

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

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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 Ealing (LBE) during March 2025 and April 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](https://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, materials management and haulage.
- Urban Realm: Excavation, sheet piling, enabling ground works.
- Station Box: Concrete pours, form work erection and striking, steel fixing, scabbling, formwork, falsework and breaking out concrete.
- GWML: Concrete breaking.
- SAB: Steel fixing, concreting, excavation, backfilling, formwork, falsework
- Site haul roads and public roads adjacent to site: Cleaning with road sweeper.
- OOCL East: Welding, backfilling, installing pipes, excavating, backfilling.
- OOCL: Welding, backfilling, installing pipes, excavating, backfilling.

**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.

Further works, where monitoring did not take place, were also undertaken in LBE:

### **On Network Works**

- Civil works; and
- OLE works.

- 1.1.5 Nineteen (19) 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<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 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 due to:
- Monitor AQ025 was due to the street lighting column on which the monitor installed has been without power since 3rd party utilities works were undertaken during October 2024.
  - Monitor AQ026 was due to a fault with the monitor.

- 1.1.10 Diffusion tube monitoring of Nitrogen Dioxide (NO<sub>2</sub>) 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<sub>2</sub> 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.

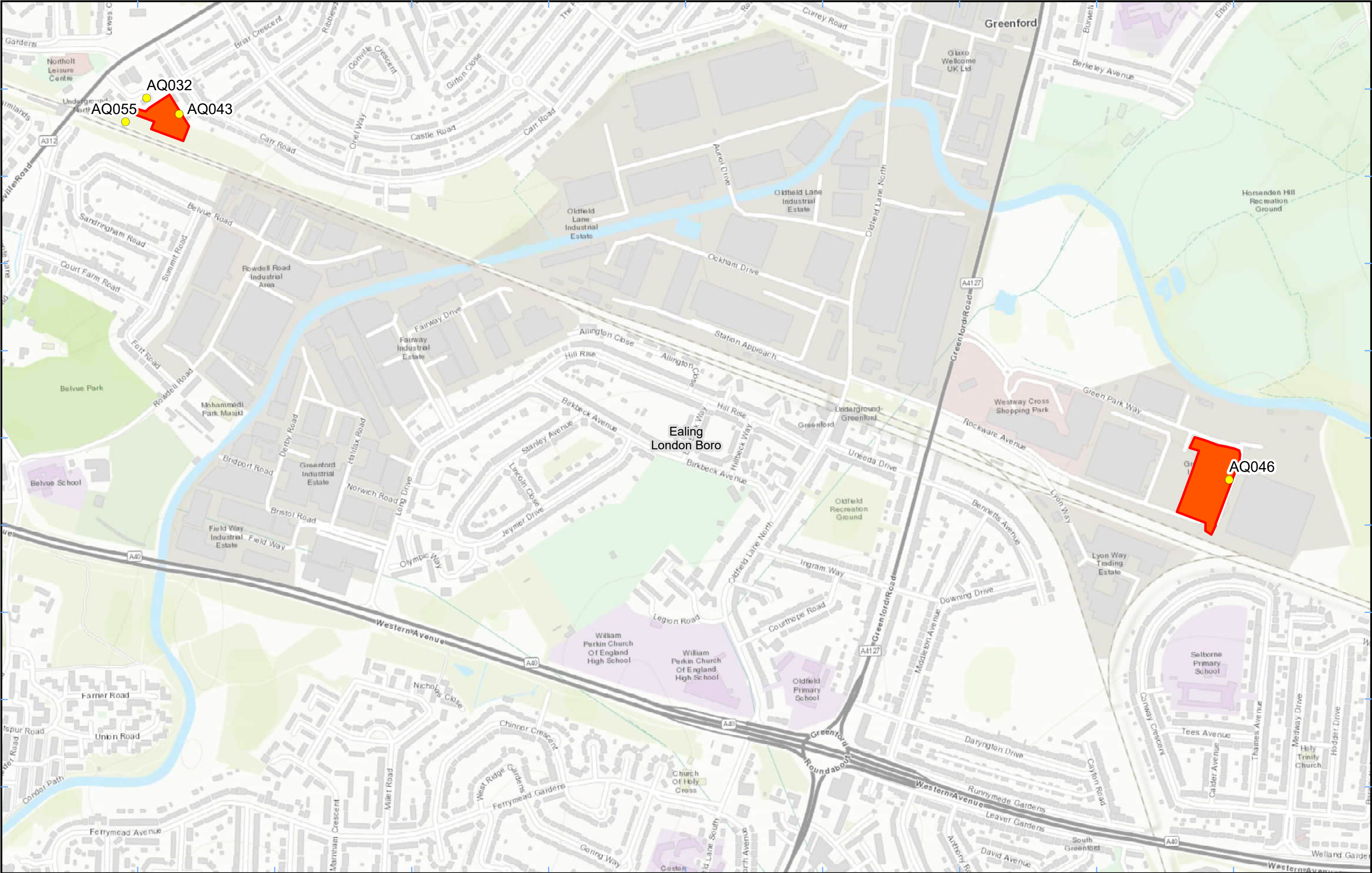
Table 1: Summary of complaints received during April 2025

Complaint Reference No.	Worksite Reference	Description of complaint	Results of investigation
HS2-25-46281-C	N/A	Dust on vehicle and property.	No high level of dust reported at site. The sandy coloured dust is likely to be from the Saharan dust which has affected the majority of the UK. This occasionally occurs a few times a year. The dust storms coincide with wind patterns which carries the dry particles over vast distances. It can leave a reddish layer of dust, often found on buildings, street furniture and vehicles. Resident has been updated.
HS2-25-46284-C	N/A	Dust on vehicle.	No high level of dust reported at site. The sandy coloured dust is likely to be from the Saharan dust which has affected the majority of the UK. This occasionally occurs a few times a year. The dust storms coincide with wind patterns which carries the dry particles over vast distances. It can leave a reddish layer of dust, often found on buildings, street furniture and vehicles. Resident has been updated.
HS2-25-46251-C	N/A	Dust and other environmental issues.	All dust mitigation measures are in place. All monitors checked, no exceedances were breached. Resident has been updated and advised Saharan dust has been visible across most of the UK and may have contributed to the noticeable dust.



