

Air Quality and Dust Monitoring Monthly Report – December 2023

North Warwickshire Borough Council



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 North Warwickshire Borough Council (NWBC) during December 2023.
- 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

- Sheetpile removal.

Gilson Drive

- Piling Works.
- Installation of Rotary Board Piles.
- FRC (formwork, reinforcement and concrete).
- Excavation of cofferdam and backfill.
- Remove props.
- Dewatering.
- Installation of cofferdams.

Attleboro Lane Overbridge

- Pier construction and installation of temporary works for precast beam installation.
- Water Orton Cutting: excavation of single box and boubel box, and base slab construction.

Birmingham Road

- Piling platform P13 work ongoing (~150m from monitoring points).
- Watercourse diversion and water course culvert protection slab ongoing (~150m from monitoring points).

- 4th Arm Civilising work ongoing for opening of bailey bridge to residents (~60m from monitoring points).
- Kerbing work is ongoing for the west tie-in area along with drainage and ducting work (~200m from monitoring points).
- Subbase capping work ongoing for the West tie -in area up to the Footpath (~200m from monitoring points).

Sublot 7

- Marston box piling completed by the SB3 joint venture team (between Bachy Soletache and Balfour Beatty Ground Engineering).
- Welfare.
- Rig and site demobilisation to Birmingham Fazerley Canal Viaduct (BFCV).
- 1 x excavator clearing ground area and making tidy.
- Draper remobilising construction of Faraday Avenue Diversion.
- Construction of road diversion drainage.
- Excavation and laying of Type 1 stone for road base.
- Lifting the steel bar by using 2 mobile cranes.
- Pouring bridge decks and retaining walls.
- Roller compacted concrete.

Sublot 6NC

- Earthworks; and
- Lime stabilisation.

Sublot 5N

Chattle Hill Box Structure

- FRC (formwork, reinforcement and concrete) works and backfill.
- Props removal.
- Dewatering.

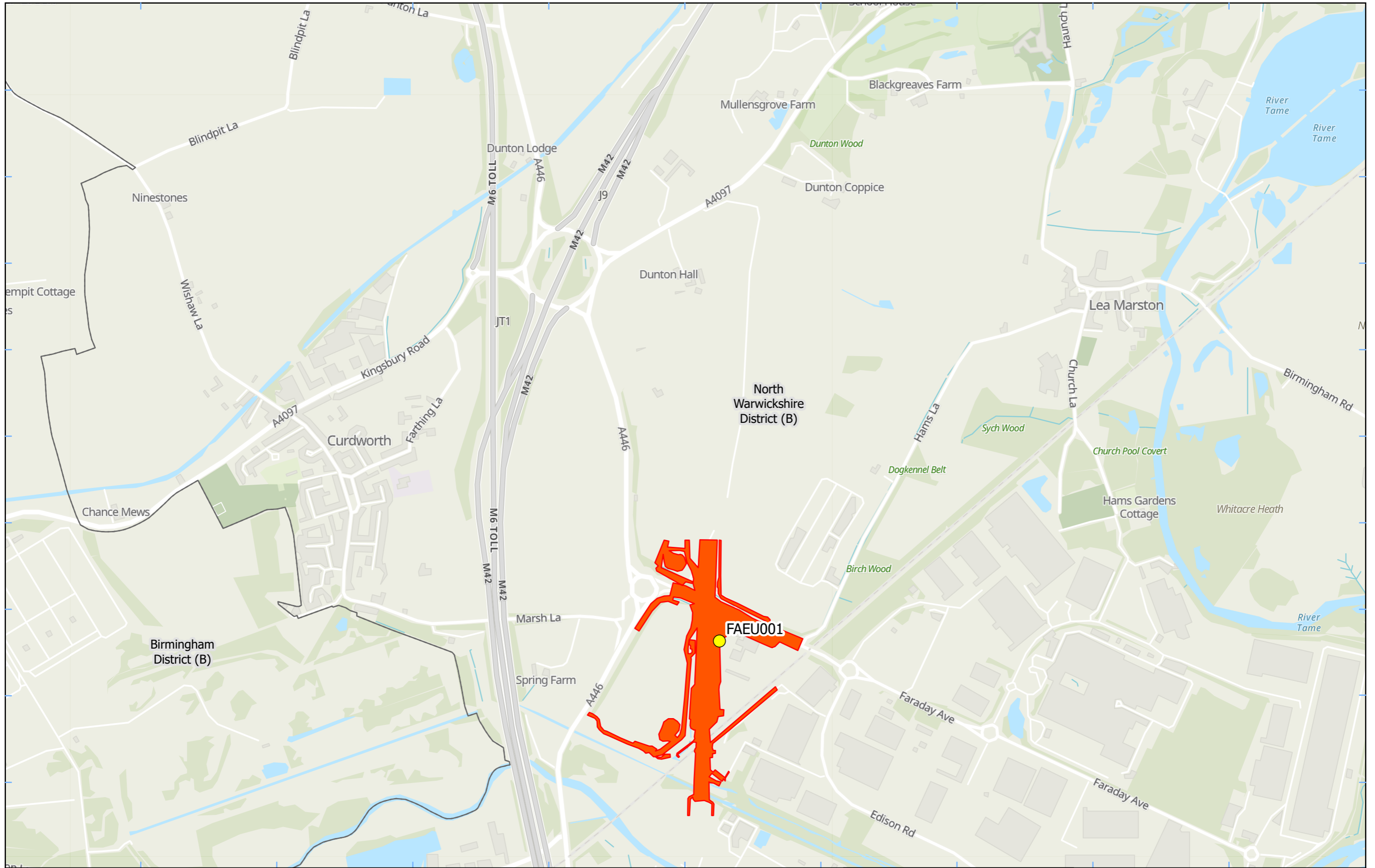
1.1.5 Seven (7) dust monitors are installed around these worksites, where works are underway. These sites returned a low to medium dust risk rating.

