HS2

July 2025

Air Quality and Dust Monitoring Monthly Report – July 2025

London Borough of Ealing

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

Website: www.gov.uk/hs2

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

High Speed Two (HS2) Limited has actively considered the needs of blind and partially sighted people in accessing this document. The text will be made available in full on the HS2 website. The text may be freely downloaded and translated by individuals or organisations for conversion into other accessible formats. If you have other needs in this regard please contact High Speed Two (HS2) Limited.

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 Ealing (LBE) during June 2025 and July 2025 respectively.

1.1.2 Figure 1 to Figure 3 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 to Figure 3, include:

Old Oak Common Depot (located in the London Borough of Hammersmith and Fulham)

- General Site: Concrete batching, concrete batching plant demobilisation, materials management and haulage.
- Urban Realm: Concrete pours.
- Station Box: Steel fixing, concreting, formwork erection and striking.
- GWML: Concrete preparation pours, Backfilling, plant movement.
- SAB: Concreting, formwork installation, backfilling.
- Site haul roads and public roads adjacent to site: Cleaning with road sweeper.
- OOCL East: Auger drilling, core drilling.
- OOCL: Pipe laying, digging, backfilling, welding.
- MEPH: Compound set up, general site logistics.
- Blockwork: Blockwork, housekeeping.
- Attenuation Tank: Excavation, blowing out rubbing, concrete pours, formwork fixing rebar.

Victoria Road Crossover Box and Flat Iron Site

- Crossover Box construction;
- Tunnel Boring Machine preparation; and
- Materials management.

Willesden Euro Terminal

- Excavated material spoil management and onward removal by rail.

Atlas Road

- Materials management (tunnel boring machine arisings).

Green Park Way Vent Shaft

- Vent shaft construction;
- Tunnel Boring Machine removal; and
- Materials management.

Mandeville Road Vent Shaft

- Vent shaft construction; and
- Materials management.

Westgate Vent Shaft

- Vent shaft and headhouse construction; and
- Materials management.

1.1.5 Fifteen (15) dust monitors are installed around these 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 presented in Figure 4. 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_{10} concentrations of 190 µg/m^3, 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 Details of the trigger alert investigations and remediations are presented in Appendix B, Table 3.

1.1.9 Data capture was below 90% for multiple monitors. Monitor AQ029 had a technical fault with the monitor developing on 16th July 2025. This issue was resolved on 30th July 2025. Monitor AQ022 was due to a fault with monitor subsequently replaced.

1.1.10 Diffusion tube monitoring of Nitrogen Dioxide (NO_2) is undertaken at six (6) locations around highways within the LBE as part of the management of air quality where significant effects occur as a result of the scheme.

1.1.11 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.

1.1.12 NO_2 monitoring locations and results are presented in Appendix C, Table 4, together with the 2025 running mean.

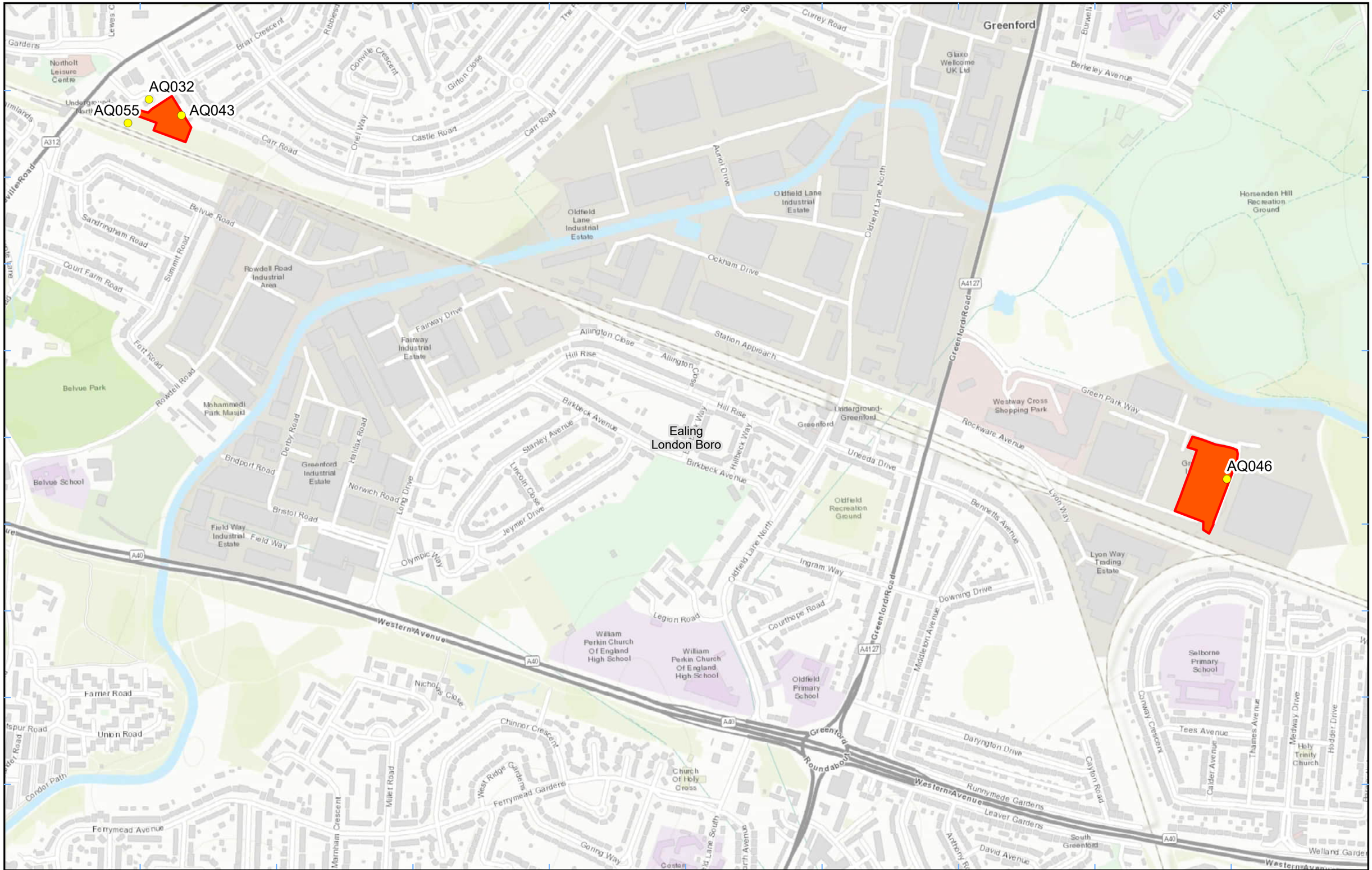
1.1.13 Table 1 provides a summary of the complaint information relating to dust or air quality received during the reporting period, together with the findings of any related investigations.

