London Borough of Camden Air Quality Annual Status Report for 2020

Date of publication: July 2021

This report provides a detailed overview of air quality in the **London Borough of Camden** during 2020. It has been produced to meet the requirements of the London Local Air Quality Management (LLAQM) statutory process[1].

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[1] LLAQM Policy and Technical Guidance 2019 (LLAQM.TG(19))

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Abbreviations

Abbreviation	Description
AQAP	Air Quality Action Plan
AQMA	Air Quality Management Area
AQO	Air Quality Objective
BEB	Buildings Emission Benchmark
CAB	Cleaner Air Borough
CAAP	Camden's Clean Air Action Plan 2019-2022
CCCA	Camden Climate Change Alliance
EV	Electric Vehicle
GLA	Greater London Authority
LAEI	London Atmospheric Emissions Inventory
LAQM	Local Air Quality Management
LLAQM	London Local Air Quality Management
NRMM	Non-Road Mobile Machinery
PM_{10}	Particulate matter less than 10 micron in diameter
$PM_{2.5}$	Particulate matter less than 2.5 micron in diameter
TEB	Transport Emissions Benchmark
TfL	Transport for London
WHO	World Health Organization

Table A. Summary of National Air Quality Standards and Objectives

Pollutant	Standard / Objective (UK)	Averaging Period	Date[1]
Nitrogen dioxide (NO_2)	200 µg m^{-3} not to be exceeded more than 18 times a year	1-hour mean	31 Dec 2005
Nitrogen dioxide (NO_2)	40 µg m^{-3}	Annual mean	31 Dec 2005
Particles (PM_{10})	50 µg m^{-3} not to be exceeded more than 35 times a year	24-hour mean	31 Dec 2004
Particles (PM_{10})	40 µg m^{-3}	Annual mean	31 Dec 2004
Particles ($PM_{2.5}$)	25 µg m^{-3}	Annual mean	2020
Particles ($PM_{2.5}$)	Target of 15% reduction in concentration at urban background locations	3-year mean	Between 2010 and 2020
Sulphur dioxide (SO_2)	266 µg m^{-3} not to be exceeded more than 35 times a year	15-minute mean	31 Dec 2005
Sulphur dioxide (SO_2)	350 µg m^{-3} not to be exceeded more than 24 times a year	1-hour mean	31 Dec 2004
Sulphur dioxide (SO_2)	125 µg m^{-3} mot to be exceeded more than 3 times a year	24-hour mean	31 Dec 2004

Notes:

(1) Date by which to be achieved by and maintained thereafter

World Health Organization air quality standards

Camden Council adopted the World Health Organization air quality standards in 2018, becoming the first local authority to do so, and Camden's Clean Air Action Plan 2019-2022 is intended to deliver on LAQM statutory obligations in achieving the National Air Quality Standards and Objectives as well as the Council's own objective of achieving WHO compliance by 2030.

Table B. World Health Organization guideline air quality standards

Table B below shows Camden's WHO-aligned objectives for particulate matter, including interim targets for 2022 and 2026.

Pollutant	WHO standard	Averaging Period	Date[1]
Particles (PM_{10})	20 µg m^{-3} Interim target of 17.1 µg m^{-3} by 2022 Interim target of 14.8 µg m^{-3} by 2026	Annual mean	2030
Particles ($PM_{2.5}$)	10 µg m^{-3} Interim target of 13.7 µg m^{-3} in 2022 Interim target of 11.8 µg m^{-3} in 2026	Annual mean	2030

1. Air Quality Monitoring

1.1 Locations

Table C. Details of Automatic Monitoring Sites for 2020

Site ID	Site Name	X (m)	Y (m)	Site Type	In AQMA? If so, which AQMA?	Distance to Relevant Exposure (m)	Distance to Kerb of Nearest Road (N/A if not applicable) (m)	Inlet height (m)	Pollutants monitored	Monitoring technique
BL0	London Bloomsbury (Russell Square Gardens)	530123	182014	Urban Background	Y	40	27	4	NO_2, PM_{10}, $PM_{2.5}$, SO_2, O_3	TEOM-FDMS, API NOx
CD1	Swiss Cottage (Finchley Road)	526629	184391	Kerbside	Y	7	1.5	3	NO_2, PM_{10}, $PM_{2.5}$	TEOM-FDMS, AC31 NOx
CD9	Euston Road	529878	182648	Roadside	Y	1	0.5	2.5	NO_2, PM_{10}, $PM_{2.5}$	TEOM-FDMS, API NOx
KGX	Coopers Lane	529831	183250	Urban Background / Industrial*	Y	8	55	2.5	PM_{10}	TEOM-FDMS

Table D. Details of Non-Automatic Monitoring Sites for 2020

Site ID	Site Name	X (m)	Y (m)	Site Type	In AQMA? If so, which AQMA?	Distance to Relevant Exposure (m)	Distance to Kerb of Nearest Road (N/A if not applicable) (m)	Inlet height (m)	Pollutants monitored	Tube co-located with an automatic monitor. (Y/N)
CA4A (new)	Euston Road	530093	182792	Kerbside	Y	1	0.5	2.2	NO$_2$	N
CA27	Euston Road LAQN colocation	529907	182670	Roadside	Y	1	0.5	2	NO$_2$	Y
CA6	St. George's Gardens (prev. 'Wakefield Gardens')	530430	182430	Urban Background	Y	18	30	1.8	NO$_2$	N
CA28	St. George's Gardens East	530512	182511	Urban Background	Y	10	29	1.5	NO$_2$	N
CA7	Frognal Way	526213	185519	Urban Background	Y	6	30	3	NO$_2$	N
CA10	Tavistock Gardens	529880	182334	Urban Background	Y	35	25	2.5	NO$_2$	N
CA11	Tottenham Court Road*	529568	181728	Kerbside	Y	4	<1	3.5	NO$_2$	N
CA15	Swiss Cottage	526633	184392	Kerbside	Y	7	<1	2.5	NO$_2$	Y
CA16	Kentish Town Road	529013	185102	Roadside	Y	1	1	2.5	NO$_2$	N
CA17	47 Fitzjohn's Road	526547	185125	Roadside	Y	5	5	2	NO$_2$	N
CA20A	Brill Place	529904	183138	Roadside	Y	12	0.5	2.5	NO$_2$	N
CA21	Bloomsbury Street	529962	181620	Kerbside	Y	4	<1	2.2	NO$_2$	N
CA23	Camden Road	529173	184129	Kerbside	Y	5	<1	2.2	NO$_2$	N
CA24	Chetwynd Road	528722	185950	Roadside	Y	2	1	2.5	NO$_2$	N
CA25A	Emmanuel Primary School	525362	185255	Roadside	Y	3	2	2	NO$_2$	N
CA26	Witanhurst Lane	528213	187203	Roadside	Y	3	1.5	2.2	NO$_2$	N
CA29	Endsleigh Gardens	529689	182470	Roadside	Y	6	0.5	2	NO$_2$	N
CA30	Dartmouth Park Hill	529118	185913	Roadside	Y	10	0.5	2.5	NO$_2$	N
CA31	Acland Burghley School (Burghley Road)	529099	185881	Roadside	Y	1	7	2.2	NO$_2$	N
CA32	Oakford Road	529060	185848	Roadside	Y	8	1	2.5	NO$_2$	N
CTLEN1	Haverstock School (Haverstock Hill)	528081	184490	Roadside	Y	4	0.5	2.2	NO$_2$	N
CTLEN2	Harmood Street	528558	184331	Roadside	Y	7	1	2.2	NO$_2$	N
CTLEN3	Hartland Road	528619	184315	Roadside	Y	3	1	2.2	NO$_2$	N
CTLEN4	Hawley Primary School (Hawley Road)	528881	184287	Roadside	Y	1	6	2.2	NO$_2$	N
CTLEN5	Kentish Town Road	528935	184053	Roadside	Y	5	0.5	2.2	NO$_2$	N
CTLEN6	Hawley Crescent	528898	184094	Roadside	Y	4	0.5	2.2	NO$_2$	N
CTLEN7	Jamestown Road	528704	184011	Roadside	Y	5	0.5	2.2	NO$_2$	N

CTLEN8	Camden High Street (Bridge)	528722	184127	Roadside	Y	6	2	2.5	NO_2	N
CTLEN9	Camden High Street (Camden News)	528845	183970	Roadside	Y	5	2	2.2	NO_2	N
CTLEN10	Camden High Street (American Candy)	528884	183901	Roadside	Y	6	1	2.2	NO_2	N
CTLEN11	Britannia Junction	528915	183870	Kerbside	Y	15	0.5	2.5	NO_2	N
CTLEN12	Cavendish School (Arlington Road)	528770	183887	Roadside	Y	3	2	2.5	NO_2	N
CTLEN13	Holy Trinity & St. Silas School (Hartland Road)	528715	184456	Roadside	Y	3	1.5	2.5	NO_2	N

Additional diffusion tube NO_2 monitoring in Camden

In addition to the long-term diffusion tube monitoring sites listed in Table C, Camden undertakes shorter-term monitoring in support of specific projects or to aid understanding of air quality in particular locations not covered by the long-term monitoring. As of December 2020, diffusion tube monitoring was undertaken at 140 locations in addition to the 33 sites listed above.

Figure 1 below shows long-term and short-term diffusion tube NO_2 monitoring sites in Camden. Ward and Lower Layer Super Output Area (LSOA) boundaries have been overlaid to highlight the need to expand Camden's air quality monitoring to ensure an even and comprehensive coverage throughout the borough. This is an ongoing endeavour which relates to the Council's commitment to tackle the disproportionate and inequitable health impacts of air pollution.

Figure 1: Long-term and short-term diffusion tube monitoring sites in Camden

Long-term and short-term diffusion tube monitoring sites in Camden

Legend
- Diffusion Tube Locations
- Camden LSAO's
- Ward Boundaries
- Google Road Basemap

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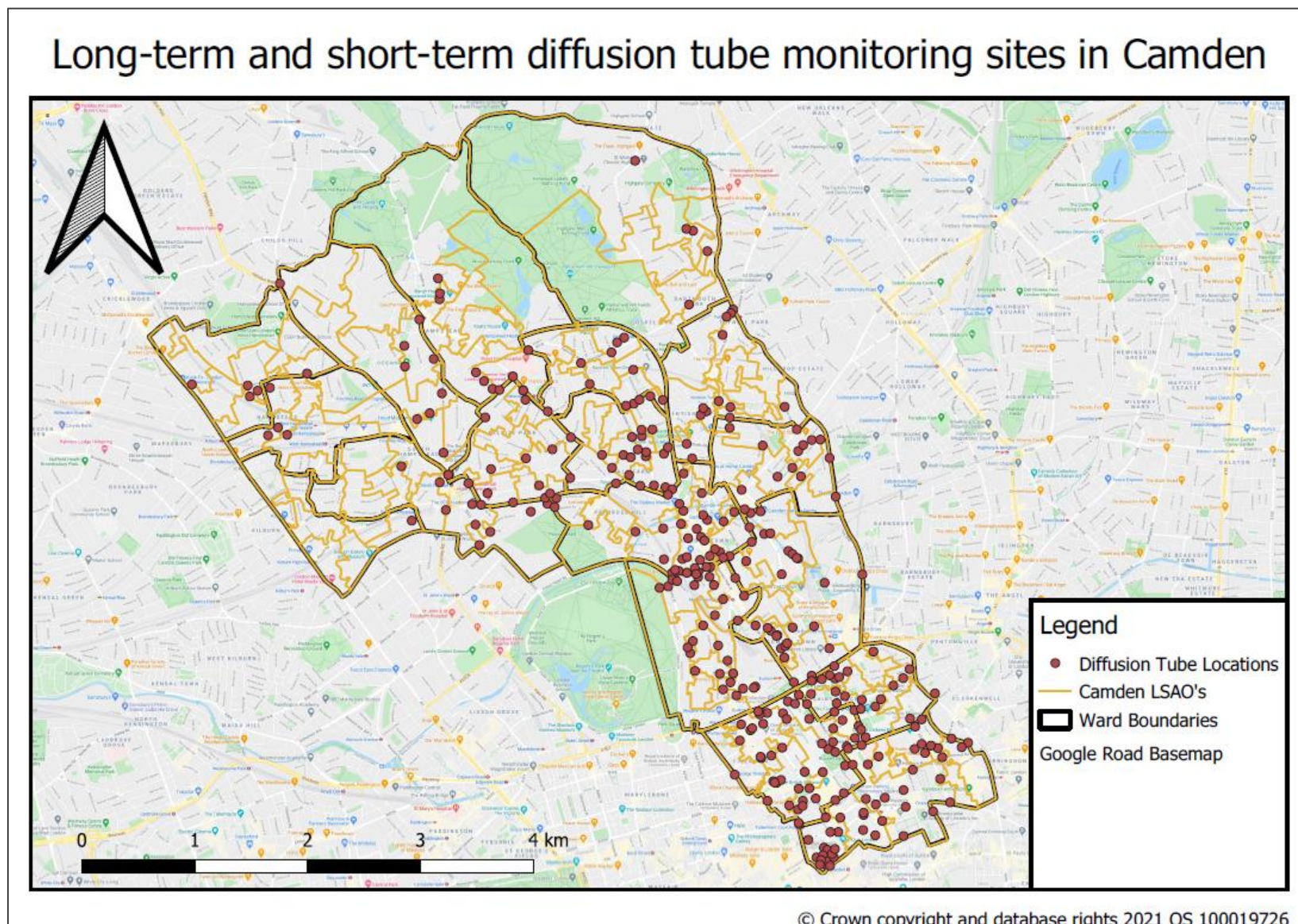
1.2 Comparison of Monitoring Results with AQOs

The results presented are after adjustments for "annualisation" and for distance to a location of relevant public exposure (if required), the details of which are described in Appendix A.

Table E.   Annual Mean NO$_2$ Ratified and Bias-adjusted Monitoring Results

Site ID	Site type	Valid data capture for monitoring period %[a]	Valid data capture 2020 %[b]	2014	2015	2016	2017	2018	2019	2020
BL0: London Bloomsbury (Russell Square Gardens)	Automatic	-	77.8%	45*	48	42	38	36	32	28
CD1: Swiss Cottage (Finchley Road)	Automatic	-	93.0%	66	61	66	53	54	43	33
CD9: Euston Road	Automatic	-	97.5%	98	90	88	83	82[c]	70	43
CA4 Euston Road (retired)	Diffusion tube	-	N/A	89.74	86.76	82.71	84.95[c]	69.19	-	
CA4A Euston Road (new)	Diffusion tube	-	50%	-	-	-	-	-	69.06	52.40
CA27 Euston Road LAQN colocation	Diffusion tube	-	67%	-	-	-	-	-	63.81	45.46
CA6 St. George's Gardens (retired)	Diffusion tube	-	N/A	36.44	35.80	31.31	34.83[c]	26.67	24.65	
CA28 St. George's Gardens East	Diffusion tube	-	58%	-	-	-	-	-	27.67	21.93
CA7 Frognal Way	Diffusion tube	-	67%	28.55	27.78	27.91	29.64[c]	22.12	22.82	18.24
CA10 Tavistock Gardens	Diffusion tube	-	67%	46.50	44.57	39.68	46.18[c]	35.35	33.13	26.15
CA11 Tottenham Court Road	Diffusion tube	-	67%	86.75	85.61	83.57	74.04[c]	65.75	61.22	42.24
CA15 Swiss Cottage	Diffusion tube	-	8%	74.34	69.28	73.86	-	62.30[c]	49.74	
CA16 Kentish Town Road	Diffusion tube	-	67%	57.83	63.55	58.72	68.84[c]	54.66	45.03	33.41
CA17 47 Fitzjohn's Avenue	Diffusion tube	-	67%	60.30	55.80	56.38	66.27[c]	48.13	42.53	33.65
CA20 Brill Place (retired)	Diffusion tube	-	N/A	52.34	48.94	47.53	52.65[c]	41.15	-	
CA20A Brill Place (new)	Diffusion tube	-	67%	-	-	-	-	-	43.13	42.85
CA21 Bloomsbury Street	Diffusion tube	-	50%	80.82	71.43	72.20	71.18[c]	59.43	48.48	28.82
CA23 Camden Road	Diffusion tube	-	67%	72.21	63.33	61.74	69.30[c]	55.57	52.49	43.21
CA24 Chetwynd Road	Diffusion tube	-	67%	44.76	46.52	41.96	50.55[c]	38.68	35.24	29.26
CA25 Emmanuel Primary School (retired)	Diffusion tube	-	N/A	48.36	47.70	52.18	50.68[c]	39.75	-	

Site ID	Site type	Valid data capture for monitoring period %[a]	Valid data capture 2020 %[b]	2014	2015	2016	2017	2018	2019	2020
CA25A Emmanuel Primary School (new)	Diffusion tube	-	67%	**-**	**-**	**-**	**-**	-	37.88	31.04
CA26 Witanhurst Lane	Diffusion tube	-	67%	**48.26**	**45.03**	**43.11**	**44.91**[c]	37.37	32.51	24.27
CA29 Endsleigh Gardens	Diffusion tube	-	67%	-	-	-	-	-	**48.34**	34.48
CA30 Dartmouth Park Hill	Diffusion tube	-	67%	-	-	-	-	**42.55**	37.04	27.86
CA31 Acland Burghley School (Burghley Road)	Diffusion tube	-	50%		-	-	-	27.11	27.42	19.96
CA32 Oakford Road	Diffusion tube	-	67%		-	-	-	30.51	29.23	22.59
CTLEN1 Haverstock School (Haverstock Hill)	Diffusion tube	-	67%		-	-	-	-	32.31	22.95
CTLEN2 Harmood Street	Diffusion tube	-	67%		-	-	-	-	31.02	24.30
CTLEN3 Hartland Road	Diffusion tube	-	67%		-	-	-	-	31.09	25.51
CTLEN4 Hawley Primary School (Hawley Road)	Diffusion tube	-	67%		-	-	-	-	**41.97**	33.30
CTLEN5 Kentish Town Road	Diffusion tube	-	67%		-	-	-	-	**44.00**	33.00
CTLEN6 Hawley Crescent	Diffusion tube	-	67%		-	-	-	-	38.02	31.49
CTLEN7 Jamestown Road	Diffusion tube	-	67%		-	-	-	-	37.84	29.16
CTLEN8 Camden High Street (Bridge)	Diffusion tube	-	67%		-	-	-	-	**40.53**	32.30
CTLEN9 Camden High Street (Camden News)	Diffusion tube	-	67%		-	-	-	-	37.93	29.78
CTLEN10 Camden High Street (American Candy)	Diffusion tube	-	67%		-	-	-	-	**46.58**	36.89
CTLEN11 Britannia Junction	Diffusion tube	-	42%		-	-	-	-	**52.69**	39.74
CTLEN12 Cavendish School (Arlington Road)	Diffusion tube	-	67%		-	-	-	-	33.21	26.26
CTLEN13 Holy Trinity & St. Silas School (Hartland Road)	Diffusion tube	-	67%		-	-	-	-	27.46	21.58

Notes:

The annual mean concentrations are presented as µg m^{-3}.

