

Air Quality and Dust Monitoring Monthly Report – **November** 2020

London Borough of Hammersmith and
Fulham



Department for Transport

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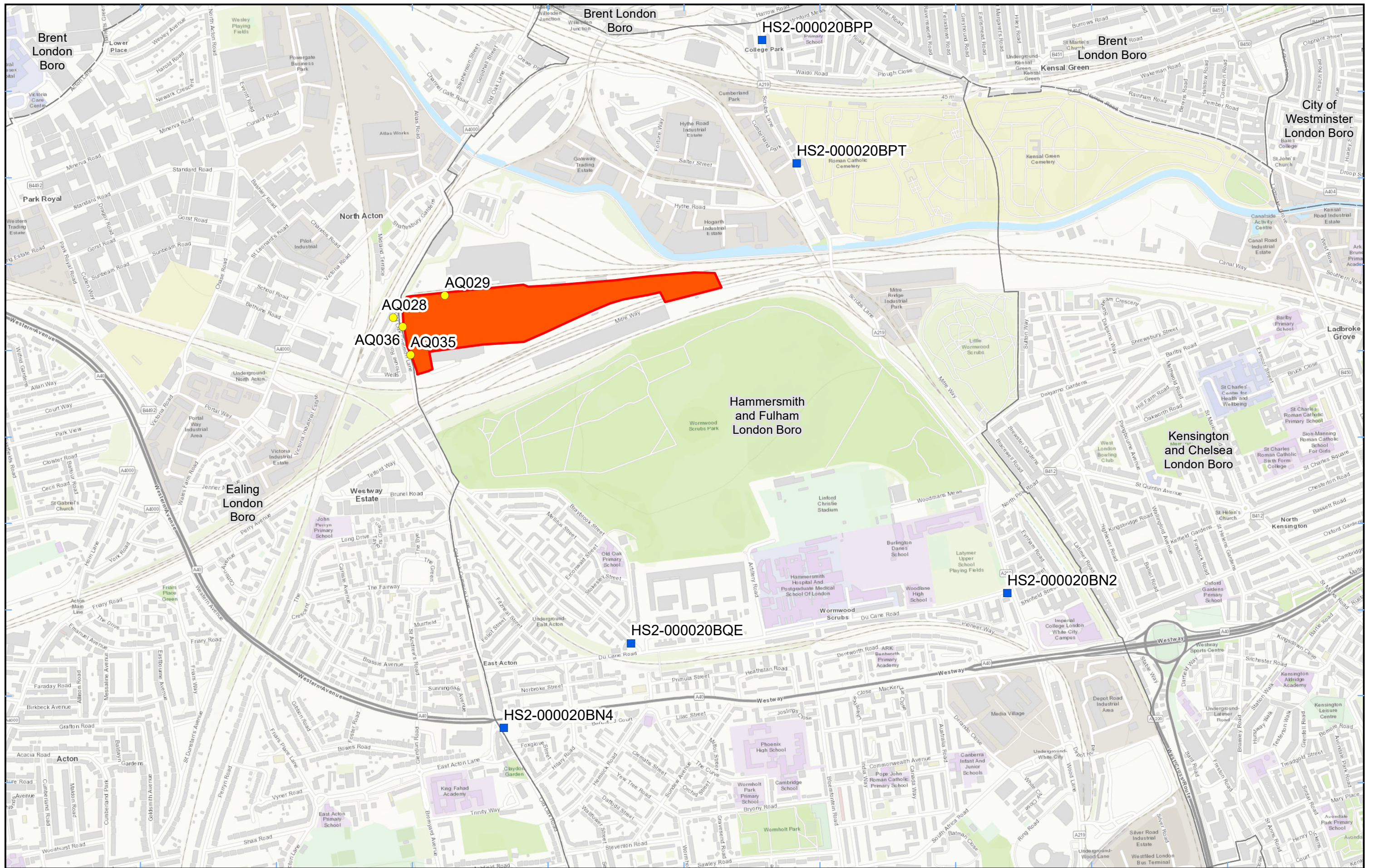
Monthly Summary

