

Air Quality and Dust Monitoring Monthly Report – July 2018

**London Borough of Hammersmith and
Fulham**



SKANSKA



Department for Transport

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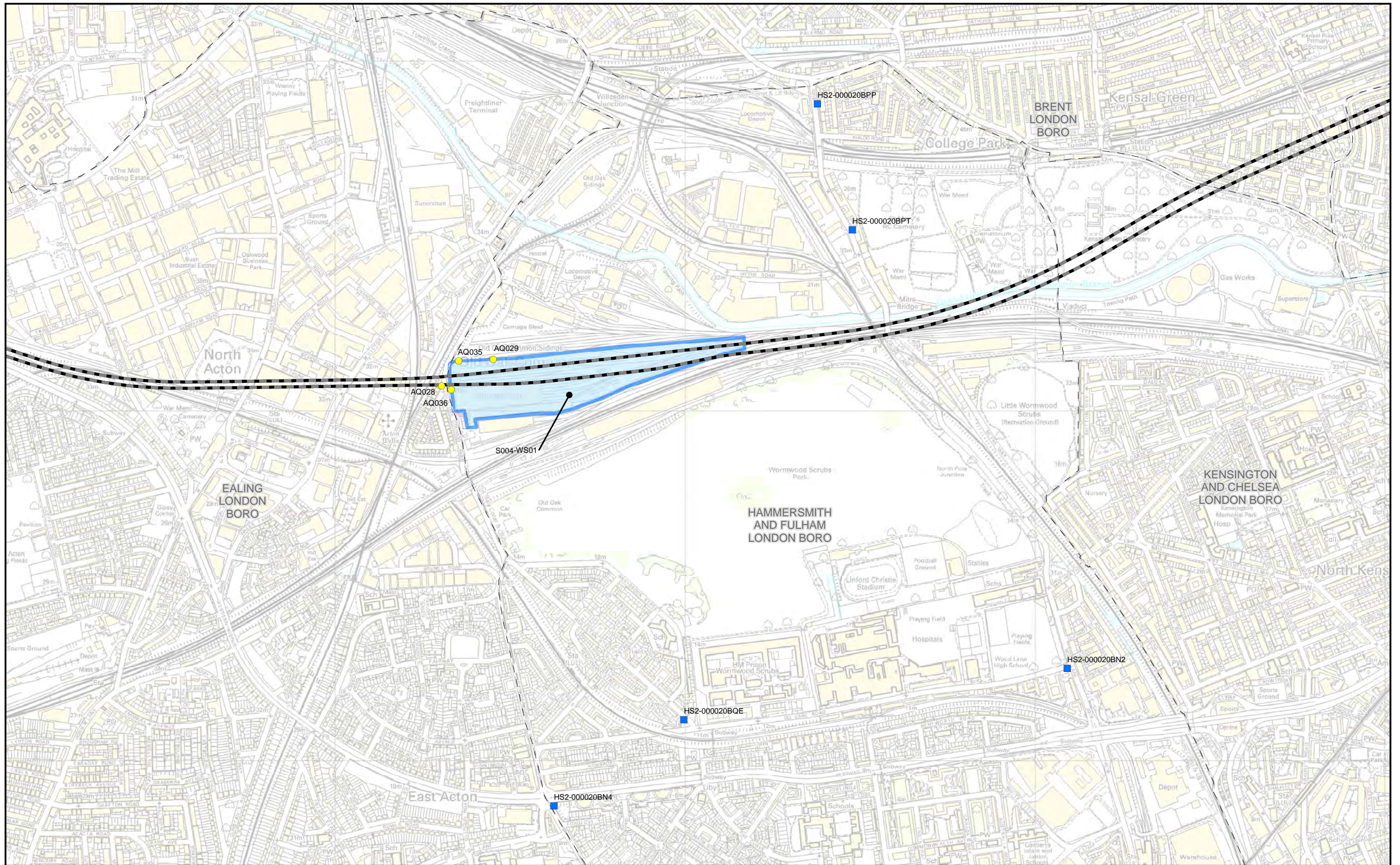
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Monthly Summary

