

Air Quality and Dust Monitoring Monthly Report – May 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.

© High Speed Two (HS2) Limited, 2025, except where otherwise stated.

Copyright in the typographical arrangement rests with High Speed Two (HS2) Limited.

This information is licensed under the Open Government Licence v2.0. To view this licence, visit www.nationalarchives.gov.uk/doc/open-government-licence/version/2 **OGL** or write to the Information Policy Team, The National Archives, Kew, London TW9 4DU, or e-mail: psi@nationalarchives.gsi.gov.uk. Where we have identified any third-party copyright information you will need to obtain permission from the copyright holders concerned.



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 April 2025 and May 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, Haulage.
- Station Box – Steel fixing, Concrete Pours, Formwork erection, Striking.
- Station Access Retaining Wall – Steel and shutters fixing.
- Great Western Main line – Steel fixing, Concreting, Formwork, Digging and Backfilling.
- Urban Realm – Excavation, Installing Sheet Piling, Ground Levelling.
- Site haul roads and public roads adjacent to site - Cleaning with a road sweeper.
- Old Oak Common East – Excavation, welding, fitting mains, Concrete Breaking.
- Old Oak Common Lane – Utilities trial holes, vacuum excavation, dismantling trench boxes, installing concrete plinths.
- Walking on Woods – Material Deliveries/ Utilities Trial Holes.

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

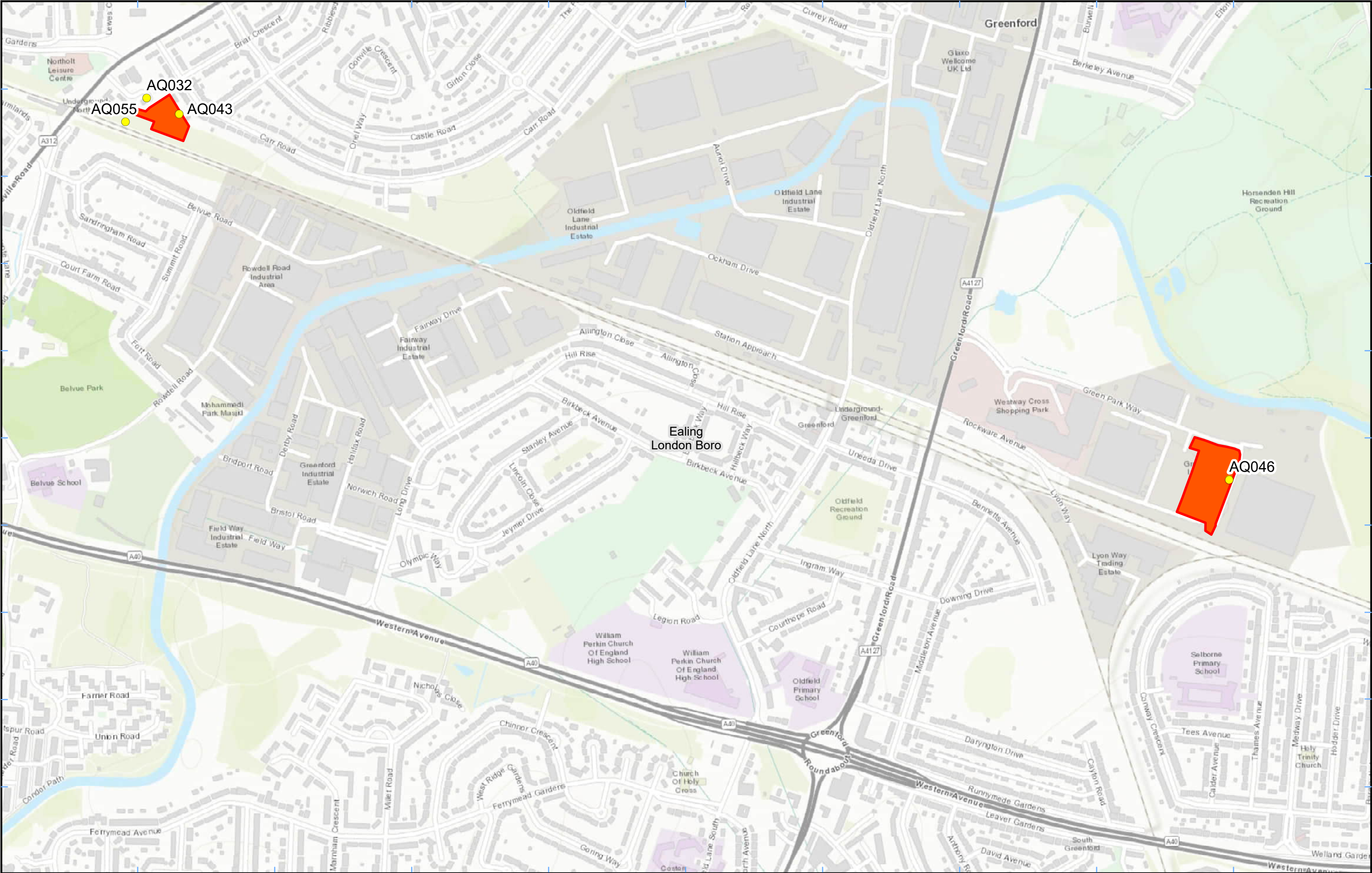
- Civil works; and
- OLE works.

- 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 1, 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 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 Details of the trigger alert investigations and remediations are presented in Appendix B, Table 2.
- 1.1.9 Data capture was below 90% for multiple monitors due to:
- Monitor AQ025 - the street lighting column on which the monitor installed has been without power since 3rd party utilities works were undertaken during October 2024, subsequently repaired and restored.
 - Monitor AQ026 - a fault with the monitor, subsequently repaired.

- 1.1.10 Diffusion tube monitoring of Nitrogen Dioxide (NO₂) 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 NO₂ monitoring locations and results are presented in Appendix C, Table 3, together with the 2025 running mean.
- 1.1.13 There were no (0) complaints received during the reporting period (May 2025).

