

Air Quality and Dust Monitoring Monthly Report – September 2022

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.

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A report prepared by EWCs and MWCCs on behalf of HS2 Ltd.

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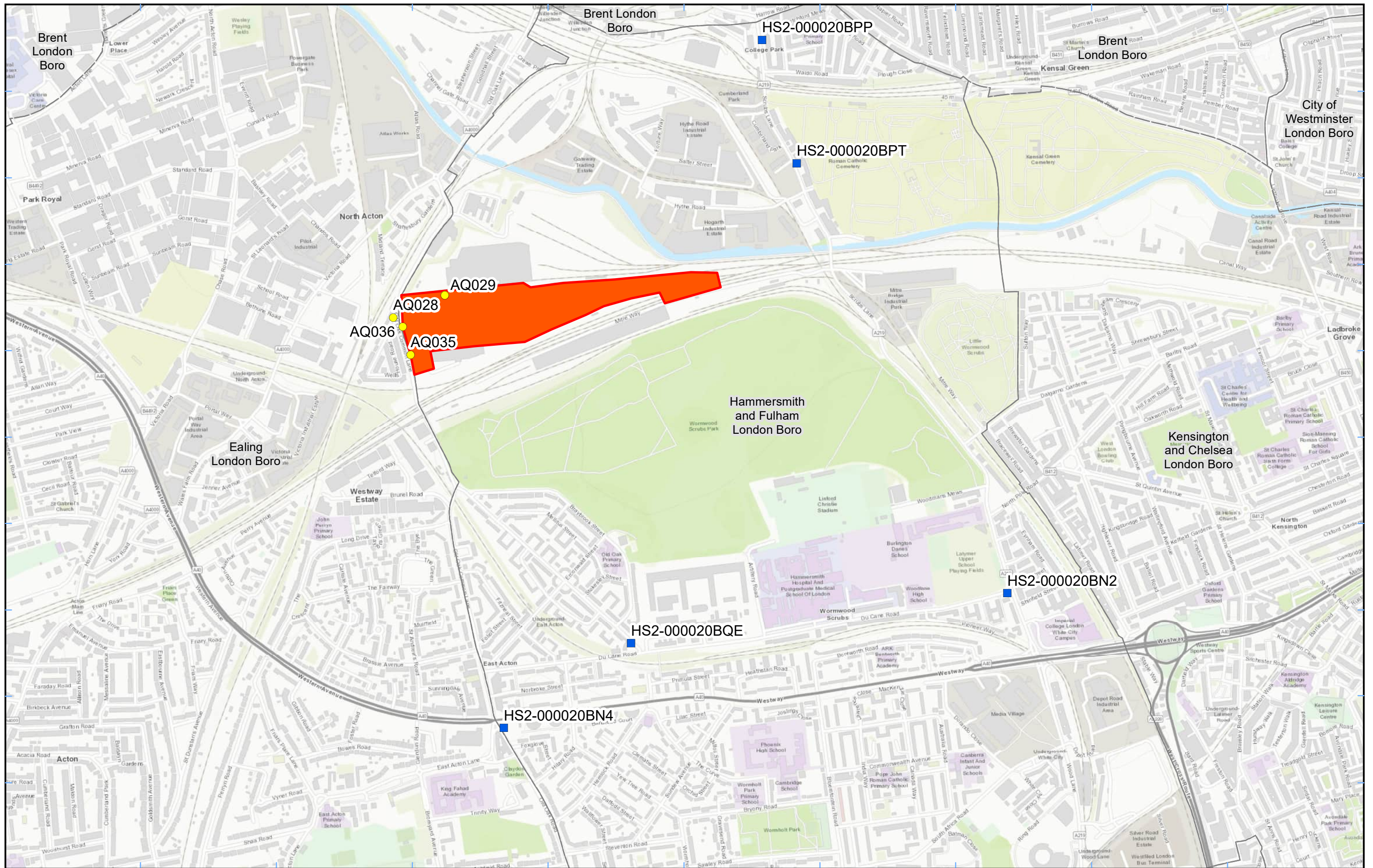
Monthly Summary

