London Borough of Brent Air Quality Annual Status Report for 2021

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This report provides a detailed overview of air quality in London Borough of Brent (LBB) during 2021. 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))

Contents

Tables

Figures

Abbreviations

Abbreviation	Description
AQAP	Air Quality Action Plan
AQMA	Air Quality Management Area
AQO	Air Quality Objective
BAM	Beta-attenuation Particulate Monitor
BEB	Buildings Emission Benchmark
CAB	Cleaner Air Borough
ERG	Environmental Research Group at Imperial College London
EV	Electric Vehicle
GLA	Greater London Authority
LAEI	London Atmospheric Emissions Inventory
LAQM	Local Air Quality Management
LBB	London Borough of Brent
LLAQM	London Local Air Quality Management
NPL	National Physical Laboratory
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
TEOM	Tapered Element Oscillating Microbalances
TfL	Transport for London

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 ($PM_{2.5}$)	20 µg m^{-3}	Annual mean	2021
Particles ($PM_{2.5}$)	Target of 15% reduction in concentration at urban background locations	3-year mean	Between 2010 and 2021
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

1. Air Quality Monitoring

The London Borough of Brent operates three automatic monitoring stations at roadside (R) sites (BT4, BT6 and BT8) and one at an industrial (I) site (BT5). The IKEA site (BT4) measures NO_2, PM_{10} (by continuous Beta-attenuation Particulate

Monitor (BAM)) and $PM_{2.5}$ (by BAM); the Neasden Lane site (BT5) measures NO_2 and PM_{10} (by Tapered Element Oscillating Microbalances (TEOM)); the John Keeble Primary School site (BT6) measures NO_2 and PM_{10} (by TEOM); and Ark Franklin Primary Academy site (BT8) measures NO_2, PM_{10} and $PM_{2.5}$ (both by TEOM). All monitoring sites are within the Council's Air Quality Management Area (AQMA). The LB of Brent monitors annual mean NO_2 concentrations using passive diffusion tubes at 45 sites throughout the Borough. In 2021, diffusion tubes were setup to include 43 roadside locations and 2 background locations (site ID 33A and 71).

1.1 Locations

Table B. Details of Automatic Monitoring Sites for 2021

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
BT4	IKEA	520866	185169	Roadside	Y	38	3.7	1.6	NO_2, PM_{10}, $PM_{2.5}$, O_3	Chemiluminescent; TEOM
BT5	Neasden Lane	521511	185204	Industrial	Y	35	4	2.5	NO_2, PM_{10}	Chemiluminescent, TEOM
BT6	John Keeble Primary School	521619	183554	Roadside	Y	10	2	2.5	NO_2, PM_{10}	Chemiluminescent, TEOM
BT8	Ark Franklin Primary Academy	523716	183030	Roadside	Y	10	3.3	2.5	NO_2, PM_{10}, $PM_{2.5}$	Chemiluminescent, TEOM

Table C. Details of Non-Automatic Monitoring Sites for 2021

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)
1	Junc. Kenton Rd/Upton Gds	516929	188560	Roadside	Y	15	2	1.5	NO_2	N
2	Harrow Rd/Sudbury Court Drive	515793	186042	Roadside	Y	10	1	1.5	NO_2	N
4	Junc. Shaftsbury Ave/Woodcock Hill	518240	187747	Roadside	N	6	1	1.5	NO_2	N
7	Junc. Bridgewater Rd/Ealing Rd	517942	183721	Roadside	Y	17	2	1.5	NO_2	N
9	Junc. East Lane/Wembley Hill Rd	518499	186168	Roadside	Y	20	2	1.5	NO_2	N
17	Junc. Old Church Lane/Neasden Lane	520480	186537	Roadside	Y	4	1	1.5	NO_2	N
21a	Central Way, Park Royal	520077	182853	Roadside	Y	4	1	1.5	NO_2	N
22	Junc. Kingsbury Rd/Edgware Rd	521447	188730	Roadside	Y	5	1	1.5	NO_2	N
23	Junc. North Circular Rd/Chartley Ave	521213	186125	Roadside	Y	10	2	1.5	NO_2	N
26	Junc. Dudden Hill Lane/High Rd	522191	184821	Roadside	Y	19	1	1.5	NO_2	N
29	Junc. Dollis Hill Lane/Cricklewood B/W	523191	186571	Roadside	Y	12	1	1.5	NO_2	N
30	Chichele Rd near Melrose Ave	523663	185353	Roadside	Y	10	1	1.5	NO_2	N
33a	Fryent Country Park	519572	187691	UrbanBG	Y	50	1	1.5	NO_2	N
41	R/O 246 Neasden Lane	521455	185920	Roadside	Y	3	4	1.5	NO_2	N