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

hs2

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

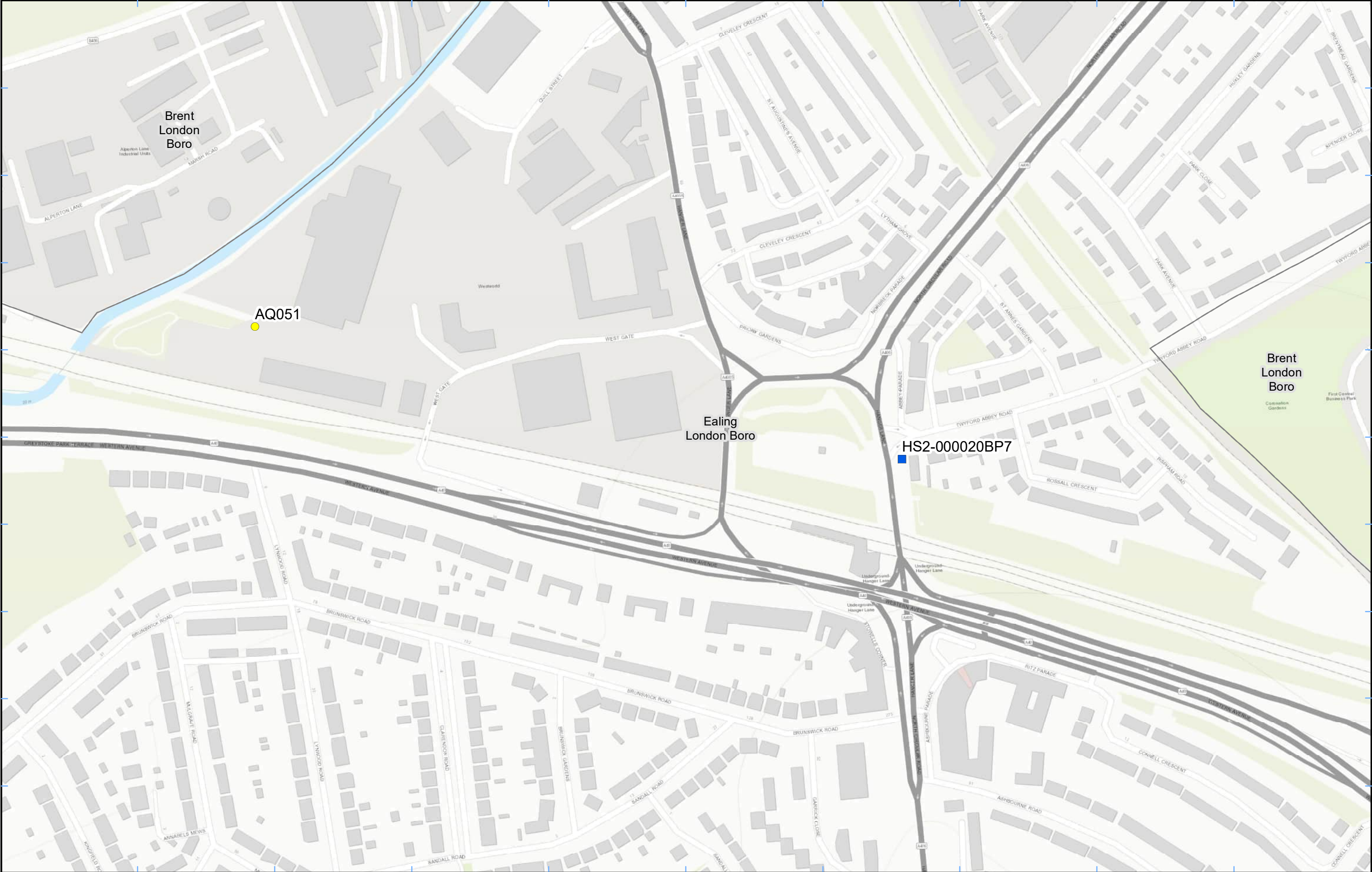
Scale at A3: 1:7,000

070140210250

Metres

Doc Number:

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)**


London Borough of Ealing

 HS2 Ltd accept no responsibility for any circumstances, which arise from the reproduction of this map after alteration, amendment or abbreviation or if it is issued in part or issued incomplete in any way.

