

## Air Quality and Dust Monitoring Monthly Report – January 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 January 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](http://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

- Reinforced concrete works, 1 x excavator, 1 x mobile crane (200m from receptor).

### Gilson Drive

- FRC (formwork, reinforcement and concrete), 1 x excavator, 1 x mobile crane (300m from receptor).
- Excavation and backfill of cofferdams.

### Attleboro Lane Overbridge

- Bromford MAT (Maintenance Access Track) - Embankment fill.
- Precast beam installation on ALOB (Attleboro Lane Overbridge).
- Excavation and base slab (Reinforced concrete) works on WOC (platform D&E).
- Excavation and base slab (Reinforced concrete) works on WOC (platform G&H).

## **Sublot 7**

### Faraday Avenue Embankment and Underbridge

- Preparation of roller-compacted concrete (RCC).
- Tarmac laid roller-compacted concrete (RCC) at the entrance to ramp and down to PSV (Public Service Vehicles) workshop.
- Technical backfill.

- Drapers construction of Faraday Road Diversion: Construction of drainage, topsoil strip, concrete kerbing.

#### Marston Box

- Materials crushing: Concrete at Mullensgrove Farm (02/01/2024 to 23/01/2024)
- Water management
- 1 x mobile batching plant in operation

#### **Sublot 6NC**

- Bromford MAT (Maintenance Access Track) - Embankment fill.
- Precast beam installation on ALOB (Attleboro Lane Overbridge).
- Excavation and base slab (Reinforced concrete) works on WOC (platform D&E).
- Excavation and base slab (Reinforced concrete) works on WOC (platform G&H).

#### **Sublot 5N**

##### Chattle Hill Box Structure

- Pour concrete for AOW abutment.
- Pour concrete for Zone 3 abutment.
- Pour lean concrete in Cofferdam 1 partially.
- Pour lean concrete in Cofferdam 1.
- Excavation in Cofferdam 1.
- Pile cropping.

- 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 1, 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 PM<sub>10</sub> concentrations of 190 µg/m<sup>3</sup>, 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 fewer daylight hours and wetter than usual weather conditions in January resulted in less power generated by the solar

panels to power the monitors' external batteries, leading to more battery failures over the course of the month. During the evening, the monitors rely mostly on battery power. Since there was not enough sunlight to charge the batteries during the day, the batteries did not have enough energy stored to power the monitors during the evening; therefore, most of the battery failures occurred overnight. Battery refreshes were scheduled regularly throughout the month to mitigate this problem.

