

Air Quality and Dust Monitoring Monthly Report – February 2023 London Borough of Camden



Department for Transport

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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 January 2023 and February 2023 respectively.
- 1.1.2 Figure 1 to Figure 5 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 works commenced in November 2019 and is expected to be completed by 2025. The current and planned worksites, as presented in Appendix A, Figure 1 to Figure 5, include:

Skanska Costain Strabag Joint Venture (SCSjv)

Adelaide Road Vent Shaft

- Piling operations; and
- Groundworks.

Euston Scissor Cut

- Groundworks;
- Piling operations; and
- Materials management.

Euston Throat Retained Cut

- Groundworks;
- Piling operations; and
- Materials management.

Hampstead Road Bridge

- Utilities; and
- Diversion works.

Euston Cavern

- Piling operations;
- Groundworks; and
- Materials management.

Mace Dragados Joint Venture (MDjv)

NTH

- Cemskan - piling mat construction in Ibis slab & St James' Gardens; and
- McGee – Complete sheet piling construction & extraction for MH 5.

Maria Fidelis

- Continue removing damaged plasterboard;
- Continue external utilities works;
- West TBS blockwork completed;
- Started ground floor partitions;
- Internal staircase block A installed;
- Started installing parapets & pediments; and
- Started midband install.

Zone 5

- Skanska complete demobilisation.

ITR

- Canopy installation;
- External works for access (Euston Grove & Euston Road); and
- Kerbs and drainage and formation level in some areas.

Two Towers

- Ground Investigation; and
- Tree removal.

Utilities

- Hampstead road: Phase 3 completed and commenced phase 4;
- Cobourg Street: most of the pipe run. Awaiting the result for the last section of pipe run before commissioning;
- Manhole 3-4: completed installation of water main for 1000mm main and 250mm main;
- Manhole 5: mobilised to site and commenced installation of temporary works and excavation following McGee's demobilisation;
- Compound relocation: commenced the compound relocation from zone 5 to St James Gardens to allow for piling contractor to mobilise to site; and
- TSS: cable removal for site supply and relocation and completed the backfill.

TSS

- Continue steelfixing & pouring liner walls.

Night Surveys

- Structural and MEP surveys carried out on the London underground at Euston Squire and Euston station by Survey Teams (Kilnbridge/Emico); and

- BT chamber surveys (Blu-3).

Day Surveys

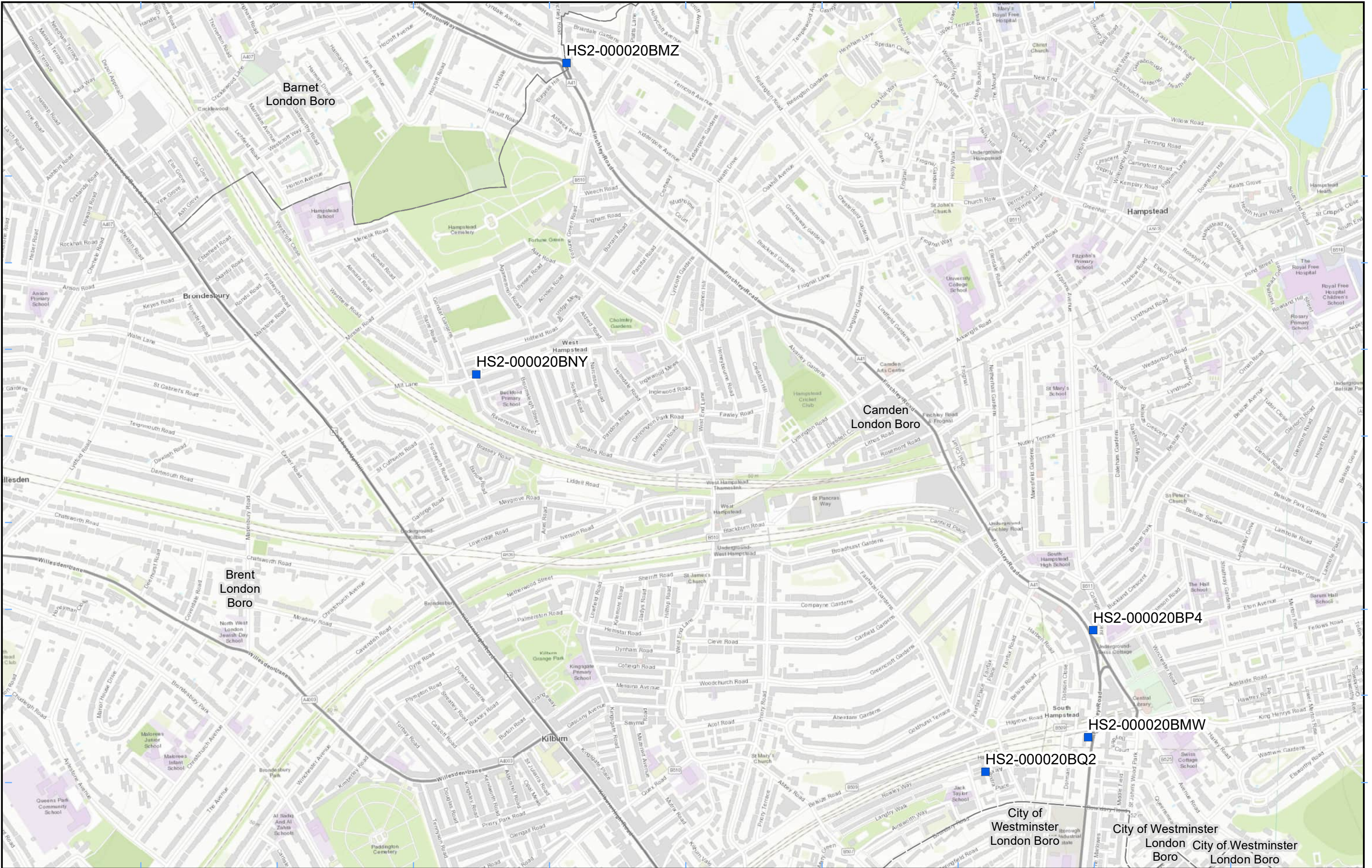
- Condition surveys / investigations at RCGP;
- Noise Insulation works at Drummond, Euston, Starscross, and Cobourg streets and other locations affected by Utilities works – installation of double glazing and mechanical ventilation, asbestos surveys by Adept/Selectaglaze;
- Graffiti removal trial on the East Lodge by PAWE;
- Monthly SenSat drone surveys of HS2 extended area and the Euston War Memorial; and
- Ground Investigation survey at Zone 2/5 by Structural Soils.

- 1.1.5 Twenty-two (22) dust monitors are installed around worksites, where demolition, groundworks and materials management are underway. These sites returned a medium or high dust risk rating. A new monitor was installed at the Amphill Estate, Hampstead Road during February.
- 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 6. 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 One (1) dust trigger alert was recorded during the monitoring period (February 2023) and is reported in Appendix B, Table 2.
- 1.1.9 Data capture was below 90% for monitor AQ054 due to the monitor being moved to a new monitoring location.
- 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 August occur as a result of the scheme.
- 1.1.11 Diffusion tube monitoring results are as 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 NO₂ monitoring locations and results are presented in Appendix C, Table 3, together with the 2023 running mean.

