

Air Quality and Dust Monitoring Monthly Report – May 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 (NWBC) during May 2023.
- 1.1.2 Figures 1 and 2 in Appendix A indicate the current worksites together with the dust monitoring locations for May 2023.
- 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, Figures 1 and 2, include:

Sublot 6BS

Gilson Drive:

- No reported works

Birmingham Road:

- No reported works

Faraday Avenue Embankment and Underbridge site (Sublot 7)

Marston Box:

- 1 x trial hole for identifying road build up.
- Holmasters wire sawing temporary Concrete slab.
- Breaking out of guide raft/installation of piling platform.
- Removal remainder of dewatering system and filter drain around perimeter of Marston Box.
- Removing sheeting from batters and sealing with 6C material.
- Breaking out RC2 tower crane base with machine breaker.

Plant on site:

- 1 x 35T Excavators – breaking out and removal of concrete from guide raft and tower crane bases/sealing batters with 6C
- 1 x 21T Excavator – removal of filter drain and sheeting on batters. Loading dumpers with stone and concrete.
- 1 x 19T Roller – compaction of piling platform
- 1 x D6 Dozer – spreading stone for piling platform

- 2 x 30T dumpers – transporting concrete broken out from guide raft to Mullensgrove Farm stockpile. Also bringing in stone to fill for platform
- 1 x Tractor and Bowser – dust suppression
- 1 x Fuel Bowser – refuelling plant
- 1 x wire saw, generator and attachments

Faraday Avenue:

- Installation of geogrid for stabilisation embankment.
- Construction of embankment.
- Plant:
 - Excavator 30t + 3 x A30, 2x Excavator 25t , D65 GPS / D6 GPS, BW219 roller, Grader 140 + GPS, 6 HGV + 30t Excavator
- Treatment:
 - Spreader + Mixer + Injector, Silo 50t , Water tanker
- Plant on site:
 - 2 x 35T Excavators – breaking out and removal of concrete from guide raft.
 - 1 x 21T Excavator – removal of extension to batter and loading dumpers with stone at stockpiles.
 - 1 x 19T Roller – compaction of piling platform.
 - 1 x D6 Dozer – spreading stone for piling platform.
 - 2 x 30T dumpers – transporting concrete broken out from guide raft to Mullensgrove Farm stockpile. Also bringing in stone to fill for platform.
 - 1 x Tractor and Bowser – dust suppression.
 - 1 x Fuel Bowser – refuelling plant.

