June 2020

HS2

Air Quality and Dust Monitoring Monthly Report - June 2020

London Borough of Camden



COSTAIN SKANSKA



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 Costain Skanska 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, 2020, 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-governmentlicence/ 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.



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 Camden (LBC) during May and June 2020 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, 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 enabling works commenced within the LBC during December 2017 and is expected to be completed by October 2020. The next concurrent phase of construction works commenced in November 2019 and is expected to be completed by 2025. The current and planned worksites, include:
 - Site office and welfare on the adjacent former Addison Lee compound on Granby Terrace.
 - Archaeological dig at St James' Gardens, groundworks and materials management.
 - Demolition, materials management and groundworks at:
 - o IBIS Hotel, 3 Cardington Street;
 - o Thistle Hotel, Cardington Street;
 - Cobourg Street / Euston Street;
 - o Regents Park Estate;
 - o Walkden House, 67-75 & 77-79 Euston Street;
 - One Euston Square, 40 Melton Street and Grant Thornton House, 22 Melton Street; and
 - o 132 140 Hampstead Road and Petrol Station.
 - National Temperance Hospital, Site Office and Welfare 110-122 Hampstead Road.
 - Thames Water Compound.
 - Vehicle Holding Area, mobilisation, site set up and groundworks.
 - Euston Scissor Cut test piling and materials management).
 - Adelaide Road Vent Shaft mobilisation and roadworks outside of site.
- 1.1.5 Twenty (20) dust monitors are installed around worksites, where demolition, groundworks and materials management 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 2, 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_{10} concentrations of 190 μ g/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 seven (7) dust trigger alerts recorded during the monitoring period (June 2020). Exceedances are presented in Appendix B, Table 3. All other results were in line with expected ranges.
- 1.1.9 Data capture for monitors AQ006, AQ007, AQ009, AQ011, AQ012, AQ013, AQ014 and AQ018 was below 90% for the month of June 2020. For monitors AQ006 and AQ009 this was due to technical faults with the monitors. For monitors AQ012, AQ013 and AQ014 this was due to interruptions with the power supply on the site. Monitors AQ007, AQ011 and AQ018 were removed for a short duration for their annual calibration.
- 1.1.10 Diffusion tube monitoring of Nitrogen Dioxide (NO₂) is undertaken at sixty-four (64) locations around highways within the LBC 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 4, together with the 2020 running mean.
- 1.1.13 Table 1 provides a summary of the complaint information related to dust or air quality received during the reporting period (June 2020), together with the findings of any related investigations.

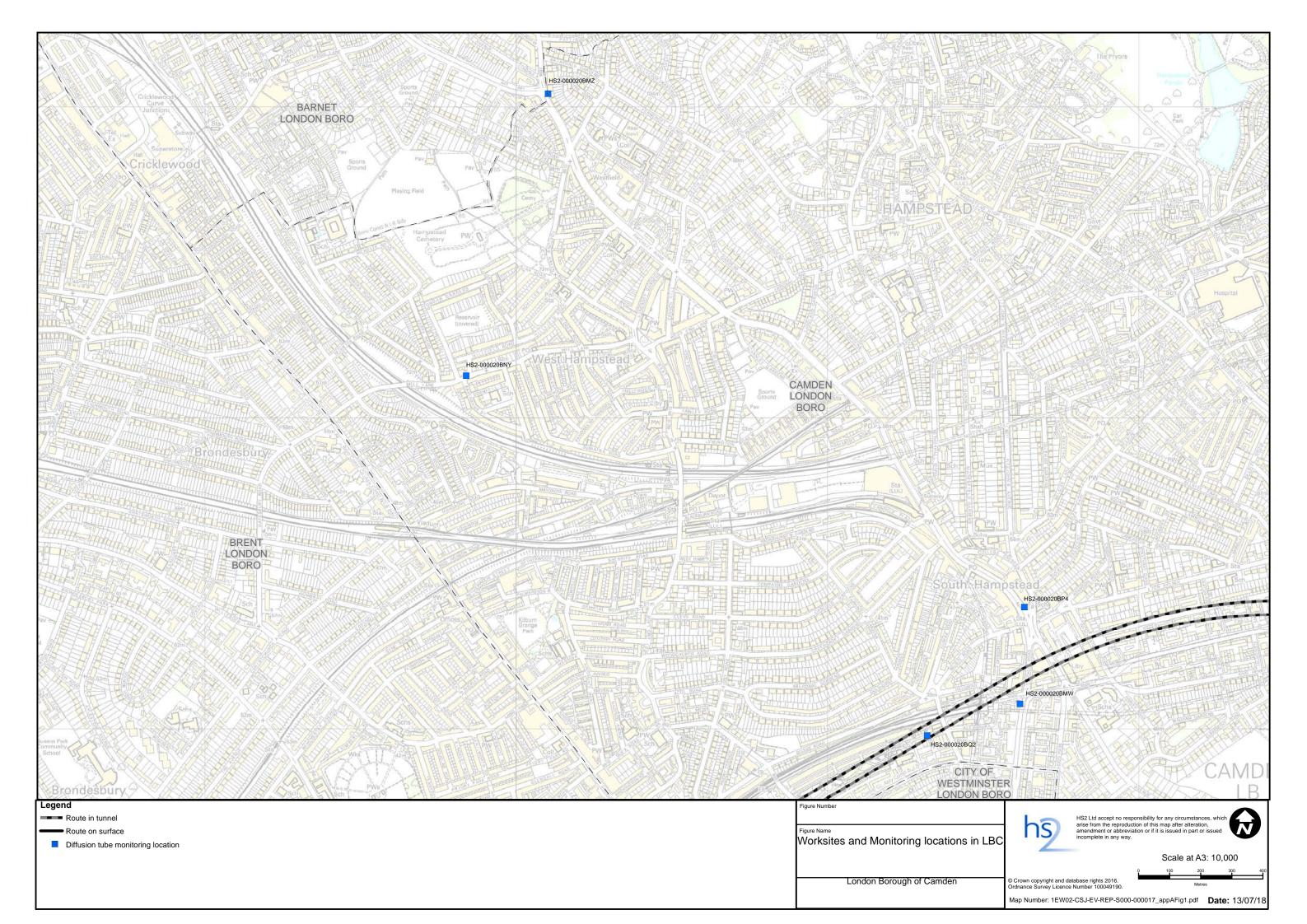
Table 1: Summary of complaints received during June 2020 in LBC

