

Air Quality and Dust Monitoring Monthly Report – June 2020

**London Borough of Hammersmith and
Fulham**



SKANSKA



Department for Transport

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Monthly Summary

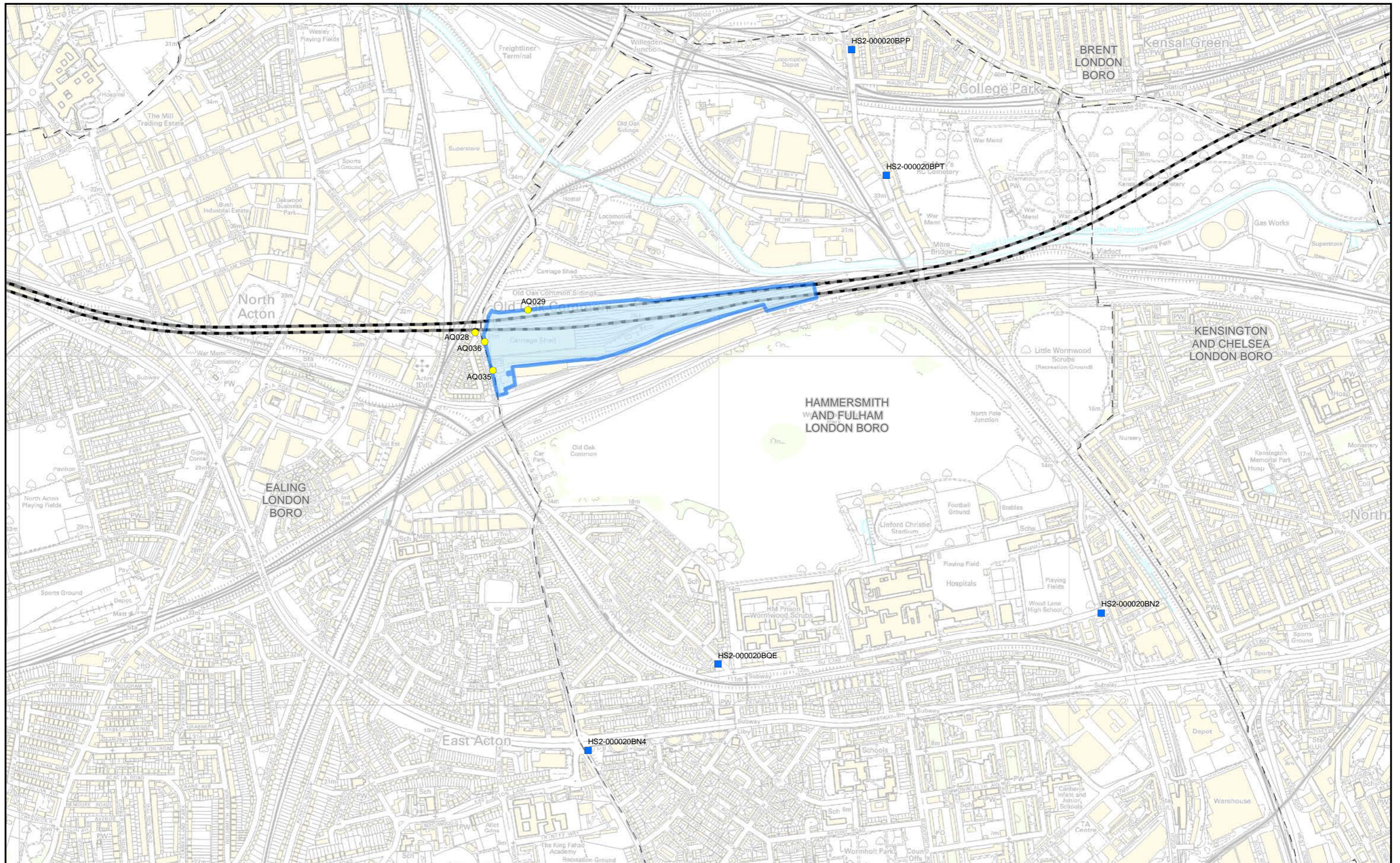
- 1.1.1 This Summary Report is published in fulfilment of commitments detailed in the High Speed Rail (London-West Midlands) Environmental Minimum Requirements, Annex 1: Code of Construction Practice, for the nominated undertaker to present the results of air quality and dust monitoring undertaken in the London Borough of Hammersmith and Fulham (LBHF) during May and June 2020 respectively.
- 1.1.2 Figure 1 and Figure 2 in Appendix A indicate the current worksite 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 October 2020. The current worksite, as presented in Appendix A, Figure 1, includes:
- Demolition and groundworks at Old Oak Common Depot.
- 1.1.5 Four (4) dust monitors are installed around the worksite, where 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 in Figure 3. 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 There were two (2) dust trigger alerts recorded during this monitoring period (June 2020). Exceedances are presented in Appendix B, Table 2. All other results were in line with expected ranges.
- 1.1.9 Data capture for AQ035 was below 90% for the month of June 2020. This was due to a technical fault with the monitor and removal of the monitor for its annual calibration.
- 1.1.10 Diffusion tube monitoring of Nitrogen Dioxide (NO₂) is undertaken at seven (7) locations around highways within the LBHF as part of the management of air quality where significant

