

## Air Quality and Dust Monitoring Monthly Report – February 2022

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](mailto:HS2enquiries@hs2.org.uk)

Website: [www.gov.uk/hs2](http://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, 2021, 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](http://www.nationalarchives.gov.uk/doc/open-government-licence/version/2) **OGI** or write to the Information Policy Team, The National Archives, Kew, London TW9 4DU, or e-mail: [psi@nationalarchives.gsi.gov.uk](mailto: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.



Printed in Great Britain on paper containing at least 75% recycled fibre.

# 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 January and February 2022 respectively.
- 1.1.2 Figure 1 to Figure 3 in Appendix A indicate 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](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 The current phase of construction works commenced in October 2019 and is expected to be completed by 2025. 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)**

- Old Oak Common Depot and mobilisation and new site set up for the station works.
- Permanent Accommodation Building fit out
- Vegetation Strimming
- Hex Depot building - Slab Breakout / Material processing
- Construction of temporary haul roads
- Drainage installation
- Piling and D-Wall activities – East / Central Box
- Capping Beam Construction – West Box
- Old Oak Common Lane boundary wall stabilisation Works
- Conveyor steel erection
- Asphalt and tarmac laying for Haul road.

## **Victoria Road Crossover Box and Flat Iron Site**

- Groundworks;
- Piling operations; and
- Conveyor construction.

## **Willesden Euro Terminal**

- Excavated material spoil management; and
- Drainage works.

#### **Atlas Road**

- Piling operations;
- Groundworks; and
- Conveyor construction.

#### **Green Park Way Vent Shaft**

- Groundworks;
- Piling operations; and
- Materials management.

#### **Mandeville Road Vent Shaft**

- Groundworks;
- Piling operations; and
- Materials management.

#### **Westgate Vent Shaft**

- Groundworks;
- Piling operations; and
- Materials management.

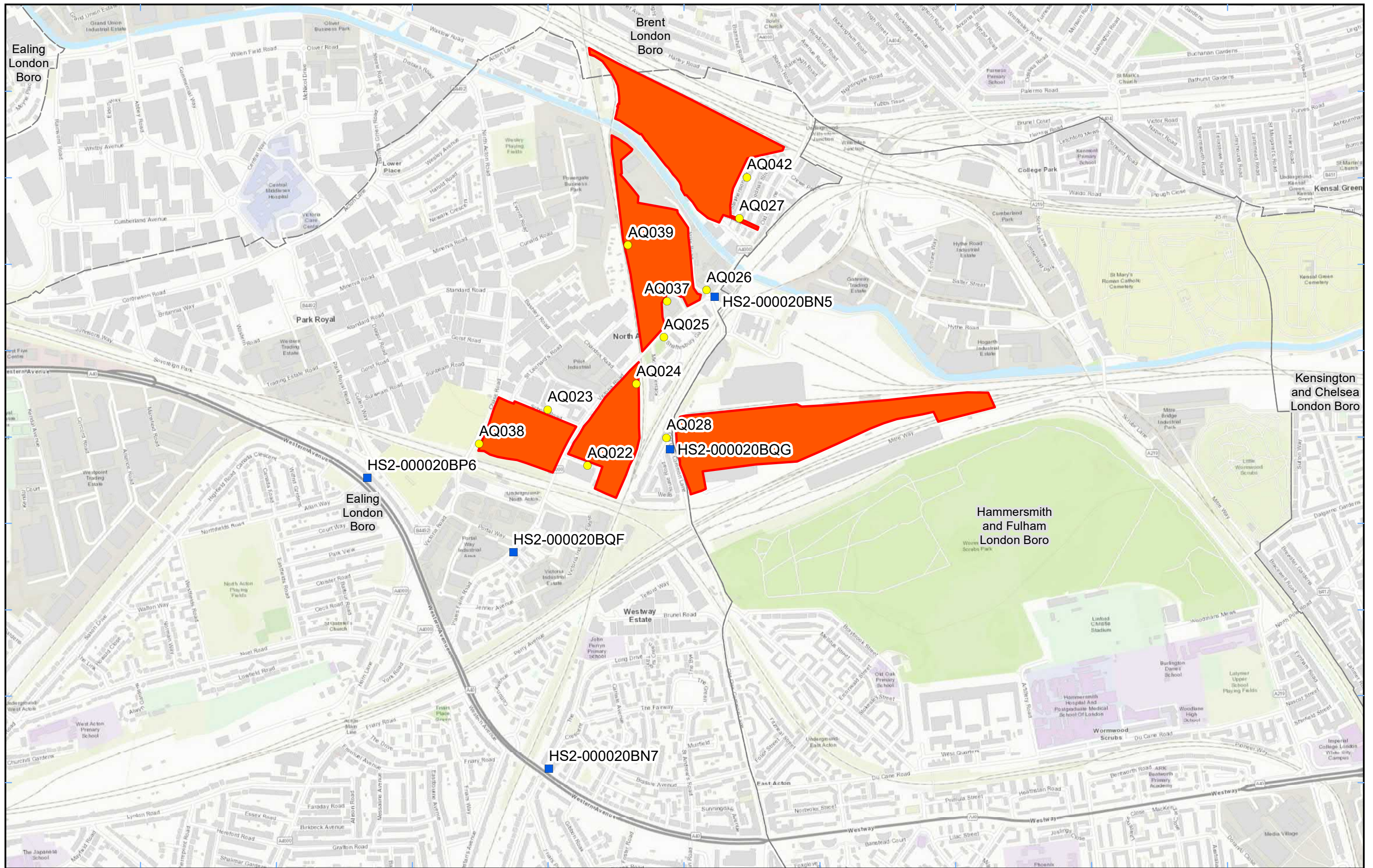
- 1.1.5 Fifteen (15) dust monitors are installed around worksites, where works are underway. These sites returned a medium dust risk rating.
- 1.1.6 Dust monitoring locations and results are presented in Appendix B, Table 1, together with line charts of monthly data from each dust monitor, in Figure 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 No dust trigger alerts were recorded during the monitoring period (February 2022).
- 1.1.9 Data capture was below 90% for multiple monitors in February 2022 due to monitor relocation and power supply issues during hoarding replacement works.
- 1.1.10 Diffusion tube monitoring of Nitrogen Dioxide (NO<sub>2</sub>) is undertaken at ten (10) locations around highways within the LBE 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 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 2, together with the 2022 running mean.
- 1.1.13 There were no (0) complaints received during this reporting period.

