

Air Quality and Dust Monitoring Monthly Report – July 2018

London Borough of Ealing



SKANSKA



Department for Transport

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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 June and July 2018 respectively.

1.1.2 Figure 1 and Figure 2 in Appendix A indicate the current work sites 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 phase of works commenced within the LBE during April 2018, and are expected to be completed by July 2019. The current worksites, as presented in Appendix A, Figure 1 and Figure 2, include:

- Securing of and pre-demolition surveys of site on Victoria Road, worksite ref. S002-WS01.
- Securing of and pre-demolition surveys of site on Atlas Road, worksite ref. S001-WS02.
- Securing of and pre-demolition surveys of site at Willesden Euro Terminal, worksite ref. S001-WS03.
- Demolition works at Old Oak Common Depot (located in the London Borough of Hammersmith and Fulham), worksite ref. S004-WS01.
- Future works site at Mandeville Road Pumping Station, worksite ref. S002-WS02.

1.1.5 Seven (7) dust monitors were installed around worksites, where pre-demolition works are underway. These sites returned a medium or high dust risk rating.

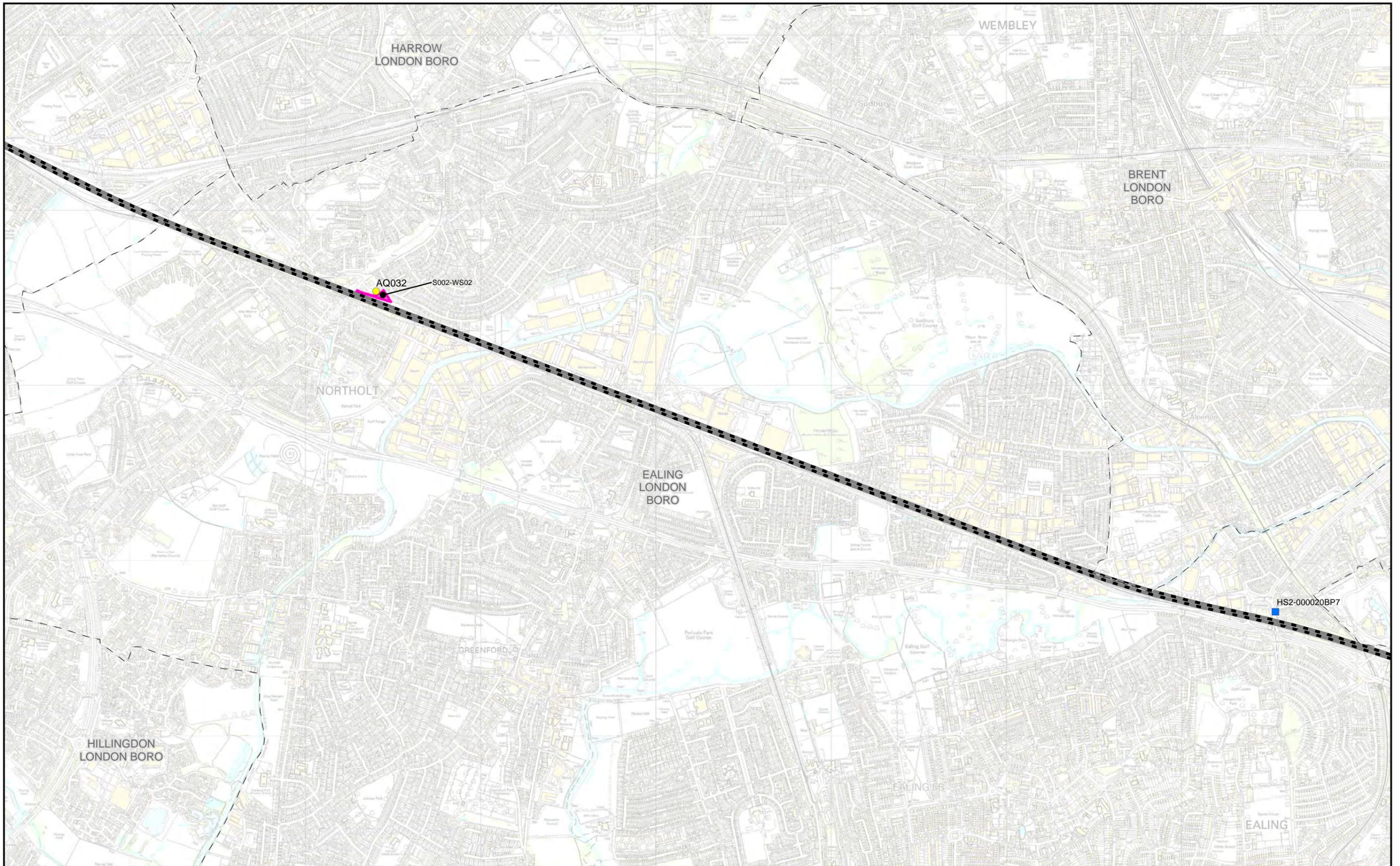
1.1.6 Dust monitoring locations and results are presented in Appendix B, Table 1, together with line charts of monthly data from each dust monitor.