effects may occur as a result of the scheme. Due to the Covid-19 pandemic and government lockdown it was not possible to conduct diffusion tube air quality monitoring in May 2020.

- 1.1.11 Diffusion tube monitoring results are 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.
- 1.1.12 NO₂ monitoring locations and results are presented in Appendix C, Table 3, together with the 2020 running mean.
- 1.1.13 There were no (0) complaints received, relating to air quality or dust, during this reporting period (June 2020).

Appendix A – Worksites and Monitoring Locations

Figure 1 and 2: Worksites and monitoring locations within the LBHF



- Legend**
- Route in tunnel
 - Route on surface
 - Dust monitoring location
 - Diffusion tube monitoring location
 - Old Oak Common worksite

Figure Number

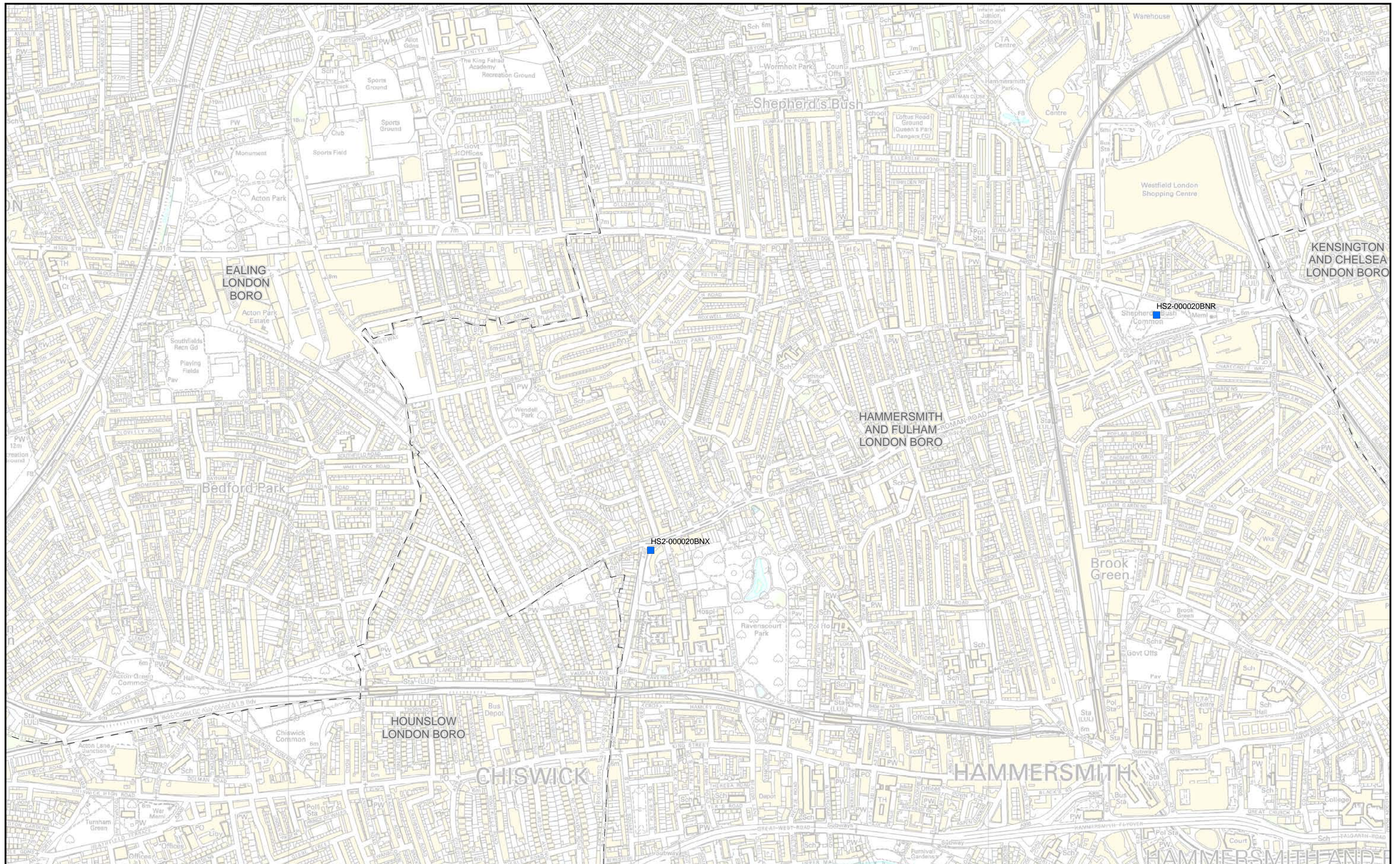
Figure Name
Worksites and Monitoring locations in LBHF (sheet 1)

