

Air Quality and Dust Monitoring Monthly Report – September 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 September 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

GL4 to 6:

- Curzon 3 deck works – reinforcement and formwork installation.
- Falsework dismantling.
- Concrete activities involving pumps on specific days.
- Breaking ground, trench boxes installation and backfilling for underground drainage installation.

GL7-8 and GL11:

- SEVERFIELD works: welding and non-destructive testing (NDT).
- Scaffolding installation.

GL9:

- V shape formwork installation and concrete pour.

Bromford East Tunnel Portal (Sublot 1B)

- Operation and maintenance of two Tunnel Boring Machines (TBMs).
- Operation and maintenance of two Sewage Treatment Plants (STPs).
- Deliveries of equipment and segments for tunnel construction.
- Operation of a sub-station which is owned by different company.
- Construction of a MEP building for Bromford Tunnel Intermediate Shaft (BTIS) and Bromford Tunnel East Portal (BTEP).
- Installation of piling works.
- Operation and maintenance of two grout batching plants.
- Use of gantry crane, tower crane and several crawler crane.
- The transport of muck from muck bin 1 /2 to Sublot Delta via Articulated Dump Truck (ADT).
- Construction of acoustic platform.

Curzon Street Station – Pre-main works

- Installation of bearing and secant piles
- Import of materials required for piling activities
- Export of excavated materials
- Earthworks required for installation of site compound.

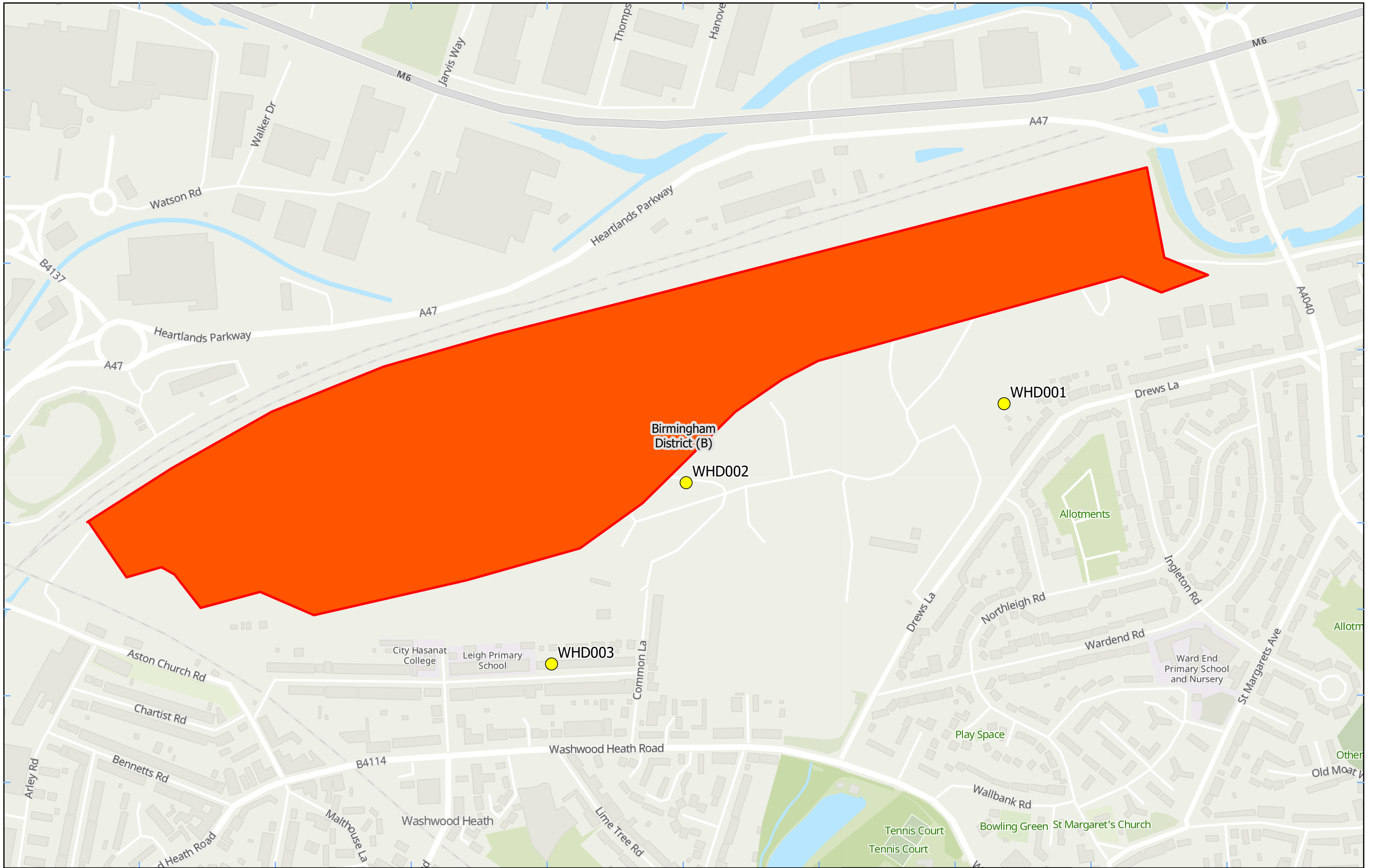
- 1.1.5 Eight (8) dust monitors are installed around these worksites, where works are underway. These sites returned a low to high dust risk rating.
- 1.1.6 Dust monitoring locations and results are presented in Appendix B, Table 1, together with line charts of monthly data from each dust monitor, presented 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 No (0) dust trigger alerts were recorded during the monitoring period (September 2024).
- 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 September 2024

Complaint Reference No.	Worksite Reference	Description of complaint	Results of investigation
HS2-24-45696-C	N/A	Dust on roads and cars.	Air quality monitoring data checked no exceedances were breached. Dust remains at safe level.

