

Air Quality and Dust Monitoring Monthly Report – September 2023

North Warwickshire Borough Council



Department for Transport

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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 North Warwickshire Borough Council (NWBC) during September 2023.
- 1.1.2 Figures 1 to Figure 2 in Appendix A indicate 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

- Foundation Works - P10 E&W, P09 E&W & P8 E&W; and
- Technical Backfill.

Gilson Drive

- Installation of River Cole Temporary bridge;
- Welfare set up of M42 CHS viaduct;
- Green Lane North- Construction of Green Lane Embankment;
- Lower Embankment fill;
- Import of Class 4 Material;
- Technical Backfill works;
- Borrow pit excavation; and
- Dig and Replace Works for Coleshill Culvert.

Other Works

- Stabilisation using lime for Embankment fill and D&R fill;
- Movement of ADT's for delivering fill materials to Embankment and Technical Backfill;
- Walker plates/Plate Compactors used for Technical backfill;
- Movement of Delivery Wagons; and
- Deep Excavations.

Birmingham Road

- Cofferdam installation and associated preparation works.

Sublot 7

Faraday Avenue Embankment and Underbridge

- Construct the Faraday Avenue Embankment; and
- Regulating the entrance area due to potholes.

Marston Box

- Stockpile separation of rebar, materials movements of 6C and 6N (Ongoing);
- Breaking out of Marston Box guide raft and construction of piling platform (south of Marston Box Structure); and
- Piling platform completed – 15th September.

Sublot 6NC

- Topsoil stripping & Embankment fill.

1.1.5 Six (6) dust monitors are installed on worksites, where works are underway. These sites returned a 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 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 mitigations.

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.

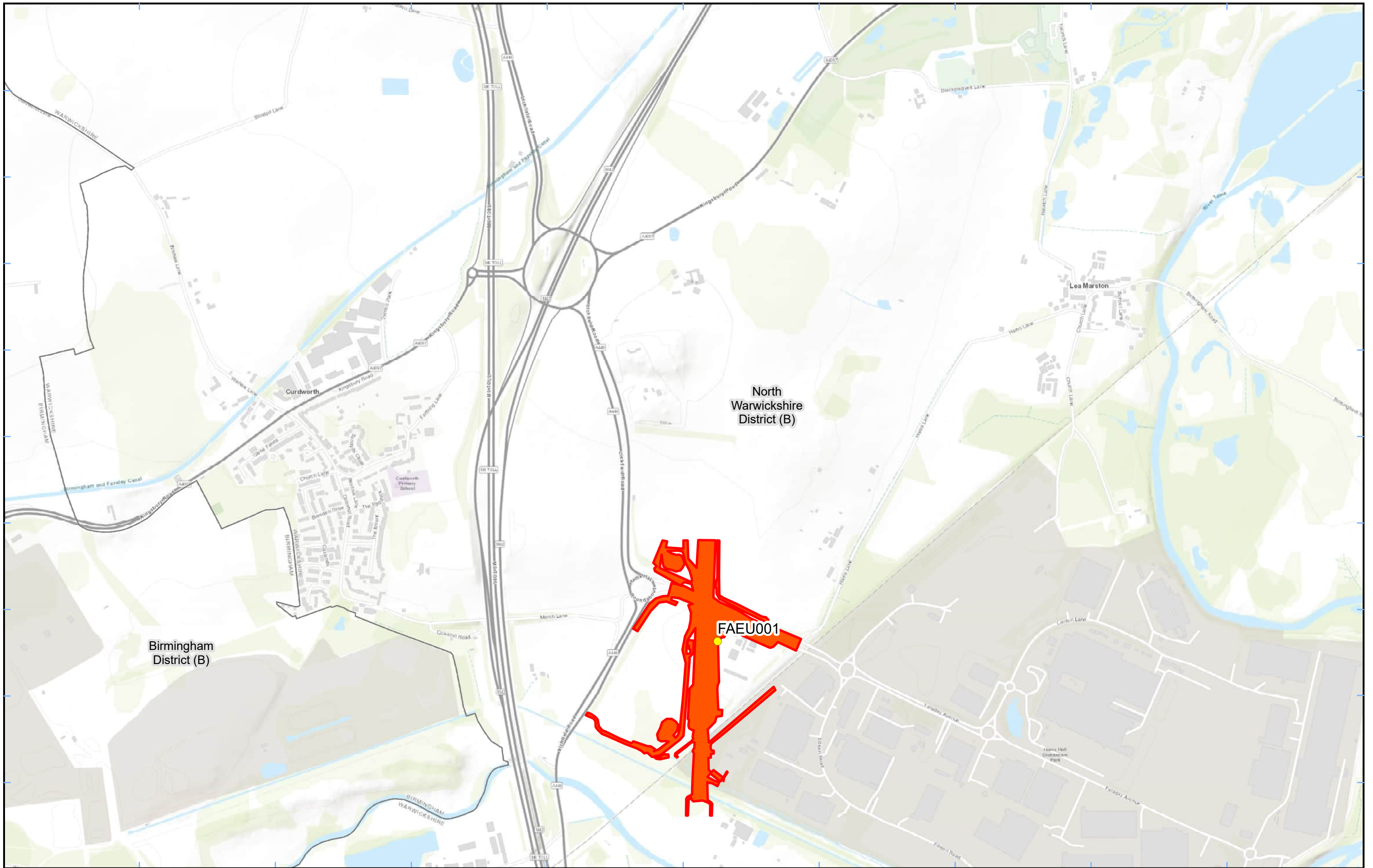
1.1.8 Details of the trigger alert investigations and remediations are presented in Appendix B, Table 2.