- 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 Hammersmith and Fulham (LBHF) 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 LBHF during May 2018, and are expected to be completed by July 2019. The current worksite, as presented in Appendix A, Figure 1, includes:
- Security and site establishment and pre-demolition surveys, track and gantry removal works at Old Oak Common Depot, worksite ref. S004-WS01.
- 1.1.5 Four (4) dust monitors were installed around the worksite, where pre-demolition works are underway. This site returned a 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 Ten (10) exceedances of the dust trigger level were recorded during the month of July 2018. However, following investigations it was noted that none of these exceedances were related to HS2 site activities, as no dusty activities were programmed or being undertaken at the time of the exceedances. 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 seven (7) locations in June 2018, around highways within the LBHF 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	
	Route in tunnel
	Route on surface
	Dust monitoring location
	Diffusion tube monitoring location
	Old Oak Common worksite

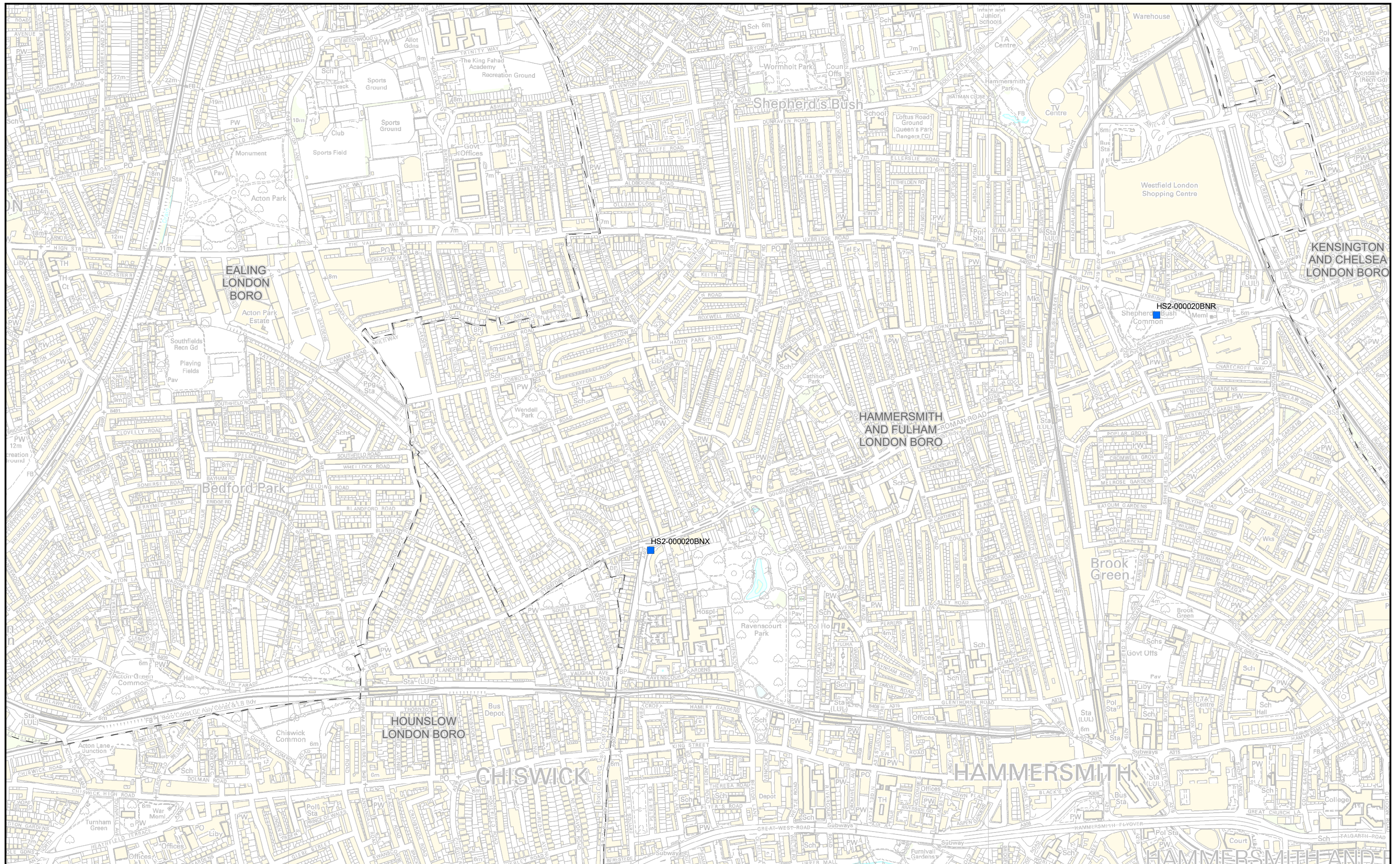
Figure Number	
Figure Name	Worksites and Monitoring locations in LBHF (sheet 1)
London Borough of Hammersmith and Fulham	


