

Air Quality and Dust Monitoring Monthly Report – April 2022 Birmingham City Council



Department for Transport

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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 dust monitoring undertaken within Birmingham City Council (BCC) during April 2022.
- 1.1.2 Figure 1 to 3 in Appendix A indicates the current worksites together with dust monitoring locations for April 2022.
- 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 first phase of works commenced during November 2018 and are due to be completed in 2022. The current worksites, as presented in Appendix A, Figure 1 to 3, include:

Curzon Street Station

- Ground remediation; and
- Utility diversion works.

Washwood Heath

- Setup of the compound area and haulage routes; and
- Demolition and crushing of existing concrete foundations.

Bromford East Tunnel Portal (BETP)

- On site slurry treatment.

- 1.1.5 Six (6) dust monitors are installed around the worksites, where works are underway. These sites returned a medium to high dust risk rating.
- 1.1.6 Dust monitoring locations and results for April 2022 are presented in Appendix B, Table 2 together with line charts for 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.

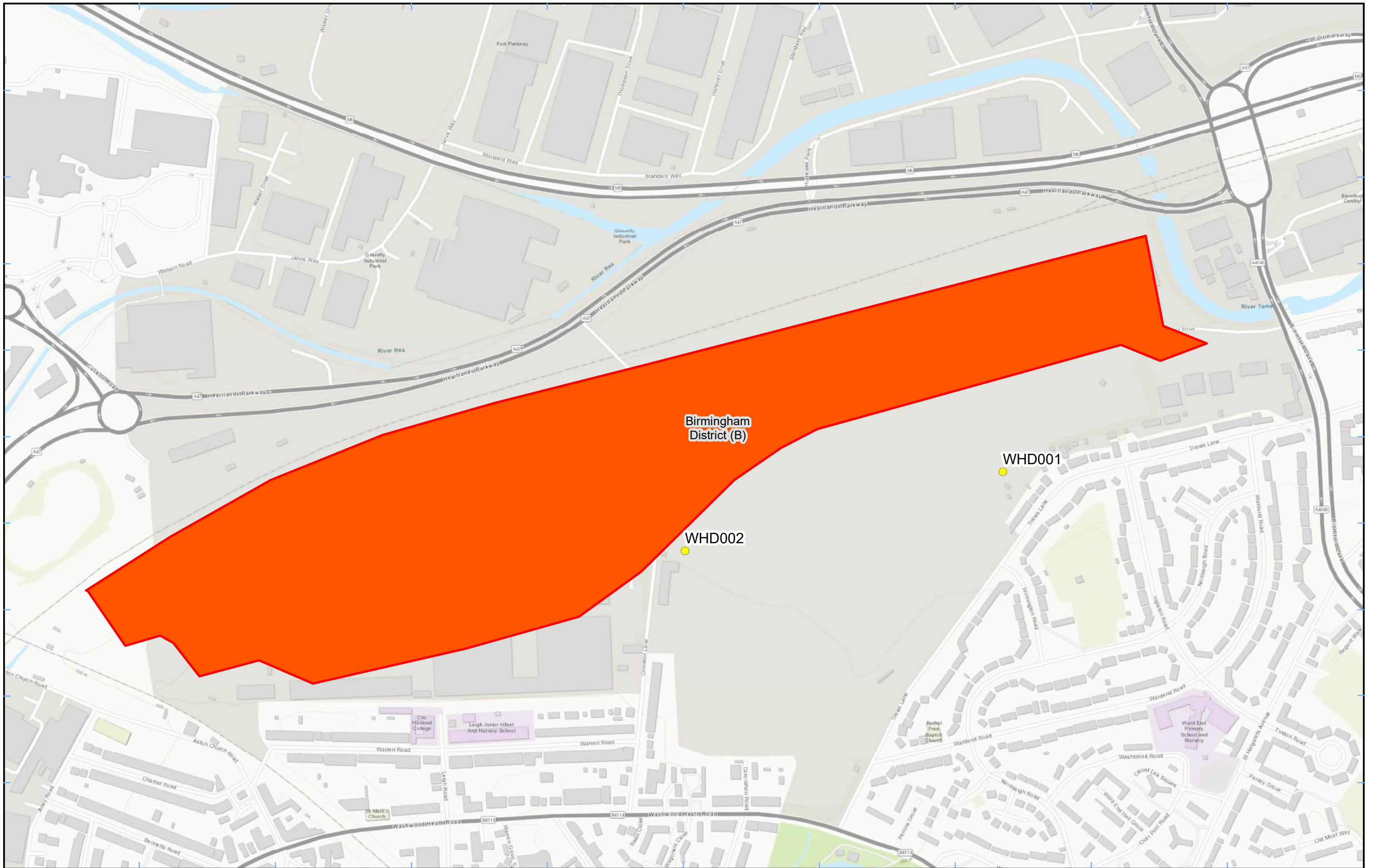
- 1.1.7 The trigger level for PM₁₀ concentrations of 190 µg/m³, over a 1-hour period, in accordance with the updated guidance document '*Guidance on Monitoring in the Vicinity of Demolition and Construction Sites – (November 2018)*' has been applied.
- 1.1.8 Dust trigger alerts were recorded during the monitoring period (April 2022) and are reported in Appendix B, Table 3.
- 1.1.9 The Dust monitor #552 was installed on 21st of April 2022. Data capture was 100% from the installation date.
- 1.1.10 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 April 2022

