

## Air Quality and Dust Monitoring Monthly Report – September 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.

High Speed Two (HS2) Limited,  
Two Snowhill  
Snow Hill Queensway  
Birmingham B4 6GA

Telephone: 08081 434 434

General email enquiries: [HS2enquiries@hs2.org.uk](mailto:HS2enquiries@hs2.org.uk)

Website: [www.gov.uk/hs2](http://www.gov.uk/hs2)

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

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# Monthly Summary

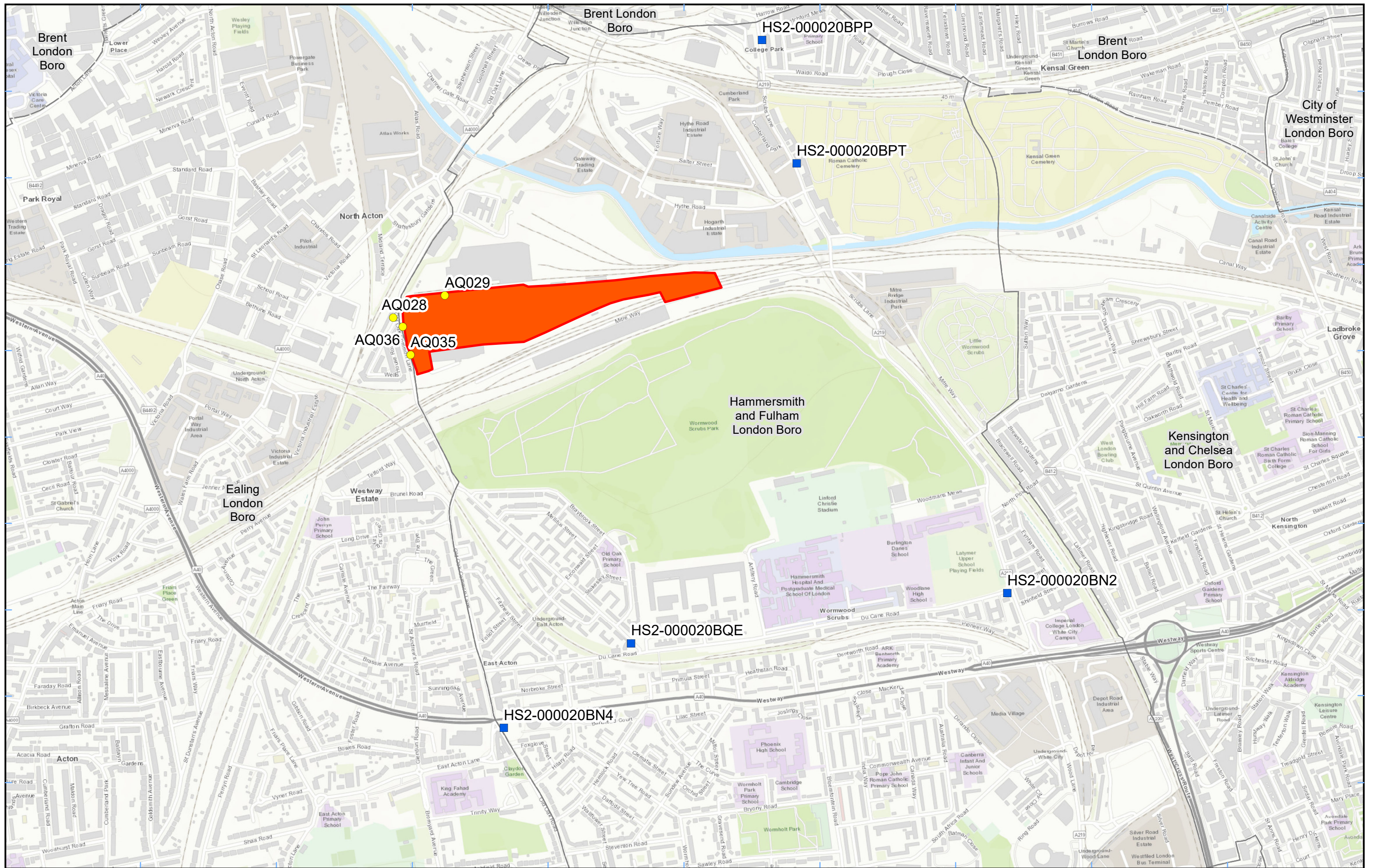
- 1.1.1 This Summary Report is published in fulfilment of commitments detailed in the High Speed Rail (London-West Midlands) Environmental Minimum Requirements, Annex 1: Code of Construction Practice, for the nominated undertaker to present the results of air quality and dust monitoring undertaken in the London Borough of Hammersmith and Fulham (LBHF) during August and September 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](http://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 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, include:
- Old Oak Common Depot and mobilisation and new site set up for the station works.
  - Ground reduction works;
  - Permanent Accommodation Building construction;
  - Vegetation clearance;
  - HEX railway sidings demolition;
  - construction of temporary haul roads;
  - drainage installation;
  - Piling and excavation activities;
  - Platform, guide wall and muck away activities;
  - Top soil striping – Wormwood Scrubs;
  - Haul Road Excavation and backfill.
- 1.1.5 Four (4) dust monitors are installed around the worksite, where works are underway. These sites returned a medium and high dust risk rating.
- 1.1.6 Dust monitoring locations and results are presented in Appendix B, **Error! Reference source not found.**, 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 PM<sub>10</sub> concentrations of 190 µg/m<sup>3</sup>, 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 dust trigger alerts recorded during this monitoring period (September 2021). Triggers are presented in Appendix B, Table 3. All other results were in line with expected ranges.
- 1.1.9 Diffusion tube monitoring of Nitrogen Dioxide (NO<sub>2</sub>) 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 NO<sub>2</sub> monitoring locations and results are presented in Appendix C, Table , together with the 2021 running mean.
- 1.1.12 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