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Scale at A3: 10,000










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

Figure Number


Figure Name
Worksites and Monitoring locations in LBHF (sheet 2)

London Borough of Hammersmith and Fulham

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 Map Number: 1EW02-CSJ-EV-REP-S000-000017_appA_fig1.pdf Date: 13/07/18

Appendix B – Dust Monitoring Results

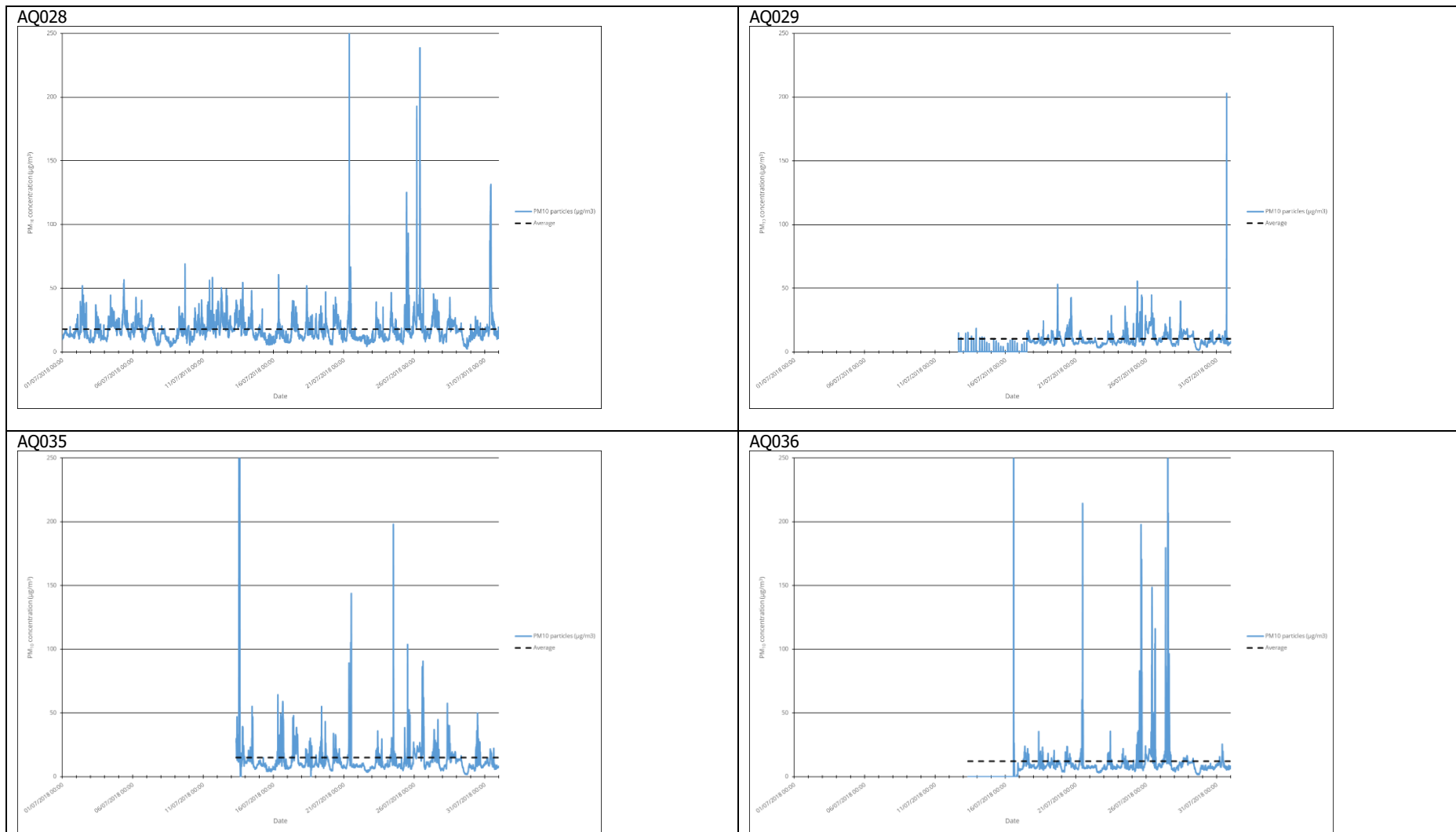
Table 1: Dust monitoring locations and July 2018 Results