1.1.13 There were no (0) complaints received during this reporting period.

Appendix A – Worksites and Monitoring Locations

Figure 1 to Figure 5: Worksites and monitoring locations within the LBC



Legend
 Diffusion Tube
 District Borough Unitary Boundaries

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Map Number
 Map Name
**Monitoring Locations
 In LBC (Sheet 1)**
 London Borough of Camden

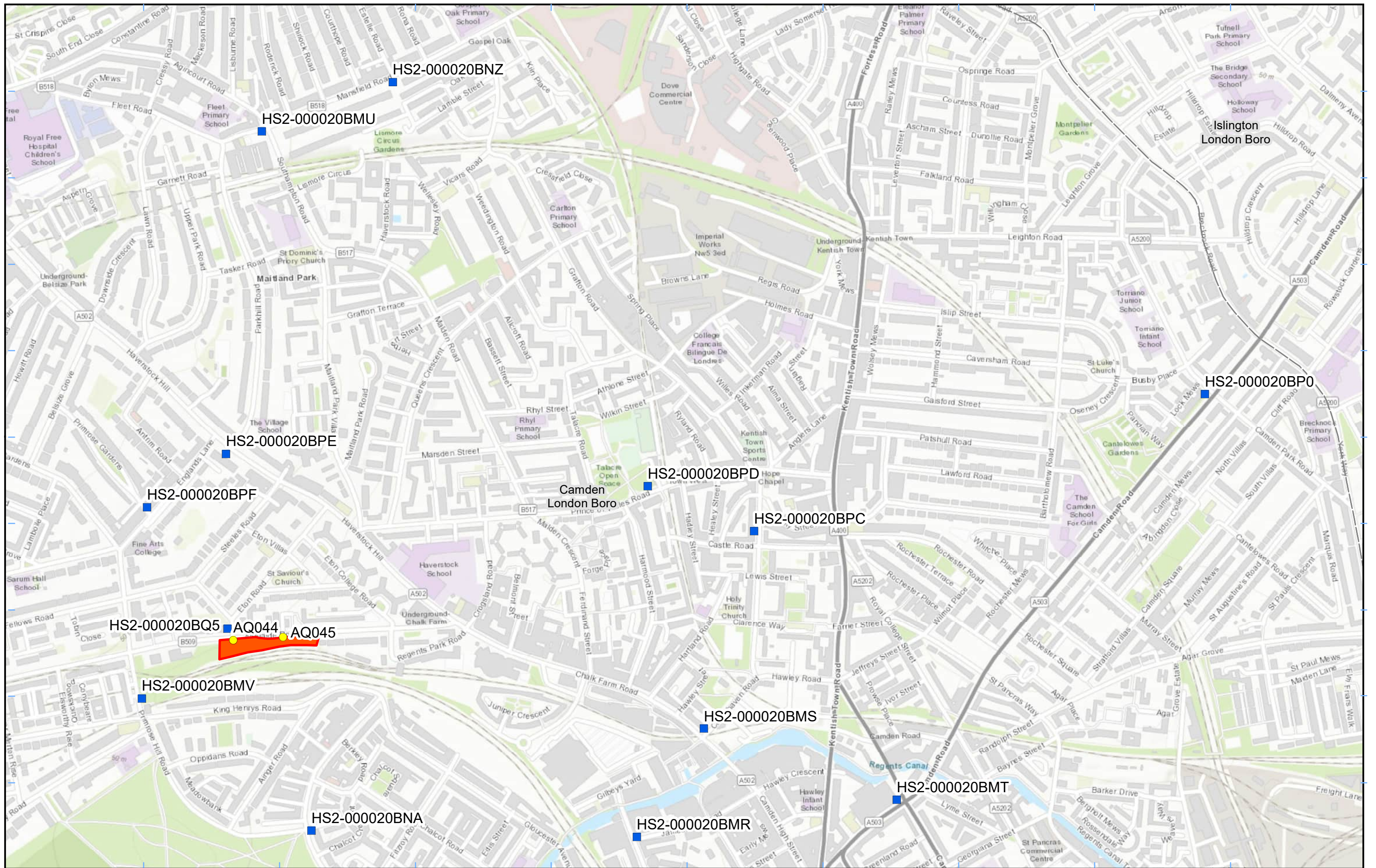
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- Legend**
- Diffusion Tube
 - Worksite
 - Dust Monitor
 - District Borough Unitary Boundaries

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Map Number
 Map Name
**Worksite and Monitoring Locations
 In LBC (Sheet 2)**
 London Borough of Camden

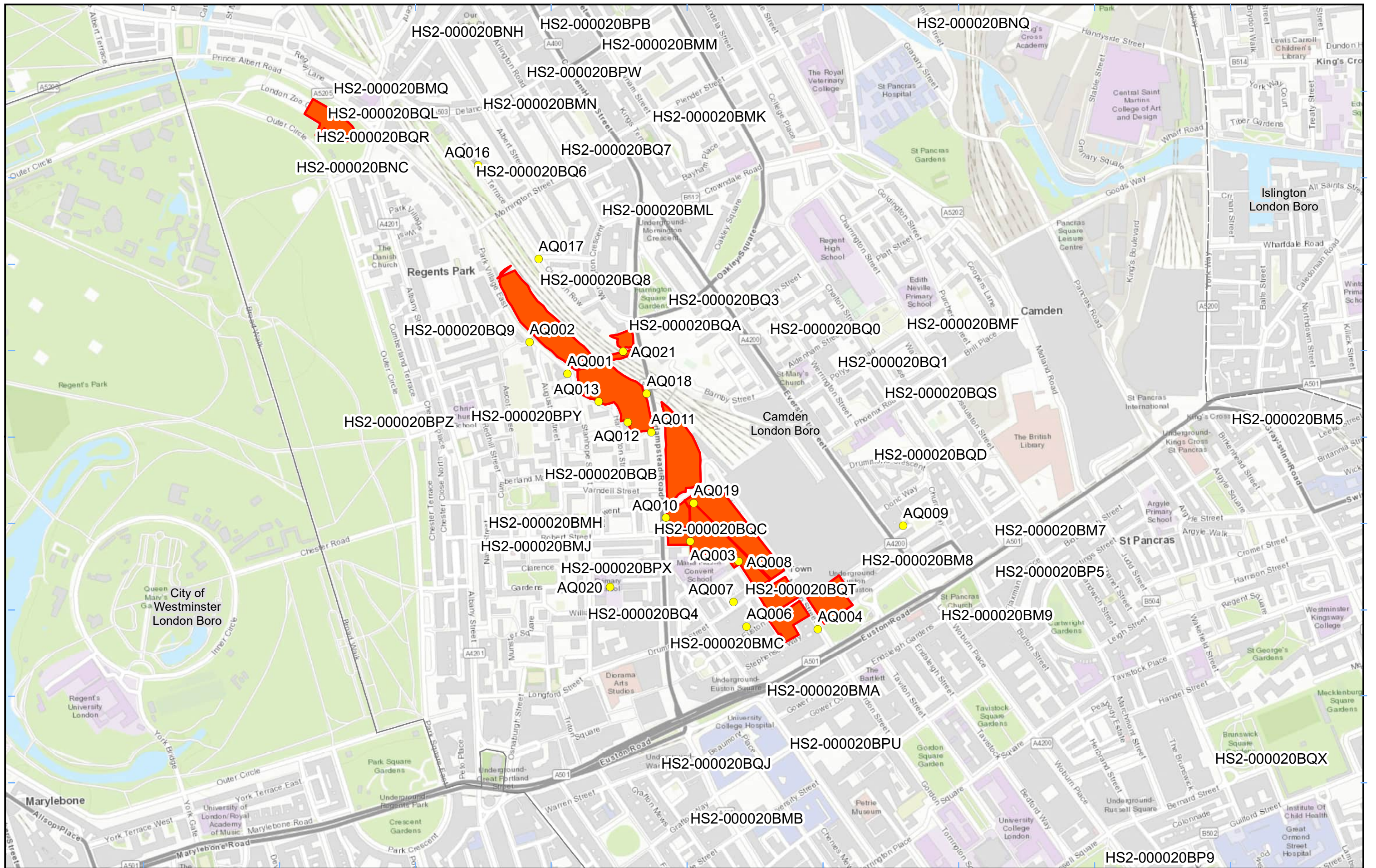
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0 70 140 210 280
 Metres

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Legend
 Dust Monitor District Borough Unitary Boundaries
 Worksite

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Map Number
 Map Name
**Worksite and Monitoring Locations
 In LBC (Sheet 3)**
 London Borough of Camden