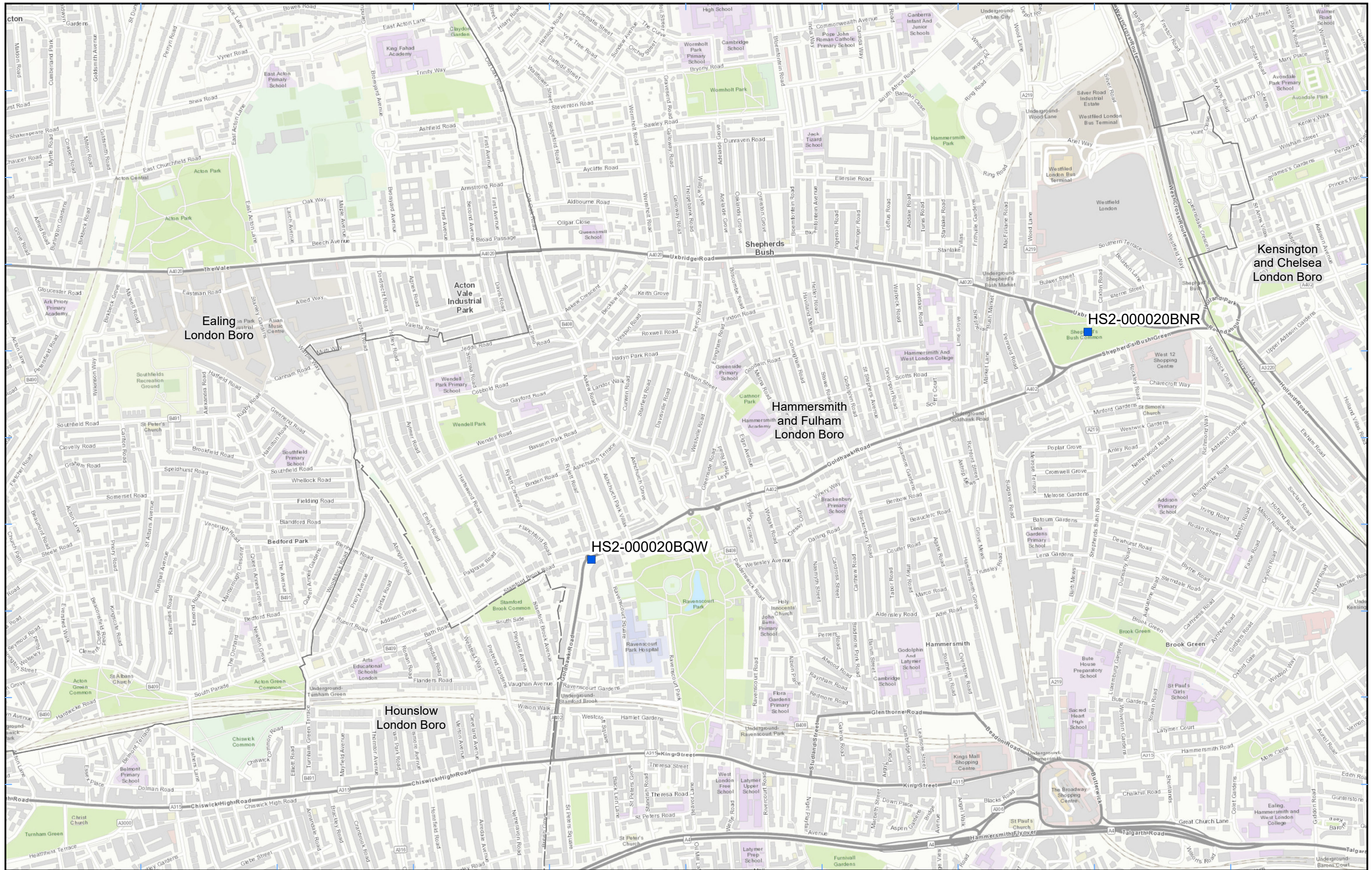
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Map Number  
Map Name  
**Worksite and Monitoring Locations  
In LBHF (Sheet 1)**  
London Borough of Hammersmith  
and Fulham