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

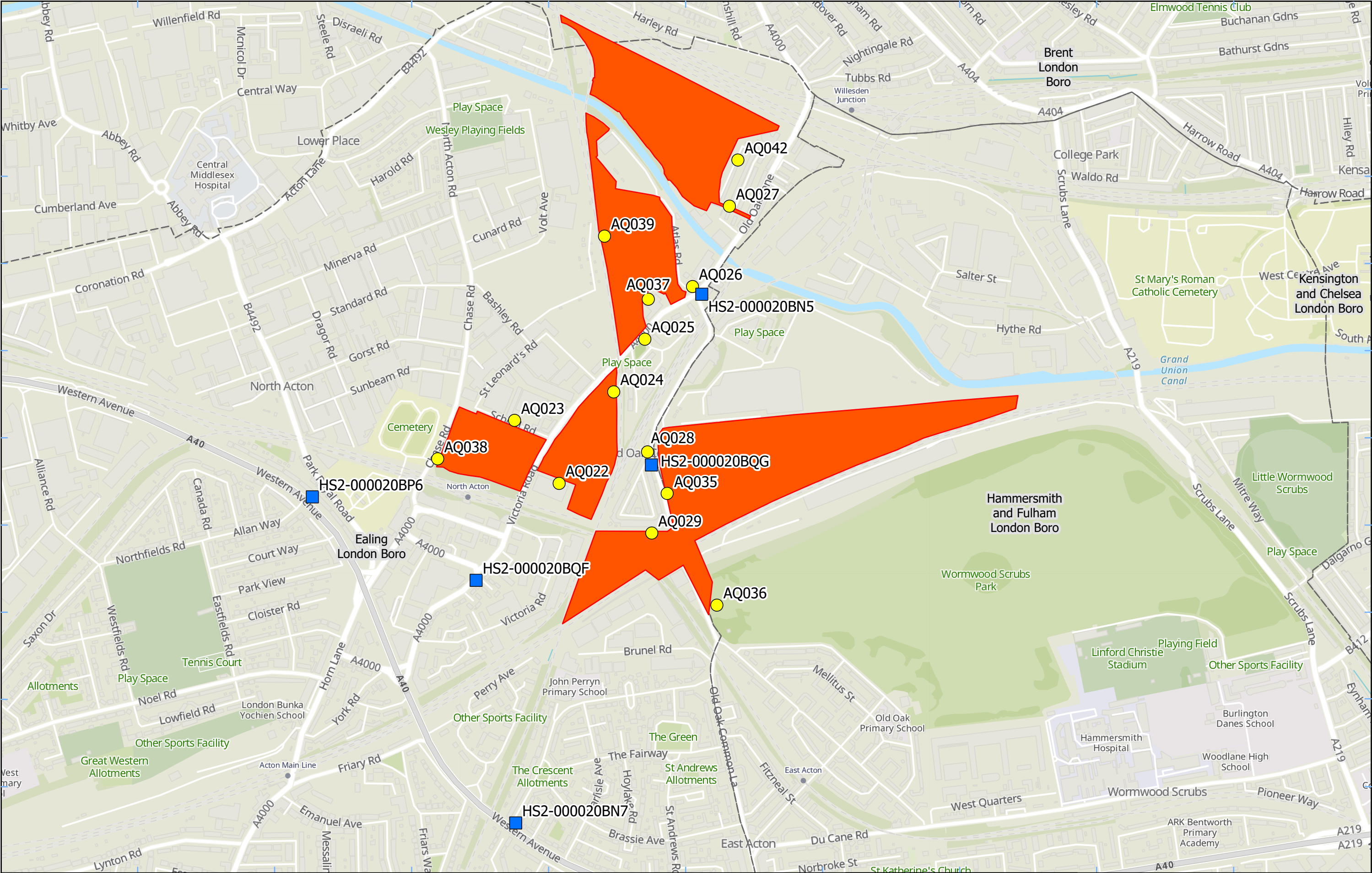
© Crown copyright and database rights 2022.
Ordnance Survey Licence Number 100049190.

Scale at A3: 1:3,000



Doc Number:

Date: 26/04/22



Legend

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

Service Layer Credits: GB Topographic: Contains OS data © Crown Copyright and database right 2025
Contains data from OS Zoomstack

Map Number

Map Name

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

London Borough of Ealing



HS2 Ltd accept no responsibility for any circumstances, which arise from the reproduction of this map after alteration, amendment or abbreviation or if it is issued in part or issued incomplete in any way.

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

© Crown copyright and database rights 2025.
Ordnance Survey Licence Number 100049190.

Doc Number:



Scale at A3: 1:9,000



Metres

Date: 06/02/25

Appendix B – Dust Monitoring Results

Table 1: Dust Monitoring Locations and Results

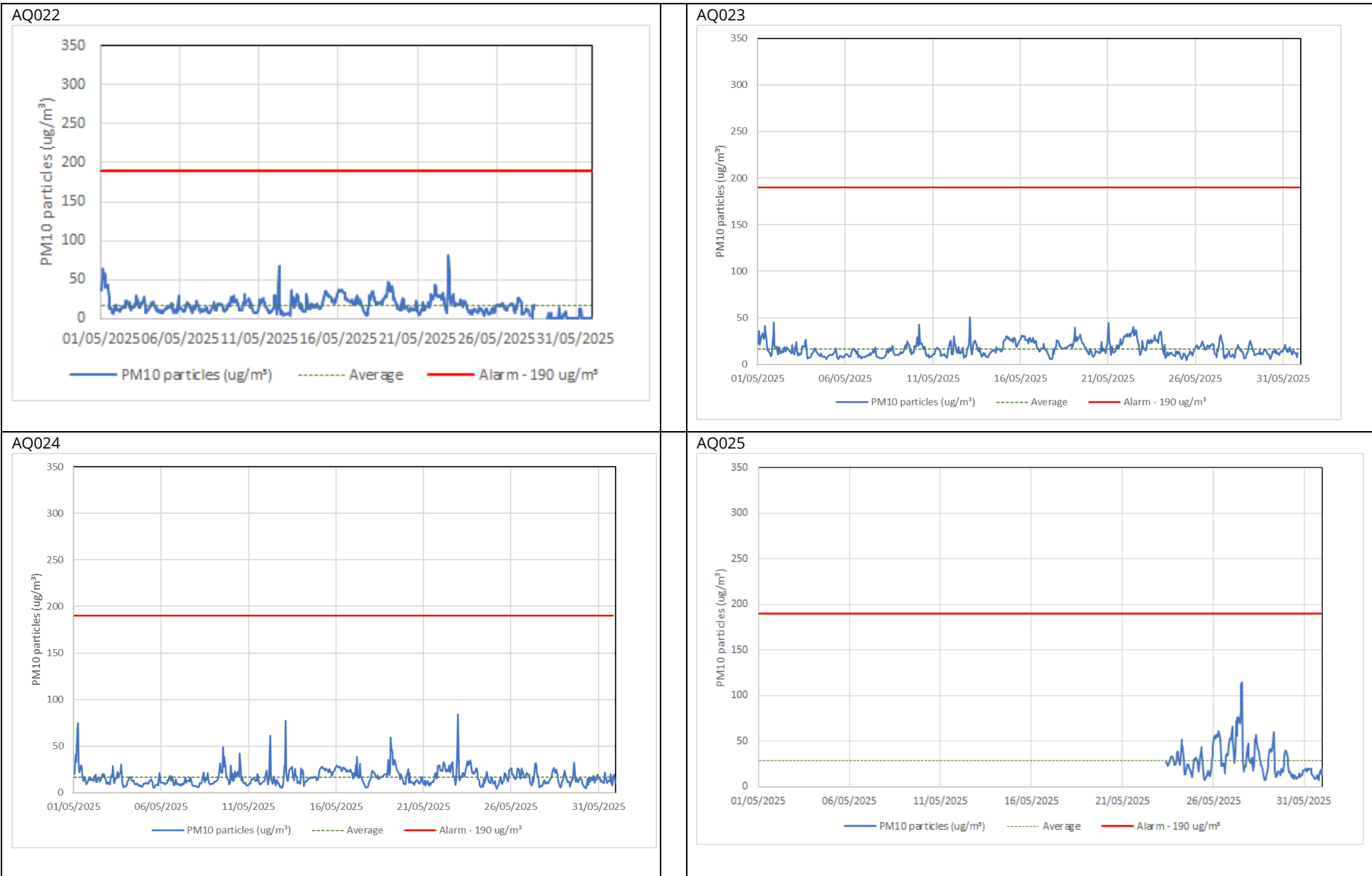
Monitoring site ID	Coordinates (X,Y)	Location description	Dust risk rating for site	Monitoring site active during period	Change to site since previous period report	Mean 1-hour PM ₁₀ concentration (µg/m ³)	Minimum 1-hour PM ₁₀ concentration (µg/m ³)	Maximum 1-hour PM ₁₀ concentration (µg/m ³)	Number of 1-hour periods exceeding trigger level of 190 µg/m ³	Data capture (%)
AQ022	521072, 181985	Boden House	M	Yes	N	17.6	0.2	81.6	0	90.2
AQ023	520956, 182149	School Road	M	Yes	N	16.4	4.6	50.5	0	100.0
AQ024	521214, 182223	Braitrim House	M	Yes	N	16.7	3.8	84.1	0	100.0
AQ025	521295, 182360	Victoria Road	M	Yes	N	28.7	7.1	114.7	0	27.8
AQ026	521419, 182497	Old Oak Lane	M	Yes	N	10.7	3.2	26.8	0	28.1
AQ027	521515, 182706	Channel Gate Road	M	Yes	N	19.8	3.3	181.2	0	100.0
AQ028	521302, 182067	Wells House Road	M	Yes	N	15.3	2.8	53.0	0	100.0
AQ029	521453, 182132	Old Oak Common	H	Yes	N	16.7	3.7	52.4	0	95.2
AQ032	513402, 184536	Badminton Close	M	Yes	N	9.3	2.9	24.5	0	100.0
AQ035	521353, 181959	Old Oak Common	H	Yes	N	22.8	3.4	140.1	0	94.9
AQ036	521482, 181668	UTX South – Triangle Site	M	Yes	N	17.4	2.7	354.8	3	98.8
AQ037	521304, 182464	Atlas Road	M	Yes	N	25.6	4.6	156.5	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 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 (%)
AQ038	520756, 182049	Chase Road	M	Yes	N	24.2	3.4	77.4	0	100.0
AQ039	521190, 182628	Atlas Road 2	M	Yes	N	13.1	3.0	59.4	0	100.0
AQ042	521537, 182826	Stephenson Road	M	Yes	N	12.1	3.6	85.8	0	100.0
AQ043	513468, 184504	Mandeville Road	M	Yes	N	12.0	3.2	93.9	0	100.0
AQ046	515593, 183764	Green Park Way	M	Yes	N	13.7	3.1	108.3	0	100.0
AQ051	517976, 182823	Westgate	M	Yes	N	16.3	4.6	108.8	0	100.0
AQ055	513359, 184488	Mandeville Road 2	M	Yes	N	10.9	2.7	26.0	0	100.0