Sublot 6NC

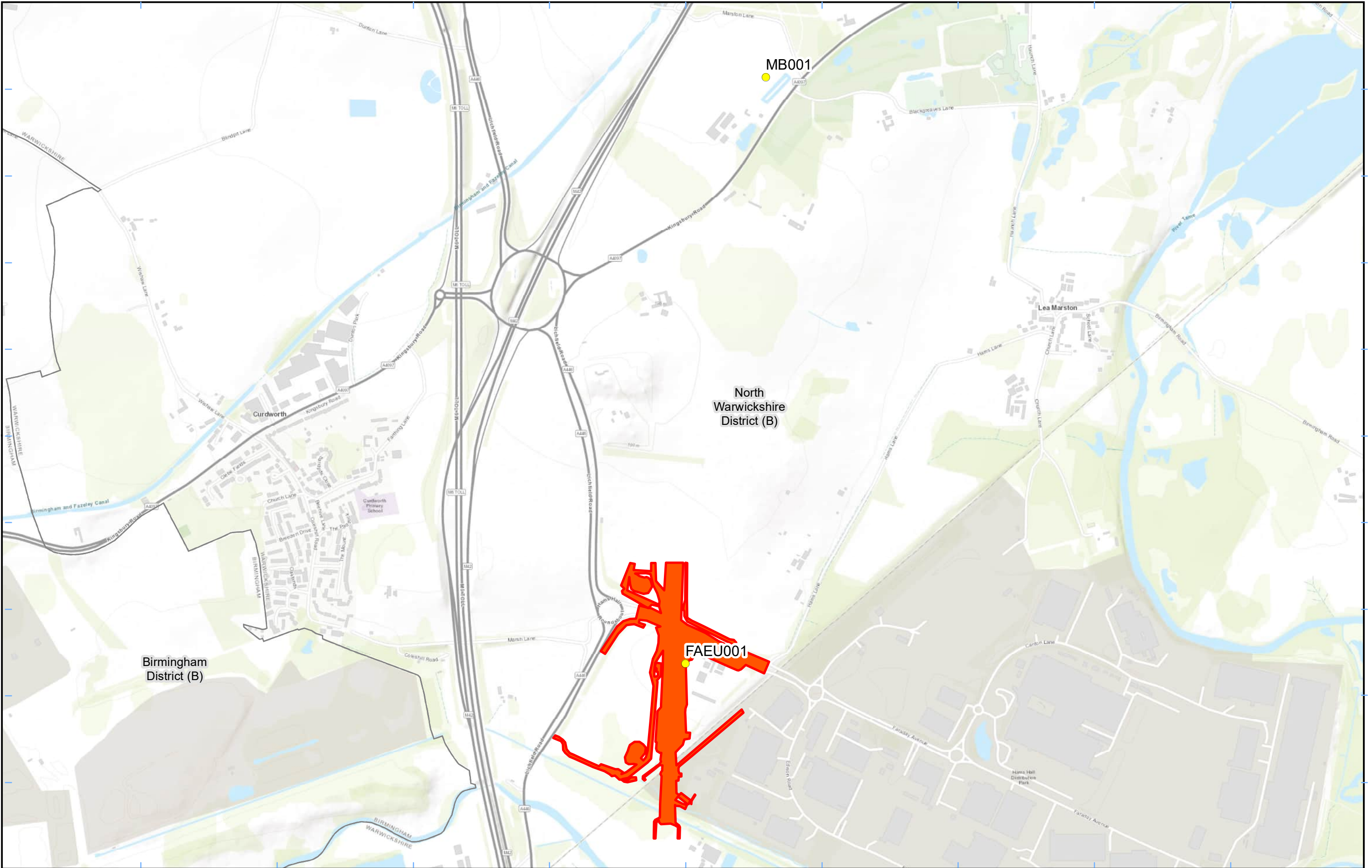
- Earthworks; and
- Lime stabilisation of the Marsh Lane Embankment.

- 1.1.5 Five (5) dust monitors are installed at the worksites, where works are underway. These sites returned a low to medium 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 There were no (0) dust trigger alerts recorded during the monitoring period (May 2023).
- 1.1.9 Data capture was below 90% at BRD001 due to a fault with the monitor.
- 1.1.10 A new monitor was installed at MLE001 on 25th May 2023 following a general complaint in the Vicarage Lane area, Water Orton. Investigations are ongoing to address this complaint, through dust monitoring at the MLE001 site.
- 1.1.11 No (0) complaints were received during the reporting period.