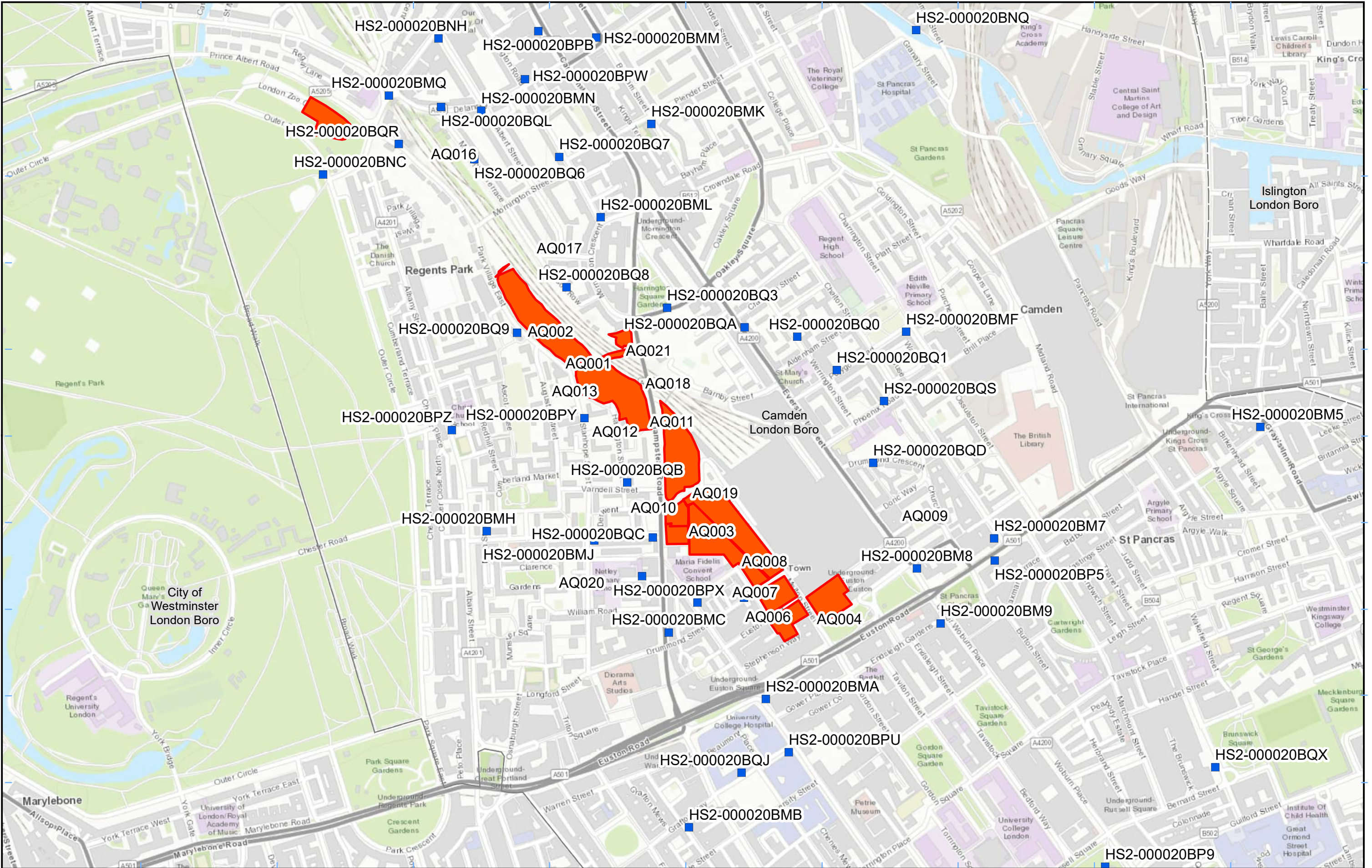
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Legend
■ Diffusion Tube District Borough Unitary Boundaries
 Worksite

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Map Number
 Map Name
**Worksite and Monitoring Locations
 In LBC (Sheet 4)**
 London Borough of Camden

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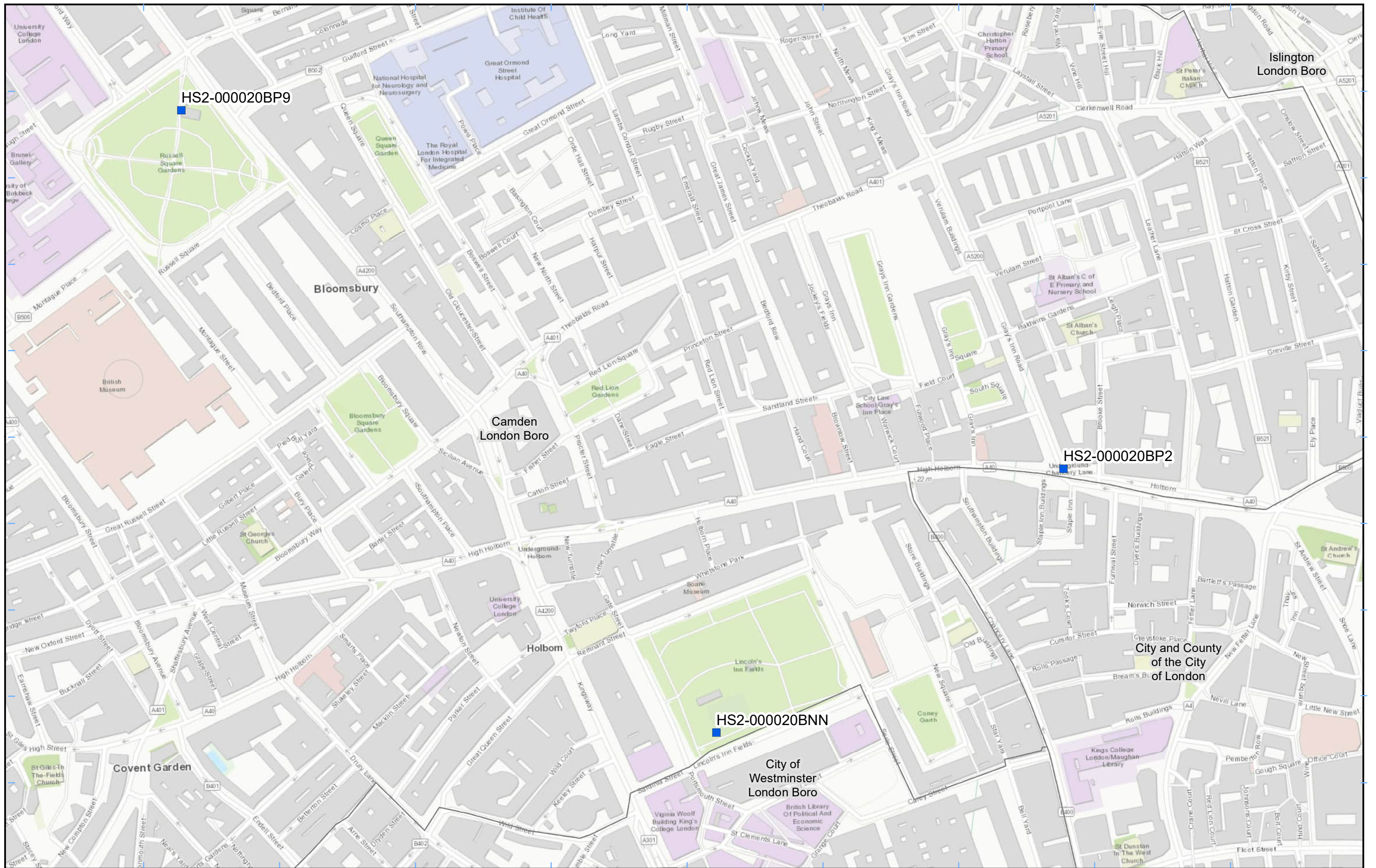
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 Metres

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- Legend**
- Diffusion Tube
 - District Borough Unitary Boundaries

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Map Number
 Map Name
**Worksite and Monitoring Locations
 In LBC (Sheet 5)**

London Borough of Camden

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Appendix B – Dust Monitoring Results