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)
48	Kilburn Park Rd Junc. Shirland Rd	525196	182517	Roadside	Y	2	1	1.5	NO_2	N
52	IKEA hut North Circular Rd	520874	185173	Roadside	Y	40	3.7	1.5	NO_2	Y
53	Junc. Ealing Rd/High Road	518026	185028	Roadside	Y	15	1	1.5	NO_2	N
54	Junc. Ealing Rd/Riverside Gds	518236	183207	Roadside	Y	4	1	1.5	NO_2	N
60	Junc. Bridge Rd/Forty Ave	519475	186557	Roadside	Y	35	1	2	NO_2	N
61	Forty Lane F/O Old Brent Town hall			Roadside	Y	40	1	2	NO_2	N
62	Junc. Kings Drive/Forty Lane	519667	186604	Roadside	Y	40	1	2.5	NO_2	N
63	King's Drive opp no 37	519703	187007	Roadside	N	7	1	2.5	NO_2	N
64	The Paddocks opp no 9	519824	186715	Roadside	Y	20	1	2.1	NO_2	N
65	Junc. Aybone Rd/ 517 NCR	521313	186529	Roadside	Y	7	1	2.2	NO_2	N
66	Junc. Heather Rd/Tanfield Ave	521912	186514	Roadside	Y	20	1	2.1	NO_2	N
67	Dawport Road f/o 24	521651	186611	Roadside	Y	5	1	2.1	NO_2	N
68	Junc. Randall Ave/next to 730 NCR	521448	186626	Roadside	Y	5	1	2.5	NO_2	N
69	F/O 65 Wrentham Ave	523782	183527	Roadside	Y	8	1	2.1	NO_2	N
70	Junc. Peploe Rd / f/o 72 Chevening Rd	523828	183338	Roadside	Y	5	1	2.1	NO_2	N
71	Queens Park rec area on CCTV post	524179	183232	UrbanBG	Y	25	45	2.1	NO_2	N

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)
72	f/o 139 Harvist Road	524142	183120	Roadside	Y	5	1	2.1	NO_2	N
73	Jct Harvist Rd/Salisbury Rd opp Police St	524607	183267	Roadside	Y	3	1	2.1	NO_2	N
74	Jct Salisbury Rd/Chevening Rd	524283	183882	Roadside	Y	5	3	2.1	NO_2	N
75	Jct Woodcock Hill	517499	187778	Roadside	Y	15	3	2.1	NO_2	N
76	Lindsay Dr Jct Branksome Way	518430	188406	Roadside	N	5	1	2.1	NO_2	N
77	Beverly Dr Jct Sandhurst Rd	519100	189827	Roadside	N	11	1	2.1	NO_2	N
78	Jct Harrow Rd/Watford Rd	516721	185478	Roadside	Y	12	2	2.1	NO_2	N
79	Ark Franklin AQ station	523721	183008	Roadside	Y	10	2	1.5	NO_2	Y
BRT42	Police St, Craven Park	521131	183995	Roadside	Y	3	3	1.5	NO_2	N
BRT43	Pitfield Way	520242	184541	Roadside	Y	20	2	1.5	NO_2	N
BRT53	High Rd Wembley	518303	185181	Roadside	Y	4	0.5	1.5	NO_2	N
BRT55	High Street Harlesden	521743	183361	Roadside	Y	3	0.5	1.5	NO_2	N
BRT56	Chamberlayne Road	523635	183153	Roadside	Y	15	0.5	1.5	NO_2	N
BRT57	Kilburn Bridge	525419	183612	Roadside	Y	8	0.5	1.5	NO_2	N
BRT58	51 High Road, Willesden	523031	184655	Roadside	Y	2	0.5	1.5	NO_2	N

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 D. Annual Mean NO_2 Ratified, Bias-adjusted, and Distance Corrected (where applicable) Monitoring Results