# 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

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

**Worksite & Monitoring Locations  
In LBE (Sheet 1)**

**London Borough of Ealing**



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Registered office: 2 Snowhill, Queensway,  
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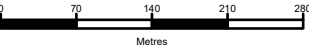
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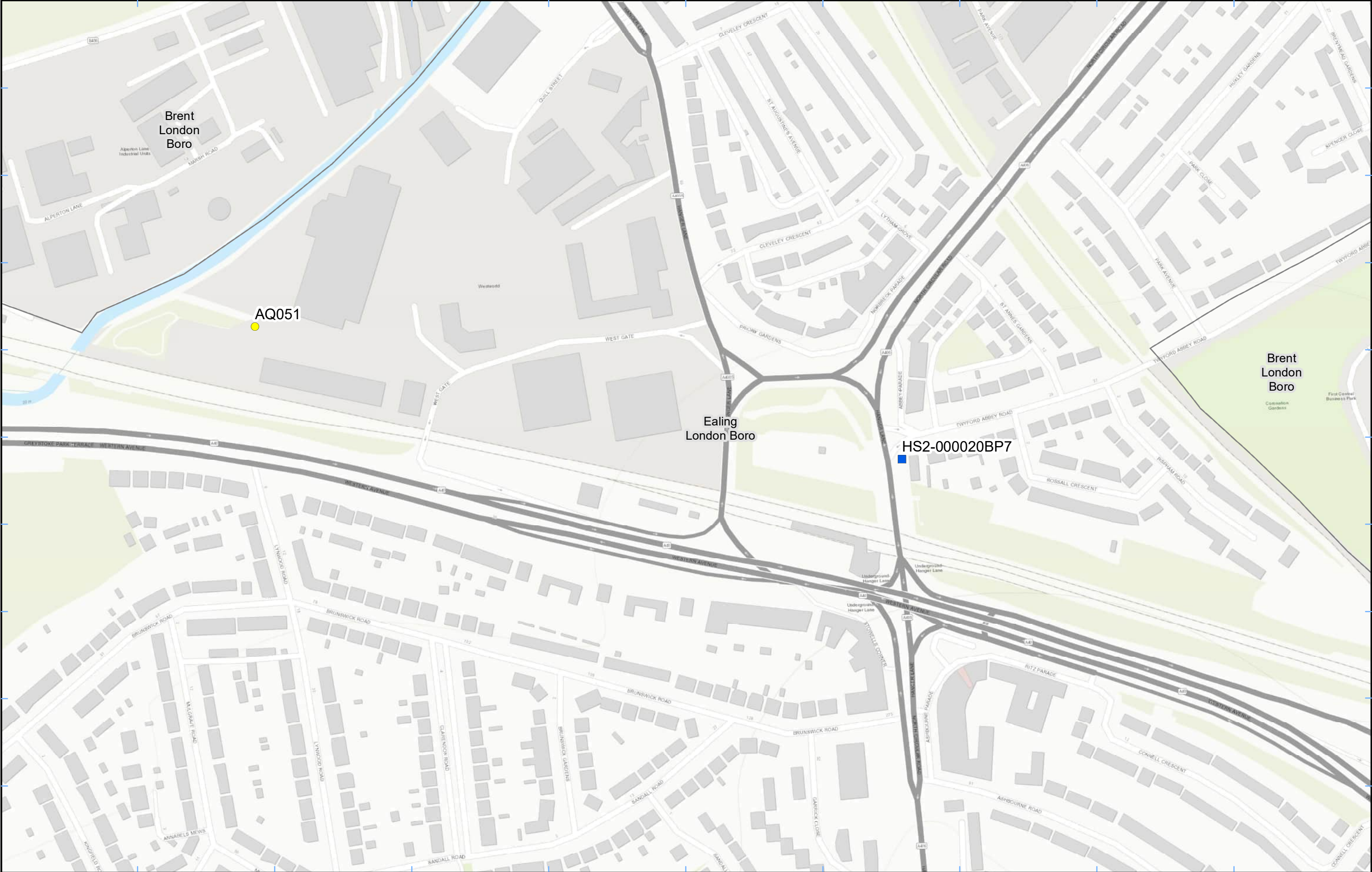




Scale at A3: 1:7,000



Date: 18/05/23





- Legend**
-  Diffusion Tube
  -  Dust Monitor
  -  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 LBE (Sheet 2)