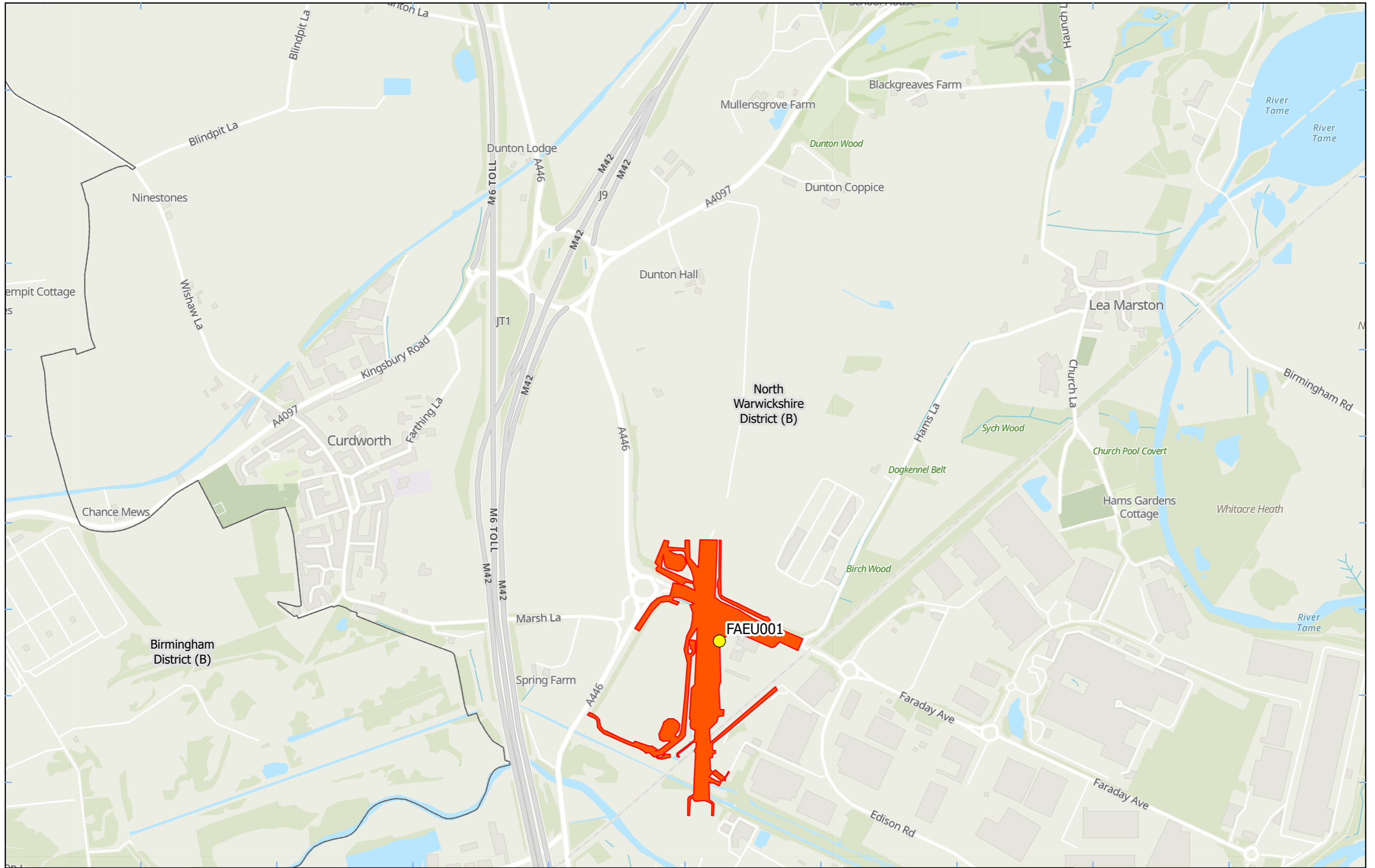
1.1.10 Table 1 provides a summary of the complaint information relating to dust or air quality received during the reporting period, together with the findings of any related investigations.

Table 1: Summary of complaints received during January 2024

<b>Complaint Reference No.</b>	<b>Worksite Reference</b>	<b>Description of complaint</b>	<b>Results of investigation</b>
HS2-24-45127-C	N/A	Dust - Poor air quality.	Air quality monitoring is constantly in place with no exceedances reported, ongoing mitigation measures are in place. Resident has been updated.
HS2-24-45129-C	N/A	Dust clouds reported.	Not related to HS2 works.

