

Air Quality and Dust Monitoring Monthly Report – September 2024

London Borough of Hammersmith and Fulham



Department for Transport

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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 August 2024 and September 2024 respectively.

1.1.2 Figure 1 and Figure 2 in Appendix A present the current worksites 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 worksites, as presented in Appendix A, Figure 1 and Figure 2, include:

Old Oak Common Depot

- General Site - Conveyor demobilisation (Flat Iron), Concrete batching, materials management and haulage.
- Station Box – Concrete pours, D-Wall sealing, steel fixing.
- Great Western Main line – Piling excavation and breakdown, concrete pours.
- North London Line (NR): tree felling and vegetation clearance.
- Shared Accommodation Building – Drainage installations, fix reinforcement, pile recap backfill, FRC works.
- SAB East – Excavation of pile caps.
- Site haul roads and public roads adjacent to site - Cleaning with a road sweeper.
- Old Oak Common East – Cutting starter bars, work on abutments.
- Old Oak Common Lane – Utilities trial holes, and excavations.

Scheme 6

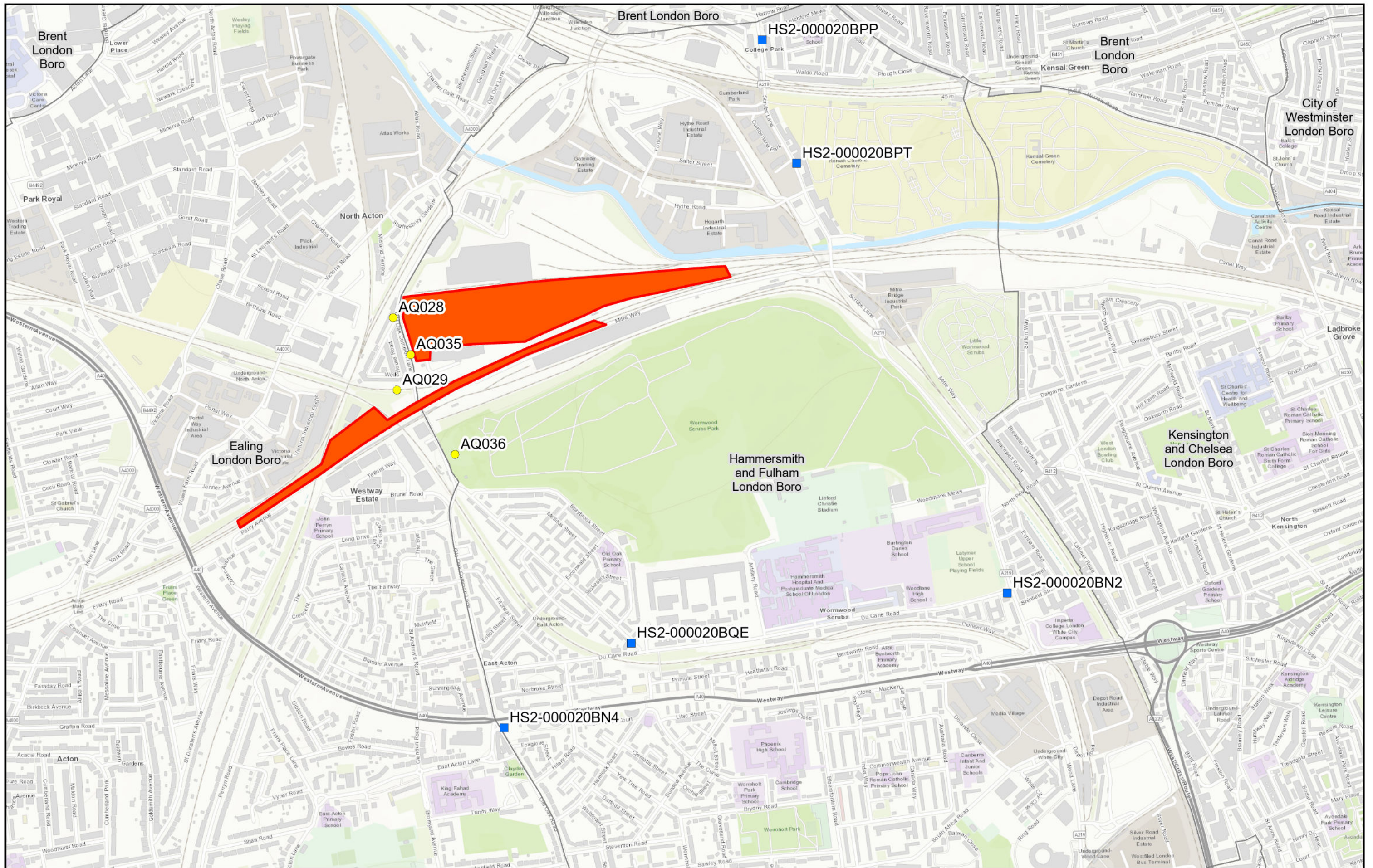
- OLE works: Installation on Carriage Lane, Acton Cutting Signal Gantry, Installation of Back Tie AT J02/31, Access Enablers Install SPS and Switching, North/ Central Pile Installation ATF Anchor.
- Civils works: North Pole Depot Compound, Acton Cutting Signal Gantry, OLE Fabrication Unit, Asset 4 Enabling Works , Acton Cutting Mains Side REB, Brownfield UTX East Compound, Drainage Outfall 3 Installation of Drainage Enabling Works for CMS.