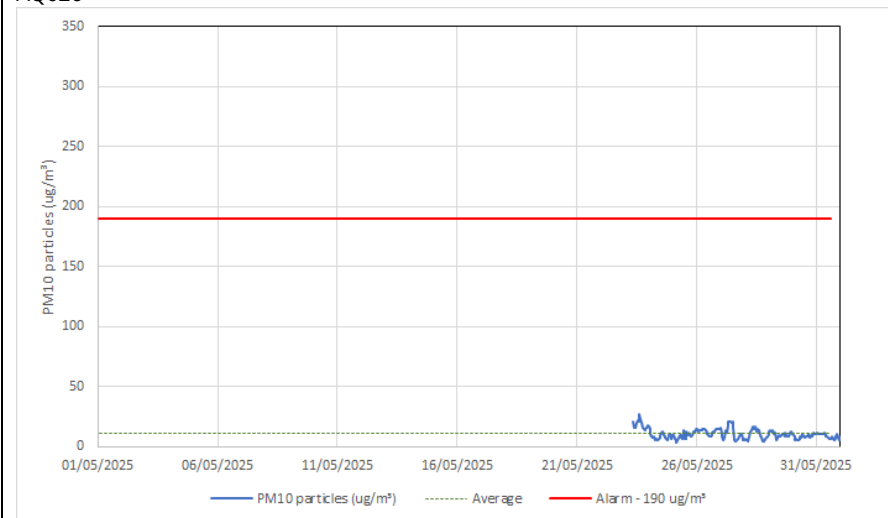
Table 2: Summary of exceedances during period (May 2025)

Monitoring site ID	Period exceeding trigger level	Investigation	Outcomes / Resolution / Remedial measures implemented
AQ036	09/05/2025 13:01 – 14:00; 193.8 µg/m ³	An investigation was undertaken, potential causes include: <ul style="list-style-type: none"> - UKPN works included backfilling and levelling a joint bay (plant in use was an excavator, dumper and wacker plate) in virgin ground in the vicinity of the exceedance. - OCU doing Butt Fusion welding in the Wormwood Scrubs Compound. Activities / deliveries by other contractors in the same area in the vicinity of the monitor.	UKPN will continue with briefs to undertake dust suppression during excavation works and not idling the machinery if not in use for excavation activities.
	10/05/2025 10:01 – 11:00; 354.8 µg/m ³	An investigation was undertaken, potential causes include: <ul style="list-style-type: none"> - UKPN works included backfilling and levelling a joint bay (plant in use was an excavator, dumper and wacker plate) in virgin ground in the vicinity of the exceedance. Activities / deliveries by other contractors in the same area in the vicinity of the monitor.	UKPN will continue with briefs to undertake dust suppression during excavation works and not idling the machinery if not in use for excavation activities.
	12/05/2025 13:01 – 14:00; 272.2 µg/m ³	An investigation was undertaken and determined that a dumper was transporting a water bowser into the area for dust suppression.	No further action undertaken.

