November 2020



# Air Quality and Dust Monitoring Monthly Report - November 2020

London Borough of Camden

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A report prepared by EWCs and MWCCs on behalf of HS2 Ltd.

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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 Camden (LBC) during October and November 2020 respectively.
- 1.1.2 Figure 1 to Figure 4 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 <a href="www.gov.uk/government/collections/monitoring-the-environmental-effects-of-hs2">www.gov.uk/government/collections/monitoring-the-environmental-effects-of-hs2</a>, 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 July 2021. 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:

#### Skanska Costain Strabag Joint Venture (SCSjv) Worksite

- Adelaide Road Vent Shaft Site set up and vegetation clearance;
- Vehicle Holding Area excavation, groundworks and concrete slab works;
- Site office and welfare on Granby Terrace / Hampstead Road;
- Euston Scissor Cut piling operations and materials management;
- Euston Throat Retained Cut groundworks, utilities diversion works and materials management; and
- Hampstead Road Bridge mobilisation and site setup.

#### Costain Skanska Joint Venture (CSjv) Worksite

- Compound and Power Signal Box mobilisation, site set up and pre-demolition surveys;
- Site Office and Welfare at 110-122 Hampstead Road;
- Archaeological dig at St James' Gardens, groundworks and materials management and utilities diversion works;
- Euston Street London Underground Traction Substation and Vent Shaft site demobilisation and handover to the station contractor MDjv;
- Euston Street Walkden and Wolfson House demolition and groundworks; and
- Melton Street site demobilisation and handover to the station contractor MDjv.

#### Mace Dragados Joint Venture (MDjv) Worksite

- Hoarding modification along Cobourg Street;
- Completion of piling in St James area and commencement in the Ibis Hotel (Cobourg St area);
- Modification of internal access ramp;
- Piling platform in Zones 1&2 (Hampstead Road area);
- Guide wall in Zones 1&2 (Hampstead Road area);
- Propping alteration in Ibis Hotel wall (Cobourg Street); and
- Nightly visual inspection of LU tunnels after piling works.
- 1.1.5 Twenty-one (21) 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 1, together with line charts of monthly data from each dust monitor in Figure 5. 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  $\mu$ 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 six (6) dust trigger alerts recorded during the monitoring period. However, following investigations it was noted that these exceedances were not related to HS2 site activities. Exceedances are presented in Appendix B, Table 2. All other results were in line with expected ranges.
- 1.1.9 Data capture for monitors AQ011, AQ014, AQ019 and AQ021 was below 90% for the month of November 2020 due to power loss to the monitors (AQ014, AQ019 and AQ021) over the course of the month. There is an ongoing technical issue with the communication hardware for AQ011, which is in the progress of being rectified.
- 1.1.10 Diffusion tube monitoring of Nitrogen Dioxide (NO<sub>2</sub>) is undertaken at sixty-five (65) 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.
- 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. However, based on the results to date, no unexpected values were recorded during the monitoring period.