Table 1: Dust monitoring locations and February 2023 Results

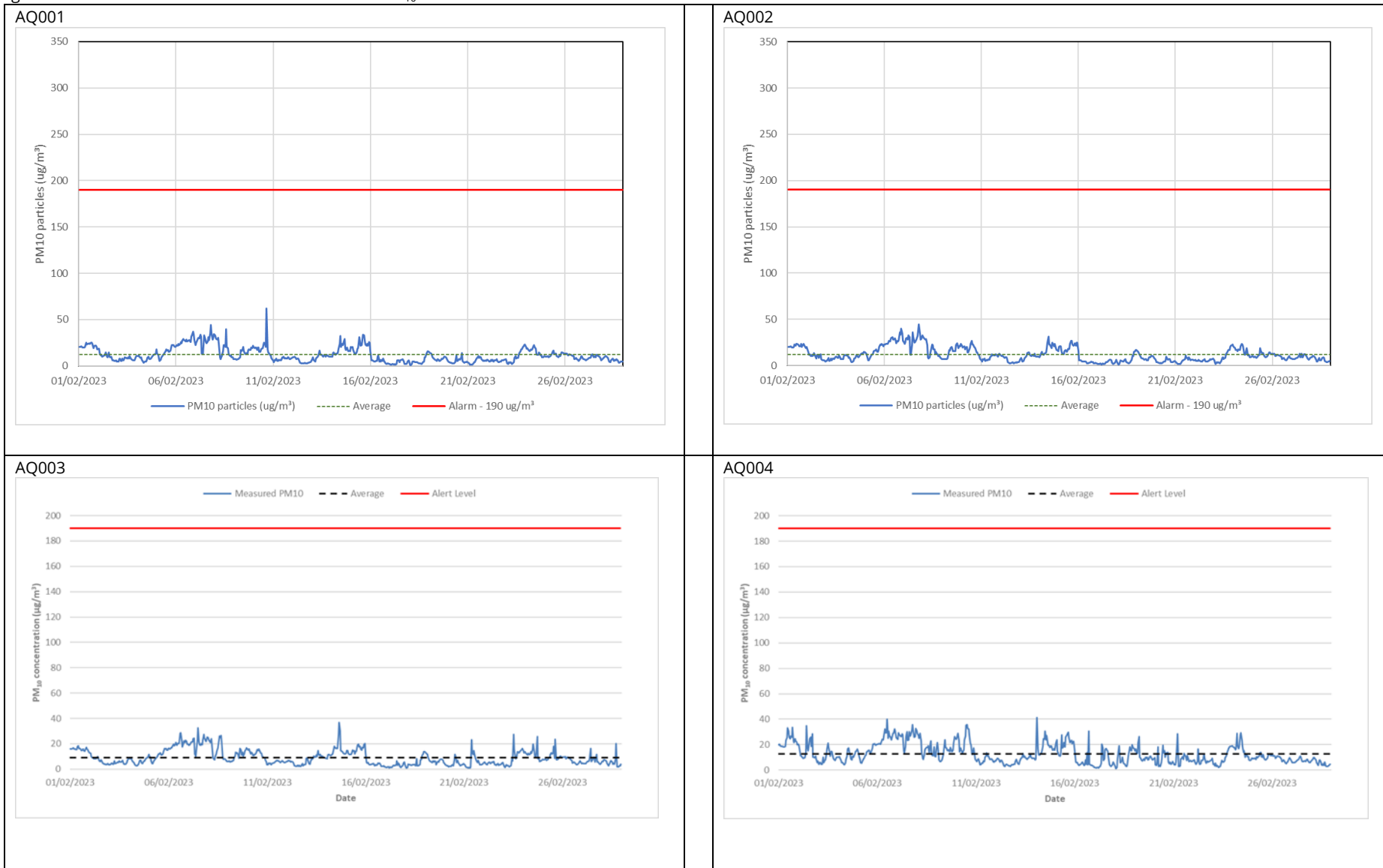
Monitoring site ID	Coordinates (X,Y)	Location description	Dust risk rating for site	Monitoring site active during period	Change to site since previous period report	Mean 1-hour PM ₁₀ concentration (µg/m ³)	Minimum 1-hour PM ₁₀ concentration (µg/m ³)	Maximum 1-hour PM ₁₀ concentration (µg/m ³)	Number of 1- hour periods exceeding trigger level of 190 µg/m ³	Data capture (%)
AQ001	529016, 183049	Junction of Park Village East, Stanhope Street and Granby Terrace	M	Yes	N	12.0	1.0	62.4	0	100.0
AQ002	528924, 183130	Park Village East	M	Yes	N	11.8	1.0	44.7	0	100.0
AQ003	529273, 182698	St James' Gardens	M	Yes	N/A	9.2	0.8	36.8	0	100.0
AQ004	529533, 182519	Melton Street	H	Yes	N/A	12.8	1.4	41.4	0	100.0
AQ005	529498, 182502	Stephenson Way	H	Yes	N/A	16.5	1.6	55.0	0	100.0
AQ006	529388, 182524	Euston Street	H	Yes	N/A	19.2	1.7	91.9	0	98.7
AQ007	529361, 182574	Drummond Street	H	Yes	N/A	7.3	0.6	28.2	0	100.0
AQ008	529372, 182657	Cobourg Street	H	Yes	N/A	14.6	1.1	60.5	0	100.0
AQ009	529707, 182730	Eversholt Street	H	Yes	N/A	6.8	0.7	22.9	0	100.0
AQ010	529223, 182746	Hampstead Road South	M	Yes	N/A	16.6	1.6	97.6	0	99.9
AQ011	529176, 182922	Hampstead Road	M	Yes	N	19.0	1.8	66.0	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 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 (%)
AQ012	529144, 182941	Rear of Coniston House	M	Yes	N	11.6	1.1	41.4	0	91.4
AQ013	529066, 182990	Regents Park Estate	M	Yes	N	15.8	1.5	64.1	0	100.0
AQ016	528820, 183498	Mornington Terrace North	M	Yes	N	10.5	0.8	43.5	0	100.0
AQ017	528962, 183274	Mornington Terrace South	M	Yes	N	10.0	0.7	38.6	0	100.0
AQ018	529192, 183071	Hampstead Road North	M	Yes	N	11.3	0.9	44.8	0	100.0
AQ019	528689, 183500	Park Village East (North)	M	Yes	N	11.6	1.0	46.1	0	100.0
AQ020	529109, 182605	Netley School	n/a	Yes	N/A	11.4	1.1	37.9	0	100.0
AQ021	529136, 183086	Site compound at the Junction of Hampstead Road & Granby Terrace Bridge	M	Yes	N	17.1	1.6	75.3	0	100.0
AQ044	527725, 184369	Adelaide Road 1	M	Yes	N	10.8	0.7	96.3	0	100.0
AQ045	527826, 184375	Adelaide Road 2	M	Yes	N	5.7	0.1	539.7	1	93.9
AQ054	529266, 183076	Ampthill Estate, Hampstead Road	M	Yes	N	8.5	1	26	0	54.7

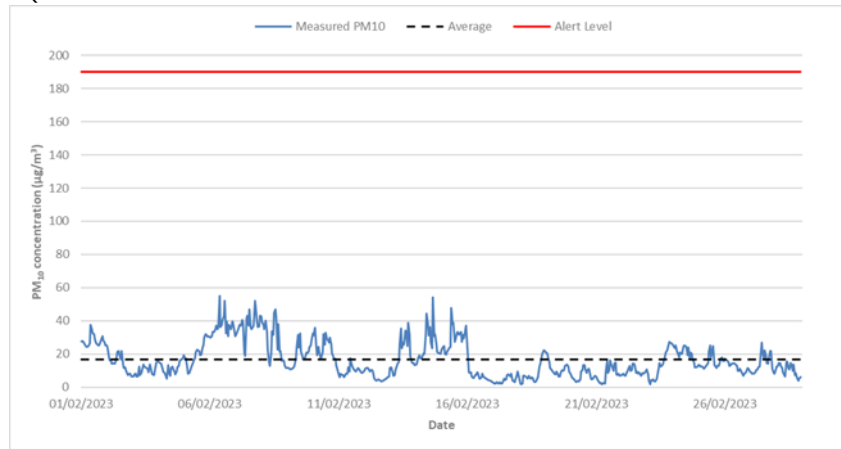
Table 2: Summary of exceedances of trigger level in February 2023

Monitoring site ID	Period exceeding trigger level	Investigation	Outcomes / Resolution / Remedial measures implemented
AQ045	21/02/2023 15:00 – 16:00; 539.7µg/m ³	<p>At the time of the trigger alert from dust monitor (AQ045), which is located on the site hoarding towards the central / eastern end of the Adelaide Road Vent Shaft site, there were no works happening near to that area of the site.</p> <p>The monitor had only just been replaced the day before due to a blockage / fault with the previous monitor and it is considered the trigger was due to loose debris being dislodged within the monitor's inlet.</p> <p>The other monitor (AQ044) towards the western end of the site showed no elevated levels.</p>	n/a