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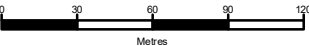
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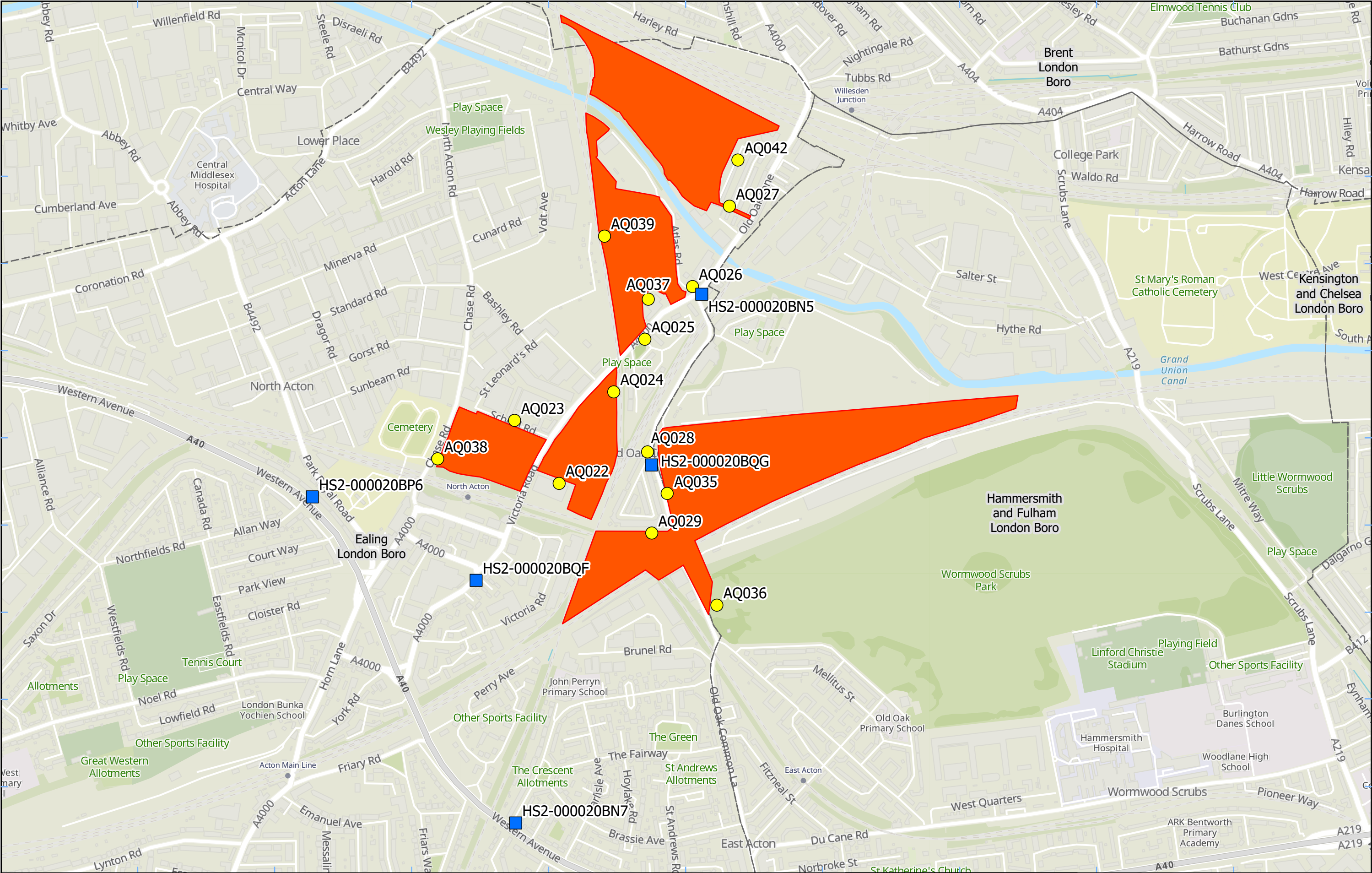


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Date: 26/04/22





**Legend**

● Dust Monitor     Worksite

Diffusion Tube     District Borough Unitary Boundaries

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Contains data from OS Zoomstack

Map Number

Map Name

**Worksite and Monitoring Locations  
In LBE (Sheet 3)**

**London Borough of Ealing**



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Metres

**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 <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 (%)
AQ022	521072, 181985	Boden House	M	Yes	N	15.4	3.5	73.4	0	100.0
AQ023	520956, 182149	School Road	M	Yes	N	15.9	3.3	297.3	1	100.0
AQ024	521214, 182223	Braitrim House	M	Yes	N	15.4	3.6	67.0	0	100.0
AQ025	521295, 182360	Victoria Road	M	Yes	N	-	-	-	0	-
AQ026	521419, 182497	Old Oak Lane	M	Yes	N	36.6	3.7	159.4	0	77.9
AQ027	521515, 182706	Channel Gate Road	M	Yes	N	26.4	4.9	121.4	0	100.0
AQ028	521302, 182067	Wells House Road	M	Yes	N	15.4	3.2	61.1	0	100.0
AQ029	521453, 182132	Old Oak Common	H	Yes	N	15.5	3.6	101.7	0	98.1
AQ032	513402, 184536	Badminton Close	M	Yes	N	9.7	2.3	26.9	0	100.0
AQ035	521353, 181959	Old Oak Common	H	Yes	N	19.0	3.9	127.7	0	98.2
AQ036	521482, 181668	UTX South – Triangle Site	M	Yes	N	13.6	3.8	155.9	0	97.8
AQ037	521304, 182464	Atlas Road	M	Yes	N	26.5	4.8	96.2	0	100.0

