

Air Quality and Dust Monitoring Monthly Report – October 2021

London Borough of Hammersmith and
Fulham



Department for Transport

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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 September and October 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 Construction works commenced in August 2020 and is expected to be completed by 2025. The current worksite, as presented in Appendix A, Figure 1 to Figure 2, includes:
- Old Oak Common Depot and mobilisation and new site set up for the station works;
 - Permanent Accommodation Building fit out;
 - Vegetation Strimming;
 - Internal soft strip of Hex Depot building;
 - Construction of temporary haul roads;
 - Drainage installation;
 - Piling and D-Wall activities;
 - Conveyor Foundation Construction; and
 - Sheet piling / Crane matt construction / Digging Swales and installing drainage pipes – Wormwood Scrubs.
- 1.1.5 Four (4) dust monitors are installed around the worksites, where works are underway. These sites returned a medium to high dust risk rating.
- 1.1.6 Dust monitoring locations and results are presented in Appendix B, Table 2, 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.

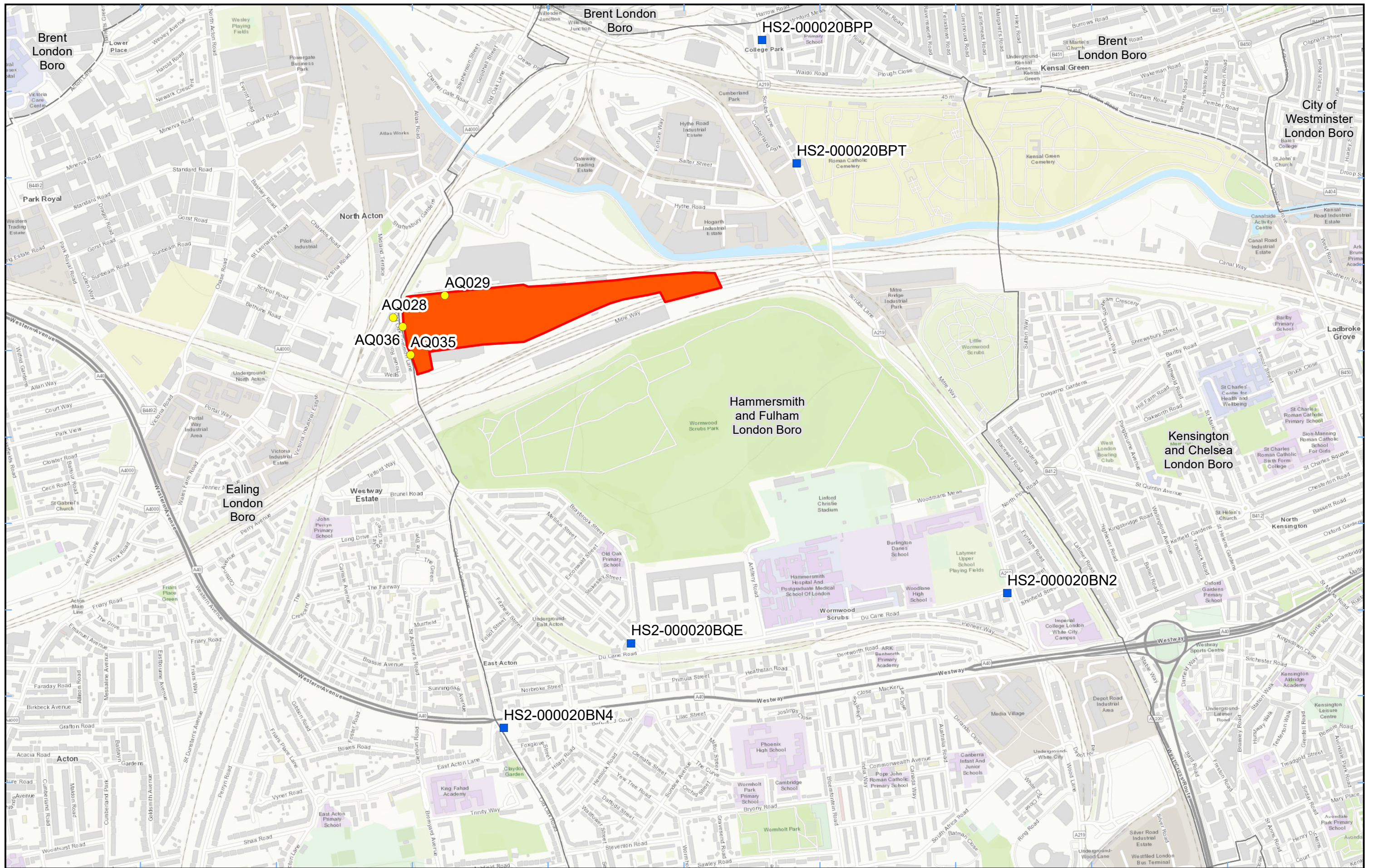
- 1.1.8 Dust trigger alerts were recorded during the monitoring period (October 2021) and are reported in Appendix B, Table 3.
- 1.1.9 Diffusion tube monitoring of Nitrogen Dioxide (NO₂) is undertaken at seven (7) locations around highways within the LBHF as part of the management of air quality where significant effects may occur as a result of the scheme.
- 1.1.10 Diffusion tube monitoring results are 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 4, together with the 2021 running mean.
- 1.1.12 Table 1 provides a summary of the complaint information related to dust or air quality received during the reporting period, together with the findings of any related investigations.