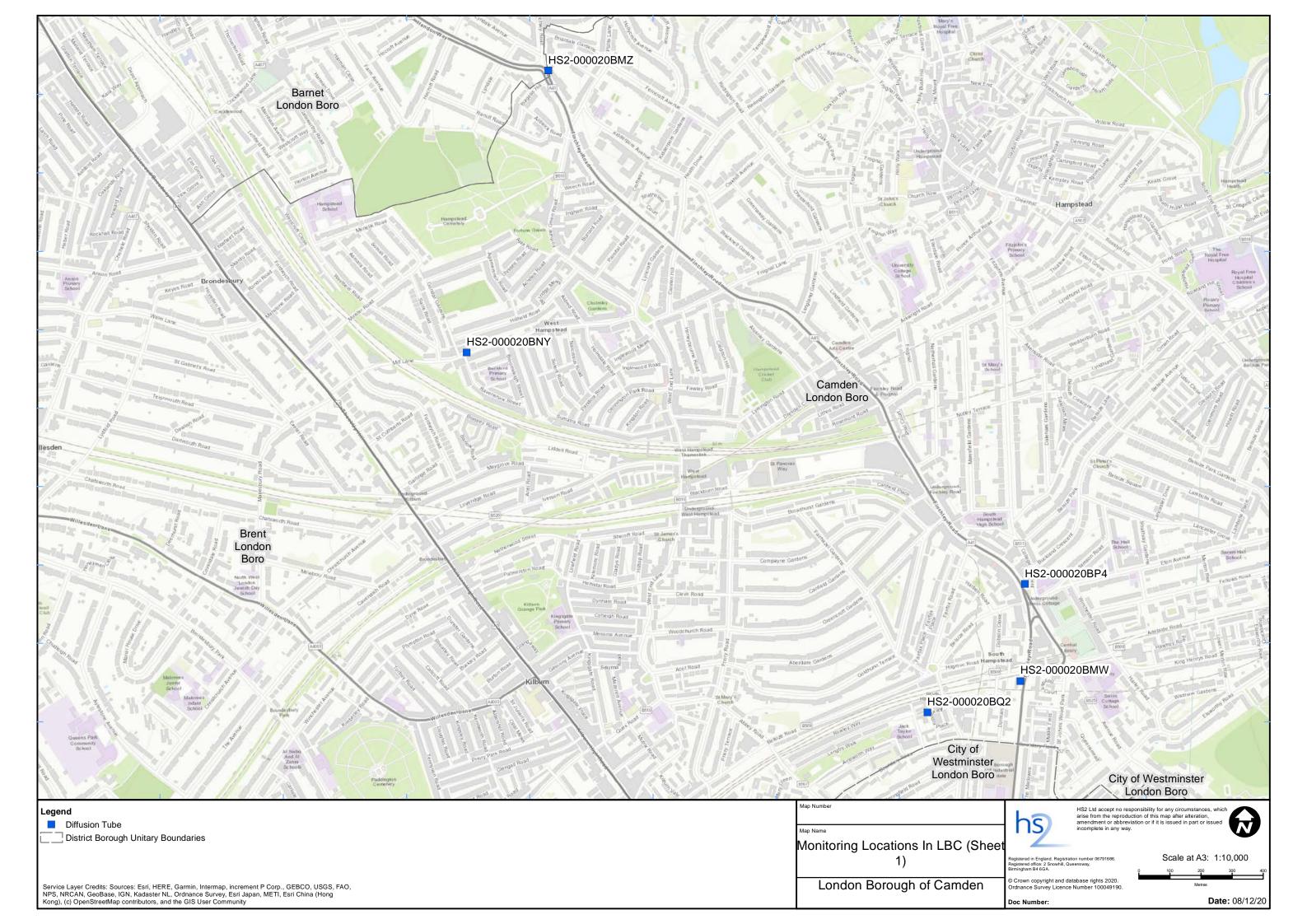
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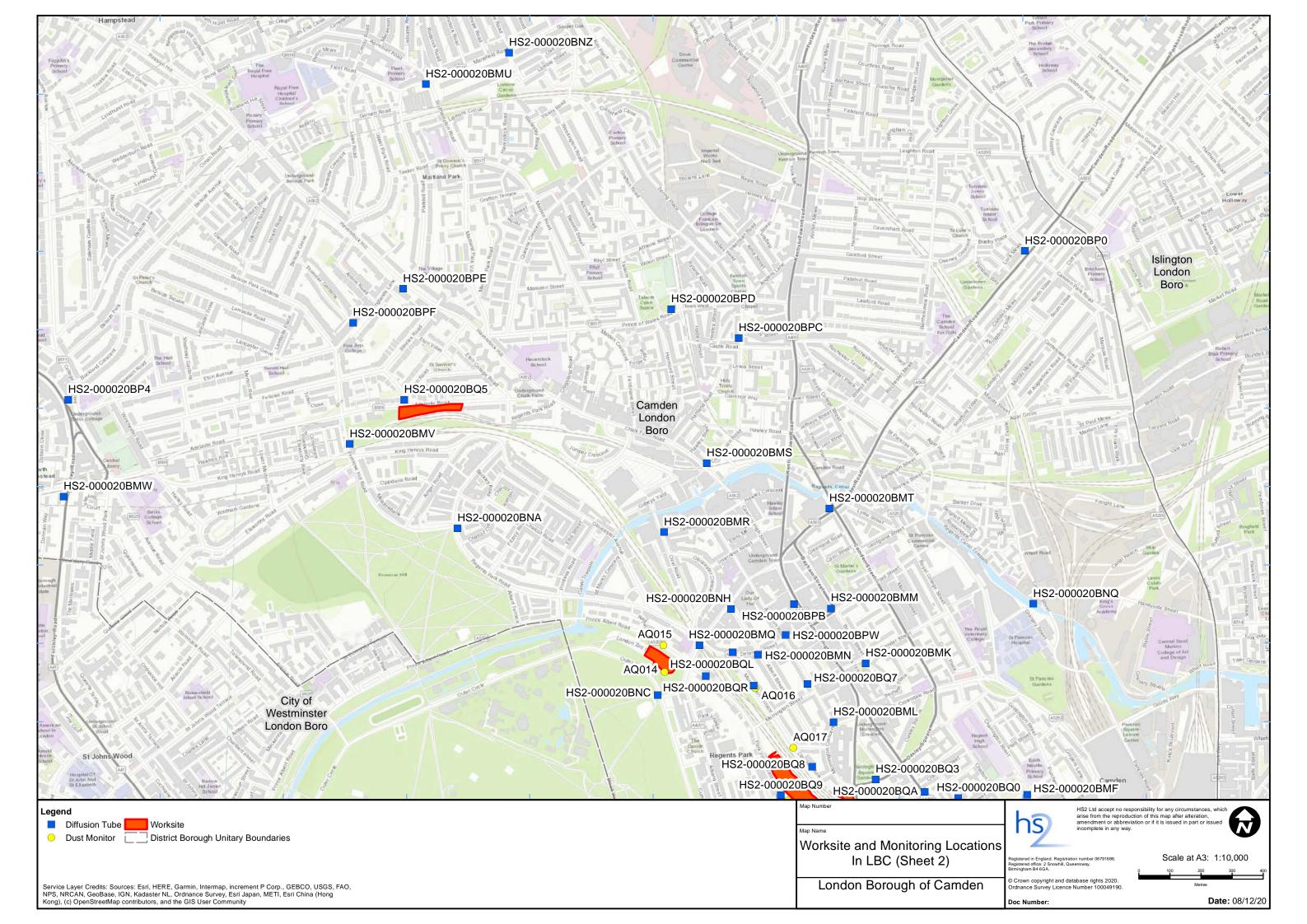
- 1.1.12 NO<sub>2</sub> monitoring locations and results are presented in Appendix C, Table 3, together with the 2020 running mean.
- 1.1.13 There were no (0) complaints received, relating to air quality, during this reporting period (November 2020).