Site ID	Site type	Valid data capture for monitoring period %[(a)]	Valid data capture 2021 %[(b)]	2015	2016	2017	2018	2019	2020	2021
BT4	Automatic	98.5	98.5	**41.0**	**76.0**	**72.0**	**71.0**	**63.0**	**49.0**	**46.4**
BT5	Automatic	98.9	98.9	38.8	**44.0**	**46.0**	38.0	38.0	29.0	30.0
BT6	Automatic	99.6	99.6	N/A	**45.0**	**45.0**	39.0	37.0	29.0	28.7
BT8	Automatic	99.6	99.6	N/A	N/A	**54.0**	**46.0**	**41.0**	29.0	31.5
1	Diffusion Tube	100.0	100.0	**40.1**	**41.1**	36.2	LD	30.3	28.4	31.8
2	Diffusion Tube	100.0	100.0	**41.7**	**51.0**	**41.8**	LD	30.9	27.4	33.9
4	Diffusion Tube	100.0	100.0	**40.3**	**51.1**	**42.7**	LD	30.8	28.9	30.2
7	Diffusion Tube	100.0	100.0	**62.3**	**71.6**	**62.8**	LD	*39.5*	29.3	34.8
9	Diffusion Tube	50.0	50.0	**47.3**	**57.1**	**49.9**	LD	32.8	35.1	28.7
17	Diffusion Tube	100.0	100.0	**55.4**	**67.5**	**55.7**	LD	**42.7**	31.7	33.5
21a	Diffusion Tube	100.0	100.0	**48.7**	**55.1**	**46.9**	LD	*37.2*	30.6	32.4
22	Diffusion Tube	41.7	41.7	**56.7**	**65.1**	**58.1**	LD	*38.1*	31.1	*36.1*
23	Diffusion Tube	100.0	100.0	**93.2**	**115.4**	**93.9**	LD	**59.7**	**44.7**	**45.7**

Site ID	Site type	Valid data capture for monitoring period %[a]	Valid data capture 2021 %[b]	2015	2016	2017	2018	2019	2020	2021
26	Diffusion Tube	75.0	75.0	**63.9**	**73.7**	**61.9**	LD	30.4	25.8	31.1
29	Diffusion Tube	100.0	100.0	**74.1**	**86.0**	**55.6**	LD	35.3	26.6	29.3
30	Diffusion Tube	100.0	100.0	**52.6**	**62.6**	**51.3**	LD	31.2	26.2	29.2
33a	Diffusion Tube	100.0	100.0	22.9	29.1	22.2	LD	24.3	26.0	29.1
41	Diffusion Tube	100.0	100.0	**60.7**	**74.4**	**60.1**	LD	*39.3*	*39.5*	**46.7**
48	Diffusion Tube	100.0	100.0	**56.5**	**71.6**	**59.9**	LD	**40.6**	30.1	33.3
52	Diffusion Tube	100.0	100.0	**87.9**	**102.1**	**86.6**	LD	*37.7*	30.3	29.6
53	Diffusion Tube	100.0	100.0	**66.6**	**83.85**	**68.3**	LD	**44.8**	34.5	**40.6**
54	Diffusion Tube	100.0	100.0	**47.1**	**52.5**	**46.0**	LD	*37.6*	27.1	31.2
60	Diffusion Tube	100.0	100.0	N/A	N/A	N/A	LD	30.1	33.1	27.6
61	Diffusion Tube	100.0	100.0	N/A	N/A	N/A	LD	33.7	28.9	31.2
62	Diffusion Tube	100.0	100.0	N/A	N/A	N/A	LD	27.5	26.6	30.4
63	Diffusion Tube	91.7	91.7	N/A	N/A	N/A	LD	26.0	19.0	20.5
64	Diffusion Tube	100.0	100.0	N/A	N/A	N/A	LD	33.5	23.0	28.5
65	Diffusion Tube	91.7	91.7	N/A	N/A	N/A	LD	35.9	33.7	34.2
66	Diffusion Tube	100.0	100.0	N/A	N/A	N/A	LD	34.6	25.3	29.2

Site ID	Site type	Valid data capture for monitoring period %[(a)]	Valid data capture 2021 %[(b)]	2015	2016	2017	2018	2019	2020	2021
67	Diffusion Tube	100.0	100.0	N/A	N/A	N/A	LD	33.4	24.1	26.0
68	Diffusion Tube	91.7	91.7	N/A	N/A	N/A	LD	37.6	32.4	32.5
69	Diffusion Tube	91.7	91.7	N/A	N/A	N/A	LD	34.5	21.6	25.8
70	Diffusion Tube	100.0	100.0	N/A	N/A	N/A	LD	33.0	21.5	23.5
71	Diffusion Tube	91.7	91.7	N/A	N/A	N/A	LD	30.2	20.1	22.8
72	Diffusion Tube	100.0	100.0	N/A	N/A	N/A	LD	35.6	24.9	26.7
73	Diffusion Tube	100.0	100.0	N/A	N/A	N/A	LD	34.6	26.0	30.0
74	Diffusion Tube	100.0	100.0	N/A	N/A	N/A	LD	31.4	22.4	26.2
75	Diffusion Tube	100.0	100.0	N/A	N/A	N/A	LD	31.4	19.5	22.7
76	Diffusion Tube	100.0	100.0	N/A	N/A	N/A	LD	25.9	21.8	18.3
77	Diffusion Tube	75.0	75.0	N/A	N/A	N/A	LD	31.2	23.0	24.9
78	Diffusion Tube	91.7	91.7	N/A	N/A	N/A	LD	33.6	30.7	33.2
79	Diffusion Tube	91.7	91.7	N/A	N/A	N/A	LD	34.2	28.6	30.0
BRT42	Diffusion Tube	100.0	100.0	**41.8**	**49.8**	**42.4**	LD	*37.7*	26.8	30.6
BRT43	Diffusion Tube	100.0	100.0	**80.3**	**80.7**	**73.7**	LD	**42.6**	35.2	32.6
BRT53	Diffusion Tube	100.0	100.0	**75.7**	**80.8**	**64.9**	LD	**49.8**	**54.1**	**43.7**

