

## Air Quality and Dust Monitoring Monthly Report – **May 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

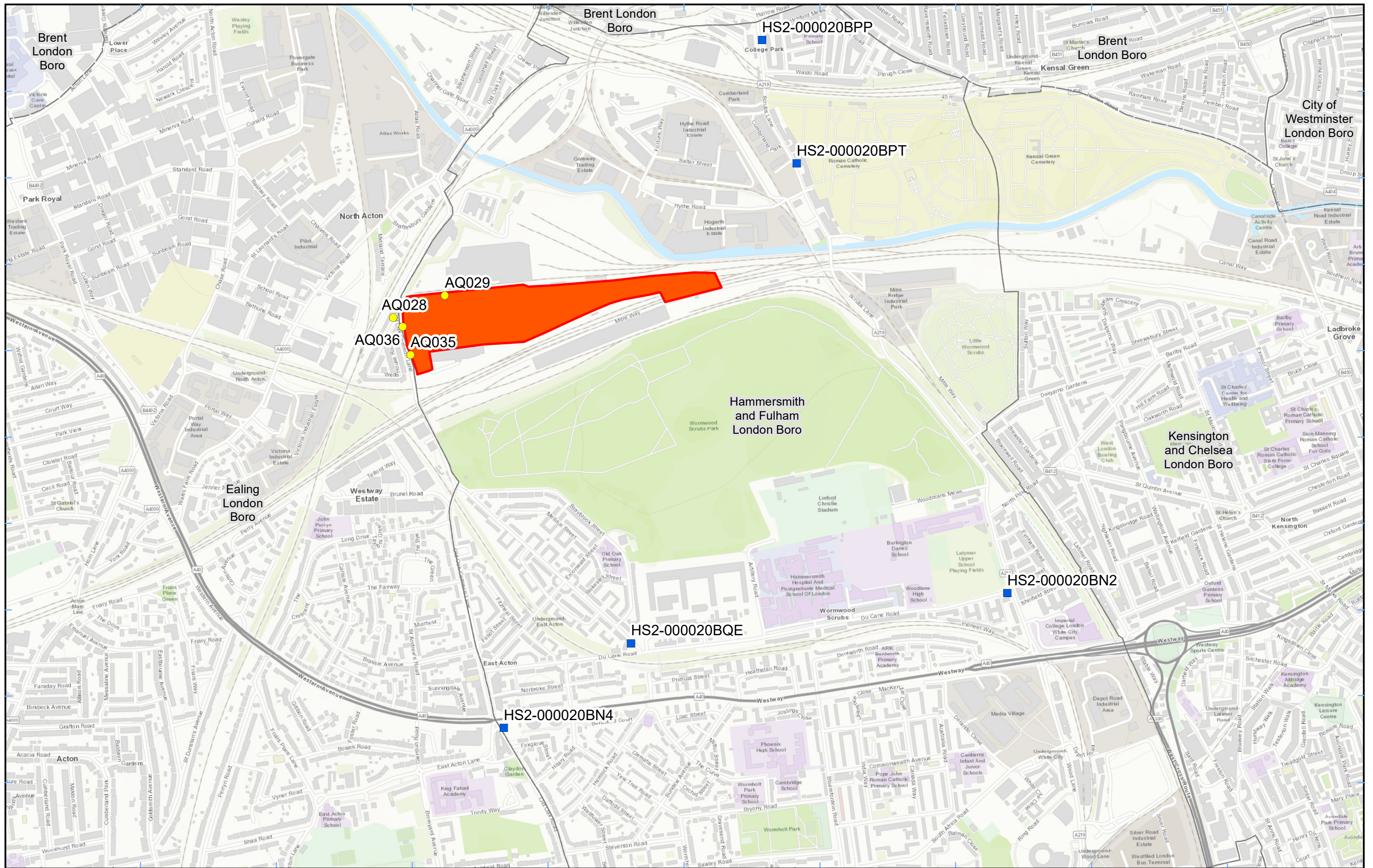
- 1.1.1 This Summary Report is published in fulfilment of commitments detailed in the High Speed Rail (London-West Midlands) Environmental Minimum Requirements, Annex 1: Code of Construction Practice, for the nominated undertaker to present the results of air quality and dust monitoring undertaken in the London Borough of Hammersmith and Fulham (LBHF) during April and May 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 Construction works commenced 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.
  - Piling platform and guide wall installation;
  - Test Piles, Concrete plant construction, Polymer plant set up;
  - Concreting test pile;
  - Area set up and batching plant slab pour;
  - Tree pruning and strimming in conveyor route;
  - Stump grinding on Wormwood Scrubs;
  - Felling trees and vegetation clearance in Satellite sites;
  - Ivy Treatment – Old Oak Common Lane;
  - Construction of permanent welfare slab;
  - Central box - ground reduction, formation and drainage works;
  - North side of east box - install of sheet piling;
  - South side of east box - pile probing / asbestos removal works / pile mat installation;
  - Construction of temporary haul road;
  - Construction of permanent Phase 1 roads; and
  - Installation of services and construction of permanent welfare slab.
- 1.1.5 Four (4) dust monitors are installed around the worksite. This site 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 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 no (0) dust trigger alerts recorded during this monitoring period (January 2021).
- 1.1.9 Data capture was monitors AQ029 and AQ036 was below 90% for the month of May 2021, due to a power supply issue causing data loss. The monitors will be switched from a generator to mains power which will resolve the issue.
- 1.1.10 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.
- 1.1.11 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.
- 1.1.12 NO<sub>2</sub> 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 received, relating to air quality or dust, during this reporting period (May 2021).