Exceedances of the NO$_2$ annual mean AQO of 40 µg m^{-3} are shown in **bold**.

NO$_2$ annual means in excess of 60 µg m^{-3}, indicating a potential exceedance of the NO$_2$ hourly mean AQS objective are shown in **<u>bold and underlined</u>**.

Means for diffusion tubes have been corrected for bias.

All means have been "annualised" in accordance with LLAQM Technical Guidance if valid data capture for the calendar year is less than 75% and greater than 33%.

Results have been distance corrected where applicable.

(a) Data capture for the monitoring period, in cases where monitoring was only carried out for part of the year.

(b) data capture for the full calendar year (e.g. if monitoring was carried out for six months the maximum data capture for the full calendar year would be 50%).

Commentary on diffusion tube NO$_2$ monitoring results for 2020

Camden's long-term and short-term diffusion tube monitoring during 2020 showed that NO$_2$ levels improved at almost all monitoring sites in the borough compared to the previous year, with an average reduction in bias-adjusted (and annualised, where necessary) annual mean concentrations of 25% compared to 2019.

For the first time, no diffusion tube monitoring sites recorded an annual mean above 60µg/m^3, which indicates that the short-term (one-hour) NO$_2$ objective is likely to have not been exceeded at any of the sites.

Figure 2 below shows the long-term NO$_2$ trend (as bias-adjusted annual mean averages) at Camden's diffusion tube monitoring sites with continuous data over this period. The continued reduction in NO$_2$ concentrations over the past seven years is clear, and several sites which were historically far in exceedance of the legal limit and WHO standard for NO$_2$ (such as Tottenham Court Road and Camden Road) are now only slightly above this level. This does not mean that there will be any reduction in effort to improve air quality throughout Camden: the Council's commitment is to realise the community's vision for a borough in which no person experiences ill health as a result of that air they breathe.

Figure 2: Diffusion tube annual mean NO₂ concentration

Diffusion Tube Annual Mean NO$_2$ Concentration, µg/m³

Legend:
- Frognal Way
- Tavistock Gardens
- Tottenham Court Road
- Kentish Town Road
- Camden Road
- Chetwynd Road
- WHO Objective and Legal Limit

Figure 3: Automatic monitoring annual mean NO$_2$ concentration
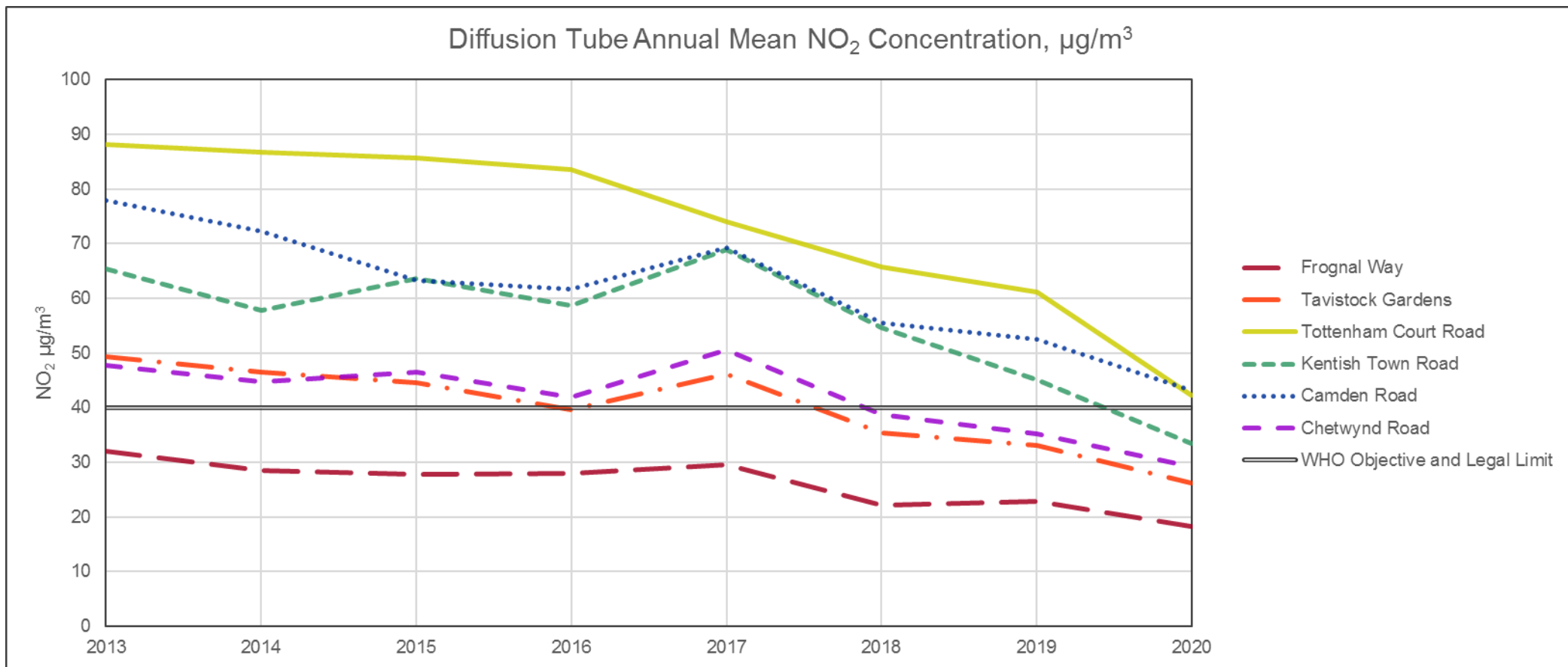
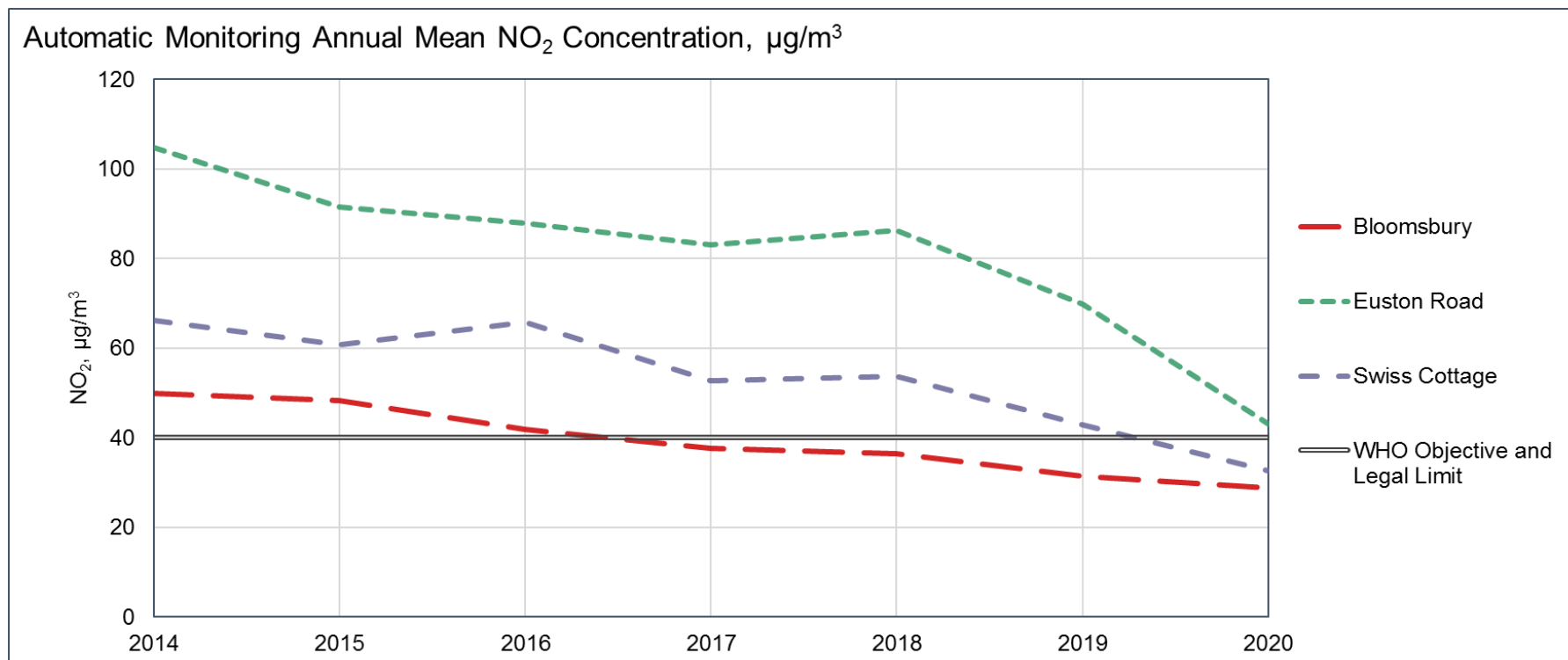Automatic Monitoring Annual Mean NO$_2$ Concentration, µg/m^3

Table F. NO$_2$ Automatic Monitoring Results: Comparison with 1-hour Mean Objective, Number of 1-Hour Means > 200 µg m^{-3}

Site ID	Valid data capture for monitoring period %(^{a})	Valid data capture 2020 %(^{b})	2014	2015	2016	2017	2018	2019	2020
BL0	-	77.8%	0	0	0	0	0	0	0
CD1	-	93.0%	14	11	**37**	1	2	1	0
CD9	-	97.5%	**221**	**54**	**39**	**25**	18	7	0

Notes

Results are presented as the number of 1-hour periods where concentrations greater than 200 µg m^{-3} have been recorded.

Exceedance of the NO$_2$ short term AQO of 200 µg m^{-3} over the permitted 18 hours per year are shown in **bold**.

If the period of valid data is less than 85%, the 99.8th percentile of 1-hour means is provided in brackets.

(a) Data capture for the monitoring period, in cases where monitoring was only carried out for part of the year

(b) Data capture for the full calendar year (e.g. if monitoring was carried out for six months the maximum data capture for the full calendar year would be 50%)

Commentary on NO$_2$ automatic monitoring results for 2020

2020 was the first year where all three automatic NO$_2$ monitoring sites recorded no exceedances of the short-term (one-hour) objective, which is indicative of the continued decline in NO$_2$ concentrations in Camden. A similar trend is observed in Camden's long-term diffusion tube monitoring.

Table G. Annual Mean PM$_{10}$ Automatic Monitoring Results (µg m^{-3})

Site ID	Valid data capture for monitoring period %([a])	Valid data capture 2020 %([b])	2014	2015	2016	2017	2018	2019	2020
BL0	-	90.5%	20	22	20	19	17	18	16
CD1	-	97.5%	22	20	21	20	21	19	16
CD9	-	89.8%	29	18	24	20	21	22	18
KGX	-	85.3%	-	-	-	-	15	15	13

Notes

The annual mean concentrations are presented as µg m^{-3}.

Exceedances of the PM$_{10}$ annual mean AQO of 40 µg m^{-3} are shown in **bold**.

All means have been "annualised" in accordance with LLAQM Technical Guidance, if valid data capture is less than 75% and more than 33%.

(a) Data capture for the monitoring period, in cases where monitoring was only carried out for part of the year.

(b) Data capture for the full calendar year (e.g. if monitoring was carried out for six months the maximum data capture for the full calendar year would be 50%).

Table H. PM_{10} Automatic Monitoring Results: Comparison with 24-Hour Mean Objective, Number of PM_{10} 24-Hour Means > 50 µg m^{-3}

Site ID	Valid data capture for monitoring period %[a]	Valid data capture 2020 %[b]	2014	2015	2016	2017	2018	2019	2020
BL0	-	90.5%	11	6	9	6	1	9	4
CD1	-	97.5%	12	8	7	8	4	8	3
CD9	-	89.8%	5	5	10	3	2	8	2
KGX	-	85.3%	-	-	-	-	1	5	1

Notes

Exceedances of the PM_{10} 24-hour mean objective (50 µg m^{-3} over the permitted 35 days per year) are shown in **bold.**

Where the period of valid data is less than 85% of a full year, the 90.4th percentile is provided in brackets.

(a) data capture for the monitoring period, in cases where monitoring was only carried out for part of the year

(b) data capture for the full calendar year (e.g. if monitoring was carried out for six months the maximum data capture for the full calendar year would be 50%).

Commentary on PM_{10} automatic monitoring results for 2020

Camden's automatic PM_{10} monitoring data for 2020 shows a decline in levels compared to the previous year, with an average 13% reduction in 2020 compared to 2019 annual mean PM_{10} across the four sites at which this pollutant is measured.

Exceedances of the short-term (24-hour) objective also declined at all four monitoring sites, with the most recorded exceedances at the Bloomsbury BL0 urban background site in Russell Square Gardens.

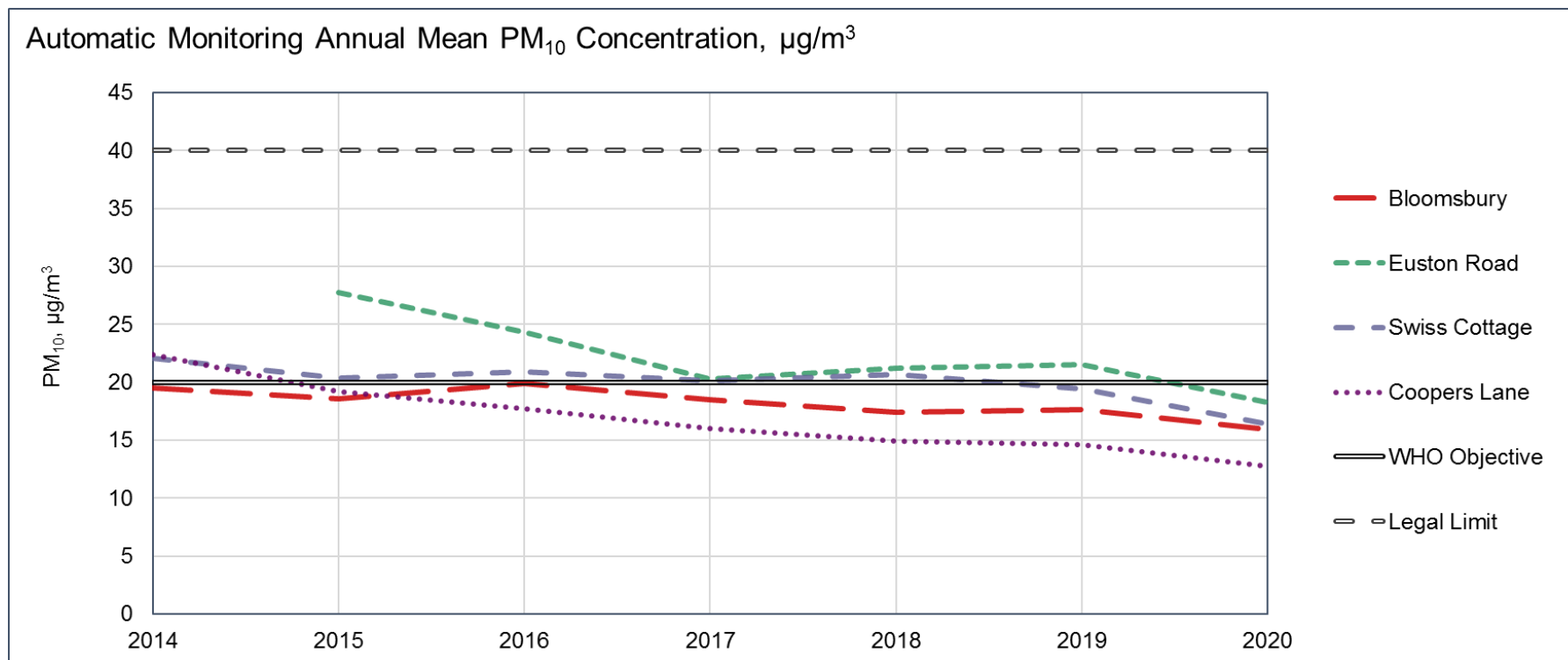**Figure 4: Automatic monitoring annual mean PM$_{10}$ concentration**

Automatic Monitoring Annual Mean PM$_{10}$ Concentration, µg/m^3

Table I.   Annual Mean PM$_{2.5}$ Automatic Monitoring Results (µg m^{-3})

Site ID	Valid data capture for monitoring period %[a]	Valid data capture 2020 %[b]	2014	2015	2016	2017	2018	2019	2020
BL0	-	87.8%	-	11	12	13	10	11	9
CD1	-	98.1%	-	12	15	16	11	11	10
CD9	-	86.0%	-	17	17	14	15	14	11

Notes

The annual mean concentrations are presented as µg m^{-3}.

Exceedances of the PM$_{2.5}$ annual mean AQO of 25 µg m^{-3} are shown in **bold**.

All means have been "annualised" in accordance with LLAQM Technical Guidance, if valid data capture is less than 75% and more than 33%.

(a) Data capture for the monitoring period, in cases where monitoring was only carried out for part of the year.

(b) Data capture for the full calendar year (e.g. if monitoring was carried out for six months the maximum data capture for the full calendar year would be 50%).

Commentary on PM$_{2.5}$ automatic monitoring results for 2020

Camden's automatic PM$_{2.5}$ monitoring data for 2020 shows a decline in levels compared to the previous year, with an average 16% reduction in 2020 compared to 2019 annual mean PM$_{2.5}$ across the three sites at which this pollutant is measured.