Site ID	Site type	Valid data capture for monitoring period %[a]	Valid data capture 2021 %[b]	2015	2016	2017	2018	2019	2020	2021
BRT55	Diffusion Tube	83.3	83.3	**73.5**	**91.8**	**76.7**	LD	**67.1**	35.2	**84.7**
BRT56	Diffusion Tube	83.3	83.3	**56.8**	**69.4**	**58.3**	LD	**41.3**	30.0	28.7
BRT57	Diffusion tube	100.0	100.0	**85.3**	**84.2**	**64.4**	LD	**41.7**	33.8	*39.6*
BRT58	Diffusion Tube	100.0	100.0	**58.1**	**65.7**	**52.7**	LD	**41.7**	35.5	33.8

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 **bold and underlined**.

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 25%.

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%).

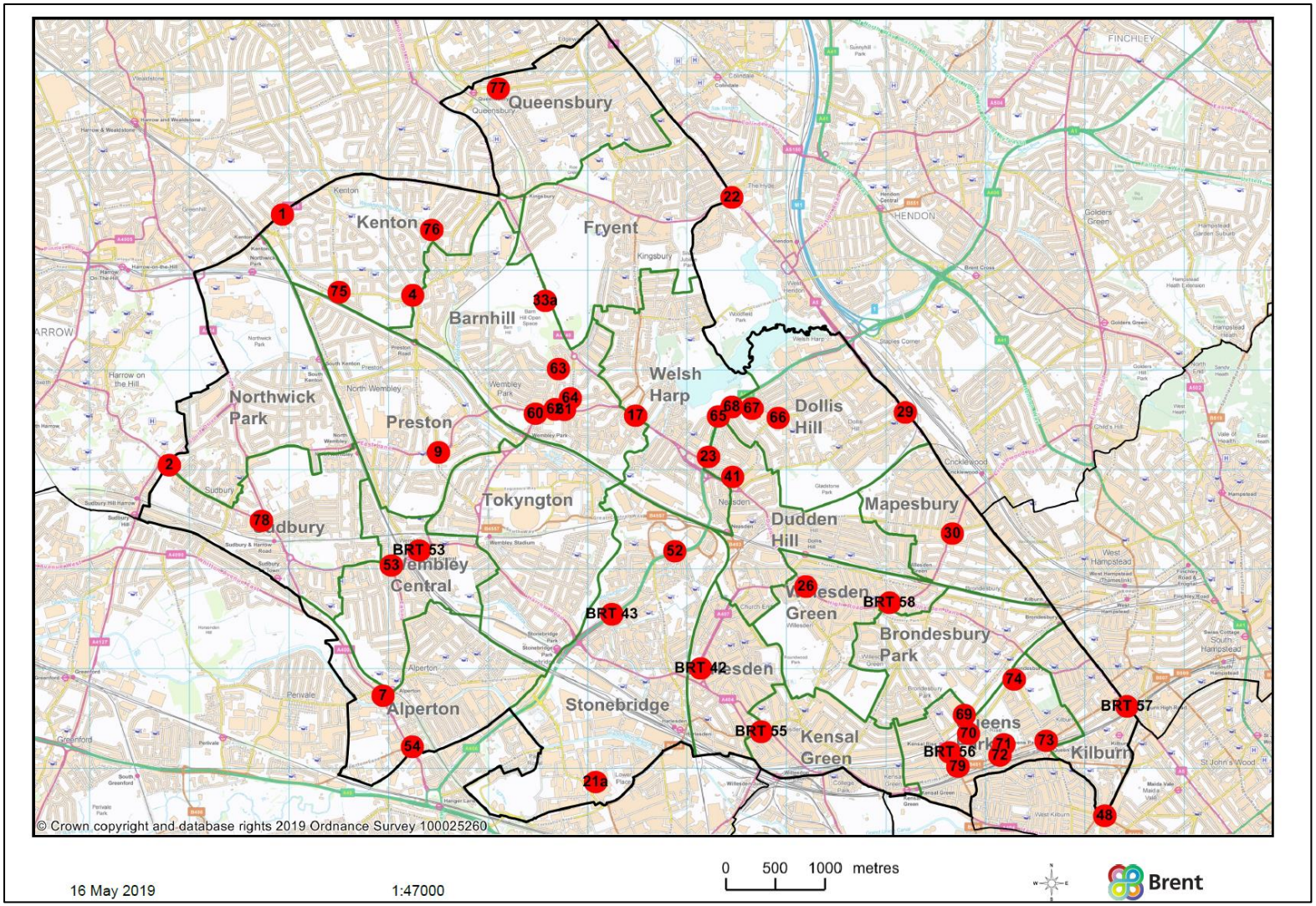

Figure 1. Brent Diffusion tube network locations

Table E. 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 2021 %(b)	2015	2016	2017	2018	2019	2020	2021
BT4	98.5	98.5	0	**33**	**33**	1	9	0	2
BT5	98.9	98.9	0	**25**	17	1	2	0	0
BT6	99.6	99.6	N/A	0	0	0	0	0	0
BT8	99.6	99.6	N/A	N/A	0	0	0	0	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%)

Table F. Annual Mean PM_{10} Automatic Monitoring Results (µg m^{-3})

Site ID	Valid data capture for monitoring period %([a])	Valid data capture 2021 %([b])	2015	2016	2017	2018	2019	2020	2021
BT4	98.6	98.6	29.0	33.0	33.0	32.0	30.0	26.0	25.6
BT5	99.7	99.7	31	31	30	28	26	21	21.4
BT6	96.7	96.7	17	20	20	20	19	19	17.6
BT8	98.9	98.9	N/A	N/A	19	19	18	17	17.6

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 25%.

(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 G. 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 2021 %[(b)]	2015	2016	2017	2018	2019	2020	2021
BT4	98.6	98.6	23	**45**	**41**	**37**	29	20	16
BT5	99.7	99.7	15	**37**	29	22	11	3	4
BT6	96.7	96.7	1	9	20	1	4	4	0
BT8	98.9	98.9	N/A	N/A	0	1	1	1	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%).

Table H. Annual Mean $PM_{2.5}$ Automatic Monitoring Results (µg m^{-3})

Site ID	Valid data capture for monitoring period %[a]	Valid data capture 2021 %[b]	2015	2016	2017	2018	2019	2020	2021