# Appendix A – Worksites and Monitoring Locations

Figure 1 and 2: Worksites and monitoring locations within the LBHF



**Legend**

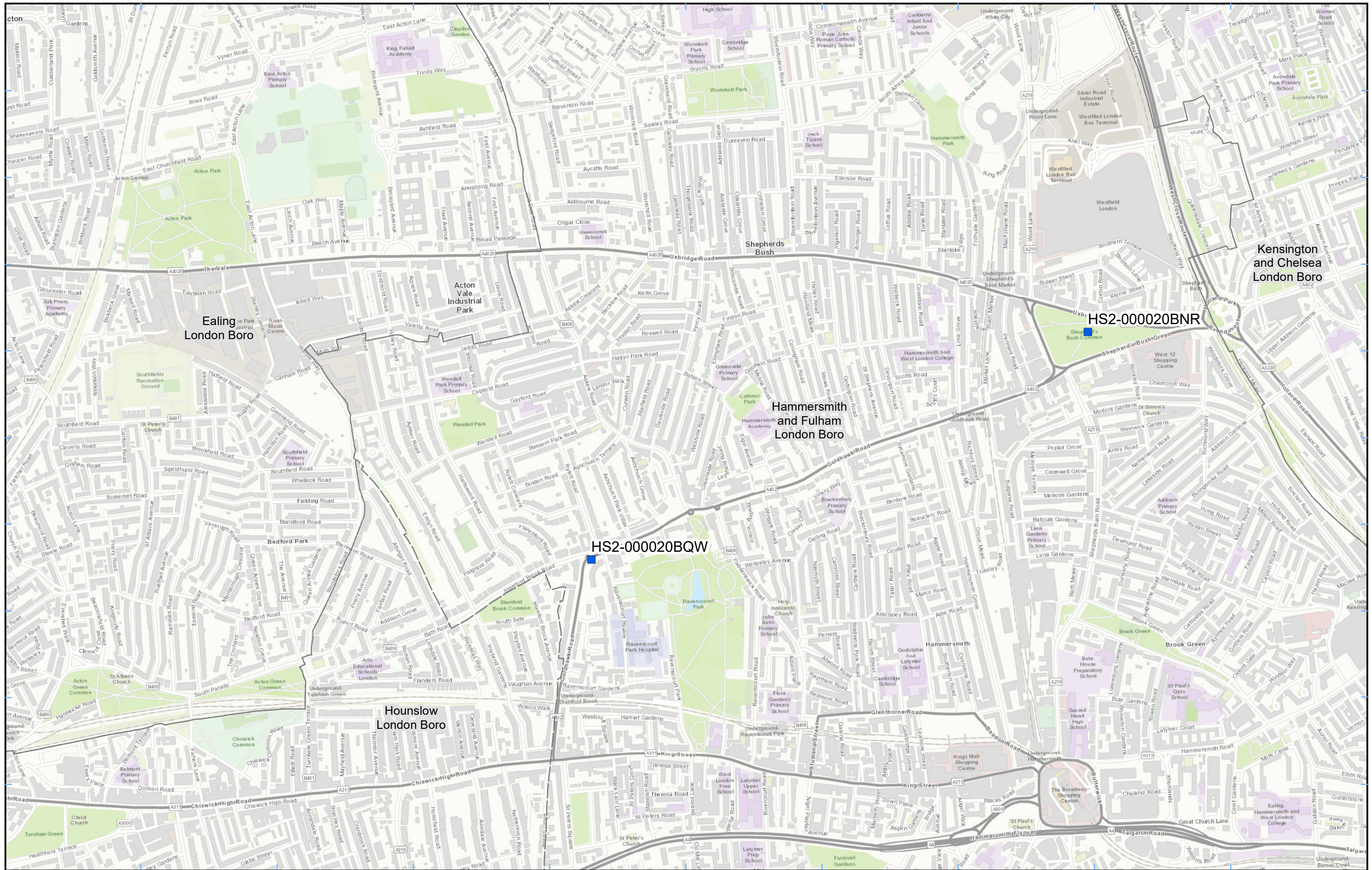
- Diffusion Tube
- Worksite
- Dust Monitor
- District Borough Unitary Boundaries

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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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**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  
 and Fulham**