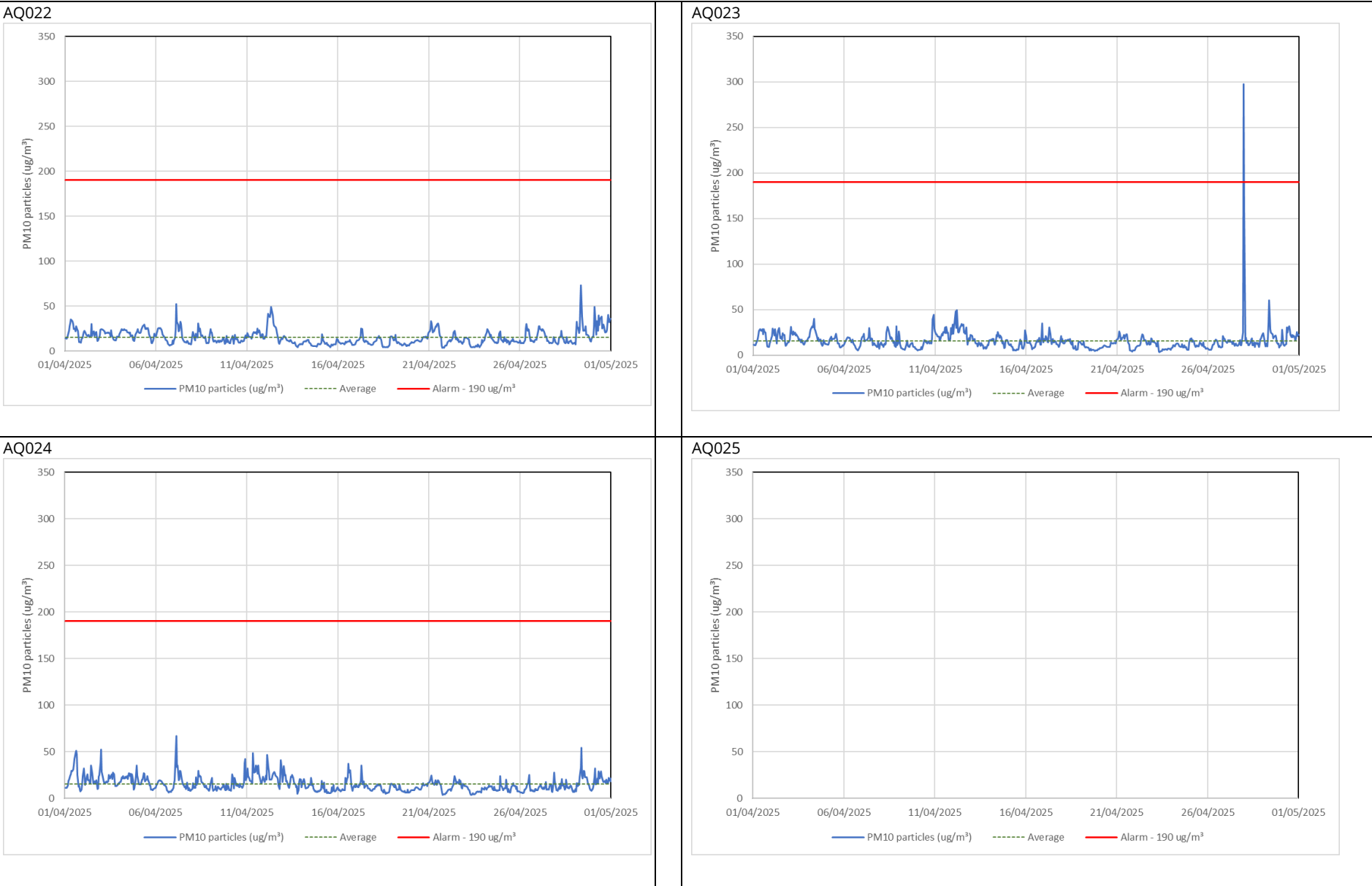
Monitoring site ID	Coordinates (X,Y)	Location description	Dust risk rating for site	Monitoring site active during period	Change to site since previous period report	Mean 1-hour PM <sub>10</sub> concentration (µg/m <sup>3</sup> )	Minimum 1-hour PM <sub>10</sub> concentration (µg/m <sup>3</sup> )	Maximum 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 (%)
AQ038	520756, 182049	Chase Road	M	Yes	N	28.8	5.3	137.5	0	100.0
AQ039	521190, 182628	Atlas Road 2	M	Yes	N	18.1	3.8	207.1	1	95.0
AQ042	521537, 182826	Stephenson Road	M	Yes	N	12.7	2.4	58.9	0	100.0
AQ043	513468, 184504	Mandeville Road	M	Yes	N	11.5	3.3	29.9	0	100.0
AQ046	515593, 183764	Green Park Way	M	Yes	N	12.8	3.1	54.9	0	100.0
AQ051	517976, 182823	Westgate	M	Yes	N	15.5	4.8	36.4	0	100.0
AQ055	513359, 184488	Mandeville Road 2	M	Yes	N	10.3	2.6	29.2	0	100.0

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

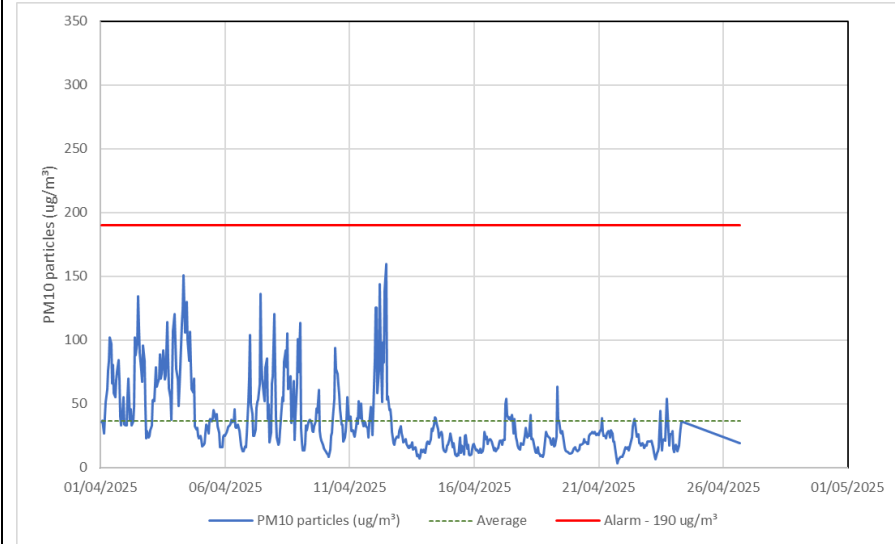
Monitoring site ID	Period exceeding trigger level	Investigation	Outcomes / Resolution / Remedial measures implemented
AQ023	27/04/2025 22:01 – 23:00; 297.3 µg/m <sup>3</sup>	At the time of the exceedance (during the night) there were no works taking place in the vicinity of the monitor. It is considered that the trigger was false, especially given the high reading, probably due to a tiny piece of debris dislodged in the monitor's inlet tube.	The monitor had been serviced a couple of days before.
AQ039	25/04/2025 12:01 – 13:00; 207.1 µg/m <sup>3</sup>	At the time of the exceedance there were no dusty works taking place in the vicinity of the monitor. It is considered that the trigger was false, probably due to a tiny piece of debris dislodged in the monitor's inlet tube.	The monitor had been serviced earlier in April.



