

Air Quality and Dust Monitoring Monthly Report – **February** 2021

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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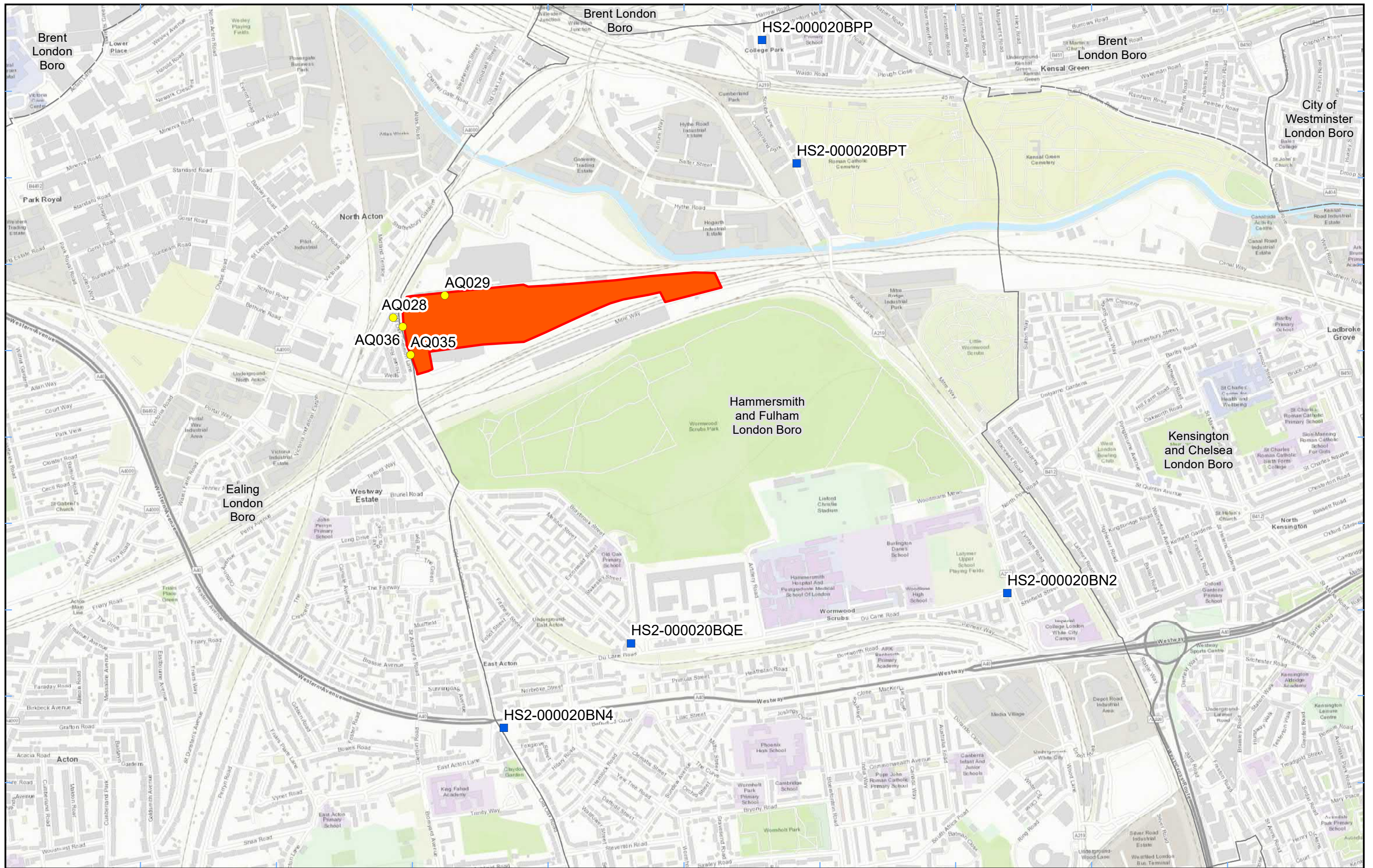
Monthly Summary

- 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 January and February 2021 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 within the LBHF in August 2020 and is expected to be completed by 2025. The current worksite, as presented in Appendix A, Figure 1, includes:
- Old Oak Common Depot and mobilisation and new site set up for the station works;
 - Site set-up;
 - Pile mat construction;
 - Haul road construction;
 - Auger drilling Old Oak Common Lane Retaining wall;
 - Tree felling and vegetation Clearance Old Oak Common Lane and Wormwood Scrubs;
 - Laying track mats on Wormwood Scrubs;
 - Pile probing works for sheet piling;
 - Installation of 225mm water main; and
 - Dewatering.
- 1.1.5 Four (4) dust monitors are installed around the worksite. This site returned a 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 There were no (0) dust trigger alerts recorded during this monitoring period (February 2021).
- 1.1.9 Data capture for monitor AQ035 was below 90% for the month of February 2021. Missing data was due to technical issues preventing the monitor from functioning correctly. These technical issues have been resolved and monitoring resumed.
- 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 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 2, together with the 2021 running mean.
- 1.1.13 There were no (0) complaints, relating to dust or air quality, received during this reporting period (February 2021).