1.1.7 There were three (3) exceedances of the dust trigger level were recorded during the month of July 2018. However, following investigations it was considered that none of these exceedances were related to HS2 site activities. Exceedances are presented in Appendix B, Table 2. All other results were in line with the expected ranges.

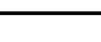
1.1.8 Diffusion tube monitoring of Nitrogen Dioxide (NO₂) was undertaken at six (6) locations in June 2018, around highways within the LBE as part of the management of air quality where significant effects may occur as a result the scheme.

- 1.1.9 Diffusion tube monitoring results were 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.
- 1.1.10 NO₂ monitoring locations and results are presented in Appendix C, Table 3, together with the 2018 running mean.
- 1.1.11 There were no complaints received, relating to dust or air quality, during this monitoring period.

Appendix A – Worksites and Monitoring Locations



Legend

-  District/Borough boundary
-  Route in tunnel
-  Route on surface
-  HS2 Chainage Markers

-  Diffusion tube monitoring location
-  Mandeville Road Pumping Station
-  Dust monitoring location

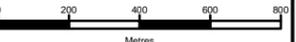
Figure Number
Figure Name Worksites and Monitoring locations in LBE (sheet 1)
London Borough of Ealing



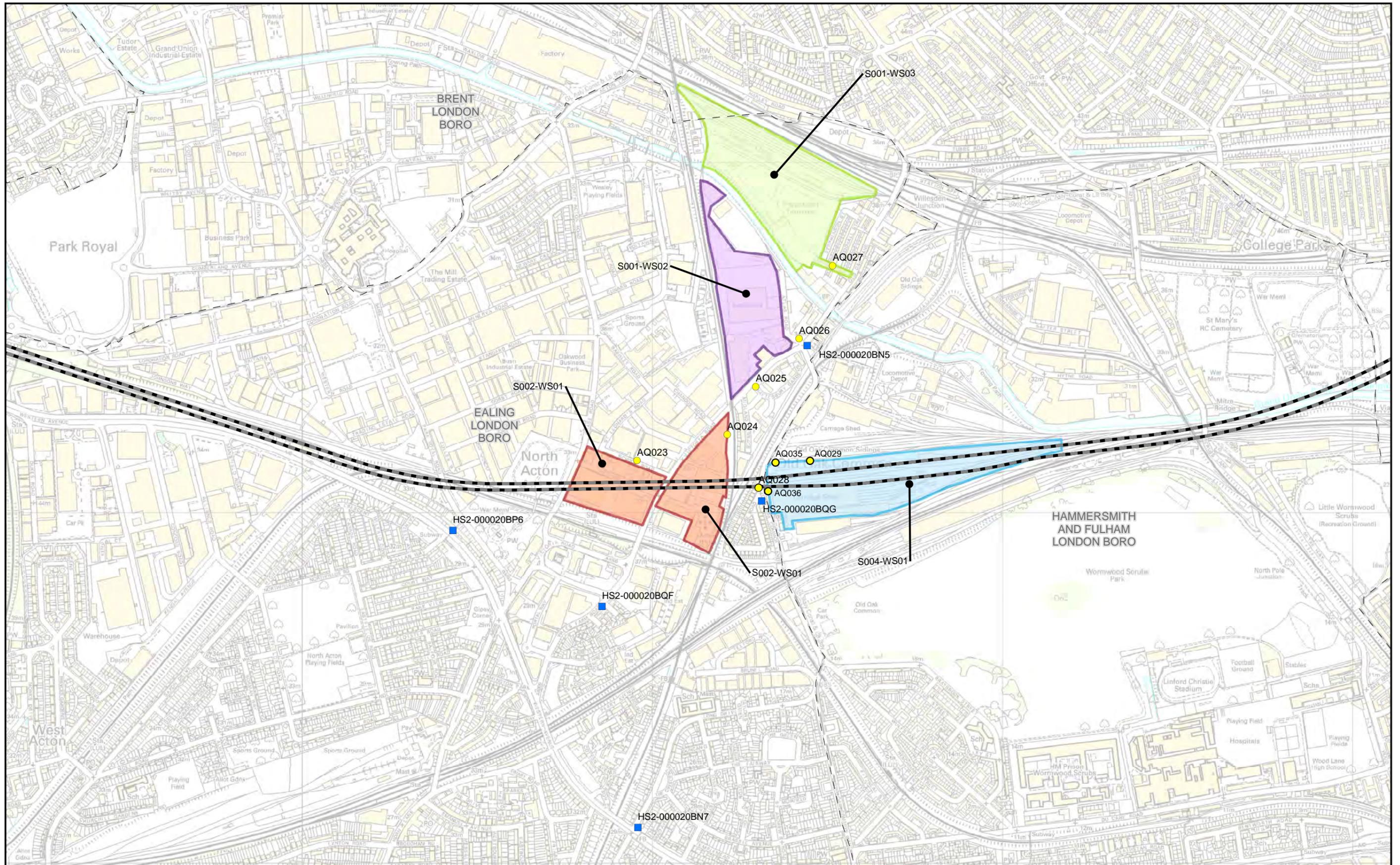
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Scale at A3: 20,000



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Map Number: 1EW02-CSJ-EV-REP-S000-000017_appAFig1.pdf **Date:** 16/07/18



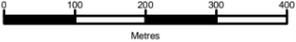
- Legend**
- Route in tunnel
 - Route on surface
 - Diffusion tube monitoring location
 - Dust monitoring location

- Willesden Euro worksite
- Victoria Road worksite
- Old Oak Common worksite
- Atlas Road worksite

Figure Number	
Figure Name	Worksites and Monitoring locations in LBE (sheet 2)
	London Borough of Ealing