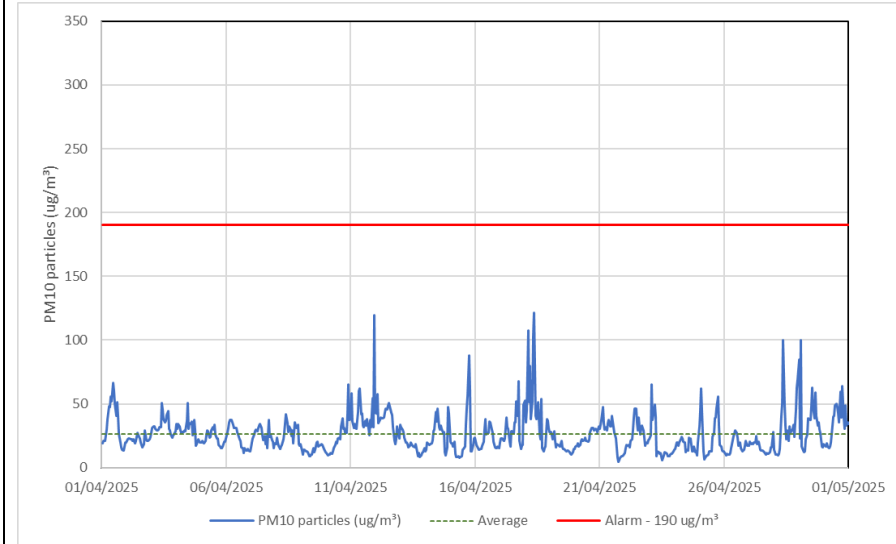
Figure 4: Construction dust 1-hour mean indicative PM<sub>10</sub> concentration for all dust monitors



