

Air Quality and Dust Monitoring Monthly Report – January 2023

London Borough of Hammersmith and
Fulham



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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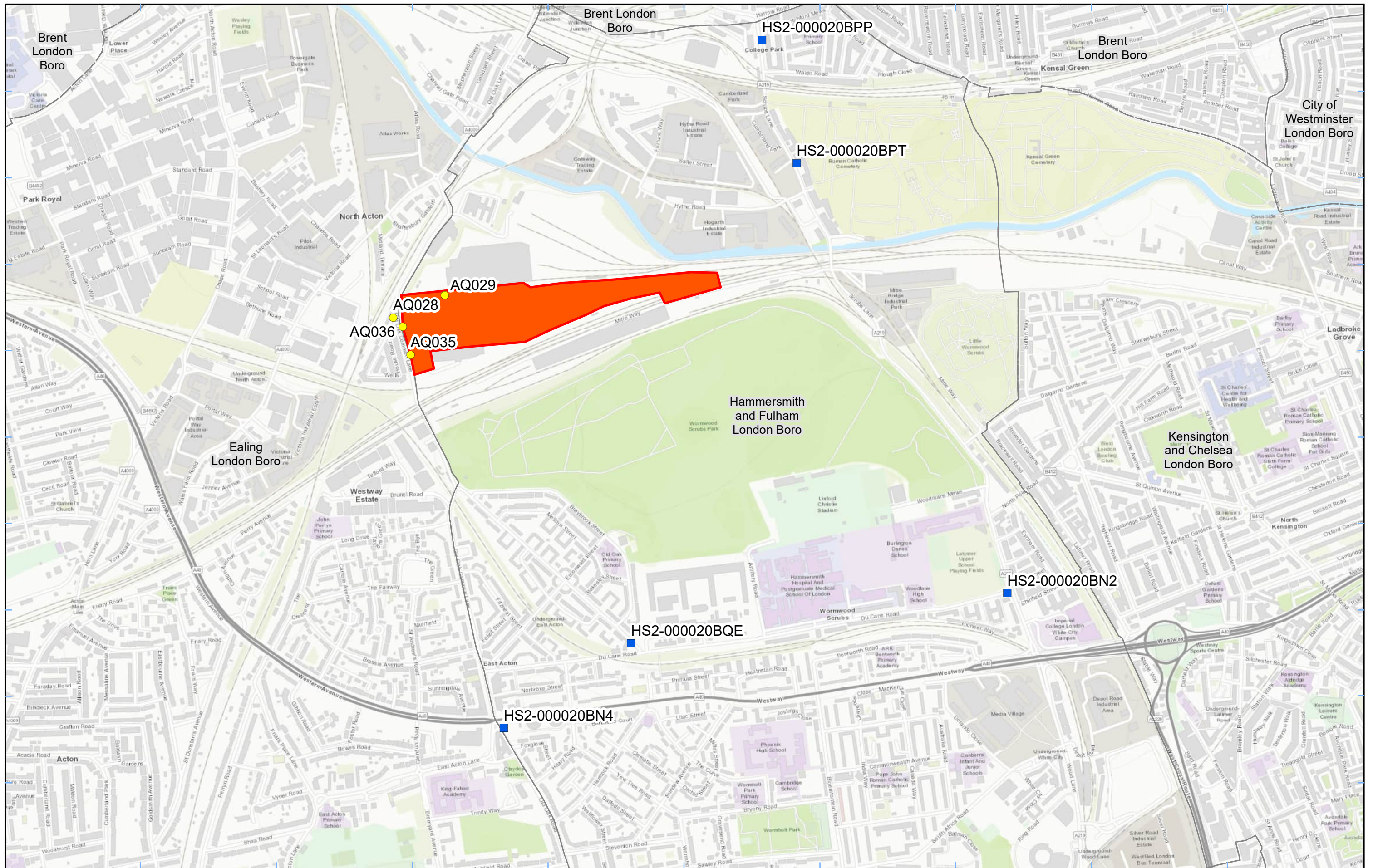
Monthly Summary