# Appendix A – Worksites and Monitoring Locations

Figure 1 to Figure 3: Worksites and monitoring locations within the LBE





**Legend**

- Diffusion Tube
- Worksite
- 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  
**Worksite and Monitoring Locations  
 In LBE (Sheet 1)**  
 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.

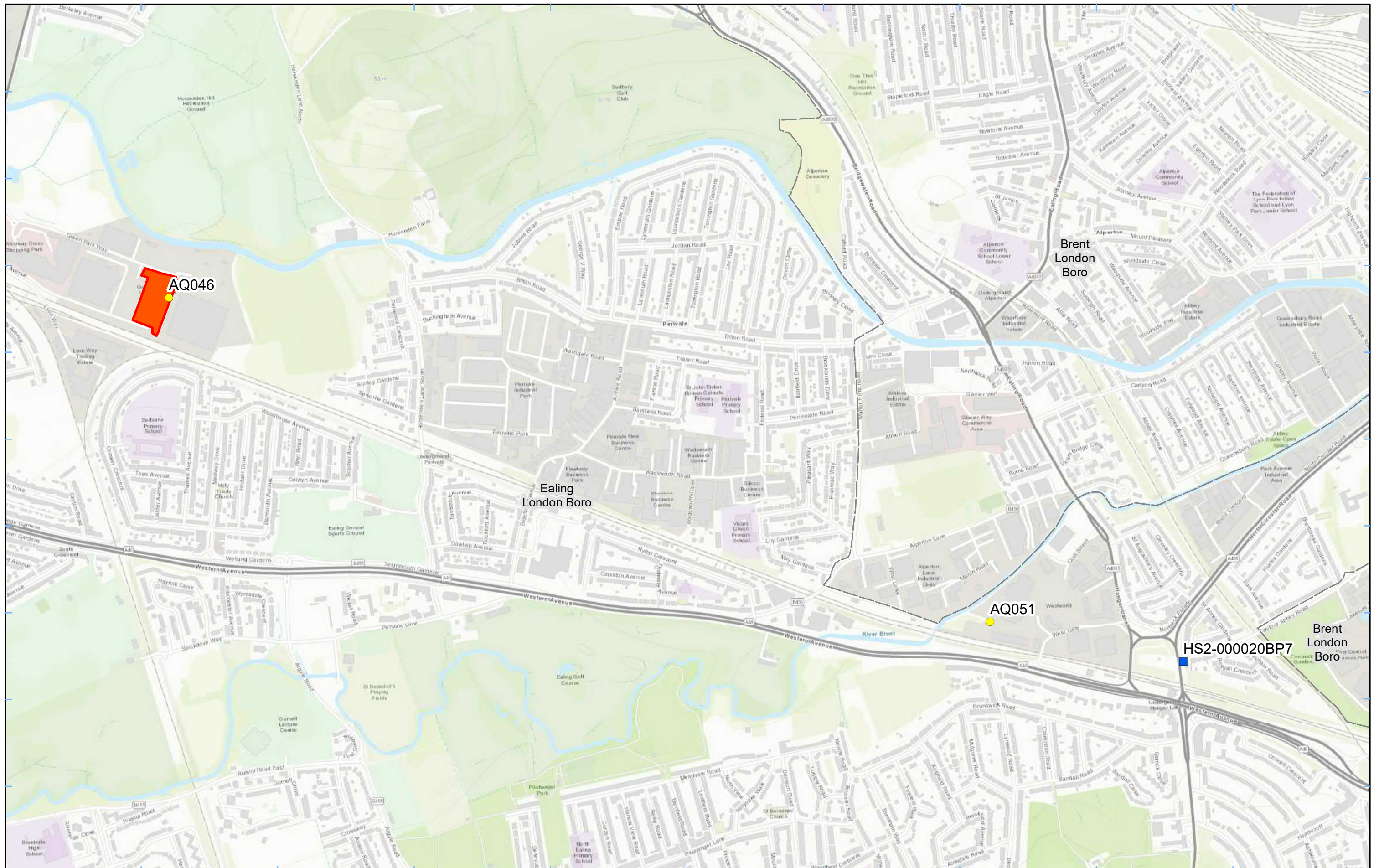
© Crown copyright and database rights 2021.  
 Ordnance Survey Licence Number 100049190.