Table 1: Summary of complaints received during July 2025

Complaint Reference No.	Worksite Reference	Description of complaint	Results of investigation
HS2-25-46561-C	N/A	Increase in traffic fumes in the area.	All air quality monitors checked, no breaches were recorded. Resident has been updated.

Appendix A – Worksites and Monitoring Locations

Figures 1 to 3: Worksites and Monitoring Locations within the LBE



Legend

- Dust Monitor
- District Borough Unitary Boundaries
- Worksite

Map Number

Map Name

Worksite & Monitoring Locations In LBE (Sheet 1)

London Borough of Ealing

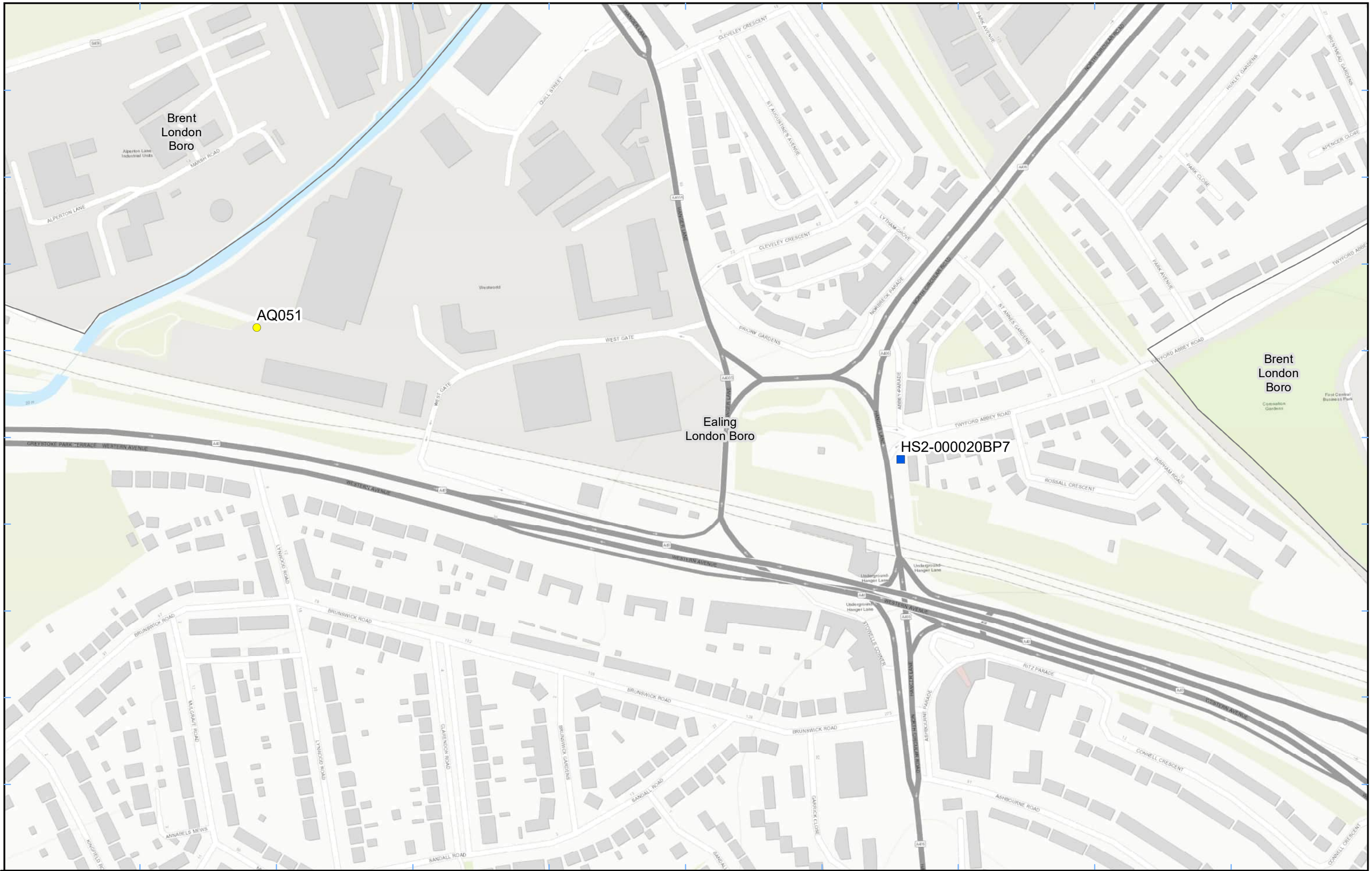
Registered in England. Registration number 06791686.
Registered office: 2 Snowhill, Queensway, Birmingham B4 6GA.

Scale at A3: 1:7,000

0 70 140 210 280
Metres

Doc Number:

Date: 18/05/23



Legend

- Diffusion Tube
- District Borough Unitary Boundaries
- Dust Monitor

Map Number

Map Name

Monitoring Locations
In LBE (Sheet 2)