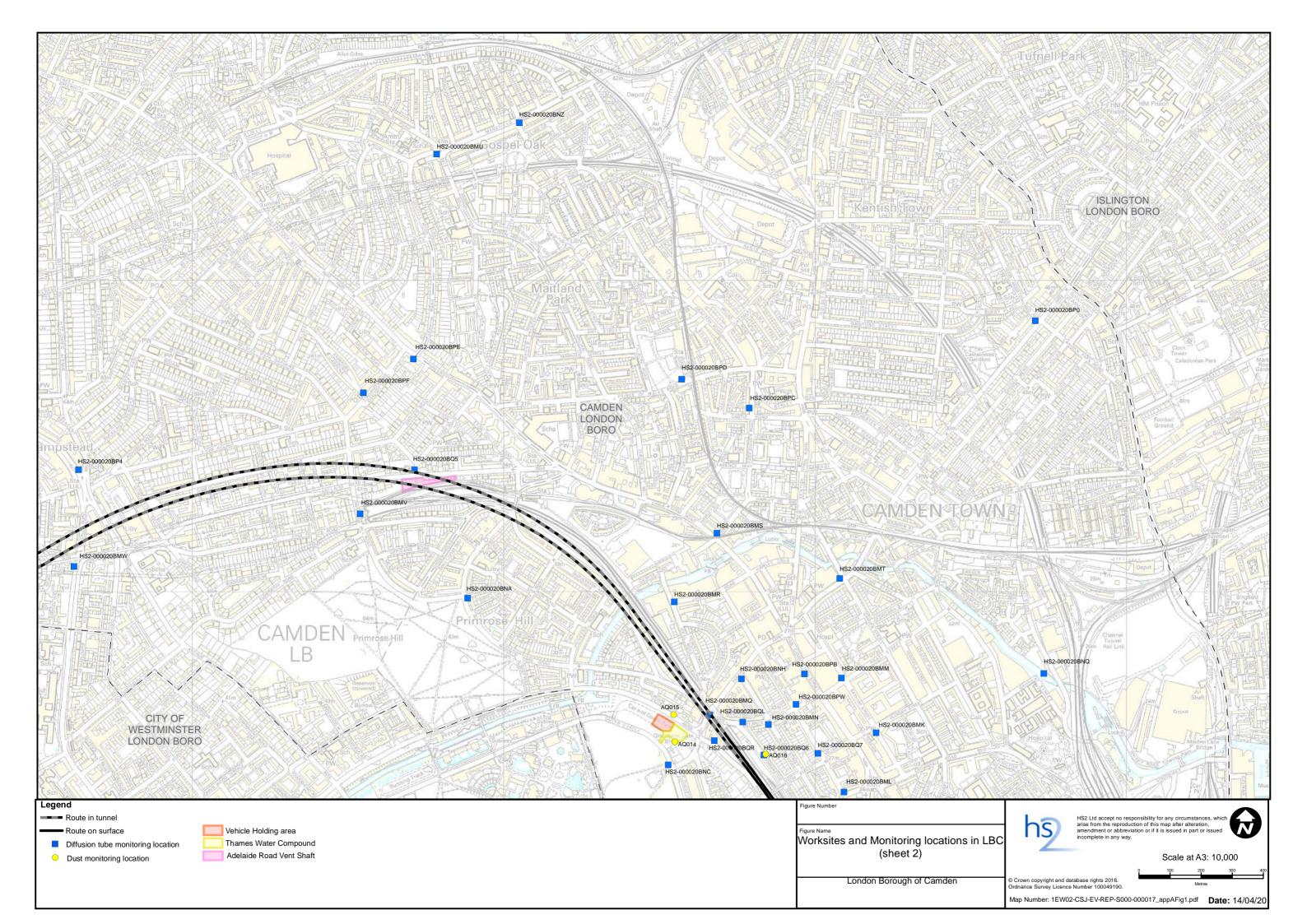
Complaint Reference No.	Worksite Reference	Description of complaint	Results of investigation
HS2-20-40248-C	Hampstead Road	On 4 th June 2020, complaint raised about dust levels in the Hampstead Road area, querying what mitigations were in place to prevent pollution.	The HS2 Community Engagement team highlighted that the general principles of how HS2 manage the impacts of construction are available on the Camden Common Place website (https://hs2ineuston.commonplace.is/schemes/proposals/managing-the-impacts-of-construction/details). Best Practice Mitigation measures are in place across all HS2 sites, as set out in the Code of Construction Practice, these include regular dampening down, strict emission standards for vehicles and plant as well as dust monitoring around medium and high risk sites, with alert levels set, allowing contractors to take rapid action if there is a raise in dust levels.

