

September 2020

# Air Quality and Dust Monitoring Monthly Report – September 2020

London Borough of Camden



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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 August and September 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 <a href="https://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 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, materials management and partial handover to the station works contractor comprising mobilisation, groundworks and site set up.
  - Demolition, materials management and groundworks at:
    - o IBIS Hotel, 3 Cardington Street;
    - Thistle Hotel, Cardington Street;
    - Cobourg Street / Euston Street;
    - o Regents Park Estate including phased handover to the mains works contractor;
    - o Walkden House, 67-75 & 77-79 Euston Street;
    - o One Euston Square, 40 Melton Street and Grant Thornton House, 22 Melton Street; and
    - 132 140 Hampstead Road and Petrol Station.
  - National Temperance Hospital, Site Office and Welfare 110-122 Hampstead Road and additional Station Works contractor site office and welfare mobilisation and site set up.
  - London Underground Traction Substation and Vent Shaft mobilisation and site set up.
  - Vehicle Holding Area, site set up and groundworks.
  - Euston Scissor Cut test piling and materials management.
  - Euston Throat Retained Cut mobilisation, site set up and hoarding works.
  - Adelaide Road Vent Shaft mobilisation and roadworks outside of site.
- 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 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 µg/m<sup>3</sup>, 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 (September 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 AQ009, AQ012, AQ014 and AQ019 was below 90% for the month of September 2020. This was due to a technical fault with the monitor AQ009, power loss to the monitors AQ012 and AQ014, and AQ019 was a newly installed monitor (77.1%, 48.3%, 81.3% and 32.1% respectively).
- 1.1.10 Diffusion tube monitoring of Nitrogen Dioxide (NO<sub>2</sub>) 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.
- 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.
- 1.1.12 NO<sub>2</sub> 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 (September 2020), together with the findings of any related investigations.

Complaint Reference No.	Worksite Reference	Description of complaint	Results of investigation
HS2-20-40490-C	-	On 3 <sup>rd</sup> September, complaint raised about dust levels.	Crushing works have restarted on the Silverdale basement demolition. CSJV are implementing dust suppression methods and continue to undertake daily visual checks and constantly monitor dust levels through six monitors surrounding the worksite. These monitors have trigger alerts, which provide feedback when dust concentrations reach a set level. This allows us to respond quickly to emissions wherever and whenever they occur.

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

Complaint Reference No.	Worksite Reference	Description of complaint	Results of investigation
			Although the stakeholder may see the work activities from her property, the works location is a distance away from Langdale. We have checked the monitored levels and they were well below the trigger alert level. The monitoring directly next to the crusher demonstrated that good dust suppression was being employed. However, we will continue to monitor the situation.
HS2-20-40512-C	-	On 9 <sup>th</sup> August, complaint raised about fumes come from a generator on Harrington Street.	The generator is required in this location to power lighting and CCTV. Attempts to relocate the generator have led to power outages. Further investigations by the new contractor onsite will followed.

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#### **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 September 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/m <sup>3</sup> )	Minimum 1- hour PM <sub>10</sub> concentration (µg/m <sup>3</sup> )	Maximum 1- hour PM <sub>10</sub> concentration (µg/m <sup>3</sup> )	Number of 1- hour periods exceeding trigger level of 190 µg/m <sup>3</sup>	Data capture (%)
AQ001	529022, 183040	Junction of Park Village East, Stanhope Street and Granby Terrace	м	Yes	N	13.3	1.9	55.7	0	100.0
AQ002	528945, 183105	Park Village East	м	Yes	N	12.2	2.2	64.2	0	100.0
AQ003	529279, 182698	St James' Gardens	м	Yes	N	19.6	2.8	100.8	0	100.0
AQ004	529523, 182533	Melton Street	м	Yes	N	14.4	2.5	52.4	0	100.0
AQ005	529496, 182505	Stephenson Way	н	Yes	N	16.5	2.3	81.9	0	99.9
AQ006	529399, 182514	Euston Street	н	Yes	Ν	11.9	1.9	37.3	0	100.0
AQ007	529369, 182564	Drummond Street	н	Yes	Ν	9.7	1.7	44.7	0	100.0
AQ008	529372, 182657	Cobourg Street	м	Yes	Ν	15.5	2.3	42.9	0	100.0
AQ009	529707, 182730	Lancing Street	н	Yes	N	13.1	3.0	32.1	0	77.1
AQ010	529223, 182732	Hampstead Road South	м	Yes	N	19.6	5.0	66.2	0	100.0
AQ011	529193, 182921	Hampstead Road	м	Yes	N	14.6	2.9	77.6	0	100.0