- 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 October and November 2020 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 July 2020 and is expected to be completed by 2026. The current worksite, as presented in Appendix A, Figure 1, includes:
- Site set-up;
 - Screening of site materials stockpile;
 - Pile mat construction;
 - Haul road construction; and
 - Concrete pours for new gate foundations.
- 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 two (2) dust trigger alerts recorded during this monitoring period (November 2020). Details regarding these exceedances are presented in Appendix B, Table 2. All other results were in line with expected ranges.

- 1.1.9 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.
- 1.1.10 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.
- 1.1.11 NO₂ monitoring locations and results are presented in Appendix C, Table 3, together with the 2020 running mean.
- 1.1.12 There were no (0) complaints received, relating to air quality, during this reporting period (November 2020).

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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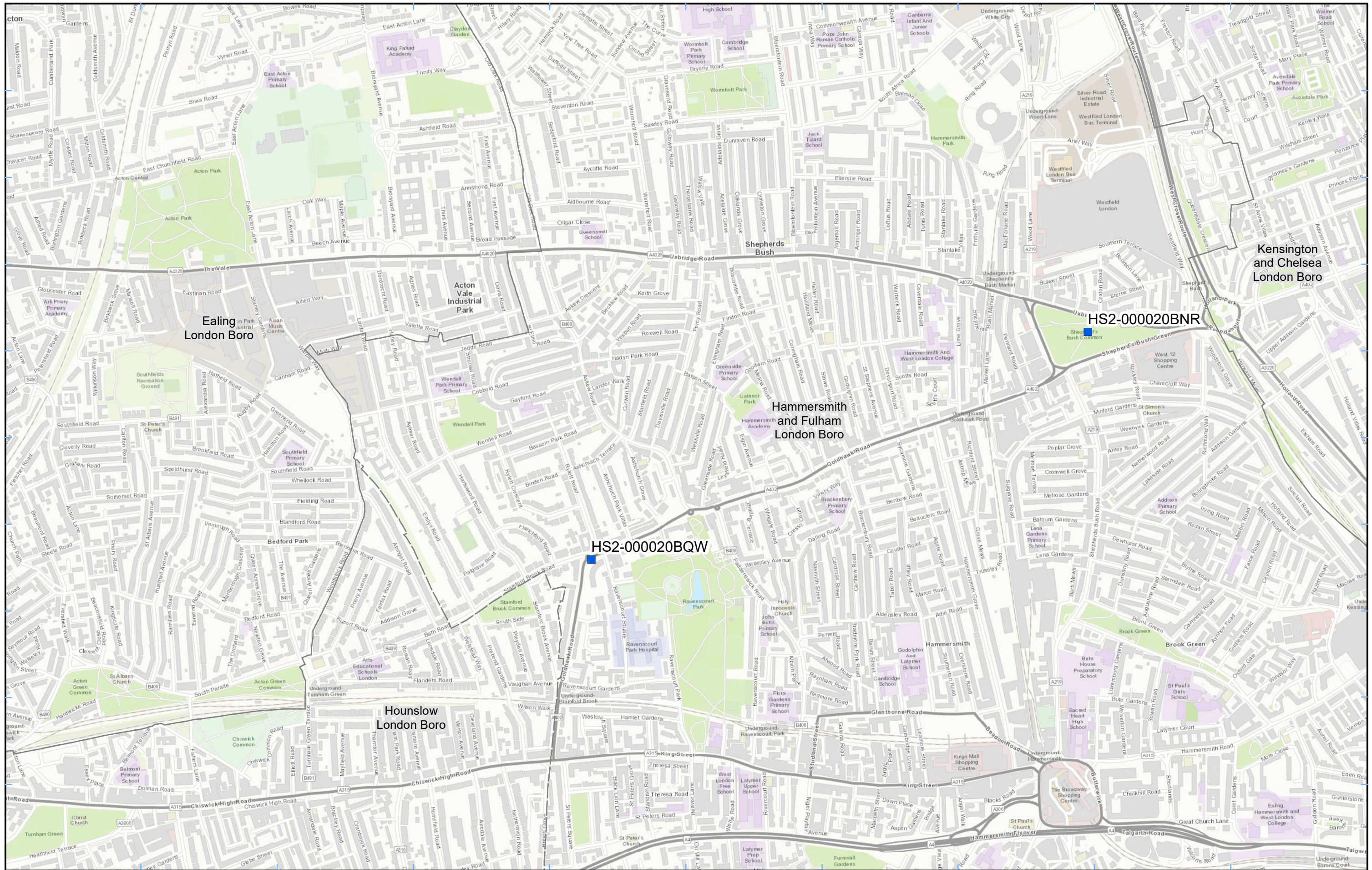
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Legend
 Diffusion Tube
 District Borough Unitary Boundaries