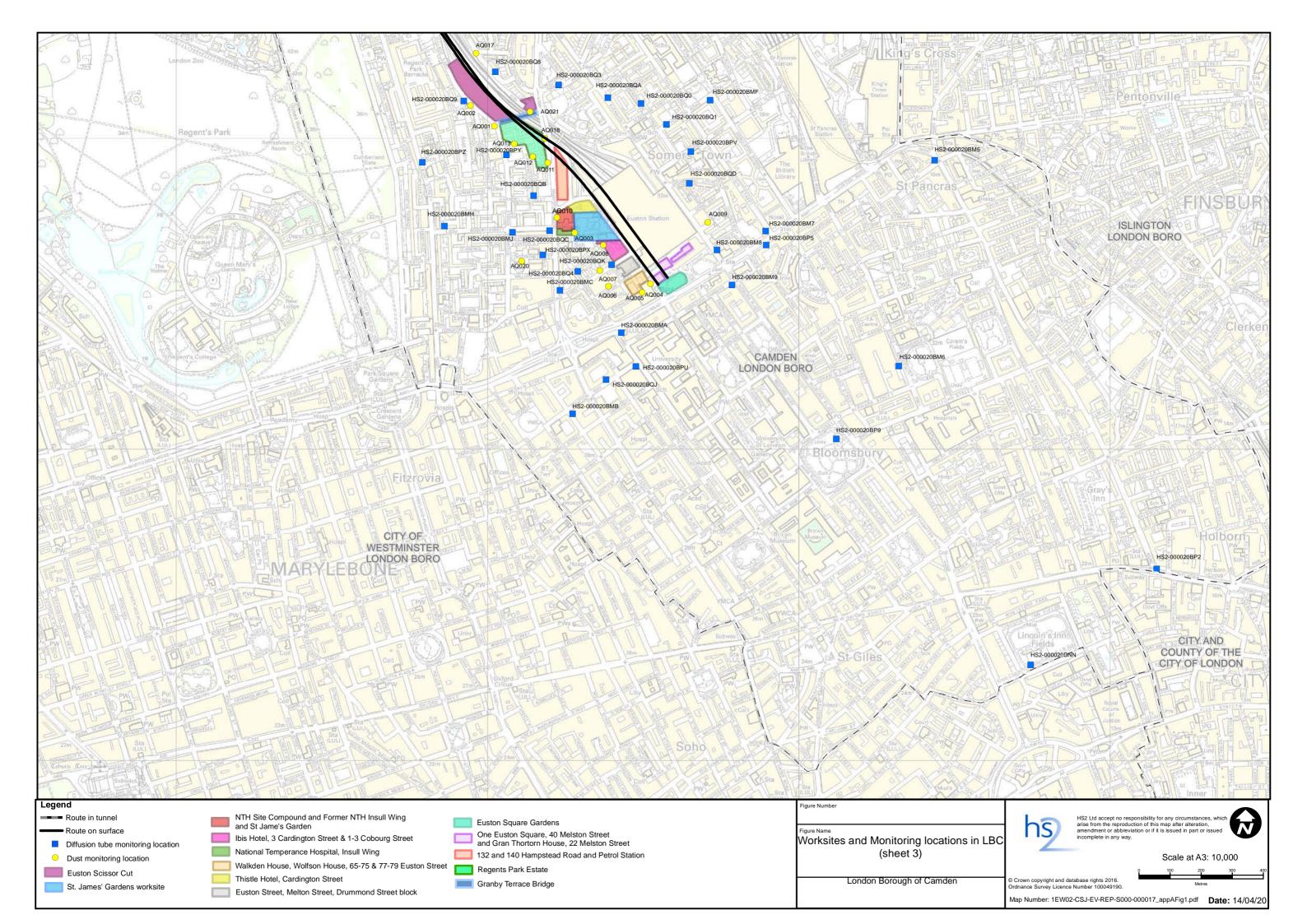
HS2-20-40259-C	Regent's Park Estate	On 29 th June 2020, complaint raised about the impact of our works on air quality as well as noise and pest control.	The HS2 Community Engagement team highlighted that the general principles of how HS2 manage the impacts of construction are available on the Camden Common Place website (https://hs2ineuston.commonplace.is/schemes/proposals/managing-the-impacts-of-construction/details). Best Practice Mitigation measures are in place across all HS2 sites, as set out in the Code of Construction Practice, which for air quality include regular dampening down, strict emission standards for vehicles and plant as well as dust monitoring around medium and high risk sites, with alert levels set, allowing contractors to take rapid action if there is a raise in dust levels. The response highlighted how HS2 seek, through design and mitigation, to control the effects of noise and vibration from within our worksites, as well as setting out the noise insultation eligibility process for residents. Monthly noise & vibration and air quality & dust monitoring reports are published at https://www.gov.uk/government/collections/monitoring-the-environmental-effects-of-hs2 which summarises the works, monitoring results, trigger alerts and complaints from the month.
----------------	-------------------------	---	--