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 Scale at A3: 10,000


 Metres

Appendix B – Dust Monitoring Results

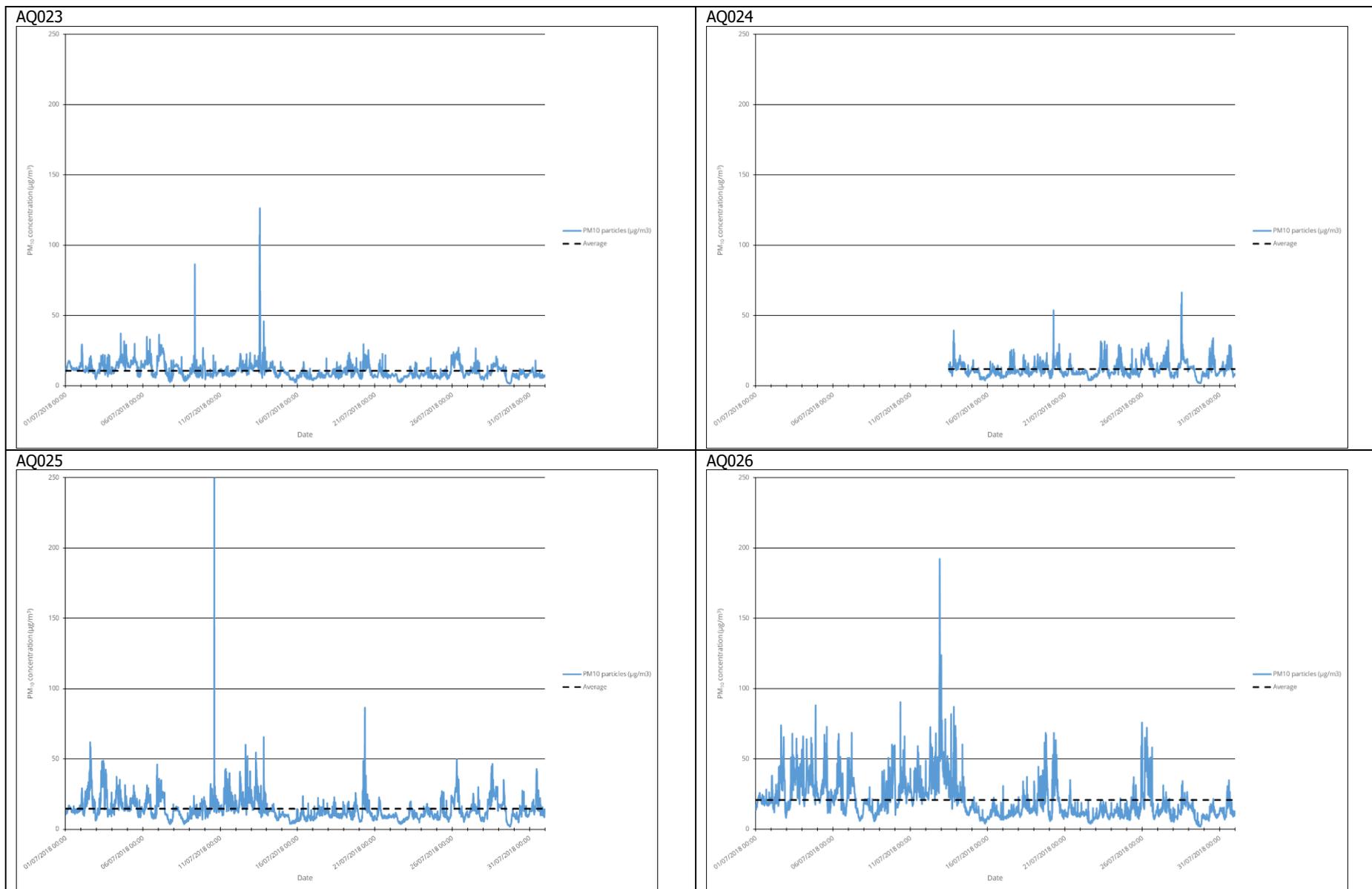
Table 1: Dust monitoring locations and July 2018 Results