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


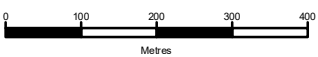
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Appendix B – Dust Monitoring Results

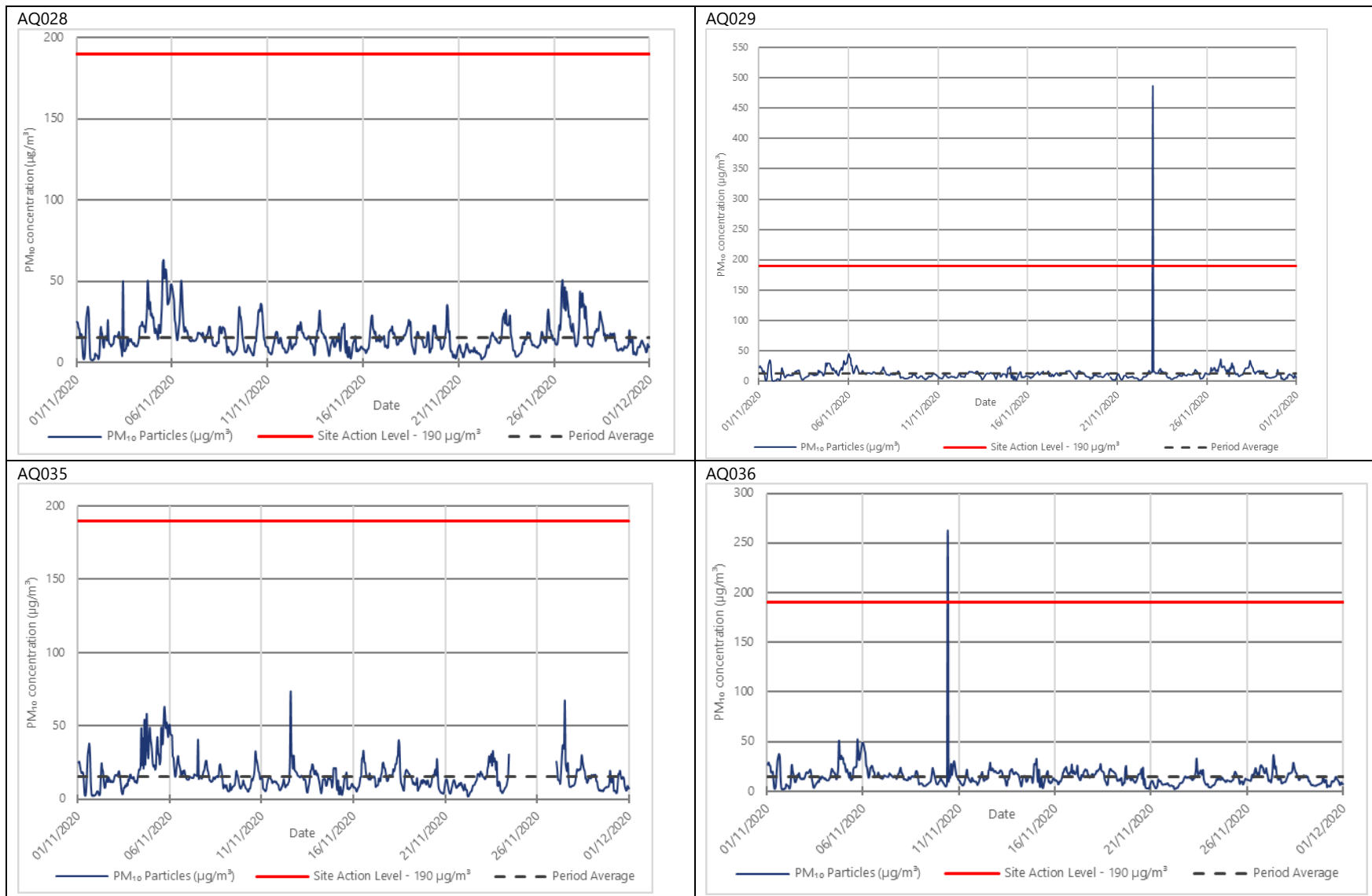
Table 1 Dust Monitoring locations and September 2020 results