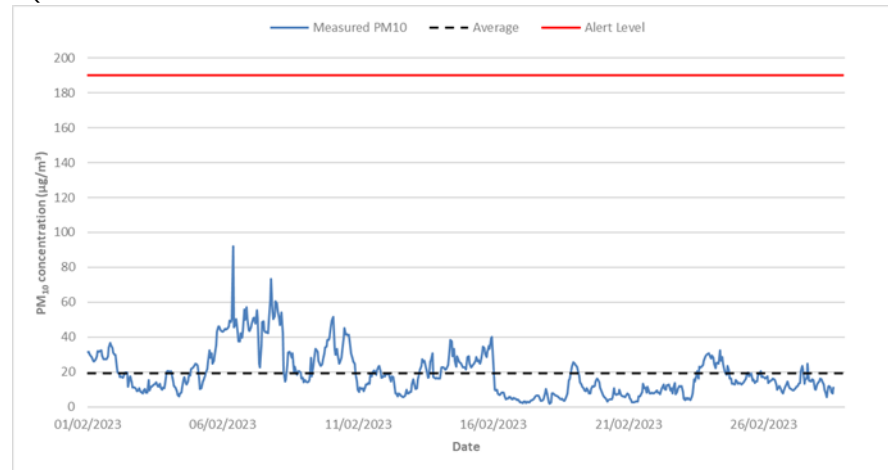
Figure 6: Construction dust 1-hour mean indicative PM₁₀ concentration for dust monitors



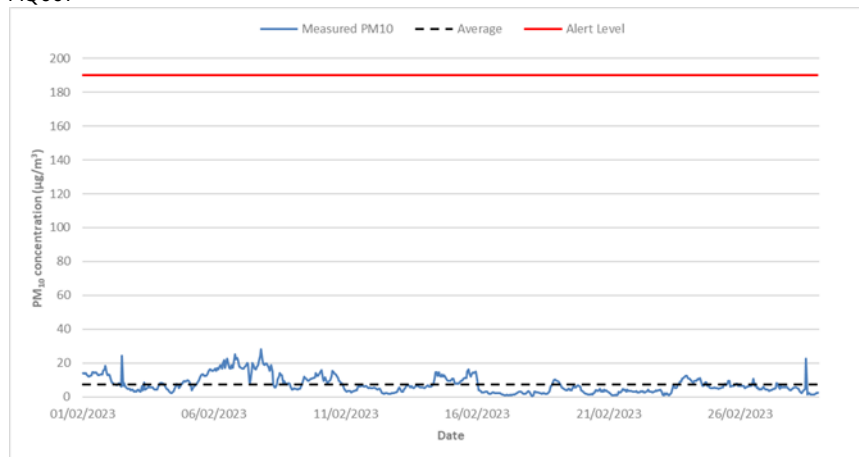
AQ005



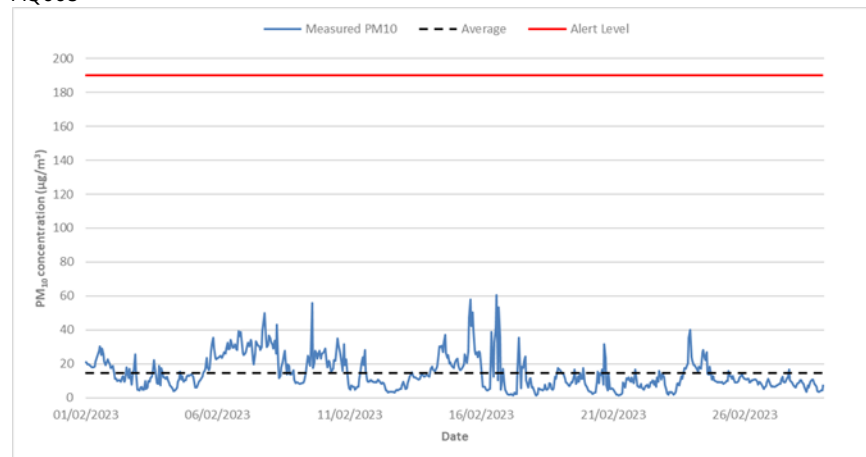
AQ006



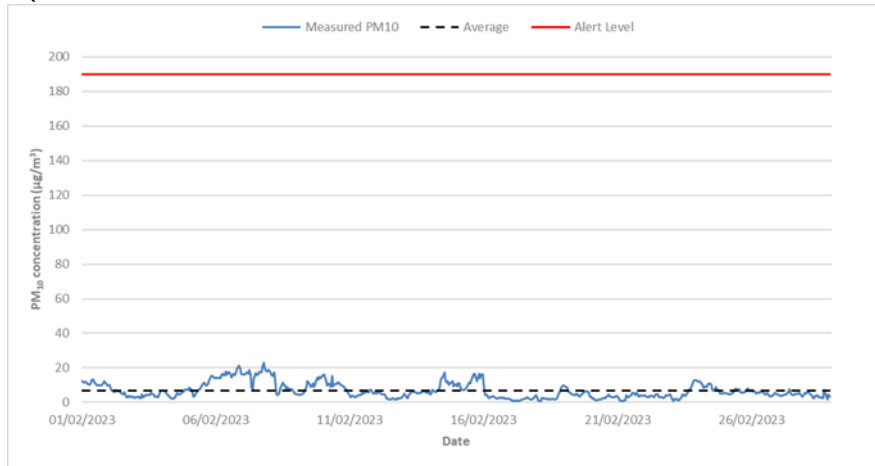
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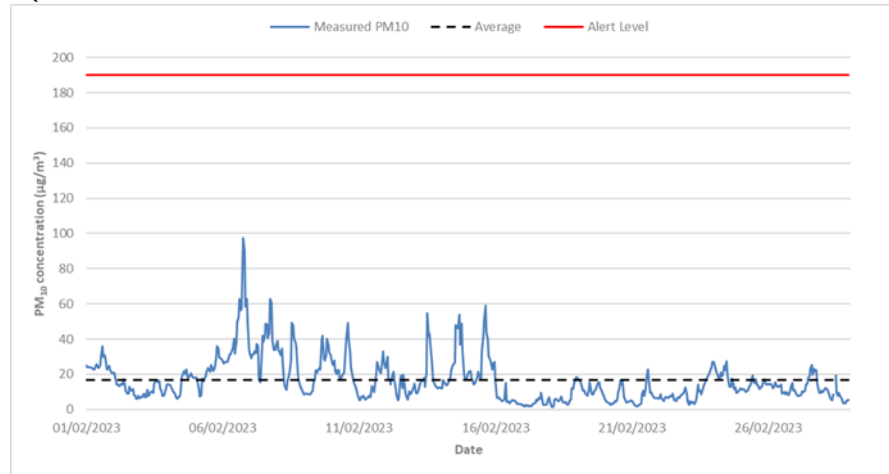
AQ008