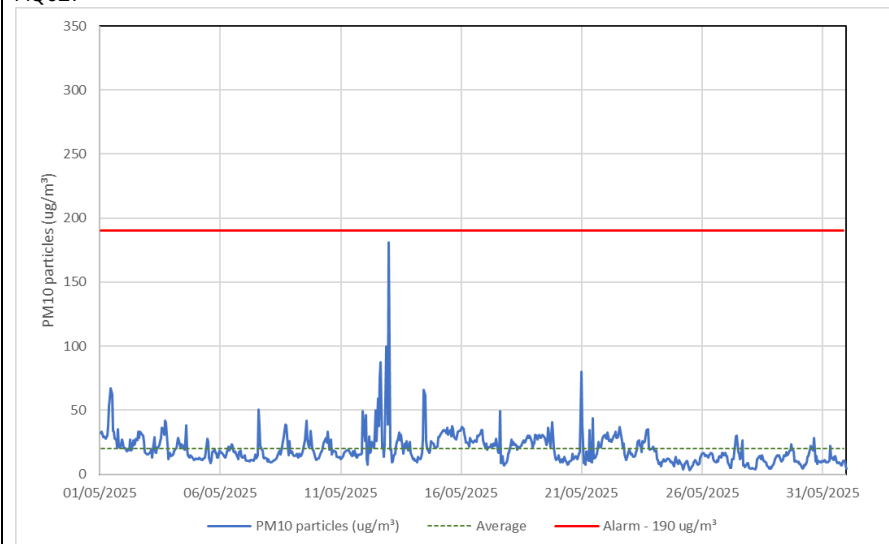
Figure 4: Construction dust 1-hour mean indicative PM₁₀ concentration for all dust monitors