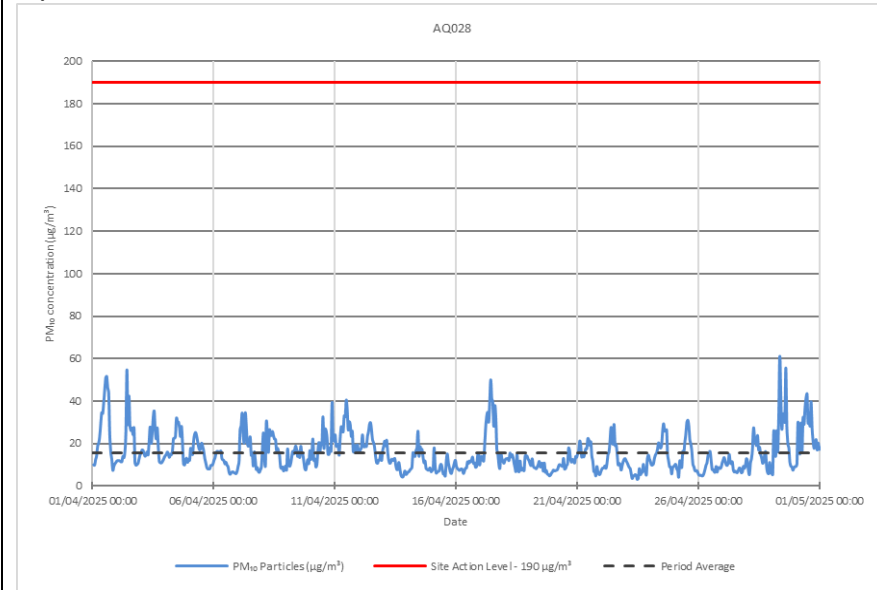
AQ026



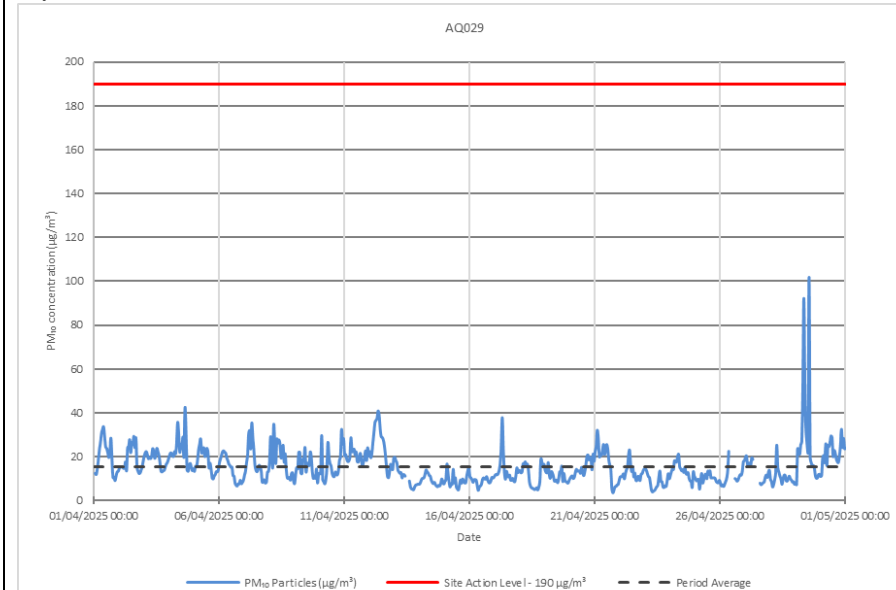
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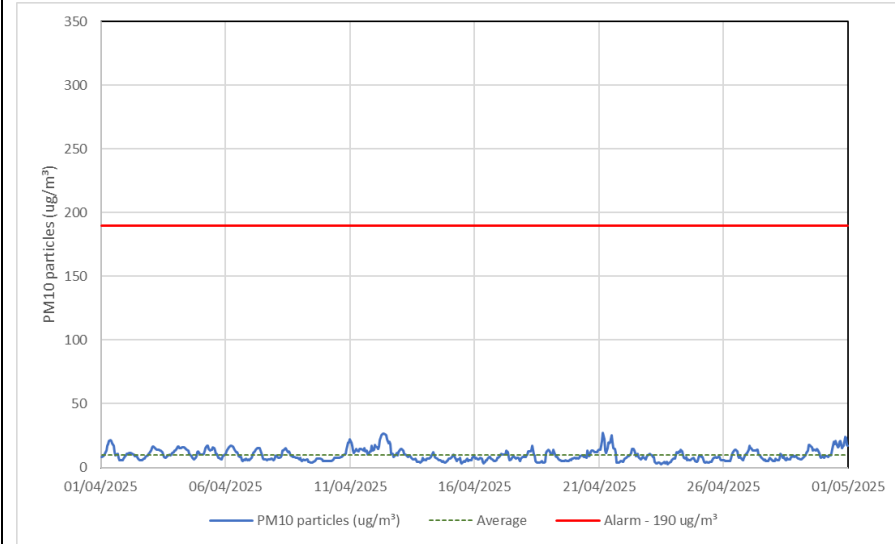
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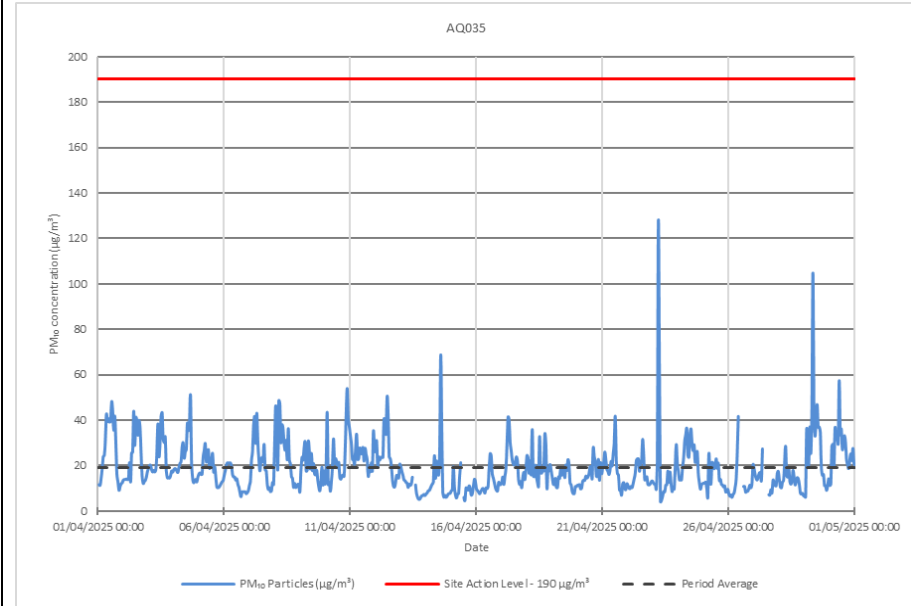
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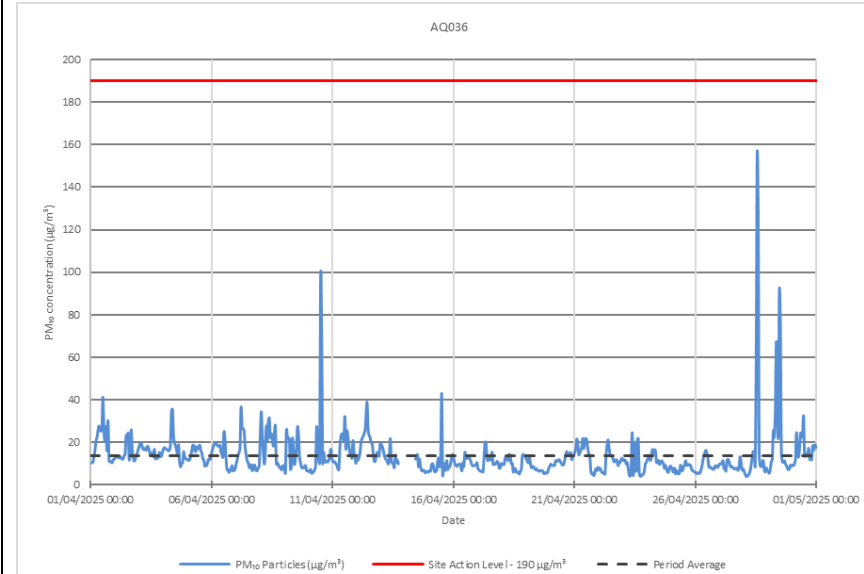
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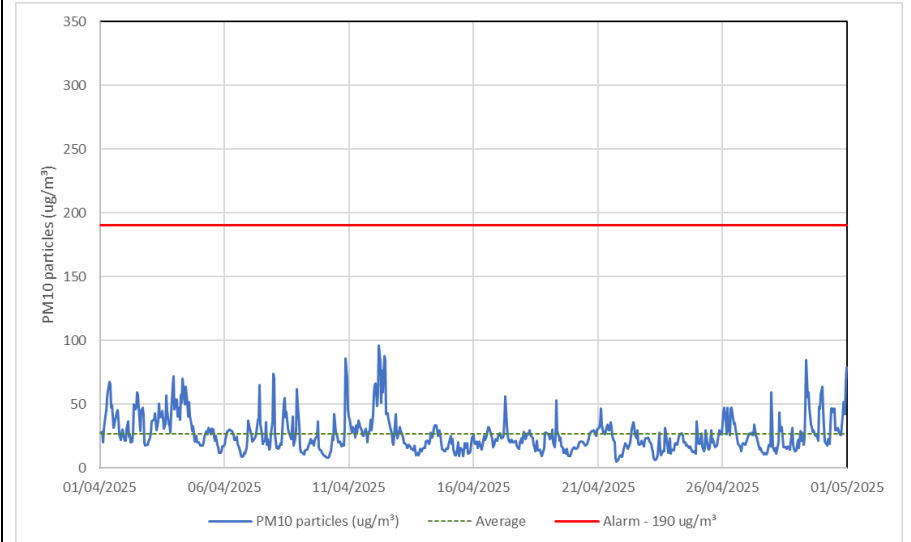