Two sites (Bloomsbury BL0 and Swiss Cottage CD1) were compliant with the World Health Organization annual mean guideline standard for PM$_{2.5}$ (10µg/m^3). However given the unusual nature of polluting activities during 2020 it is not unlikely that a rebound will be seen in 2021. In any case, the World Health Organization considers there to be no safe threshold of exposure to PM$_{2.5}$ and

therefore Camden Council will continue to improve air quality throughout the borough to better protect the health of all who live, work and study in Camden.

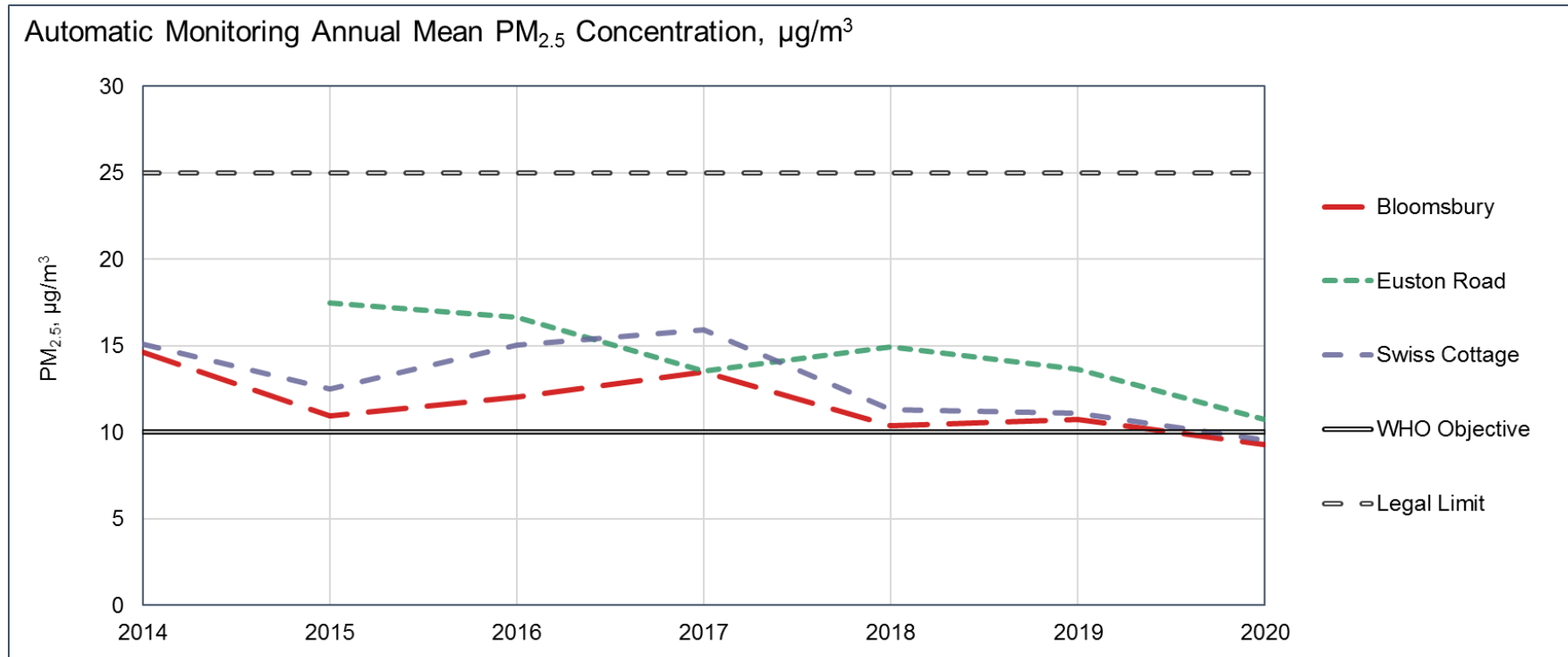**Figure 5: Automatic monitoring annual mean PM$_{2.5}$ concentration**

Automatic Monitoring Annual Mean PM$_{2.5}$ Concentration, μg/m^3

Table J.   2020 SO₂ Automatic Monitoring Results: Comparison with Objectives

Site ID	Valid data capture for monitoring period %[(a)]	Valid data capture 2020 %[(b)]	Number of 15-minute means > 266 µg m⁻³	Number of 1-hour mean > 350 µg m⁻³	Number 24-hour mean > 125 µg m⁻³
BL0	-	72.5%	0	0	0

Notes

Results are presented as the number of instances where monitored concentrations are greater than the objective concentration.

Exceedances of the SO₂ objectives are shown in **bold** (15-min mean = 35 allowed a year, 1-hour mean = 24 allowed a year, 24-hour mean = 3 allowed a year).

If the period of valid data is less than 85%, the relevant percentiles are provided in brackets.

(a) Data capture for the monitoring period, in cases where monitoring was only carried out for part of the year.

(b) Data capture for the full calendar year (e.g. if monitoring was carried out for six months the maximum data capture for the full calendar year would be 50%).

2.   Impact of COVID-19 upon LAQM

COVID-19 had a significant impact upon LAQM in Camden during 2020.

For a significant portion of the year, officers were unable to change NO_2 diffusion tubes due to COVID-19 lockdown measures and restrictions on accessing the Council's buildings. Additionally, Camden's Environmental Data Officer was redeployed for a prolonged period during the first lockdown to support the London-wide pandemic response at the PMART centre. The Council does not have diffusion tube data for March, April, May or December 2020. Automatic monitoring continued as normal.

Due to reduced team capacity during the first lockdown, air quality engagement activities were scaled back and core LAQM duties were prioritised. The capacity of schools and businesses to interact and engage on air quality projects was also severely affected by COVID-19 so throughout much of 2020 Camden's air quality team focused on behind the scenes work to ensure ongoing adaptability for changing circumstances and an eventual return to more active stakeholder engagement.

COVID-19 has had serious financial implications for local authorities and there has been a heightened pressure to avoid spend other than for core duties. Combined with ever-growing public awareness of air pollution as a health risk (not least in the context of a global pandemic with co-morbidities between the COVID-19 virus and exposure to fine particulate matter), this highlights the vital importance of grant funding for local authorities to be able to satisfy statutory LAQM duties and meet the justifiable expectations of the public.

Impacts of COVID-19 upon air quality in Camden

COVID-19 and associated national lockdowns did create a proxy 'low-traffic' scenario which enabled for a brief time an insight into how air quality might be different in a city with much lower traffic volumes. The general public perception during the first lockdown, when traffic volumes declined by more than 50%, was that London's air was much cleaner than during normal times. However, automatic particulate monitoring showed that PM_{10} and $PM_{2.5}$ levels were actually higher during the lockdown (24 March to 10 May) than during the period from 1 January to 12 March before restrictions were introduced (period mean PM_{10} was 46% higher averaged

across the four automatic PM_{10} monitoring sites, and period mean $PM_{2.5}$ was 53% higher averaged across the three automatic $PM_{2.5}$ sites). This contrast between PM and NO_2 levels (which were 31% lower averaged across the three automatic NO_2 monitoring sites), and the difference between perceived and actual air quality, underlines the importance of raising public awareness of air quality and its health effects. Of particular importance will be to convey the complexity of air quality and the multitude of different pollution sources, including those found indoors, in the intention that people will be more aware of the need for collective and individual action to reduce our contribution and exposure to air pollution.

Figure 6 below shows monthly mean NO_2, PM_{10} and $PM_{2.5}$ concentrations as measured by Camden's automatic monitoring sites, to illustrate the difference in the impact of COVID-19 lockdown measures on the different pollutants. It is clear that the reduced traffic volumes had a significant impact on NO_2 levels at the Euston Road roadside monitoring site but a much less significant impact at the Bloomsbury urban background monitoring site. This helps to identify the component of ambient (outdoor) NO_2 levels in Camden which are not derived from road transport sources.

The graph also shows how $PM_{2.5}$ levels as measured at Euston Road and Bloomsbury were much less affected by COVID-19 restrictions, and demonstrates the lack of variability in $PM_{2.5}$ levels as measured at different monitoring sites despite their very different surroundings. This is indicative of the range of particulate emission sources which affect air quality, including the dominant portion of urban $PM_{2.5}$ which is derived from out-of-city sources.

Figure 6: Automatic monitoring monthly mean pollutant concentrations
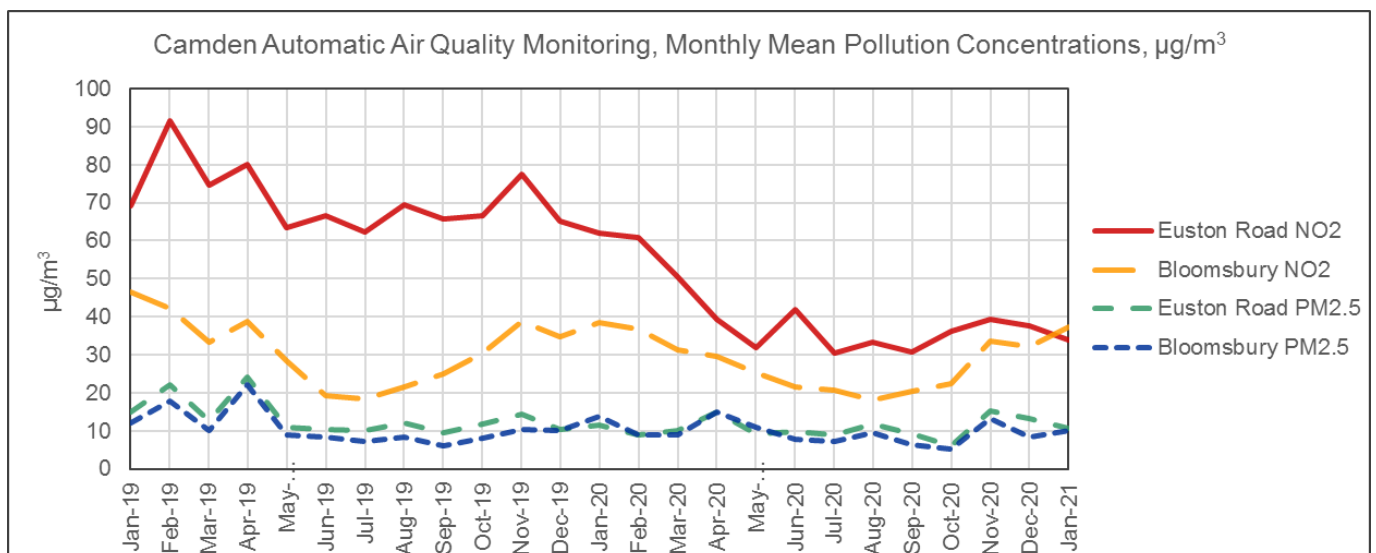
3. Action to Improve Air Quality

3.1 Air Quality Action Plan Progress

Table J provides a brief summary of Camden's progress against the Council's [Clean Air Action Plan 2019-2022](#) (CAAP), showing progress made this year (2020). New projects which commenced in 2020 are shown at the bottom of the table. Note that 'Completed / ongoing' in the 'Progress' column typically implies that a particular process-related action has been implemented, and that the action is now focused on continued delivery and, where appropriated, refinement of the action such that it delivers even greater impact in improving air quality.

Table K. Delivery of Air Quality Action Plan Measures

Measure (Number corresponds with CAAP Action ID)	LLAQM Action Matrix Theme Action	Action LLAQM Action Matrix Theme	Progress • Emissions/Concentration data • Benefits • Negative impacts / Complaints
1. Secure additional funding from developers through S106 agreements to manage and enforce construction impacts	Secure additional funding for air quality projects through S106 to assist with improving air quality in Camden for the protection of current and future residents' (and workers') health	Camden's Clean Air Action Plan 2019-2022 (CAAP) theme: **Reducing construction emissions** LLAQM theme: **Emissions from developments and buildings**	**Ongoing**: Review of CMP fees and resourcing began in November 2019, with a possible realignment of sourcing and use of S106 funds to better resource work to improve air quality. Two officers from Camden's Sustainability, Air Quality & Energy Team review CMPs and monitor compliance.
2. Ensure all major development sites have a demolition management plan (DMP) and/or a construction management plan (CMP) approved by the air quality officer	Senior Air Quality Officer to review CMPs received for forthcoming development sites to ensure appropriate dust mitigation and monitoring has been proposed	Camden's Clean Air Action Plan 2019-2022 (CAAP) theme: **Reducing construction emissions** LLAQM theme: **Emissions from developments and buildings**	**Ongoing**: The Senior Air Quality Officer and the Environmental Data Officer review CMPs received by Camden's Planning Obligations team. A weekly Construction Management Forum meets to discuss new CMPs and compliance and enforcement issues at active sites. This group comprises the Senior Air Quality Officer, Planning Obligations and Planning Enforcement Officers, and representatives from Transport and Highways.
3. Ensure all medium and high-risk sites have real-time particulate	Contractors/developers to use and refer to on-site dust monitoring to ensure that	Camden's Clean Air Action Plan 2019-2022 (CAAP) theme: **Reducing construction emissions**	**Ongoing**: Not standardised yet, however a revised [CMP pro forma](#) has been produced and submitted for use from 2021 onwards, and this will include a requirement for

Measure (Number corresponds with CAAP Action ID)	LLAQM Action Matrix Theme Action	Action LLAQM Action Matrix Theme	Progress • Emissions/Concentration data • Benefits • Negative impacts / Complaints
monitoring on site and that the information from this monitoring is easily accessible to the public	mitigation is effective. Data to be shared publicly to ensure transparency and public oversight over site AQ management	LLAQM theme: **Emissions from developments and buildings**	contractors/developers to ensure that dust monitoring data from applicable sites is available to the public. COVID-19 has impacted the previously planned recruitment of a CMP enforcement officer.
4. Ensure that policies and assurances agreed with HS2 in relation to air quality and green space are complied with during the course of the project	Ensure that monitoring and reporting regimes agreed with HS2 are correctly adhered to, as well as those associated with green space and that any air quality problems caused by HS2 are minimised and mitigated as far as possible	Camden's Clean Air Action Plan 2019-2022 (CAAP) theme: **Reducing construction emissions** LLAQM theme: **Emissions from developments and buildings**	**Ongoing**: HS2 reports on NRMM and vehicle compliance, provides access to real-time construction dust monitoring data, and produces monthly air quality reports for Camden. Any poor performance is raised in monthly Camden-HS2 environmental catch-up meetings and more serious transgressions are addressed at multi-authority HS2 Environmental Health Subgroup meetings, which occur every two months. NRMM compliance (Stage IV in the CAZ and Stage IIIB in Greater London) and HGV compliance (Euro VI) rates have been consistently high at around 99% or better.
5. Produce a construction code of practice for small developments to be used as an informative	Work with Senior Sustainability Officers (Planning) and Planning Officers to produce a CoCP for small developments to ensure better communication and ultimately management of air quality issues outside of CMP and S106 controls	Camden's Clean Air Action Plan 2019-2022 (CAAP) theme: **Reducing construction emissions** LLAQM theme: **Emissions from developments and buildings**	**Ongoing**: Draft CoCP produced in 2019 and pending publication with accompanying guidance from other teams at Camden (Transport Strategy, Environmental Health, etc.). Progress during 2020 adversely impacted by COVID-19 with additional time pressures on officers maintaining core and BAU activities with reduced capacity for policy and guideline developments
6. Create clean air zones (areas of exclusion for construction vehicles) around schools/ hospitals	Create clear air zones around schools and hospitals to help protect those most susceptible to health issues resulting from poor air quality	Camden's Clean Air Action Plan 2019-2022 (CAAP) theme: **Reducing construction emissions** LLAQM theme: **Emissions from developments and buildings**	**Ongoing**, although the CMP pro forma used in 2020 does include a requirement that '*Routes should be carefully considered and risk assessed, taking into account the need to avoid where possible any major cycle routes and trip generators such as schools, offices, stations, public buildings, museums etc.*'

Measure (Number corresponds with CAAP Action ID)	LLAQM Action Matrix Theme Action	Action LLAQM Action Matrix Theme	Progress • Emissions/Concentration data • Benefits • Negative impacts / Complaints
7. Improve communications with local communities about the pollution impact of large construction projects, how impacts will be minimised, and how residents can report concerns	Utilise council platforms to engage with local communities about pollution impacts of construction	Camden's Clean Air Action Plan 2019-2022 (CAAP) theme: **Reducing construction emissions** LLAQM theme: **Emissions from developments and buildings**	**Ongoing**: Some development sites have been required to make construction dust monitoring data publicly available either online or on site hoardings, though it is an ongoing process to ensure this practice is widespread. Air quality officers worked with Camden's Digital and Customer Experience Team to design and produce an online e-form to enable members of the public to report concerns about air pollution, including those relating to construction and development issues. The e-form is expected to go live during 2021.
8. Support the development of community-led Neighbourhood Construction Site Watch groups to assist in monitoring construction sites in line with air quality CMP requirements.	Connect with local the community to help facilitate a community-led watch group around construction sites	Camden's Clean Air Action Plan 2019-2022 (CAAP) theme: **Reducing construction emissions** LLAQM theme: **Emissions from developments and buildings**	**Ongoing**: Preferred option for most efficiently enabling community groups to report issues in construction site air quality management is to produce an online e-form. Work with Camden's Digital and Customer Experience Team to design and produce the e-form to enable members of the public to report concerns about air pollution, including those relating to construction and development issues. The e-form is expected to go live during 2021. Increased focus on community liaison prior to and during construction and development, with Camden's Planning Enforcement Officers and on occasion the Senior Air Quality Officer attending public meetings. Community liaison mandated through the S106 CMP process.
9. Develop and implement a power generator hierarchy for construction sites with the aim of reducing the number of diesel generators	Reduce pollution from diesel generator use on construction sites, focusing on higher engine standards, and alternative fuels and technologies	Camden's Clean Air Action Plan 2019-2022 (CAAP) theme: **Reducing construction emissions** LLAQM theme: **Emissions from developments and buildings**	**Ongoing**: Further development of this has been impacted by COVID-19. To be progressed during 2021, involving a research project to produce an estimate of air pollutant emissions from different types of generators and to inform policy across a range of areas to reduce this pollution throughout implementation of a generator hierarchy and incentivising less polluting alternatives.