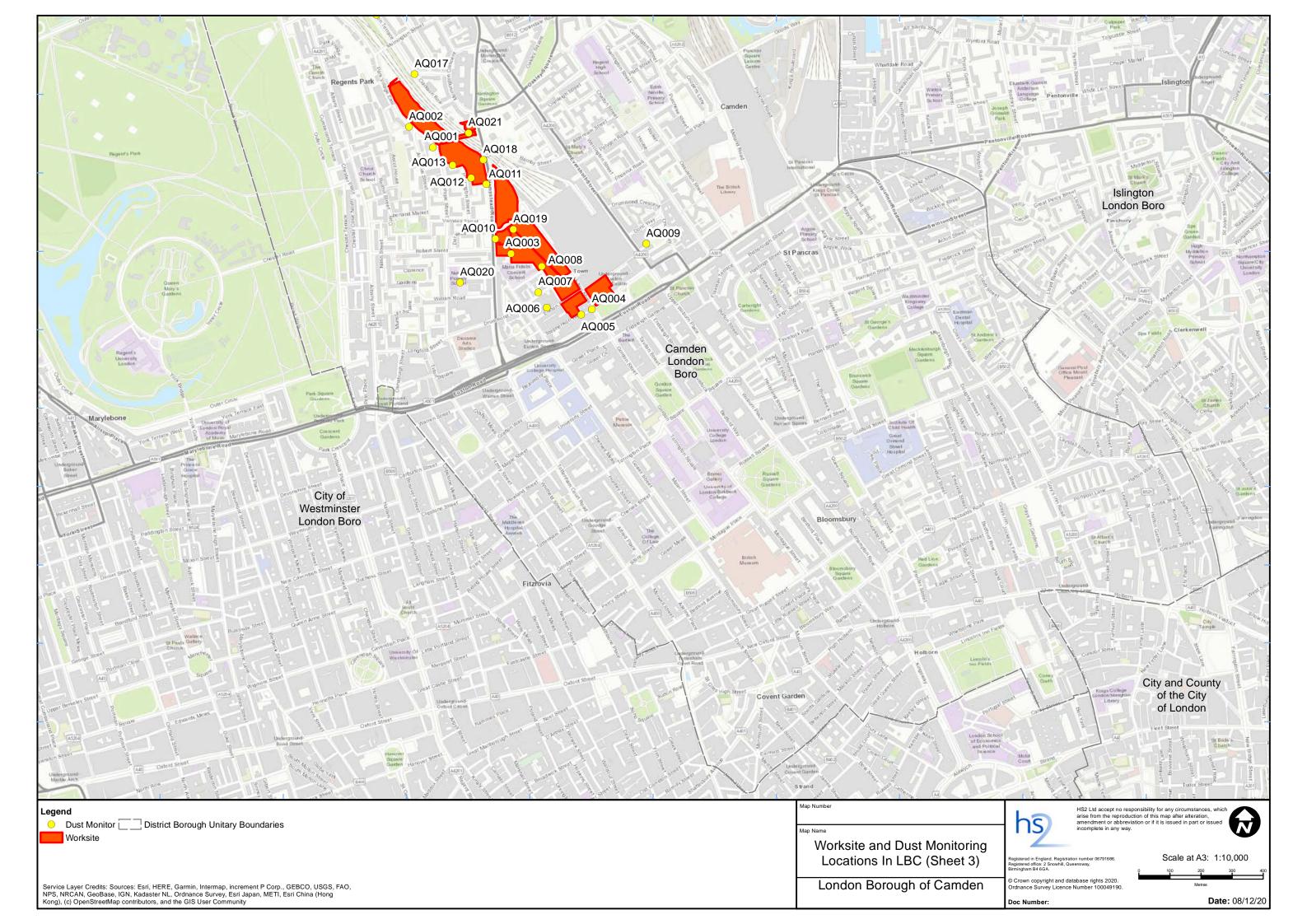
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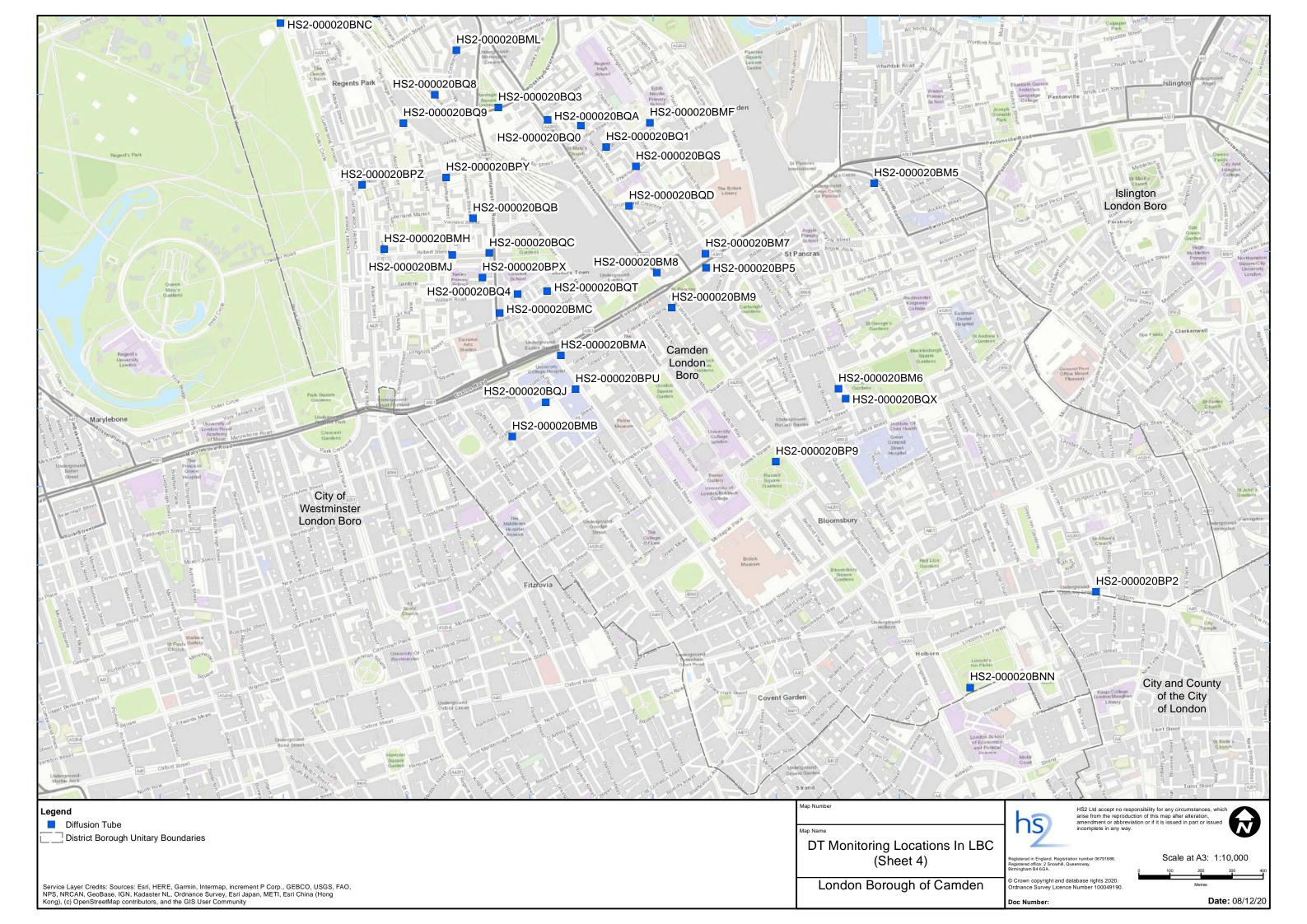
### **Appendix A – Worksites and Monitoring Locations**