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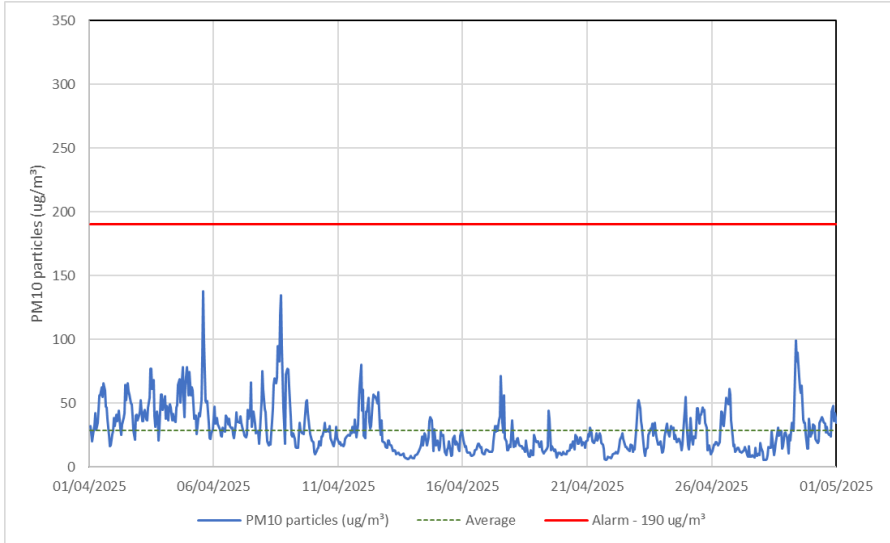
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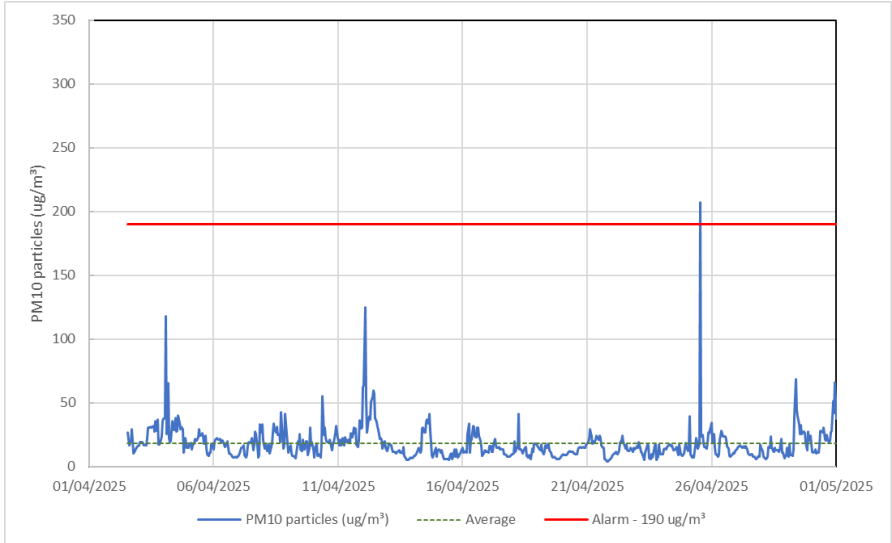
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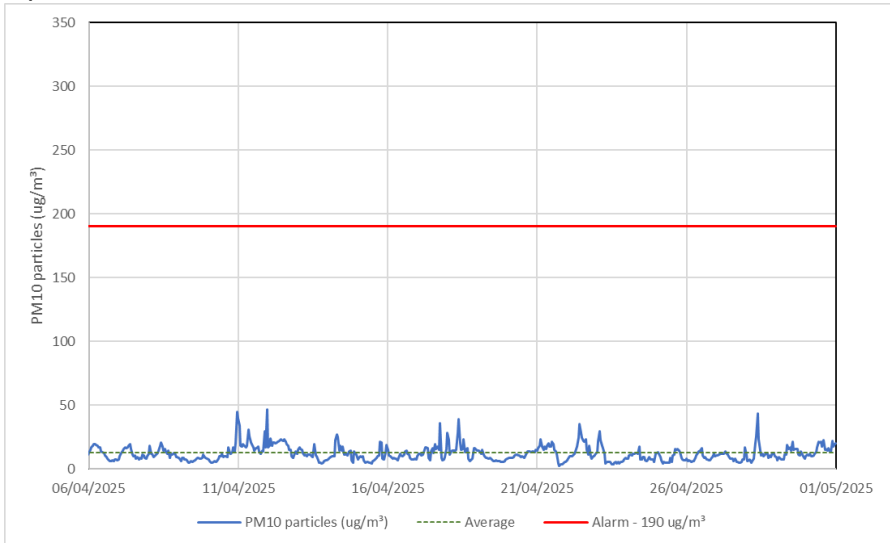
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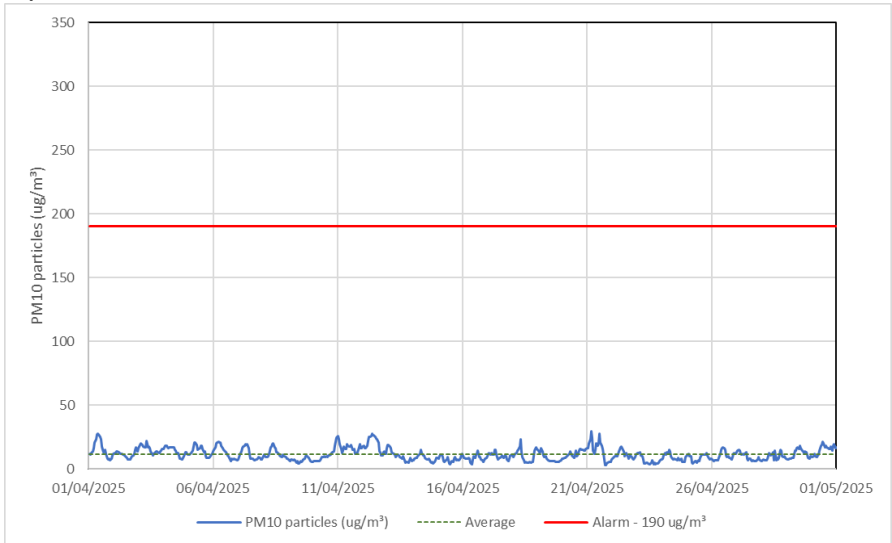
AQ039