London Borough of Ealing

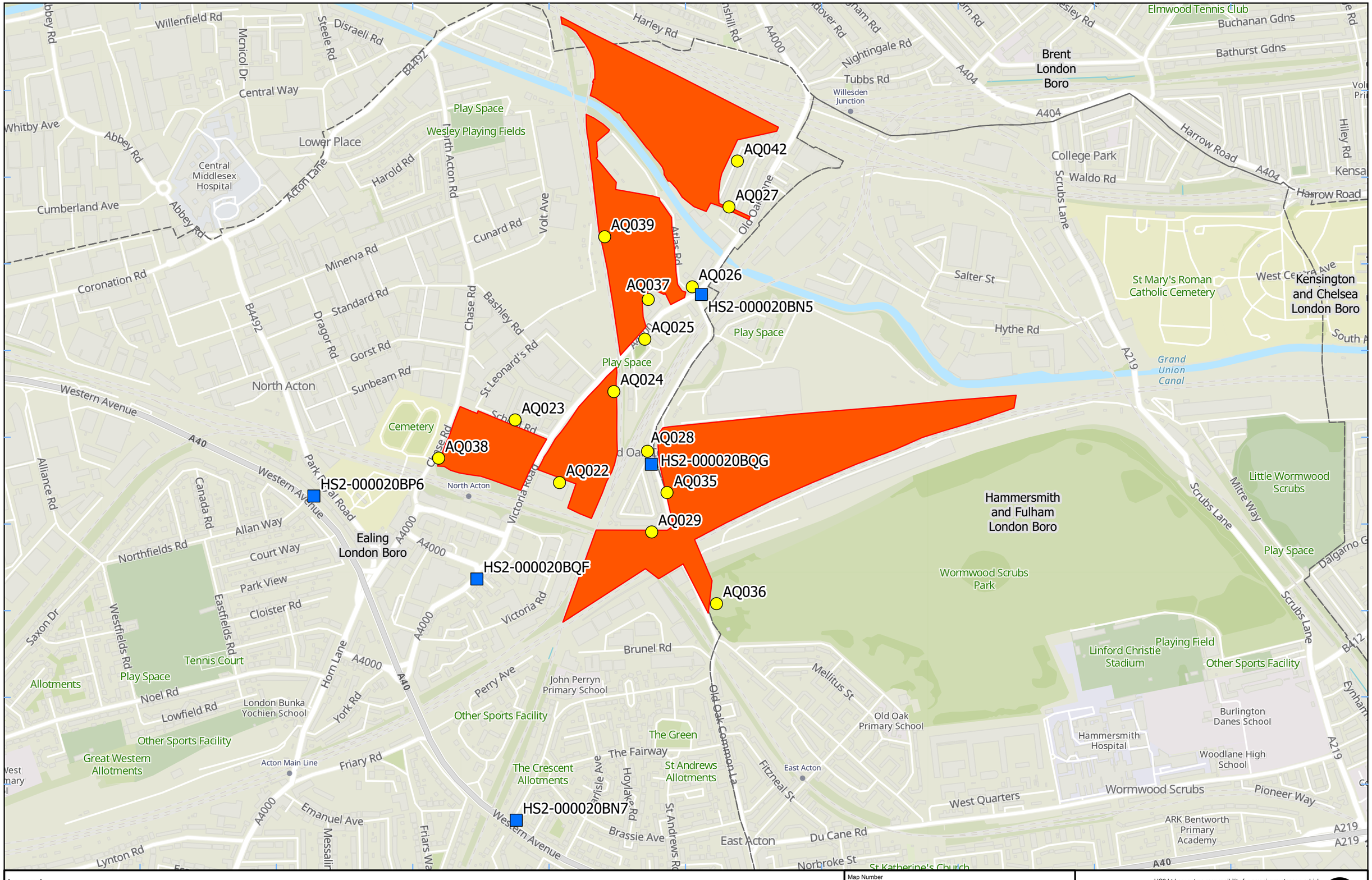
Registered in England. Registration number 06791686.
Registered office: 2 Snowhill, Queensway, Birmingham B4 6GA.

Scale at A3: 1:3,000

0 30 60 90 120
Metres

Doc Number:

Date: 26/04/22



Legend

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

Map Number

Map Name

Worksite and Monitoring Locations In LBE (Sheet 3)

London Borough of Ealing

Scale at A3: 1:9,000

Metres

Doc Number:

Date: 06/02/25

Appendix B – Dust Monitoring Results

Table 2: Dust Monitoring Locations and Results

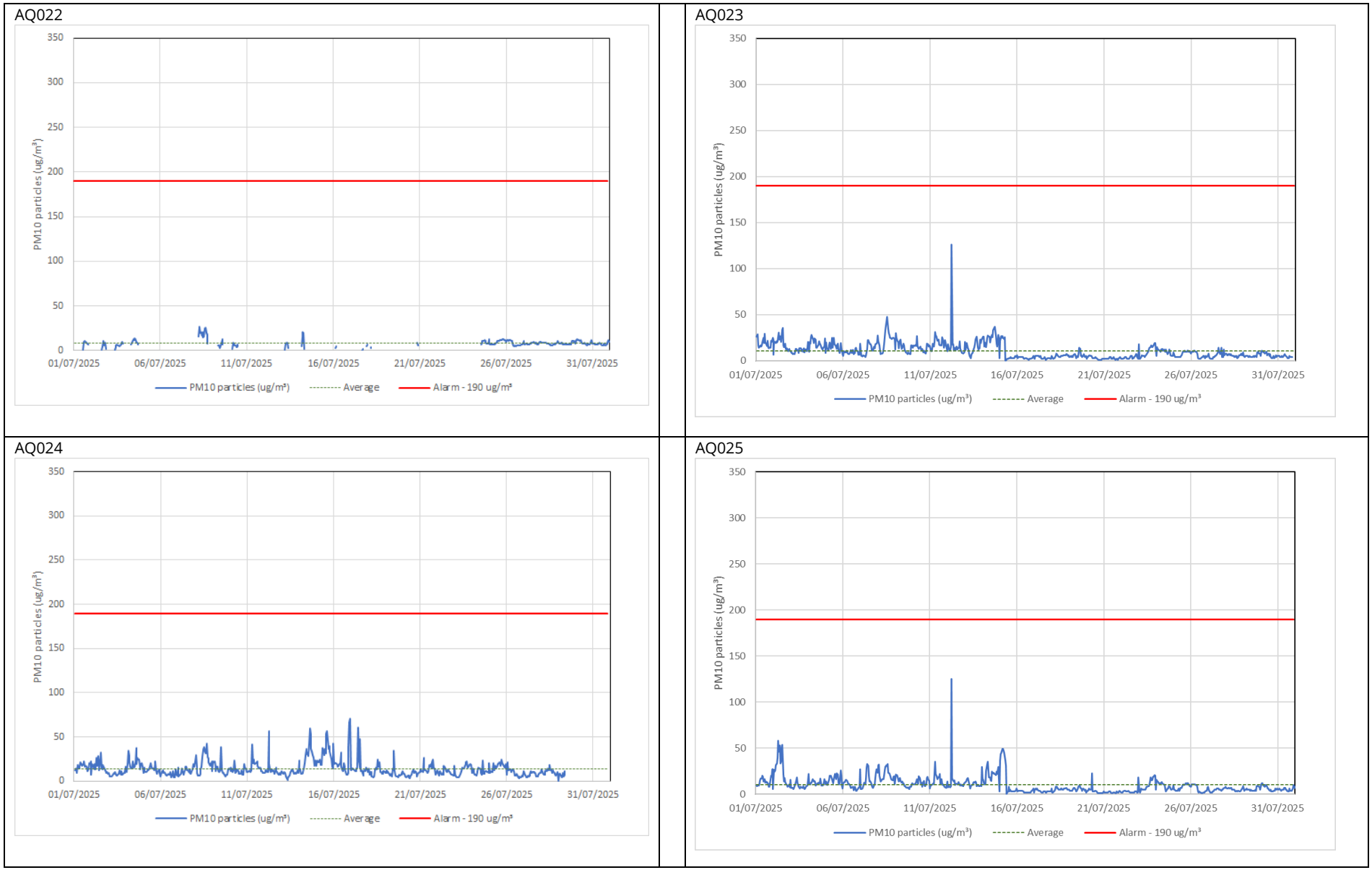
Monitoring site ID	Coordinates (X,Y)	Location description	Dust risk rating for site	Monitoring site active during period	Change to site since previous period report	Mean 1-hour PM_{10} concentration ($\mu g/m^3$)	Minimum 1-hour PM_{10} concentration ($\mu g/m^3$)	Maximum 1-hour PM_{10} concentration ($\mu g/m^3$)	Number of 1-hour periods exceeding trigger level of 190 $\mu g/m^3$	Data capture (%)
AQ022	521072, 181985	Boden House	M	Yes	N	8.6	0.1	27.1	0	36.7
AQ023	520956, 182149	School Road	M	Yes	N	10.8	1.0	125.9	0	99.7
AQ024	521214, 182223	Braitrim House	M	Yes	N	14.1	1.8	70.5	0	91.5
AQ025	521295, 182360	Victoria Road	M	Yes	N	10.3	1.0	125.2	0	99.9
AQ026	521419, 182497	Old Oak Lane	M	Yes	N	7.9	1.0	54.7	0	99.2
AQ027	521515, 182706	Channel Gate Road	M	Yes	N	7.5	1.0	243.2	1	100.0
AQ028	521302, 182067	Wells House Road	M	Yes	N	11.8	1.9	120.1	0	100.0
AQ029	521453, 182132	Old Oak Common	H	Yes	N	11.8	3.1	42.5	0	53.0
AQ032	513402, 184536	Badminton Close	M	Yes	N	6.3	1.0	21.0	0	99.9
AQ035	521353, 181959	Old Oak Common	H	Yes	N	12.1	2.7	104.5	0	100.0
AQ036	521482, 181668	UTX South – Triangle Site	M	Yes	N	15.0	2.2	280.0	3	95.4
AQ037	521304, 182464	Atlas Road	M	Yes	N	6.8	1.0	23.7	0	99.5

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 ($\mu g/m^3$)	Minimum 1-hour PM_{10} concentration ($\mu g/m^3$)	Maximum 1-hour PM_{10} concentration ($\mu g/m^3$)	Number of 1-hour periods exceeding trigger level of 190 $\mu g/m^3$	Data capture (%)
AQ038	520756, 182049	Chase Road	M	Yes	N	11.0	3.5	58.7	0	100.0
AQ039	521190, 182628	Atlas Road 2	M	Yes	N	7.0	1.0	62.8	0	100.0
AQ042	521537, 182826	Stephenson Road	M	Yes	N	9.3	1.0	162.0	0	99.3
AQ043	513468, 184504	Mandeville Road	M	Yes	N	9.7	1.0	33.1	0	100.0
AQ046	515593, 183764	Green Park Way	M	Yes	N	10.9	1.8	79.6	0	100.0
AQ051	517976, 182823	Westgate	M	Yes	N	14.3	2.3	168.1	0	100.0
AQ055	513359, 184488	Mandeville Road 2	M	Yes	N	7.8	1.0	22.9	0	100.0

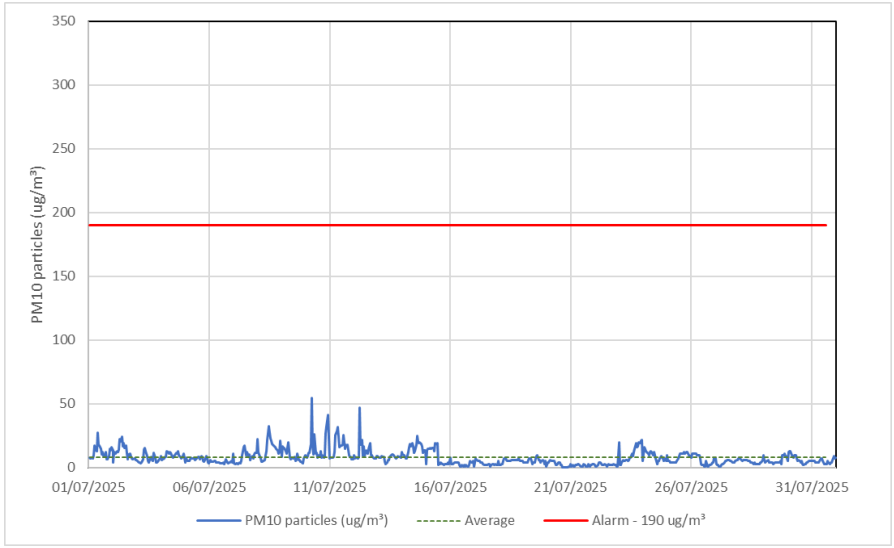
Table 3: Summary of exceedances during period (July 2025)

Monitoring site ID	Period exceeding trigger level	Investigation	Outcomes / Resolution / Remedial measures implemented
AQ027	11/07/2025 04:01 – 05:00; 243.2 µg/m^3	The monitor was reading erratically during the early hours of the mornings and evidently affected by the high humidity conditions resulting in spikes in data, one being above the Site Action Level.	N/A
AQ036	01/07/2025 10:01 – 11:00; 273.6 µg/m^3 11:01 – 12:00; 225.1 µg/m^3 13:01 – 14:00; 280.0 µg/m^3	An investigation was undertaken and determined that hot and dry weather conditions while excavating in Wormwood Scrubs. The works were taking place in very close proximity to the monitor with the wind blowing in a south-easterly direction (i.e. directly towards the monitor) throughout the course of the day. Dust suppression was in operation throughout all works that afternoon.	OCU increased the frequency of dust suppression across all areas of the sites given the hotter drier weather experienced in July. An additional water bowser was brought in to aid dust suppression within the affected area and this approach.