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

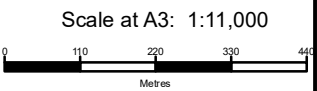


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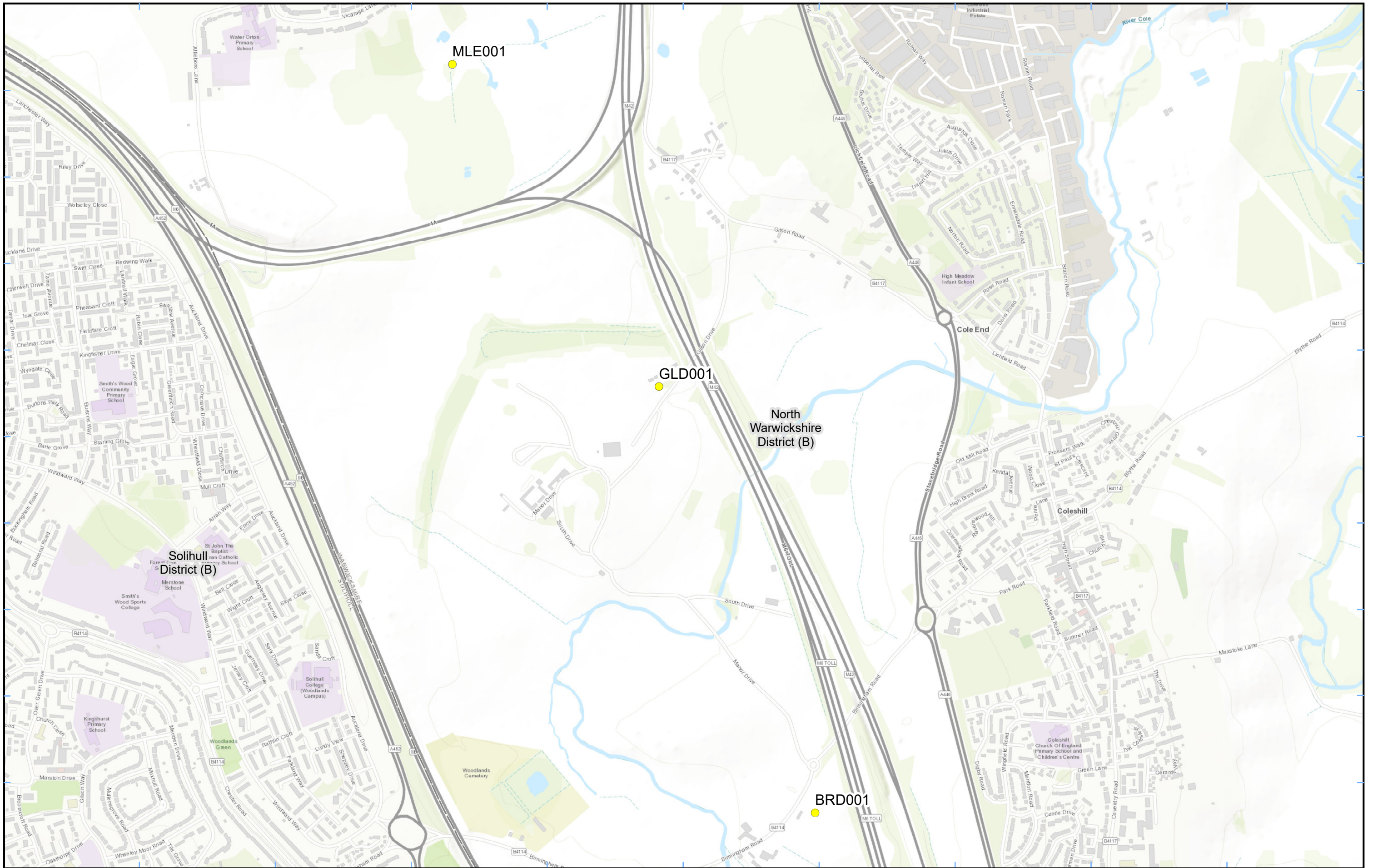
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Legend
 Dust Monitor
 District Borough Unitary Boundaries

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Map Number
 Map Name
**Monitoring Locations
 In NWBC (Sheet 2)**
 North Warwickshire Borough