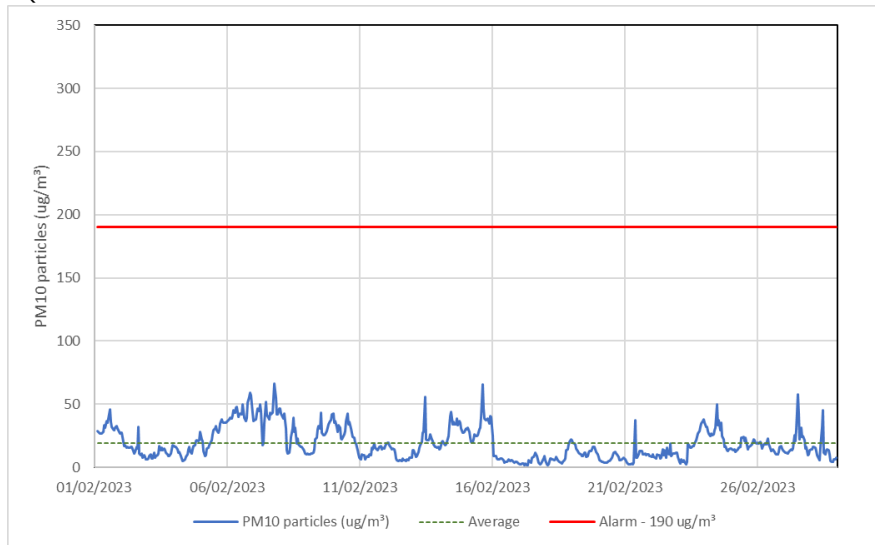
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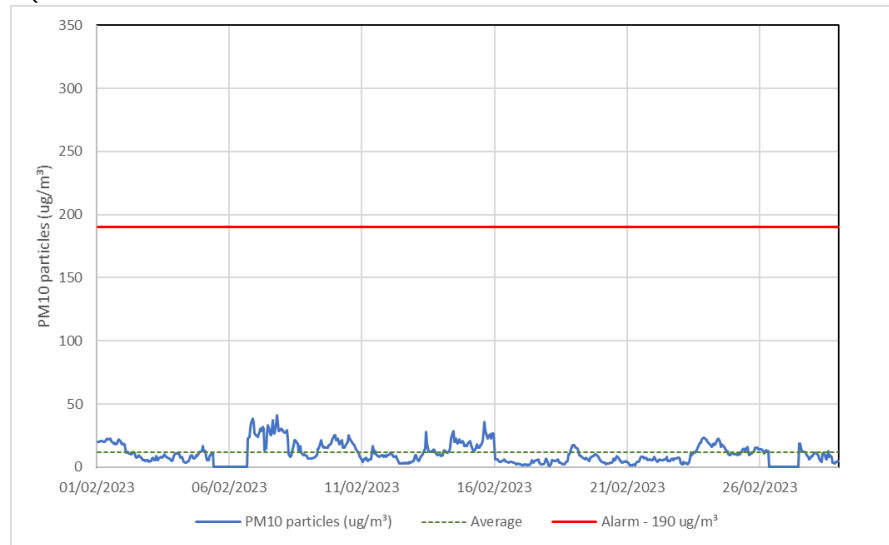
AQ010

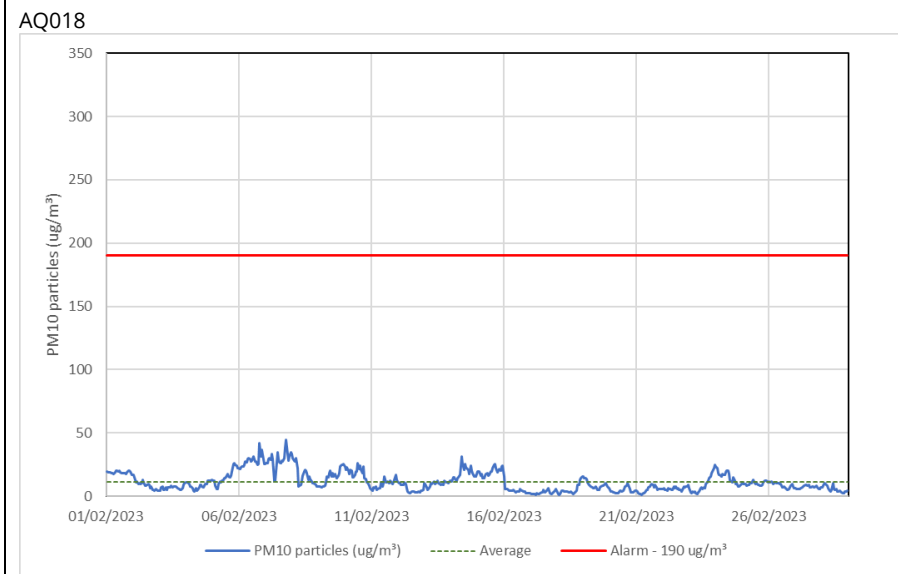
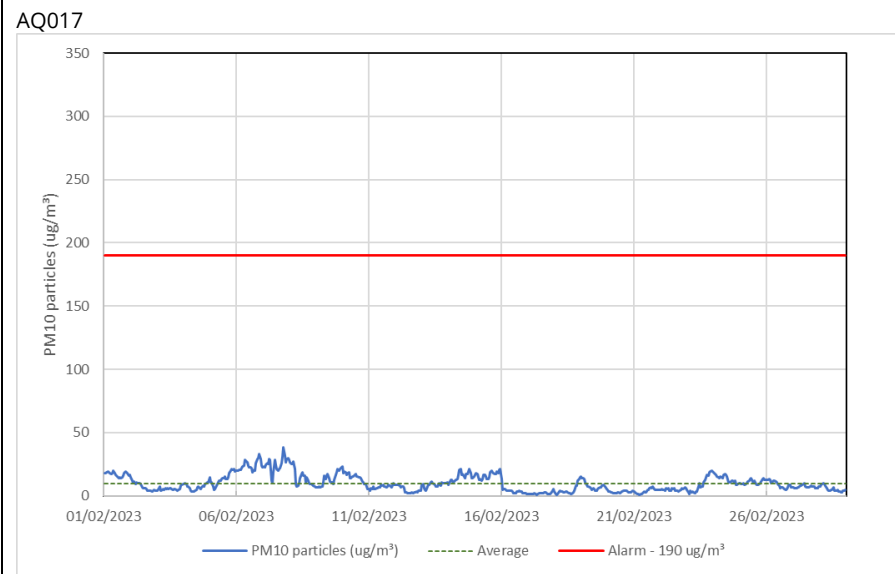
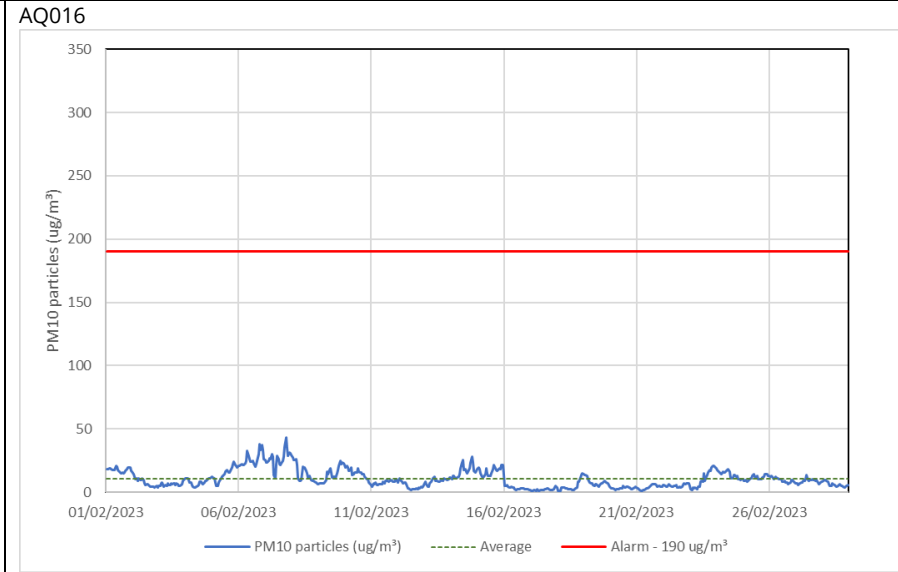
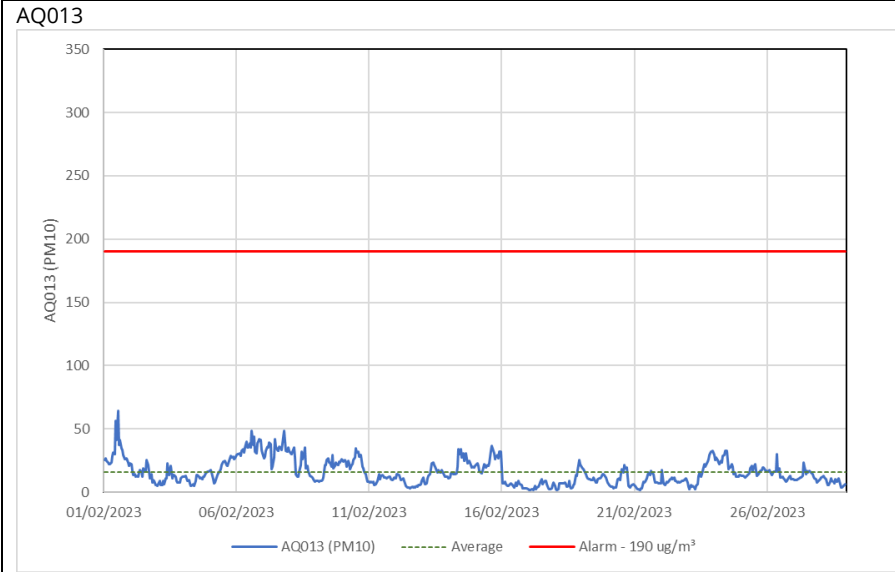


