

Air Quality and Dust Monitoring Monthly Report – May 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.

High Speed Two (HS2) Limited,
Two Snowhill
Snow Hill Queensway
Birmingham B4 6GA

Telephone: 08081 434 434

General email enquiries: HS2enquiries@hs2.org.uk

Website: www.gov.uk/hs2

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 within Birmingham City (BCC) during May 2023.

1.1.2 Figures 1 and Figure 2 in Appendix A indicates the current worksites together with the dust monitoring locations for May 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:

Washwood Heath (Sublot 4)

- Traffic on main site haul road, including haul road maintenance with excavator, ADTs, dozer and roller to compact.
- Site delivery area, including loading and unloading deliveries of plant and materials.
- Stockpile management area including tipping and loading of ADTs and wagons, excavators and dozers.
- Crushing concrete to 6F5.
- Tarmac batching plant operations, including delivery of aggregates, operating plant and concrete wagons.

Bromford East Tunnel Portal (BETP) (Sublot 1B)

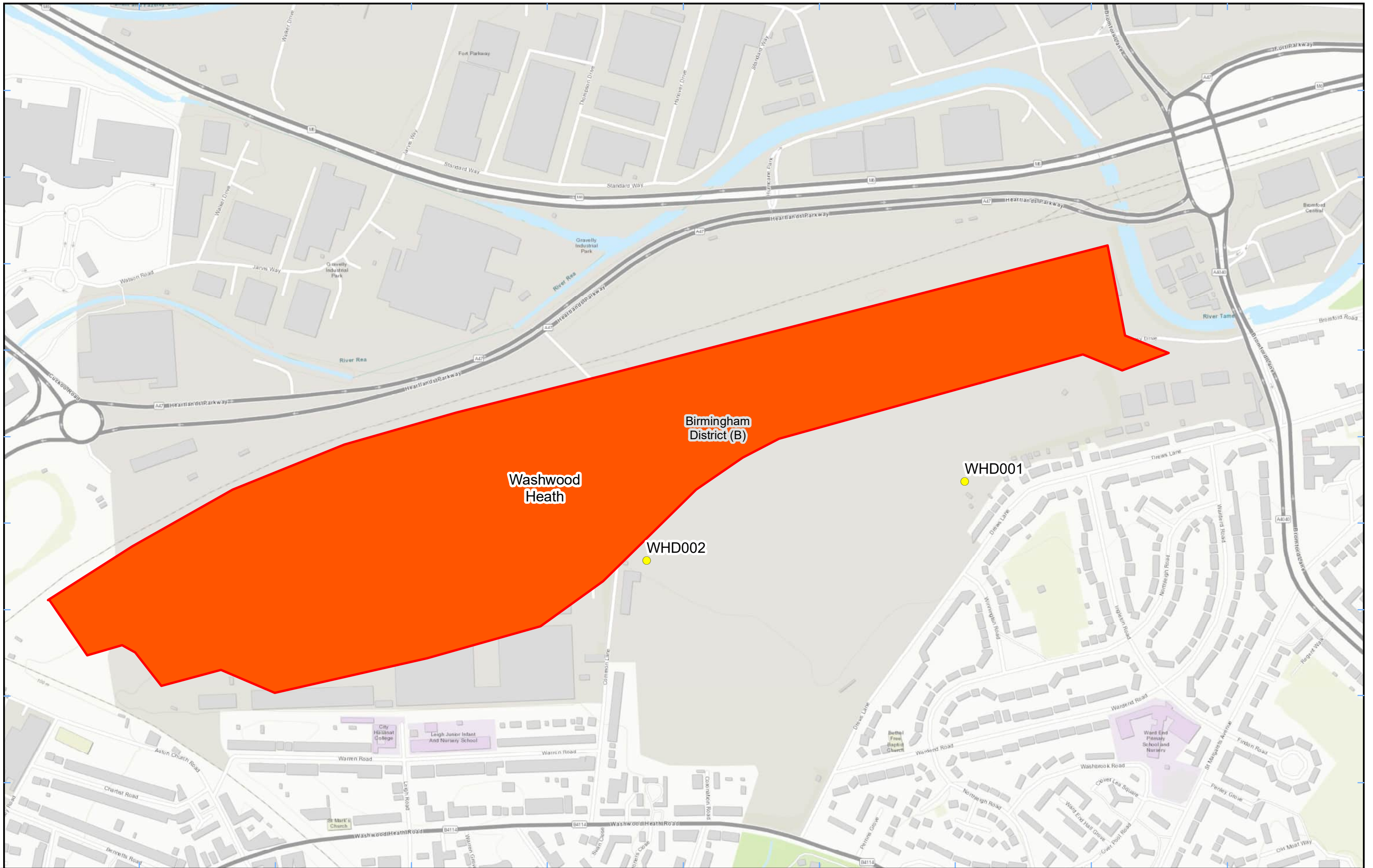
- Stoning up for STP Access Road
- Striking shuttering for electrical workshop slab and levelling ground and making for electrical workshop platform
- Rebar for survey pillar 1
- New access to muck bin cleared of all rubbish and water main buried.
- Cooling tower slab extension stoning up.

1.1.5 Four (4) dust monitors were installed at worksites, where works are underway. These sites returned a medium-risk rating.

- 1.1.6 The dust monitoring locations and results are presented in Appendix B, Table 1, 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 Details of the trigger alert investigations and remediations are presented in Appendix B, Table 2.
- 1.1.9 Data capture was below 90% for WHD002 due to a fault with the monitor.
- 1.1.10 There were no (0) complaints received during this reporting period (May 2023).

Appendix A – Worksites and Monitoring Locations

Figures 1 and 2: Worksites and Monitoring Locations within BCC



Legend

- Dust Monitor
- District Borough Unitary Boundaries
- Worksite

Service Layer Credits: Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community

Map Number

Map Name
**Worksite and Monitoring Locations
 In BCC (Sheet 1)**

Birmingham City Council

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Legend

- Dust Monitor
- Worksite
- District Borough Unitary Boundaries

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Map Number

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

Birmingham City Council

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Appendix B – Dust Monitoring Results

Table 1: Dust monitoring locations and May 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 (%)
WHD001	411221, 289245	Washwood Heath Depot, near receptors on Drews Lane	M	Yes	No	14.7	1.5	285.7	1	98.4
WHD002	410758, 289130	Washwood Heath Depot, near receptors on Common Lane	M	Yes	No	2.1	0.1	25.8	0	84.3
BETP001	416719, 290767	Bromford East Tunnel Portal, Twisted Oak Stables	M	Yes	No	2.9	0.1	28.8	0	99.3
BETP002	417406, 290605	Bromford East Tunnel Portal, Attleboro Lane	M	Yes	No	8.2	0.3	27.1	0	100.0

Table 2: Summary of exceedances during period (May 2023)

Monitoring Site ID	Period of trigger alert & Concentration recorded (µg m ⁻³)	Investigation	Outcomes / Resolution / Remedial measures implemented
WHD001	13/05/23 21:00–21:59; 285.7 µg/m ³	This trigger alert was not attributable to BBV activity. D-Wall works being completed along site boundary (some distance away from Drews Lane). Works on site had stopped before this exceedance. This was the easter weekend and no works were undertaken during the period.	N/A

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