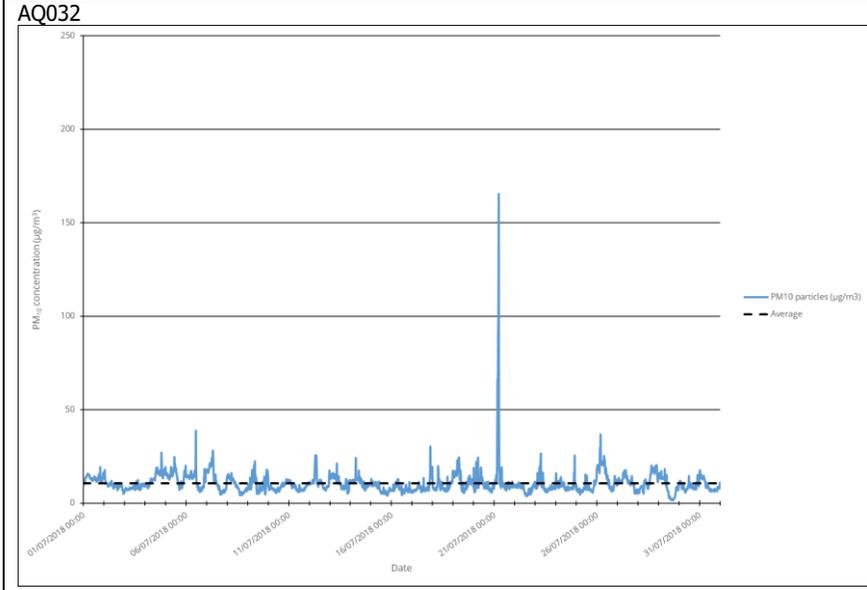
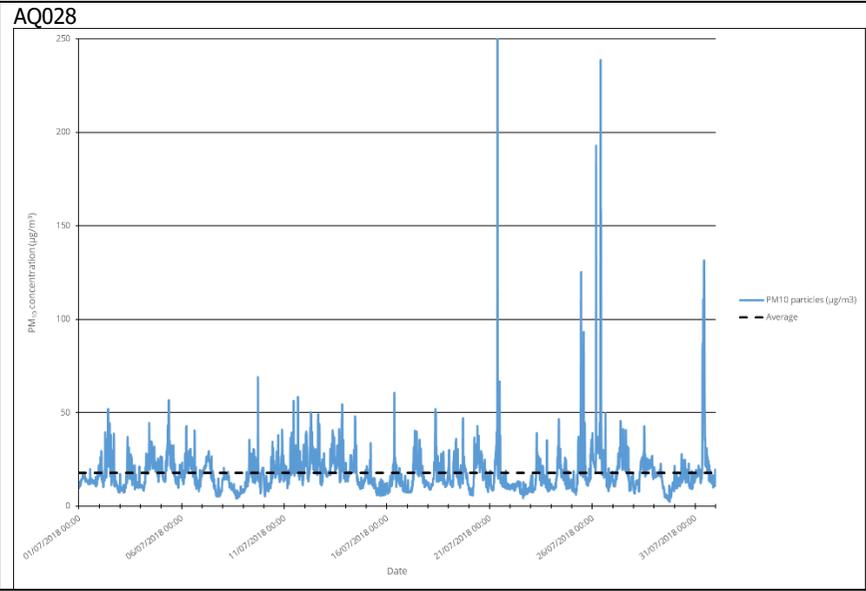
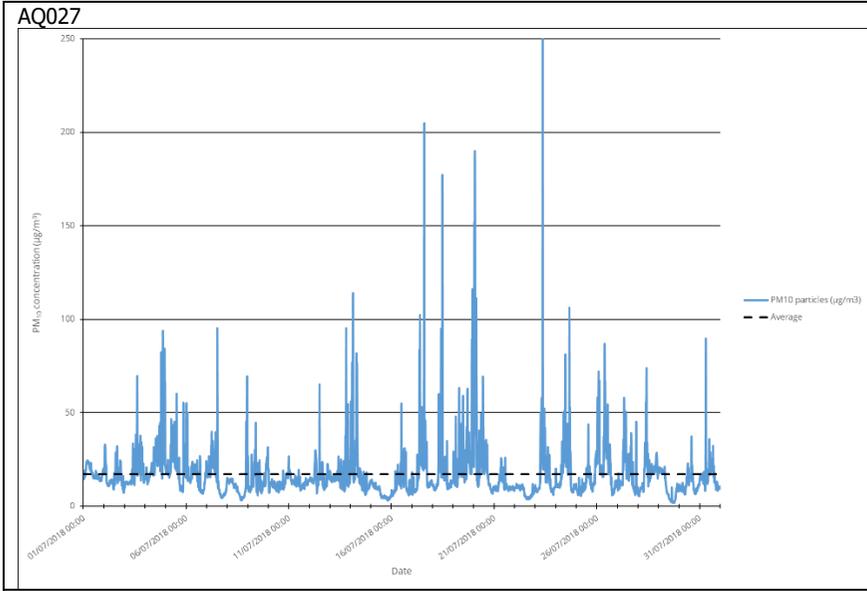
Monitoring site ID	Coordinates (X,Y)	Location description	Dust risk rating for site	Monitoring site active during period	Change to site since previous period report	Mean 15-minute PM ₁₀ concentration (µg/m ³)	Minimum 15-minute PM ₁₀ concentration (µg/m ³)	Maximum 15-minute PM ₁₀ concentration (µg/m ³)	Number of 15-min periods exceeding trigger level of 250 µg/m ³	15-min data capture (%)
AQ023	520957, 182147	School Road	H	Yes	N	10.7	1.3	126.2	0	100.0
AQ024	521226, 182220	Braitrim House	H	Yes	n/a	11.8	1.8	65.6	0	59.7
AQ025	521296, 182354	Victoria Road	H	Yes	N	14.4	1.8	418.0	1	100.0
AQ026	521428, 182495	Old Oak Lane	H	Yes	N	20.7	1.8	191.3	0	100.0
AQ027	521515, 182705	Stephenson Street	H	Yes	N	17.2	1.8	344.9	1	100.0
AQ028	521309, 182085	Wells House Road	H	Yes	Y	17.8	2.4	318.0	1	100.0
AQ032	513410, 184552	Badminton Close	M	Yes	N	10.7	1.5	164.0	0	100.0