Appendix A – Worksites and Monitoring Locations

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







Appendix B – Dust Monitoring Results

Table 2: 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/m³)	Minimum 1- hour PM ₁₀ concentration (μg/m³)	Maximum 1- hour PM ₁₀ concentration (μg/m³)	Number of 1- hour periods exceeding trigger level of 190 µg/m³	Data capture (%)
AQ001	529022, 183040	Junction of Park Village East, Stanhope Street and Granby Terrace	Н	Yes	N	11.4	1.6	93.6	0	92.9
AQ002	528945, 183105	Park Village East	Н	Yes	N	8.7	0.9	48.6	0	93.2
AQ003	529279, 182698	St James' Gardens	М	Yes	N	14.0	1.5	230.4	1	99.0
AQ004	529523, 182533	Melton Street	н	Yes	N	19.3	1.7	175.7	0	100.0
AQ005	529496, 182505	Stephenson Way	н	Yes	N	14.1	0.6	141.6	0	99.4
AQ006	529399, 182514	Euston Street	Н	Yes	N	17.0	2.2	82.3	0	86.7
AQ007	529369, 182564	Drummond Street	Н	Yes	N	9.8	1.9	48.9	0	86.8
AQ008	529372, 182657	Cobourg Street	н	Yes	N	22.3	2.2	601.0	3	99.0
AQ009	529707, 182730	Lancing Street	Н	Yes	N	3.4	0.4	21.6	0	82.8
AQ010	529223, 182732	Hampstead Road South	Н	Yes	N	14.6	1.3	102.0	0	99.4
AQ011	529193, 182921	Hampstead Road	Н	Yes	N	10.9	1.0	199.0	1	89.6

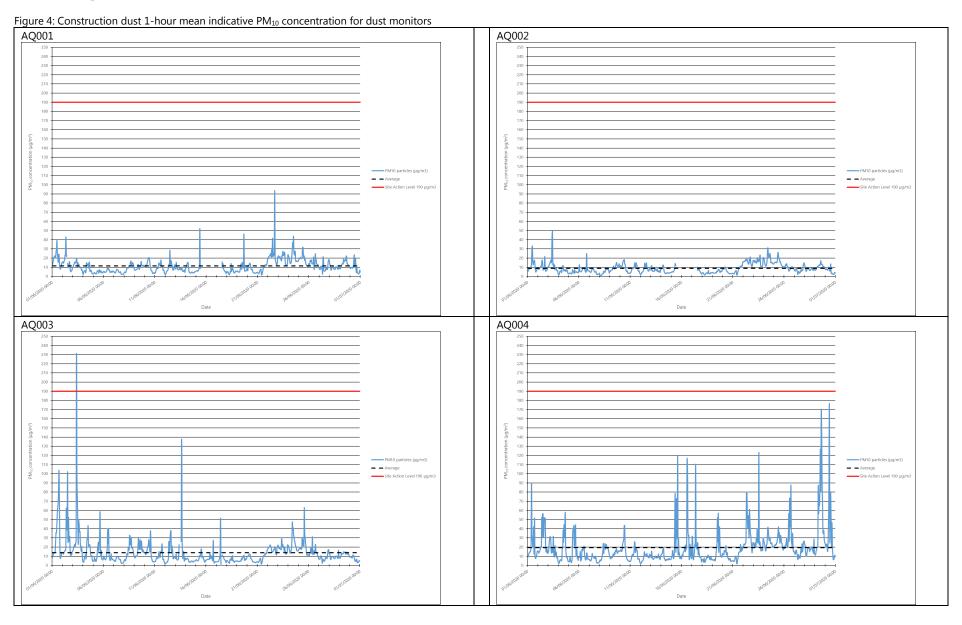
Monitoring site ID	Coordinates (X,Y)	Location description	Dust risk rating for site	Monitoring site active during period	Change to site since previous period report	Mean 1-hour PM ₁₀ concentration (μg/m³)	Minimum 1- hour PM ₁₀ concentration (μg/m³)	Maximum 1- hour PM ₁₀ concentration (μg/m³)	Number of 1- hour periods exceeding trigger level of 190 µg/m³	Data capture (%)
AQ012	529145, 182941	Rear of Coniston House	н	Yes	N	14.6	1.5	64.3	0	41.3
AQ013	529086, 182983	Regents Park Estate	Н	Yes	N	20.4	2.8	134.6	0	51.0
AQ014	528550, 183518	Thames Water Compound	L	Yes	N	7.4	1.5	68.7	0	63.8
AQ015	528546, 183604	Prince Albert Road	L	Yes	N	8.6	1.1	37.6	0	90.0
AQ016	528840, 183466	Mornington Terrace North	Н	Yes	N	6.7	1.0	20.7	0	93.2
AQ017	528963, 183274	Mornington Terrace South	Н	Yes	N	8.3	1.5	28.4	0	92.9
AQ018	529184, 182999	Hampstead Road North	Н	Yes	N	13.5	1.6	353.9	2	89.9
AQ020	529109, 182605	Netley School	n/a	Yes	N	7.9	1.1	22.1	0	100.0
AQ021	529136, 183086	Site compound at the Junction of Hampstead Road & Granby Terrace Bridge.	Н	Yes	N	9.8	1.5	43.2	0	97.6