# 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**

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

**North Warwickshire Borough**

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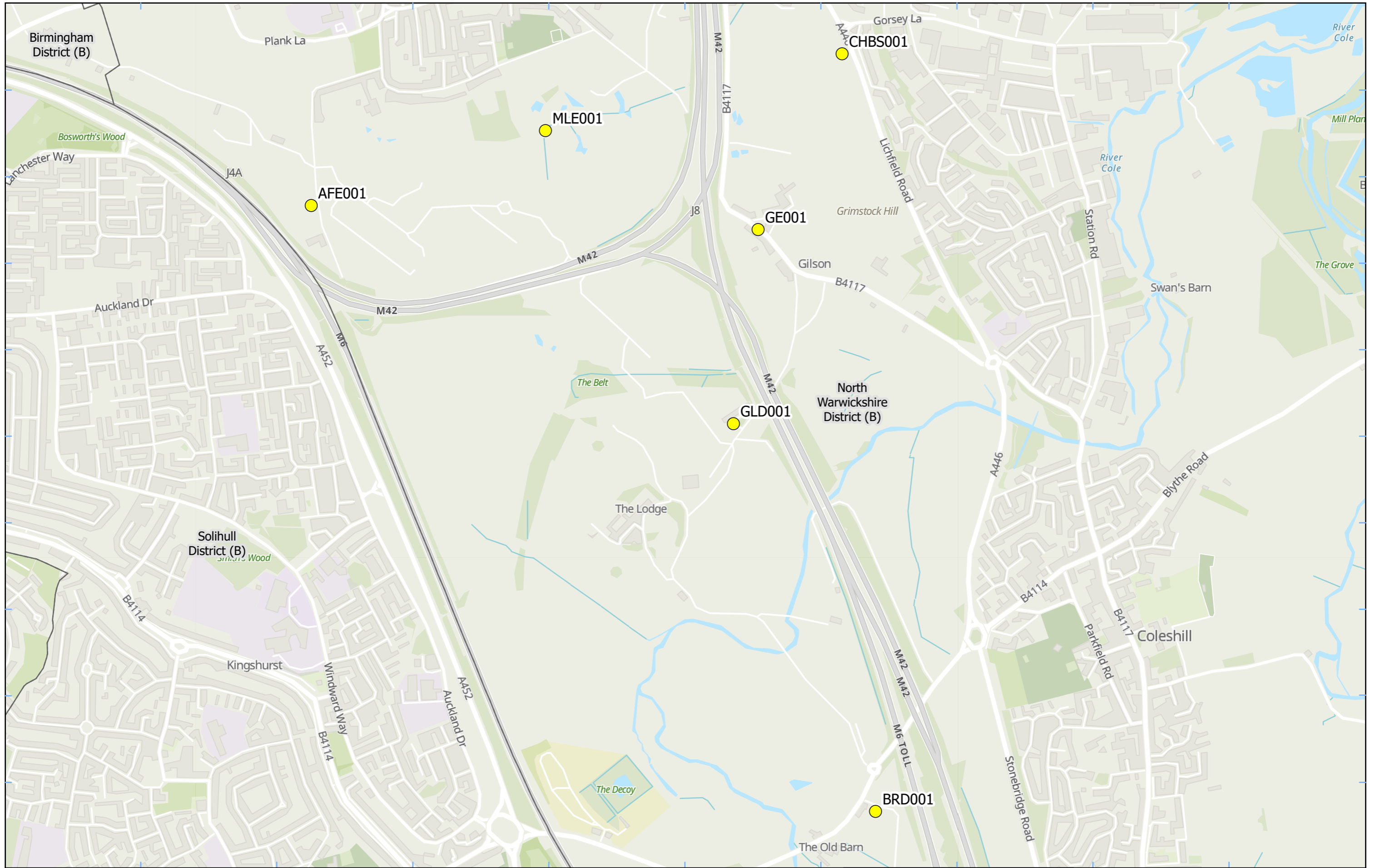
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**Legend**