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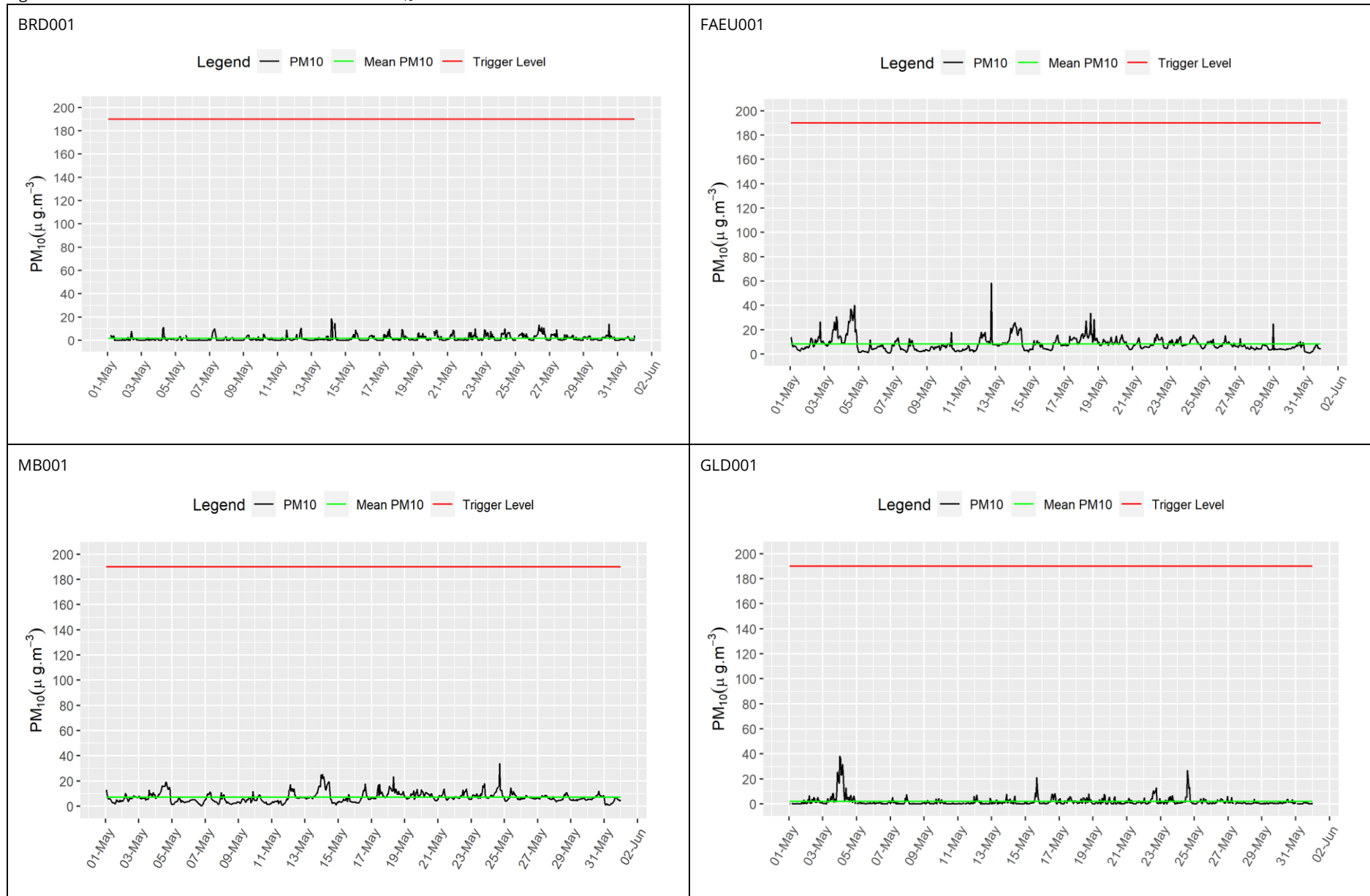
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Appendix B – Dust Monitoring Results

Table 1: Dust Monitoring Locations and May 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	1.9	0.1	18.5	0	82.9
FAEU001	419164, 292273	Faraday Avenue Embankment and Underbridge, at Orchard Cottage	M	Yes	No	8.3	0.8	58.2	0	100.0
MB001	419421, 294150	Elford House, Marston Box	M	Yes	No	7.1	0.4	33.8	0	100.0
GLD001	418807, 289570	Gilson Drive	M	Yes	No	1.9	0.1	38.1	0	92.2
MLE001	418205, 290509	Vicarage Lane	M	Yes	Yes	7.6	1.0	23.5	0	20.8

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



MLE001

