

Air Quality and Dust Monitoring Monthly Report – December 2022 London Borough of Brent



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

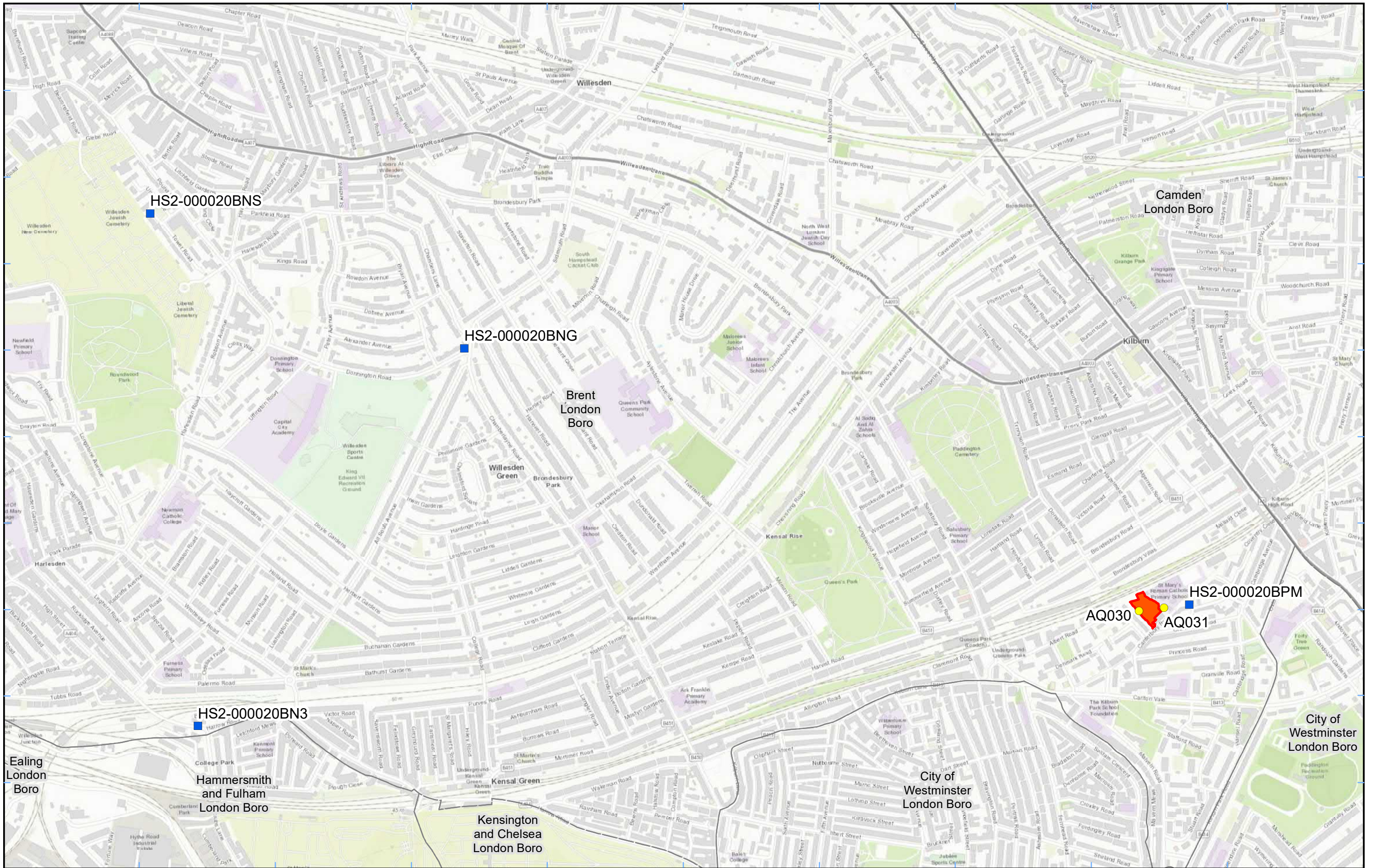
- 1.1.1 This Summary Report is published in fulfilment of commitments detailed in the High Speed Rail (London-West Midlands) Environmental Minimum Requirements, Annex 1: Code of Construction Practice, for the nominated undertaker to present the results of air quality and dust monitoring undertaken in the London Borough of Brent (LBB) during November 2022 and December 2022 respectively.
- 1.1.2 Figure 1 in Appendix A indicates the current worksites together with air quality monitoring locations.
- 1.1.3 This summary should be read in conjunction with the overview monitoring report 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 phase of works commenced within in August 2020 and is expected to be completed by the end of 2025. The current worksites, as presented in Appendix A, Figure 1 include:
- Canterbury Road Vent Shaft**
- Concreting;
 - Materials management; and
 - Ventilation shaft lining.
- 1.1.5 Two (2) dust monitors are currently installed around worksites, where works are underway. These sites returned a medium dust risk rating.
- 1.1.6 Dust monitoring location and results are presented in Appendix B, Table 1, together with line chart of monthly data from the dust monitor in Figure 2. The 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 (December 2022).