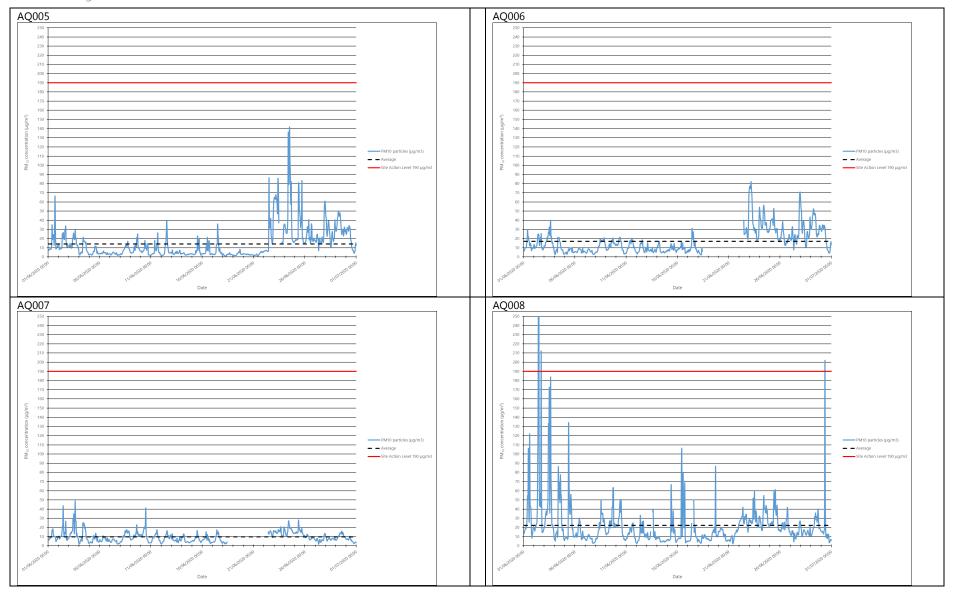
Table 3: Summary of exceedances of trigger level in June 2020

