- District Borough Unitary Boundaries
- Worksite

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Map Number

Map Name
**Worksite and Monitoring Locations
In NWBC (Sheet 1)**

North Warwickshire Borough

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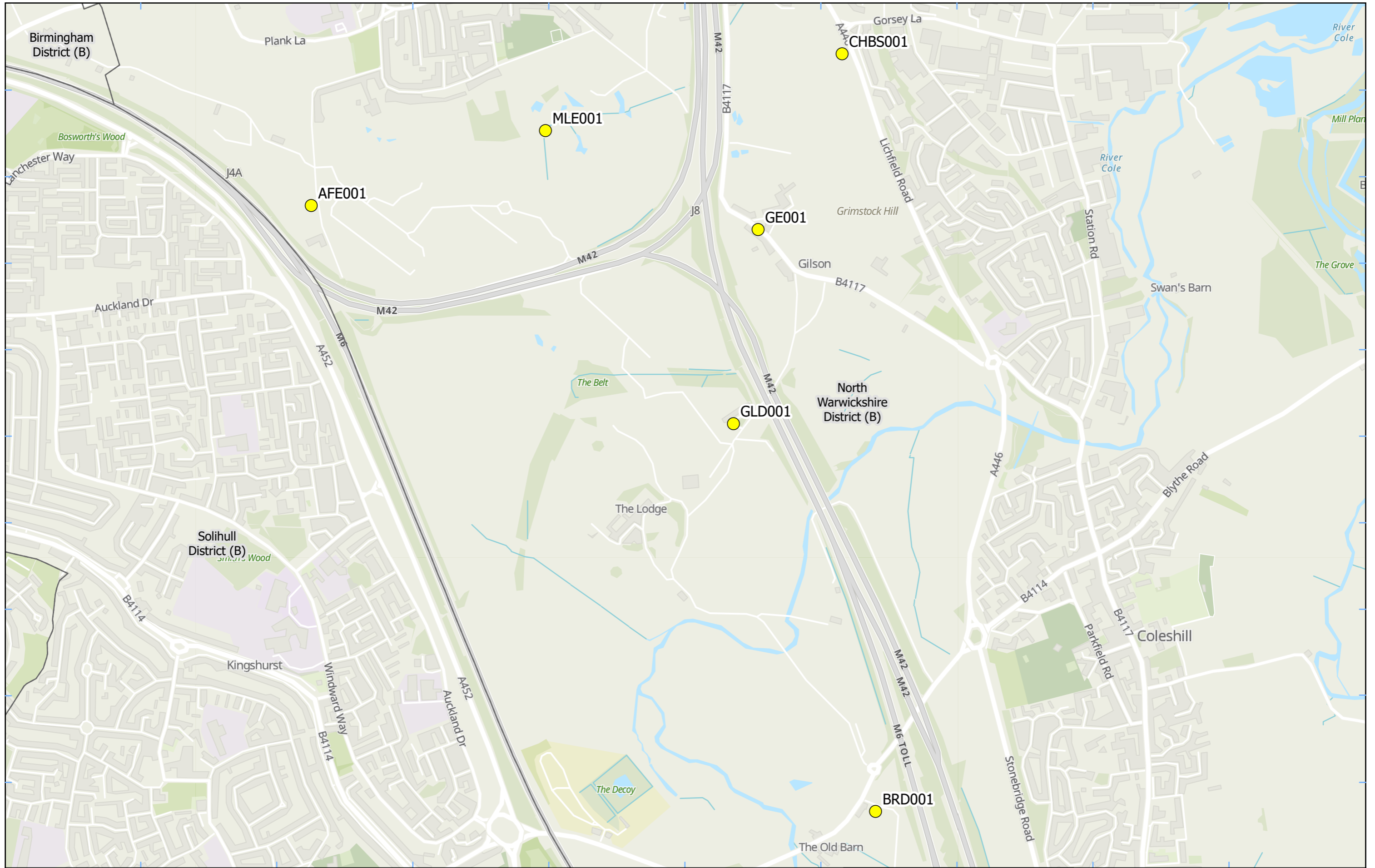
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Legend

- Dust Monitor
- District Borough Unitary Boundaries

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Map Number

Map Name
**Monitoring Locations
In NWBC (Sheet 2)**

North Warwickshire Borough

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Appendix B – Dust Monitoring Results