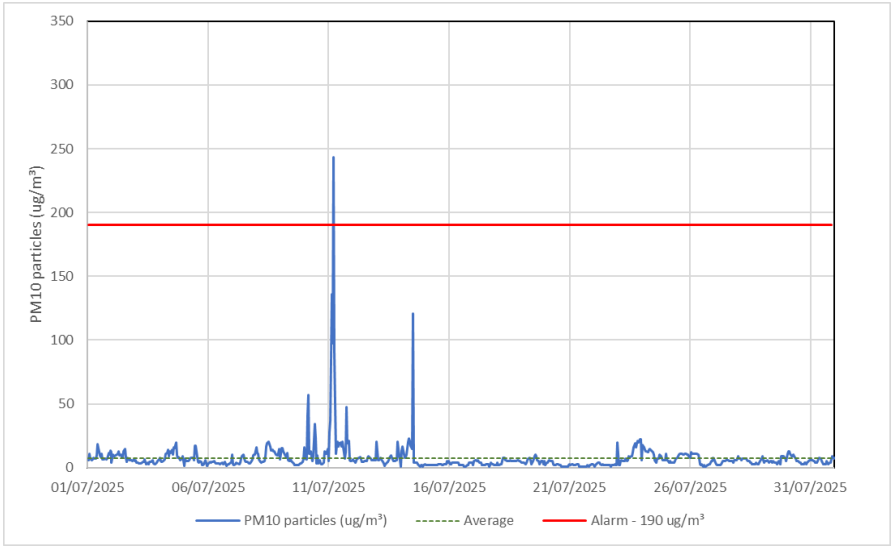
Figure 4: Construction dust 1-hour mean indicative PM_{10} concentration for all dust monitors