Table 2: Summary of exceedances of trigger level in July 2018

Period exceeding trigger level	Worksite reference	Monitoring site ID	Complaint reference number (if applicable)	Reason	Resolution
10/07/2018 14:46 – 10/07/2018 15:00	S001-WS02	AQ025	n/a	No HS2 works were being undertaken in the area at the time of the exceedance and no likely dust sources were identified from nearby HS2 sites.	n/a
21/07/2018 09:01 – 21/07/2018 09:15	S004-WS01	AQ028	n/a	HS2 works were being carried at Old Oak Common Depot however it was noted that all dust suppression measures including mist cannons and bowsers were in full operation. None of the 3x on-site dust monitors which are in closer proximity to the works triggered (see London Borough of Hammersmith and Fulham monthly report). It is considered this particular trigger was not associated with the HS2 works.	n/a
23/07/2018 08:31 – 23/07/2018 08:45	S001-WS03	AQ027	n/a	No HS2 works were being undertaken in the area at the time of the exceedance and no likely dust sources were identified from nearby HS2 sites.	n/a

Figure 3: Construction dust 15-minute mean indicative PM₁₀ concentration for dust monitors





Appendix C – Air Quality Monitoring Results

Table 3: NO₂ monitoring locations around highways, NO₂ concentrations and monthly monitoring results with running mean for 2018 (µg/m³)

Monitoring Site ID	Location description	Coordinates (X, Y)	Jan	Feb	Mar	Apr	May	June	Jul	Aug	Sep	Oct	Nov	Dec	Mean ¹
HS2-000020BN5	Sign post on Victoria Road	521443, 182477	57	54	67	51	55	50							56
HS2-000020BN7	The Approach street sign	520959, 181102	77	57	56	65	52	40							58
HS2-000020BQF	Conway Drive sign post	520856, 181733	71	63	70	63	60	60							64
HS2-000020BQG	Lamp post outside No 1. Wells House Road on Old Oak Common Lane	521312, 182033	75	76	57	70	58	48							64
HS2-000020BP6	Triplicate site next to the Ealing, Western Avenue Acton roadside automatic monitoring station	520430, 181950	58	58	52	54	62	51							56
HS2-000020BP7	Triplicate site next to the Ealing, Hangar Lane Gyrotory roadside automatic monitoring station	518537, 182708	76	68	63	72	75	58							69

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.