London Borough of Hammersmith and Fulham

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- 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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Appendix B – Dust Monitoring Results

Table 1: Dust Monitoring locations and June 2020 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 (%)
AQ028	521302, 182067	Wells House Road	H	Yes	N	17.7	2.1	99.1	0	100.0
AQ029	521453, 182132	Old Oak Common	H	Yes	N	11.0	1.7	105.3	0	98.5
AQ035	521353, 181959	Old Oak Common	H	Yes	N	9.2	2.6	70.1	0	54.9
AQ036	521330, 182041	Old Oak Common	H	Yes	N	13.5	1.7	212.0	2	98.6

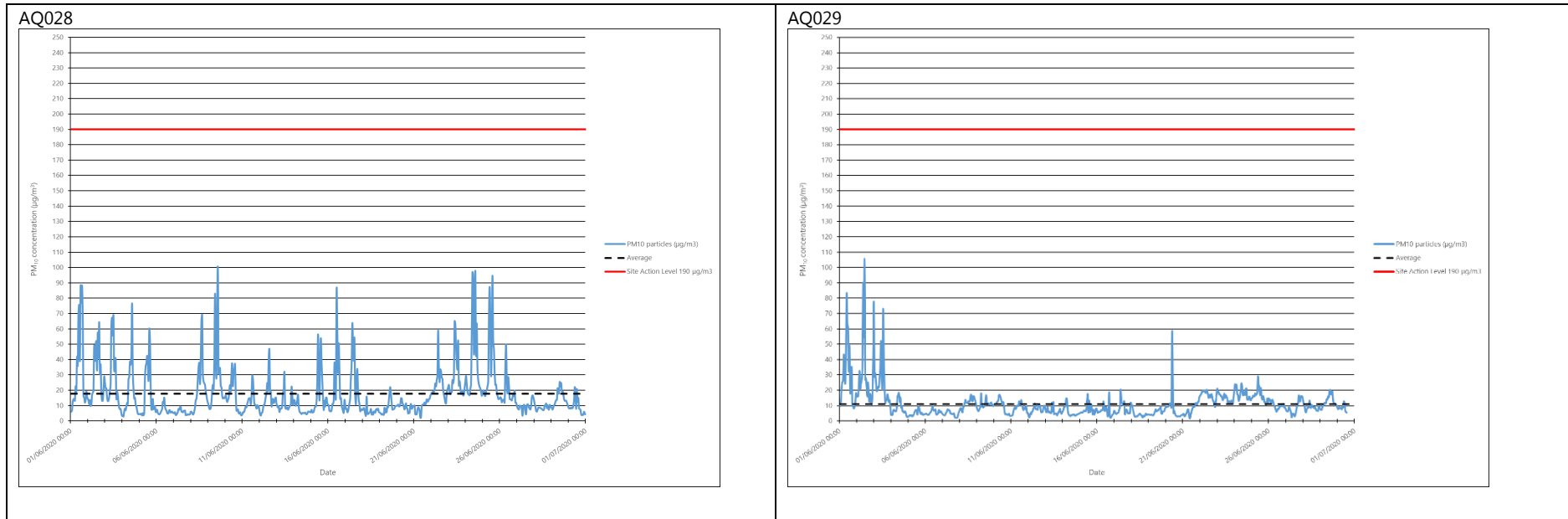
Table 2: Summary of Exceedances of trigger level in June 2020