AQ042

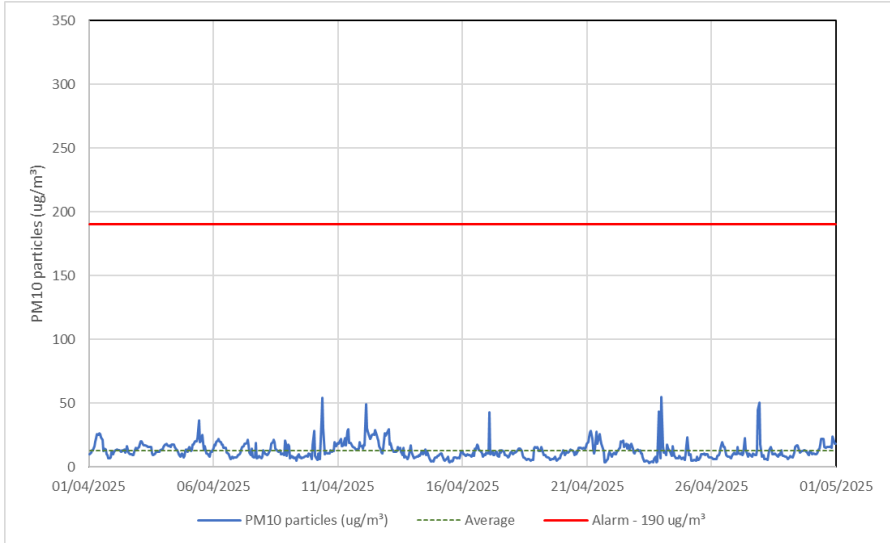


AQ043

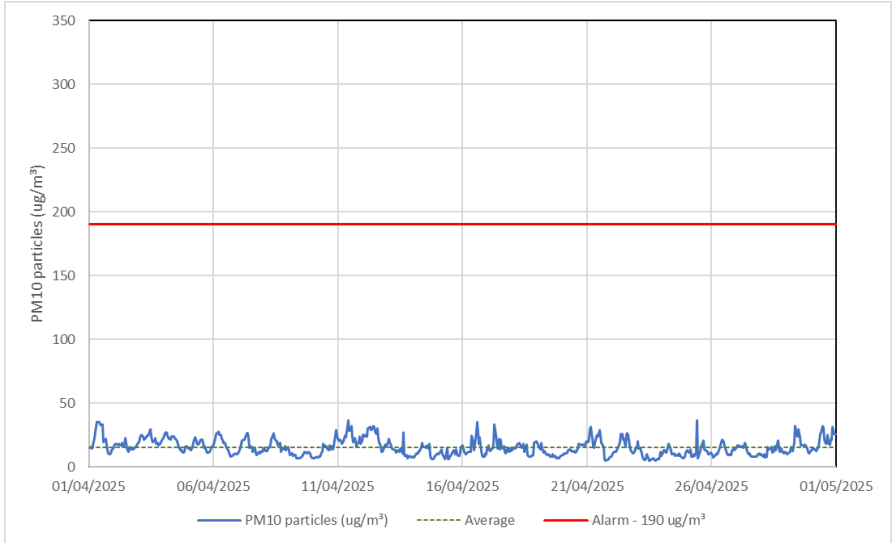




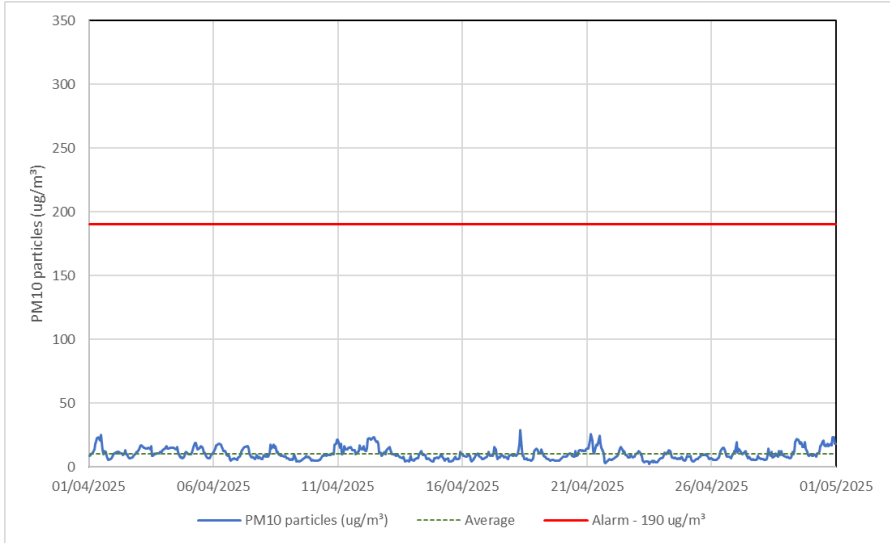
AQ046



AQ051



AQ055



## Appendix C – Air Quality Monitoring Results

Table 4: NO<sub>2</sub> monitoring locations around highways, NO<sub>2</sub> concentrations and monthly monitoring results with running mean for 2025 (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>12</sup>
HS2-000020BN5	Sign post on Victoria Road	521443, 182477	58	46	30										45
HS2-000020BN7	The Approach street sign	520959, 181102	48	34	39										40
HS2-000020BQF	Conway Drive sign post	520856, 181733	46	44	46										45
HS2-000020BQG	Lamp post outside No 1. Wells House Road on Old Oak Common Lane	521312, 182033	51	44	43										46
HS2-000020BP6	Triplicate site next to the Ealing, Western Avenue Acton roadside automatic monitoring station	520430, 181950	47	38	48										44

<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.

<sup>2</sup> 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 <sup>12</sup>
HS2-000020BP7	Triplicate site next to the Ealing, Hangar Lane Gyratory roadside automatic monitoring station	518537, 182708	60	50	32										47