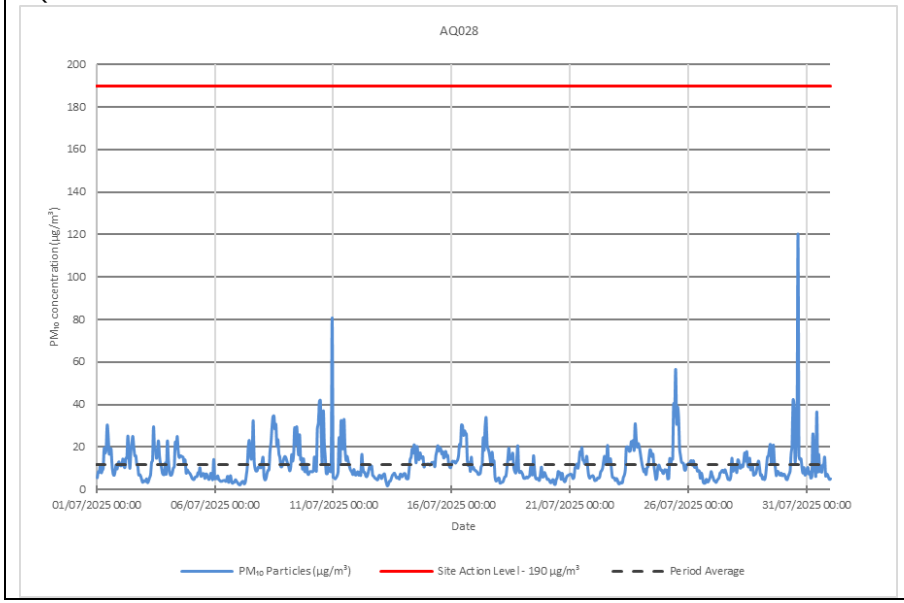
AQ026



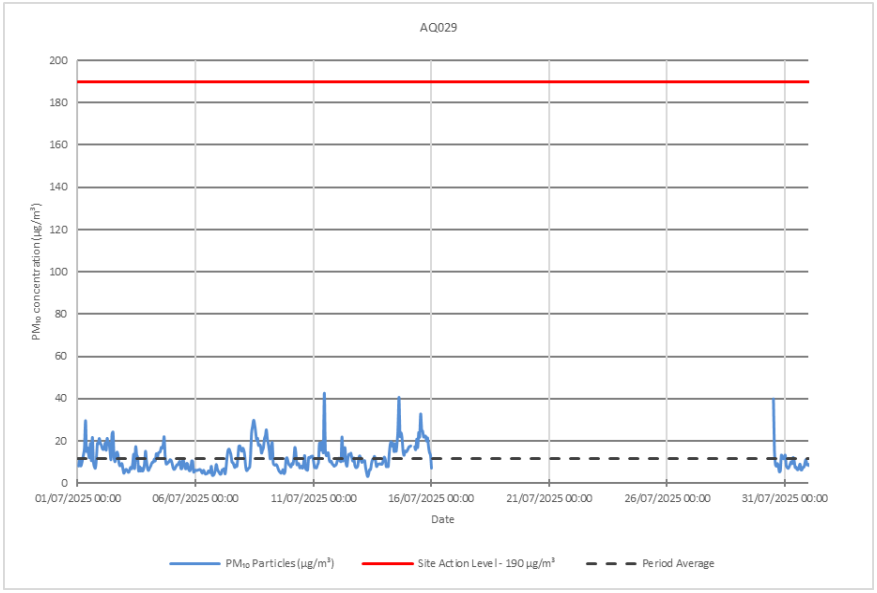
AQ027



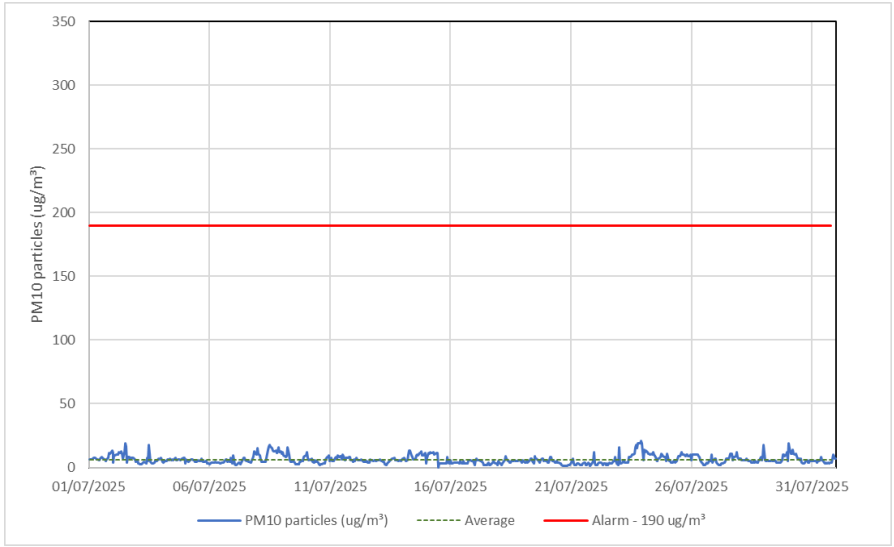
AQ028



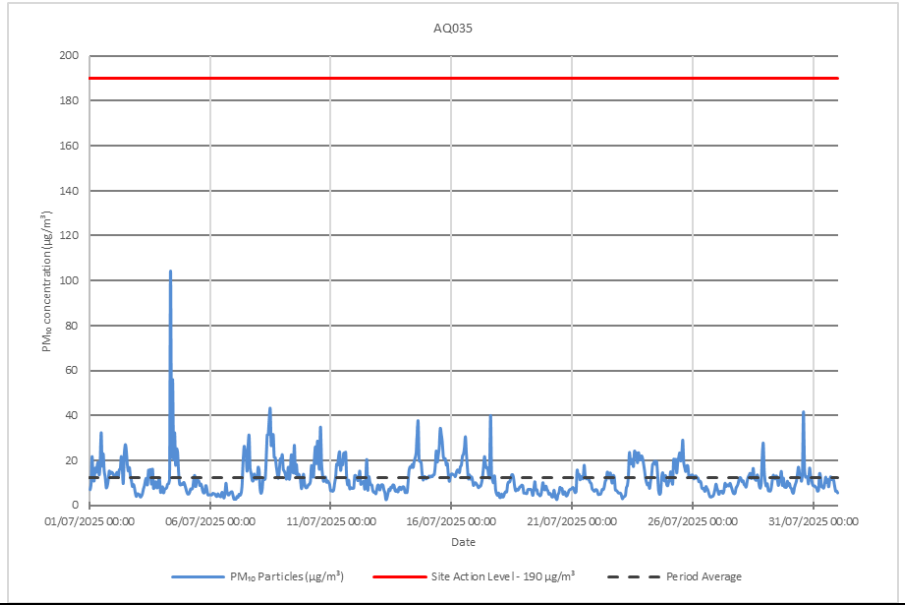
AQ029



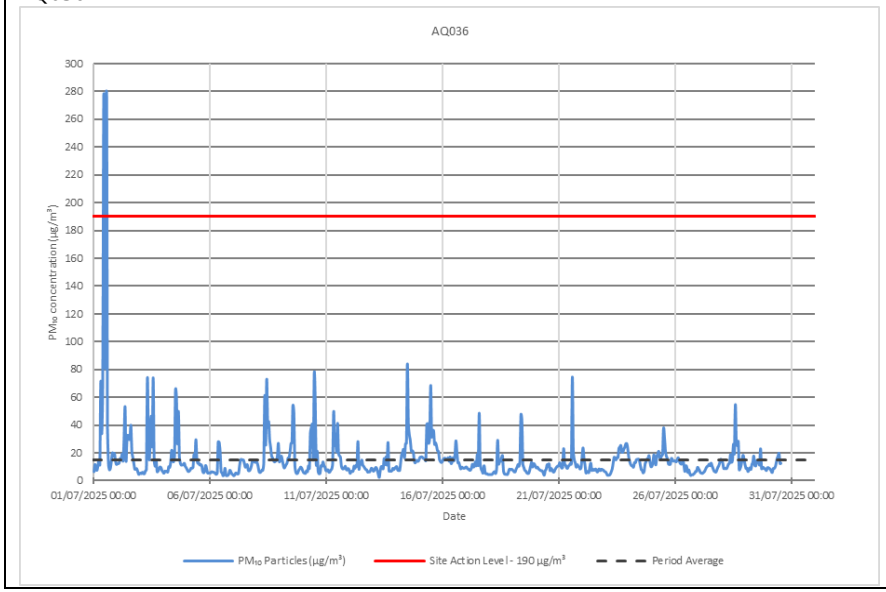
AQ032



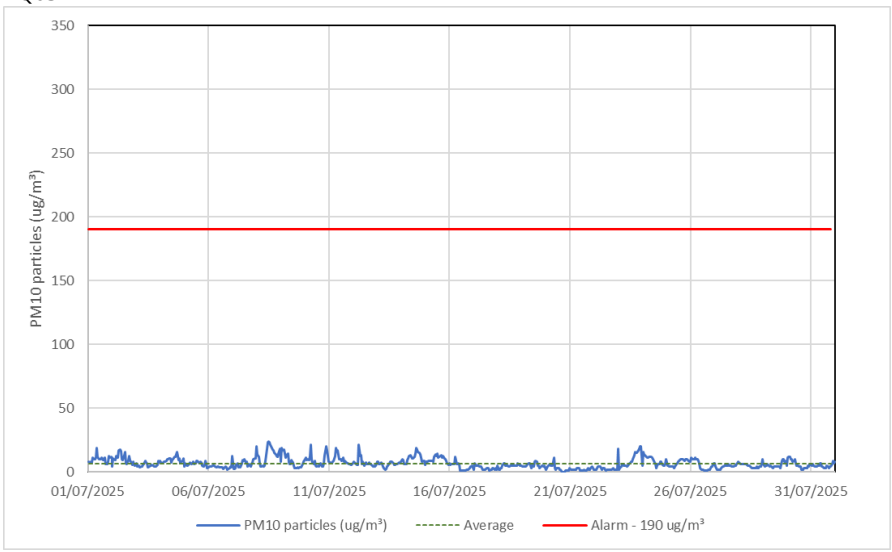
AQ035



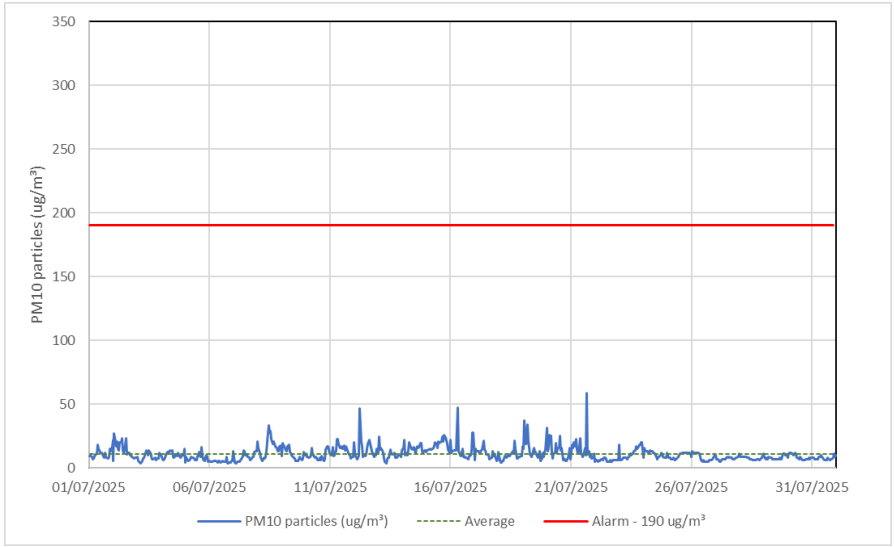
AQ036



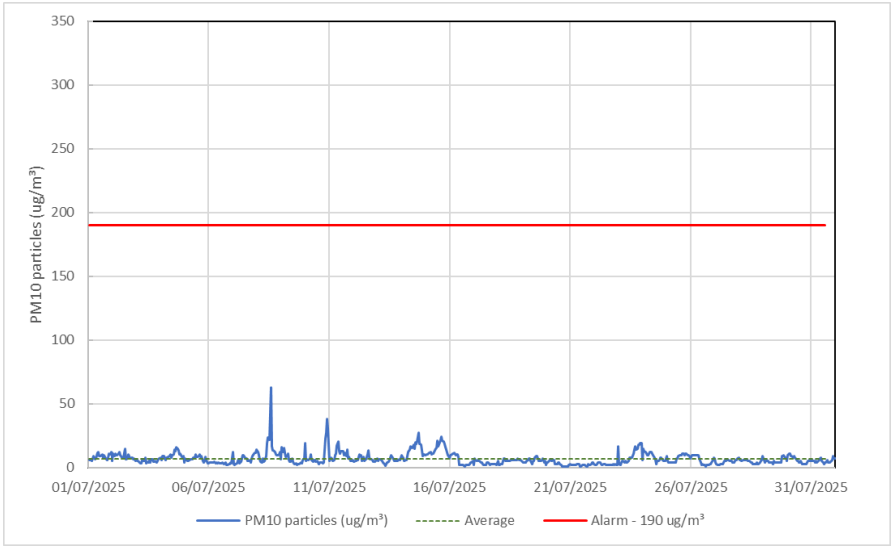
AQ037



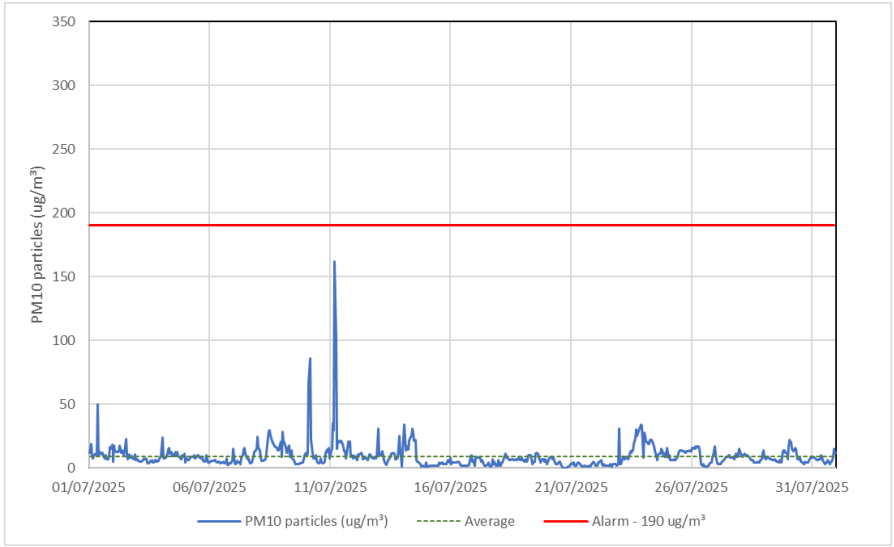
AQ038



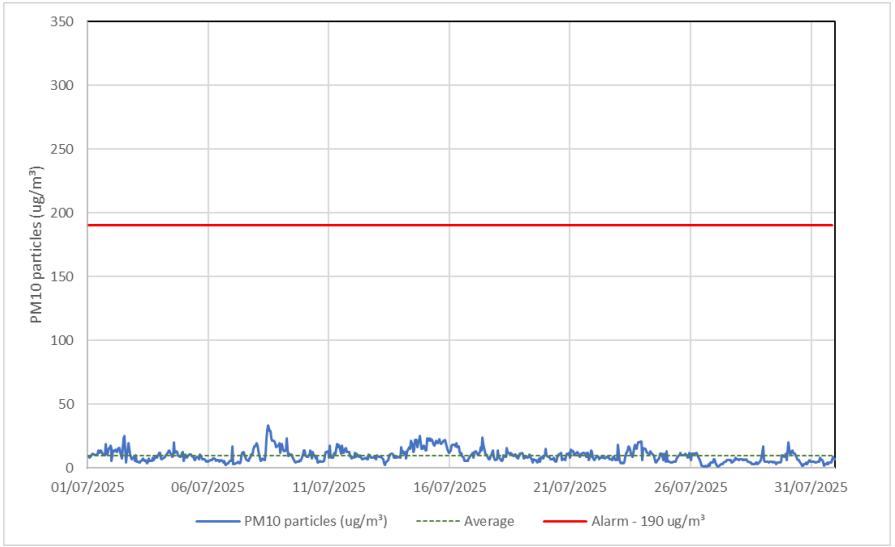
AQ039



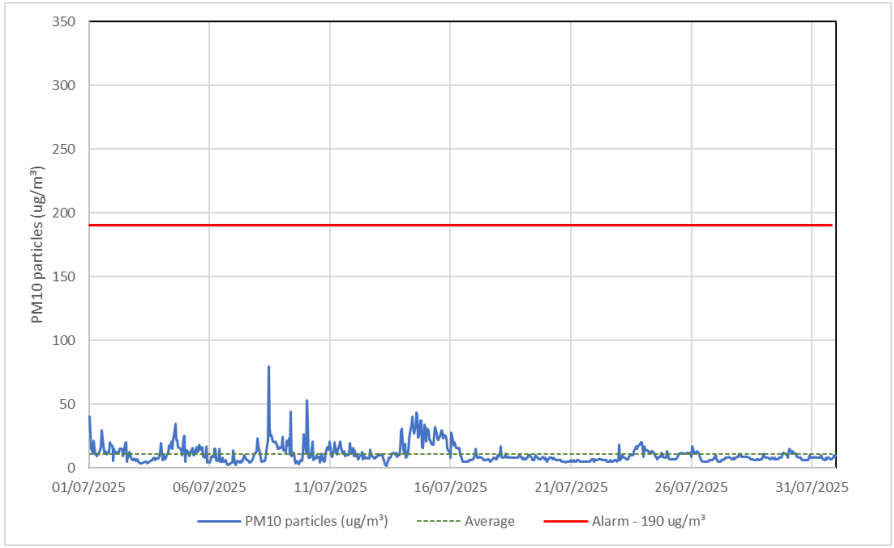
AQ042



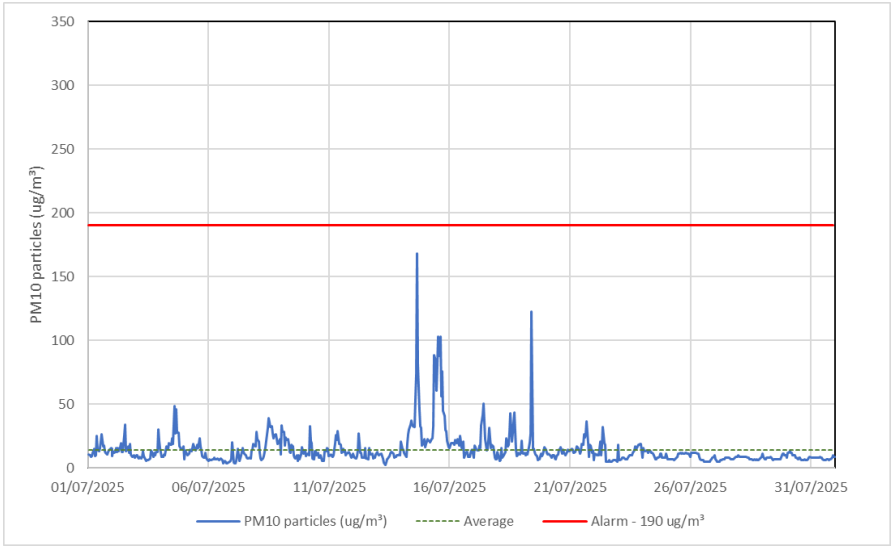
AQ043