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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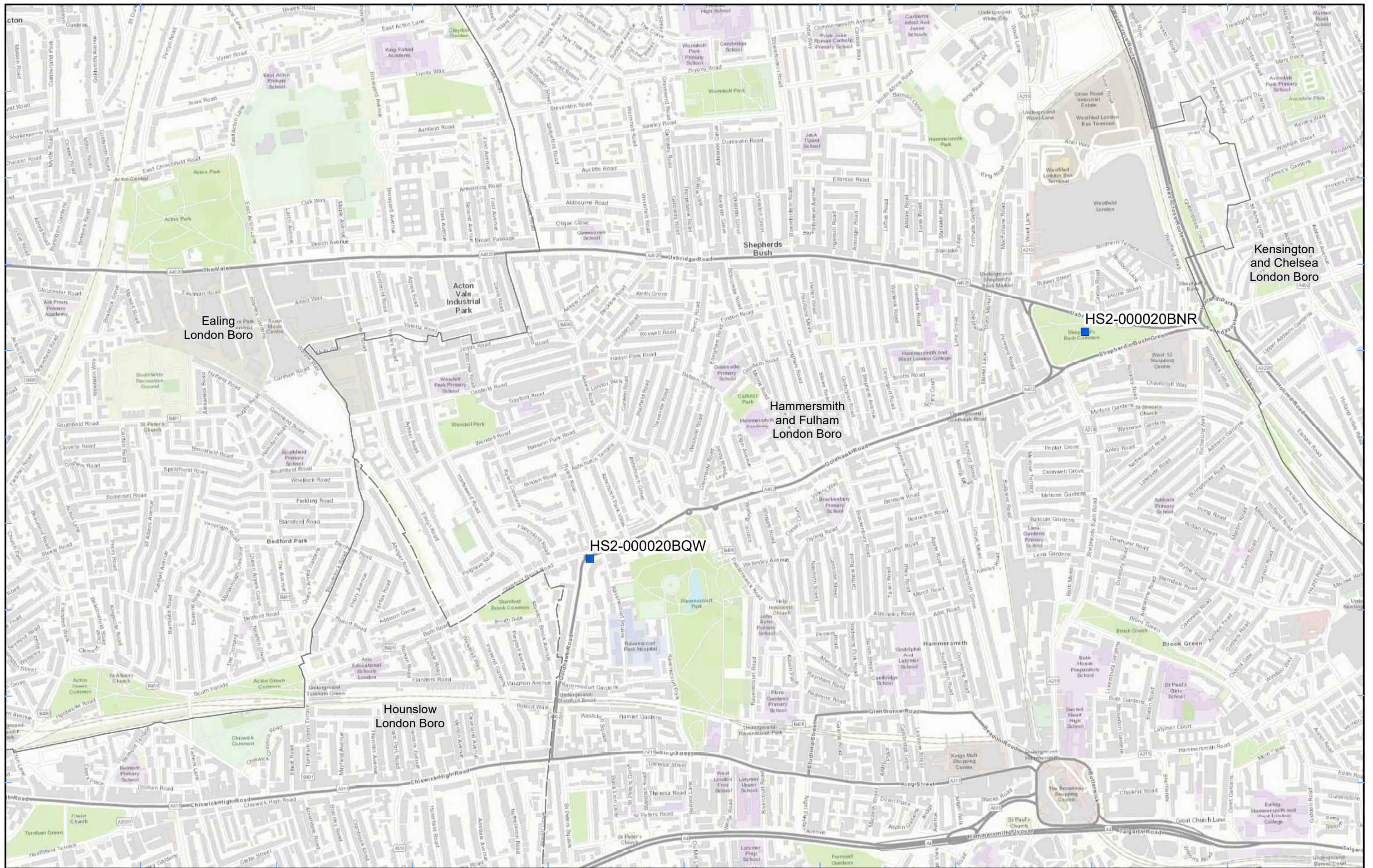
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Legend
■ Diffusion Tube
 District Borough Unitary Boundaries