- 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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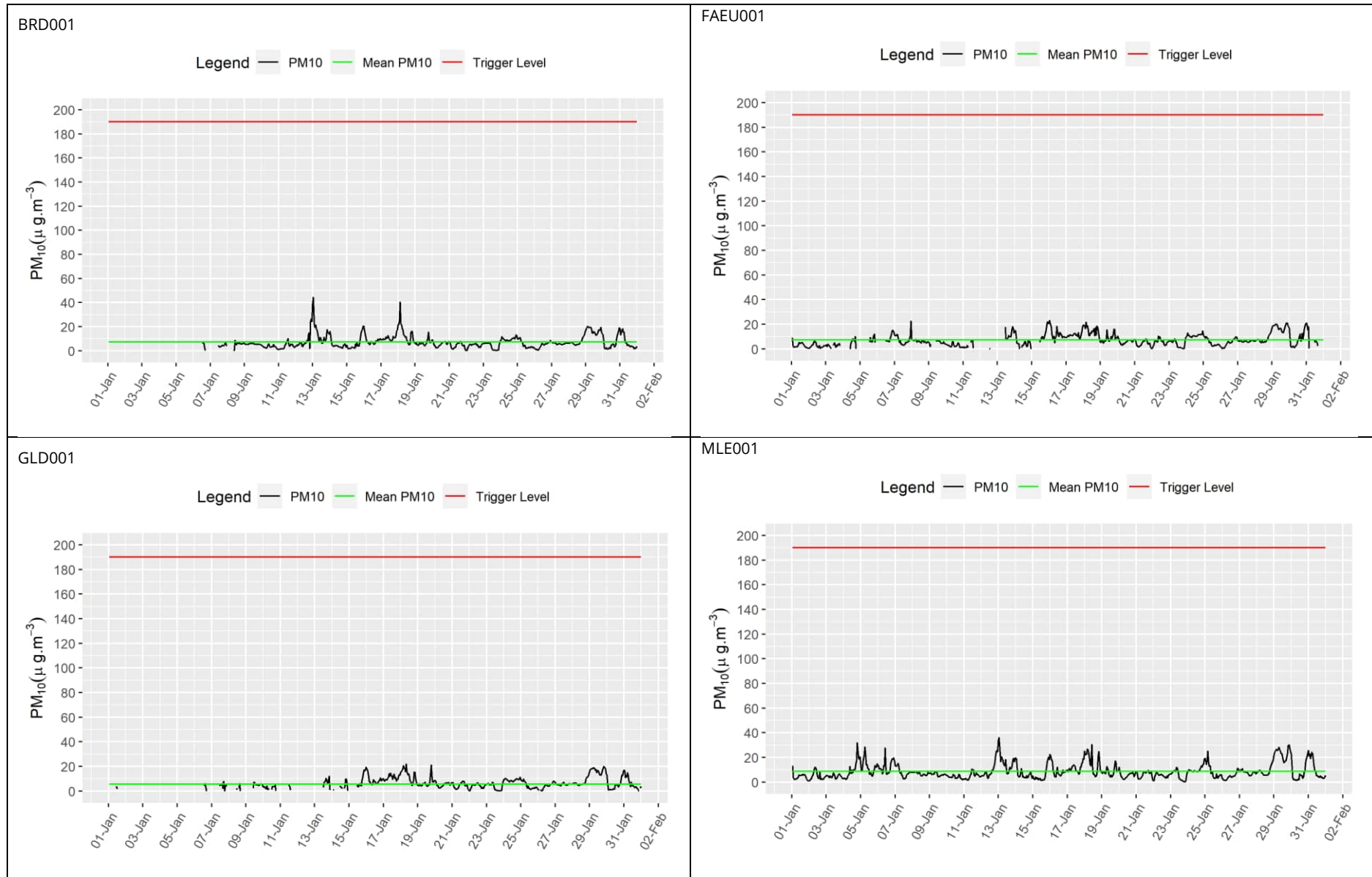