1.1.5 Four (4) dust monitors are installed around these worksites, where works are underway. These sites returned a medium 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 presented 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 No (0) dust trigger alerts were recorded during the monitoring period (September 2024).
- 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 2, together with the 2024 running mean.
- 1.1.12 Data capture was below 90% for the AQ036 monitor due to intermittent power and communication issues.
- 1.1.13 There were no (0) complaints received during the reporting period (September 2024).

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

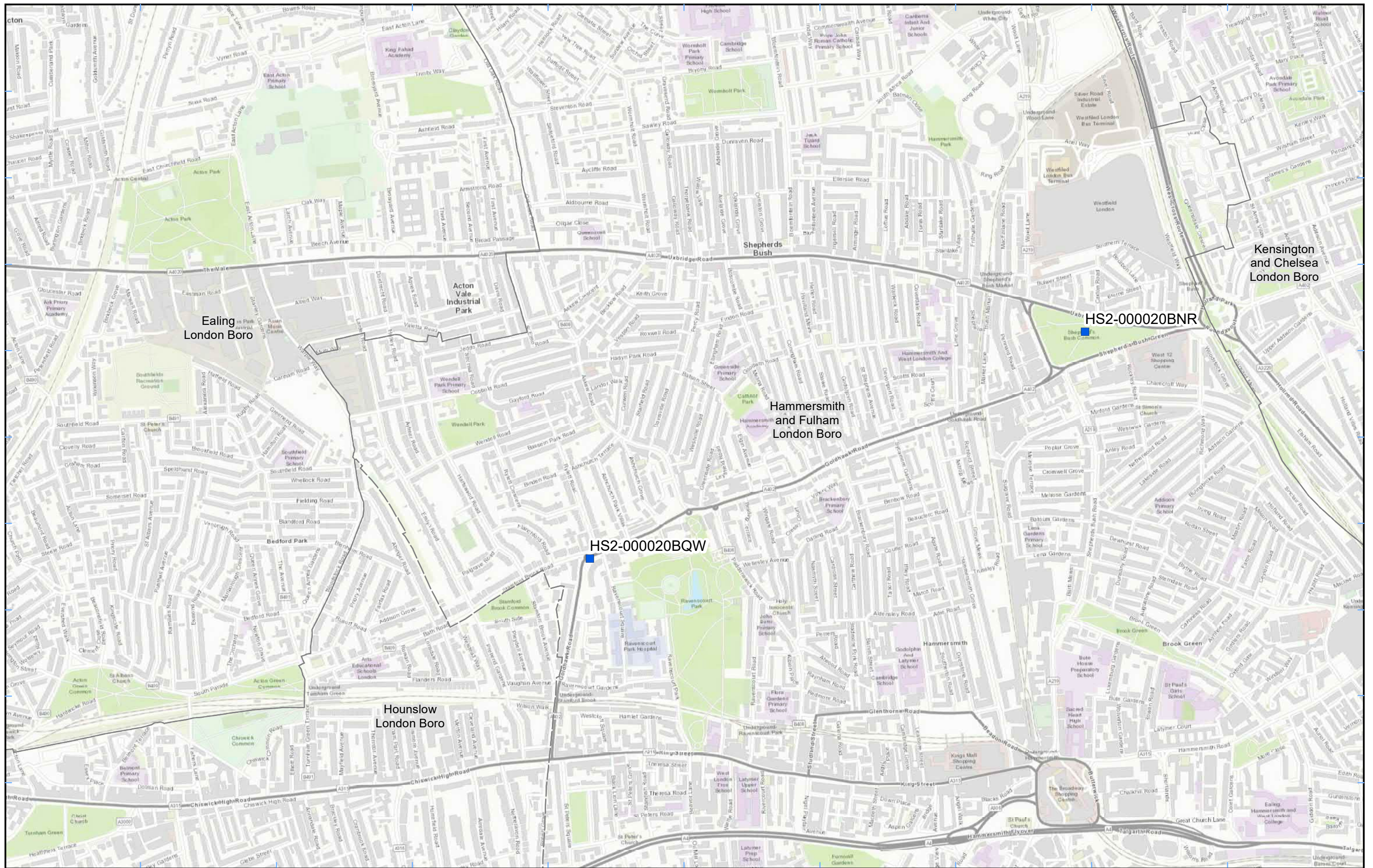
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Legend
■ Diffusion Tube
 District Borough Unitary Boundaries