Figure 1 to Figure 4: Worksites and monitoring locations within the LBC









## **Appendix B – Dust Monitoring Results**

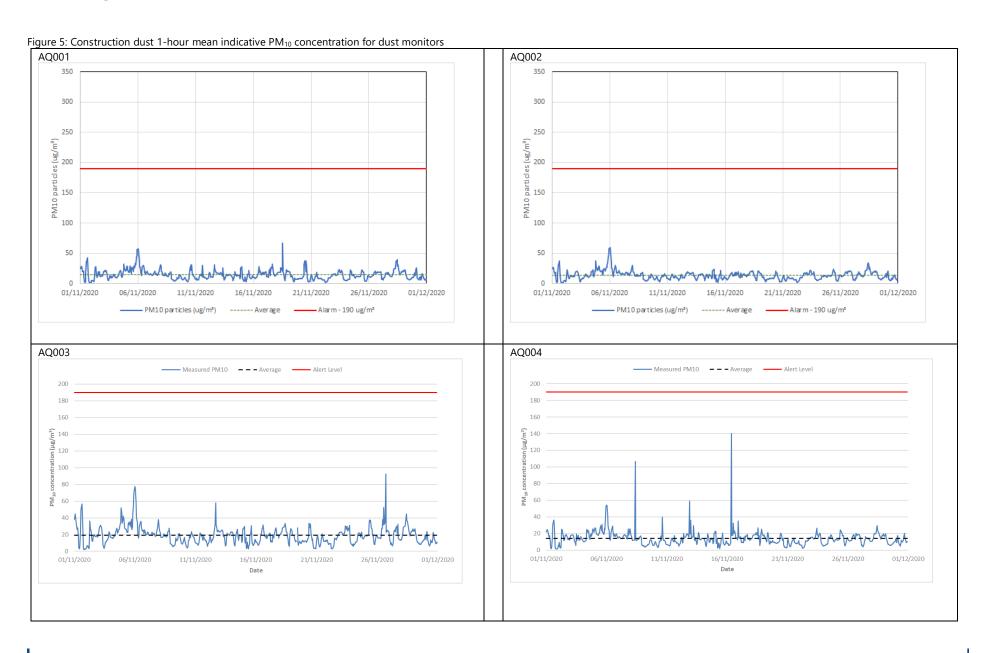
Table 1: Dust monitoring locations and November 2020 Results