AQ011

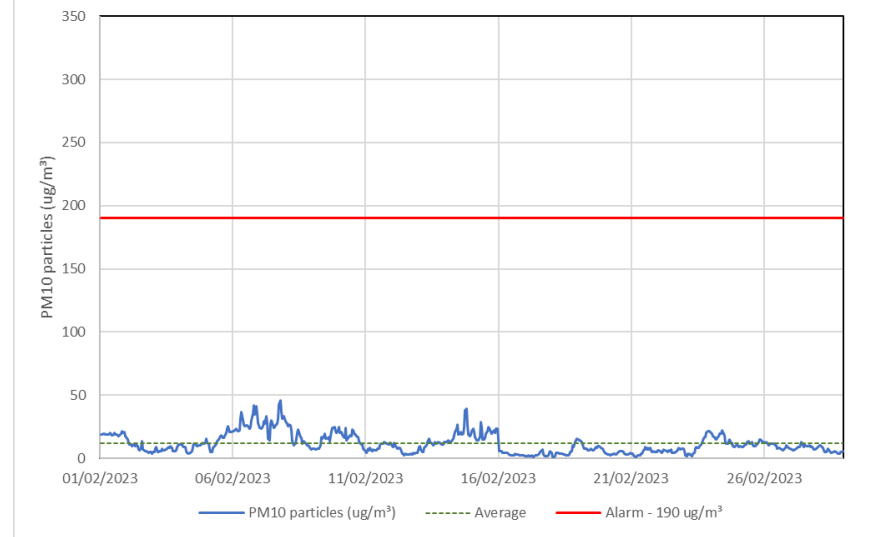


AQ012

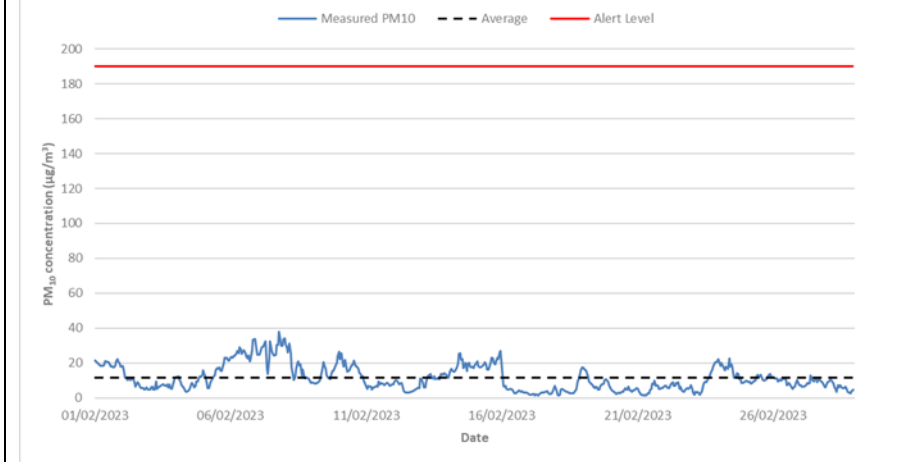




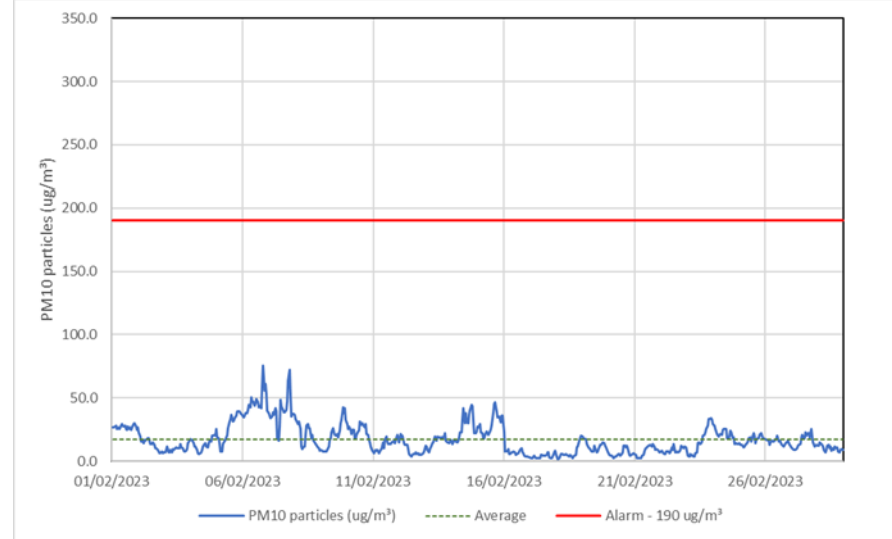
AQ019



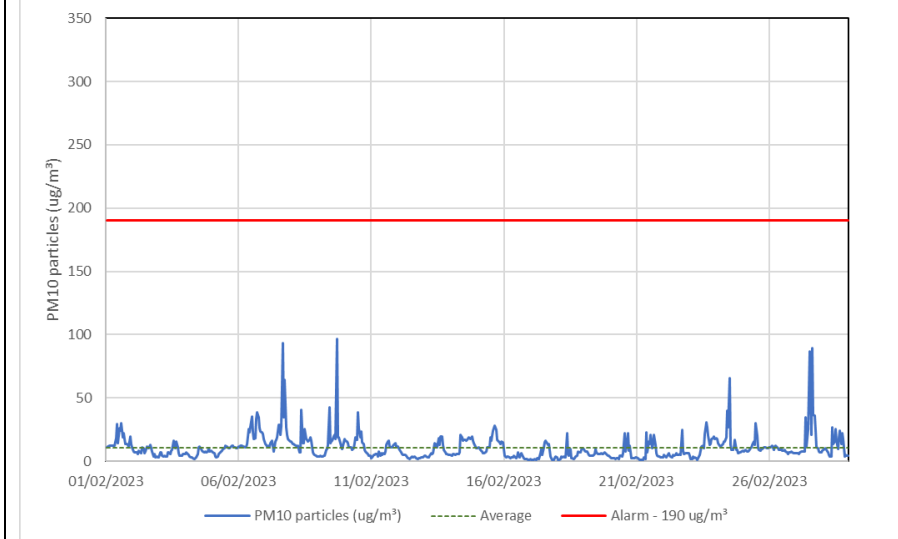
AQ020



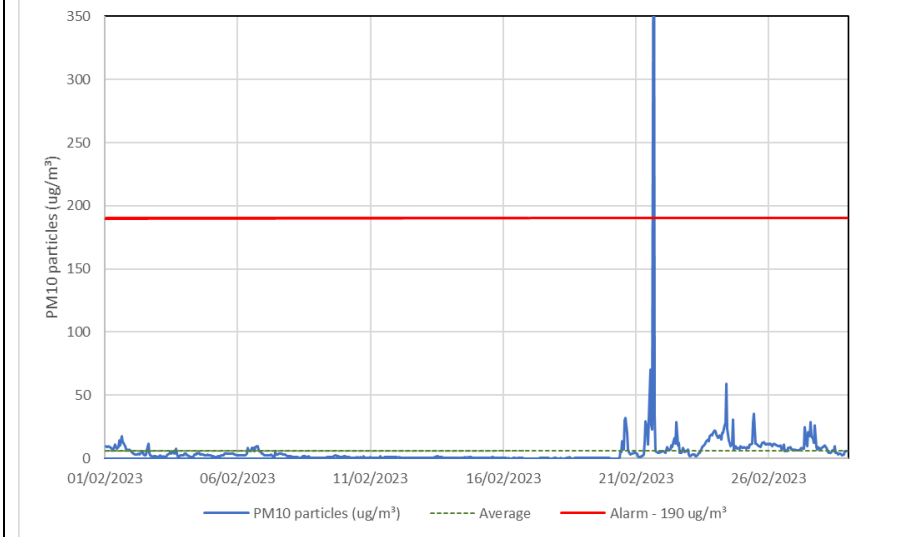
AQ021



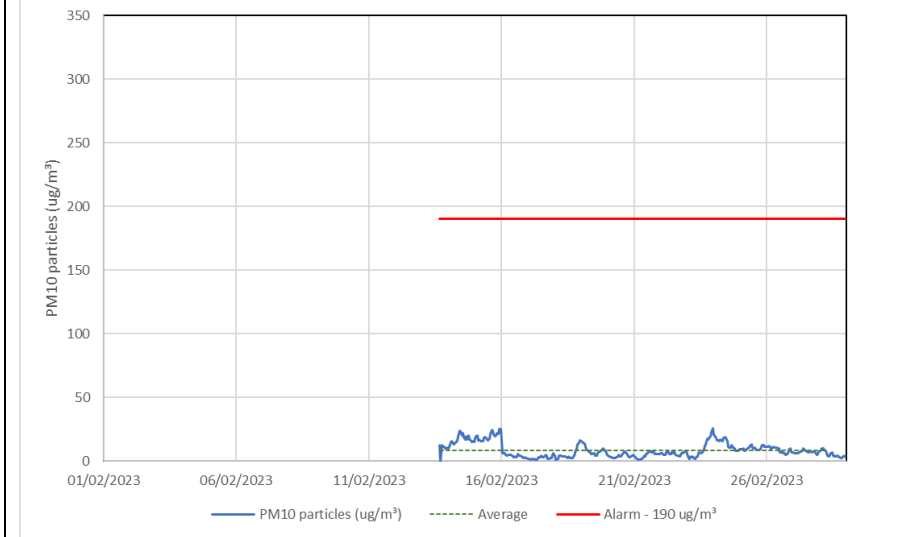
AQ044



AQ045



AQ054



Appendix C – Air Quality Monitoring Results

Table 3: NO₂ monitoring locations around highways, NO₂ concentrations and monthly monitoring results with running mean for 2023 (µg/m³)

Monitoring Site ID	Location description	Coordinates (X, Y)	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Mean ¹
HS2-000020BM5	Junction of St Chad's Street and Grays Inn Road	530436, 182929	45												45
HS2-000020BM7	Chalton Street	529894, 182702	50												50
HS2-000020BM8	Junction of Euston Square and Grafton Place	529737, 182641	48												48
HS2-000020BM9	Junction of Endsleigh Gardens and Upper Woburn Place	529785, 182529	43												43
HS2-000020BMA	Junction of Euston Road and Gower Street	529429, 182375	51												51
HS2-000020BMB	Whitfield Street	529273, 182114	38												38
HS2-000020BMC	Hampstead Road	529232, 182511	56												56
HS2-000020BMF	Junction of Polygon Road and Ossulston Street	529715, 183123	36												36
HS2-000020BMH	Nash Street	528861, 182717	37												37

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.

Monitoring Site ID	Location description	Coordinates (X, Y)	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Mean ¹
HS2-000020BMJ	Junction on Robert Street and Stanhope Street	529080, 182698	37												37
HS2-000020BMK	Junction of Plender Street and Bayham Street	529196, 183546	47												47
HS2-000020BML	Junction of Arlington Road and Mornington Crescent	529093, 183356	35												35
HS2-000020BMM	Junction of Bayham Street and Pratt Street	529084, 183722	57												57
HS2-000020BMN	Junction of Delancey Street and Albert Street	528850, 183573	41												41
HS2-000020BMQ	Junction of Parkway and Delancey Street	528662, 183604	42												42
HS2-000020BMR	Junction of Oval Road and Jamestown Road	528548, 183967	32												32
HS2-000020BMS	Junction of Chalk Farm Road and Castlehaven Road	528685, 184188	43												43
HS2-000020BMT	Junction of Camden Road and Camden Street	529079, 184043	48												48
HS2-000020BMU	Junction of Southampton Road and Fleet Road	527783, 185407	44												44
HS2-000020BMV	Primrose Hill Road	527538, 184250	35												35
HS2-000020BMW	Junction of Finchley Road and Hilgrove Road	526619, 184081	Tube Missing												Tube Missing

Monitoring Site ID	Location description	Coordinates (X, Y)	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Mean ¹
HS2-000020BMZ	Junction of Finchley Road and Hendon Way	525102, 186042	71												71
HS2-000020BNA	Junction of Regent's Park Road and Rothwell Street	527884, 183980	36												36
HS2-000020BNC	Junction of Outer Circle and Gloucester Gate	528528, 183443	27												27
HS2-000020BNH	Junction of Parkway and Albert Street	528763, 183720	32												32
HS2-000020BNN	Lincoln's Inn Fields	530744, 181308	36												36
HS2-000020BNQ	Camley Street	529735, 183737	25												25