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

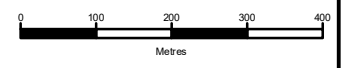
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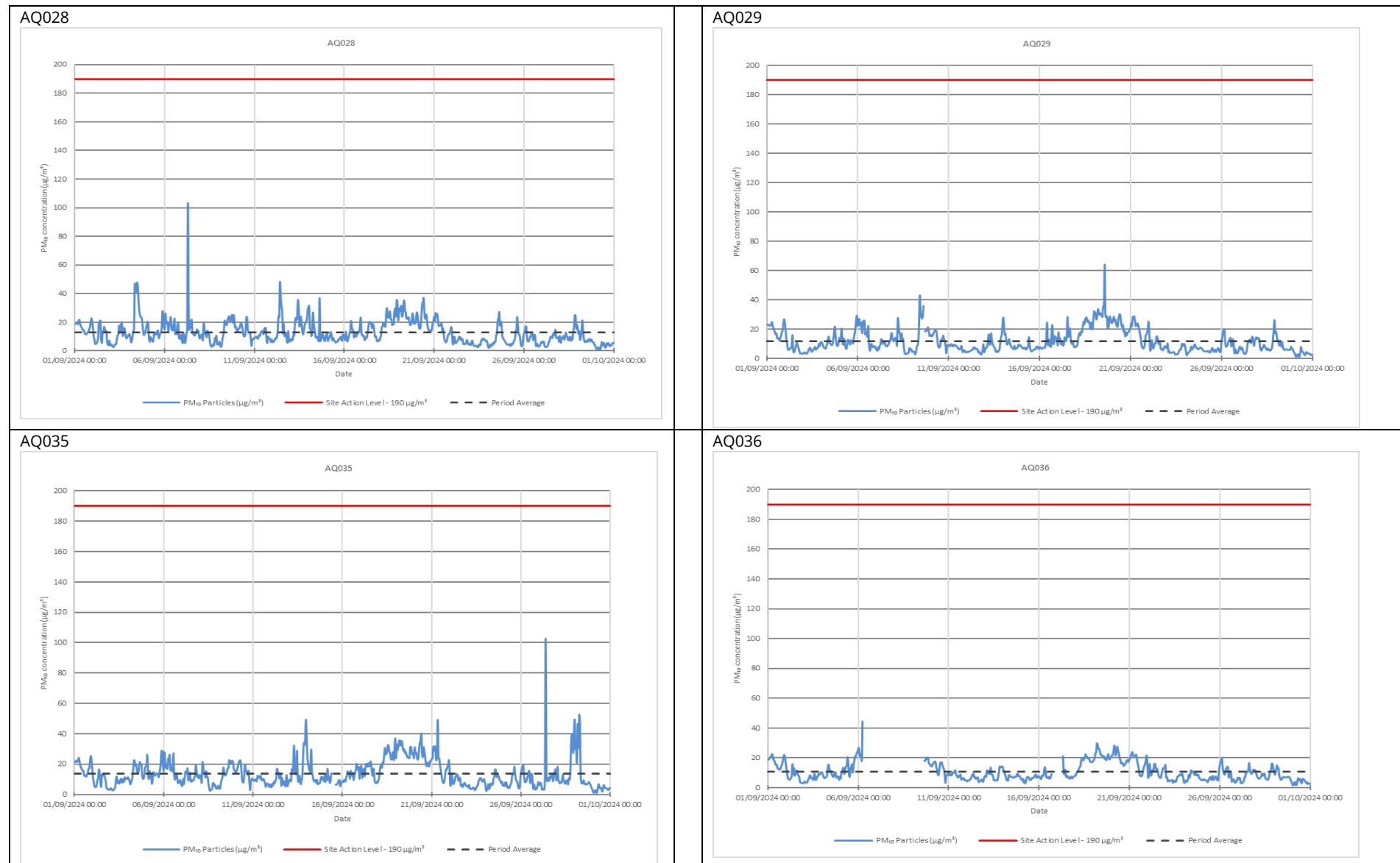


