

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

Coleshill Embankment and viaduct works (Sublot 6BS)

Gilson Drive:

- Green Lane Embankment Construction.
- Stockpiling.

Birmingham Road:

- Coleshill North Area (north of B4114) – Construction of temporary road diversion including earthworks and drainage.
- Import of embankment fill material.

Faraday Avenue Embankment and Underbridge site and the Marston Box (Sublot 7)

Marston Box:

- Removal of extended batter to allow for working room and ramp into excavation.
- Breaking out of guide raft/installation of piling platform.
- Removal of dewatering system to and across MLP pipeline east/west side of excavation.

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.

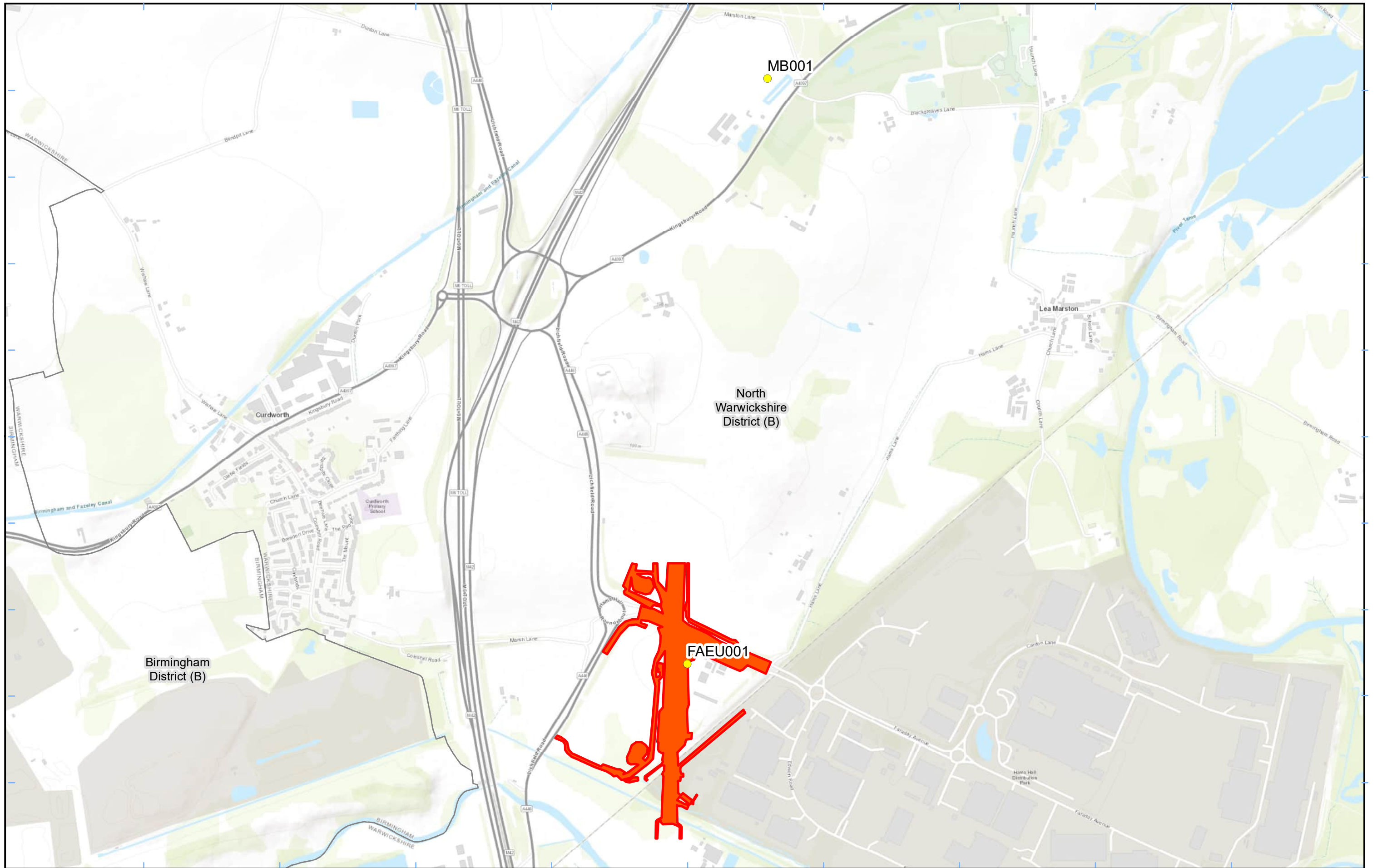
- 1.1.5 Four (4) dust monitors are installed at the worksites, where works are underway. These sites returned a medium dust risk rating.
- 1.1.6 Dust monitoring locations and results are presented in Appendix B, Table 2, together with line charts of monthly data from the dust monitors presented in Figure 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 Data capture was below 90% for monitor BRD001 due to a repair being conducted on the 4th April with the monitor being moved onto solar power from mains power on 18th April.
- 1.1.9 There were no (0) dust trigger alerts recorded during the monitoring period (April 2023).
- 1.1.10 Table 1 provides a summary of the complaint information related 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 April 2023 in NWBC

Complaint Reference No.	Worksite Reference	Description of complaint	Results of investigation
HS2-23-44597-C	-	Resident concerns about a 'white dust' being laid on the earth works along the back of Vicarage Lane.	Material being used is lime and it is used to stabilise construction soils that are normally too wet, cohesive, or weak to build on. HS2 specification for embankments requires the use of class 9, which is a stabilised fill. The standard method of spreading the lime is by way of a spreader truck on the surface, however, BBV can, and do, use the integrated mixers to spread the lime as its mixes, which can reduce the potential for dust. With regards to wind conditions, if strong winds in the direction of residential properties are evident then no works will be undertaken. Monitors are in the area, however additional monitor is to be installed also and water cannons can be brought in to dampen areas if needed. Monitoring will continue.

