

Air Quality and Dust Monitoring Monthly Report – July 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 July 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, rollers and ADTs excavating and backfilling in the permanent brook area to provide a working platform for sheet piling rig.
- Stockpile management area including tipping and loading of ADTs, wagons, excavators and dozers.
- Tarmac batching plant operations, including delivery of aggregates, operating plant and concrete wagons.

Curzon Street

- Reinforced concrete piers.
- Fibre Reinforced Concrete deck.
- Fabrication of steel deck.
- Concrete pours.
- Tarmac batching plant operations, including delivery of aggregates, operating plant and concrete wagons.
- Site welding tripods, formwork, falsework erection, deck finishing works, drainage works, hydro dam of pier.

Bromford East Tunnel Portal (Sublot 1B)

- Use of a haul road for transporting muck away via ADT to subplot Delta via Attleboro Lane. Additional use is for deliveries usually via HDVs.
- The operation and maintenance of two STPs (Sewage Treatment Plants), filter presses and conveyor.
- The maintenance and operation of two TBMs (Tunnel Boring Machine).
- Piling being done by subcontractor SB3 for the foundations of the MEB (Maintenance Electrical Building).
- Snagging traveller formwork.
- Steel fixing at pit top area.
- Erecting the staircase for additional access to pit bottom.

Curzon Street Station – Pre-main works

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

1.1.5 Eight (8) 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 2, 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 3.

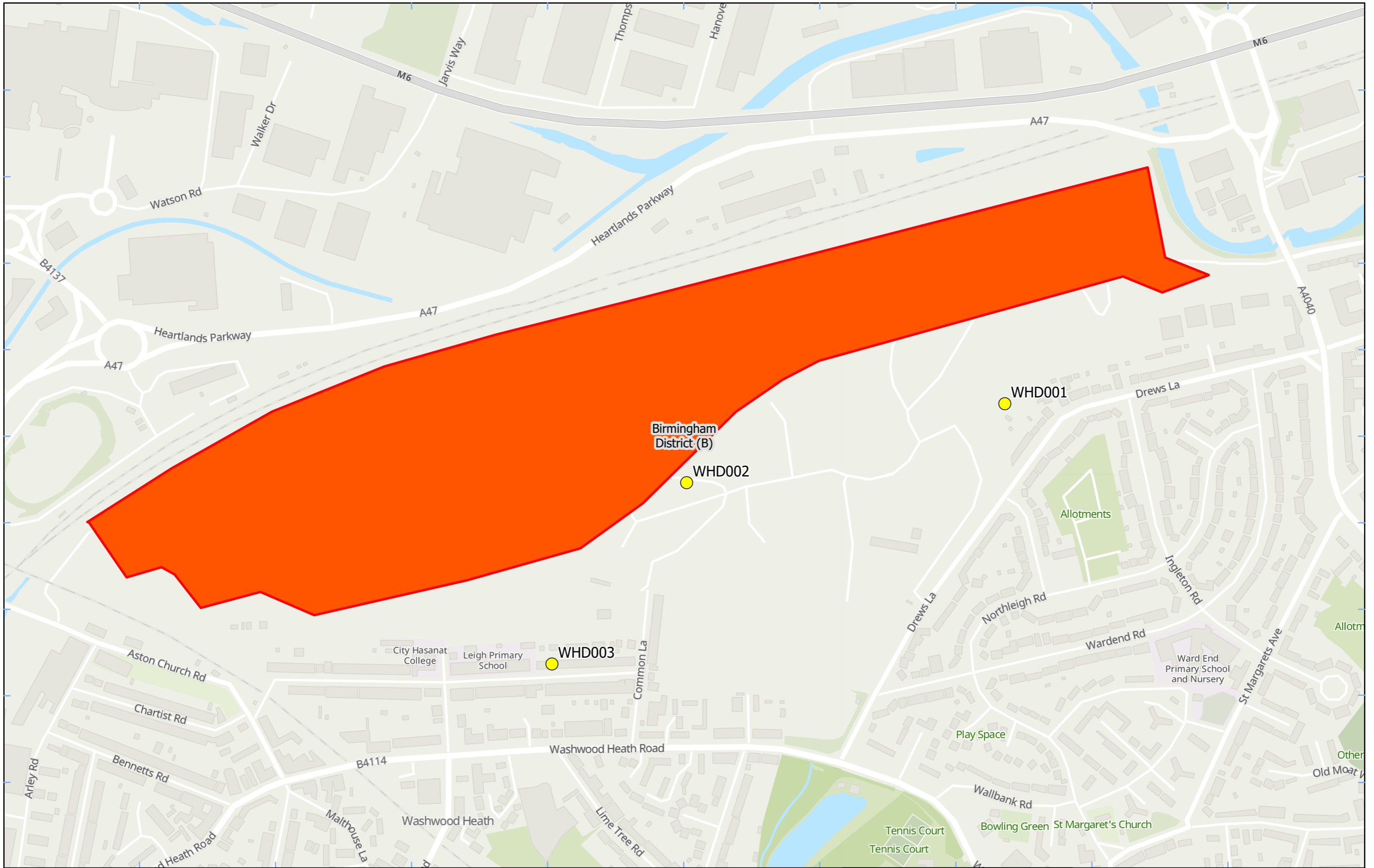
1.1.9 Table 1 provides a summary of the complaint information relating to dust or air quality received during the reporting period, together with the findings of any related investigations.

Table 1: Summary of complaints received during July 2024

Complaint Reference No.	Worksite Reference	Description of complaint	Results of investigation
HS2-24-45533-C	N/A	Dust from nearby site.	Dust monitors have been checked no exceedances were found, Resident has been updated and offered car cleaning vouchers.