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Map Number
 Map Name
**Monitoring Locations In LBHF
 (Sheet 2)**
 London Borough of Hammersmith
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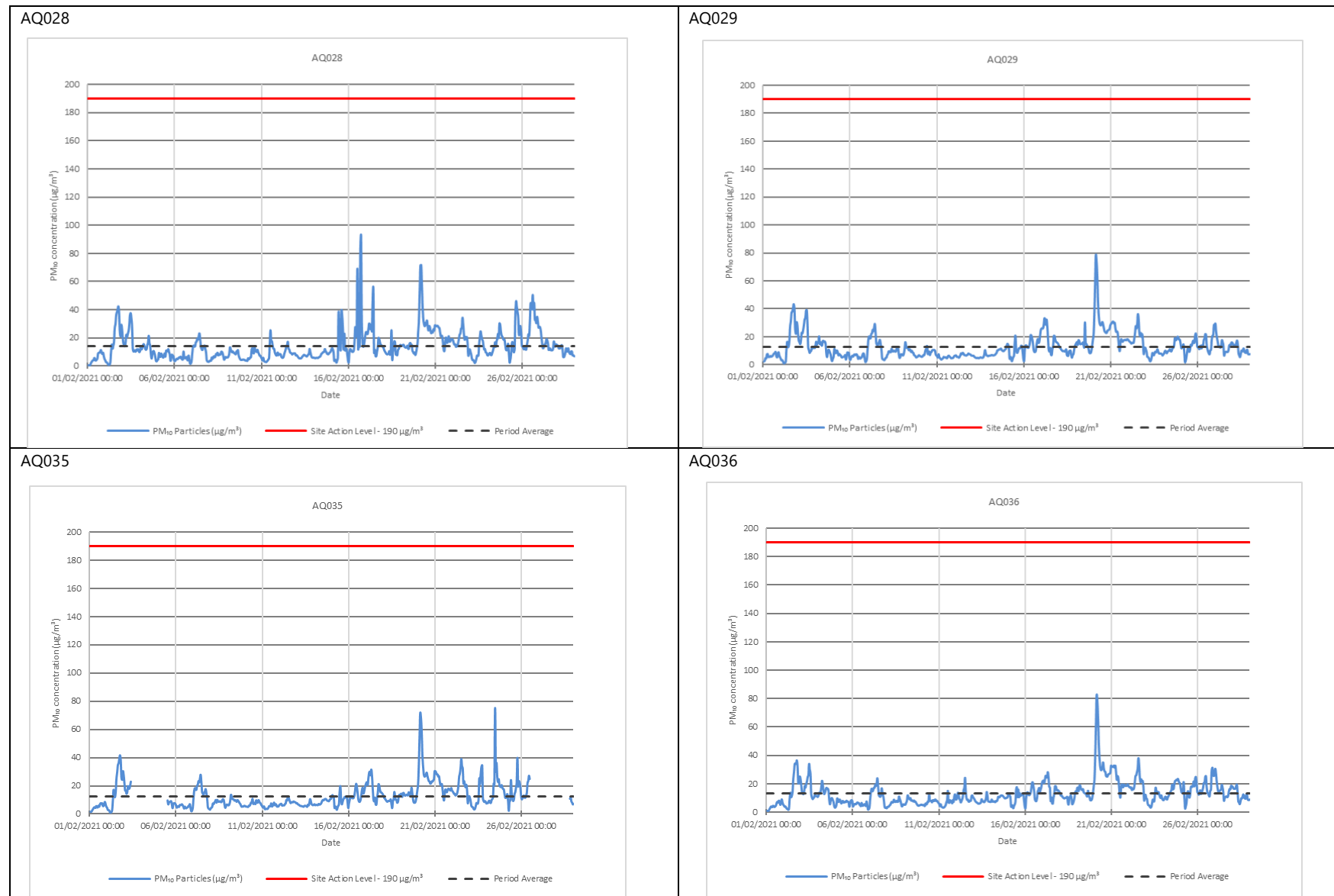
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Appendix B – Dust Monitoring Results

Table 1: Dust Monitoring locations and January 2021 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	H	Yes	N	14.3	0.7	92.8	0	100.0
AQ029	521453, 182132	Old Oak Common	H	Yes	N	12.7	1.0	78.3	0	100.0
AQ035	521353, 181959	Old Oak Common	H	Yes	N	12.7	0.9	75.1	0	84.4
AQ036	521330, 182041	Old Oak Common	H	Yes	N	13.0	0.8	82.5	0	100.0

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 2021 (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	52												52
HS2-000020BN4	End of cycle lane sign on Old Oak Road	521625, 180871	55												55
HS2-000020BNR	Lamp posts in Shepherd's Bush Common	523481, 179871	42												42
HS2-000020BPP	Sign-post on A219 Scrubs Lane, South of Harrow Road	522378, 182877	48												48
HS2-000020BPT	Controlled Zone/Zone Ends road sign on A219 Scrubs Lane, north of Hythe Road	522478, 182517	52												52
HS2-000020BQE	Lamp post next to No 11 Wulfstan Street	521996, 181118	38												38
HS2-000020BQW	Lamp post on A402 Goldhawk Road	522037, 179209	44												44

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.