Measure (Number corresponds with CAAP Action ID)	LLAQM Action Matrix Theme Action	Action LLAQM Action Matrix Theme	Progress • Emissions/Concentration data • Benefits • Negative impacts / Complaints
10. Require cumulative impact assessments for developments in order to identify the impact on local air quality and identify methods to reduce impact on local communities	CIA to highlight the need for extra dust mitigation, inter-site coordination, and community liaison in cumulative impact areas	Camden's Clean Air Action Plan 2019-2022 (CAAP) theme: **Reducing construction emissions** LLAQM theme: **Emissions from developments and buildings**	**Completed / ongoing**: CIA background work completed in 2019 and requirement due to be applied to relevant sites thereafter
11. Control construction lorry delivery times through S106 agreements and/or planning condition to reduce impact on local communities and air quality.	Work with Transport Planners to put in place actions to control construction lorry delivery times through S106 agreements	Camden's Clean Air Action Plan 2019-2022 (CAAP) theme: **Reducing construction emissions** LLAQM theme: **Emissions from developments and buildings**	**Completed / ongoing**: Transport Planners are involved in the CMP and S106 process and therefore HGV movements servicing development sites are managed as far as possible
12. Reduce the impact of Council-led infrastructure projects by requiring air quality controls for all Community Investment Programme development	Work with CIP Project Managers and ensure that Camden's CIP team understands air quality issues, and consequently passes on all necessary requirements to contractors	Camden's Clean Air Action Plan 2019-2022 (CAAP) theme: **Reducing construction emissions** LLAQM theme: **Emissions from developments and buildings**	**Ongoing**: Training to be delivered during 2021
13. Enforcement of Non Road Mobile Machinery (NRMM) air quality policies	Ensure that NRMM air quality policies are adhered to	Camden's Clean Air Action Plan 2019-2022 (CAAP) theme: **Reducing construction emissions** LLAQM theme: **Emissions from developments and buildings**	**Ongoing**: Camden is a participant in the LB Merton-led NRMM compliance ('Cleaner Construction for London') project, and specialist auditors undertake visits to major sites in Camden. NRMM requirements typically applied for major developments, and included as standard in CMPs.
14. Monitor air quality for Council transport infrastructure projects to inform the scheme design, evaluate project	Air quality monitoring to be undertaken for Camden transport and public realm projects to develop rationale for intervention and to determine the air quality	Camden's Clean Air Action Plan 2019-2022 (CAAP) theme: **Reducing construction emissions**	**Ongoing**: Diffusion tube air quality monitoring undertaken for 19 distinct transport and public realm projects in Camden in 2020, in accordance with LLAQM best practice

Measure (Number corresponds with CAAP Action ID)	LLAQM Action Matrix Theme Action	Action LLAQM Action Matrix Theme	Progress • Emissions/Concentration data • Benefits • Negative impacts / Complaints
impact, and enhance future schemes	impact of different types of schemes in different settings	LLAQM theme: **Emissions from developments and buildings**	
15. To support construction industry-led initiatives that demonstrate best practice and drive improvement across the sector	Highlight and promote current and new best practice to drive continual improvement in air quality management in the construction industry	Camden's Clean Air Action Plan 2019-2022 (CAAP) theme: **Reducing construction emissions** LLAQM theme: **Emissions from developments and buildings**	**Ongoing**: Camden's Clean Air Partnership provides a forum for maintaining momentum for the delivery of Camden's Clean Air Action Plan 2019-2022 whilst facilitating ongoing accountability and offering an opportunity for sharing and promoting best practice in construction and development among the partners.
16. Ensure all major domestic and non-domestic developments achieve zero-carbon status through exemplar energy efficiency standards and renewable energy installations	Work with Senior Sustainability Officers (Planning) to ensure all major developments accomplish zero carbon status	Camden's Clean Air Action Plan 2019-2022 (CAAP) theme: **Reducing building emissions** LLAQM theme: **Emissions from developments and buildings**	**Ongoing**: Camden's Senior Sustainability Officers (Planning) are statutory consultees for planning applications and apply Camden's policies to reduce carbon emissions from new-build developments and refurbishments. Officers continually review national and regional legislation and planning policy to ensure carbon and air pollution controls are applied as stringently as possible in Camden.
17. Ensure major regeneration planning policy framework documents are developed to specify low emission zones with zero on-site combustion	This has been incorporated into major regeneration specification	Camden's Clean Air Action Plan 2019-2022 (CAAP) theme: **Reducing building emissions** LLAQM theme: **Emissions from developments and buildings**	**Ongoing**: Camden's Senior Air Quality Officer, Senior Sustainability Officers (Planning) and Climate Programme Manager work closely with Camden's Planning department to ensure the highest possible standards for air pollution and carbon abatement are achieved through major regeneration frameworks.
18. Promoting and delivering energy-efficiency retrofitting projects in workplaces and homes using the GLA RE:NEW and RE:FIT programmes and the Camden Climate Fund	Camden Climate Fund and other energy-efficiency funding streams to be promoted through the MAQF Camden Town LEN project and other air quality and carbon reduction programmes	Camden's Clean Air Action Plan 2019-2022 (CAAP) theme: **Reducing building emissions** LLAQM theme: **Emissions from developments and buildings**	**Ongoing**: A business-focused workshop was held in January 2020 to promote the Camden Climate Fund to businesses in the Camden Town LEN area. Subsequent promotion of the CCF (both under the air quality programme and the climate programme) has been undertaken remotely during COVID-19.

Measure (Number corresponds with CAAP Action ID)	LLAQM Action Matrix Theme Action	Action LLAQM Action Matrix Theme	Progress • Emissions/Concentration data • Benefits • Negative impacts / Complaints
19. Enforce CHP and biomass air quality planning policies for new developments	This is currently taking place. We are working on how to best proceed with monitoring and reporting	Camden's Clean Air Action Plan 2019-2022 (CAAP) theme: **Reducing building emissions** LLAQM theme: **Emissions from developments and buildings**	**Ongoing**: CHP and biomass planning policies for new developments are already enforced, though there is room for improvement in data collection and reporting on the impact that this has on improving local air quality.
20. Enforcing Air Quality Neutral and Air Quality Positive planning policies for new developments	Ensure effective joined-up working between Sustainability and Planning to enforce air quality neutral and positive planning policy in Camden	Camden's Clean Air Action Plan 2019-2022 (CAAP) theme: **Reducing building emissions** LLAQM theme: **Emissions from developments and buildings**	**Ongoing**: AQ neutral and AQ positive planning policies implemented through planning process, but there is room for improvement in data collection and reporting. Senior Sustainability Officers (Planning) developed pro formas for planning applications to clarify the policy and requirements for air quality and carbon emissions reduction
21. Ensuring adequate, appropriate, and well located green space and infrastructure is included in new developments	New development to require inclusion of well-designed green space which has a positive impact on amenity and perception of environment without causing any evident detriment to air quality (e.g. avoiding impaired dispersion of pollutants)	Camden's Clean Air Action Plan 2019-2022 (CAAP) theme: **Reducing building emissions** LLAQM theme: **Emissions from developments and buildings**	**Ongoing**: Camden's Green Space team is a consultee on all major planning applications. New development within the borough must meet the correct standards for open space provision and nature conservation. The planning process ensures that new development contributes positively to the surrounding environment, as well providing additional green infrastructure and new habitat to increase biodiversity. This approach is supported by local and regional planning policy.
22. Maintain and increase the amount of green infrastructure in Camden including the number of trees	Work with the green spaces team to increase the number of green infrastructure in Camden	Camden's Clean Air Action Plan 2019-2022 (CAAP) theme: **Reducing building emissions** LLAQM theme: **Emissions from developments and buildings**	**Ongoing**: Camden's Tree Policy for Council Owned Trees (December 2015) is to 'replace and where possible, increase the Council's tree stock'. This includes careful consideration of tree maturity, species diversification and selection in accordance with Camden's Biodiversity Action Plan. The Green Space team aims to plant at least 400 trees per year and continuously works to secure additional external funding for tree planting.
23. Ensure that smoke control area regulations are communicated and enforced with the support of residents' associations	Produce clear and consist information for communities and local groups to ensure that smoke control regulations are well-	Camden's Clean Air Action Plan 2019-2022 (CAAP) theme: **Reducing building emissions**	**Ongoing**: Resident associations contacted at onset of winter heating season to communicate smoke control area regulations and additional request for all Camden residents to avoid burning wood or coal at home unless these fuels represent residents' only source of heating. Communications

Measure (Number corresponds with CAAP Action ID)	LLAQM Action Matrix Theme Action	Action LLAQM Action Matrix Theme	Progress • Emissions/Concentration data • Benefits • Negative impacts / Complaints
	highlighted throughout the borough	LLAQM theme: **Emissions from developments and buildings / Public health and awareness raising**	during 2020 included an updated flyer and an updated webpage. Tweets from Camden's corporate Twitter account also conveyed the importance of avoiding burning solid fuels. Camden's Improving Indoor Air Quality: Advice for Homes guidance document was published in April 2020 to help inform residents of the importance of indoor air quality for health and the measures that can be taken to reduce pollution exposure in indoor environments.
24. Continue to control emissions from permitted process via inspections and enforcement	Regulation of Part B processes to ensure effective enforcement	Camden's Clean Air Action Plan 2019-2022 (CAAP) theme: **Reducing building emissions** LLAQM theme: **Emissions from developments and buildings**	**Ongoing**: Permitting and enforcement is ongoing and managed by Camden's Environmental Health team
25. Increase the amount of electric vehicle charging infrastructure in Camden	Work with Camden Transport Strategy to increase the number of electrical vehicle charging points throughout the borough, in accordance with the new EVCP Action Plan	Camden's Clean Air Action Plan 2019-2022 (CAAP) theme: **Reducing transport emissions** LLAQM theme: **Cleaner transport**	**Ongoing**: Continued expansion of EVCP infrastructure in Camden during 2020 including installation of 159 lighting column charging points, 15 fast charging points and four rapid charging points.
26. Undertake feasibility, consultation and implementation of on-street rapid charge points at taxi ranks, in partnership with TfL	Work with transport and TfL to undertake feasibility and implement electrical vehicle charging points throughout the borough	Camden's Clean Air Action Plan 2019-2022 (CAAP) theme: **Reducing transport emissions** LLAQM theme: **Cleaner transport**	**Ongoing**: Four rapid charging points installed during 2020 through consultation process.
27. To use all relevant forms of parking restrictions and charges to help reduce total overall traffic levels and help improve air quality	Work with the Parking Operations and Transport Strategy services to ensure all relevant forms of parking restrictions and charges are enforce to help lower traffic within Camden	Camden's Clean Air Action Plan 2019-2022 (CAAP) theme: **Reducing transport emissions** LLAQM theme: **Cleaner transport**	**Ongoing**: Parking Permit and Charges Review 2020 increased the diesel surcharge for residential permitted, paid-for and other parking in Camden, without exemption for Euro 6 diesels on the basis that there is still significant non-conformity in Euro 6 diesels up to Euro 6 RDE.

Measure (Number corresponds with CAAP Action ID)	LLAQM Action Matrix Theme Action	Action LLAQM Action Matrix Theme	Progress • Emissions/Concentration data • Benefits • Negative impacts / Complaints
28. Undertake a feasibility study into a workplace parking levy (WPL) in Camden and implement if feasible	Feasibility and eventual introduction of a WPL to reduce commuting and workplace-related parking	Camden's Clean Air Action Plan 2019-2022 (CAAP) theme: **Reducing transport emissions** LLAQM theme: **Cleaner transport**	**Ongoing**: Not progressed during 2020 due to COVID-19 impacts upon resourcing within Camden's Transport Strategy Service.
29. Keep cycle routes open (if safety is not an issue) when road closures are planned	Work with Transport Strategy to undertake feasibility studies for when roads close to ensure cyclist can safely continue to use cycle routes	Camden's Clean Air Action Plan 2019-2022 (CAAP) theme: **Reducing transport emissions** LLAQM theme: **Cleaner transport**	**Ongoing**: This is generally done in most circumstances.
30. Trial replacement of parking spaces near junctions with cycle storage or other green measures that don't impair pedestrian or driver visibility, to improve junction visibility and safety	Work with Transport Strategy to pilot replacing parking spaces with cycling storage and green infrastructure, ensuring that health and safety is met	Camden's Clean Air Action Plan 2019-2022 (CAAP) theme: **Reducing transport emissions** LLAQM theme: **Cleaner transport**	**Ongoing**: Traffic Management Orders (TMO) for this concept have been progressed in 2020. Replacement and removal of parking spaces will begin in 2021.
31. Continue to provide additional bicycle parking in the borough including Business Improvement Districts	Continue to work with local BIDS to install additional bicycle parking	Camden's Clean Air Action Plan 2019-2022 (CAAP) theme: **Reducing transport emissions** LLAQM theme: **Cleaner transport**	**Ongoing**: Cycle storage is considered as part of public realm improvements. During the first COVID-19 lockdown Camden helped to facilitate cycling as a sustainable alternative to public transport by installing additional cycle storage in key areas.
32. To offer travel plans to businesses and Camden Climate Change Alliance members	Create a travel plan template that can be modified to suit businesses that need a tailored travel plan for their business	Camden's Clean Air Action Plan 2019-2022 (CAAP) theme: **Reducing transport emissions** LLAQM theme: **Cleaner transport**	**Ongoing**: Air quality officers and transport planners have collaboratively developed a Travel Plan Guide for Businesses in Camden, which will be published in early 2021.
33. Continue to discourage unnecessary idling through anti-idling	Utilise the MAQF London Idling Action Project to address idling within Camden, whilst introducing local enforcement	Camden's Clean Air Action Plan 2019-2022 (CAAP) theme: **Reducing transport emissions**	**Ongoing**: Camden co-leads the Idling Action London with City of London Corporation. Two Camden-based officers deliver this pan-London programme to raise awareness of vehicle engine idling as an avoidable source of air pollution and the

Measure (Number corresponds with CAAP Action ID)	LLAQM Action Matrix Theme Action	Action LLAQM Action Matrix Theme	Progress • Emissions/Concentration data • Benefits • Negative impacts / Complaints
campaigns and enforcement activity		LLAQM theme: **Cleaner transport**	health risk this poses. A business-focused component of the Idling Action project launched on 3 August 2020 with coordinated local authority press and media coverage. Camden continues to enforce against vehicle engine idling through a borough-wide Traffic Management Order introduced in Camden in October 2019 and implemented in January 2020. During FY 20/21 over 2,000 drivers were instructed to switch off their engines by Camden's Civil Enforcement Officers, and more than 50 penalty charge notices (PCNs) were issued for non-compliance. An e-form was created to enable members of the public to report incidences of vehicle engine idling for optimisation of Camden's enforcement patrols.
34. Work with the LTDA to establish a jointly executed anti-idling campaign targeted at taxi drivers	Work collaboratively to ensure that key air quality messages are disseminated to drivers to raise awareness of the health impacts of exposure to air pollution, and the importance of avoiding engine idling	Camden's Clean Air Action Plan 2019-2022 (CAAP) theme: **Reducing transport emissions** LLAQM theme: **Cleaner transport**	**Ongoing**: LTDA represented on Camden's Clean Air Partnership (meetings in February and October 2020). No engagement with drivers during 2020 due to COVID-19.
35. To improve walking and cycling infrastructure through projects such as the proposed Prince of Wales Road and Camden Road cycle routes	Facilitate sustainable and active travel throughout the borough	Camden's Clean Air Action Plan 2019-2022 (CAAP) theme: **Reducing transport emissions** LLAQM theme: **Cleaner transport**	**Ongoing**: In 2020 Camden has successfully implemented a number of active travel transport schemes in the borough, including a low Traffic Neighbourhood on Arlington Road, four restrictions on traffic around Holy Trinity & St. Silas Primary School, healthy school streets and more cycling routes throughout the borough. As part of Camden's Making Safer Travel programme since the March 2020 lockdown, Camden Council has:

Measure (Number corresponds with CAAP Action ID)	LLAQM Action Matrix Theme Action	Action LLAQM Action Matrix Theme	Progress • Emissions/Concentration data • Benefits • Negative impacts / Complaints
			• Implemented 10 full road closures – "modal filters" – enabling walking and cycling whilst restricting through traffic • Introduced two further traffic reduction schemes which restrict vehicle movements whilst enabling cycling (Swain's Lane and Millfield Lane) • Implemented four cycle permeability schemes • Widened footways at over six locations across the borough's town centres, high streets and residential roads with limited footway space • Worked with TfL to implement pop-up cycle lanes on Hampstead Road and Euston Road • Improved the cycle lane on Goods Way • Started to build pop-up cycle lanes on York Way (southern section) and Prince of Wales Road (eastbound) • Implemented three further cycle hangars, with 84 now across the borough
36. To offer a parking permit scrappage scheme where a free two-year membership to a car club is provided	Encourage reduced car ownership and usage by incentivising car club membership as an alternative	Camden's Clean Air Action Plan 2019-2022 (CAAP) theme: **Reducing transport emissions** LLAQM theme: **Cleaner transport**	**Ongoing**: Camden continues to operate a residential parking permit sacrifice scheme whereby residents can give up their parking permit for two years in exchange for free Car Club membership
37. Ensure the Clean Air Action Plan and Camden Transport Strategy have overlapping and supporting policies in relation to air quality	Work with the Transport Strategy service to ensure that joint aims are overlapping within both plans	Camden's Clean Air Action Plan 2019-2022 (CAAP) theme: **Reducing transport emissions** LLAQM theme: **Cleaner transport**	**Ongoing**: Camden's Sustainability, Air Quality & Energy Management Team and Transport Strategy Service work collaboratively across a range of policy and project areas covered by Camden's Clean Air Action Plan 2019-2021, Climate Action Plan 2020-2025 and Transport Strategy 2019-2041. All plans have overlapping and mutually supportive policies.
38. Install collapsible bicycle posts around the Hatton	Work with Hatton garden BID to help facilitate instillation of collapsible bicycle posts	Camden's Clean Air Action Plan 2019-2022 (CAAP) theme: **Reducing transport emissions**	**Withdrawn as an action**: Hatton Gardon BID no longer involved in Camden Clean Air Partnership due to resourcing constraints

Measure (Number corresponds with CAAP Action ID)	LLAQM Action Matrix Theme Action	Action LLAQM Action Matrix Theme	Progress • Emissions/Concentration data • Benefits • Negative impacts / Complaints
Garden Business Improvement District		LLAQM theme: **Cleaner transport**	
39. Consolidate patient transport to reduce the number of vehicles on the road (subject to health and safety of patients)	Discuss with hospitals in the borough as part of the Clean Air Hospital Framework	Camden's Clean Air Action Plan 2019-2022 (CAAP) theme: **Reducing transport emissions** LLAQM theme: **Cleaner transport**	**Ongoing**: Great Ormond Street Hospital (GOSH) looked at the possibility of consolidating patient transport, and specifically in relation to certain groups of patients who visit the hospital regularly (for example dialysis patients). However COVID-19 has delayed the progression of this action due to the need for social distancing.
40. Assess the feasibility of creating an air quality app that allows users to report air quality issues to the Council	Work with Camden's Environmental Services team to create an air quality feature on the existing environmental reporting app	Camden's Clean Air Action Plan 2019-2022 (CAAP) theme: **Supporting communities and schools** LLAQM theme: **Localised solutions**	**Ongoing**: An air quality app was considered but feedback from other services suggested this would be excessively complicated and under-used. Instead, air quality officers worked with Camden's Digital and Customer Experience Team to design and produce an online e-form to enable members of the public to report concerns about air pollution, including those relating to construction and development issues. The e-form is expected to go live during 2021.
41. Deliver a Neighbourhoods of the Future project in the Fitzjohn's area in partnership with independent schools to encourage more sustainable forms of transport	NotF to include schemes to encourage and facilitate a reduction in car travel to and from schools in the project area	Camden's Clean Air Action Plan 2019-2022 (CAAP) theme: **Supporting communities and schools** LLAQM theme: **Cleaner transport / Localised solutions**	**Ongoing**: Technical issues delayed the implementation of the Healthy School Street zone in the Fitzjohns and Frognal area, however it became operational after October half term 2020. The decision on the project from the public consultation can be viewed on the Democracy section of Camden's website.
42. Produce and promote a School Air Quality Audit toolkit to schools in Camden	Develop a toolkit for schools that can be carried out by both council staff and school staff to help maximise uptake	Camden's Clean Air Action Plan 2019-2022 (CAAP) theme: **Supporting communities and schools** LLAQM theme: **Cleaner transport / Public health and awareness raising**	**Ongoing**: Officers are still in the process of creating a school air quality audit to be provided for schools throughout the borough, and this is intended to be published in late-2021 subject to resourcing.