Complaint Reference No.	Worksite Reference	Description of complaint	Results of investigation
HS2-22-43564-C	N/A	Dust pollution from site impacting property/vehicle. Mitigations not in place.	The Stakeholder is currently being taken through the special cases process. The outcome will be available as soon as a decision is made.

Appendix A –Worksite and Dust Monitoring Locations

Figure 1 to 3: Worksites and monitoring locations within the BCC.



Legend
 Dust Monitor
 Worksite
 District Borough Unitary Boundaries

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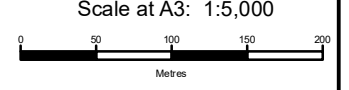
Map Number
 Map Name
**Worksite and Monitoring Locations
 In BCC (Sheet1)**
 Birmingham City Council



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Legend
 Dust Monitor District Borough Unitary Boundaries
 Worksite

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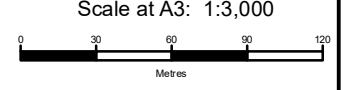
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 In BCC (Sheet2)**
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Map Number
 Map Name
**Monitoring Locations
 In BCC (Sheet 3)**
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Appendix B – Dust Monitoring Results

Table 2: Dust monitoring locations and April 2022 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 rate (%)
Dust #530 (old #555)	407702, 287079	Curzon Street Station HS2 Site	H	N/A	N/A	5.7	0.1	36.6	0	100.0
Dust #753	407619, 287006	Curzon Street Station HS2 Site	H	N/A	N/A	5.1	0.1	39.3	0	91.4
Dust #552	407765, 287073	Curzon Street Station HS2 Site	H	N/A	N/A	7.6	1.3	28.5	0	31.7*
WHD001	411221, 289245	Washwood Heath Depot, near receptors on Drews Lane	M	Yes	No	11.4	0.4	337.6	2	100.0
WHD002	410758, 289130	Washwood Heath Depot, near receptors on Common Lane	M	Yes	No	3.0	0.1	110.6	0	99.3
BETP001	416620, 290808	Bromford East Tunnel Portal, Twisted Oak Stables	M	Yes	No	8.2	0.4	39.6	0	100.0
BETP002	417467, 290649	Bromford East Tunnel Portal, Attleboro Lane	M	Yes	No	9.2	0.6	42.7	0	100.0

Table 3: Exceedance of 1-hour PM₁₀ concentration at dust locations.

Monitoring site ID	Period exceeding trigger level	Investigation	Outcomes/ Resolution/ Remedial measures implemented
WHD001	05/04/2022 15:01 – 16:00 05/04/2022 199.1 µg/m ³ 16:01 – 17:00 05/04/2022 337.6 µg/m ³	<p>On the day of the exceedance there was one water bowser carrying out dust suppression on the haul road across the site.</p> <p>Winds blowing onto the site picked up fines from the dry haul road leading to dust dispersing across the site in the direction of Drews Lane.</p> <p>Excavation works next to the Drews Lane residential wall were also being undertaken at this time with the material being stored in the same area.</p> <p>The Washwood Heath delivery team was made aware of the dust and mitigation was discussed and implemented the following day.</p> <p>Also noted that there was a significant rise in PM₁₀ levels at WHD002 at the same time as this exceedance, confirming source is likely to be local to the monitors.</p>	<p>As a result of the dust, a second water bowser was on site the following day to ensure the haul road could be sufficiently dampened down.</p> <p>The stockpile as part of the excavation works was relocated away from the area.</p> <p>Dust cannons have been implemented in the subcontractor's earthworks area.</p> <p>A meeting with the Environment Team and subcontractor team was held to discuss dust mitigation which included:</p> <ul style="list-style-type: none"> Reminder to the Site Team to drive at speed limits. Subcontractor to monitor works areas and implement dust suppression where required. Subcontractor to contact BBV if haul road adjacent to Subcontractor works area requires dust suppression. Implementation of dust cannons Discussion regarding use of abstracted groundwater for dust suppression

Figure 4: Construction dust hourly mean indicative PM₁₀ concentration for all monitors