Scale at A3: 1:10,000

Metres

**Doc Number:** **Date:** 27/01/21





- Legend**
- Diffusion Tube
  - Worksite
  - 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

Worksite and Monitoring Locations  
In LBE (Sheet 2)

London Borough of Ealing

**hs2**

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.

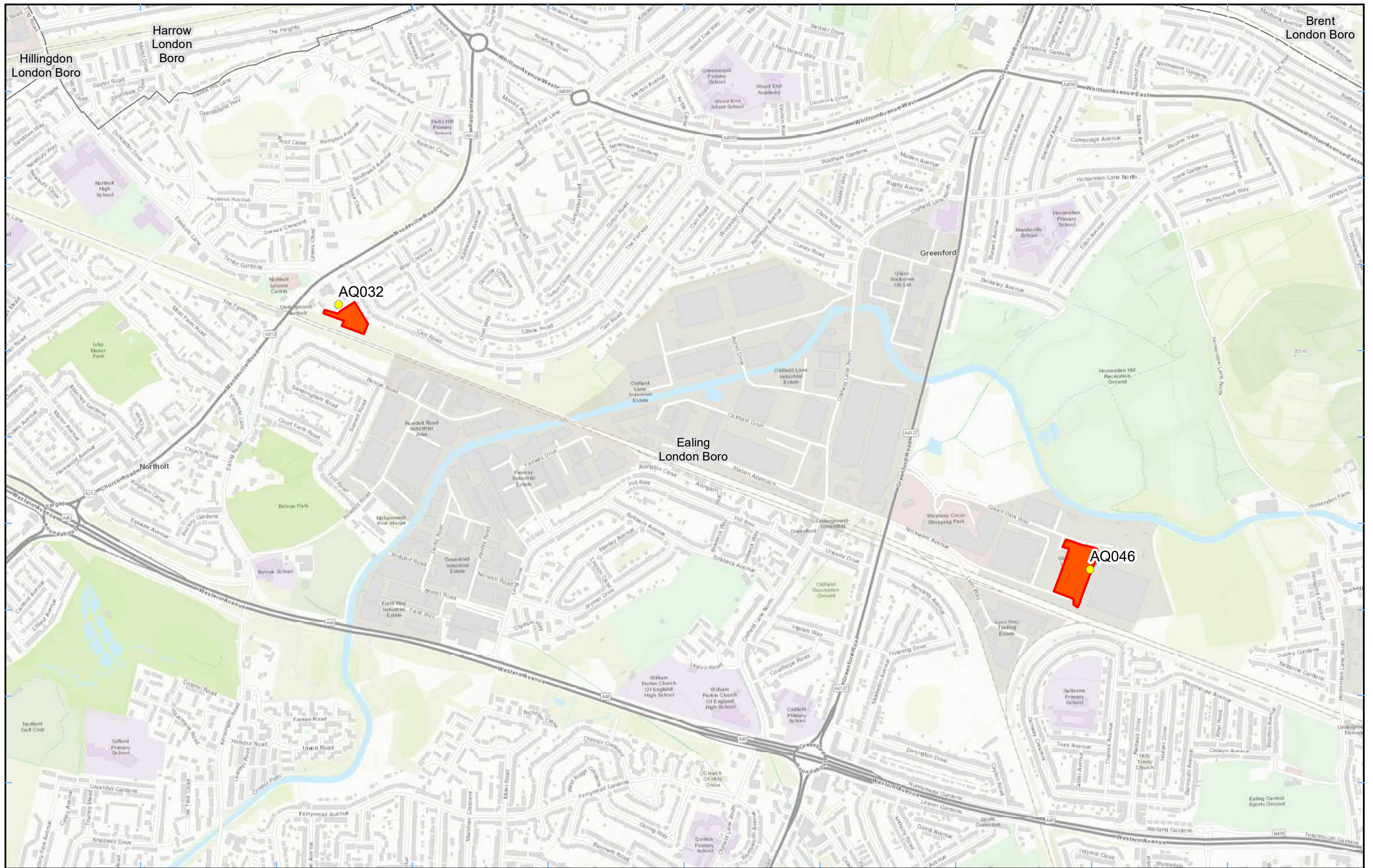
Scale at A3: 1:10,000

0 100 200 300 400  
Metres

© Crown copyright and database rights 2021.  
Ordnance Survey Licence Number 100049190.


Doc Number: Date: 26/07/21






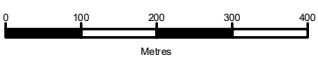
**Legend**  
 ● Dust Monitor  
 □ District Borough Unitary Boundaries  
 ■ Worksite

Map Number  
 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.

Scale at A3: 1:10,000  


© Crown copyright and database rights 2021.  
 Ordnance Survey Licence Number 100049190.