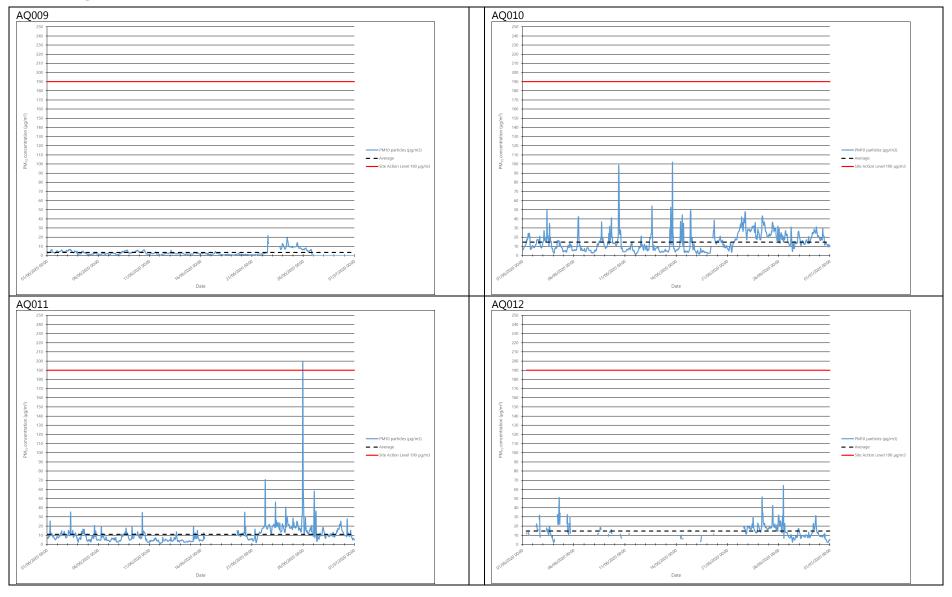
Period exceeding trigger level	Worksite	Monitoring site	Complaint reference	Reason	Resolution
Teriou exceeding trigger level	TTOTRSICE	ID	number (if applicable)	Readell	Resolution
02/06/2020 10:01 – 11:00	Ibis Hotel, 3 Cardington Street & 1-3 Cobourg Street	AQ008	n/a	At the time of the trigger alert materials movements and crushing operations were underway on the former St James' Garden site. Dust suppression in the form of two dust cannons and a bowser were being employed on the spoil mounds and crushing activities. Albeit there was no obvious visible dust caused by the works, it is considered these activities were the cause of the trigger, due to their proximity (approximately 50 metres) to the monitor.	Dust suppression was redeployed and materials were damp-down further to reduce dust levels. Dust suppression was maintained on all activities across the site given the prolonged dry weather conditions currently being experienced.
02/06/2020 16:01 – 17:00	Ibis Hotel, 3 Cardington Street & 1-3 Cobourg Street	AQ008	n/a	Similar to the trigger received earlier in the day, at the time of this trigger alert materials movements and crushing operations were underway on the former St James' Garden site. As before, dust suppression in the form of two dust cannons and a bowser were being employed on the spoil mounds and crushing activities. Again, it is considered these works were the cause of the trigger alert. Albeit no obvious visible dust caused by the works, these works were nearest to the monitoring location.	Works were stopped for the day and reassessment of the both the dust suppression and the location of the crushing activities was undertaken. The next morning the crusher was moved to approx. 90-100 m away from the nearest site boundary. Dust suppression was redeployed and applied to the materials and activities throughout the morning of the 3 rd June. Dust suppression was deemed to be effective but increased monitored levels during the late morning meant a further review of the dust suppression. This was repeated in the afternoon following another increase

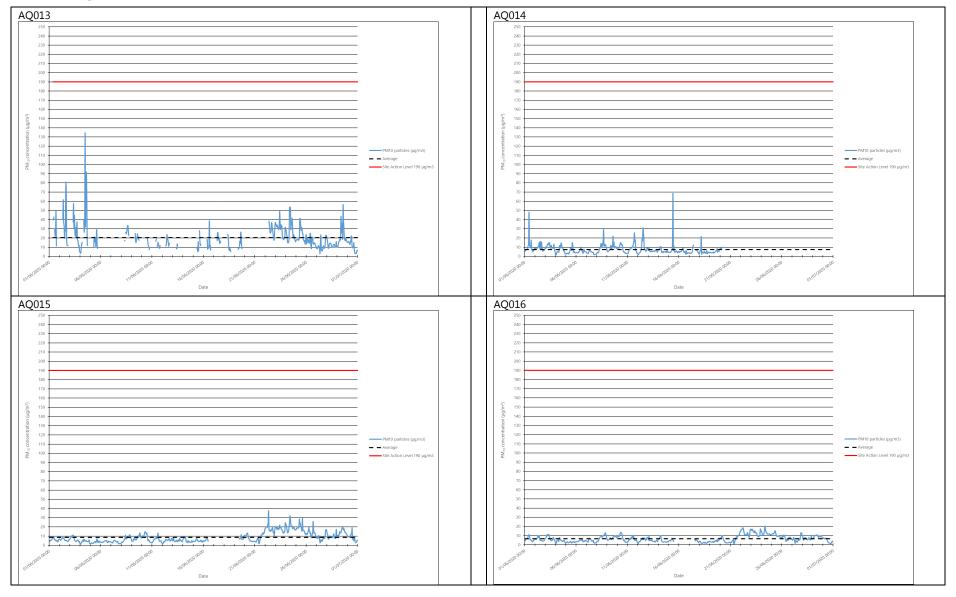
					in levels, albeit no further
03/06/2020 08:01 – 09:00	NTH Site Compound and Former NTH Insull Wing and St James' Garden	AQ003	n/a	The trigger was received during the hour when the crusher was being moved to the new location on the former St James' Garden site due to the triggers from AQ008 from the previous day (as above). Crushing operations were restarted, and dust suppression was employed before and during the crusher being moved and crushing activities as detailed above. As above, it is considered these activities were the cause of the trigger. Unfortunately, the communication network on which AirQWeb operates stopped working properly and monitoring data and triggers were not being received automatically until midday. The trigger was not received until after 12:00pm by which time works had already stopped and being reviewed given the increased levels measured at AQ008 (which was being 'manually' downloaded each hour). Monitored levels at AQ003 were much lower throughout the rest of the day and the monitor is about the same distance away from the crushing activities as AQ008.	See measures detailed above.
25/06/2020 22:01 – 23:00	Regents Park Estate	AQ011	n/a	The triggers were received during the night when site operations had ceased. Over the preceding couple of weeks all the monitors in	
26/06/2020 02:01 – 03:00	Regents Park Estate	AQ018	n/a	Camden had undergone servicing and annual calibration but triggers indicated a potential heater fault or monitor fault. Levels were not associated with out of hours windblown dust from the site given the site dust suppression being employed across the sites during the day. The weather conditions at the time were also wet or high humidity and the	Monitors were rechecked and serviced on the 3 rd July.
27/06/2020 02:01 – 03:00	Regents Park Estate	AQ018	n/a	other monitors (AQ012, AQ013, AQ001 and AQ021) around the Regents Park Estate all showed consistently low readings over the same period.	

