

Air Quality and Dust Monitoring Monthly Report – December 2023

Birmingham City 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 dust monitoring undertaken within Birmingham City Council (BCC) during December 2023.

1.1.2 Figure 1 to Figure 3 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 Appendix A, Figure 1 to Figure 3, include:

Washwood Heath (Sublot 4)

- Traffic on main site haul road, including haul road maintenance with excavator, Articulated Dump Trucks (ADTs), dozer and roller to compact.
- Stockpile management area including tipping and loading of ADTs and wagons, excavators and dozers.
- Tarmac batching plant operations, including delivery of aggregates, operating plant and concrete wagons.

Bromford East Tunnel Portal (Sublot 1B)

- Installing Temporary Vertical Concrete Barriers (TVCB) barriers / Legato blocks sitewide.
- Strike shutters to grout plant and backfill.
- Install signage along haul road.
- Backfill to grout plant and segment yard.
- Slurry Treatment Plant 1 (STP1) Filter press works.
- Installing legato and angle irons.
- Installing drains to Cooling tower slab by ACO Water Management.
- Setting out for south access road.

Curzon Street Station – Pre-main works

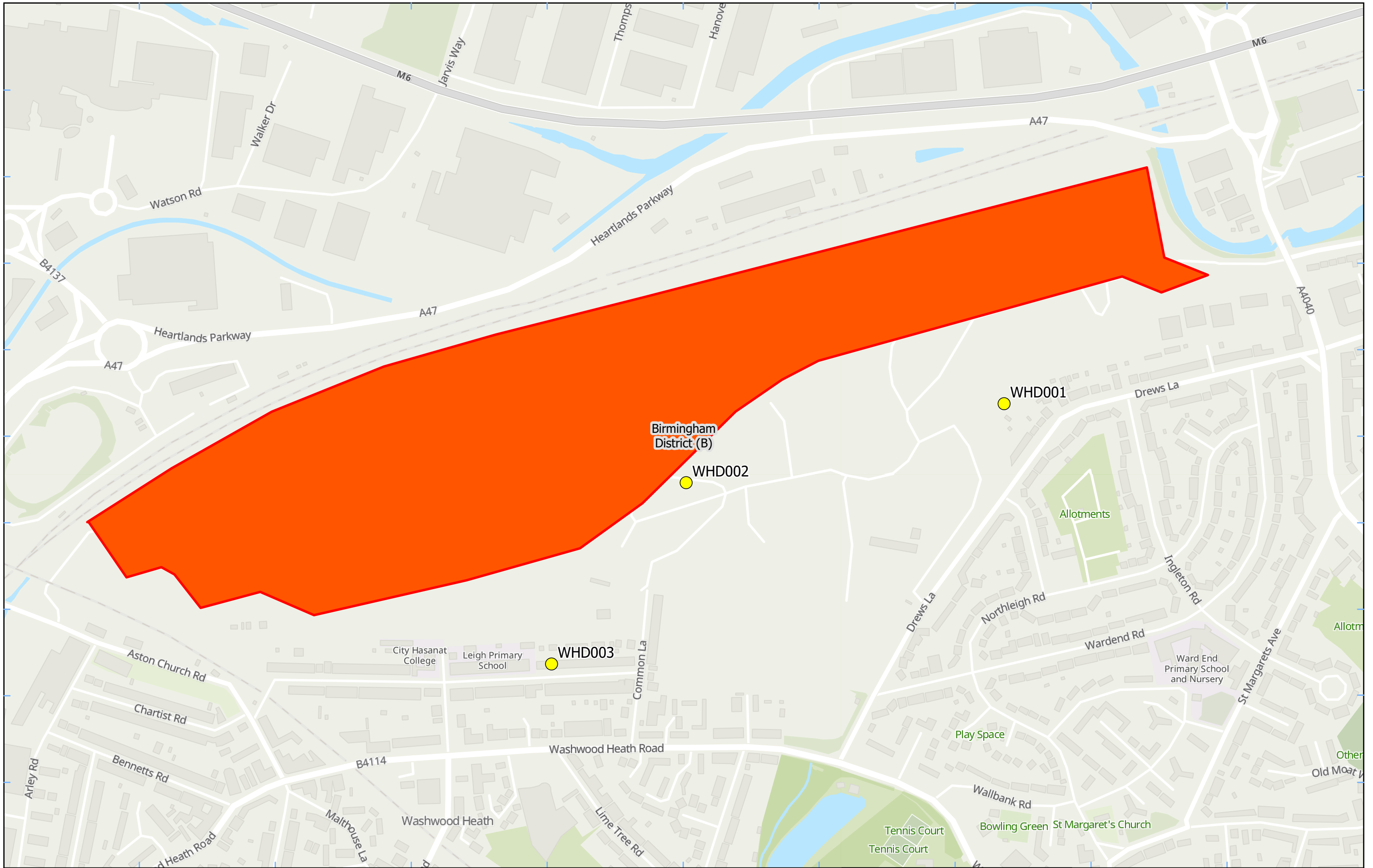
- Stripping of weathering layer
- Pile matt construction
- Installation of temporary haul road.