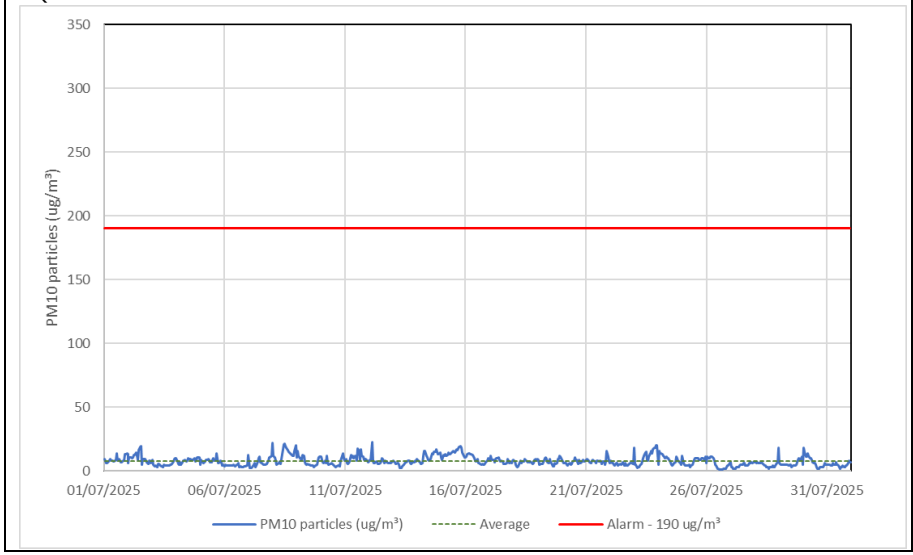
AQ046



AQ051



AQ055



Appendix C – Air Quality Monitoring Results

Table 4: NO_2 monitoring locations around highways, NO_2 concentrations and monthly monitoring results with running mean for 2025 (µg/m^3)

Monitoring Site ID	Location description	Coordinates (X, Y)	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Mean[1][2]
HS2-000020BN5	Sign post on Victoria Road	521443, 182477	58	46	30	41	27	29							39
HS2-000020BN7	The Approach street sign	520959, 181102	48	34	39	30	22	31							34
HS2-000020BQF	Conway Drive sign post	520856, 181733	46	44	46	Tube Missing	34	33							41
HS2-000020BQG	Lamp post outside No 1. Wells House Road on Old Oak Common Lane	521312, 182033	51	44	43	41	26	33							40
HS2-000020BP6	Triplicate site next to the Ealing, Western Avenue Acton roadside automatic monitoring station	520430, 181950	47	38	48	34	26	27							37

[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.

Monitoring Site ID	Location description	Coordinates (X, Y)	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Mean[12]
HS2-000020BP7	Triplicate site next to the Ealing, Hangar Lane Gyratory roadside automatic monitoring station	518537, 182708	60	50	32	48	26	41							43