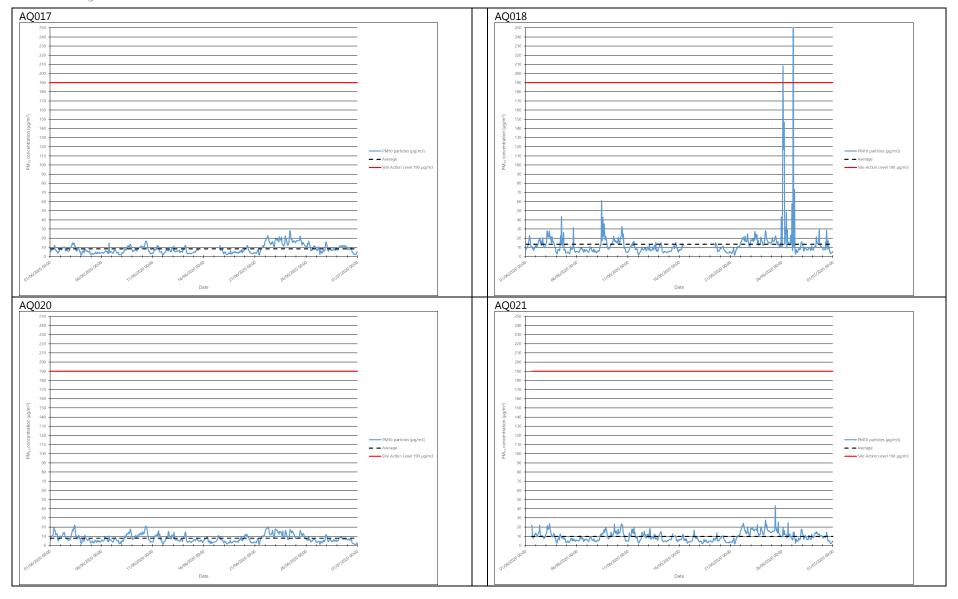
30/06/2020 08:01 – 09:00	Ibis Hotel, 3 Cardington Street & 1-3 Cobourg Street	AQ008		At the time of the trigger alert works were underway backfilling gabion baskets with ballast next to the Cobourg Street entrance, adjacent to the Exmouth Arms. The dust monitor AQ008 is directly adjacent to the works which were not considered to be particularly dusty at the time. Dust suppression was available for the works but not used immediately prior to the trigger alert. On receipt of the trigger alert works was immediately stopped.	The whole area was damped down prior to any further works were recommenced and continued for the remaining duration of the works.
--------------------------	--	-------	--	---	---











Appendix C – Air Quality Monitoring Results

Table 4: 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	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Mean ²
HS2-000020BM5	Junction of St Chad's Street and Grays Inn Road	530436, 182929	56	51		No data									53
HS2-000020BM6	Brunswick Square	530321, 182268	55	57		No data									56
HS2-000020BM7	Chalton Street	529894, 182702	66	65		No data									65
HS2-000020BM8	Junction of Euston Square and Grafton Place	529737, 182641	57	57		No data									57
HS2-000020BM9	Junction of Endsleigh Gardens and Upper Woburn Place	529785, 182529	56	58		No data									57
HS2-000020BMA	Junction of Euston Road and Gower Street	529429, 182375	59	54		No data									57
HS2-000020BMB	Whitfield Street	529273, 182114	45	43		No data									44
HS2-000020BMC	Hampstead Road	529232, 182511	58	53		No data									56
HS2-000020BMF	Junction of Polygon Road and Ossulston Street	529715, 183123	38	Tube missi ng		No data									38
HS2-000020BMH	Nash Street	528861, 182717	44	37		No data									40
HS2-000020BMJ	Junction on Robert Street and Stanhope Street	529080, 182698	39	33		No data									36

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	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Mean ²
HS2-000020BMK	Junction of Plender Street and Bayham Street	529196, 183546	56	49		No data									53
HS2-000020BML	Junction of Arlington Road and Mornington Crescent	529093, 183356	44	38		No data									41
HS2-000020BMM	Junction of Bayham Street and Pratt Street	529084, 183722	62	58		No data									60
HS2-000020BMN	Junction of Delancey Street and Albert Street	528850, 183573	45	41		No data									43
HS2-000020BMQ	Junction of Parkway and Delancey Street	528662, 183604	51	43		No data									47
HS2-000020BMR	Junction of Oval Road and Jamestown Road	528548, 183967	42	36		No data									39
HS2-000020BMS	Junction of Chalk Farm Road and Castlehaven Road	528685, 184188	52	50		No data									51
HS2-000020BMT	Junction of Camden Road and Camden Street	529079, 184043	51	43		No data									47
HS2-000020BMU	Junction of Southampton Road and Fleet Road	527783, 185407	45	No data		No data									45
HS2-000020BMV	Primrose Hill Road	527538, 184250	44	38		No data									41
HS2-000020BMW	Junction of Finchley Road and Hilgrove Road	526619, 184081	Tube missing	Tube missi ng		No data									
HS2-000020BMZ	Junction of Finchley Road and Hendon Way	525102, 186042	82	61		No data									72
HS2-000020BNA	Junction of Regent's Park Road and Rothwell Street	527884, 183980	42	30		No data									36
HS2-000020BNC	Junction of Outer Circle and Gloucester Gate	528528, 183443	33	25		No data									29