Appendix B – Dust Monitoring Results

Table 1: Dust Monitoring Locations and 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 | No | 13.0 | 1.0 | 103.3 | 0 | 100.0 |
| AQ029 | 521453, 182132 | Old Oak Common | M | Yes | No | 11.7 | 1.2 | 64.1 | 0 | 99.9 |
| AQ035 | 521353, 181959 | Old Oak Common | M | Yes | No | 13.8 | 1.2 | 102.7 | 0 | 99.3 |
| AQ036 | 521482, 181668 | UTX South - Triangle Site | M | Yes | No | 10.6 | 1.7 | 44.4 | 0 | 86.8 |

Figure 3: Construction dust 1-hour mean indicative PM₁₀ concentration for all 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 2024 (µg/m³)

| Monitoring Site ID | Location description | Coordinates (X, Y) | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Mean ¹² |
|--------------------|--|--------------------|-----|--------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--------------------|
| HS2-000020BN2 | Lamp post on Du Cane Road | 523092, 181264 | 35 | Tube Missing | 36 | 31 | 38 | 30 | 30 | 32 | | | | | 33 |
| HS2-000020BN4 | End of cycle lane sign on Old Oak Road | 521625, 180871 | 35 | 34 | 33 | 33 | 38 | 34 | 31 | 31 | | | | | 34 |
| HS2-000020BNR | Lamp posts in Shepherd's Bush Common | 523481, 179871 | 35 | 27 | 26 | 23 | 27 | 20 | 22 | 23 | | | | | 25 |
| HS2-000020BPP | Sign post on A219 Scrubs Lane, South of Harrow Road | 522378, 182877 | 39 | 40 | 34 | 27 | 35 | 31 | 25 | 31 | | | | | 33 |
| HS2-000020BPT | Controlled Zone/Zone Ends road sign on A219 Scrubs Lane, north of Hythe Road | 522478, 182517 | 44 | 33 | 35 | 30 | 36 | 29 | 28 | 28 | | | | | 33 |
| HS2-000020BQE | Lamp post next to No 11 Wulfstan Street | 521996, 181118 | 30 | 26 | 18 | 17 | 23 | 18 | 37 | 18 | | | | | 23 |
| HS2-000020BQW | Lamp post on A402 Goldhawk Road | 522037, 179209 | 35 | 35 | 30 | 30 | 27 | 25 | 31 | 23 | | | | | 29 |

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.

² The annual mean for diffusion tubes presented in the table above still require various analysis and adjustments to be undertaken before comparison to the Air Quality Objectives. The final corrected annual mean will be presented in the HS2 Annual Air Quality Report.