## Appendix B – Dust Monitoring Results

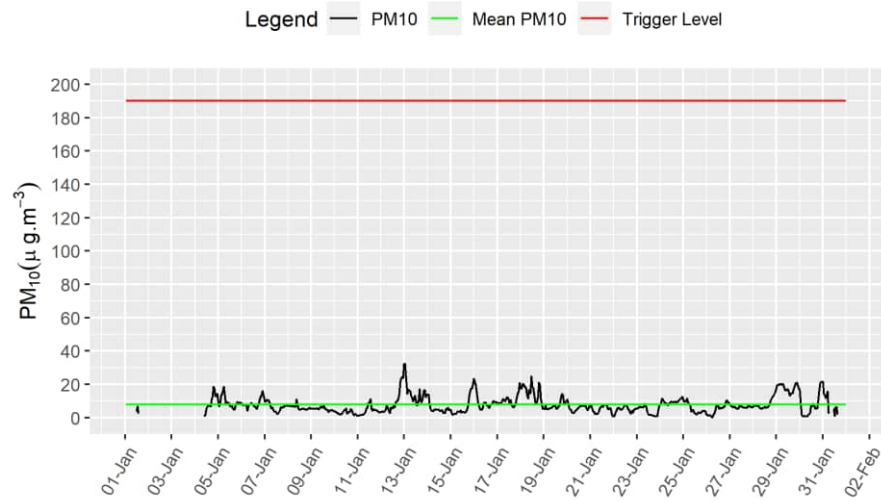
Table 2: Dust Monitoring Locations and Results

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 <sub>10</sub> concentration (µg/m <sup>3</sup> )	Minimum 1-hour PM <sub>10</sub> concentration (µg/m <sup>3</sup> )	Maximum 1-hour PM <sub>10</sub> concentration (µg/m <sup>3</sup> )	Number of 1- hour periods exceeding trigger level of 190 µg/m <sup>3</sup>	Data capture (%)
BRD001	419262, 288328	New Cottage, Birmingham Road, Coleshill	M	Yes	No	7.1	0.1	44.2	0	79.4
FAEU001	419164, 292273	Faraday Avenue Embankment and Underbridge, at Orchard Cottage	M	Yes	No	7.3	0.1	23.1	0	83.2
GLD001	418807, 289570	Gilson Drive	M	Yes	No	5.5	0.1	22.0	0	72.0
MLE001	418205, 290509	Vicarage Lane	M	Yes	No	8.7	0.2	36.1	0	100.0
AFE001	417455, 290269	Attleboro Farm, Attleboro Lane	M	Yes	No	7.7	0.1	32.4	0	88.2
GE001	418886, 290192	Lovegrove Cottage, Gilson Road	M	Yes	No	8.0	0.1	100.1	0	87.1
CHBS001	419155, 290755	6 Gorsey Way, Lichfield Road	L	Yes	No	8.2	0.1	26.7	0	85.3

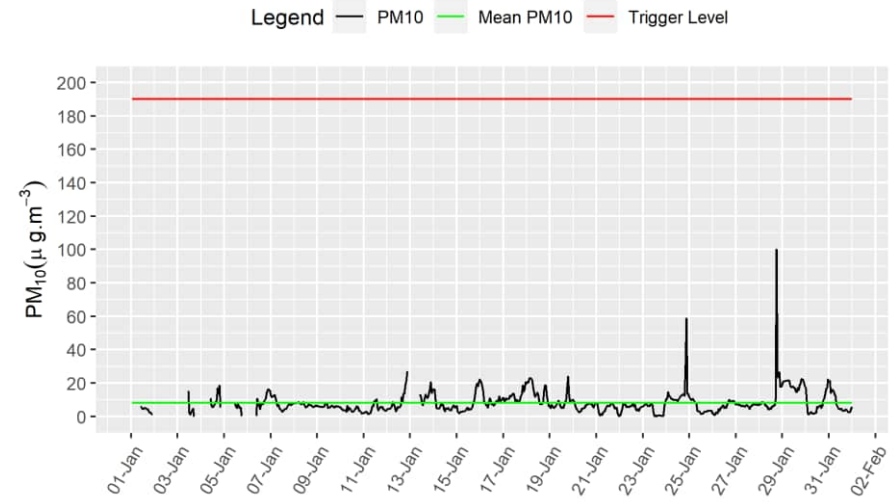
Figure 3: Construction dust 1-hour mean indicative PM<sub>10</sub> concentration for all dust monitors



AFE001



GE001



CHBS001