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**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**


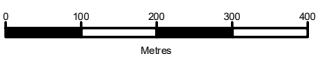
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## Appendix B – Dust Monitoring Results

Table 1: Dust Monitoring locations and September 2021 results

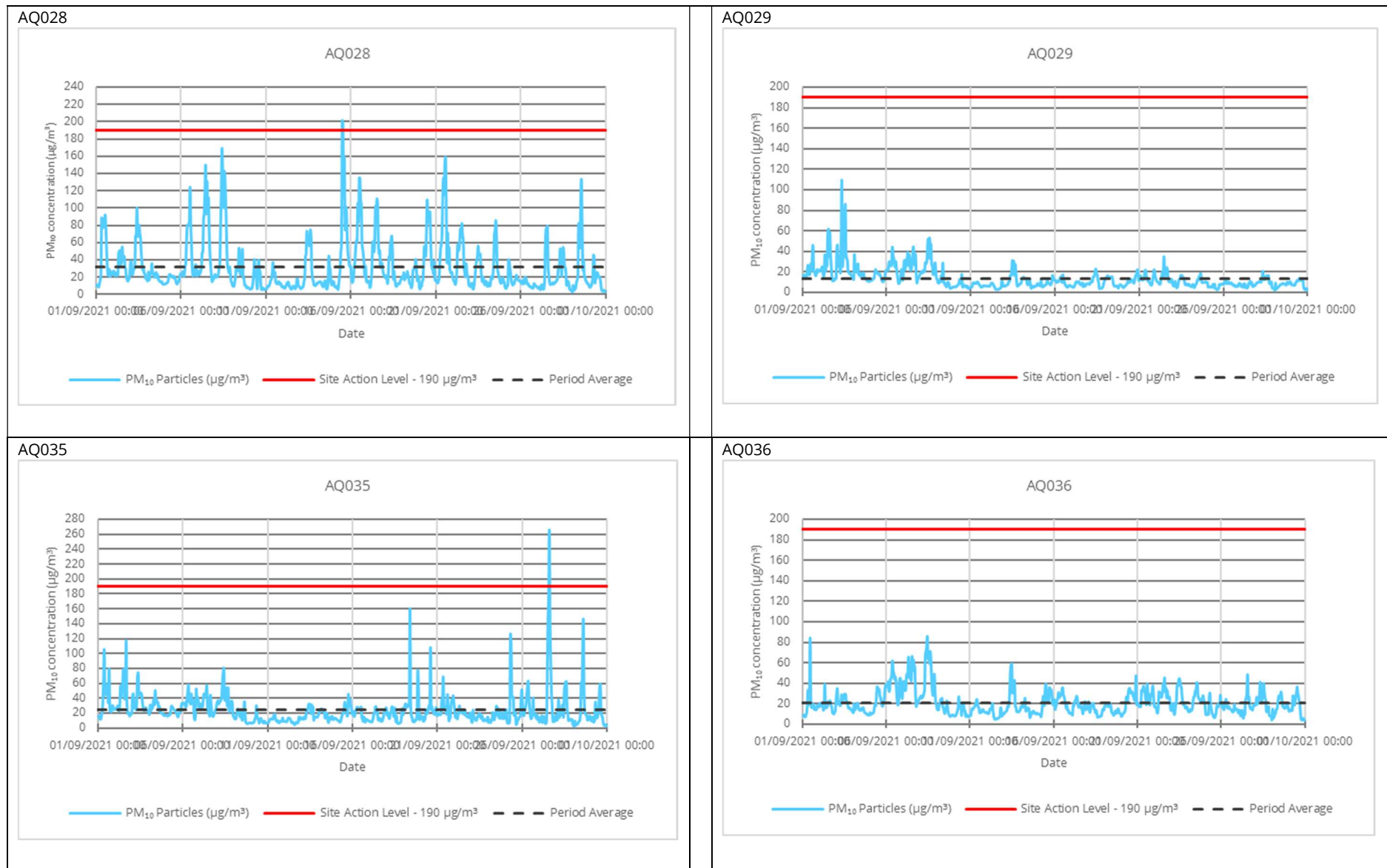
Monitoring site ID	Coordinates (X,Y)	Location description	Dust risk rating for site	Monitoring site active during period	Change to site since previous period report	Mean 1-hour PM <sub>10</sub> concentration (µg/m <sup>3</sup> )	Minimum 1-hour PM <sub>10</sub> concentration (µg/m <sup>3</sup> )	Maximum 1-hour PM <sub>10</sub> concentration (µg/m <sup>3</sup> )	Number of 1-hour periods exceeding trigger level of 190 µg/m <sup>3</sup>	Data capture (%)
AQ028	521302, 182067	Wells House Road	M	Yes	N	31.4	2.8	201.5	2	100.0
AQ029	521453, 182132	Old Oak Common	H	Yes	N	13.4	2.1	109.4	0	100.0
AQ035	521353, 181959	Old Oak Common	H	Yes	N	24.0	2.6	266.0	1	100.0
AQ036	521330, 182041	Old Oak Common	H	Yes	N	20.9	3.7	85.9	0	100.0