- 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 Hammersmith and Fulham (LBHF) during August and September 2022 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 worksite, as presented in Appendix A, Figure 1 and Figure 2, includes:
- Material movements;
 - Fixing of reinforced bars, shuttering and form works;
 - Site entrance works, including kerb and drainage installation;
 - Diaphragm wall works, including diaphragm wall breakdown;
 - Construction of capping beams and fixing rebar for propping beam and slabs;
 - Excavation works;
 - Manhole construction / pipe jacking / tunnelling – Wormwood Scrubs and Main Site;
 - Drainage installation;
 - Utility installation;
 - Road sweeping works; and
 - Removal of waste material.
- 1.1.5 Four (4) dust monitors are installed around the worksite. These sites 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 (September 2022).
- 1.1.9 Data capture was below 90% for monitor AQ035 due to a monitor malfunction on the 8th, that was fixed on the 16th September.
- 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 June 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 , 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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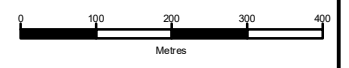
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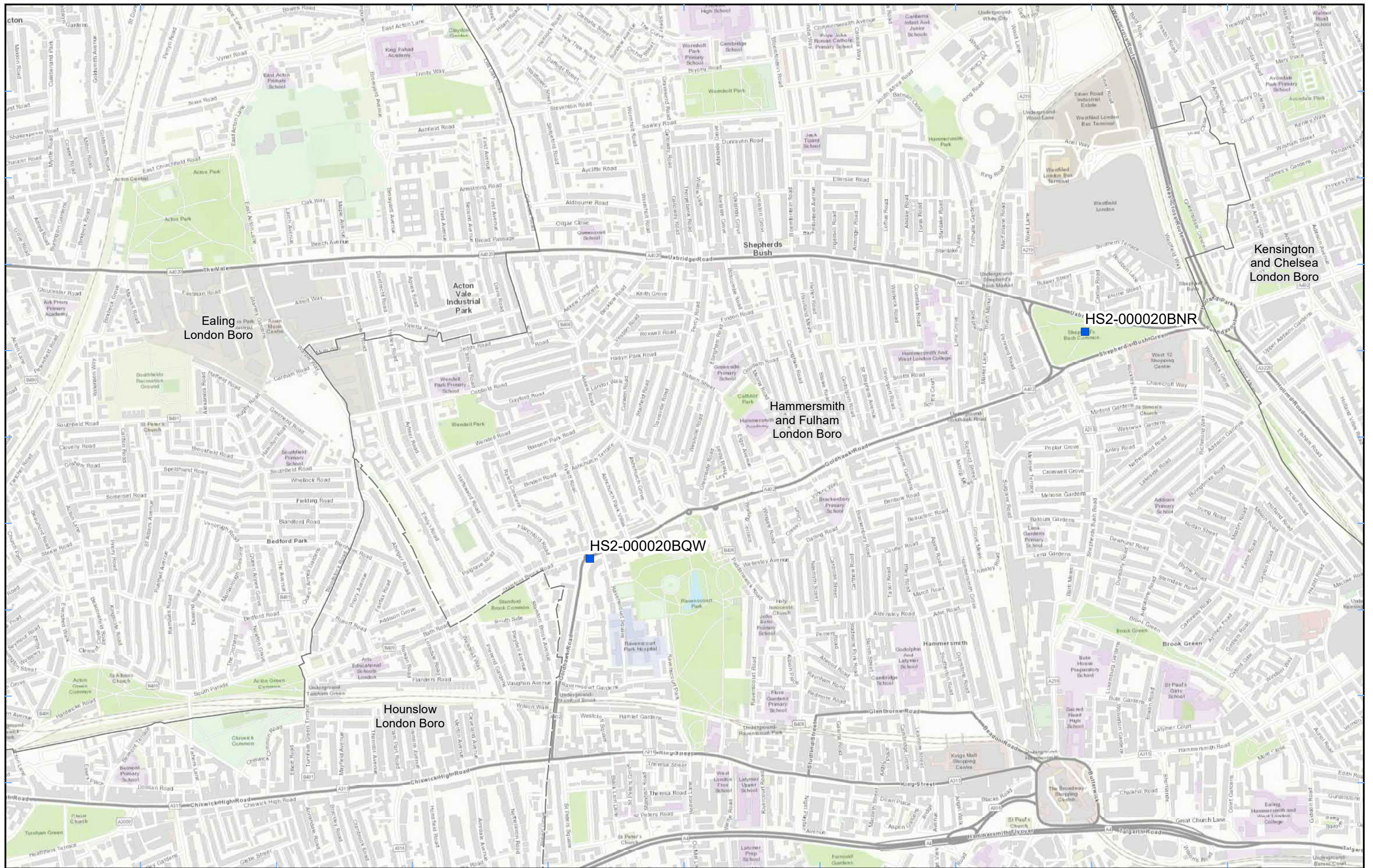
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Legend
 ■ Diffusion Tube
 □ District Borough Unitary Boundaries