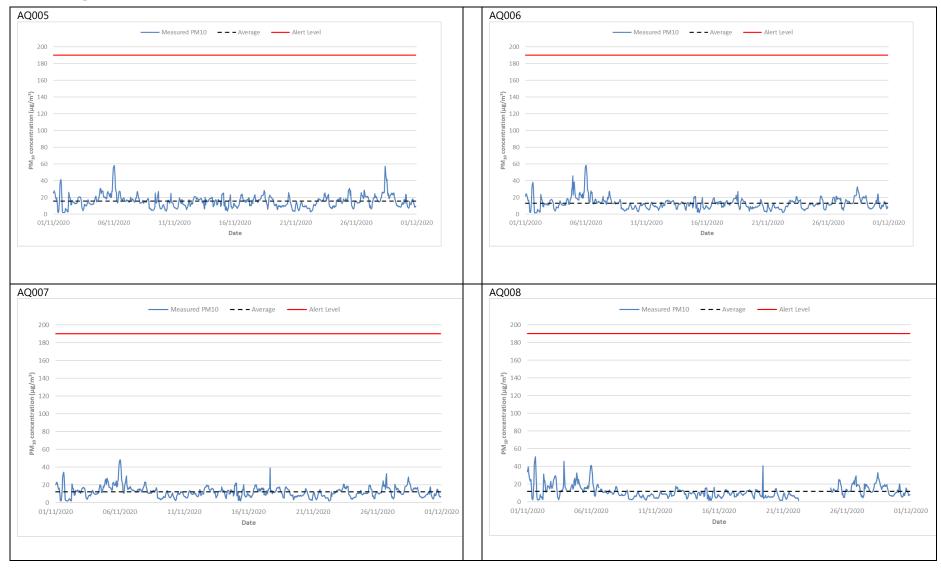
Monitoring site ID	Coordinates (X,Y)	Location description	Dust risk rating for site	Monitoring site active during period	Change to site since previous period report	Mean 1-hour PM <sub>10</sub> concentration (μg/m³)	Minimum 1- hour PM <sub>10</sub> concentration (μg/m³)	Maximum 1- hour PM <sub>10</sub> 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	М	Yes	N	14.6	1.4	67.2	0	94-7
AQ002	528945, 183105	Park Village East	М	Yes	N	13.4	1.3	59.3	0	96.1
AQ003	529273, 182698	St James' Gardens	М	Yes	N/A	19.1	2.3	92.4	0	99.9
AQ004	529533, 182519	Melton Street	Н	Yes	N/A	14.1	1.5	140.3	0	100.0
AQ005	529498, 182502	Stephenson Way	Н	Yes	N/A	15.3	1.7	57.9	0	100.0
AQ006	529388, 182524	Euston Street	Н	Yes	N/A	12.8	1.4	58.4	0	100.0
AQ007	529361, 182574	Drummond Street	Н	Yes	N/A	12.1	1.8	48.5	0	100.0
AQ008	529372, 182657	Cobourg Street	Н	Yes	N/A	11.6	1.1	50.7	0	92.1
AQ009	529707, 182730	Eversholt Street	Н	Yes	N/A	14.0	1.8	63.5	0	99.9
AQ010	529223, 182746	Hampstead Road South	М	Yes	N/A	35.8	2.0	289.0	3	100.0
AQ011	529193, 182921	Hampstead Road	М	No	N	-	-	-	-	0.0

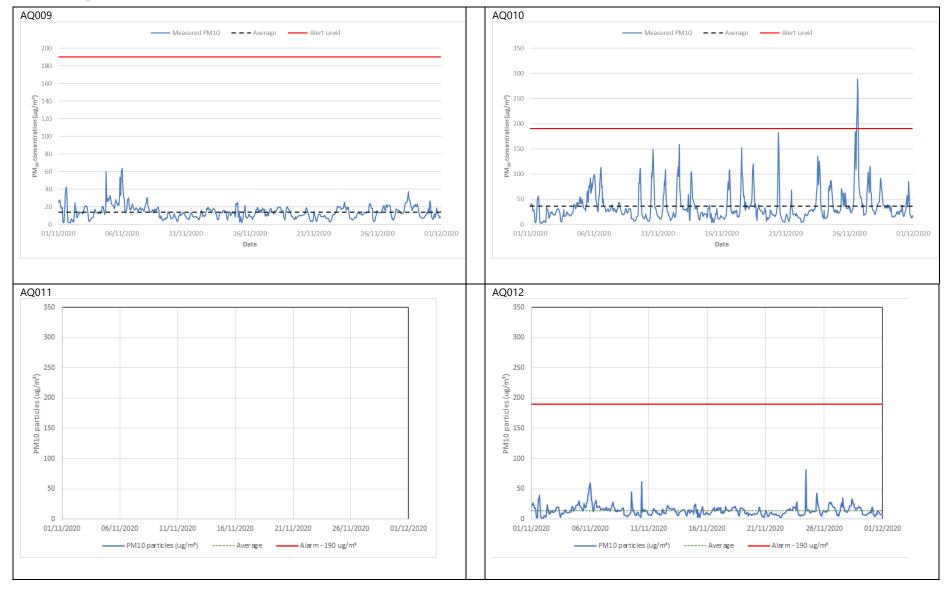
Monitoring site ID	Coordinates (X,Y)	Location description	Dust risk rating for site	Monitoring site active during period	Change to site since previous period report	Mean 1-hour PM <sub>10</sub> concentration (μg/m³)	Minimum 1- hour PM <sub>10</sub> concentration (μg/m³)	Maximum 1- hour PM <sub>10</sub> concentration (μg/m³)	Number of 1- hour periods exceeding trigger level of 190 µg/m³	Data capture (%)
AQ012	529145, 182941	Rear of Coniston House	М	Yes	N	13.9	1.3	81.5	0	94.4
AQ013	529086, 182983	Regents Park Estate	М	Yes	N	19.5	1.7	78.2	0	95.8
AQ014	528550, 183518	Vehicle Holding Area	L	Yes	N	3.1	0.1	90.8	0	31.9
AQ015	528546, 183604	Prince Albert Road	L	Yes	N	18.2	2.2	99.3	0	96.0
AQ016	528840, 183466	Mornington Terrace North	М	Yes	N	9.4	0.6	48.1	0	97.1
AQ017	528963, 183274	Mornington Terrace South	М	Yes	N	13.1	1.1	59.2	0	96.0
AQ018	529184, 182999	Hampstead Road North	М	Yes	N	12.1	1	51.5	0	93.9
AQ019	529280, 182776	Park Village East (North)	М	Yes	N	12.8	2	57.1	0	89.0
AQ020	529109, 182605	Netley School	n/a	Yes	N/A	25.2	1.3	491.6	3	100.0
AQ021	529136, 183086	Site compound at the Junction of Hampstead Road & Granby Terrace Bridge.	М	Yes	N	19.1	1.7	68.9	0	84.4