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/m <sup>3</sup> )	Minimum 1- hour PM <sub>10</sub> concentration (µg/m <sup>3</sup> )	Maximum 1- hour PM <sub>10</sub> concentration (µg/m <sup>3</sup> )	Number of 1- hour periods exceeding trigger level of 190 µg/m <sup>3</sup>	Data capture (%)
AQ012	529145, 182941	Rear of Coniston House	м	Yes	N	12.1	2.5	39.5	0	48.3
AQ013	529086, 182983	Regents Park Estate	м	Yes	N	19.7	2.5	261.0	4	99.9
AQ014	528550, 183518	Vehicle Holding Area	L	Yes	N	13.4	2.1	232.0	1	81.3
AQ015	528546, 183604	Prince Albert Road	L	Yes	Ν	15.8	2.7	194.2	1	100.0
AQ016	528840, 183466	Mornington Terrace North	М	Yes	N	8.2	1.3	21.0	0	99.7
AQ017	528963, 183274	Mornington Terrace South	М	Yes	N	11.7	1.9	28.0	0	100.0
AQ018	529184, 182999	Hampstead Road North	М	Yes	N	12.0	1.9	38.8	0	100.0
AQ019	529280, 182776	Park Village East (North)	м	Yes	Ν	8.9	2.0	25.1	0	32.1
AQ020	529109, 182605	Netley School	n/a	Yes	Ν	6.9	0.5	161.5	0	99.9
AQ021	529136, 183086	Site compound at the Junction of Hampstead Road & Granby Terrace Bridge	М	Yes	N	16.3	2.9	52.1	0	84.2

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

Period exceeding trigger level	Worksite	Monitoring site ID	Complaint reference number (if applicable)	Reason	Resolution
10/09/2020 08:01 – 10:00 (x2)	Regents Park Estate / Euston Throat Retained Cut (ETRC)	AQ013	n/a	At the time of the trigger alert from the monitor (AQ013) which is on the south west boundary of the Regents Park Estate site, at the rear of Langdale House, there were no notable activities such as excavation or other groundworks happening at the time. Dust suppression had been deployed during the morning routine on both the CSJV and SCS sites and there was no visible dust being generated. None of the other nearby monitors, AQ012 at the rear of Coniston House, AQ001 on the north western boundary outside Cubitt Court and AQ018 on the eastern boundary showed any similar increase in monitored levels. Given the proximity of the monitor AQ013 which is temporarily located on a quad stand during hoarding works near to an internal haul route it is considered that vehicle movements directly adjacent to the monitor may have been the cause of the trigger.	On receipt of the trigger alert, the works that were underway in the location were stopped and the area was thoroughly damped-down before recommencement of any vehicle movements. Dust suppression was maintained during subsequent works at the site, especially during the continued dry weather conditions. All CSJV and SCS site teams in Camden and across HS2 Area South were reminded to remain extra vigilant regarding dust suppression over the next week of prolonged dry weather conditions.
14/09/2020 15:01 – 16:00	Regents Park Estate / Euston Throat Retained Cut (ETRC)	AQ013	n/a	Similar to the trigger on the 10 <sup>th</sup> September at the time of the trigger alert from the monitor (AQ013) which is on the south west boundary of the Regents Park Estate site, at the rear of Langdale House, there were no notable activities such as excavation or other groundworks happening at the time. There were materials movements taking place on the site but these had been occurring throughout the day. Dust suppression had been deployed extensively across the entire site throughout the day using a dust canon pulled around the site and during that period there was no visible dust being generated.	On receipt of the trigger alert, works had already stopped. Dust suppression was maintained during subsequent works at the site.

				Given the proximity of the monitor AQ013, which is temporarily located on a quad stand at a lower level than usual during hoarding works, it is considered that vehicle movements near to the monitor may have been the cause of the trigger but these have occurred throughout the day with no issue and the damping down had also occurred throughout the day.	
15/09/2020 14:01 – 15:00	Regents Park Estate / Euston Throat Retained Cut (ETRC)	AQ013	n/a	Again, the trigger alert was received with limited activities occurring on site and again dust suppression had been deployed regularly throughout the day so there was no windblown dust from other areas of the site.	No works were occurring in that area of the site and dust suppression had already been deployed. The monitor was checked to ensure it was working correctly.
15/09/2020 10:01 – 11:00	Vehicle Holding Area	AQ014	n/a	At the time of the trigger alert from the monitor (AQ014), which is on the southern boundary of the Regents Park Vehicle Holding area site, there was floor saw-cutting activities being carried out in the near vicinity. Dust suppression had been deployed as part of the saw cutting but the monitor was in close proximity to the short duration works.	On receipt of the trigger alert, the saw cutting activities had already stopped. Dust suppression was maintained during subsequent works at the site.
08/09/2020 13:01 – 14:00	Vehicle Holding Area/ Prince Albert Road	AQ015	n/a	At the time of the trigger alert from the monitor, which is opposite the Regents Park Vehicle Holding Area site, excavation and backfill groundworks were underway near the north eastern boundary of the site. Dust suppression had been employed during these works across the site and at the time there was no visible dust being generated. The other monitor, AQ014 which is on the southern boundary, did not show any similar spike in dust levels.	On receipt of the trigger alert, works were stopped and the area was thoroughly damped- down before recommencement. Dust suppression was maintained during subsequent works at the site, especially during the continued dry weather conditions.