- 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 in the London Borough of Hammersmith and Fulham (LBHF) during December 2022 and January 2023 respectively.
- 1.1.2 Figure 1 and Figure 2 in Appendix A indicate the current worksite together with air quality and dust 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 in August 2020 and is expected to be completed by 2025. The current worksites, as presented in Appendix A, Figure 1 and Figure 2, includes:
- Platform installation and piling works - GWML;
 - Ground reduction and muck away - West Box / East Box;
 - Intermediate level dig / D-wall breakdown / Excavation / Steel fixing – Station Box;
 - Manhole construction – Stanford Brook Sewer;
 - Site haul roads and public roads adjacent to site cleaning with a road sweeper; and
 - Shuttering / Steel fixing / Blinding / Pile breaking – Crossrail and Station Access Retaining Walls.
- 1.1.5 Four (4) dust monitors are installed around worksites. These site returned a medium 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 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 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 (January 2023).

- 1.1.9 Data capture was below 90% for monitor AQ029 due to the monitor being relocated.
- 1.1.10 Diffusion tube monitoring of Nitrogen Dioxide (NO₂) is undertaken at seven (7) locations around highways within the LBHF as part of the management of air quality where significant effects may occur as a result of the scheme.
- 1.1.11 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.
- 1.1.12 NO₂ monitoring locations and results are presented in Appendix C, Table 1, together with the 2022 running mean.
- 1.1.13 There were no (0) complaints received during this reporting period.

Appendix A – Worksites and Monitoring Locations

Figure 1 and 2: Worksites and monitoring locations within the LBHF




Legend


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

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Map Number
 Map Name
**Worksite and Monitoring Locations
 In LBHF (Sheet 1)**
 London Borough of Hammersmith
 and Fulham



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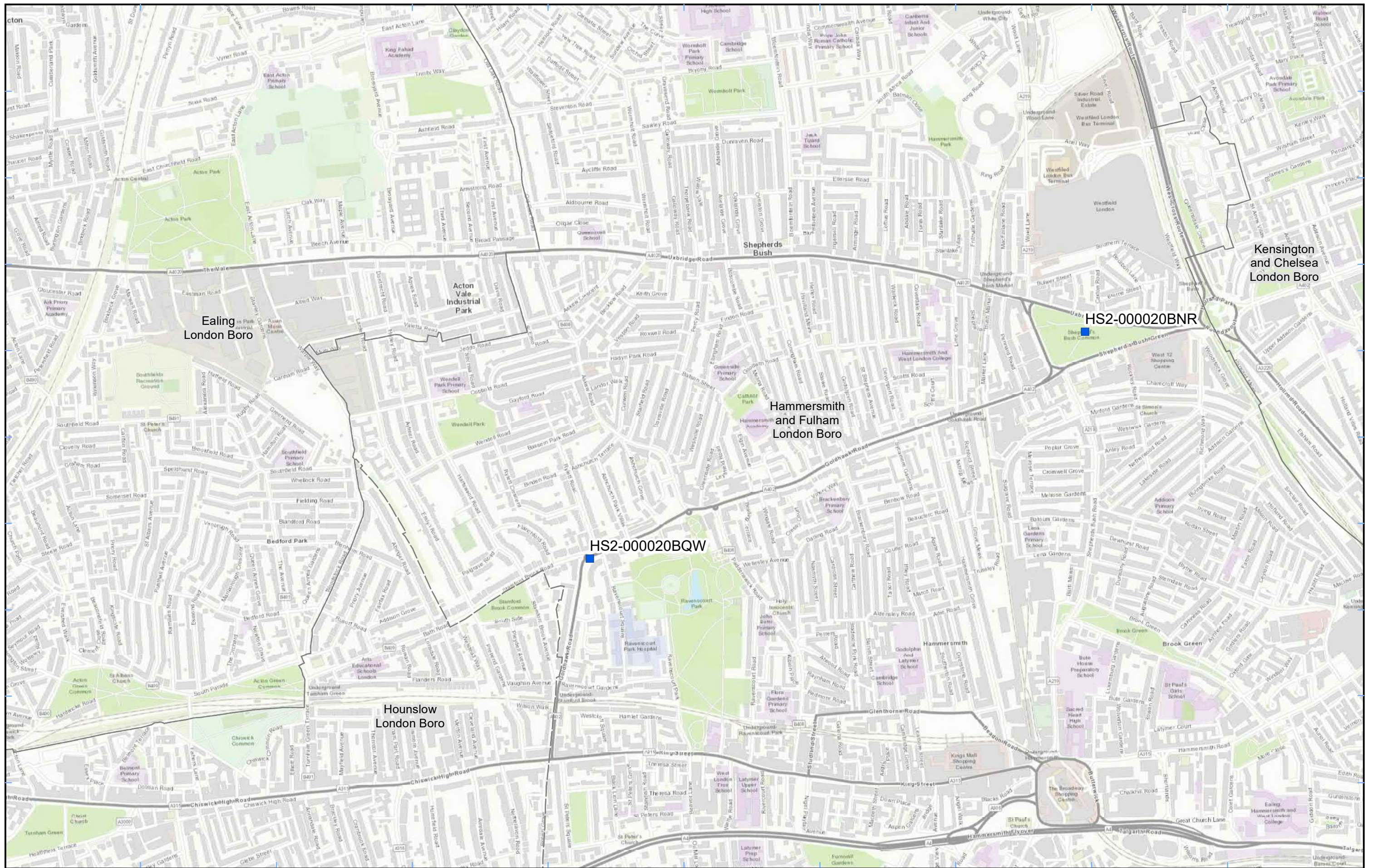
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Legend
■ Diffusion Tube
 District Borough Unitary Boundaries