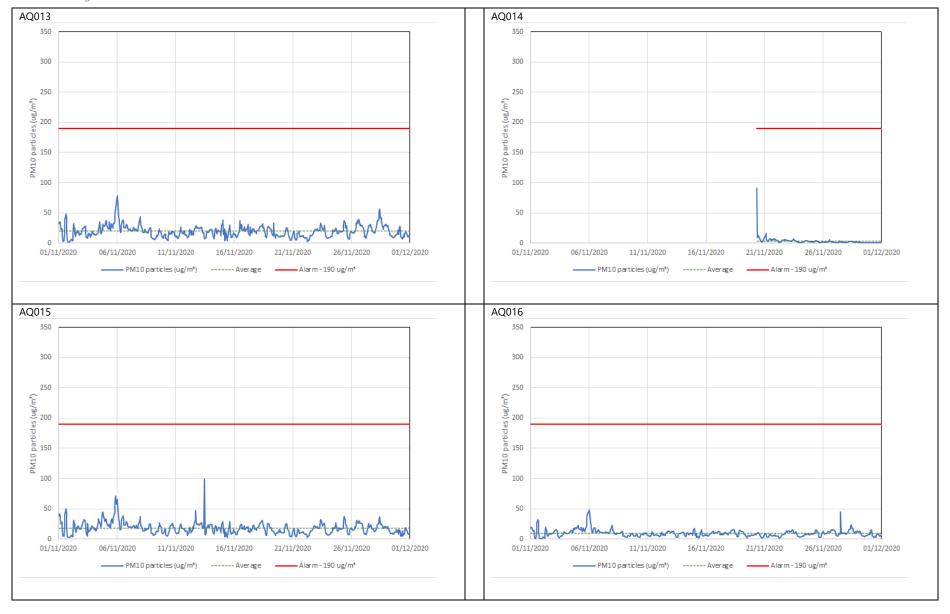
Table 2: Summary of exceedances of trigger level in November 2020

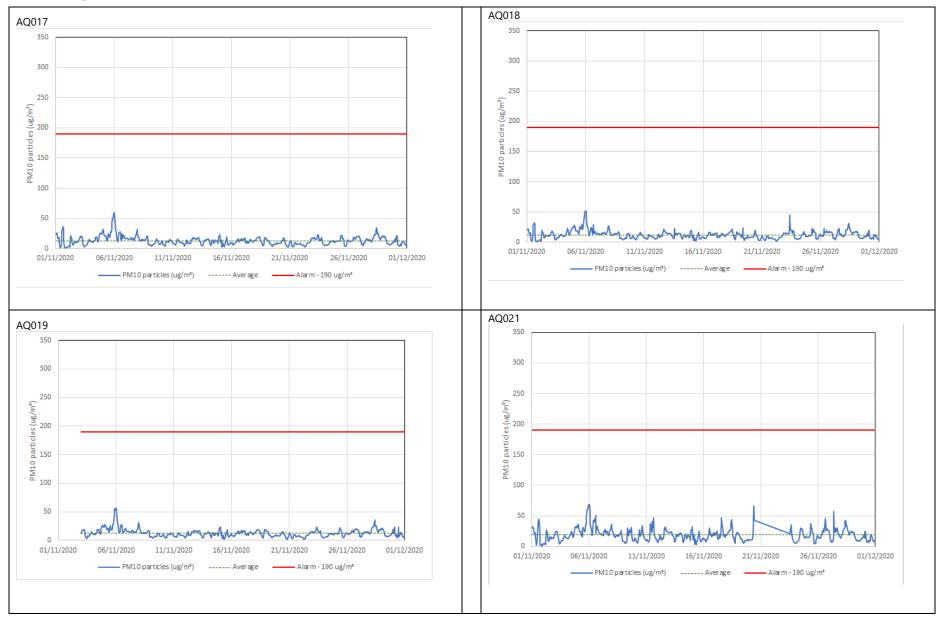
Monitoring Site ID	Period of trigger alert & Concentration	Investigation	Outcomes / Resolution / Remedial measures
	recorded		implemented
AQ010	26/11/2020 13:00 – 26/11/2020 16:00: 230.1 μg/m³ 289.0 μg/m³ 265.1 μg/m³ (3x triggers)	On receipt of the first trigger alert, the MDJV site supervisor immediately undertook a site inspection to investigate.  Piling mat extension works and some levelling activities of crushed material (recycled 6F2) were being carried out in Area 3, which was well dampened down. This area is adjacent to AQ008 which measured PM10 concentrations within expected ranges, with no increase in concentrations at the time of exceedances monitored at AQ010.  There was no visible dust noted across the site and works continued.  There have been no works being carried out in proximity to AQ010 in the past 2 weeks. While an investigation was undertaken at the time of the trigger alerts, it is unclear what the cause of these exceedances may have been (potentially due to the resuspension of dust accumulated alongside the cycle lane, by monitor AQ010).	MDJV has however reviewed the unloading methodology and will increase the damping down activity while unloading as well as reduce the unloading speed to ensure these activities are mitigated.  MDJV will continue to ensure all the activities being undertaken on site have appropriate mitigation measures applied (in line with the CoCP).
AQ020	27/11/2020 00:00 – 27/11/2020 02:00: 491.6 μg/m³ 271.7 μg/m³ (2x triggers)	MDJV are currently only carrying out construction activities during core hours.  Trigger alerts are not believed to be due to MDJV site activities, due to the time and distance to the site. It is therefore believed that these alerts are linked to the	MDJV will continue to carry out routine monitor
AQ020	30/11/2020 06:00 – 30/11/2020 07:00: 197.5 µg/m³	heated inlet mechanism rather than any activities. It has been confirmed that the heated inlet is working, however erroneously recorded high PM10 readings due to the high levels of humidity (i.e. the thick fog experienced on the early hours of the 27th November and morning of the 30th).	maintenance, to ensure the monitors are functioning optimally.