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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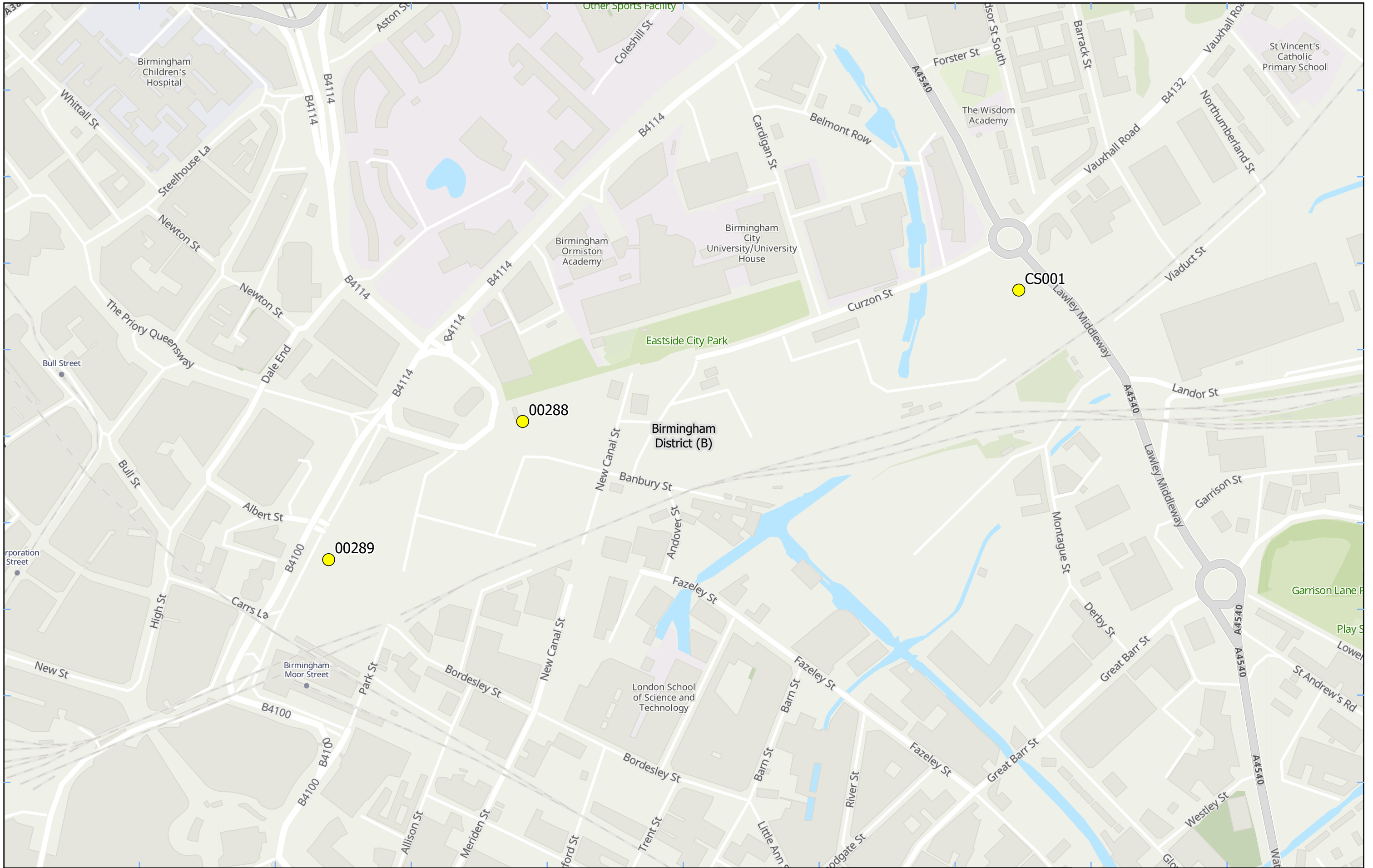
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Legend
 Dust Monitor
 District Borough Unitary Boundaries

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Map Number
 Map Name
**Monitoring Locations
 In BCC (Sheet 3)**
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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	18.8	1.2	79.1	0	100.0
WHD002	410758, 289130	Washwood Heath Depot, near receptors on Common Lane	M	Yes	No	14.0	0.1	82.4	0	100.0
WHD003	410562, 288866	Washwood Heath Depot, near receptors on Warren Road	M	Yes	No	11.3	0.0	48.2	0	99.9
BETP001	416719, 290767	Bromford East Tunnel Portal, Twisted Oak Stables	L	Yes	No	14.9	0.0	84.6	0	99.7
BETP002	417406, 290605	Bromford East Tunnel Portal, Attleboro Lane	M	Yes	No	10.3	0.0	45.9	0	99.7
CS001	408254, 287210	University Locks, Curzon Street	M	Yes	No	1.6	0.0	12.3	0	96.3
00288	407676, 287057	Curzon St – East Side City Park	H	Yes	No	13.8	0.9	133.79	0	99.7
00289	407450, 286896	Curzon St – Moor St Queensway	H	Yes	No	12.93	0.85	149.09	0	99.7

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