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

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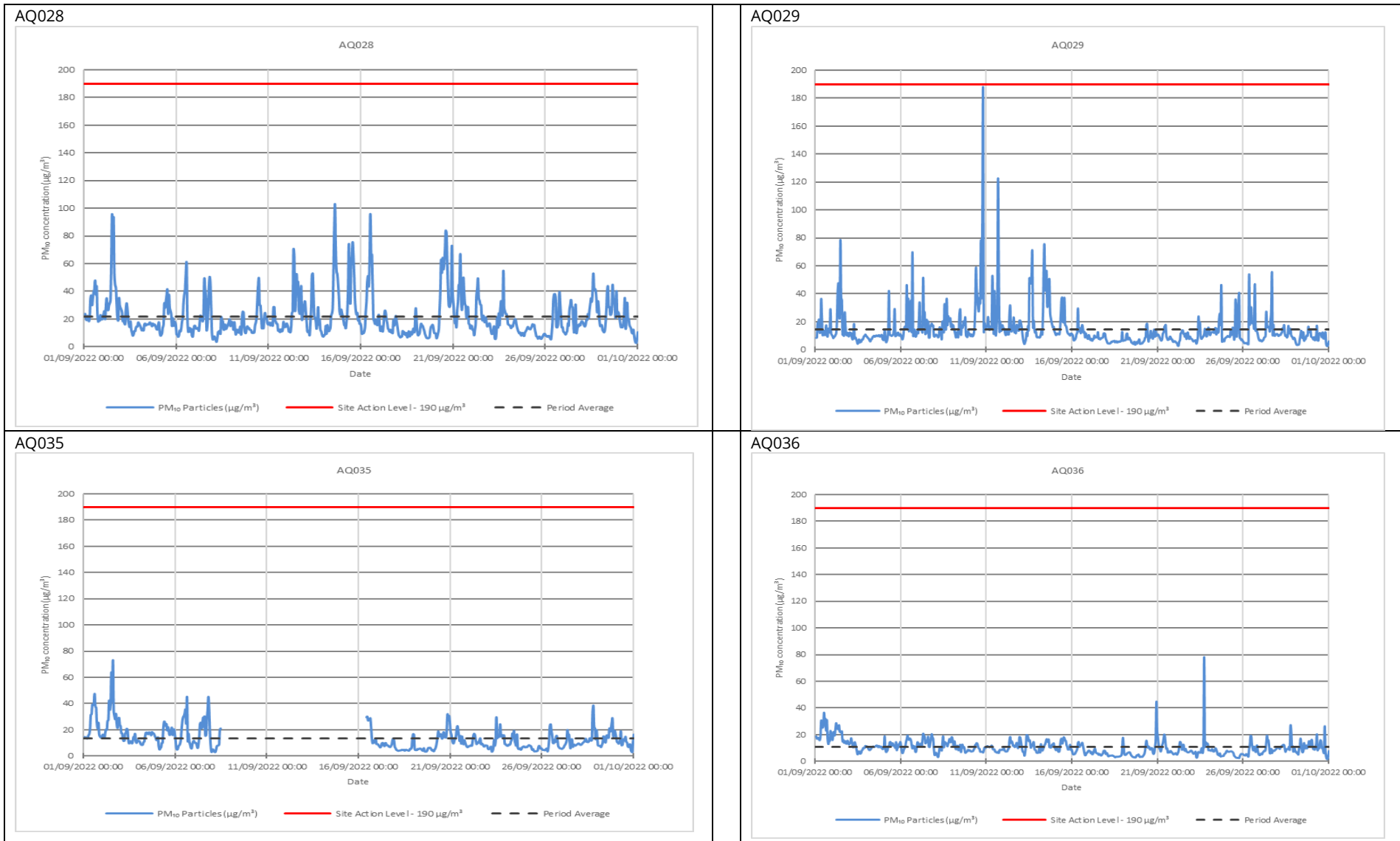
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Appendix B – Dust Monitoring Results

Table 1: Dust Monitoring locations and September 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 (%)
AQ028	521302, 182067	Wells House Road	M	Yes	N	21.6	2.6	102.9	0	100.0
AQ029	521453, 182132	Old Oak Common	H	Yes	N	14.5	2.7	186.8	0	100.0
AQ035	521353, 181959	Old Oak Common	H	Yes	N	13.2	2.9	73.0	0	73.8
AQ036	521330, 182041	Old Oak Common	H	Yes	N	10.6	1.9	78.1	0	100.0

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



Appendix C – Air Quality Monitoring Results

Table 3: 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 Missin g	54	42	35	38	41	40					43
HS2-000020BN4	End of cycle lane sign on Old Oak Road	521625, 180871	55	34	50	42	Tube Missin g	36	43	43					43
HS2-000020BNR	Lamp posts in Shepherd's Bush Common	523481, 179871	48	No Data	Tube Missin g	Tube Missin g	Tube Missin g	22	26	Tube Missin g					32
HS2-000020BPP	Sign post on A219 Scrubs Lane, South of Harrow Road	522378, 182877	63	44	48	39	36	Tube Missin g	42	40					44
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					43
HS2-000020BQE	Lamp post next to No 11 Wulfstan Street	521996, 181118	44	30	38	26	21	20	21	23					28
HS2-000020BQW	Lamp post on A402 Goldhawk Road	522037, 179209	59	36	Tube Missin g	34	26	Tube Missin g	Tube Missin g	29					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.