Measure (Number corresponds with CAAP Action ID)	LLAQM Action Matrix Theme Action	Action LLAQM Action Matrix Theme	Progress • Emissions/Concentration data • Benefits • Negative impacts / Complaints
43. Work with Public Health to develop a school super zones pilot that tackles health and air quality in the Kilburn area	Ensure that collaborative working is employed with PH to develop a school super zone pilot in Kilburn	Camden's Clean Air Action Plan 2019-2022 (CAAP) theme: **Supporting communities and schools** LLAQM theme: **Public health and awareness raising / Localised solutions**	**Withdrawn as an action**: Public Health engagement has been impacted by COVID-19. Contingent on funding and funding did not come through
44. Continue to encourage schools to join the TfL STARS accredited travel planning programme by providing information on the benefits to schools and supporting the implementation of such a programme	Work with the Transport Strategy service to promote TfL STARTS to schools within the borough	Camden's Clean Air Action Plan 2019-2022 (CAAP) theme: **Supporting communities and schools** LLAQM theme: **Cleaner transport / Public health and awareness raising / Localised solutions**	**Ongoing**: STARS is widely promoted by Camden's Transport Strategy service
45. Continue to promote the uptake of Play Streets to local residents	Work with Transport Strategy to create guidance of street closures for local communities	Camden's Clean Air Action Plan 2019-2022 (CAAP) theme: **Supporting communities and schools** LLAQM theme: **Cleaner transport / Localised solutions**	**Ongoing**: 'How to Close Your Street' guide produced for the originally-planned date for National Clean Air Day 2020, but ultimately not shared due to COVID-19 lockdown. The guide will be published when public health risk and associated restrictions ease sufficiently.
46. Work with universities to investigate the potential for a new university-led community air quality monitoring project	Promote citizen science lessons to local schools to help maximise uptake	Camden's Clean Air Action Plan 2019-2022 (CAAP) theme: **Supporting communities and schools** LLAQM theme: **Public health and awareness raising**	**Ongoing**: Intention had been to work with universities for citizen science air quality projects, however this was seriously affected by COVID-19.
47. Increase the number of Healthy School Streets in key pollution areas	Work with Transport Strategy to undertake feasibility and implementation of Healthy School Streets	Camden's Clean Air Action Plan 2019-2022 (CAAP) theme: **Supporting communities and schools**	**Ongoing**: Three additional Healthy School Streets were implemented during 2020: • Brecknock School (Cliff Villas) implemented in September 2020

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		LLAQM theme: **Cleaner transport / Localised solutions**	• Mulberry House School (Minster Road) implemented in September 2020 • Primrose Hill School (Princess Road) implemented in September 2020 Several other HSS schemes were conceived during 2020 for implementation in 2021.
48. Develop bespoke clean air routes for schools in Camden highlighting clean routes to and from school as well as to relevant places such as libraries, community centres and parks	Ensure that clear clean air routes are accessible to school communities via the Council website as well as working with transport to create bespoke routes for schools in 'hot spot' areas	Camden's Clean Air Action Plan 2019-2022 (CAAP) theme: **Supporting communities and schools** LLAQM theme: **Public health and awareness raising / Localised solutions**	**Ongoing**: Not feasible during 2020 due to COVID-19 impacts upon resourcing and staff capacities, and limitations on engagement.
49. To continue to work in partnership with London authorities, the GLA, TfL, London Councils and Defra on air quality projects	Ensure Camden continues to maintain its working partnership on air quality issues with London authorities, the GLA, TfL, London council's and Defra	Camden's Clean Air Action Plan 2019-2022 (CAAP) theme: **Supporting communities and schools** LLAQM theme: **Public health and awareness raising / Localised solutions**	**Ongoing**: Extensive collaborative and partnership working with other London (and non-London) authorities, the GLA, TfL, London Councils and Defra, including: • Central London AQ cluster group • GLA best practice seminars • MAQF projects (London Idling Action) • Coordination of an application to the GLA Good Growth Fund for a multi-borough project to provide clean power for canal boaters • Joint leadership (with LB Tower Hamlets) of the Sustainable Waterways Partnership • Lobbying on AQ issues, including provision of lobbying resources for other authorities • Engagement in workshops and seminars relating to air quality

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50. Continue to work with schools on air quality engagement, awareness and behaviour change	Ensure that school engagement is conducted through the Sustainers, Camden Climate Change Alliance, school air quality audits and the London Idling action project	Camden's Clean Air Action Plan 2019-2022 (CAAP) theme: **Supporting communities and schools** LLAQM theme: **Public health and awareness raising / Localised solutions**	**Ongoing**: Engagement in 2020 focused on promotion of Idling Action London and webinars interacting with schools on air quality through the Camden Climate Change Alliance 'Sustainers' Peer Support Network.
51. Support the NW3 Green School Run project which aims to reduce pollution from the independent school run	Green School Runs has a number of avenues to explore in terms of lessening air pollution through active travel, and these will be promoted through Council channels	Camden's Clean Air Action Plan 2019-2022 (CAAP) theme: **Supporting communities and schools** LLAQM theme: **Public health and awareness raising / Localised solutions**	**Ongoing**: Green School Runs is represented on the Camden Clean Air Partnership. Camden's Senior Air Quality Officers and Head of Sustainability had been coordinating with the Fleet Manager to investigate the possibility of Camden's accessible travel fleet supporting the Green School Runs school bus plans. COVID-19 hindered progression of this action. Camden also supports Green Schools Runs' Park & Stride project.
52. Determine whether local byelaws could be introduced to address pollution sources currently controlled by not fit for purpose legislation	Where legislation cannot be influenced of amended to afford sufficient regulatory control or enforcement, byelaws will be investigated as an alternative	Camden's Clean Air Action Plan 2019-2022 (CAAP) theme: **Supporting communities and schools** LLAQM theme: **Localised solutions**	**Ongoing**: Air quality officers met with Camden's legal service to discuss feasibility of creating byelaws for pollution issues including vehicle engine idling, solid fuel burning, and the use of diesel generators for events/public spaces. This was not progressed due to COVID-19.
53. Implement a borough-wide traffic management order (TMO) to enable more robust enforcement of vehicle idling and higher fines	Strengthen the current ETO idling enforcement regime to enable Civil Enforcement Officers to issue penalties for stationary idling offences anywhere in Camden	Camden's Clean Air Action Plan 2019-2022 (CAAP) theme: **Supporting communities and schools** LLAQM theme: **Public health and awareness raising / Localised solutions**	**Completed**: Camden's Traffic Management Order (TMO) was advertised in October 2019 and was implemented in January 2020, and is now in full use throughout the borough. From April 2020 to March 2021, mover 2,000 idling drivers were instructed by Camden's Civil Enforcement Officers to switch off their engines, and 52 penalty charge notices (PCNs) were issued for non-compliance. Calendar year enforcement stats are not available.

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54. Apply to Mayor's Air Quality Fund (MAQF) and Defra funding to deliver air quality projects	Secure external funding to deliver air quality programmes in Camden	Camden's Clean Air Action Plan 2019-2022 (CAAP) theme: **Supporting communities and schools** LLAQM theme: **Localised solutions**	**Completed / ongoing**: Camden applied for Defra Air Quality Grant funding in October 2020 for a project to install mains power supplies at licensed ice cream trading sites. Camden continues to work with Canal & River Trust to deliver the GLA Good Growth Fund Camden Electric Moorings project.
55. Produce guidance for canal boat users on the impact of wood and coal burning on local air quality and disseminate with the support of the Canal & River Trust	Convey messaging around air quality and public health, opportunities for reducing emissions and exposure, and smoke control regulations relevant to boaters	Camden's Clean Air Action Plan 2019-2022 (CAAP) theme: **Supporting communities and schools** LLAQM theme: **Public health and awareness raising**	**Ongoing**: Guidance for canal boaters has been drafted and has been submitted to the Canal & River Trust for approval ahead of publication/dissemination in 2021.
56. Continue to install green infrastructure in Euston Town Business Improvement District (BID) area	Work with Euston town BID to facilitate green infrastructure being installed	Camden's Clean Air Action Plan 2019-2022 (CAAP) theme: **Supporting communities and schools** LLAQM theme: **Localised solutions**	**Completed**: A green wall and planters have neen installed on North Gower Street as well as a pocket park on Westminster Kingsway
57. Create an air quality art installation at the Camden Peoples' Theatre to absorb pollution and help raise awareness of pollution	Euston Town BID plans to install a pollution-sequestering art installation on the façade of the Camden People's Theatre, which will raise awareness of air pollution	Camden's Clean Air Action Plan 2019-2022 (CAAP) theme: **Supporting communities and schools** LLAQM theme: **Localised solutions**	**Ongoing**: During 2020 Euston Town BID put together the necessary plans to request TfL permission to install the sculpture. Once the air installation is completed work will commence on an education program.
58. Create a green walkway on North Gower Street and a cleaner air walk from Euston station to Regent's Park along Drummond Street and Longford Street	Collaborate with Euston BIDS to create a green walk way on North Grower Street and clean walk routes throughout Euston	Camden's Clean Air Action Plan 2019-2022 (CAAP) theme: **Supporting communities and schools** LLAQM theme: **Localised solutions**	**Ongoing**: Euston Green Link is completed but was not strongly promoted during 2020 due to COVID-19.

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59. Support Great Ormond Street Hospital to produce and promote a Clean Air Hospital Framework for use by other NHS and public Health based organisations	The CAHF will be developed collaboratively by Global Action Plan and GOSH and will address various aspects of organisational sustainability and action to reduce air pollution, including emissions from transport, procurement, building operations, and by engaging with patients and staff will raise awareness of air pollution and public health	Camden's Clean Air Action Plan 2019-2022 (CAAP) theme: **Supporting communities and schools** LLAQM theme: **Localised solutions**	**Ongoing**: Great Ormond Street Hospital continues to successfully implement the Clean Air Hospital Framework, supporting UCLH and Royal Free Hospital in their work to develop bespoke Frameworks in partnership with Global Action Plan.
60. Continue to work with the Camden Clean Air Partnership to ensure actions are delivered and further initiatives are developed	Various actions in the CAAP are the responsibility of other CCAP members, and continued collaborate working is crucial to ensure overall successful delivery of the Action Plan	Camden's Clean Air Action Plan 2019-2022 (CAAP) theme: **Supporting communities and schools** LLAQM theme: Various (covers all areas)	**Ongoing**: Partnership meetings continued biannually to continue collegiate approach, with meetings in February and October 2020.
61. To create a sustainability steering group (The Sustainers) for year 8 and 9 school children in Camden to support air quality improvements in and around schools	Sustainability steering for schools to cover various sustainability issues, including air quality, with opportunities for funding from CCCA members to cover small school-based innovative projects	Camden's Clean Air Action Plan 2019-2022 (CAAP) theme: **Supporting communities and schools** LLAQM theme: **Public health and awareness raising**	**Ongoing**: Camden's 'The Sustainers' steering group for pupils continues to work with schools to promote climate change and air quality issues, while the Camden Climate Change Alliance schools sustainability Peer Support Network aims to support schools and parents.
62. Promote Camden's freight consolidation centre to other boroughs, business improvement districts and private companies	Camden Council consolidates all janitorial and stationary supplies with zero-tailpipe emission last-mile delivery, utilising an electric van and e-cargo bike	Camden's Clean Air Action Plan 2019-2022 (CAAP) theme: **Reducing emissions from deliveries, servicing and freight** LLAQM theme: **Delivery, servicing and freight**	**Ongoing**: Camden continues to promote the use of its freight consolidation centre through the Defra-funded Cross River Partnership (CRP) Clean Air Villages 3 programme, which in Camden focused on Grays Inn Road during 2020 and involved enhancement of the consolidation centre's zero-emission (cargo bike) and zero-exhaust-emission (electric van) delivery capabilities. Uptake was limited due to COVID-19 impacts upon businesses. An online workshop was held on 19 November 2020.

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63. Assist local businesses and BIDs to consolidate services such as deliveries and waste collections	Promote the Council's consolidation centre for use by businesses and BIDs within Camden	Camden's Clean Air Action Plan 2019-2022 (CAAP) theme: **Reducing emissions from deliveries, servicing and freight** LLAQM theme: **Delivery, servicing and freight**	**Ongoing**: As part of the CRP CAV3 project Camden Council has encouraged businesses around Grays Inn Road to consolidate deliveries, through a time-limited offer of free last-mile consolidation with support from CRP. The Camden Climate Change Alliance has working with the Knowledge Quarter to promote delivery consolidation including use of Camden's consolidation centre. Business engagement during 2020 was significantly impacted by COVID-19.
64. Create an online signposting hub on Camden's website that highlights funding opportunities for air quality positive technology (electric vehicles, EV charging, cargo bikes, etc.)	Promote all funding sources available for businesses, BIDs, community groups and residents which may help to achieve emissions reductions	Camden's Clean Air Action Plan 2019-2022 (CAAP) theme: **Reducing emissions from deliveries, servicing and freight** LLAQM theme: **Localised solutions**	**Ongoing**: Web pages (on the Council's main website) are currently being reviewed and edited to ensure that information is showed in an accessible way and to include funding opportunities. Anticipated to be published in mid-2021. The Camden Climate Change Alliance already promotes funding opportunities.
65. Signpost Council suppliers and external businesses to the DfT Clean Van Commitment scheme, the Logistics Emissions Reduction Scheme (LERS) and the freight portal	Work with the Camden Climate Change Alliance to inform businesses of what current grants are available to them	Camden's Clean Air Action Plan 2019-2022 (CAAP) theme: **Reducing emissions from deliveries, servicing and freight** LLAQM theme: **Cleaner transport / Delivery, servicing and freight**	**Ongoing**: Camden has signed up to the Clean Van Commitment (CVC) and continues to advocate partners and stakeholders to pledge their commitment to the scheme. The Green Vehicle Fleet Standard for Contractors has been updated to require signing up to the CVC and other schemes which demonstrate support for lower-emission vehicles and offer training opportunities for drivers.
66. Trial using cargo bikes in our own freight consolidation project	Reduce last-mile delivery emissions by trialling cargo bikes as an option for freight consolidation	Camden's Clean Air Action Plan 2019-2022 (CAAP) theme: **Reducing emissions from deliveries, servicing and freight**	**Completed / ongoing**: An electrically-assisted cargo bike is being used for zero-emission last-mile delivery from Camden's freight consolidation centre.