- 1.1.9 Diffusion tube monitoring of Nitrogen Dioxide (NO₂) is undertaken at four (4) locations around highways within the LBB as part of the management of air quality where significant effects November occur as a result of the scheme.
- 1.1.10 Diffusion tube monitoring results are as provided from the laboratory analysis, and therefore still require various analysis and adjustments to be undertaken. Final corrected results will be presented and described in the annual report. However, based on the results to date, no unexpected values were recorded during the monitoring period.
- 1.1.11 NO₂ monitoring locations and results are presented in Appendix C, Table 2, together with the 2022 running mean.
- 1.1.12 There were no (0) complaints received during this reporting period.

Appendix A – Worksites and Monitoring Locations

Figure 1: Worksites and monitoring locations within the LBB





Legend

- Diffusion Tube
- Worksite
- Dust Monitor
- District Borough Unitary Boundaries

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Map Number

Map Name

Worksite and Monitoring Locations In LBB

London Borough of Brent

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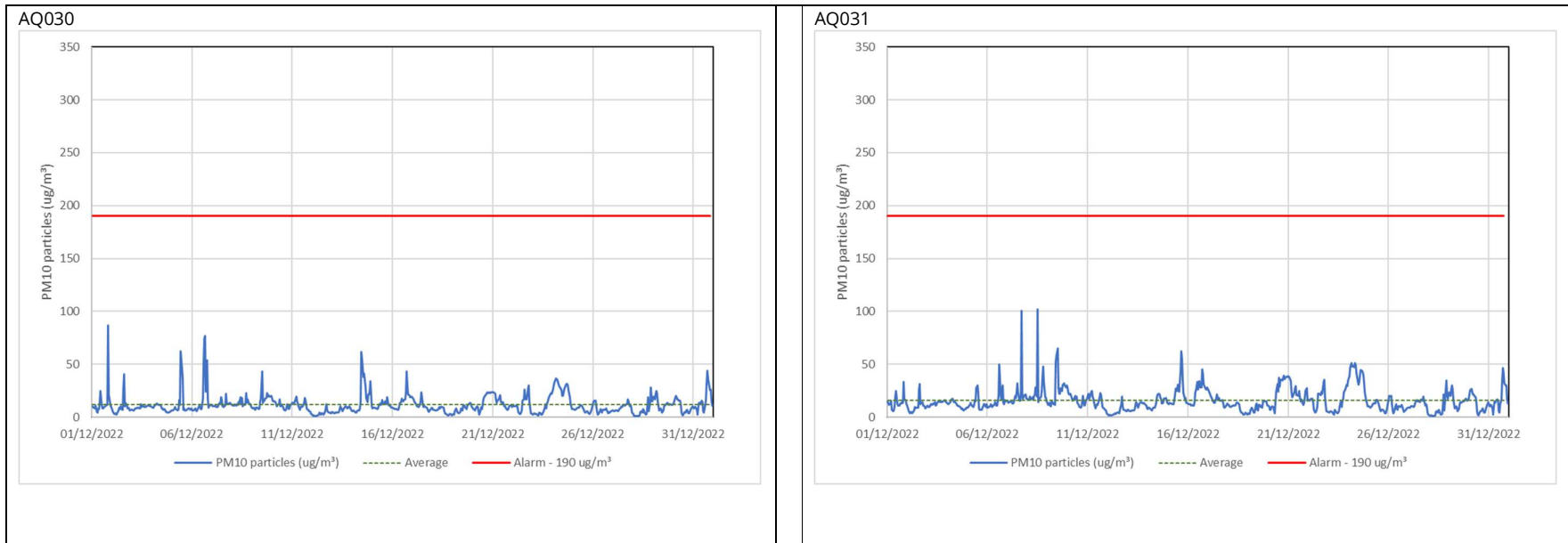
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Appendix B – Dust Monitoring Results

Table 1: Dust monitoring location and December 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 (%)
AQ030	525093, 183264	Western Hoarding of Canterbury Road works site	M	Yes	Y	11.7	0.9	86.8	0	100.0
AQ031	525112, 183320	Eastern Hoarding of Canterbury Road works site	M	N	Y	15.7	1.0	102.0	0	100.0

Figure 2: Construction dust 1-hour mean indicative PM₁₀ concentration for dust monitors



Appendix C - Air Quality Monitoring Results

Table 2: NO₂ monitoring locations around highways, NO₂ concentrations and monthly monitoring results with running mean for 2022 (µg/m³)

Monitoring Site ID	Location description	Coordinates (X, Y)	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Mean ¹
HS2-000020BN3	Sign post on High Street Harlesden	522335, 182955	66	48	58	44	37	44	44	46	54	54	54		50
HS2-000020BNG	Lamp post on Donnington Road	523110, 184055	58	39	46	31	26	24	26	28	35	Tube Missing	41		35
HS2-000020BNS	Lamp post on Tower Road by Willesden Jewish Cemetery	522196, 184448	43	25	38	25	19	14	17	Tube Missing	24	25	29		26
HS2-000020BPM	Lamp post along Gorefield Place near block of flats	525222, 183309	46	27	36	24	Tube Missing	15	17	18	27	28	29		27

¹ Note: to aid interpretation and conform with best practice, the monthly measurements in this table are reported rounded to the nearest whole number. The annual mean presented here is calculated based on laboratory data to 4 significant figures, rounded to a whole number, and therefore may differ slightly to a mean derived from averaging the rounded monthly measurements in the table.