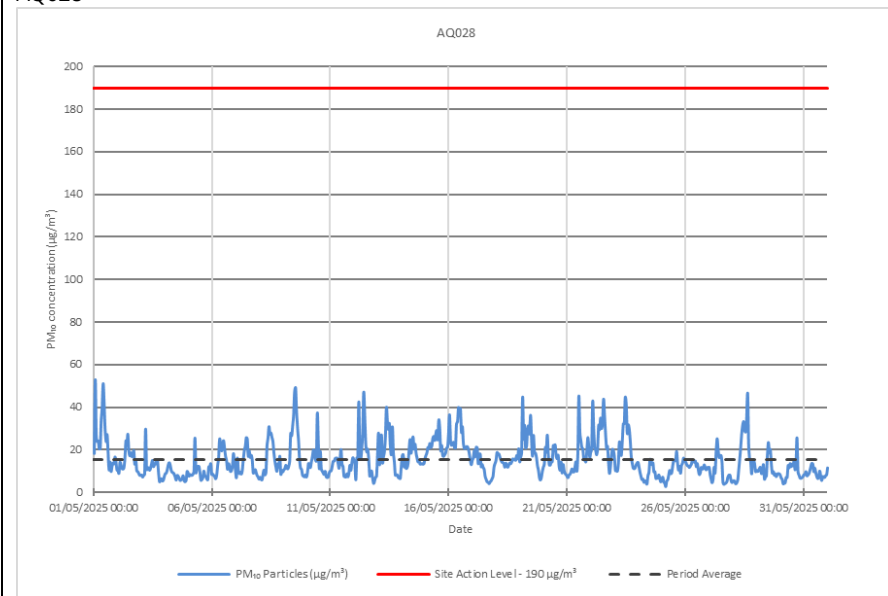
AQ026



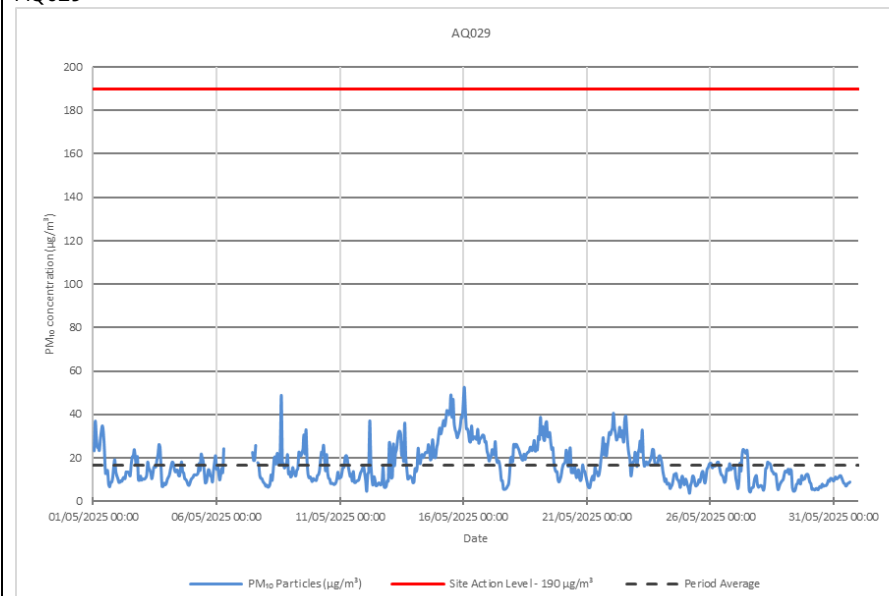
AQ027



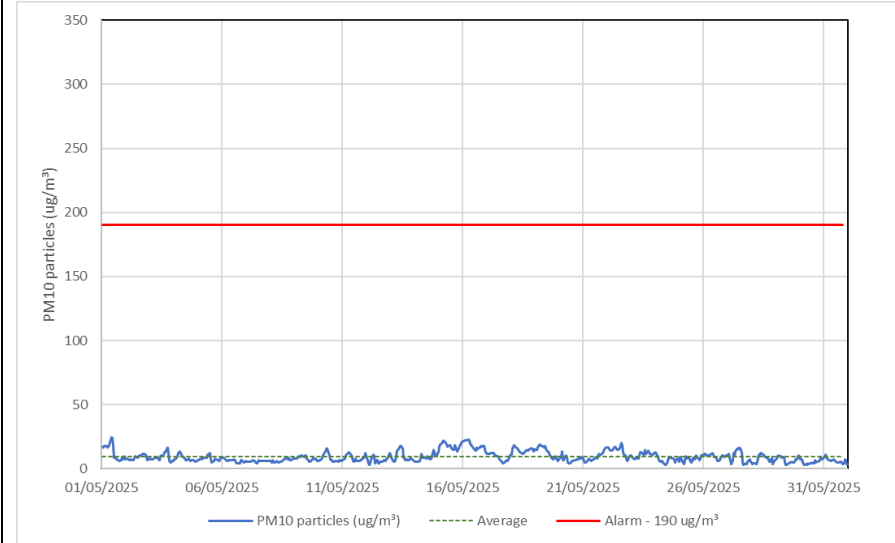
AQ028



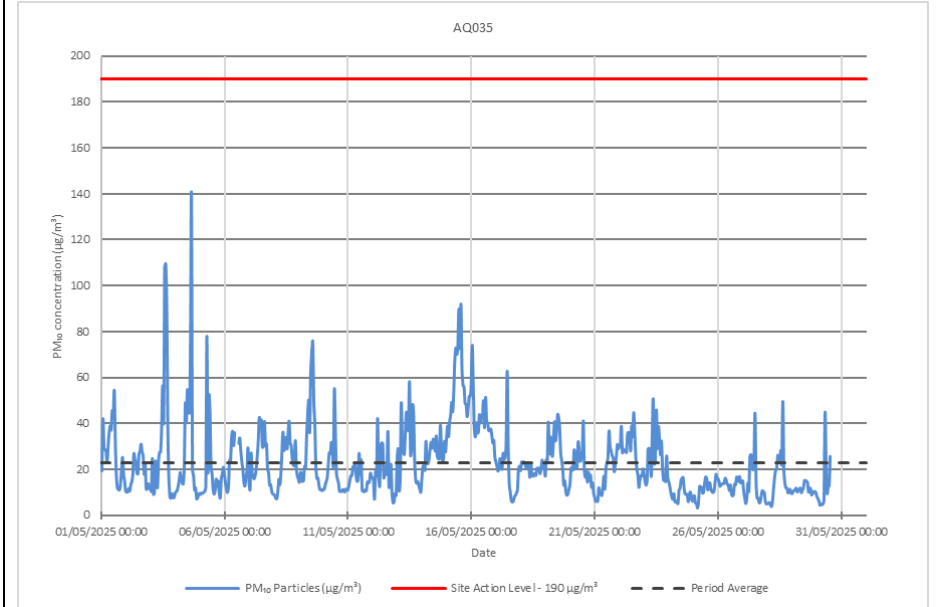
AQ029



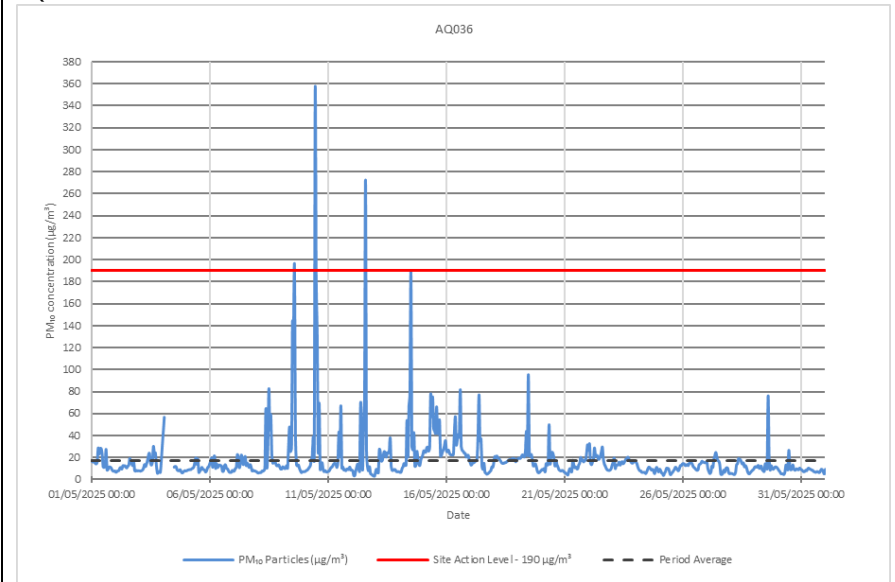
AQ032



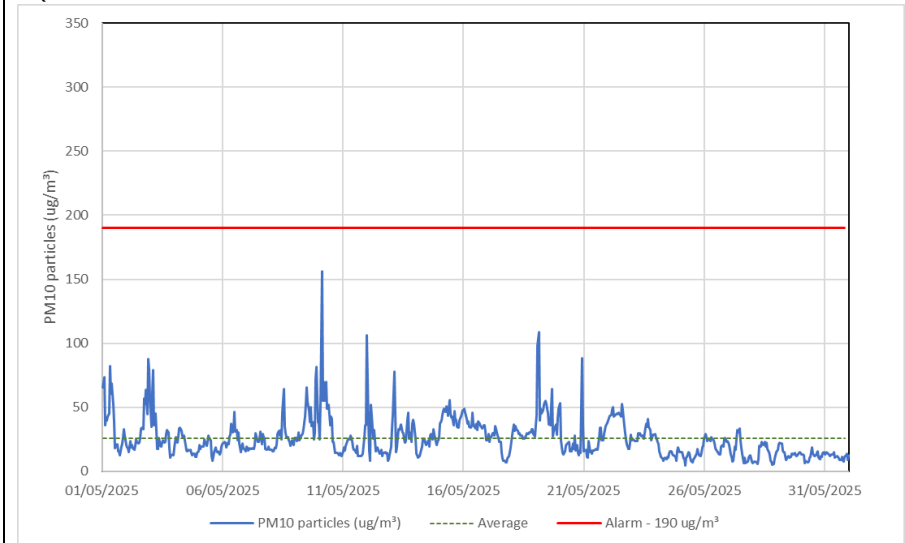
AQ035



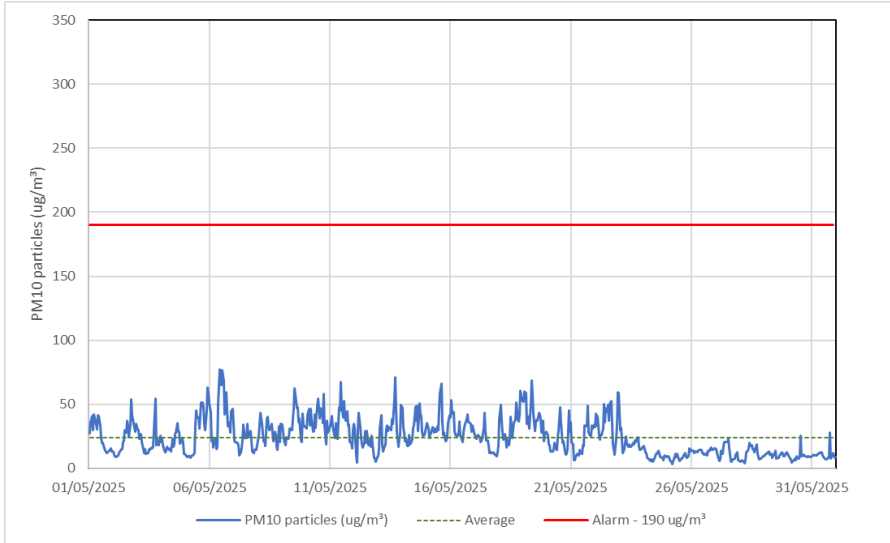
AQ036



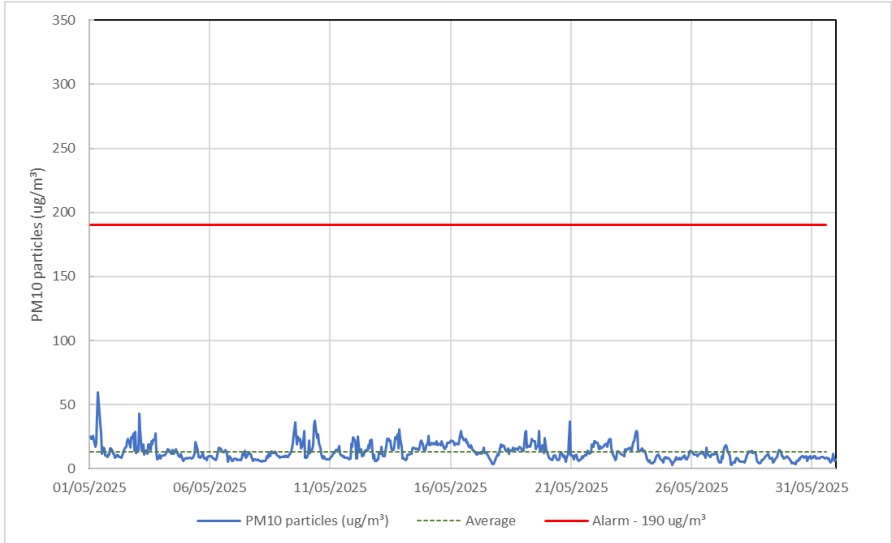
AQ037



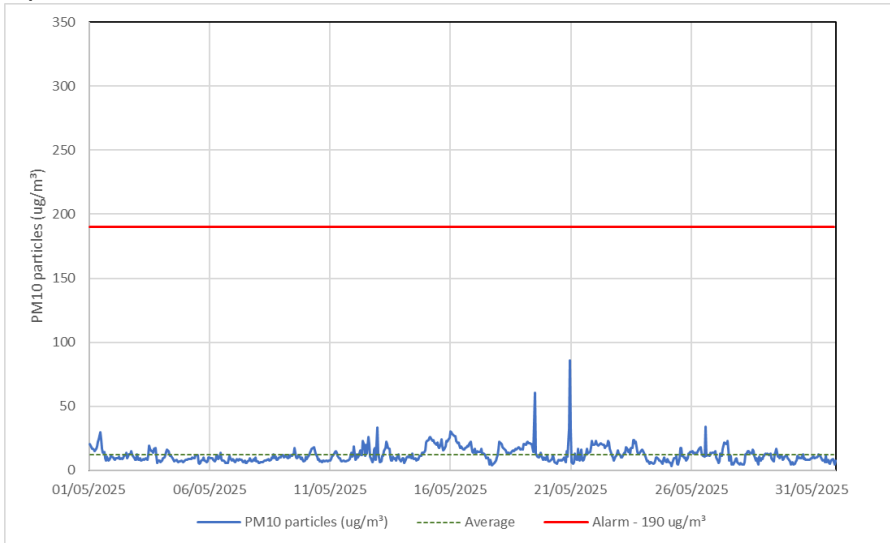
AQ038



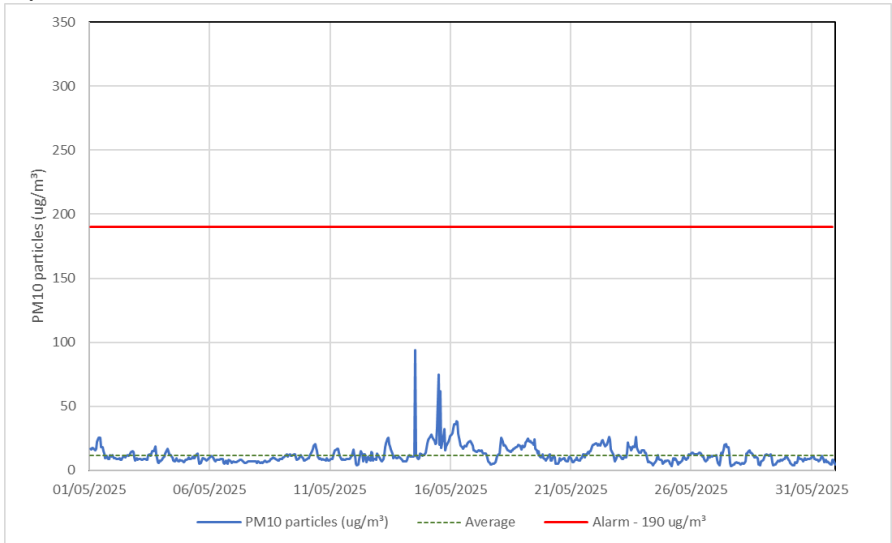
AQ039