Doc Number: Date: 07/05/21

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



## Appendix B – Dust Monitoring Results

Table 1: Dust monitoring locations and February 2022 results

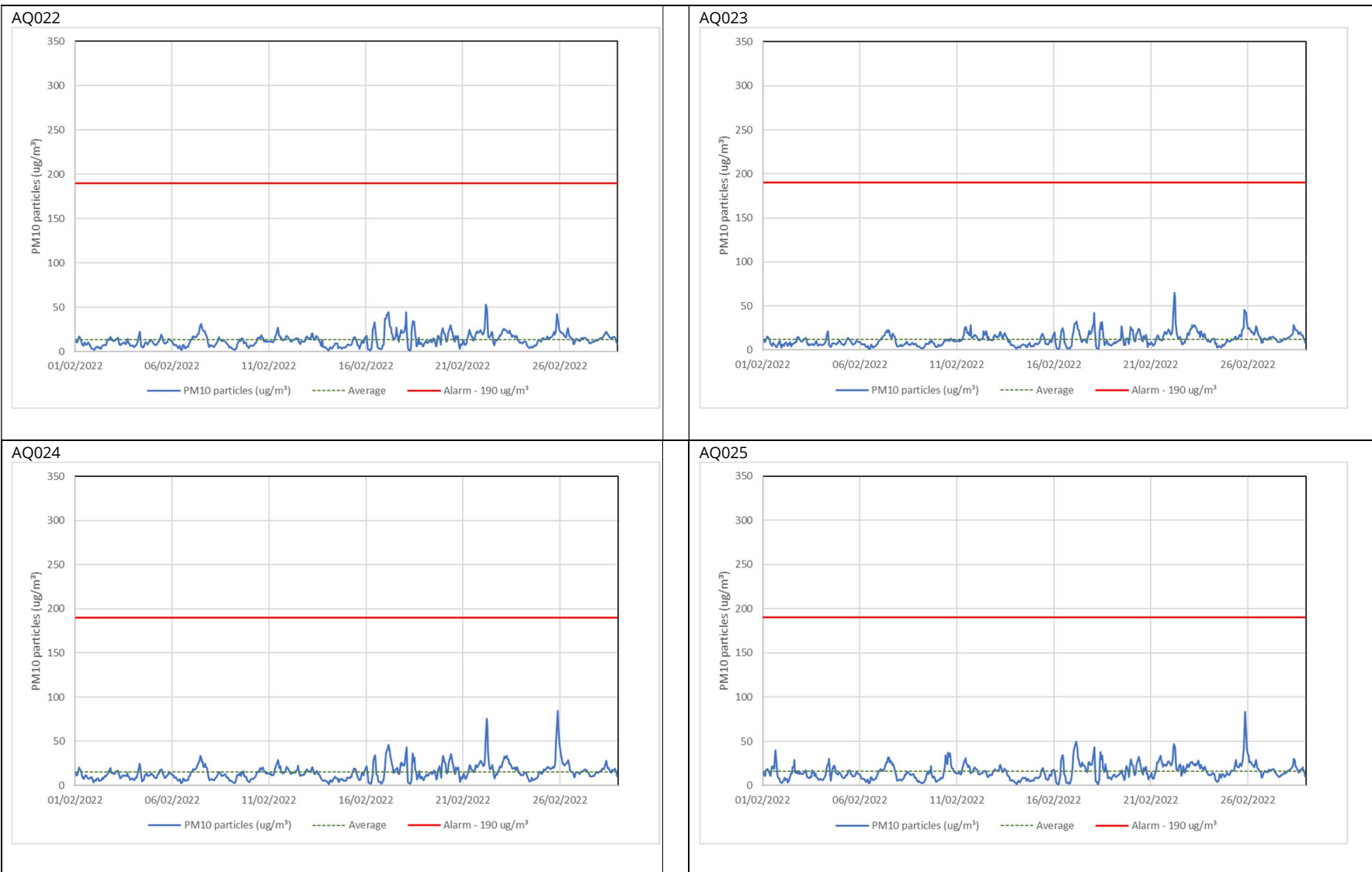
Monitoring site ID	Coordinates (X,Y)	Location description	Dust risk rating for site	Monitoring site active during period	Change to site since previous period report	Mean 1-hour PM <sub>10</sub> concentration (µg/m <sup>3</sup> )	Minimum 1-hour PM <sub>10</sub> concentration (µg/m <sup>3</sup> )	Maximum 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	13.4	1.4	53.5	0	100.0
AQ023	520956, 182149	School Road	M	Yes	N	12.1	1.2	65.0	0	100.0
AQ024	521214, 182223	Braitrim House	M	Yes	N	14.9	1.3	84.3	0	100.0
AQ025	521295, 182360	Victoria Road	M	Yes	N	15.9	1.4	83.2	0	100.0
AQ026	521419, 182497	Old Oak Lane	M	Yes	N	11.6	0.9	67.1	0	100.0
AQ027	521515, 182706	Channel Gate Road	M	Yes	N	20.5	1.2	131.9	0	74.8
AQ028	521302, 182067	Wells House Road	M	Yes	N	15.3	1.0	159.3	0	100.0
AQ032	513402, 184536	Badminton Close	M	Yes	N	10.5	1.0	45.2	0	100.0
AQ037	521304, 182464	Atlas Road	M	Yes	N	12.3	1.0	76.8	0	100.0
AQ038	520756, 182049	Chase Road	M	Yes	N	17.9	1.5	94.1	0	97.8
AQ039	532417, 181198	Atlas Road 2	M	Yes	N	10.9	1.2	45.3	0	100.0
AQ042	521537, 182826	Stephenson Road	M	Yes	N	13.8	1.1	64.2	0	74.5