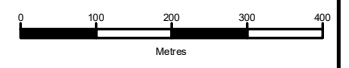
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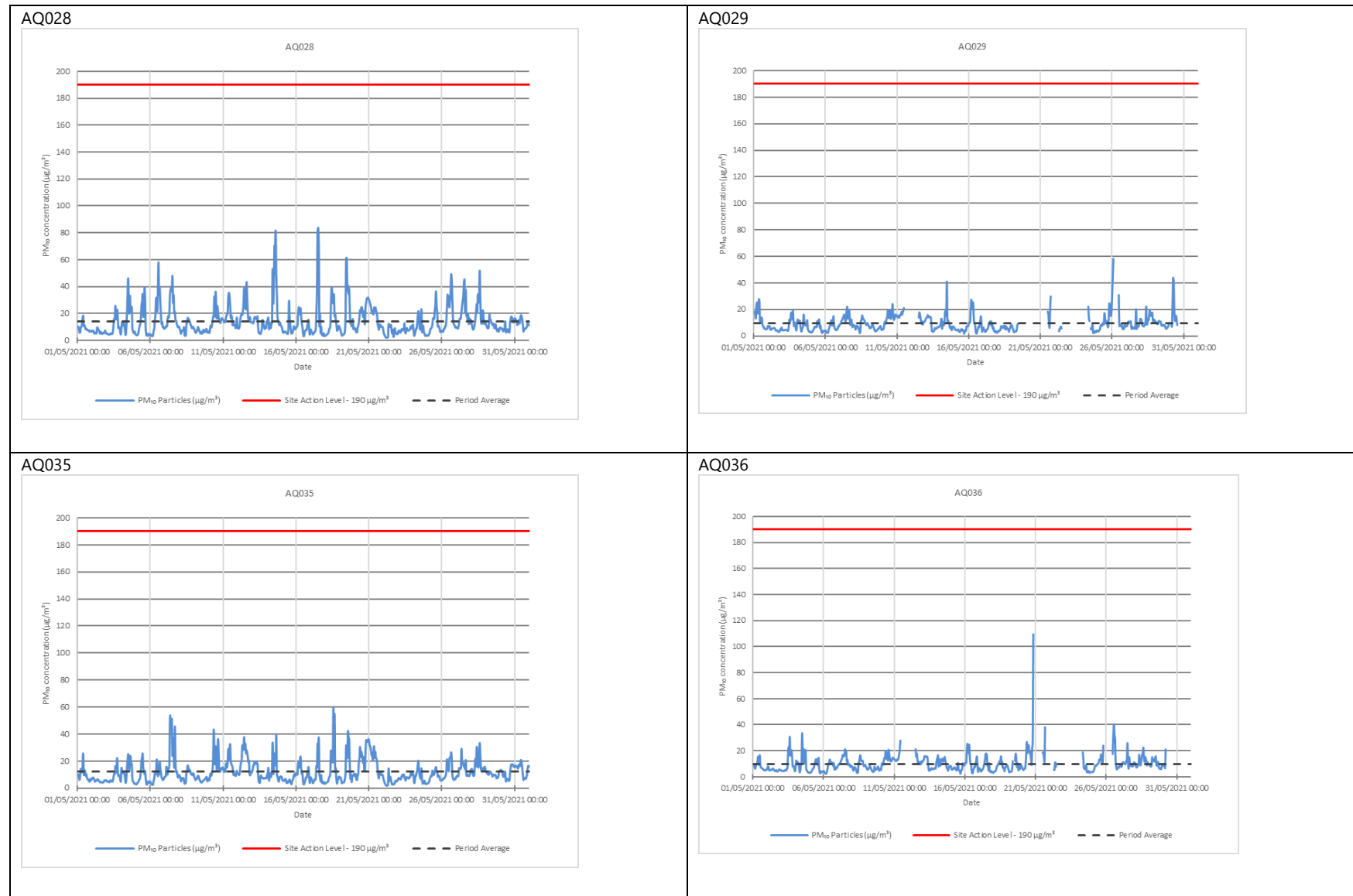
## Appendix B – Dust Monitoring Results

Table 1 Dust Monitoring locations and April 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	14.1	1.8	83.7	0	100.0
AQ029	521453, 182132	Old Oak Common	H	Yes	N	9.5	1.9	58.3	0	76.6
AQ035	521353, 181959	Old Oak Common	H	Yes	N	12.1	1.7	59.6	0	100.0
AQ036	521330, 182041	Old Oak Common	H	Yes	N	9.8	2.2	109.7	0	78.6



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



## Appendix C – Air Quality Monitoring Results

Table 2: 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									47
HS2-000020BN4	End of cycle lane sign on Old Oak Road	521625, 180871	55	49	47	54									51
HS2-000020BNR	Lamp posts in Shepherd's Bush Common	523481, 179871	42	39	34	33									37
HS2-000020BPP	Sign post on A219 Scrubs Lane, South of Harrow Road	522378, 182877	48	52	40	40									45
HS2-000020BPT	Controlled Zone/Zone Ends road sign on A219 Scrubs Lane, north of Hythe Road	522478, 182517	52	52	44	45									48
HS2-000020BQE	Lamp post next to No 11 Wulfstan Street	521996, 181118	38	33	33	29									33
HS2-000020BQW	Lamp post on A402 Goldhawk Road	522037, 179209	44	44	39	36									41

<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.