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 [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

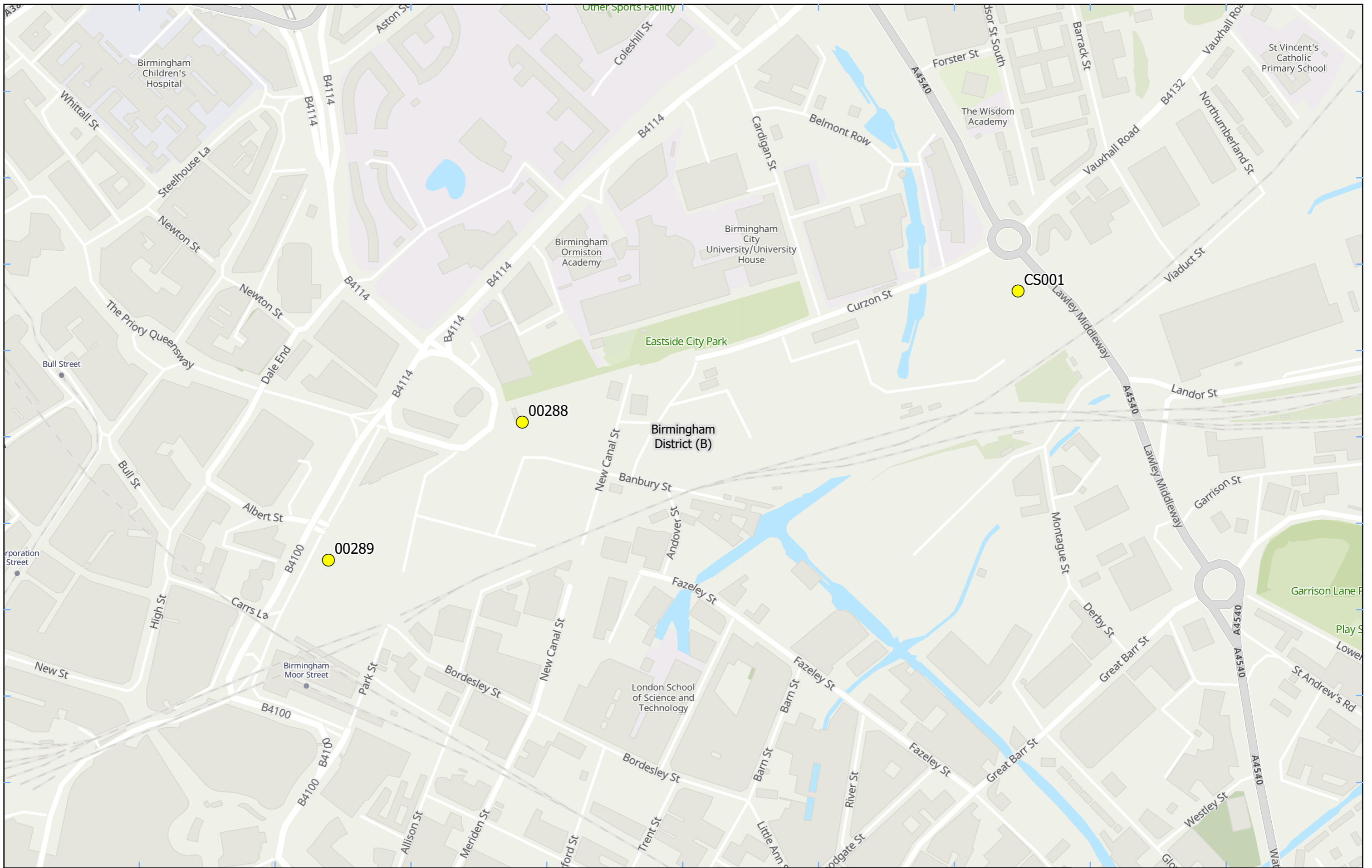
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Legend
 Dust Monitor
 District Borough Unitary Boundaries

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Map Number
 Map Name
**Monitoring Locations
 In BCC (Sheet 3)**
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Appendix B – Dust Monitoring Results

Table 2: 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	9.0	1.2	54.4	0	100.0
WHD002	410758, 289130	Washwood Heath Depot, near receptors on Common Lane	M	Yes	No	7.9	0.7	55.3	0	100.0
WHD003	410562, 288866	Washwood Heath Depot, near receptors on Warren Road	M	Yes	No	6.9	0.4	60.3	0	100.0
BETP001	416719, 290767	Bromford East Tunnel Portal, Twisted Oak Stables	L	Yes	No	16.7	0.8	160.6	0	100.0
BETP002	417406, 290605	Bromford East Tunnel Portal, Attleboro Lane	M	Yes	No	7.1	1.0	42.7	0	100.0
CS001	408254, 287210	University Locks, Curzon Street	M	Yes	No	2.2	0.1	67.2	0	99.5
00288	407676, 287057	Curzon St – East Side City Park	M	Yes	No	9.1	1.7	62.1	0	91.0
00289	407450, 286896	Curzon St – Moor St Queensway	M	Yes	No	13.3	1.5	209.6	2	99.7

Table 3: Summary of exceedances during period (July 2024)

Monitoring Site ID	Period of trigger alert & Concentration recorded	Investigation	Outcomes / Resolution / Remedial measures implemented
00289	04/07/2024: 16:01 - 17:00; 207.9 µg/m ³ 29/07/2024: 16:01 - 17:00; 209.6 µg/m ³	At the time of the trigger no significant dust visible on site, and dust management controls were in operations (Dust cannons and bowsers on haul roads).	Controls already in place to manage dust on site during warm / dry weather.

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