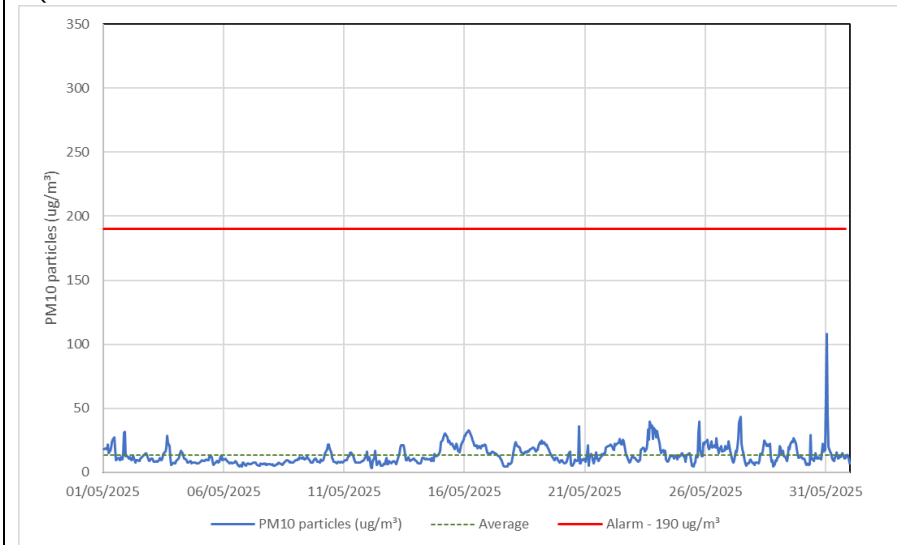
AQ042



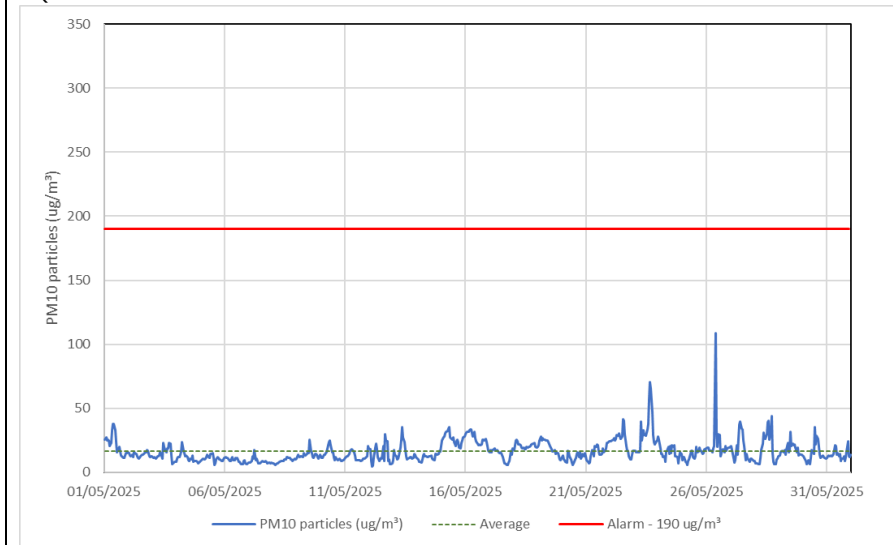
AQ043



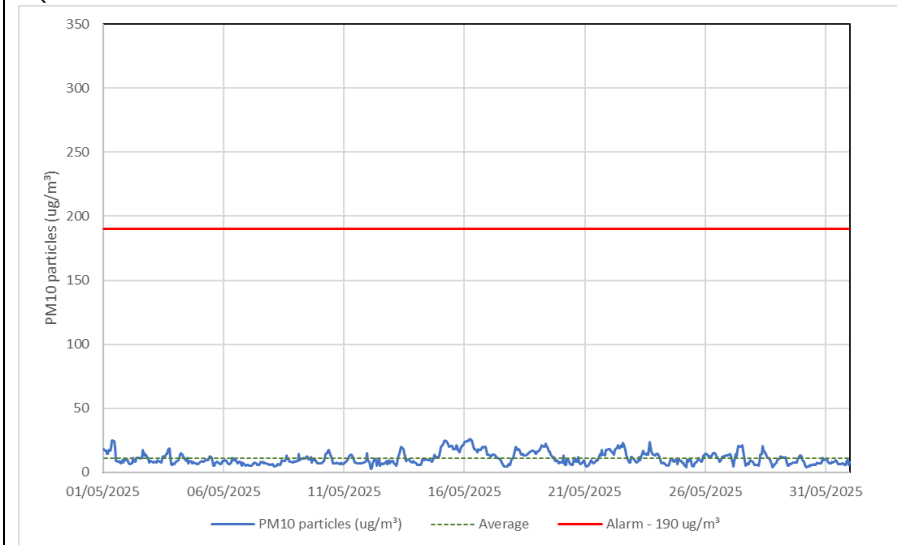
AQ046



AQ051



AQ055



Appendix C – Air Quality Monitoring Results

Table 3: NO₂ monitoring locations around highways, NO₂ concentrations and monthly monitoring results with running mean for 2025 (µg/m³)

Monitoring Site ID	Location description	Coordinates (X, Y)	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Mean ¹²
HS2-000020BN5	Sign post on Victoria Road	521443, 182477	58	46	30	41									44
HS2-000020BN7	The Approach street sign	520959, 181102	48	34	39	30									38
HS2-000020BQF	Conway Drive sign post	520856, 181733	46	44	46	Tube Missing									45
HS2-000020BQG	Lamp post outside No 1. Wells House Road on Old Oak Common Lane	521312, 182033	51	44	43	41									44
HS2-000020BP6	Triplicate site next to the Ealing, Western Avenue Acton roadside automatic monitoring station	520430, 181950	47	38	48	34									42

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									48