Table 2: Summary of triggers in September 2021

Monitoring site ID	Period exceeding trigger level	Investigation	Outcomes / Resolution / Remedial measures implemented
AQ028	15/09/2021 13:00 BST (12:00 GMT) – 201.5 µg/m <sup>3</sup> 14:00 BST (13:00 GMT) – 197.2 µg/m <sup>3</sup>	<p>Local works (Not Old Oak Common related) were on-going away from site with use of temporary traffic lights. These caused traffic congestion at Victoria road roundabout which caused traffic to backup to Old Oak Common Lane where the monitor was located.</p> <p>Deliveries entering and leaving site via Old Oak Common Lane.</p> <p>The closest work area to the monitor was the east box, with platform installation, and the west box, with D-wall installation.</p> <p>Ecological Supervision of works in area AD7.1.</p> <p>Vegetation maintenance in area AD1AA (strimming to ground level).</p>	<p>The vehicle traffic caused by external works is the main source of dust exceedances.</p> <p>Using road sweeper on site haul roads and Old Oak Common Lane. Using water bowser on site roads. All vehicles use wheel wash when leaving site. We are sending a sweeper on to Old Oak Common lane.</p> <p>Visual observations were being undertaken and as a result of the weather conditions experienced earlier in the week, the area was still wet.</p> <p>Concrete supplied from on-site plant to reduce lorries on Old Oak Common Lane.</p> <p>It is considered that these works would produce negligible amounts of dust, if any. Therefore, no actions are required.</p>
AQ035	27/09/2021 15:00 BST (14:00 GMT) – 266.0 µg/m <sup>3</sup>	<p>This alert was triggered by the sweeper going past the monitor and due to lack of water in the tank, dust was blown towards the vicinity of the monitor.</p> <p>Site vehicles and deliveries moving on site haul roads.</p>	<p>Use Road sweeper continually on-site haul roads.</p> <p>All vehicles use the site wheel wash when leaving site.</p> <p>Road sweeper driver was reminded about sweeping when roads are dry.</p>

Figure 3: Construction dust 1-hour mean indicative PM<sub>10</sub> concentration for dust monitors





## Appendix C – Air Quality Monitoring Results

Table 3: NO<sub>2</sub> monitoring locations around highways NO<sub>2</sub> concentrations and monthly monitoring results with running mean for 2021 (µg/m<sup>3</sup>)

Monitoring Site ID	Location description	Coordinates (X, Y)	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Mean <sup>1</sup>
HS2-000020BN2	Lamp post on Du Cane Road	523092, 181264	52	49	46	42	45	Tube Missing	35	34					43
HS2-000020BN4	End of cycle lane sign on Old Oak Road	521625, 180871	55	49	47	54	48	43	34	33					45
HS2-000020BNR	Lamp posts in Shepherd's Bush Common	523481, 179871	42	39	34	33	34	25	26	25					32
HS2-000020BPP	Sign post on A219 Scrubs Lane, South of Harrow Road	522378, 182877	48	52	40	40	39	37	42	35					42
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
HS2-000020BQE	Lamp post next to No 11 Wulfstan Street	521996, 181118	38	33	33	29	27	19	21	19					27
HS2-000020BQW	Lamp post on A402 Goldhawk Road	522037, 179209	44	44	39	36	35	34	26	27					36

<sup>1</sup> 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.