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	15.5	1.2	63.4	0	100.0
AQ029	521453, 182132	Old Oak Common	H	Yes	N	12.9	0.9	486.6	1	99.9
AQ035	521353, 181959	Old Oak Common	H	Yes	N	15.6	1.9	73.8	0	91.5
AQ036	521330, 182041	Old Oak Common	H	Yes	N	14.6	1.8	262.2	1	100.0

Table 2 Summary of exceedances of trigger level in October 2020

Monitoring Site ID	Period of trigger alert & Concentration recorded	Investigation	Outcomes / Resolution / Remedial measures implemented
AQ036	<u>10/11/2020</u> 09:01 - 10:00: 262.2 ug/m ³	At the time of the trigger alerts no works were being undertaken on the site. It was therefore unclear what may have caused the alert. No further trigger alerts were received.	Suitable housekeeping measures continue to be implemented across the site.
AQ029	<u>22/11/2020</u> 23:01 –00:00: 486.6 ug/m ³		

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 2020 (µg/m³)

Monitoring Site ID	Location description	Coordinates (X, Y)	Jan	Feb	Mar ¹	Apr ¹	May ¹	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Mean ²
HS2-000020BN2	Lamp post on Du Cane Road	523092, 181264	61	50	No data			37	26	41	44	45			43
HS2-000020BN4	End of cycle lane sign on Old Oak Road	521625, 180871	48	39	No data			36	30	43	46	41			40
HS2-000020BNR	Lamp posts in Shepherd's Bush Common	523481, 179871	45	No data	No data			24	22	28	32	33			31
HS2-000020BNX	Signpost on A402 Goldhawk Road	522035, 179199	Tube missing	No data	No data			No data	No data	No data	No data	No Data			No data
HS2-000020BPP	Sign post on A219 Scrubs Lane, South of Harrow Road	522378, 182877	62	39	No data			39	27	39	44	42			42
HS2-000020BPT	Controlled Zone/Zone Ends road sign on A219 Scrubs Lane, north of Hythe Road	522478, 182517	Tube missing	40	No data			40	25	41	41	No Data			37
HS2-000020BQE	Lamp post next to No 11 Wulfstan Street	521996, 181118	39	34	No data			23	19	25	30	30			29
HS2-000020BQW	Lamp post on A402 Goldhawk Road	522037, 179209	No data	36	No data			27	21	34	36	38			32

¹ Note: Due to the COVID-19 pandemic and government lockdown it was not possible to conduct diffusion tube air quality monitoring in March, April and May 2020.

² 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.