Table 1 Summary of complaints received during October 2021 in LBHF

Complaint Reference No.	Worksite Reference	Description of complaint	Results of investigation
HS2-21-42607-C	Old Oak Common Station Site	Residents complained about dust present in homes and general air quality/dust issues in the local area.	HS2 continues to place the utmost importance on air quality, through dust suppression measures, in line with best practical means, and reducing emissions by implementing strict emission standards for both construction vehicles and plant & machinery.
HS2-21-42750-C	-	Damping down of dust/grit has caused drain blockages and a flooding risk	An investigation is ongoing to determine any risk linked to site run off. Mitigation measures are applied across the sites in line with the HS2 Code of Construction Practice.

Appendix A – Worksites and Monitoring Locations

Figure 1 to 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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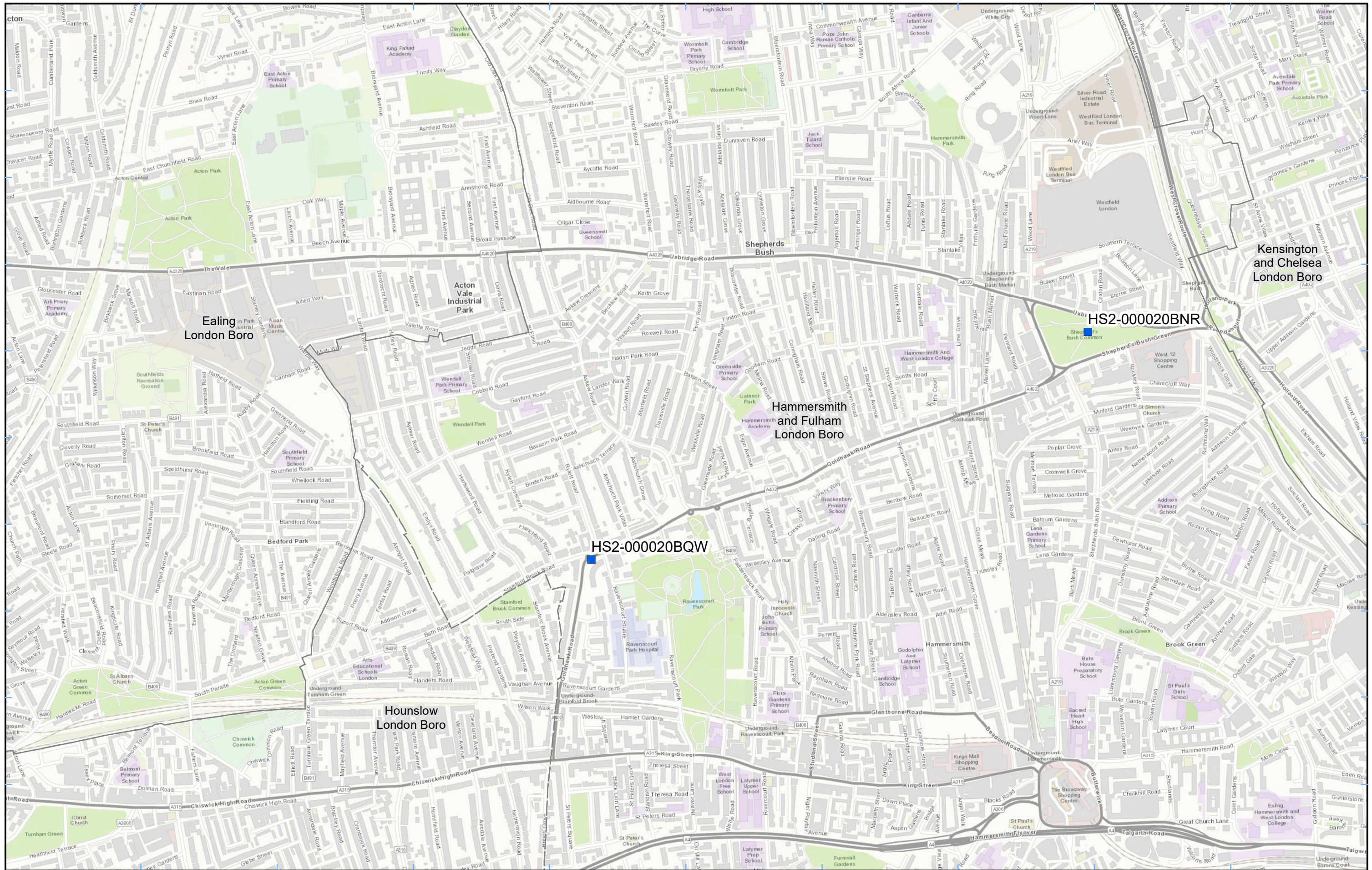
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Legend
 Diffusion Tube
 District Borough Unitary Boundaries