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 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 (December 2023).
- 1.1.9 Data capture was below 90% for multiple monitors due to lower amounts of sunlight due to the weather being more overcast than we would normally expect for the month of December which has meant that the batteries were not able to be charged sufficiently which led to the monitors being offline overnight which has led to more battery failures than we would normally expect for December which has led to more site visits for battery refreshes needing to be conducted than we would normally expect.
- 1.1.10 There were no (0) complaints received during this reporting period (December 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
**Worksite and Monitoring Locations
In NWBC (Sheet 1)**

North Warwickshire Borough

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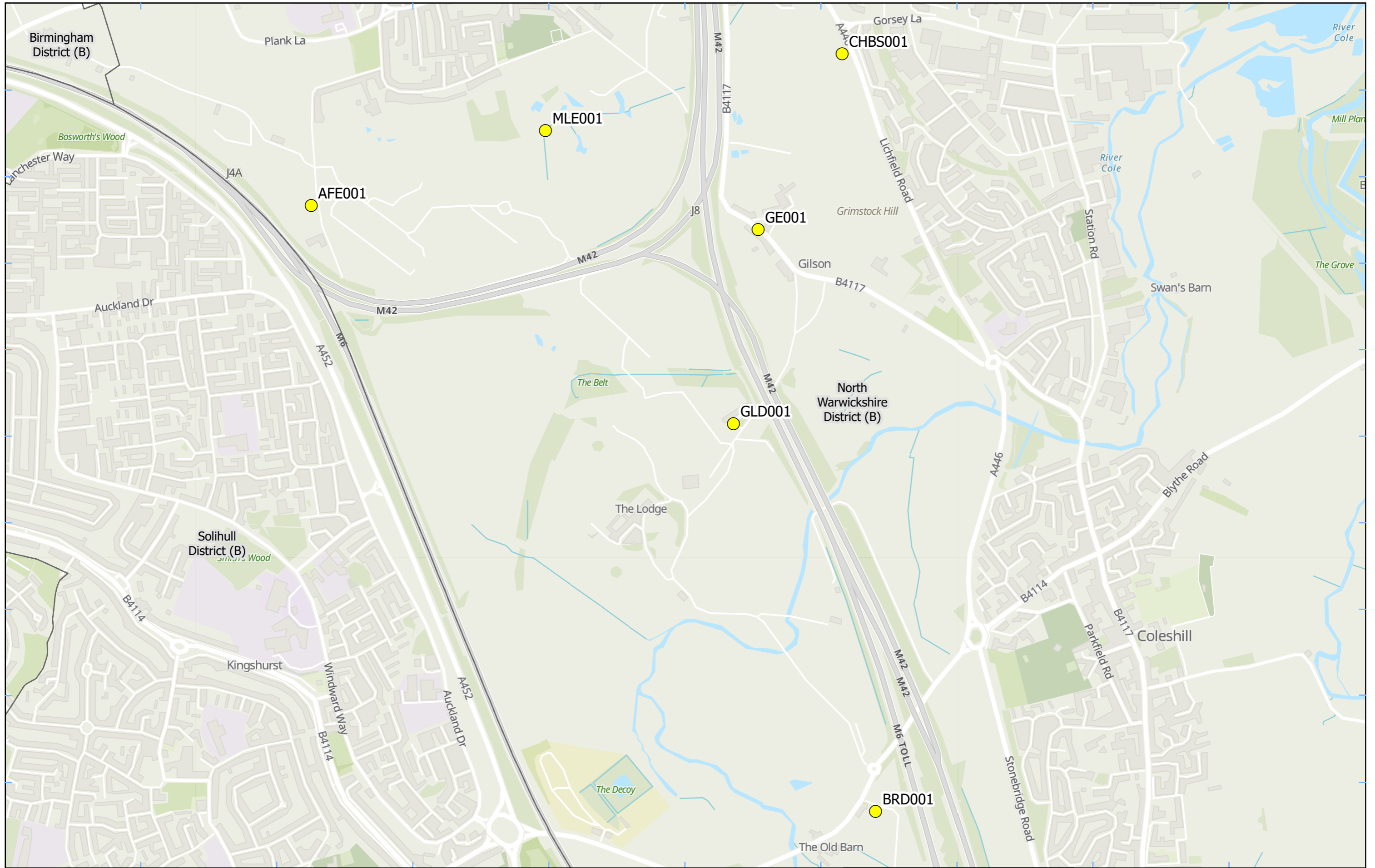
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Legend