\* since the receipt of the above trigger alerts, all monitors have undergone regular maintenance checks, and no further triggers have been received.

Figure 4: Construction dust 1-hour mean indicative PM<sub>10</sub> concentration for dust monitors













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

Table 4: NO<sub>2</sub> monitoring locations around highways, NO<sub>2</sub> concentrations and monthly monitoring results with running mean for 2020 (µg/m<sup>3</sup>)

Monitoring Site ID	Location description	Coordinates (X, Y)	Jan	Feb	Mar <sup>1</sup>	Apr	Мау	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					41
HS2-000020BM6	Brunswick Square	530321, 182268	55	57			٢	No data							56
HS2-000020BM7	Chalton Street	529894, 182702	66	65		Tube missi		Tube missing		36					56
HS2-000020BM8	Junction of Euston Square and Grafton Place	529737, 182641	57	57		No data		40	32	42					45
HS2-000020BM9	Junction of Endsleigh Gardens and Upper Woburn Place	529785, 182529	56	58		No data		38	25	43					44
HS2-000020BMA	Junction of Euston Road and Gower Street	529429, 182375	59	54		No data		33	30	39					43
HS2-000020BMB	Whitfield Street	529273, 182114	45	43		No data		26	19	29					32
HS2-000020BMC	Hampstead Road	529232, 182511	58	53		Tube	missing		48	69					57
HS2-000020BMF	Junction of Polygon Road and Ossulston Street	529715, 183123	38	Tube missing		No data		24	14	23					25
HS2-000020BMH	Nash Street	528861, 182717	44	37		Tube	missing		21	27					32
HS2-000020BMJ	Junction on Robert Street and Stanhope Street	529080, 182698	39	33		No data		26	22	30					30

<sup>&</sup>lt;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	Мау	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Mean <sup>2</sup>
HS2-000020ВМК	Junction of Plender Street and Bayham Street	529196, 183546	56	49		No data		38	36	43					44
HS2-000020BML	Junction of Arlington Road and Mornington Crescent	529093, 183356	44	38		No data		23	19	28					30
HS2-000020BMM	Junction of Bayham Street and Pratt Street	529084, 183722	62	58		No data		40	39	Tube missing					50
HS2-000020BMN	Junction of Delancey Street and Albert Street	528850, 183573	45	41		No data		28	26	34					35
HS2-000020BMQ	Junction of Parkway and Delancey Street	528662, 183604	51	43		No data		32	25	40					38
HS2-000020BMR	Junction of Oval Road and Jamestown Road	528548, 183967	42	36		No data		24	21	30					31
HS2-000020BMS	Junction of Chalk Farm Road and Castlehaven Road	528685, 184188	52	50		No data		39	29	47					43
HS2-000020BMT	Junction of Camden Road and Camden Street	529079, 184043	51	43		No data		34	28	42					40
HS2-000020BMU	Junction of Southampton Road and Fleet Road	527783, 185407	45	No data		No data		29	24	38					34
HS2-000020BMV	Primrose Hill Road	527538, 184250	44	38		No data		22	18	27					30
HS2-000020BMW	Junction of Finchley Road and Hilgrove Road	526619, 184081	Tube missing	Tube missing			Tub	be missing							
HS2-000020BMZ	Junction of Finchley Road and Hendon Way	525102, 186042	82	61		No data		56	47	57					61
HS2-000020BNA	Junction of Regent's Park Road and Rothwell Street	527884, 183980	42	30		No data		No data	20	25					29
HS2-000020BNC	Junction of Outer Circle and Gloucester Gate	528528, 183443	33	25		No data		19	13	21					22