HS2-000020BNY	Junction of Mill Lane and Hillfield Road	524839, 185136	35												35
HS2-000020BNZ	Mansfield Road	528050, 185508	40												40
HS2-000020BP0	Junction of Camden Road and Torriano Avenue	529708, 184871	46												46
HS2-000020BP2	Junction of Grays Inn Road and Holborn	531149, 181616	41												41
HS2-000020BPB	Camden High Street	528966, 183735	60												60
HS2-000020BPC	Castlehaven Road	528788, 184591	39												39
HS2-000020BPD	Prince of Wales Road	528571, 184683	31												31
HS2-000020BPE	Haverstock Hill	527710, 184749	36												36

Monitoring Site ID	Location description	Coordinates (X, Y)	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Mean ¹
HS2-000020BPF	Junction of Primrose Gardens and England's Lane	527549, 184640	42												42
HS2-000020BPU	Junction of Gower Street and Grafton Way	529476, 182267	51												51
HS2-000020BPW	Junction of Delancey Street and Arlington Road	528939, 183637	40												40
HS2-000020BPX	Netley Street	529177, 182625	32												32
HS2-000020BPY	Stanhope Street	529060, 182947	31												31
HS2-000020BPZ	Albany Street	528790, 182923	27												27
HS2-000020BQ0	Werrington Street	529493, 183113	34												34
HS2-000020BQ1	Polygon Road	529574, 183045	30												30
HS2-000020BQ2	Alexandra Place	526320, 183980	32												32
HS2-000020BQ3	Harrington Square	529228, 183172	42												42
HS2-000020BQ4	Junction of North Gower Street and Starcross Street	529290, 182572	43												43
HS2-000020BQ5	Adelaide Road	527713, 184392	35												35
HS2-000020BQ6	Mornington Terrace	528836, 183474	34												34
HS2-000020BQ7	Arlington Road	529009, 183479	33												33
HS2-000020BQ8	Clarkson Row	529024, 183213	39												39

Monitoring Site ID	Location description	Coordinates (X, Y)	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Mean ¹
HS2-000020BQ9	Park Village East	528923, 183121	30												30
HS2-000020BQA	Eversholt Street	529386, 183132	52												52
HS2-000020BQB	Junction of Harrington Street and Varndell Street	529147, 182816	30												30
HS2-000020BQC	Junction of Robert Street and Hampstead Road	529199, 182704	40												40
HS2-000020BQD	Drummond Crescent	529648, 182856	38												38
HS2-000020BQJ	Grafton Way	529380, 182225	56												56
HS2-000020BQL	Delancey Street	528768, 183581	46												46
HS2-000020BQR	Lamp post on Park Village East	528682, 183505	36												36
HS2-000020BQS	Opposite Maria fidelis school on Phoenix Road	529670, 182982	37												37
HS2-000020BQT	Drummond Street	529385, 182581	42												42
HS2-000020BQX	Lamp post on Brunswick Square	530344, 182236	44												44
HS2-000020BP4	Triplicate site on Finchley Road next to Swiss Cottage kerbside automatic monitoring station	526633, 184392	51												51

Monitoring Site ID	Location description	Coordinates (X, Y)	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Mean ¹
HS2-000020BP5	Triplicate site next to the Euston Road roadside automatic monitoring stations	529895, 182657	46												46
HS2-000020BP9	Triplicate site in Russell Square next to Bloomsbury urban background automatic monitoring station	530120, 182034	39												39