1.1.5 Seven (7) dust monitors are installed around these 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 each dust monitor, presented in Figure 4. 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 Two (2) new monitors were installed around Curzon Street.
- 1.1.10 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.
- 1.1.11 There were no (0) complaints received during the reporting period (December 2023).

Appendix A – Worksites and Monitoring Locations

Figures 1 - 3: Worksites and Monitoring Locations within BCC



Legend
 [Red outline] District Borough Unitary Boundaries [Red fill] Worksite
 [Yellow dot] Dust Monitor

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Map Number
 Map Name
**Worksite and Monitoring Locations
 In BCC (Sheet 1)**
 Birmingham City Council

hs2
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 Birmingham B4 6GA.

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Date: 22/01/24



Legend
 [---] District Borough Unitary Boundaries [Red Box] Worksite
 [Yellow Dot] Dust Monitor

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Map Number
 Map Name
**Worksite and Monitoring Locations
 In BCC (Sheet 2)**
 Birmingham City Council

hs2
 Registered in England. Registration number 06791686.
 Registered office: 2 Snowhill, Queensway,
 Birmingham B4 6GA.

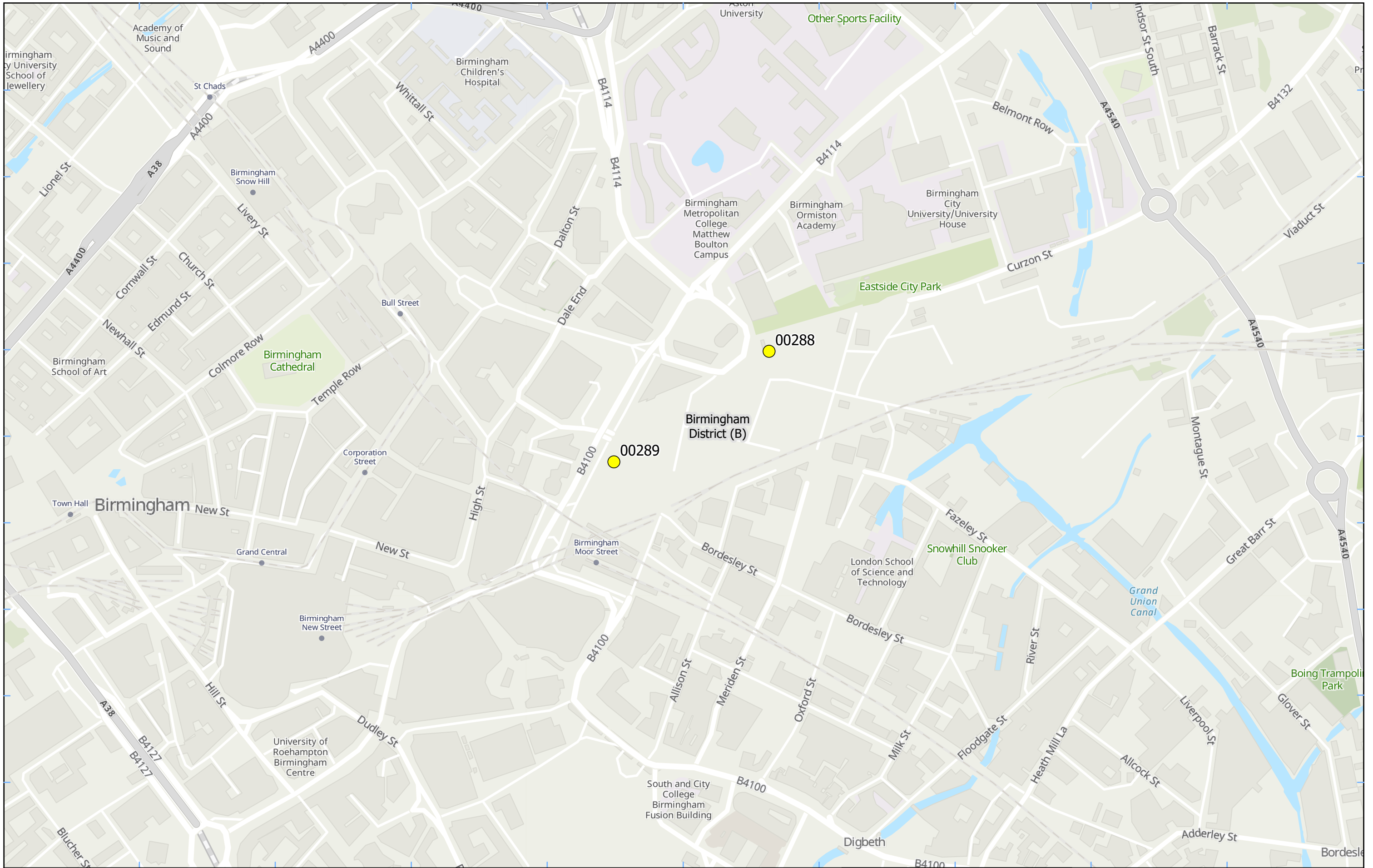
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Doc Number: _____