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 (%)
AQ028	521309, 182085	Wells House Road	H	Yes	Y	17.8	2.4	318.0	1	100.0
AQ029	521670, 181964	Old Oak Common	H	Yes	n/a	10.5	1.4	202.8	0	47.5
AQ035	521352, 182143	Old Oak Common	H	Yes	n/a	14.9	1.6	774.9	7	60.0
AQ036	521331, 182061	Old Oak Common	H	Yes	n/a	12.2	1.2	567.3	2	49.1

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
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. It is considered this particular trigger was not associated with the HS2 works.	n/a
13/07/2018 12:46 – 13/07/2018 14:30 (7 alerts between these times, one after another)	S004-WS01	AQ035	n/a	'False alerts' associated with the mist spray from dust suppression cannons located in too-close proximity to the dust monitor.	n/a
16/07/2018 13:46 – 16/07/2018 14:00	S004-WS01	AQ036	n/a	'False alert' associated with maintenance work being carried out on the dust monitor at the time of the trigger.	n/a
27/07/2018 12:46 – 27/07/2018 13:00	S004-WS01	AQ036	n/a	HS2 works included breaking out foundations and continuing demolition of the Short Stabling Shed were being undertaken at the time of the trigger. All dust suppression measures, including dust suppression cannons were operation and the mobile water bowser was also tracking up and down the site, therefore at the time dust suppression was assumed suitable. The dry weather being experienced may have resulted in the road suppression drying up quicker than expected and a vehicles passing-by may have caused of the isolated trigger. There was no notable activity as the cause for this particular trigger albeit being associated with the works.	Maintain continued on-site dust suppression during demolition and groundworks, adjusting frequency as required in special conditions.

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
HS2-000020BN2	Lamp post on Du Cane Road	523092, 181264	61	Tube missing	67	60	59	47							59
HS2-000020BN4	End of cycle lane sign on Old Oak Road	521625, 180871	56	59	67	49	68	58							59
HS2-000020BNR	Lamp posts in Shepherd's Bush Common	523481, 179871	54	51	49	41	49	40							47
HS2-000020BNX	Signpost on A402 Goldhawk Road	522035, 179199	54	46	53	43	48	42							48
HS2-000020BPP	Sign post on A219 Scrubs Lane, South of Harrow Road	522378, 182877	50	54	57	52	50	38							50
HS2-000020BPT	Controlled Zone/Zone Ends road sign on A219 Scrubs Lane, north of Hythe Road	522478, 182517	56	50	51	50	Tube missing	43							50
HS2-000020BQE	Lamp post next to No 11 Wulfstan Street	521996, 181118	41	38	40	39	37	31							38

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.