- 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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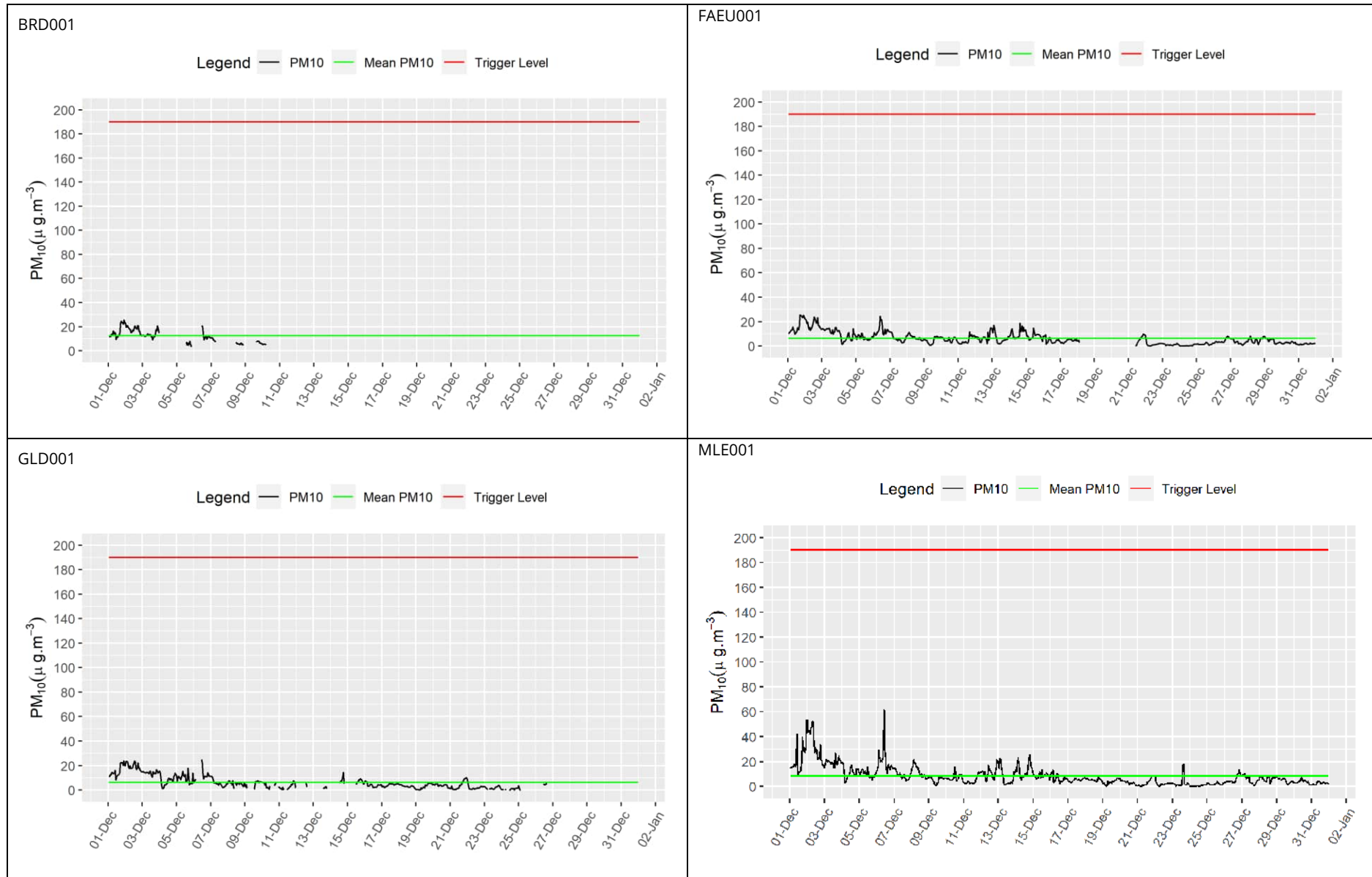
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Appendix B – Dust Monitoring Results