Air Quality and Dust Monitoring Summary Report, February 2022  
 London Borough of Ealing

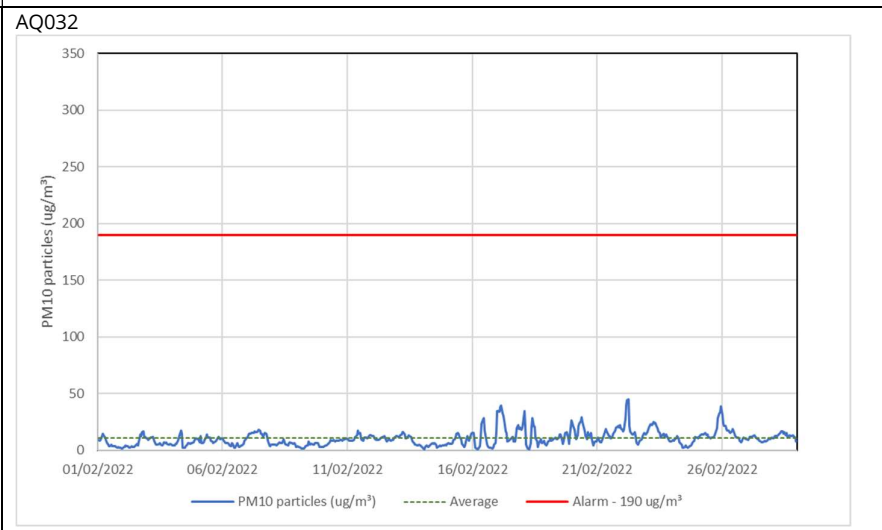
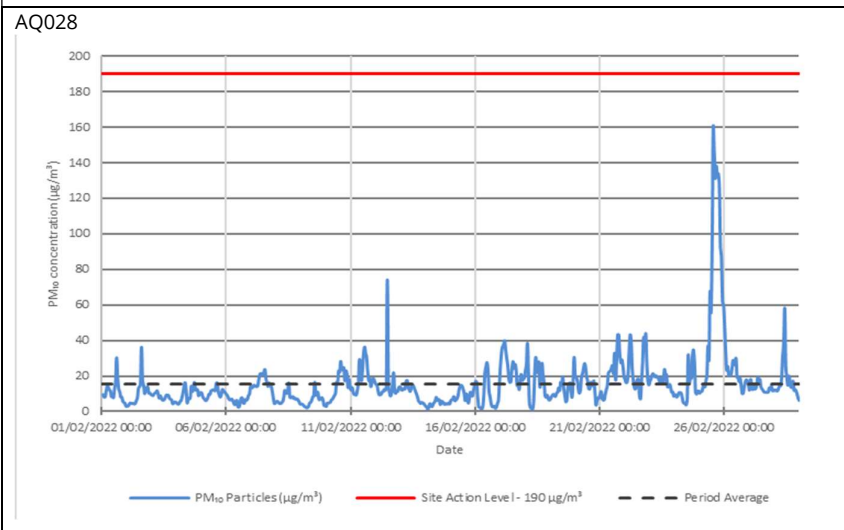
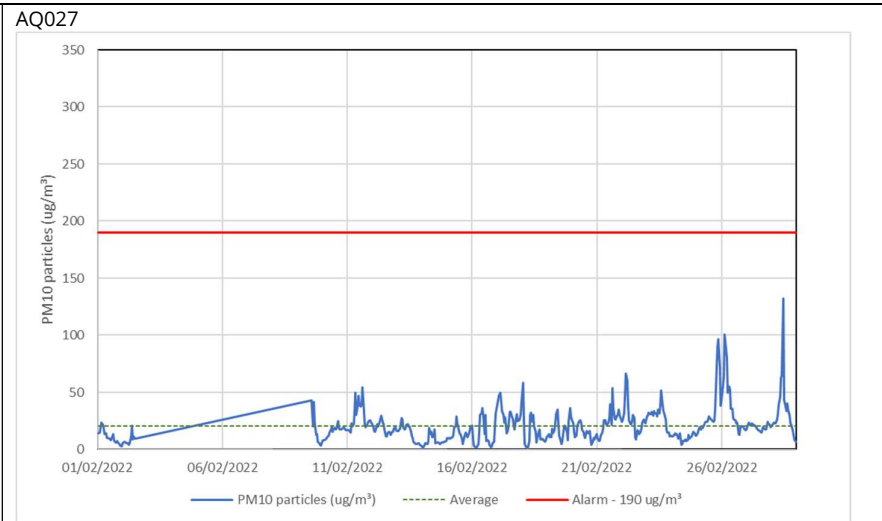
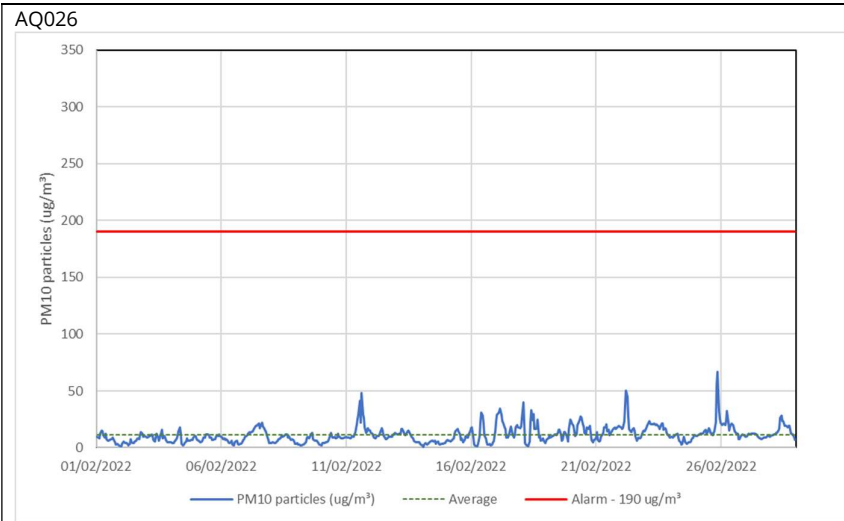
Monitoring site ID	Coordinates (X,Y)	Location description	Dust risk rating for site	Monitoring site active during period	Change to site since previous period report	Mean 1-hour PM <sub>10</sub> concentration (µg/m <sup>3</sup> )	Minimum 1-hour PM <sub>10</sub> concentration (µg/m <sup>3</sup> )	Maximum 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 (%)
AQ043	513468, 184504	Mandeville Road	M	Yes	N	11.6	1.0	48.7	0	100.0
AQ046	515593, 183764	Green Park Way	M	Yes	N	13.2	1.1	50.8	0	100.0
AQ051	517976, 182823	Westgate	M	Yes	N	12.4	1.8	56.3	0	100.0