Appendix A – Worksites and Monitoring Locations


Figures 1 and 2: Worksites and Monitoring Locations within the 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



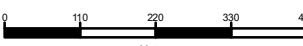
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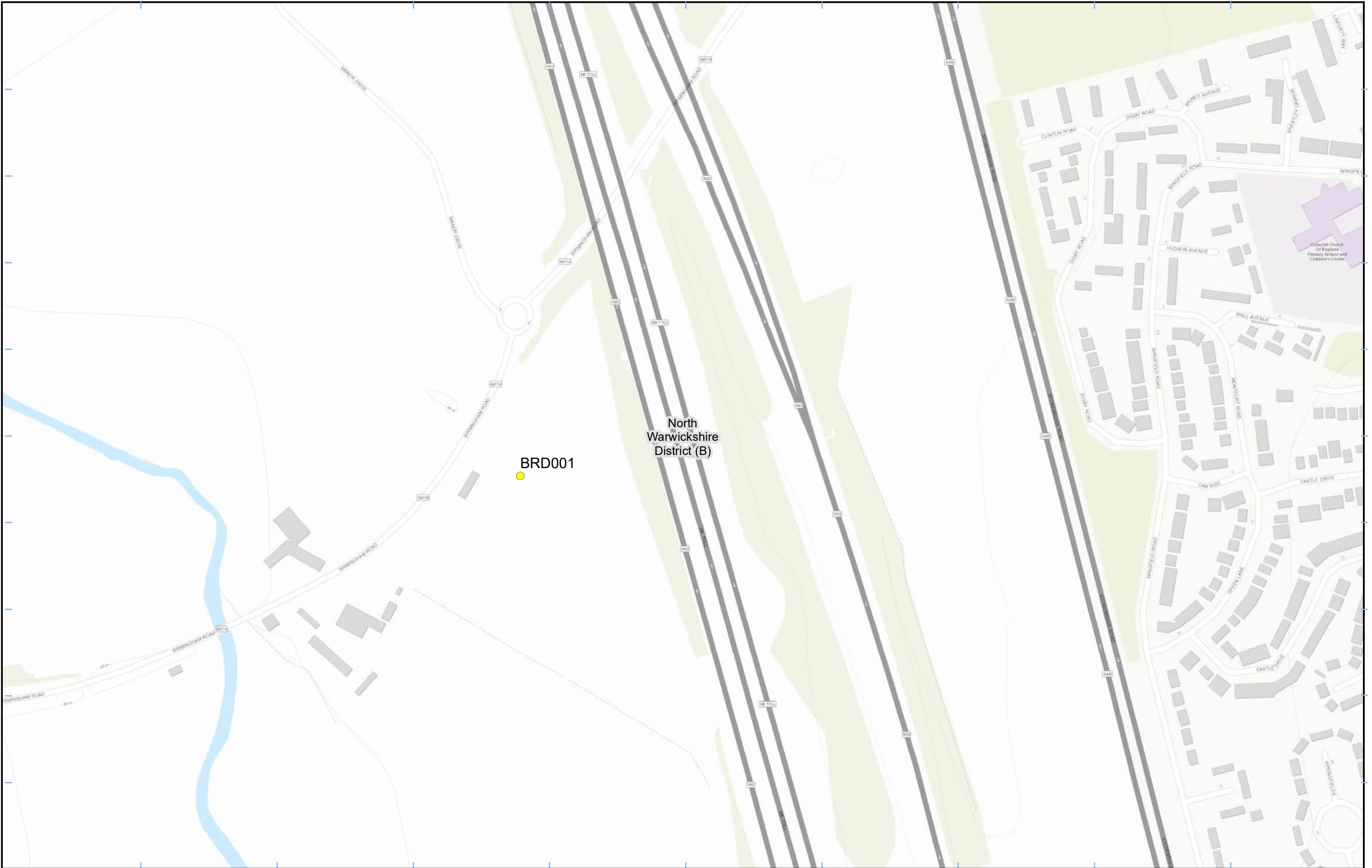


Scale at A3: 1:11,000



Metres

Date: 25/10/22



- 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 April 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	6.3	0.1	52.0	0	55.0
FAEU001	419164, 292273	Faraday Avenue Embankment and Underbridge, at Orchard Cottage	M	Yes	No	11.9	0.6	99.3	0	100.0
MB001	419421, 294150	Elford House, Marston Box	M	Yes	No	9.9	0.3	33.4	0	100.0
GLD001	418807, 289570	Gilson Drive	M	Yes	No	1.6	0.1	22.0	0	92.2

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