1.1.9 Data capture was below 90% for multiple monitors. Monitor BRD001 was swapped out on 28th September 2023 for investigation into an issue with the monitor. A full maintenance work up was completed on monitor AFE001 on 7th September 2023. The monitor was then swapped out completely on 14th September 2023 for an investigation into an issue with the monitor. The monitor configuration was updated, and issue resolved on 15th September 2023.

- 1.1.10 A new monitor was installed at Lovegrove Cottage (GE001) on 7th September 2023 at the nearest human receptor to the works.
- 1.1.11 There were no (0) complaints received during this reporting period (September 2023).

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
**Monitoring Locations
In NWBC (Sheet 1)**

North Warwickshire Borough

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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)**
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Appendix B – Dust Monitoring Results

Table 1: Dust Monitoring Locations and September 2023 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	M	Yes	No	5.0	0.0	49.1	0	85.0
FAEU001	419164, 292273	Faraday Avenue Embankment and Underbridge, at Orchard Cottage	M	Yes	No	18.3	1.5	179.4	0	100.0
GLD001	418807, 289570	Gilson Drive	M	Yes	No	12.2	0.7	1011.4	3	100.0
MLE001	418205, 290509	Vicarage Lane	M	Yes	Yes	14.2	1.0	82.0	0	100.0
AFE001	417455, 290269	Attleboro Farm, Attleboro Lane	M	Yes	No	6.6	0.9	34.1	0	53.6
GE001	418886, 290192	Lovegrove Cottage, Gilson Road	M	Yes	No	11.2	0.6	70.0	0	78.3

Table 2: Summary of exceedances during period (September 2023)

Monitoring Site ID	Period of trigger alert & Concentration recorded	Investigation	Outcomes / Resolution / Remedial measures implemented
GLD001	25/09/23: 17:00 - 17:59; 234 µg m ⁻³ 18:00 - 18:59; 1011 µg m ⁻³ 19:00 - 19:59; 262 µg m ⁻³	Caused by the inlet on the monitor being blocked by an insect.	A maintenance visit was done on 28th September 2023 to clear the blockage.

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