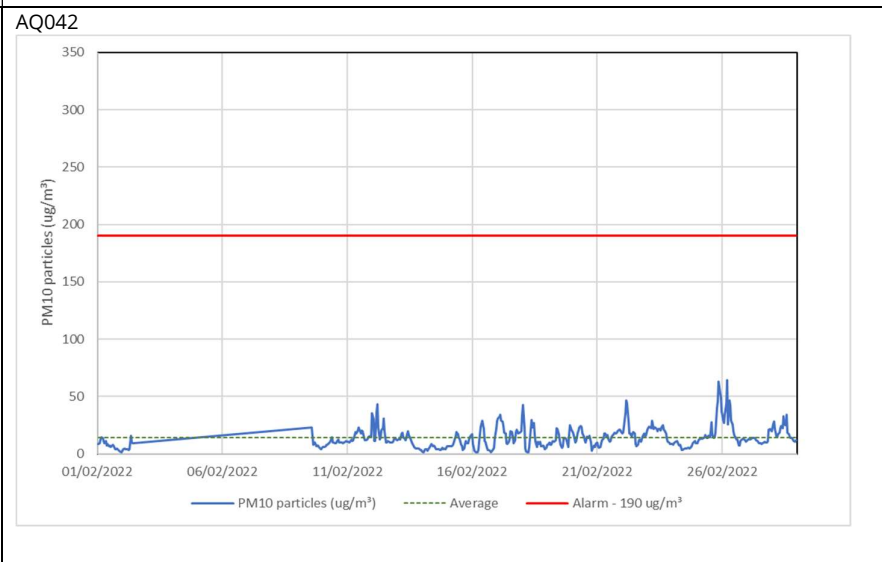
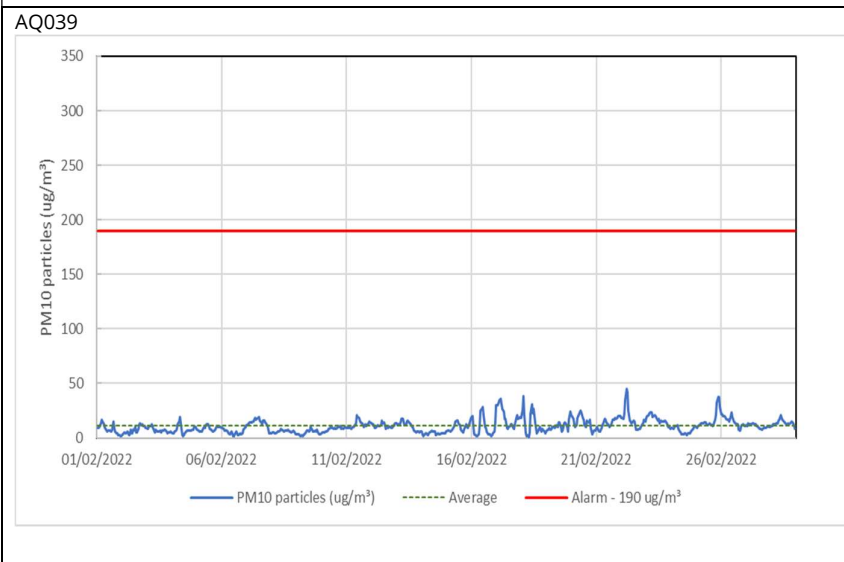
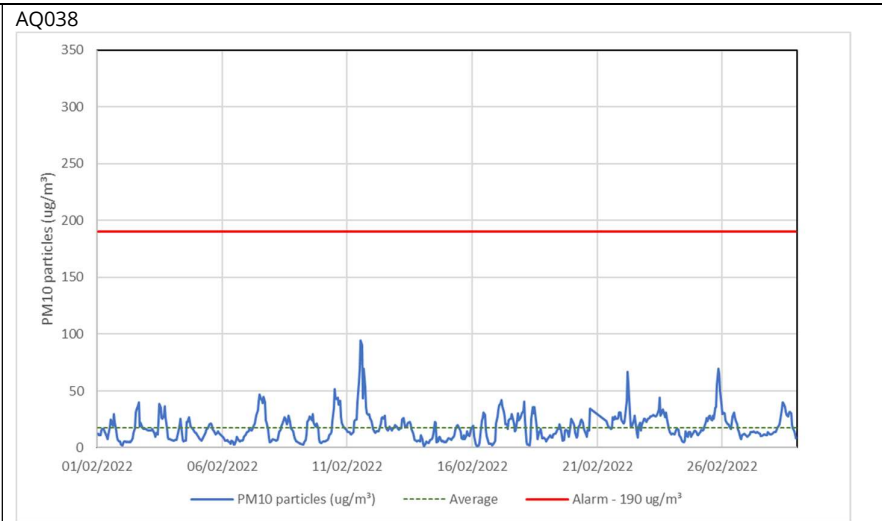
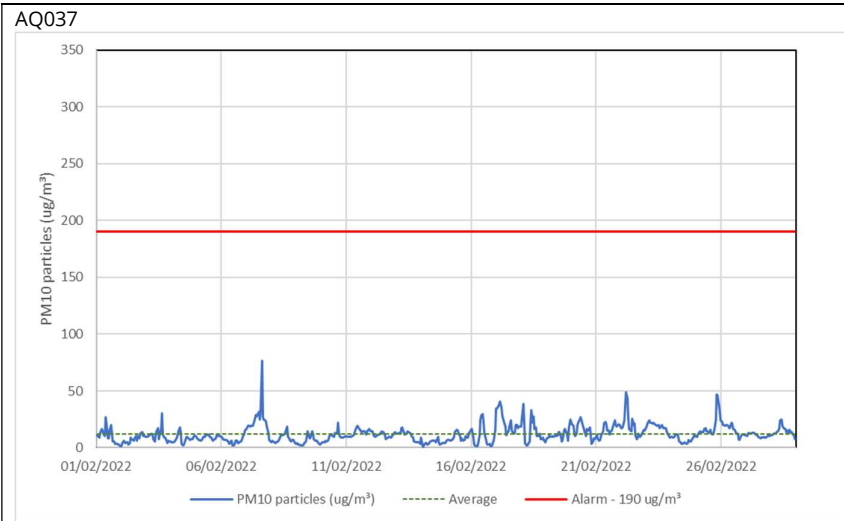