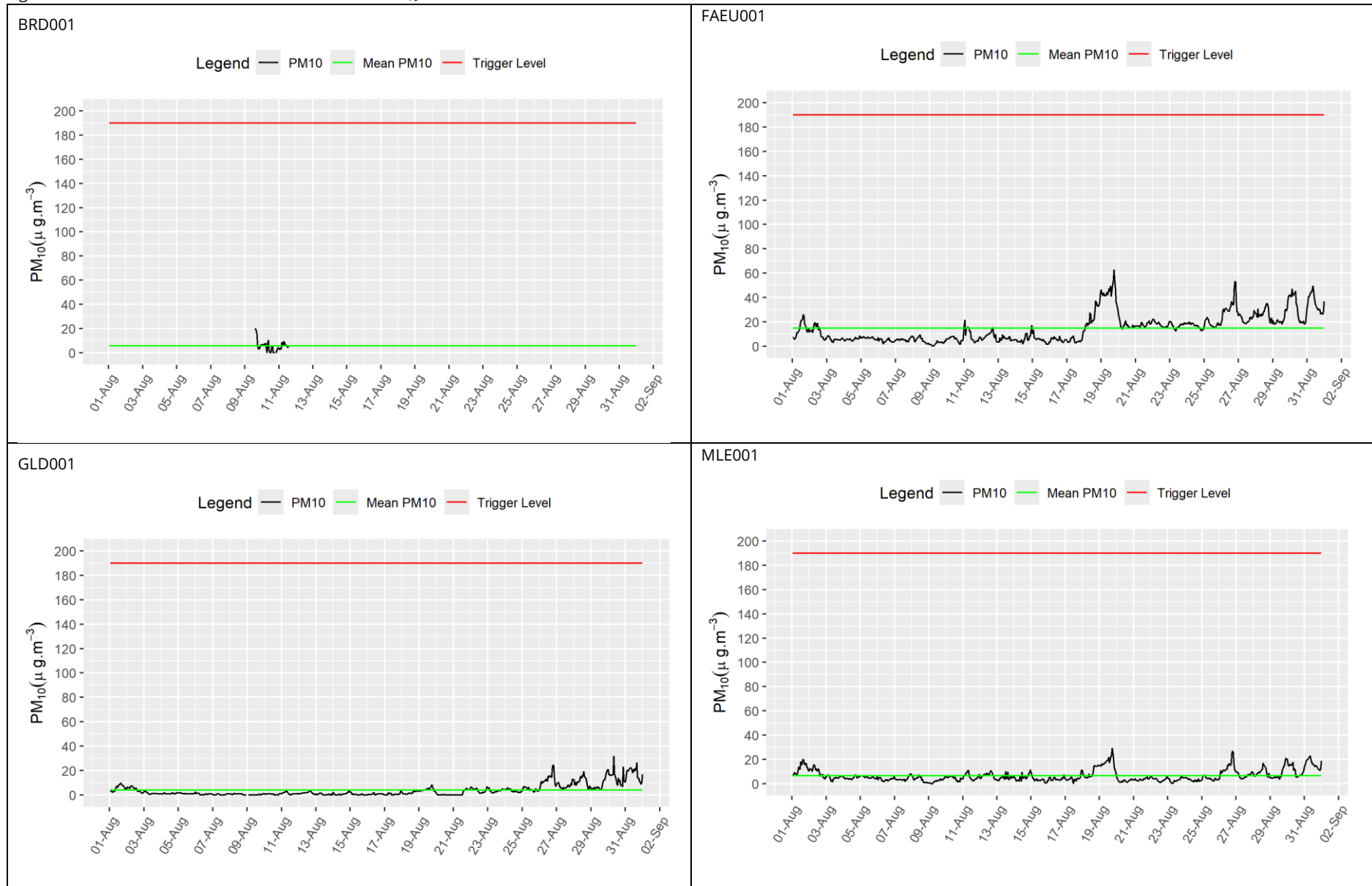
Table 1: Dust Monitoring Locations and Results