Monitoring Site ID	Location description	Coordinates	Jan	Feb	Mar ¹	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Mean ²
	·	(X, Y)								3	·				
HS2-000020BNH	Junction of Parkway	528763,	46	35		No data									40
	and Albert Street	183720				110 data									
HS2-000020BNN	Lincoln's Inn Fields	530744, 181308	41	41		No data									41
HS2-000020BNQ	Camley Street	529735, 183737	Tube missing	31		No data									31
HS2-000020BNY	Junction of Mill Lane and Hillfield Road	524839, 185136	45	41		No data									43
HS2-000020BNZ	Mansfield Road	528050, 185508	40	33		No data									37
HS2-000020BP0	Junction of Camden Road and Torriano Avenue	529708, 184871	58	51		No data									55
HS2-000020BP2	Junction of Grays Inn Road and Holborn	531149, 181616	48	45		No data									46
HS2-000020BPB	Camden High Street	528966, 183735	65	54		No data									59
HS2-000020BPC	Castlehaven Road	528788, 184591	43	36		No data									40
HS2-000020BPD	Prince of Wales Road	528571, 184683	39	27		No data									33
HS2-000020BPE	Haverstock Hill	527710, 184749	52	41		No data									46
HS2-000020BPF	Junction of Primrose Gardens and England's Lane	527549, 184640	47	33		No data									40
HS2-000020BPU	Junction of Gower Street and Grafton Way	529476, 182267	56	50		No data									53
HS2-000020BPW	Junction of Delancey Street and Arlington Road	528939, 183637	50	37		No data									44
HS2-000020BPX	Netley Street	529177, 182625	34	28		No data									31
HS2-000020BPY	Stanhope Street	529060, 182947	40	29		No data									34

Monitoring Site ID	Location description	Coordinates (X, Y)	Jan	Feb	Mar ¹	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Mean ²
HS2-000020BPZ	Albany Street	528790, 182923	44	36		No data	•								40
HS2-000020BQ0	Werrington Street	529493, 183113	42	36		No data									39
HS2-000020BQ1	Polygon Road	529574, 183045	44	35		No data									40
HS2-000020BQ2	Alexandra Place	526320, 183980	39	31		No data									35
HS2-000020BQ3	Harrington Square	529228, 183172	50	38		No data									44
HS2-000020BQ4	Junction of North Gower Street and Starcross Street	529290, 182572	44	36		No data									40
HS2-000020BQ5	Adelaide Road	527713, 184392	Tube missing	40		No data									40
HS2-000020BQ6	Mornington Terrace	528836, 183474	39	30		No data									34
HS2-000020BQ7	Arlington Road	529009, 183479	40	33		No data									37
HS2-000020BQ8	Clarkson Row	529024, 183213	39	31		No data									35
HS2-000020BQ9	Park Village East	528923, 183121	37	29		No data									33
HS2-000020BQA	Eversholt Street	529386, 183132	60	48		No data									54
HS2-000020BQB	Junction of Harrington Street and Varndell Street	529147, 182816	41	30		No data									36
HS2-000020BQC	Junction of Robert Street and Hampstead Road	529199, 182704	47	37		No data									42
HS2-000020BQD	Drummond Crescent	529648, 182856	Tube missing	42		No data									42
HS2-000020BQJ	Grafton Way	529380, 182225	55	54		No data									54
HS2-000020BQL	Delancey Street	528768, 183581	44	No data		No data									44

Monitoring Site ID	Location description	Coordinates (X, Y)	Jan	Feb	Mar ¹	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Mean ²
HS2-000020BQR	Lamp post on Park Village East	528682, 183505	37	33		No data									35
HS2-000020BQS	Opposite Maria fidelis school on Phoenix Road	529670, 182982	40	36		No data									38
HS2-000020BQT	Drummond Street	529385, 182581	47	35		No data									41
HS2-000020BP4	Triplicate site on Finchley Road next to Swiss Cottage kerbside automatic monitoring station	526633, 184392	54	Tube s missi ng		No data									54
HS2-000020BP5	Triplicate site next to the Euston Road roadside automatic monitoring stations	529895, 182657	69	67		No data									68
HS2-000020BP9	Triplicate site in Russell Square next to Bloomsbury urban background automatic monitoring station	530120, 182034	44	43		No data									44