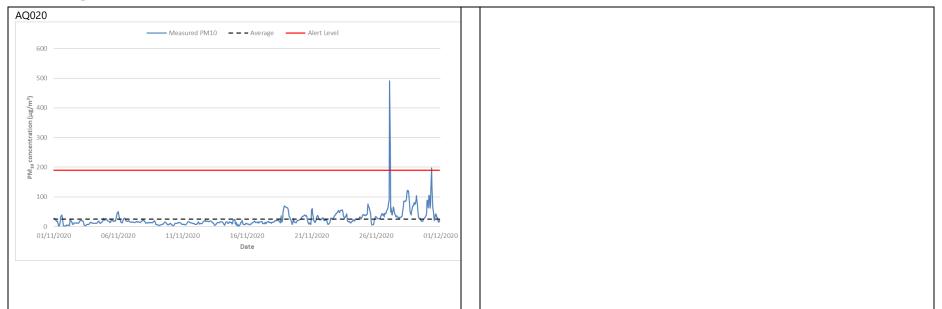








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### **Appendix C – Air Quality Monitoring Results**

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 <sup>1</sup>	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Mean <sup>2</sup>
HS2-000020BM5	Junction of St Chad's Street and Grays Inn Road	530436, 182929	56	51		No data		34	27	38	39	37			40
HS2-000020BM6	Brunswick Square	530321, 182268	55	57		No data		No data	No data	No data	No data	No data			56
HS2-000020BM7	Chalton Street	529894, 182702	66	65		No data		No data	Tube missing	36	Tube missin g	67			59
HS2-000020BM8	Junction of Euston Square and Grafton Place	529737, 182641	57	57		No data		40	32	42	51	51			47
HS2-000020BM9	Junction of Endsleigh Gardens and Upper Woburn Place	529785, 182529	56	58		No data		38	25	43	45	44			44
HS2-000020BMA	Junction of Euston Road and Gower Street	529429, 182375	59	54		No data		33	30	39	51	42			44
HS2-000020BMB	Whitfield Street	529273, 182114	45	43		No data		26	19	29	32	33			32
HS2-000020BMC	Hampstead Road	529232, 182511	58	53		No data		Tube missing	48	69	69	61			60
HS2-000020BMF	Junction of Polygon Road and Ossulston Street	529715, 183123	38	Tube missing		No data		24	14	23	28	No data			25
HS2-000020BMH	Nash Street	528861, 182717	44	37		No data		Tube missing	21	27	32	32			32

<sup>1</sup> 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.

<sup>&</sup>lt;sup>2</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.

Monitoring Site ID	Location description	Coordinates (X, Y)	Jan	Feb	Mar <sup>1</sup>	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Mean <sup>2</sup>
HS2-000020BMJ	Junction on Robert Street and Stanhope Street	529080, 182698	39	33	No data			26	22	30	34	32			31
HS2-000020BMK	Junction of Plender Street and Bayham Street	529196, 183546	56	49	No data			38	36	43	49	46			45
HS2-000020BML	Junction of Arlington Road and Mornington Crescent	529093, 183356	44	38		No data		23	19	28	30	33			31
HS2-000020BMM	Junction of Bayham Street and Pratt Street	529084, 183722	62	58		No data		40	39	Tube missing	Tube missin g	52			50
HS2-000020BMN	Junction of Delancey Street and Albert Street	528850, 183573	45	41		No data		28	26	34	38	31			35
HS2-000020BMQ	Junction of Parkway and Delancey Street	528662, 183604	51	43		No data		32	25	40	46	40			40
HS2-000020BMR	Junction of Oval Road and Jamestown Road	528548, 183967	42	36		No data		24	21	30	32	26			30
HS2-000020BMS	Junction of Chalk Farm Road and Castlehaven Road	528685, 184188	52	50		No data		39	29	47	45	43			44
HS2-000020BMT	Junction of Camden Road and Camden Street	529079, 184043	51	43		No data		34	28	42	47	43			41
HS2-000020BMU	Junction of Southampton Road and Fleet Road	527783, 185407	45	No data		No data		29	24	38	42	No Data			36
HS2-000020BMV	Primrose Hill Road	527538, 184250	44	38		No data		22	18	27	38	30			31
HS2-000020BMW	Junction of Finchley Road and Hilgrove Road	526619, 184081	Tube missing	Tube missing	Т	ube missin	g	Tube missing	Tube missing	Tube missing	47	43			
HS2-000020BMZ	Junction of Finchley Road and Hendon Way	525102, 186042	82	61		No data		56	47	57	63	55			61