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		LLAQM theme: **Delivery, servicing and freight**	
67. Reduce emissions from Council fleet, targeting a low and zero tailpipe emission fleet by 2022	Camden operates over 300 vehicles for the delivery of a range of services, and has objectives to move to a zero-tailpipe emission fleet by 2022	Camden's Clean Air Action Plan 2019-2022 (CAAP) theme: **Reducing emissions from deliveries, servicing and freight** LLAQM theme: **Borough fleet**	**Ongoing**: Camden's fleet replacement is on track to achieve a fully zero-exhaust-emission capable OR biomethane CNG fleet by the end of 2022. Contract Managers and Fleet Managers routinely report on progress to the cabinet member for sustainability to ensure oversight of this process.
68. Open Camden's compressed natural gas facility at York Way to third party businesses	Camden's biomethane CNG refuelling facility at York Way represents an option for low-carbon vehicle fuel, which is preferable to diesel in terms of local air pollution	Camden's Clean Air Action Plan 2019-2022 (CAAP) theme: **Reducing emissions from deliveries, servicing and freight** LLAQM theme: **Localised solutions / Cleaner transport**	**Completed / ongoing**: The CNG facility has been opened up to businesses and other external organisations.
69. Ensure air quality is included in all procurement processes and favours suppliers with low or beneficial impacts on air quality	Ensure that air quality is fed through procurement processes	Camden's Clean Air Action Plan 2019-2022 (CAAP) theme: **Reducing emissions from deliveries, servicing and freight** LLAQM theme: **Localised solutions / Delivery, servicing and freight**	**Ongoing process**: Review of Camden's Green Vehicle Fleet Standard for Contractors has been updated to include relevant requirements for the procurement of contracts and services which involve the use of vehicles. The Senior Air Quality Officer provided a training session for Procurement Category Managers in November 2020 to highlight the importance of considering air quality impacts during the procurement process. Further engagement with Commissioning Managers and on individual contract procurement will continue in 2021.
70. Promote the use of low-/zero-tailpipe emission delivery services through the Camden Climate Change Alliance	Work with the Camden Climate Change Alliance to promote behaviour change around driving	Camden's Clean Air Action Plan 2019-2022 (CAAP) theme: **Reducing emissions from deliveries, servicing and freight** LLAQM theme: **Delivery, servicing and freight**	**Ongoing**: The Camden Climate Change Alliance (CCCA) has actively promoted the Council's freight consolidation centre for use by businesses and other organisations as one of several options to reduce emissions from delivery, servicing and freight. These considerations are incorporated into bespoke support for CCCA members and are covered in an Air Quality and Energy Audit Template which was produced in 2020

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			initially to be delivered for businesses in the Camden Town Low Emission Neighbourhood area.
71. Create a low/zero emission servicing, delivery and freight action group with other London authorities to ensure a joined-up approach to limit impact on servicing, delivery and freight providers	Coordinate through the Central London AQ Cluster Group and others to instigate a new approach to tackle emissions from servicing, delivery and freight	Camden's Clean Air Action Plan 2019-2022 (CAAP) theme: **Reducing emissions from deliveries, servicing and freight** LLAQM theme: D**elivery, servicing and freight**	**Ongoing**: This issue has been discussed periodically at the Central London Air Quality Cluster Group, however officers felt that the desired outcome is to an extent achieved by the TfL Freight Working Group, which a Camden Principal Transport Planner attends. The Camden Clean Air Partnership includes representation from UPS, John Lewis Partnership and the Brewery Logistics Group, representing the interests of businesses in the freight and servicing sector.
72. Provide Smarter Driver (Ecodriving) Training for drivers of vehicles in the Council fleet, i.e. through training in fuel-efficient driving and providing regular re-training for staff	Driver training is being delivered through the London idling action programme	Camden's Clean Air Action Plan 2019-2022 (CAAP) theme: **Reducing emissions from deliveries, servicing and freight** LLAQM theme: **Borough fleet / Localised solutions**	**Completed / ongoing**: This action has been improved in that Camden promotes both the Ecodriving training and also the driver training resources offered for free by the MAQF Idling Action London, which is jointly led by Camden Council and City of London Corporation. Contractors and service providers are required to provide driver training through the Council's Green Vehicle Fleet Standard for Contractors, and Camden itself has taken Idling Action's #EnginesOff pledge to avoid engine idling from its own fleet (this commitment includes provision of training for Camden's drivers).
73. Investigate creating a waste consolidation programme for businesses in the Hatton Garden and Fitzrovia BID areas	Work with BIDs to reduce emissions from waste collections where businesses in close proximity are currently using different service providers	Camden's Clean Air Action Plan 2019-2022 (CAAP) theme: **Reducing emissions from deliveries, servicing and freight** LLAQM theme: **Localised solutions / Delivery, servicing and freight**	**Ongoing**: Fitzrovia Partnership BID has a preferred supplier scheme to encourage delivery consolidation and to investigate waste consolidation. Hatton Garden BID was looking at this as a possibility but has discontinued involvement in the Camden Clean Air Partnership due to capacity and resourcing issues. Business engagement during 2020 was significantly impacted by COVID-19.
74. UCL to deliver a logistics plan for the Bloomsbury campus, consolidating	Help to facilitate the implementation of a logistics plan	Camden's Clean Air Action Plan 2019-2022 (CAAP) theme: **Reducing**	**Ongoing**: Logistics hub work is ongoing.

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deliveries and reducing vehicle emissions and congestion	at UCL Bloomsbury campus to help reduce emissions	**emissions from deliveries, servicing and freight** LLAQM theme: **Delivery, servicing and freight / Cleaner transport**	Additionally, UCL installed 400 new cycle spaces as part of a new cycle hub, and new active travel infrastructure such as showers have also been installed. The University has launched a bike buddy initiative to pair up experienced cyclists with inexperienced or less confident cyclists to encourage active travel. The UCL Sustainability Strategy launched last year (2019), and 'Wild Bloomsbury' is now in action, aiming to improve biodiversity around the campus. This has proved difficult due to the dense urban environment the campus.
75. UPS to complete power supply upgrade and installation of Smart Grid technology at the Kentish Town UPS depot to support the electrification of UPS's central London fleet of 170 vehicles	Reduce emissions from UPS's London fleet by installing EVCPs and ancillary technologies at the Kentish Town depot	Camden's Clean Air Action Plan 2019-2022 (CAAP) theme: **Reducing emissions from deliveries, servicing and freight** LLAQM theme: **Delivery, servicing and freight**	**Completed**: Smart Grid technology has been installed at the Kentish Town depot, which allows for a fully-EV fleet.
76. John Lewis Partnership to fit Microlise routing and scheduling software to optimise routing and load consolidation and reduce the number of vehicles entering the capital	Work with John Lewis partnership to help facilitate	Camden's Clean Air Action Plan 2019-2022 (CAAP) theme: **Reducing emissions from deliveries, servicing and freight** LLAQM theme: **Delivery, servicing and freight**	**Ongoing**: This is still being rolled out and all the Waitrose primary and most of the home delivery fleets have this system fitted. The John Lewis fleet is still under consideration for the technology.
77. Waitrose to use lorries which are run entirely on bio methane gas generated from food waste	Work with John Lewis partnership to help facilitate	Camden's Clean Air Action Plan 2019-2022 (CAAP) theme: **Reducing emissions from deliveries, servicing and freight**	**Ongoing**: The Waitrose Distribution Centre at Bracknell has had sign-off for a CNG station to be installed, which will add approximately 60 CNG tractor units to the fleet. This site delivers to some stores in London, and the gas fleet will comprise around 130 vehicles as some are operated at other locations.

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		LLAQM theme: **Delivery, servicing and freight / Cleaner transport**	
78. John Lewis Partnership to work towards converting all standard heavy trucks to gas upon renewal	Work with John Lewis partnership to help facilitate	Camden's Clean Air Action Plan 2019-2022 (CAAP) theme: **Reducing emissions from deliveries, servicing and freight** LLAQM theme: **Delivery, servicing and freight / Cleaner transport**	**Ongoing**: This is still the intended route for vehicle replacement but is contingent upon progress against action 77 above.
79. Ensure Directors of Public Health are fully briefed on the scale of the air quality problem in Camden; what is being done, and what further action is needed	Ensure that reoccurring scheduled meetings are held between the air quality team and public health to ensure a cohesive approach	Camden's Clean Air Action Plan 2019-2022 (CAAP) theme: **Public health and awareness raising** LLAQM theme: **Public health and awareness raising**	**Ongoing**: Camden's Sustainability, Air Quality & Energy Management works closely with Public Health to update air quality information and promote public health messaging around air quality. This includes ensuring the Director of Public Health is aware of any regional-scale interventions or policy changes which may be introduced by the Mayor of London or the GLA.
80. Directors of Public Health to have responsibility for ensuring their Joint Strategic Needs Assessment (JSNA) has up-to-date information on the health impacts of air quality impacts on the population	Ensure that all future JSNA have up to date information on the health impacts of poor air quality and are overseen by the Director of Public Health	Camden's Clean Air Action Plan 2019-2022 (CAAP) theme: **Public health and awareness raising** LLAQM theme: **Public health and awareness raising**	**Ongoing**: Camden's JSNA for air quality is kept under continual review and will be updated in 2021.
81. Require the Public Health teams to support engagement with local stakeholders (businesses, schools, community groups and healthcare providers)	Public Health colleagues to support with ensuring the air quality and public health messages are conveyed throughout various social and economic communities, and in other sectors	Camden's Clean Air Action Plan 2019-2022 (CAAP) theme: **Public health and awareness raising** LLAQM theme: **Public health and awareness raising**	**Ongoing**: Collaborative working with Public Health was severely impacted during 2020 due to the need to prioritise COVID-19 messaging. Joint engagement with Public Health targeted at local stake holders will take place in 2021 subject to capacities.

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82. Work with Public Health to strengthen engagement with Camden's Clinical Commissioning Group and Camden's GP surgeries	Ensure that clinicians in Camden are fully aware of the associations between exposure to air pollution and adverse health outcomes, and can highlight to patients opportunities for reducing exposure to air pollution in Camden	Camden's Clean Air Action Plan 2019-2022 (CAAP) theme: **Public health and awareness raising** LLAQM theme: **Public health and awareness raising**	**Ongoing**: Camden has improved connections with Camden CCG, hospitals in the borough, and North Central London (NCL) and Healthy London Partnership (London Asthma Leadership and Implementation Group for Children & Young People, LALIG), but there is still work to be done to strengthen our links in this area and especially with primary care providers.
83. Ensure that the Leader of the Council, Cabinet Members for Health and Transport and the Head of Transport Strategy have been fully briefed on the Public Health duties and the fact that all Directors are responsible for delivering them, as well as on air quality opportunities and risks related to transport in the borough	Secure a deep organisational awareness of the importance of air quality and the deleterious health effects of exposure to air pollution, such that senior management and councillors are aware of the need to improve air quality throughout the borough	Camden's Clean Air Action Plan 2019-2022 (CAAP) theme: **Public health and awareness raising** LLAQM theme: **Public health and awareness raising**	**Completed / ongoing**: This is standard practice now.
84. Strengthen co-ordination with Public Health by ensuring that at least one Consultant- grade public health specialist within the borough has air quality responsibilities outlined in their job profile	Secure alignment of Public Health and air quality work to ensure all opportunities for engagement with medical and practitioners is realised	Camden's Clean Air Action Plan 2019-2022 (CAAP) theme: **Public health and awareness raising** LLAQM theme: **Public health and awareness raising**	**Ongoing**: Camden's air quality officers work closely with Public Health, which continues to support facilitate community engagement in raising awareness of air pollution as a risk for health. Direct collaboration was affected during 2020 due to the need for Public Health to prioritise COVID-19, however Public Health did support the Council in commencing work on developing the Clean Air Hospital Framework programme at UCLH and Royal London Hospital.
85. Require the Director of Public Health to sign off Statutory Annual Status	Ensure that the Director of Public Health is aware of statutory obligations to measure and	Camden's Clean Air Action Plan 2019-2022 (CAAP) theme: **Public health and awareness raising**	**Completed / ongoing**: This is standard practice now.

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Reports and all new Clean Air Action Plans	improve air quality, as well as progress on this agenda	LLAQM theme: **Public health and awareness raising**	
86. To work with Public Health and council resilience teams to ensure that vulnerable people are aware of high pollution days and the action they can take to reduce their exposure	Disseminate pollution alerts through council social media and other channels, and ensure other council teams (for example, Housing, HS2 Community Liaison, etc.) are able to signpost service users to relevant resources	Camden's Clean Air Action Plan 2019-2022 (CAAP) theme: **Public health and awareness raising** LLAQM theme: **Public health and awareness raising**	**Ongoing**: Camden Council continues to promote AirText through the main council website to raise awareness of air pollution as a health risk and to help provide alerts in advance of any forecast high-pollution days. The Council is highly aware of the fact that air pollution has a disproportionate and inequitable impact upon vulnerable people, more deprived communities, and Black, Asian and minoritised ethnic groups. Air quality officers are working to more proactively target interventions in areas where they are most needed, and this will be built upon during 2021 as work commences on Camden's next Clean Air Action Plan which will seek to redress the environmental health inequity of air pollution.
87. Deliver community-led air quality monitoring projects annually	Establish a community led air quality monitoring project	Camden's Clean Air Action Plan 2019-2022 (CAAP) theme: **Public health and awareness raising** LLAQM theme: **Public health and awareness raising / Monitoring and other core statutory duties**	**Ongoing**: No new community AQ projects were undertaken during 2020 due to COVID-19, however ongoing support was provided for data analysis and interpretation for the 2019 Belsize and Swiss Cottage community diffusion tube monitoring project, including contribution to an article on the Belsize Society website and an online webinar to discuss the results with the project volunteers. Officers will look to continue providing support for other community air quality monitoring projects in 2021, subject to COVID-19 restrictions.
88. Promote and support airText pollution alerts system	Increase the subscription to the airText pollution alerts in Camden, to ensure that vulnerable people are aware of forecast pollution events whilst raising general	Camden's Clean Air Action Plan 2019-2022 (CAAP) theme: **Public health and awareness raising**	**Ongoing**: Camden Council continues to promote AirText through the main council website to raise awareness of air pollution as a health risk and to help provide alerts in advance of any forecast high-pollution days.

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	awareness of the importance of air quality as a health determinant	LLAQM theme: **Public health and awareness raising**	By the end of 2020 there were 610 active subscribers receiving alerts for Camden, which is an increase of 42 from the previous year. The majority of subscribers receive alerts via SMS text. Camden had 16 alert days during 2020 and a total of 9,676 alert messages were sent to Camden subscribers.
89. Promote cleaner walking routes and signposting to free air quality route mapping apps and websites	This action will be linked with action 98 to signpost clean air routes in Camden	Camden's Clean Air Action Plan 2019-2022 (CAAP) theme: **Public health and awareness raising** LLAQM theme: **Public health and awareness raising**	**Ongoing**: Cleaner air walking routes are promoted in engagement with the public and schools. Camden's air quality webpages will be updated in full in 2021 to better signpost online resources. Engagement opportunities were limited during 2020 due to COVID-19 impacts upon resourcing and staff capacities.
90. Send out air pollution alerts via various council communication outlets (Facebook, Twitter, etc.)	Disseminate pollution alerts through council social media channels	Camden's Clean Air Action Plan 2019-2022 (CAAP) theme: **Public health and awareness raising** LLAQM theme: **Public health and awareness raising**	**Ongoing**: Initial discussions with Camden's corporate communications team took place in early 2020 however progress on this action was affected by the need to prioritise COVID-19 messaging. Air quality-focused Tweets were posted at various times during 2020 to raise awareness of specific issues and to promote resources and opportunities for the public to help reduce their contribution and exposure to air pollution. This included content about the avoidance of wood- and coal-burning, garden bonfires, National Clean Air Day, sustainable and active travel, indoor air quality, and vehicle engine idling.
91. To continue to deliver our Clean Air for Camden engagement programme	Maintain momentum and programme visibility through the continued delivery of air quality engagement under the Clean Air for Camden banner	Camden's Clean Air Action Plan 2019-2022 (CAAP) theme: **Public health and awareness raising** LLAQM theme: **Public health and awareness raising**	**Ongoing**: In 2020, Camden Council utilised communications through social media to continue to deliver the Clean Air for Camden engagement programme. Camden produced a range of materials, including indoor air quality guidance for residents, advice on wood-burning, and comms around National Clean Air Day, as well as online webinars and an in-person business event in January 2020 as part of the Camden Town Low Emission Neighbourhood.

Measure (Number corresponds with CAAP Action ID)	LLAQM Action Matrix Theme Action	Action LLAQM Action Matrix Theme	Progress • Emissions/Concentration data • Benefits • Negative impacts / Complaints
92. Deliver anti-idling engagement via community-led projects	Work with community volunteers to carry out targeted idling action engagement events and awareness-raising initiatives	Camden's Clean Air Action Plan 2019-2022 (CAAP) theme: **Public health and awareness raising** LLAQM theme: **Public health and awareness raising / Localised solutions**	**Ongoing**: Camden co-leads (with City of London Corporation) the MAQF Idling Action London project, through which dedicated officers produce and promote resources for communities and individuals to undertake local anti-idling engagement projects. In October 2020 Camden air quality officers ran a lunchtime webinar for Camden staff to raise awareness of air pollution as a health risk and to highlight the Council's air quality programme, as well as individual actions which can help reduce air pollution. This included suggesting participating in Idling Action Events (direct driver engagement events) through Idling Action London, in addition to ad hoc engagement with idling drivers.
93. Camden staff who are regularly out and about will be encouraged to engage with idling vehicles in the promotion of best practice in driving	Provide training for Camden staff who may encounter idling drivers, to raise awareness of engine idling and air pollution and provide key messages to persuade drivers to switch off their engines	Camden's Clean Air Action Plan 2019-2022 (CAAP) theme: **Public health and awareness raising** LLAQM theme: **Public health and awareness raising / Localised solutions**	**Completed / ongoing**: In October 2020 Camden air quality officers ran a lunchtime webinar for Camden staff to raise awareness of air pollution as a health risk and to highlight the Council's air quality programme, as well as individual actions which can help reduce air pollution. This included suggesting participating in Idling Action Events (direct driver engagement events) through Idling Action London, in addition to ad hoc engagement with idling drivers. Further webinars and other promotional communications will be used to further encourage Camden staff to engage with idling drivers.
94. Produce a toolkit on indoor air pollution and how to reduce personal exposure	Produce guidance for residents on sources of indoor air pollution (in the home) and how to avoid and mitigate poor indoor air quality	Camden's Clean Air Action Plan 2019-2022 (CAAP) theme: **Public health and awareness raising** LLAQM theme: **Public health and awareness raising**	**Completed**: Camden's Improving Indoor Air Quality: Advice for Homes guidance was published in April 2020 and is accessible on the Council website.