Scale at A3: 1:4,000

Metres


Date: 22/01/24



- Legend**
- District Borough Unitary Boundaries
 - Dust Monitor

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 Contains data from OS Zoomstack


Map Number	
Map Name	Monitoring Locations In BCC (Sheet 3)
Birmingham City Council	




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Doc Number:



Scale at A3: 1:5,000



Metres

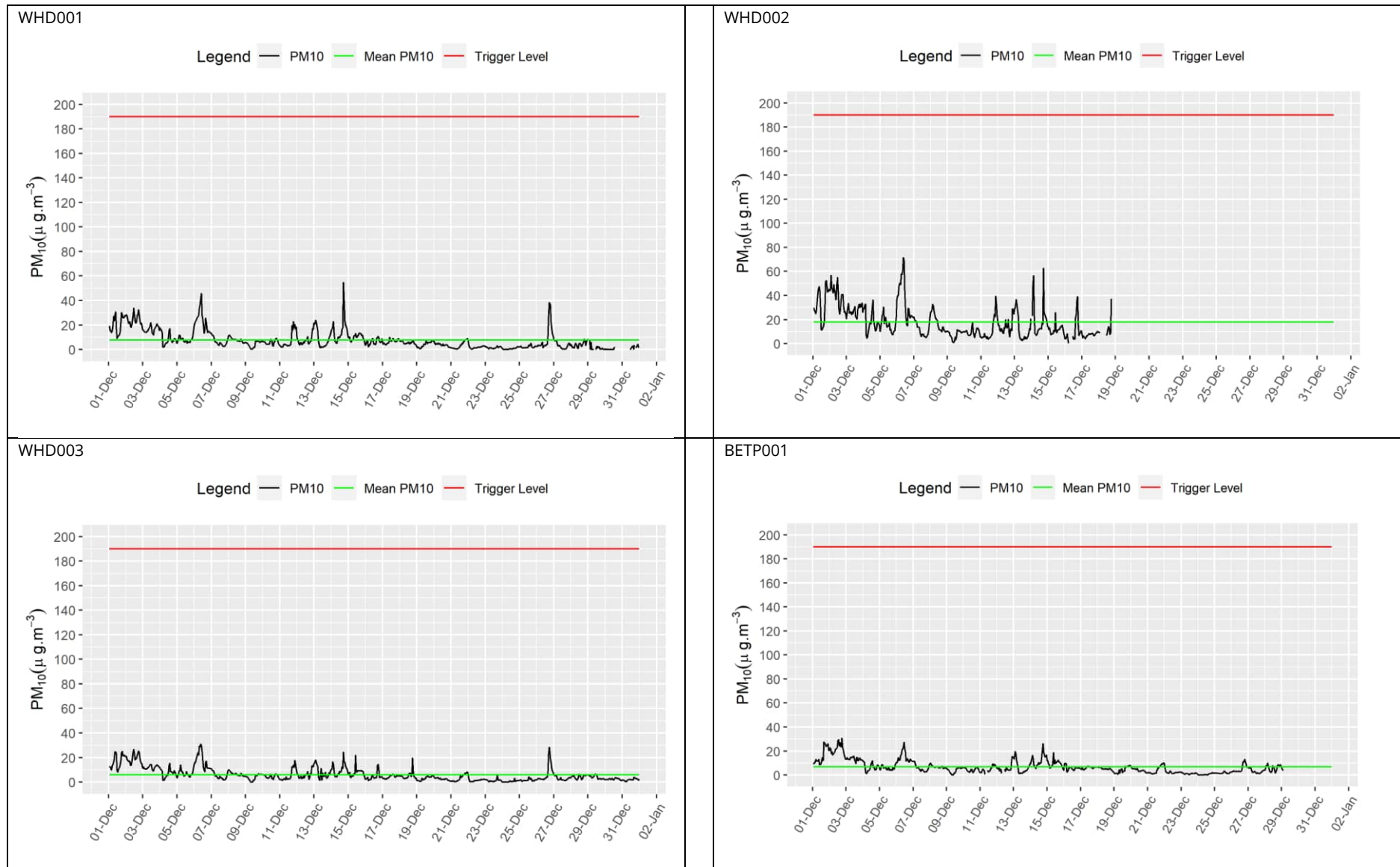
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Appendix B – Dust Monitoring Results