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
**Monitoring Locations In LBHF
 (Sheet 2)**
 London Borough of Hammersmith
 and Fulham

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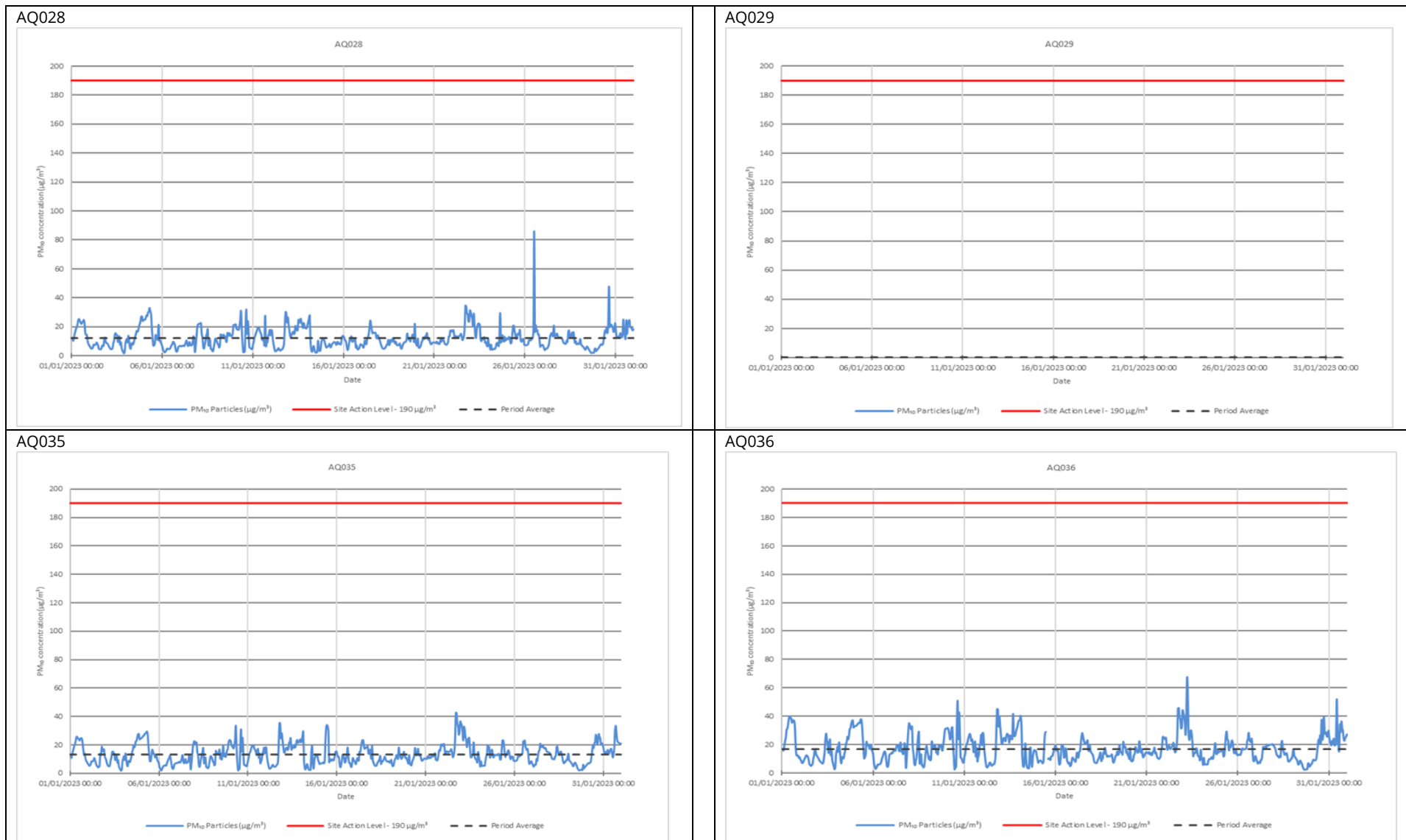
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Appendix B – Dust Monitoring Results

Table 1: Dust Monitoring locations and January 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 (%)
AQ028	521302, 182067	Wells House Road	M	Yes	N	11.9	1.4	85.8	0	100.0
AQ029	521453, 182132	Old Oak Common	H	Yes	N	-	-	-	-	0.0
AQ035	521353, 181959	Old Oak Common	H	Yes	N	13.1	1.7	42.5	0	100.0
AQ036	521330, 182041	Old Oak Common	H	Yes	N	16.9	2.1	67.4	0	99.7

Figure 3: 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
HS2-000020BN2	Lamp post on Du Cane Road	523092, 181264	55	Tube Missing	54	42	35	38	41	40	46	49	50	48	45
HS2-000020BN4	End of cycle lane sign on Old Oak Road	521625, 180871	55	34	50	42	Tube Missing	36	43	43	50	36	42	46	43
HS2-000020BNR	Lamp posts in Shepherd's Bush Common	523481, 179871	48	No Data	Tube Missing	Tube Missing	Tube Missing	22	26	Tube Missing	34	33	36	42	34
HS2-000020BPP	Sign post on A219 Scrubs Lane, South of Harrow Road	522378, 182877	63	44	48	39	36	Tube Missing	42	40	50	43	48	45	45
HS2-000020BPT	Controlled Zone/Zone Ends road sign on A219 Scrubs Lane, north of Hythe Road	522478, 182517	61	42	49	38	36	35	40	43	46	44	40	48	43
HS2-000020BQE	Lamp post next to No 11 Wulfstan Street	521996, 181118	44	30	38	26	21	20	21	23	28	29	32	36	29
HS2-000020BQW	Lamp post on A402 Goldhawk Road	522037, 179209	59	36	Tube Missing	34	26	Tube Missing	Tube Missing	29	35	33	38	44	37

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.