Measure (Number corresponds with CAAP Action ID)	LLAQM Action Matrix Theme Action	Action LLAQM Action Matrix Theme	Progress • Emissions/Concentration data • Benefits • Negative impacts / Complaints
95. Produce a toolkit for businesses on how they can reduce pollution and pollution exposure	Produce guidance for businesses on reducing sources of indoor and outdoor air pollution, signposting funding opportunities for reducing emissions, and relevant regulations	Camden's Clean Air Action Plan 2019-2022 (CAAP) theme: **Public health and awareness raising** LLAQM theme: **Public health and awareness raising / Emissions from developments and buildings**	**Ongoing**: During 2020 work commenced on an indoor air quality guide for businesses, however progress was slow due to COVID-19 affecting resourcing capacities. The guidance is expected to be published and promoted to businesses in late-2021 (via the Council's corporate Twitter and the Camden Climate Change Alliance). Concurrently officers have been developing an Air Quality and Energy Audit Template for businesses, which links to the Camden Town Low Emission Neighbourhood and will be delivered as a service by the Camden Climate Change Alliance.
96. Promote and deliver air quality projects on National Clean Air Day and National Car Free Day	Build momentum for Clean Air for Camden air quality behaviour change campaign through promotion of NCAD and CFD	Camden's Clean Air Action Plan 2019-2022 (CAAP) theme: **Public health and awareness raising** LLAQM theme: **Public health and awareness raising**	**Ongoing**: All engagement for National Clean Air Day during 2020 (8 October) was online due to COVID-19. No in-person projects could be undertaken. Digital engagement included a series of air quality-related Tweets on the Council's corporate Twitter account and a Camden staff webinar to share information about the Council's air quality programme and the importance of taking individual actions to help reduce and avoid air pollution.
97. Provide anti-idling banners for primary schools in Camden	Provide anti-idling banner workshops for schools and produce completed banners based upon pupils' designs	Camden's Clean Air Action Plan 2019-2022 (CAAP) theme: **Public health and awareness raising** LLAQM theme: **Localised solutions / Public health and awareness raising**	**Ongoing**: Initial discussions into printing banners stalled due to COVID-19 impacts upon resourcing and staff capacities. However, schools taking part in Idling Action London's air quality and anti-idling workshops are eligible to receive banners.
98. Improve signposting for cleaner air walking routes	Ensure less polluted streets and walking routes are visible for pedestrians, to encourage healthier travel and awareness of the associations between air quality and health	Camden's Clean Air Action Plan 2019-2022 (CAAP) theme: **Public health and awareness raising** LLAQM theme: **Public health and awareness raising**	**Ongoing**: There is a move away from excessive street signage and 'clutter', however this action will be delivered through improved wayfinding included through the promotion of Cleaner air walking routes on the Council's website and in engagement with the public and schools. Camden's air quality webpages will be updated in full in 2021.
99. Expand the air pollution monitoring network in Camden and provide the	Achieve better air quality data coverage for the purpose of measuring compliance with legal	Camden's Clean Air Action Plan 2019-2022 (CAAP) theme: **Public health and awareness raising**	**Ongoing**: Camden's air quality monitoring network expands year-on-year. By the end of December 2020 air quality monitoring was undertaken at 174 diffusion tube sites, up from

Measure (Number corresponds with CAAP Action ID)	LLAQM Action Matrix Theme Action	Action LLAQM Action Matrix Theme	Progress • Emissions/Concentration data • Benefits • Negative impacts / Complaints
monitoring information in an easy-to access manner through Open Data and London Air	objectives and WHO guidelines, and assessing changes in air quality in response to policy or projects	LLAQM theme: **Monitoring and other core statutory duties**	147 during December 2019. In April 2020 a real-time fine particulate ($PM_{2.5}$) sensor was installed on Swains Lane to measure for a detectable air quality impact from barbeques in Waterlow Park. This sensor will also provide long-term value in monitoring progress towards Camden's commitment to achieve the World Health Organization air quality standards by 2030. A new automatic NO_2 monitoring site was installed on Camden High Street to collect real-time air pollution data in support of the interventions delivered through the Camden Town Low Emission Neighbourhood project. Unfortunately due to COVID-19 impacts and electrical connection delays the new site could not be commissioned in 2020 and is expected to start operation in mid-2021.
100. Provide air quality information at healthcare facilities, libraries, pharmacies and other frequently used public buildings	Produce posters with key messages about exposure to air pollution and associated health impacts, both in relation to ambient and indoor air pollution	Camden's Clean Air Action Plan 2019-2022 (CAAP) theme: **Public health and awareness raising** LLAQM theme: **Monitoring and other core statutory duties / Public health and awareness raising**	**Ongoing**: A poster has been created to convey key air quality and health messaging and this will be sent to healthcare facilities, libraries, pharmacies and other frequently used public buildings in 2021.
101. Make accessible King's College modelling on WHO guidelines in Camden to explain the future trajectory of pollution	Ensure the Camden 2030 WHO modelling outcomes are available online on the Council's website, and related to the Clean Air Action Plan	Camden's Clean Air Action Plan 2019-2022 (CAAP) theme: **Public health and awareness raising** LLAQM theme: **Monitoring and other core statutory duties / Public health and awareness raising**	**Completed**: The WHO 2030 Technical Report has been published on Camden's air quality webpages.
102. Support the monitoring and delivery of the Children's Health in	Facilitate where possible research to better understand the impact of	Camden's Clean Air Action Plan 2019-2022 (CAAP) theme: **Public health and awareness raising**	**Ongoing**: Camden supports the CHILL project and a Camden primary school participates directly in this research.

Measure (Number corresponds with CAAP Action ID)	LLAQM Action Matrix Theme Action	Action LLAQM Action Matrix Theme	Progress • Emissions/Concentration data • Benefits • Negative impacts / Complaints
London & Luton (CHILL) project	exposure to air pollution for health over the long-term	LLAQM theme: **Public health and awareness raising**	
103. Promote the Euston BID's dedicated air quality page signposting to air quality information, projects, forums, clean walking routes, zero-emission delivery services, etc.	Ensure that Euston BID's air quality pages are promoted though the Camden Climate Change Alliance to businesses within the local area	Camden's Clean Air Action Plan 2019-2022 (CAAP) theme: **Public health and awareness raising** LLAQM theme: **Localised solutions / Delivery, servicing and freight**	**Ongoing**: Euston Town BID continues to raise awareness of air pollution through its website, promoting air quality improvement programmes and cargo bike deliveries.
104. Euston Town BID to signpost its members to deliverBest which provides practical proven solutions that allow business deliveries to be more efficient and reduce impact on air quality	Ensure that businesses are signposted to deliverBest in Euston Town comms and on the BID's website, with additional supporting promotion on the Camden Climate Change Alliance website (and news bulletins)	Camden's Clean Air Action Plan 2019-2022 (CAAP) theme: **Public health and awareness raising** LLAQM theme: **Localised solutions / Delivery, servicing and freight**	**Ongoing**: Euston Town BID continues to promote DeliverBest on its air quality pages.
105. John Lewis Partnership to encourage use of electrically-powered fridge units by showcasing their demonstration truck for other organisations	Achieve emission reductions by cutting pollution from HGV ancillary refrigeration engines	Camden's Clean Air Action Plan 2019-2022 (CAAP) theme: **Public health and awareness raising** LLAQM theme: **Delivery, servicing and freight**	**Ongoing**: John Lewis Partnership has purchased a number of new alternator-driven electric fridges to replace older conventional arrangements, and these will primarily be used for deliveries into London. These fridges have the benefit of being driven from a Euro VI HGV engine.
106. Lobby national Government to tighten smoke control regulations and ban the use of fireplaces and wood burners in areas well-served by cleaner heating sources	Push for greater regulatory control over the use of solid fuel-burning appliances in smoke control areas, for the purpose of reducing particulate emissions and the associated health burden imposed by $PM_{2.5}$	Camden's Clean Air Action Plan 2019-2022 (CAAP) theme: **Lobbying** LLAQM theme: **Localised solutions**	**Ongoing**: Tightening controls of smoke control regulations is a priority lobbying action for Camden. Officers have worked with the cabinet member of sustainability to develop a headline lobbying position addressing the need for stricter national regulation of the use of solid fuel burning appliances and the devolution of local or regional autonomy to set additional local restrictions as required.

Measure (Number corresponds with CAAP Action ID)	LLAQM Action Matrix Theme Action	Action LLAQM Action Matrix Theme	Progress - Emissions/Concentration data - Benefits - Negative impacts / Complaints
			Camden ran an online survey during summer and autumn 2020 on the Council's We Are Camden consultation hub, to learn about Camden residents' use of wood and coal fuels and their perceptions of this as an issue for air quality. In total, 58 responses were received and respondents' comments highlighted the impact of domestic solid fuel burning on health and amenity.
107. Support national Government's proposal to phase out diesel trains by 2040 and lobby to implement this measure sooner	Diesel rail is estimated to contribute approximately 7% of NOx emissions in Camden and without clear plans to electrify rail freight the air quality impact of rail will not decline as rapidly as other emission sources	Camden's Clean Air Action Plan 2019-2022 (CAAP) theme: **Lobbying** LLAQM theme: **Cleaner transport**	**Ongoing**: Replacement of the UK's ageing diesel train fleet is a priority lobbying action for Camden. Officers have worked with the cabinet member for sustainability to engage rail and transport unions and other local authorities to develop a joint lobbying position to be enacted in 2021. The main lobbying points address: - Set a target to retire diesel-only locomotives by 2030 and phase-out of diesel as a fuel by 2035 - Launch a programme of rail electrification to address gaps in the network - Commence a rolling programme of engine replacement, targeting initially the 40% of diesel engines used on British railways which do not meet any emissions standard - Require all new freight locomotives to be fully bi- or tri-mode capable (able to run on electricity where overhead wired or third rail power is available) - Fit exhaust aftertreatment systems for all diesel locomotives which currently do not have these fitted - Invest in research and development to evolve the UK's low-emission rail infrastructure
108. Lobby national Government to provide a robust vehicle scrappage scheme to accelerate the	Push for financial support to incentivise uptake of ULEVs and zero-tailpipe-emission vehicles by	Camden's Clean Air Action Plan 2019-2022 (CAAP) theme: **Lobbying** LLAQM theme: **Cleaner transport**	**Ongoing**: Work has not yet commenced on this lobbying action.

Measure (Number corresponds with CAAP Action ID)	LLAQM Action Matrix Theme Action	Action LLAQM Action Matrix Theme	Progress • Emissions/Concentration data • Benefits • Negative impacts / Complaints
shift towards ultra-low emission vehicles and electric vehicles	introducing a national scrappage scheme		
109. Support the Mayor's ULEZ but keep lobbying for a London wide ULEZ	Lobby for ULEZ emission controls to apply across all of London to ensure clarity for motorists and fleet operators, and to avoid the displacement of polluting vehicles from Central and Inner London to Outer London boroughs	Camden's Clean Air Action Plan 2019-2022 (CAAP) theme: **Lobbying** LLAQM theme: **Cleaner transport**	**Ongoing**: Camden supports the expansion of the ULEZ but encourages adoption of these emission controls across all of Greater London.
110. To work with other London authorities in lobbying large delivery companies such as Amazon to reduce their environmental impact	Collaborate with London authorities to push for voluntary improvements to delivery company vehicle fleets	Camden's Clean Air Action Plan 2019-2022 (CAAP) theme: **Lobbying** LLAQM theme: **Delivery, servicing and freight**	**Ongoing**: Work has not yet commenced on this lobbying action.
111. Continue to support measures introduced by the Mayor of London and national Government to improve air quality	Work with existing and new legislation and policy positions to reduce emissions and protect health, whilst pushing for increased action at London-wide and national scale	Camden's Clean Air Action Plan 2019-2022 (CAAP) theme: **Lobbying** LLAQM theme: **Localised solutions**	**Ongoing**: Camden continues to support strengthening air quality objectives and regulations to reduce emissions and protect health.
112. Lobby national Government to reduce the amount of biomass burning throughout the UK, and avoid coal-to biomass power plant conversions for decommissioned coal power stations	Conversion of coal power stations to use biomass fuels represents a continued risk to air quality objectives, so this repurposing should be avoided	Camden's Clean Air Action Plan 2019-2022 (CAAP) theme: **Lobbying** LLAQM theme: **Localised solutions**	**Ongoing**: Work has not yet commenced on this lobbying action.
113. To continue to work with GLA and other London	Ensure linked up working across London authorities and the GLA is	Camden's Clean Air Action Plan 2019-2022 (CAAP) theme: **Lobbying**	**Ongoing**: Camden participates in the LB Merton-led MAQF-funded NRMM project which entails dissemination of guidance

Measure (Number corresponds with CAAP Action ID)	LLAQM Action Matrix Theme Action	Action LLAQM Action Matrix Theme	Progress • Emissions/Concentration data • Benefits • Negative impacts / Complaints
authorities to take a stricter stance on construction and building emissions	maintained to ensure planning policies at London-wide and local scale are tightened with respect to construction and in-use (operational) emissions, with clearer mechanisms for enforcement and greater uniformity in standards throughout London	LLAQM theme: **Emissions from developments and buildings**	on NRMM and active enforcement of NRMM conditions on major development sites. Camden will push for greater control at local authority level for planning policy and planning enforcement. Camden officers respond to consultations from national Government (for example the Planning for the Future White Paper) which relate to development and planning controls and especially where these have implications for local air quality and public pollution exposure. Camden will continue to advocate for and apply stringent policy which facilitates sustainable development in a way which minimises the climate and air quality impacts of new development and refurbishments, during both the construction phase and the operational phase.
114. Lobby national Government to put pressure on continental European countries to reduce the burning of coal, biomass and other fossil fuels	Particulate matter is a transboundary pollutant and it is imperative that collective international effort is applied to improve air quality and protect health throughout Europe	Camden's Clean Air Action Plan 2019-2022 (CAAP) theme: **Lobbying** LLAQM theme: **Emissions from developments and buildings**	**Ongoing**: Work has not yet commenced on this lobbying action.
115. To provide a way for citizens and local businesses to join in support of the lobbying actions within this plan	Work directly with the local community and stakeholders to develop lobbying actions, and ensure that the public has visibility of the CAAP and ongoing work within the air quality programme, with potential for participation wherever possible to maintain the 'shared endeavour' spirit of the Action Plan	Camden's Clean Air Action Plan 2019-2022 (CAAP) theme: **Lobbying** LLAQM theme: **Public health and awareness raising / Localised solutions**	**Ongoing**: As part of Camden's lobbying for the World Health Organization air quality standards to be included in the draft Environment Bill, the Council's cabinet member for sustainability wrote an article raising the importance of this issue and invited members of the public to add their voice in calling for tougher legislation to improve air quality and protect public health.

Measure (Number corresponds with CAAP Action ID)	LLAQM Action Matrix Theme Action	Action LLAQM Action Matrix Theme	Progress • Emissions/Concentration data • Benefits • Negative impacts / Complaints
116. To take forward additional lobbying actions determined by the WHO study to drive national progress towards WHO compliance	Ensure that existing lobbying actions work towards WHO compliance, and use WHO guideline study and other sources of air quality modelling and data to identify further priority lobbying positions to work towards the overarching WHO guideline objective	Camden's Clean Air Action Plan 2019-2022 (CAAP) theme: **Lobbying** LLAQM theme: **Localised solutions**	**Ongoing**: This is kept under continual review and Camden will lobby where needed to drive national progress towards compliance with the World Health Organization air quality standards.
117. Work with the canal boating community to reduce emissions from diesel engines while moored (NEW ACTION)	Install mains electricity supplies at visitor mooring locations along the Regent's Canal to enable boaters to utilise clean electricity rather than relying on diesel engines for power.	Camden's Clean Air Action Plan 2019-2022 (CAAP) theme: **Supporting communities and schools** LLAQM theme: **Localised solutions**	**New / ongoing**: Camden received £65,500 through the GLA's Good Growth Fund programme for the installation of mains electricity supplies at the visitor mooring zone on the Regent's Canal between Camley Street and St. Pancras Way. This is a collaborative project between Camden and the Canal & River Trust, and is expected to be completed by the end of 2021.

4. Planning Update and Other New Sources of Emissions

Table L. Planning requirements met by planning applications in Camden in 2020

Condition	Number
Number of planning applications where an air quality impact assessment was reviewed for air quality impacts	30
Number of planning applications required to monitor for construction dust	25
Number of CHPs/Biomass boilers refused on air quality grounds	N/A – no applications were directly refused on this basis. Does not include proposals requested to remove CHP prior to decision following consultation, as per Camden practice
Number of CHPs/Biomass boilers subject to GLA emissions limits and/or other restrictions to reduce emissions	N/A – does not account for proposals requested to change CHP details to meet restrictions prior to planning decision following AQ consultation (as per typical Camden practice)
Number of developments required to install Ultra-Low NO_x boilers	N/A
Number of developments where an AQ Neutral building and/or transport assessments undertaken	25
Number of developments where the AQ Neutral building and/or transport assessments not meeting the benchmark and so required to include additional mitigation	4
Number of planning applications with S106 agreements including other requirements to improve air quality	Not current practice at Camden
Number of planning applications with CIL payments that include a contribution to improve air quality	Not current practice at Camden
NRMM: Central Activity Zone and Canary Wharf Number of conditions related to NRMM included. Number of developments registered and compliant. Please include confirmation that you have checked that the development has been registered with the GLA through the relevant NRMM website and that all NRMM used on-site is compliant with Stage IIIB of the Directive and/or exemptions to the policy.	6 sites inside the CAZ newly registered on www.nrmm.london in 2020. 6 sites inside the CAZ area were audited during 2020 through the NRMM compliance project (Cleaner Construction for London). All sites were compliant after being audited (3 were already 'self-compliant' prior to being audited). Camden's CMP pro forma contains a requirement for sites to ensure NRMM is compliant and registered. Conditions relating to NRMM compliance are included in

Condition	Number
	decision notices for many applications, however the total number of conditions for planning permissions granted in 2020 is not currently retrievable. Camden's Sustainability team is working with the Council's Planning service to ensure NRMM conditions are applied routinely, with up-to-date wording as provided by LB Merton's Cleaner Construction for London project coordinator.
NRMM: Greater London (excluding Central Activity Zone and Canary Wharf) Number of conditions related to NRMM included. Number of developments registered and compliant. Please include confirmation that you have checked that the development has been registered at www.nrmm.london and that all NRMM used on-site is compliant with Stage IIIA of the Directive and/or exemptions to the policy.	3 sites outside the CAZ newly registered on www.nrmm.london in 2020. No sites outside the CAZ area were audited during 2020 through the NRMM compliance project (Cleaner Construction for London). Camden's CMP pro forma contains a requirement for sites to ensure NRMM is compliant and registered. Conditions relating to NRMM compliance are included in decision notices for many applications, however the total number of conditions for planning permissions granted in 2020 is not currently retrievable. Camden's Sustainability team is working with the Council's Planning service to ensure NRMM conditions are applied routinely, with up-to-date wording as provided by LB Merton's Cleaner Construction for London project coordinator.

Camden Council's process for reviewing air quality through the planning system

<u>Pre-planning and planning application stage</u>

Camden's Senior Sustainability Officers (Planning) are statutory consultees and review planning applications from an air quality, energy/carbon, and flood risk/LLFA

perspective, and work closely with the Senior Air Quality Officer and the Planning service to ensure that all relevant planning applications are reviewed and conditions are applied and enforced. It is nevertheless viewed that there is continual opportunity for process improvement, both in terms of tightening controls and data collection, so that Camden can ensure future development is more sustainable and is undertaken in a way that offers greater protections to air quality, public health, and amenity.