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 (%)
BRD001	419262, 288328	New Cottage, Birmingham Road, Coleshill	L	Yes	No	5.9	0.1	20.2	0	6.5
FAEU001	419164, 292273	Faraday Avenue Embankment and Underbridge, at Orchard Cottage	L	Yes	No	15.1	0.3	62.7	0	100.0
GLD001	418807, 289570	Gilson Drive	L	Yes	No	4.0	0.1	31.9	0	92.2
MLE001	418205, 290509	Vicarage Lane	L	Yes	No	6.7	0.1	29.2	0	100.0
AFE001	417455, 290269	Attleboro Farm, Attleboro Lane	L	Yes	No	7.5	0.3	38.9	0	77.3
GE001	418886, 290192	Lovegrove Cottage, Gilson Road	M	Yes	No	10.2	0.6	84.8	0	100.0
CHBS001	419155, 290755	6 Gorsey Way, Lichfield Road	L	Yes	No	10.2	0.1	201.5	1	99.9

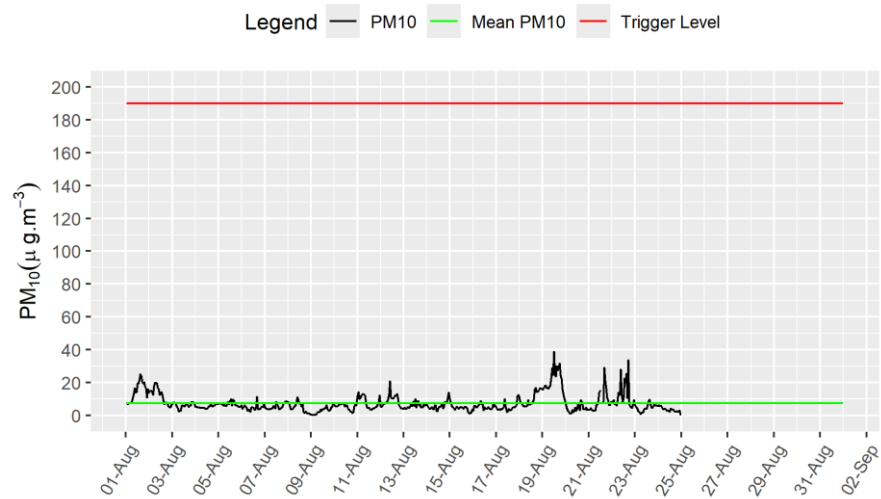
Table 2: Summary of exceedances during period (August 2024)

Monitoring Site ID	Period of trigger alert & Concentration recorded	Investigation	Outcomes / Resolution / Remedial measures implemented
CHBS001	25/09/23: 17:00 - 17:59; 234 $\mu\text{g m}^{-3}$	Caused by an earthworks team working in the area of the monitor (which included plant movements close to the monitor).	There was dust suppression (dampening where possible) as well as speed limits in place.

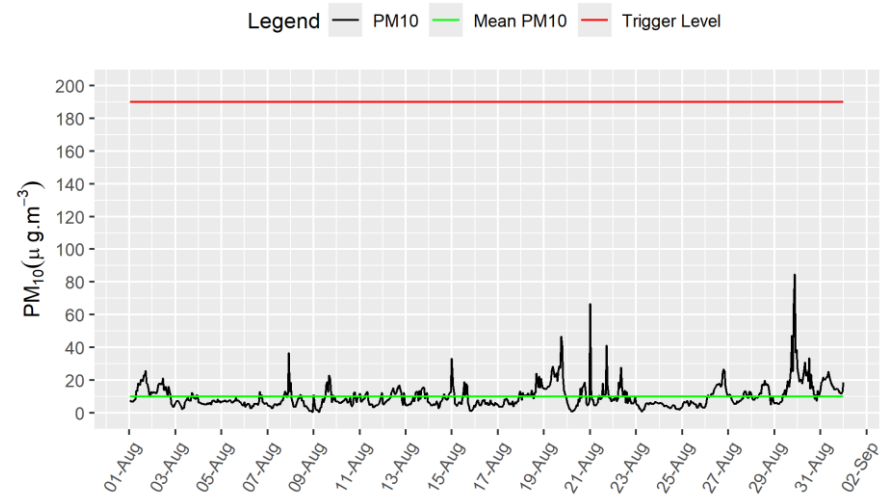
Figure 3: Construction dust 1-hour mean indicative PM₁₀ concentration for all dust monitors



AFE001



GE001



CHBS001