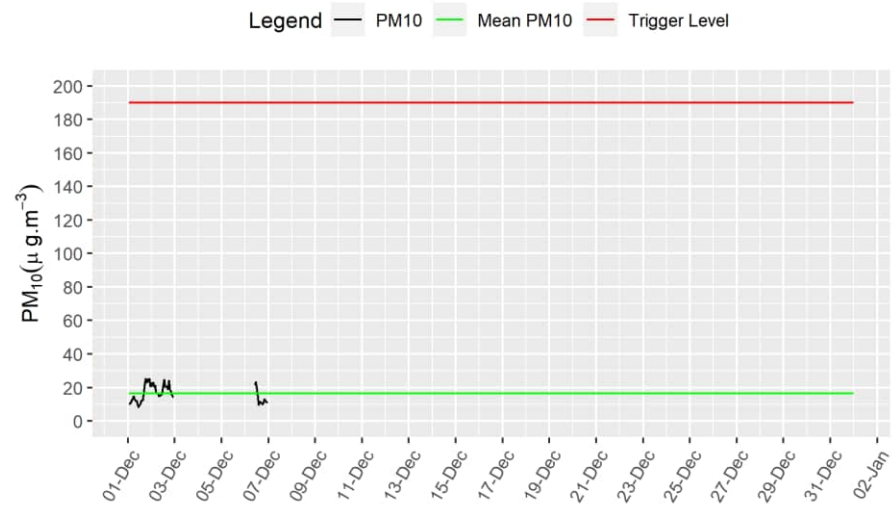
Table 1: Dust Monitoring Locations and Results

| 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 | M | Yes | No | 12.4 | 3.5 | 25.6 | 0 | 17.1 |
| FAEU001 | 419164, 292273 | Faraday Avenue Embankment and Underbridge, at Orchard Cottage | M | Yes | No | 6.2 | 0.1 | 25.6 | 0 | 89.2 |
| GLD001 | 418807, 289570 | Gilson Drive | M | Yes | No | 6.3 | 0.1 | 24.9 | 0 | 64.8 |
| MLE001 | 418205, 290509 | Vicarage Lane | M | Yes | No | 8.3 | 0.1 | 61.8 | 0 | 100.0 |
| AFE001 | 417455, 290269 | Attleboro Farm, Attleboro Lane | M | Yes | No | 16.3 | 8.2 | 25.4 | 0 | 8.2 |
| GE001 | 418886, 290192 | Lovegrove Cottage, Gilson Road | M | Yes | No | 6.4 | 0.1 | 99.8 | 0 | 80.5 |
| CHBS001 | 419155, 290755 | 6 Gorsey Way, Lichfield Road | L | Yes | No | 7.7 | 0.1 | 29.6 | 0 | 70.6 |

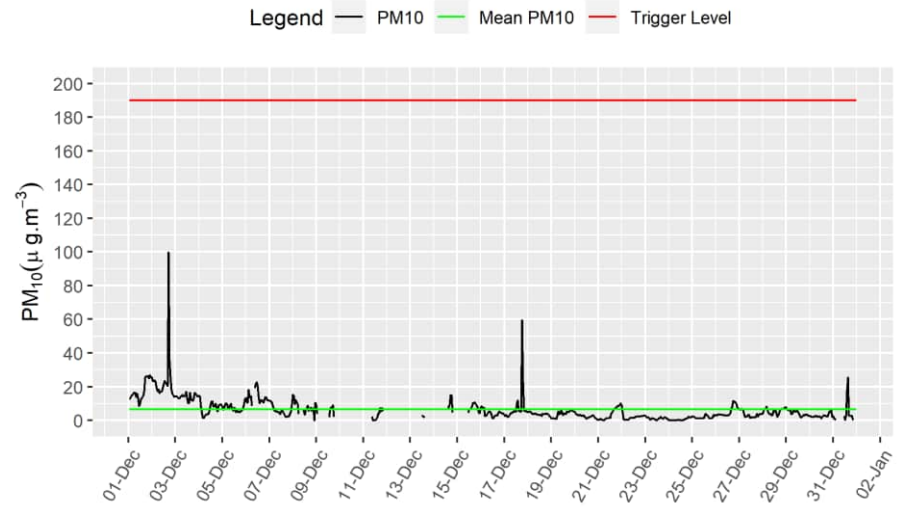
Figure 3: Construction dust 1-hour mean indicative PM₁₀ concentration for all dust monitors



AFE001



GE001



CHBS001