Monitoring Site ID	Location description	Coordinates (X, Y)	Jan	Feb	Mar <sup>1</sup>	Mar <sup>1</sup> Apr May		Jun	Jul	Aug	Sep	Oct	Nov	Dec	Mean <sup>2</sup>				
HS2-000020BNH	Junction of Parkway	528763,	46	35		No data		29	24	29					32				
	and Albert Street	183720																	
HS2-000020BNN	Lincoln's Inn Fields	530744, 181308	41	41		No data			18	Tube missing					30				
HS2-000020BNQ	Camley Street	529735, 183737	Tube missing	31		No data		No data		No data		27	Tube r	nissing					29
HS2-000020BNY	Junction of Mill Lane and Hillfield Road	524839, 185136	45	41		No data		29	Tube missing	29					36				
HS2-000020BNZ	Mansfield Road	528050, 185508	40	33		No data		25	20	25					29				
HS2-000020BP0	Junction of Camden Road and Torriano Avenue	529708, 184871	58	51		No data		47	36	49					48				
HS2-000020BP2	Junction of Grays Inn Road and Holborn	531149, 181616	48	45		No data		27	22	30					34				
HS2-000020BPB	Camden High Street	528966, 183735	65	54		No data		50	15	57					48				
HS2-000020BPC	Castlehaven Road	528788, 184591	43	36		No data		24	52	27					37				
HS2-000020BPD	Prince of Wales Road	528571, 184683	39	27		No data		20	13	22					24				
HS2-000020BPE	Haverstock Hill	527710, 184749	52	41		No data		33	24	34					37				
HS2-000020BPF	Junction of Primrose Gardens and England's Lane	527549, 184640	47	33		No data		27	18	30					31				
HS2-000020BPU	Junction of Gower Street and Grafton Way	529476, 182267	56	50		No data		31	27	36					40				
HS2-000020BPW	Junction of Delancey Street and Arlington Road	528939, 183637	50	37		No data		31	24	35					36				
HS2-000020BPX	Netley Street	529177, 182625	34	28		No data		29	17	28					27				
HS2-000020BPY	Stanhope Street	529060, 182947	40	29		No data		22	15	25					26				

Monitoring Site ID	Location description	Coordinates (X, Y)	Jan	Feb	Mar <sup>1</sup>	Apr	Мау	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Mean <sup>2</sup>
HS2-000020BPZ	Albany Street	528790, 182923	44	36		No data		24	19	No data					31
HS2-000020BQ0	Werrington Street	529493, 183113	42	36		No data		22	16	23					28
HS2-000020BQ1	Polygon Road	529574, 183045	44	35		No data		23	16	25					29
HS2-000020BQ2	Alexandra Place	526320, 183980	39	31		No data		21	14	23					26
HS2-000020BQ3	Harrington Square	529228, 183172	50	38		No data		35	28	36					37
HS2-000020BQ4	Junction of North Gower Street and Starcross Street	529290, 182572	44	36		No data		25	20	28					31
HS2-000020BQ5	Adelaide Road	527713, 184392	Tube missing	40		No data		25	19	31					29
HS2-000020BQ6	Mornington Terrace	528836, 183474	39	30		No data		20	16	22					25
HS2-000020BQ7	Arlington Road	529009, 183479	40	33		No data		24	17	25					28
HS2-000020BQ8	Clarkson Row	529024, 183213	39	31		No data		20	16	22					26
HS2-000020BQ9	Park Village East	528923, 183121	37	29		No data		21	16	22					25
HS2-000020BQA	Eversholt Street	529386, 183132	60	48		No data		35	29	38					42
HS2-000020BQB	Junction of Harrington Street and Varndell Street	529147, 182816	41	30		No data		23	16	25					27
HS2-000020BQC	Junction of Robert Street and Hampstead Road	529199, 182704	47	37		No data		32	21	33					34
HS2-000020BQD	Drummond Crescent	529648, 182856	Tube missing	42		No data		27	21	29					30
HS2-000020BQJ	Grafton Way	529380, 182225	55	54		No data		36	33	43					44
HS2-000020BQL	Delancey Street	528768, 183581	44	No data		No data		33	26	36					35

Monitoring Site ID	Location description	Coordinates (X, Y)	Jan	Feb	Mar <sup>1</sup>	Apr	Мау	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Mean <sup>2</sup>
HS2-000020BQR	Lamp post on Park Village East	528682, 183505	37	33		No data		21	19	26					27
HS2-000020BQS	Opposite Maria fidelis school on Phoenix Road	529670, 182982	40	36		No data		21	18	24					28
HS2-000020BQT	Drummond Street	529385, 182581	47	35		No data		25	19	28					31
HS2-000020BQX	Lamp post on Brunswick Square	530344, 182236	No data	No data		No data		28	22	27					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					45
HS2-000020BP5	Triplicate site next to the Euston Road roadside automatic monitoring stations	529895, 182657	69	67		No data		54	35	49					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					31