Period exceeding trigger level	Worksite	Monitoring site ID	Complaint reference number (if applicable)	Reason	Resolution
23/06/2020 10:01 – 11:00	Old Oak Common Depot	AQ036	n/a	Works underway at the time of the trigger included the removal and haulage of a layer of 6F2 (aggregate) from the north western corner of the site (near to the monitor). Dust suppression (dust buster) was being used during the operation and a mobile bowser was being operated along the on-site haul route. However, it is considered that this operation and the lorry movements in that vicinity were the cause of the trigger.	In response to the trigger alert, works were stopped and the area damped down thoroughly including the haul road before recommencement. The other nearby on-site monitors to the north (AQ029 on the boundary with the Crossrail site) and the off-site monitor

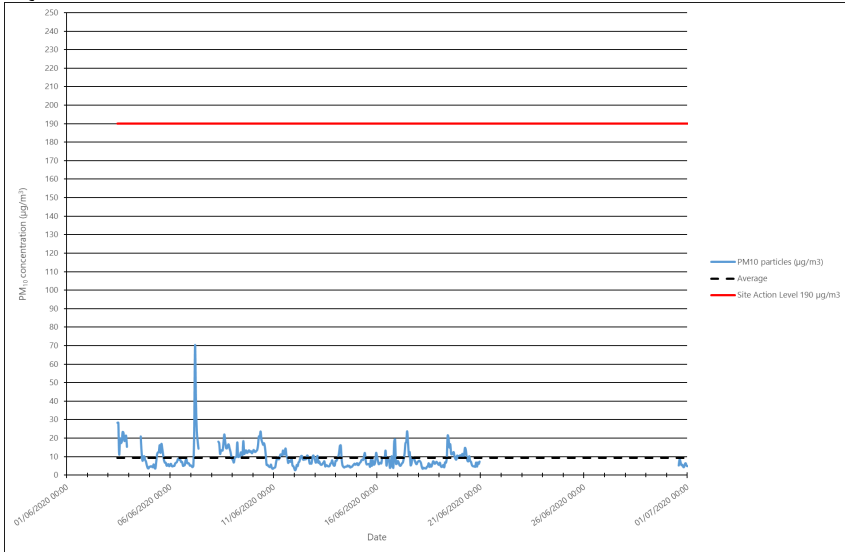
					<p>(AQ028 at Kildun Court) did not show any similar elevated levels during the same period indicating a localised on-site increase in dust levels which was quickly addressed.</p> <p>Dust suppression was maintained as part of site activities and a further on-site bowser had been ordered in anticipation of the continued dry weather conditions over the coming days and weeks.</p>
24/06/2020 10:01 – 11:00	Old Oak Common Depot	AQ036	n/a	<p>Similar to the previous day (23rd), works underway at the time of the trigger included the removal and haulage of a layer of 6F2 (aggregate) from the north western corner of the site. The works were directly adjacent to the monitor.</p> <p>Dust suppression was being used during the operation and a mobile bowser was being operated along the on-site haul route. However, it is considered that this operation and the lorry movements in that vicinity were the cause of the trigger.</p>	<p>In response to the trigger alert, works were again stopped and the area damped down thoroughly including the haul road before recommencement.</p> <p>Similarly to the previous day, the other nearby on-site monitors to the north (AQ029 on the boundary with the Crossrail site) and the off-site monitor (AQ028 at Kildun Court) did not show any similar elevated levels during the same period indicating a localised on-site increase in dust levels which was quickly addressed.</p> <p>Dust suppression was continued as part of site</p>