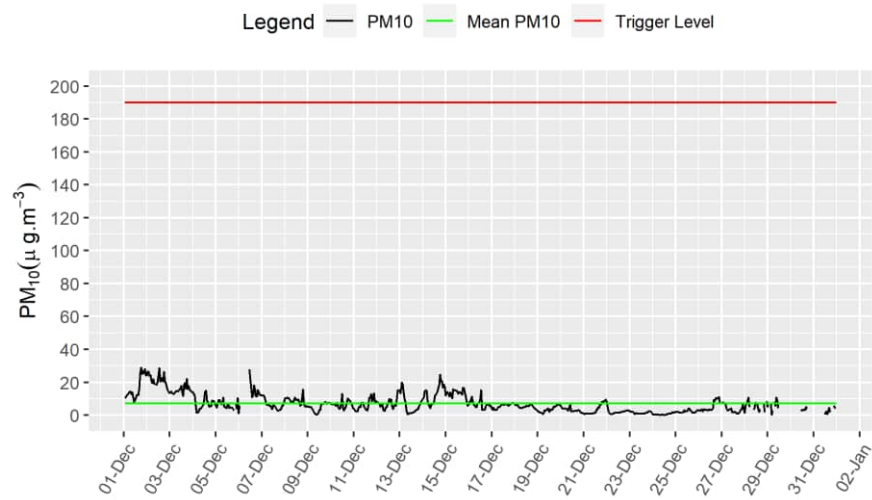
Table 1: Dust Monitoring Locations and Results

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 PM10 concentration (µg/m3)	Minimum 1-hour PM10 concentration (µg/m3)	Maximum 1-hour PM10 concentration (µg/m3)	Number of 1-hour periods exceeding trigger level of 190 µg/m3	Data capture (%)
WHD001	411221, 289245	Washwood Heath Depot, near receptors on Drews Lane	M	Yes	No	7.7	0.1	54.8	0	95.4
WHD002	410758, 289130	Washwood Heath Depot, near receptors on Common Lane	M	Yes	No	18.0	0.3	71.5	0	55.4
WHD003	410562, 288866	Washwood Heath Depot, near receptors on Warren Road	M	Yes	No	6.1	0.1	30.9	0	99.5
BETP001	416719, 290767	Bromford East Tunnel Portal, Twisted Oak Stables	M	Yes	No	6.7	0.1	30.6	0	89.2
BETP002	417406, 290605	Bromford East Tunnel Portal, Attleboro Lane	M	Yes	No	7.0	0.1	28.8	0	92.5
00288	407676, 287057	Curzon St – East Side City Park	M	Yes	N/A	6.5	0.4	55.9	0	95.2
00289	407450, 286896	Curzon St – Moor St Queensway	M	Yes	N/A	6.6	0.5	54.0	0	99.2

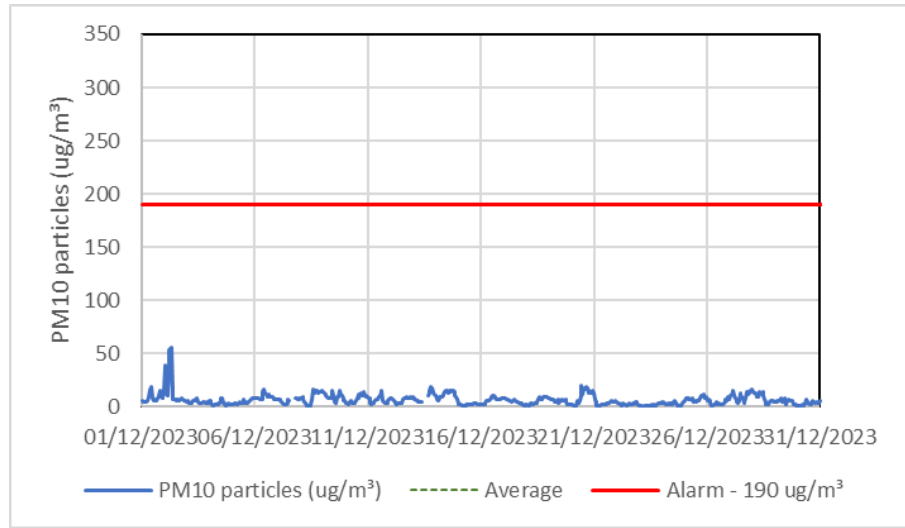
Figure 4: Construction dust 1-hour mean indicative PM₁₀ concentration for all dust monitors



BETP002



00288



00289