During 2020 Camden developed a Sustainability and Energy pro forma to streamline the process of assessing new applications from a sustainability perspective, whilst also making Camden's policy and requirements clearer for all prospective applicants. The pro forma was implemented for use in late-2020.

Camden's Planning Guidance (CPG) on air quality was reviewed and updated in late-2020 for publication in early 2021. This sets out the Council's policy with regard to the consideration of air pollution in planning applications, considering the in-use air quality impacts from the proposed development, the exposure of existing residents to any additional air pollution, and the exposure of any future occupants of the development to air pollution.

Post-approval and ongoing compliance

Camden's air quality officers work closely with the Planning service (Planning Obligations and Planning Enforcement officers, in particular) as well as Environmental Health, Transport, Highways and Parking to ensure all applicable approved developments provide a Demolition Management Plan (DMP) and/or a Construction Management Plan (CMP). This is mandated through Section 106 Legal Agreements. CMPs and DMPs are aligned with a pro forma template which covers a number of issues including air quality and dust management during on-site activities for any new development or refurbishment.

Officers review and provide feedback on DMPs/CMPs and any unsatisfactory consideration of air quality and dust impacts on the part of the contractor or developer will lead to rejection and the need to submit a revised plan. The CMP/DMP covers the following air quality considerations:

- Preventative and reactive dust mitigation including prevention of resuspension of particulates from dust and debris tracked onto the public highway

- Real-time dust monitoring and reporting, based upon the dust risk classification from an Air Quality Dust Risk Assessment (AQDRA). Any medium or high risk sites are required to use real-time MCERTS dust monitors and to produce monthly reports for Camden to review. The Council is working towards having all dust reports and data publicly accessible for all applicable sites
- Adherence to the GLA dust mitigation checklist
- Adherence to NRMM conditions and registration of the site on the London NRMM Register
- Avoidance of vehicle engine idling

Two supplementary documents were produced in 2020 to provide further clarity for developers and contractors regarding the requirements for real-time dust monitoring and reporting. The LB Camden Requirements for Real-Time Dust Monitoring sets out the information needed to be provided by developers/contractors for air quality officers to be able to appraise and approve a proposed monitoring approach, and for the site to achieve ongoing compliance with the requirement to provide detailed monthly dust monitoring reports. The LB Camden CMP Dust Monitoring Template presents an example ideal monthly dust monitoring report detailing the current monitoring regime, data coverage, summaries of monitoring data in relation to established trigger levels, and narrative on the ongoing works and dust mitigation measures being applied onsite.

Through Camden's participation in the MAQF-funded NRMM compliance project led by LB Merton, all major construction sites in Camden are eligible for NRMM compliance audits. The Senior Air Quality Officer coordinates with LB Merton's Project Coordinator to ensure an up-to-date list of major sites is provided.

Where sites in Camden are found to be non-compliant in terms of NRMM standards, real-time dust (PM_{10}) monitoring or reporting, or management of air quality impacts in general, the first step is to engage directly with the site to convey the importance of compliance and improved performance. Failing this, the case will be passed to Camden's Planning Enforcement team (through liaison with a newly-formed Construction Management Forum comprising officers from various teams) for further action. This usually involves an enforcement case being opened and a formal warning being issued. Continued failure to meet conditions or comply with CMP or

S106 requirements would lead to an injunction being sought, though this stage was not required for any site during 2020.

4.1   New or significantly changed industrial or other sources

No new or significantly changed sources identified.

Appendix A   Details of Monitoring Site Quality QA/QC

A.1   Automatic Monitoring Sites

Routine calibrations are carried out on a fortnightly basis by Ricardo Energy and Environment. Operatives are trained to AURN standards.

The Swiss Cottage and Bloomsbury sites are part of the AURN and, as such, both are audited to the AURN standard. AURN sites are audited by providers selected by either Bureau Veritas (Bloomsbury) or King's College London Environmental Research Group (Swiss Cottage) which manage these sites for the AURN.

Non-AURN sites are audited by the National Physical Laboratory (NPL) which is UKAS accredited. NPL is also UKAS accredited for the recertification of onsite cylinders.

All sites are audited every six months, and comply with the validation procedures which conform to the requirements of the AURN and exceed the requirements of LAQM TG(16). The data ratification procedures also exceed the requirements of TG(16).

PM$_{10}$ Monitoring Adjustment

PM$_{10}$ and PM$_{2.5}$ is measured with TEOM-FDMS analysers at all sites in Camden at which these pollutants are monitored, and since these instruments are certified to MCERTS reference equivalent standard the VCM is not required.

A.2   Diffusion Tubes

Camden's diffusion tubes are supplied by Gradko International, and we use the 50% TEA in acetone preparation method.

Gradko follows the procedures set out in the Practical Guidance, and Gradko diffusion tubes using the 50% TEA/acetone preparation method were rated as having 'good' precision from 11 out of 12 colocation studies in 2020, according to the '2017-2020 Summary of Precision Results for Nitrogen Dioxide Diffusion Tube Collocation Studies, by Laboratory', published in April 2021 by Defra, which can be viewed here:

https://laqm.defra.gov.uk/documents/Tube_Precision_2020_version_03_21%20Final%20REDUCED%20FINAL.pdf

Gradko has scored highly in laboratory performance assessments for the AIR NO_2 Proficiency Testing Scheme (formerly WASP), and in the October 2020 summary from the LAQM Helpdesk (covering AIR PT rounds AR030-AR040, from January 2019 to October 2020) was found to have had 75% of results determined to be 'satisfactory' in AIR PT rounds AR036 (January-February 2020) and AR040 (September-October 2020). No results were reported for AIR PT rounds AR037 (May-June 2020) or AR039 (July-August 2020); this was the case for all laboratories reporting data. The 'Summary of Laboratory Performance in AIR NO_2 Proficiency Testing Scheme (January 2019 – October 2020' report published by Defra can be viewed here:

https://laqm.defra.gov.uk/assets/laqmno2performancedatauptooctober2020v1.pdf

We have used the national bias adjustment factor for Gradko International diffusion tubes prepared with the 50% TEA/acetone method (0.82) to adjust our raw diffusion tube annual mean concentrations for bias. This factor was published in the 'National Diffusion Tube Bias Adjustment Factor Spreadsheet, Version 03/21' in April 2021, which can be viewed here:

https://laqm.defra.gov.uk/documents/Database_Diffusion_Tube_Bias_Factors_v03_21.xlsx

Camden has compared the diffusion tube data at our colocation sites to reference equivalent NO_2 analysers, however due to data continuity issues the Council did not participate in the diffusion tube colocation study in 2020.

The only diffusion tube bias adjustment factor applied to the data presented in this report is the national bias adjustment factor for Gradko International diffusion tubes prepared with the 50% TEA/acetone method (from the Version 03/21 spreadsheet referenced above), which was 0.82.

Previous years' diffusion tube-measured annual mean NO_2 concentrations have been re-calculated where necessary with updated national bias adjustment factors as published by Defra (all for Gradko International diffusion tubes prepared with the 50% TEA/acetone method). Consequently the diffusion tube annual mean values for 2019 and preceding years which has been presented in this Annual Status Report supersede the annual means presented in previous Annual Status Reports.

Factor from Local Co-location Studies

Camden did not participate in the colocation study in 2020 and the Council has experienced continued data continuity issues with the Swiss Cottage triplicate colocation site.

Discussion of Choice of Factor to Use

Camden has historically tried to undertake diffusion tube colocation at the Swiss Cottage automatic monitoring site (CD1), however due to theft and/or tampering there has never been sufficient diffusion tube data capture to participate.

From 2019 a triplicate diffusion tubes site has been collocated with the Euston Road automatic monitoring site (CD9) with the intention that Camden will participate in future local colocation and bias adjustment studies subject to achieving sufficient data capture.

In the absence of local adjustment factors or other conditions suggesting that an alternative factor should be used, the National Bias Adjustment Factor for 2020 has been used.

Table M. Bias Adjustment Factor

Year	Local or National	If Local, Version of National Spreadsheet	Adjustment Factor
2020	National	03/21	0.82
2019	National	09/20	0.89
2018	National	09/19	0.89
2017	National	09/18	0.96
2016	National	09/17	1.01
2015	National	09/16	0.96
2014	National	09/15	0.98

A.3 Adjustments to the Ratified Monitoring Data

Short-term to Long-term Data Adjustment

Camden's diffusion tube collection during 2020 was severely impacted by COVID-19, in part due to lockdown restrictions and inaccessibility of Council buildings and also because Camden's primary air quality monitoring lead was redeployed to the PMART COVID-19 response centre.

Diffusion tube data has been annualised where there were at least three but fewer than nine months of data. Camden's own annualisation spreadsheet was used for the adjustment, however the calculations were performed in accordance with the LLAQM TG methodology.

Table M shows the annualisation factors that were used to adjust the raw diffusion tube data based upon NO_2 concentrations measured at the IS6 (Arsenal) and WM5 (Covent Garden) urban background automatic monitoring sites, both of which achieved sufficient data capture for use in diffusion tube annualisation adjustment. Usually Camden's BL0 (Bloomsbury (Russell Square Gardens)) site would be used, however NO_2 data capture was not sufficient during 2020.

Distance Adjustment

No distance adjustments were undertaken to any of Camden's air quality monitoring data.

Table N. Short-Term to Long-Term Monitoring Data Adjustment

Site ID	Annualisation Factor IS6	Annualisation Factor WM5	Annualisation Factor Site 3 Name	Annualisation Factor Site 4 Name	Average Annualisation Factor	Raw Data Annual Mean (µg m^{-3})	Annualised Annual Mean (µg m^{-3})	Comments
CA4A Euston Road (new)	1.0472	1.0634	-	-	1.0553	60.56	**52.40**	
CA27 Euston Road LAQN colocation	0.9668	1.0021	-	-	0.98445	56.31	**45.46**	
CA28 St. George's Gardens East	0.9548	0.9798	-	-	0.9673	27.65	21.93	
CA7 Frognal Way	0.9577	0.9905	-	-	0.9741	22.84	18.24	
CA10 Tavistock Gardens	0.9668	1.0021	-	-	0.98445	32.39	26.15	
CA11 Tottenham Court Road	0.9668	1.0021	-	-	0.98445	52.33	**42.24**	
CA15 Swiss Cottage	N/A	N/A	-	-	N/A	60.82	-	Not enough data
CA16 Kentish Town Road	0.9618	0.9951	-	-	0.97845	41.64	33.41	
CA17 47 Fitzjohn's Avenue	0.9577	0.9905	-	-	0.9741	42.13	33.65	
CA20A Brill Place (new)	0.9668	1.0021	-	-	0.98445	53.08	**42.85**	
CA21 Bloomsbury Street	0.8699	0.8789	-	-	0.8744	40.20	28.82	
CA23 Camden Road	0.9618	0.9951	-	-	0.97845	53.86	**43.21**	
CA24 Chetwynd Road	0.9618	0.9951	-	-	0.97845	36.46	29.26	
CA25A Emmanuel Primary School (new)	0.9577	0.9905	-	-	0.9741	38.86	31.04	
CA26 Witanhurst Lane	0.9618	0.9951	-	-	0.97845	30.25	24.27	
CA29 Endsleigh Gardens	0.9668	1.0021	-	-	0.98445	42.71	34.48	
CA30 Dartmouth Park Hill	0.9618	0.9951	-	-	0.97845	34.72	27.86	
CA31 Acland Burghley School (Burghley Road)	0.8644	0.8717	-	-	0.86805	28.04	19.96	
CA32 Oakford Road	0.9618	0.9951	-	-	0.97845	28.15	22.59	
CTLEN1 Haverstock School (Haverstock Hill)	0.9689	1.0053	-	-	0.9871	28.35	22.95	
CTLEN2 Harmood Street	0.9689	1.0053	-	-	0.9871	30.02	24.30	
CTLEN3 Hartland Road	0.9689	1.0053	-	-	0.9871	31.51	25.51	
CTLEN4 Hawley Primary School (Hawley Road)	0.9689	1.0053	-	-	0.9871	41.14	33.30	
CTLEN5 Kentish Town Road	0.9689	1.0053	-	-	0.9871	40.77	33.00	
CTLEN6 Hawley Crescent	0.9689	1.0053	-	-	0.9871	38.90	31.49	
CTLEN7 Jamestown Road	0.9689	1.0053	-	-	0.9871	36.02	29.16	
CTLEN8 Camden High Street (Bridge)	0.9689	1.0053	-	-	0.9871	39.91	32.30	
CTLEN9 Camden High Street (Camden News)	0.9689	1.0053	-	-	0.9871	36.80	29.78	
CTLEN10 Camden High Street (American Candy)	0.9689	1.0053	-	-	0.9871	45.58	36.89	
CTLEN11 Britannia Junction	0.9121	0.9659	-	-	0.939	51.61	39.74	
CTLEN12 Cavendish School (Arlington Road)	0.9689	1.0053	-	-	0.9871	32.44	26.26	
CTLEN13 Holy Trinity & St. Silas School (Hartland Road)	0.9689	1.0053	-	-	0.9871	26.66	21.58	

Appendix B   Full Monthly Diffusion Tube Results for 2020

Table O.   NO₂ Diffusion Tube Results

Site ID	Valid data capture for monitoring period %[a]	Valid data capture 2020 %[b]	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual mean – raw data	Annual mean – bias adjusted
CA4A Euston Road (new)		50%	82.6	70.0				53.2	46.7	57.7	53.3				60.56	**52.40**
CA27 Euston Road LAQN colocation		67%	77.2	72.8				55.0	43.0	49.0	47.6	49.5	56.7		56.31	**45.46**
CA28 St. George's Gardens East		58%	38.1	39.7				18.6	17.3	19.4		22.1	38.4		27.65	21.93
CA7 Frognal Way		67%	40.5	26.7				15.0	13.4	15.4	20.2	21.5	29.9		22.84	18.24
CA10 Tavistock Gardens		67%	54.0	45.1				22.6	17.5	18.5	27.2	32.2	42.2		32.39	26.15
CA11 Tottenham Court Road		67%	73.0	54.3				43.3	40.5	45.1	50.8	56.7	54.9		52.33	**42.24**
CA15 Swiss Cottage		8%	60.8													60.82
CA16 Kentish Town Road		67%	51.4	42.3				36.8	27.6	38.1	42.4	41.8	52.7		41.64	33.41
CA17 47 Fitzjohn's Avenue		67%	58.2	46.				36.5	31.9	37.9	42.3	39.2	44.8		42.13	33.65
CA20A Brill Place (new)		67%	67.1	65.2				45.8	32.9	41.2	45.2	66.0	61.3		53.08	**42.85**
CA21 Bloomsbury Street		50%	54.9	42.3				24.8			35.0	34.0	50.3		40.20	28.82
CA23 Camden Road		67%	69.2	51.2				47.9	40.6	56.8	56.0	50.9	58.4		53.86	**43.21**
CA24 Chetwynd Road		67%	54.5	40.0				26.0	26.3	29.0	34.3	37.4	44.2		36.46	29.26
CA25A Emmanuel Primary School (new)		67%	53.9	38.3				30.5	41.2	32.1	39.1	33.5	42.4		38.86	31.04
CA26 Witanhurst Lane		67%	43.5	29.8				25.5	18.9	24.6	29.4	29.8	40.6		30.25	24.27
CA29 Endsleigh Gardens		67%	63.6	47.3				30.9	26.5	38.8	37.6	43.4	53.6		42.71	34.48
CA30 Dartmouth Park Hill		67%	50.2	39.6				27.4	24.1	30.1	33.5	30.6	42.3		34.72	27.86
CA31 Acland Burghley School (Burghley Road)		50%	33.0	27.6				13.6			26.6	26.7	40.7		28.04	19.96
CA32 Oakford Road		67%	45.6	34.4				18.5	16.6	18.6	24.8	27.7	39.0		28.15	22.59
CTLEN1 Haverstock School (Haverstock Hill)		67%	40.9	31.6				20.2	19.0	25.6	27.4	28.9	33.3		28.35	22.95
CTLEN2 Harmood Street		67%	45.5	35.3				19.9	18.0	26.0	30.6	30.2	34.7		30.02	24.30
CTLEN3 Hartland Road		67%	43.7	34.4				19.7	18.4	24.4	25.8	50.2	35.5		31.51	25.51
CTLEN4 Hawley Primary School (Hawley Road)		67%	58.6	49.2				31.6	28.0	35.8	37.9	47.1	40.9		41.14	33.30
CTLEN5 Kentish Town Road		67%	49.4	40.4				26.7	32.8	38.4	41.6	46.5	50.3		40.77	33.00
CTLEN6 Hawley Crescent		67%	62.1	41.7				29.2	25.0	33.5	33.7	40.3	45.8		38.90	31.49
CTLEN7 Jamestown Road		67%	54.5	40.9				25.0	27.7	33.0	37.9	32.5	36.7		36.02	29.16
CTLEN8 Camden High Street (Bridge)		67%	53.9	40.2				36.5	29.7	38.9	33.8	41.6	44.6		39.91	32.30
CTLEN9 Camden High Street (Camden News)		67%	54.9	45.1				26.1	26.8	32.2	34.5	33.9	41.1		36.80	29.78
CTLEN10 Camden High Street (American Candy)		67%	60.1	59.0				34.1	31.7	42.7	43.2	46.4	47.5		45.58	36.89
CTLEN11 Britannia Junction		42%	65.5					42.8		46.8		46.6	56.3		51.61	39.74
CTLEN12 Cavendish School (Arlington Road)		67%	47.3	36.1				21.9	18.1	30.4	31.5	35.2	39.2		32.44	26.26
CTLEN13 Holy Trinity & St. Silas School (Hartland Road)		67%	42.3	32.0				17.9	15.3	19.5	21.6	29.1	35.7		26.66	21.58

Notes

Concentrations are presented as μg m^{-3}.

Exceedances of the NO$_2$ annual mean AQO of 40 μg m^{-3} are shown in **bold**.

NO$_2$ annual means in excess of 60 μg m-^{3}, indicating a potential exceedance of the NO$_2$ hourly mean AQS objective are shown in **<u>bold and underlined</u>**.

All means have been "annualised" in accordance with LLAQM Technical Guidance if valid data capture for the calendar year is less than 75% and greater than 33%.

(a) Data capture for the monitoring period, in cases where monitoring was only carried out for part of the year.

(b) data capture for the full calendar year (e.g. if monitoring was carried out for six months the maximum data capture for the full calendar year would be 50%).