

Air Quality and Dust Monitoring Monthly Report – November 2024

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 November 2024.
- 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:

Sublot 4

Washwood Heath

- Traffic on main site haul road, including haul road maintenance with excavator, Articulated Dump Trucks (ADTs), dozer and roller to compact.
- Vehicle delivery check area, including reversing vehicles and loading/unloading plant/material deliveries.
- Excavators, cranes and concrete pumps working in permanent brook conducting Fibre-Reinforced Concrete (FRC) works.
- 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.

Curzon Street

- Deck and Deck Finishing Construction – Reinforced Concrete (RC) works for Robust Kerbing, Parapet Stitch and Overhead Catenary Systems (OCS) Foundations.
- Drainage – excavation, manhole and pipe installation.
- RC works using Concrete Pump.
- Tower Crane working.
- Plant used: Manitou + rubber duck + dumper.
- GL 8 Sheet pile and platform build up works – rubber duck and roller – for sheet piles – excavator plus movax attachment.

Curzon Street Station – Main works piling

- Installation of bearing and secant piles

- Import of materials required for piling activities
- Export of excavated materials
- Earthworks required for installation of site compound.

1.1.5 Eight (8) dust monitors are installed around these worksites, where works are underway. These sites returned a low to high 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 Details of the trigger alert investigations and remediations are presented in Appendix B, Table 2.

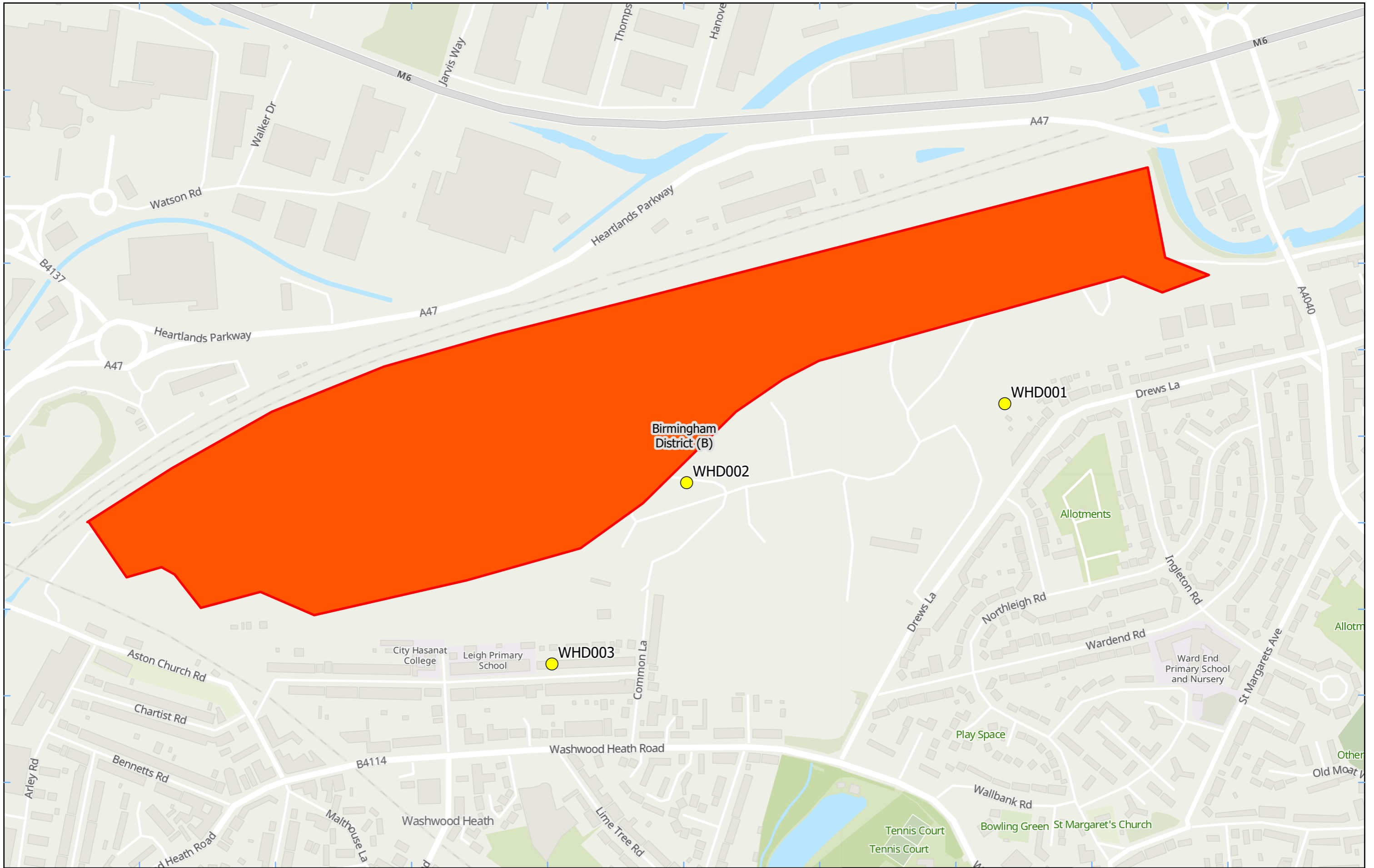
1.1.9 Data capture was below 90% for multiple monitors due to:

- Monitor BETP001 - A field calibration is scheduled for 11th December 2024 and a battery refresh is scheduled for 17th December 2024.
- Monitor WHD002 - A battery refresh was done on 27th November 2024. After the battery refresh, the power supply issues were resolved.
- Monitor BETP002 - monitor issues due to the area around the monitor being flooded. Battery refreshes are scheduled for 5th December 2024 and 17th December 2024.
- Monitor 00289 - Monitor removed for calibration and replaced. Replacement monitor is providing unusually high readings, so data has been removed as anomalous and the problem is currently being investigated.

1.1.10 There were no (0) complaints received during the reporting period (November 2024).

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


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Legend

- District Borough Unitary Boundaries
- Worksite
- Dust Monitor

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Map Number

Map Name
**Worksite and Monitoring Locations
In BCC (Sheet 2)**

Birmingham City Council

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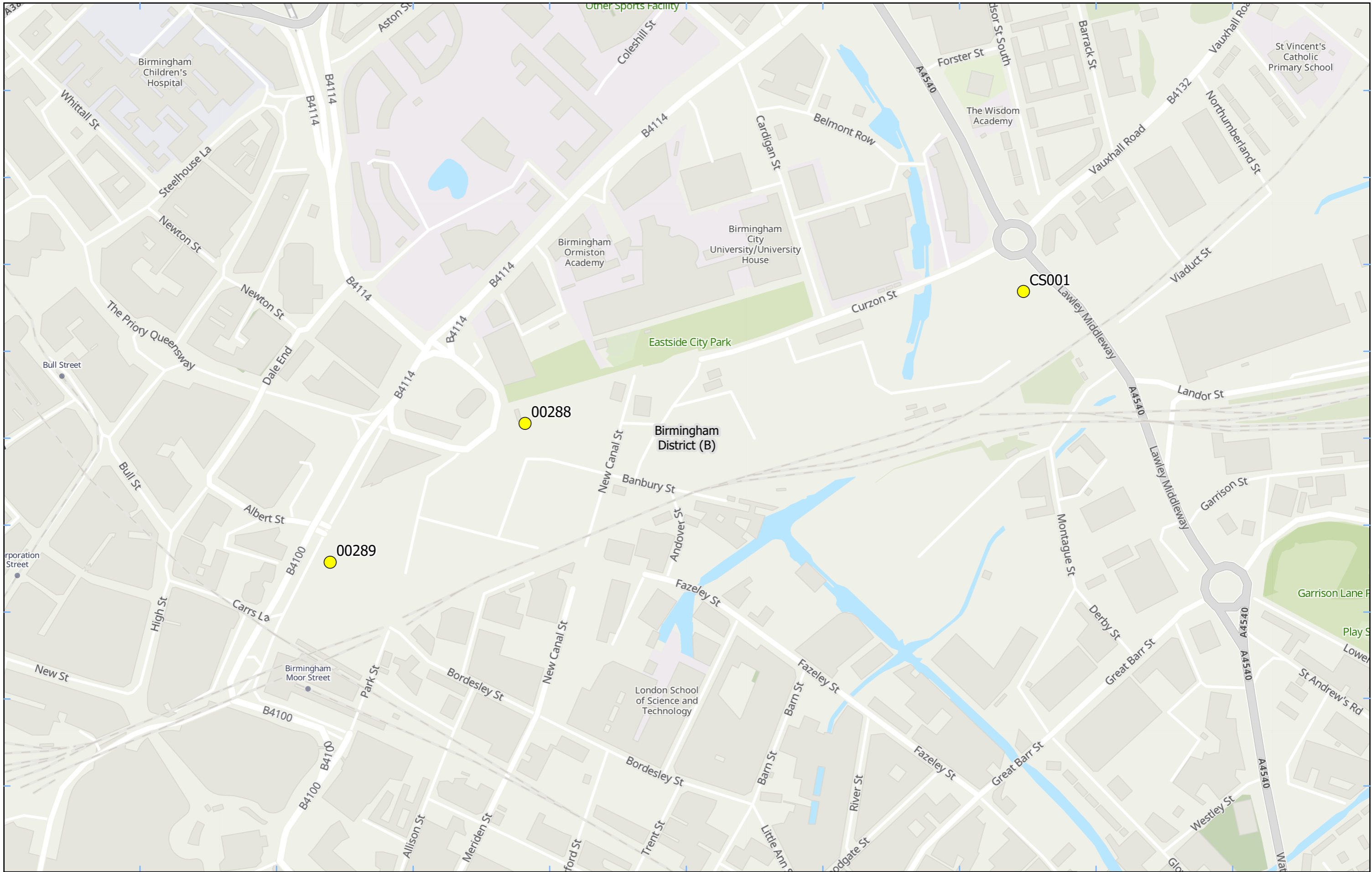
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Legend
 Dust Monitor