					activities. The additional on-site bowser was operational by the end of the day.
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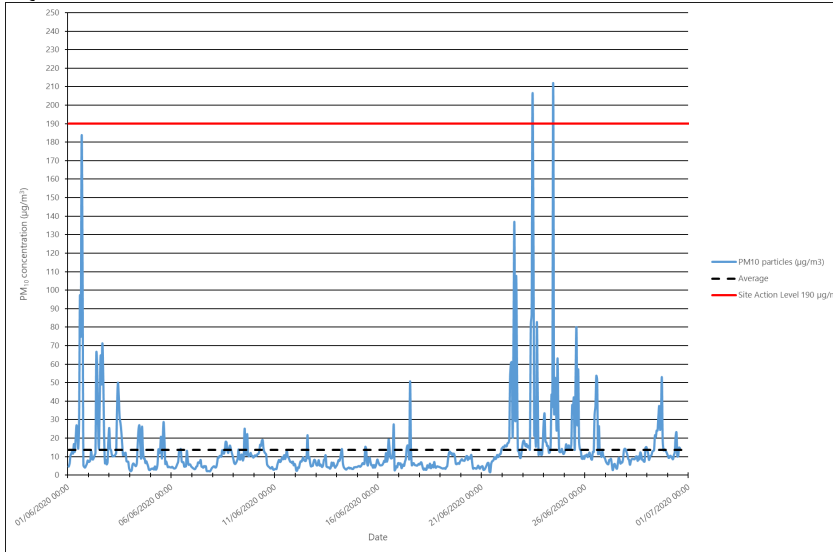
Figure 3: Construction dust 1-hour mean indicative PM₁₀ concentration for dust monitors



AQ035



AQ036



Appendix C – Air Quality Monitoring Results

Table 3: NO₂ monitoring locations around highways NO₂ concentrations and monthly monitoring results with running mean for 2020 (µg/m³)

Monitoring Site ID	Location description	Coordinates (X, Y)	Jan	Feb	Mar ¹	Apr ¹	May ¹	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Mean ²
HS2-000020BN2	Lamp post on Du Cane Road	523092, 181264	61	50	No data										56
HS2-000020BN4	End of cycle lane sign on Old Oak Road	521625, 180871	48	39	No data										44
HS2-000020BNR	Lamp posts in Shepherd's Bush Common	523481, 179871	45	No data	No data										45
HS2-000020BPP	Sign post on A219 Scrubs Lane, South of Harrow Road	522378, 182877	62	39	No data										50
HS2-000020BPT	Controlled Zone/Zone Ends road sign on A219 Scrubs Lane, north of Hythe Road	522478, 182517	Tube missing	40	No data										40
HS2-000020BQE	Lamp post next to No 11 Wulfstan Street	521996, 181118	39	34	No data										37

¹ Note: Due to the COVID-19 pandemic and government lockdown it was not possible to conduct diffusion tube air quality monitoring in March, April and May 2020.

² 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.

Monitoring Site ID	Location description	Coordinates (X, Y)	Jan	Feb	Mar ¹	Apr ¹	May ¹	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Mean ²
HS2-000020BQW	Lamp post on A402 Goldhawk Road	522037, 179209	No data	36	No data										36