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

Table 2: Dust Monitoring locations and October 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	M	Yes	N	21.4	1.6	194.9	1	100.0
AQ029	521453, 182132	Old Oak Common	H	Yes	N	10.7	1.3	43.6	0	100.0
AQ035	521353, 181959	Old Oak Common	H	Yes	N	18.2	1.8	214.6	2	100.0
AQ036	521330, 182041	Old Oak Common	H	Yes	N	21.6	2.1	70.0	0	100.0

Table 3: Summary of exceedances of trigger level in October 2021

Monitoring site ID	Period exceeding trigger level	Investigation	Outcomes/ Resolution/ Remedial measures implemented
AQ028	13/10/2021 at 14:00 BST (13:00 GMT) – 194.9 µg/m ³	On investigation, it was deemed that the most likely activity to have caused the alert was the operation of the road sweeper along Old Oak Common Road.	<p>New road sweeper driver today was reminded again not to sweep next to monitors.</p> <p>Continually using road sweep on site haul roads, all site vehicles go through site wheel wash when leaving site.</p> <p>The road works along Old Oak Common lane have recently moved along with the position of the traffic lights so build-up of traffic along this road is not unusual directly in front of the monitor.</p> <p>Further investigations beyond the site boundaries were undertaken. It was noted that the roads were clean with continuously sweeping on-going. As a result, it is unclear as to what caused the alert.</p>
AQ035	01/10/2021 at 14:00 BST (13:00 GMT) – 197.4 µg/m ³	<p>Deliveries entering and leaving site are likely to have caused the exceedance. At the time of the alert, there were approximately 25 vehicles each way per hour.</p> <p>-----</p> <p>There were no other works being carried out in close proximity to the monitor at the time of the alert.</p>	<p>A road sweeper will continue to be deployed. Dampening down of the haul road occurs before any sweeping takes place.</p> <p>All vehicles use the site wheel wash on leaving site.</p> <p>BBVS Environment Manager and the Clipfline Logistics Manager have discussed the importance of liberally dampening down along the haul road with the sweeper driver.</p> <p>It is considered that the main cause for the reoccurrence of alerts in this location is as a result of the monitor being positioned very close to the ground which raises the risk of false alerts.</p> <p>The monitor location is being reviewed, and potential repositioning on the site boundary and closer to sensitive receptors to ensure a better reflection of air quality conditions and impacts associated with the onsite activities.</p>

Monitoring site ID	Period exceeding trigger level	Investigation	Outcomes/ Resolution/ Remedial measures implemented
AQ035	04/10/2021 14:00 BST (13:00 GMT) – 214.6 µg/m ³	No vehicle movements were taking place in proximity to the monitor at the time of the alert.	The road sweeper was dispersing water across the roads

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



Appendix C – Air Quality Monitoring Results

Table 4: 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	49	46	42	45	Tube Missing	35	34	49				44
HS2-000020BN4	End of cycle lane sign on Old Oak Road	521625, 180871	55	49	47	54	48	43	34	33	47				45
HS2-000020BNR	Lamp posts in Shepherd's Bush Common	523481, 179871	42	39	34	33	34	25	26	25	43				33
HS2-000020BPP	Sign post on A219 Scrubs Lane, South of Harrow Road	522378, 182877	48	52	40	40	39	37	42	35	51				43
HS2-000020BPT	Controlled Zone/Zone Ends road sign on A219 Scrubs Lane, north of Hythe Road	522478, 182517	52	52	44	45	42	36	34	33	42				42
HS2-000020BQE	Lamp post next to No 11 Wulfstan Street	521996, 181118	38	33	33	29	27	19	21	19	32				28
HS2-000020BQW	Lamp post on A402 Goldhawk Road	522037, 179209	44	44	39	36	35	34	26	27	40				36

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.