 District Borough Unitary Boundaries

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

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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	15.3	0.5	230.6	1	100.0
WHD002	410758, 289130	Washwood Heath Depot, near receptors on Common Lane	M	Yes	No	11.7	0.1	75.1	0	74.4
WHD003	410562, 288866	Washwood Heath Depot, near receptors on Warren Road	M	Yes	No	12.8	0.2	57.1	0	100.0
BETP001	416719, 290767	Bromford East Tunnel Portal, Twisted Oak Stables	L	Yes	No	10.7	0.1	53.2	0	56.5
BETP002	417406, 290605	Bromford East Tunnel Portal, Attleboro Lane	M	Yes	No	8.0	0.1	36.5	0	79.0
CS001	408254, 287210	University Locks, Curzon Street	M	Yes	No	15.9	0.1	57.7	0	100.0
00288	407676, 287057	Curzon St – East Side City Park	H	Yes	No	12.7	0.6	184.3	0	98.3
00289	407450, 286896	Curzon St – Moor St Queensway	H	Yes	No	10.2	0.3	64.1	0	80.8

Table 2: Summary of exceedances during period (November 2024)

Monitoring Site ID	Period of trigger alert & Concentration recorded	Investigation	Outcomes / Resolution / Remedial measures implemented
WHD001	02/11/2024 16:01 – 17:00; 230.6 µg/m ³	Exceedance is not thought to be associated with current HS2 construction works.	N/A

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