Monitoring Site ID	Location description	Coordinates (X, Y)	Jan	Feb	Mar <sup>1</sup>	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Mean <sup>2</sup>
HS2-000020BNA	Junction of Regent's Park Road and Rothwell Street	527884, 183980	42	30		No data		No data	20	25	27	No Data			29
HS2-000020BNC	Junction of Outer Circle and Gloucester Gate	528528, 183443	33	25		No data		19	13	21	25	8			22
HS2-000020BNH	Junction of Parkway and Albert Street	528763, 183720	46	35		No data		29	24	29	37	34			32
HS2-000020BNN	Lincoln's Inn Fields	530744, 181308	41	41		No data		20	18	Tube missing	26	28			30
HS2-000020BNQ	Camley Street	529735, 183737	Tube missing	31		No data		27	Tube missing	Tube missing	33	61			29
HS2-000020BNY	Junction of Mill Lane and Hillfield Road	524839, 185136	45	41		No data		29	Tube missing	29	40	35			36
HS2-000020BNZ	Mansfield Road	528050, 185508	40	33		No data		25	20	25	31	32			29
HS2-000020BP0	Junction of Camden Road and Torriano Avenue	529708, 184871	58	51		No data		47	36	49	34	46			48
HS2-000020BP2	Junction of Grays Inn Road and Holborn	531149, 181616	48	45		No data		27	22	30	31	31			34
HS2-000020BPB	Camden High Street	528966, 183735	65	54		No data		50	15	57	69	62			48
HS2-000020BPC	Castlehaven Road	528788, 184591	43	36		No data		24	52	27	28	26			37
HS2-000020BPD	Prince of Wales Road	528571, 184683	39	27		No data		20	13	22	25	28			24
HS2-000020BPE	Haverstock Hill	527710, 184749	52	41		No data		33	24	34	36	37			37
HS2-000020BPF	Junction of Primrose Gardens and England's Lane	527549, 184640	47	33		No data		27	18	30	33	30			31
HS2-000020BPU	Junction of Gower Street and Grafton Way	529476, 182267	56	50		No data		31	27	36	38	36			40

Monitoring Site ID	Location description	Coordinates (X, Y)	Jan	Feb	Mar <sup>1</sup>	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Mean <sup>2</sup>
HS2-000020BPW	Junction of Delancey Street and Arlington Road	528939, 183637	50	37	No data			31	24	35	42	36			36
HS2-000020BPX	Netley Street	529177, 182625	34	28		No data			17	28	34	30			27
HS2-000020BPY	Stanhope Street	529060, 182947	40	29		No data		22	15	25	27	28			26
HS2-000020BPZ	Albany Street	528790, 182923	44	36		No data		24	19	No data	32	31			31
HS2-000020BQ0	Werrington Street	529493, 183113	42	36		No data		22	16	23	27	28			28
HS2-000020BQ1	Polygon Road	529574, 183045	44	35		No data		23	16	25	27	32			29
HS2-000020BQ2	Alexandra Place	526320, 183980	39	31		No data		21	14	23	29	27			26
HS2-000020BQ3	Harrington Square	529228, 183172	50	38		No data		35	28	36	28	39			37
HS2-000020BQ4	Junction of North Gower Street and Starcross Street	529290, 182572	44	36		No data		25	20	28	45	31			31
HS2-000020BQ5	Adelaide Road	527713, 184392	Tube missing	40		No data		25	19	31	31	32			29
HS2-000020BQ6	Mornington Terrace	528836, 183474	39	30		No data		20	16	22	32	27			25
HS2-000020BQ7	Arlington Road	529009, 183479	40	33		No data		24	17	25	26	31			28
HS2-000020BQ8	Clarkson Row	529024, 183213	39	31		No data		20	16	22	29	31			26
HS2-000020BQ9	Park Village East	528923, 183121	37	29		No data		21	16	22	27	27			25
HS2-000020BQA	Eversholt Street	529386, 183132	60	48		No data		35	29	38	26	42			42
HS2-000020BQB	Junction of Harrington Street and Varndell Street	529147, 182816	41	30		No data		23	16	25	47	28			27

Monitoring Site ID	Location description	Coordinates (X, Y)	Jan	Feb	Mar <sup>1</sup>	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Mean <sup>2</sup>
HS2-000020BQC	Junction of Robert Street and Hampstead Road	529199, 182704	47	37		No data		32	21	33	28	32			34
HS2-000020BQD	Drummond Crescent	529648, 182856	Tube missing	42		No data		27	21	29	40	37			30
HS2-000020BQJ	Grafton Way	529380, 182225	55	54		No data		36	33	43	38	40			44
HS2-000020BQL	Delancey Street	528768, 183581	44	No data		No data		33	26	36	47	38			35
HS2-000020BQR	Lamp post on Park Village East	528682, 183505	37	33		No data		21	19	26	31	26			27
HS2-000020BQS	Opposite Maria fidelis school on Phoenix Road	529670, 182982	40	36		No data		21	18	24	32	29			28
HS2-000020BQT	Drummond Street	529385, 182581	47	35		No data		25	19	28	30	33			31
HS2-000020BQX	Lamp post on Brunswick Square	530344, 182236	No data	No data		No data		28	22	27	32	30			26
HS2-000020BP4	Triplicate site on Finchley Road next to Swiss Cottage kerbside automatic monitoring station	526633, 184392	54	Tubes missing		No data		41	35	50	51	45			45
HS2-000020BP5	Triplicate site next to the Euston Road roadside automatic monitoring stations	529895, 182657	69	67		No data		54	35	49	56	48			55
HS2-000020BP9	Triplicate site in Russell Square next to Bloomsbury urban background automatic monitoring station	530120, 182034	44	43		No data		23	19	25	29	29			31