Figure 4: Construction dust 1-hour mean indicative PM<sub>10</sub> concentration for dust monitors

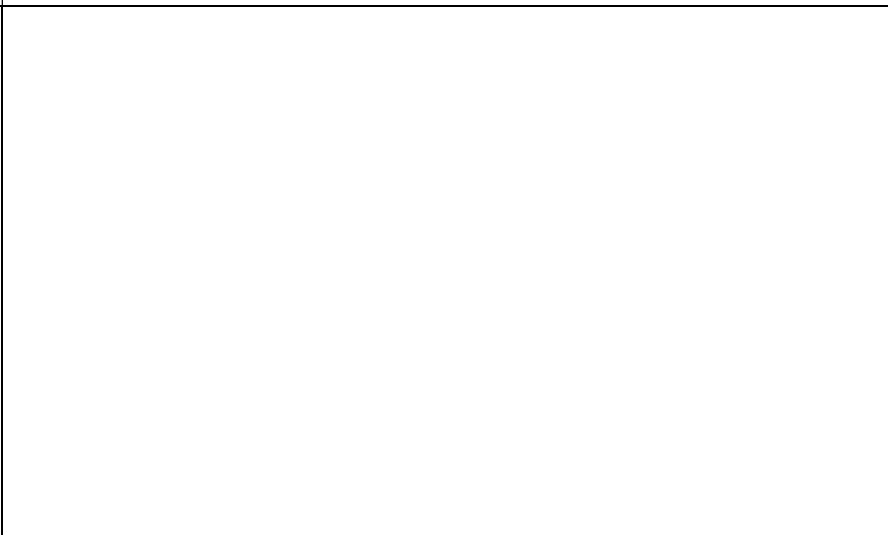
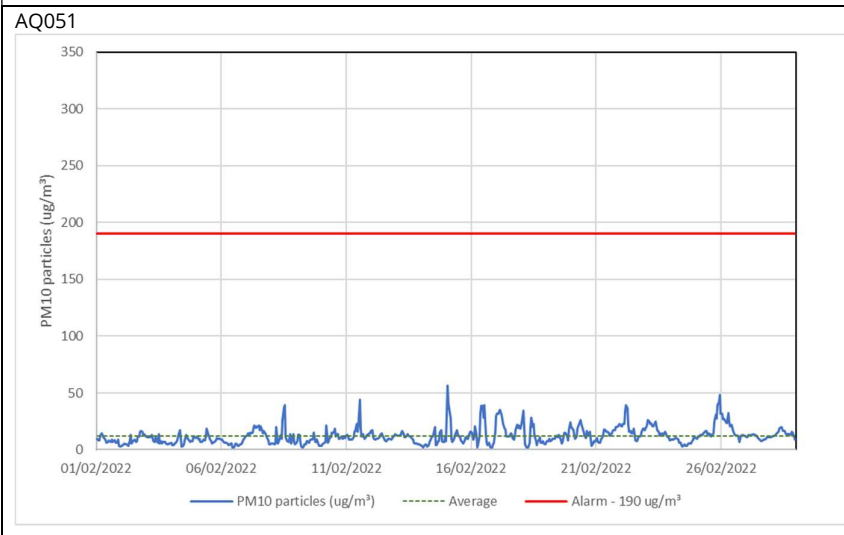
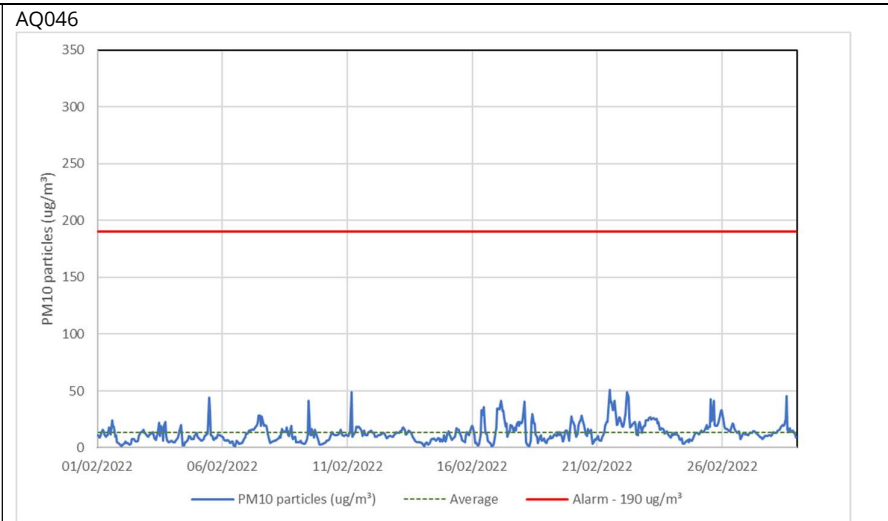
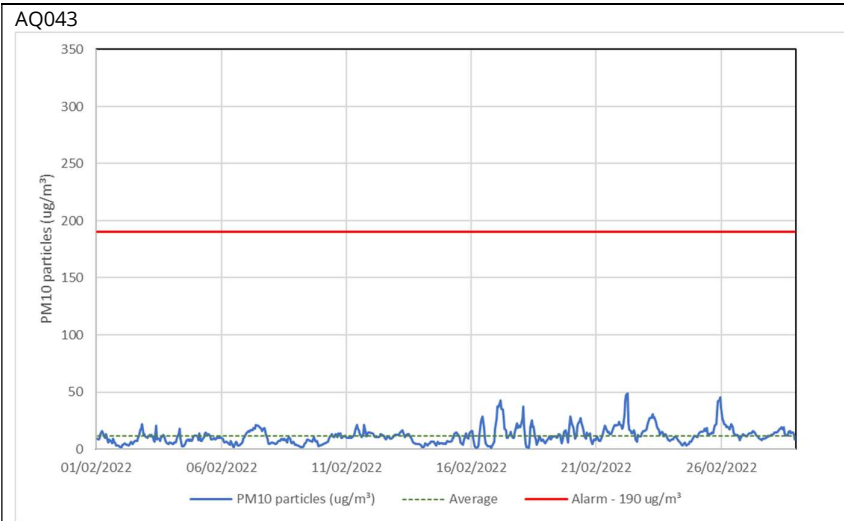


Air Quality and Dust Monitoring Summary Report, February 2022  
 London Borough of Ealing









## 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 2022 (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>
HS2-000020BN5	Sign post on Victoria Road	521443, 182477	65												65
HS2-000020BN7	The Approach street sign	520959, 181102	76												76
HS2-000020BQF	Conway Drive sign post	520856, 181733	66												66
HS2-000020BQG	Lamp post outside No 1. Wells House Road on Old Oak Common Lane	521312, 182033	Tube Missing												N/A
HS2-000020BQZ	Lamp post on Victoria Road opposite Tudor House	521354, 182425	49												49
HS2-000020BR0	Sign post on Shaftesbury Gardens	521295, 182354	50												50
HS2-000020BR1	Lamp post on Midland Terrace	521263, 182298	43												43
HS2-000020BR2	Lamp post on Victoria Road outside Papa John's	520702, 181844	Tube Missing												N/A

<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.

Air Quality and Dust Monitoring Summary Report, February 2022  
 London Borough of Ealing

Monitoring Site ID	Location description	Coordinates (X, Y)	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Mean <sub>1</sub>
HS2-000020BP6	Triplicate site next to the Ealing, Western Avenue Acton roadside automatic monitoring station	520430, 181950	63												63
HS2-000020BP7	Triplicate site next to the Ealing, Hangar Lane Gyrotory roadside automatic monitoring station	518537, 182708	87												87