BT4	97.3	97.3	20.4	23.7	21.4	20.0	20.7	13.0	13.5
BT8[c]	94.0	94.0	N/A	N/A	14.7	14.6	18.9	13.7	7.4

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 25%.

(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. Action to Improve Air Quality

2.1 Air Quality Action Plan Progress

Table J provides a brief summary of Brent's progress against the Air Quality Action Plan, showing progress made this year. New projects which commenced in 2021 are shown at the bottom of the table.

Table J. Delivery of Air Quality Action Plan Measures

Action ID	Theme	Action	2021 update

1.1	Monitoring and other core statutory duties	Maintaining and where possible expanding monitoring networks, and fulfilling other statutory duties.	**Automatic monitoring**
			• Four automatic monitoring stations (three are roadside and one is industrial).
			  ○ Of these, all four measure NO_2 and PM_{10}, two measure $PM_{2.5}$ and one measures O_3.
			  ○ All automatic stations were calibrated fortnightly and audited every six months during 2021
			  ○ All automatic stations were serviced twice a year and we contracted a 48hr breakdown response service to maintain high data capture rate
			
			Diffusion tube monitoring
			• Brent expanded its diffusion tube network from twenty-seven to forty-five in 2018/2019.
			• These existing sites have been retained and maintained throughout 2021.
			  ○ All diffusion tubes are analysed in UKAS accredited labs and data is bias corrected using national studies.
			• In 2020 a further network of over 70 tubes ((separate to the tubes referenced in Table D this report) were deployed for monitoring of School Streets and Low Traffic Neighbourhood schemes These were retained

Action ID	Theme	Action	2021 update
1.1	Monitoring and other core statutory duties	Maintaining and where possible expanding monitoring networks, and fulfilling other statutory duties.	during 2021. These were retained during 2021 and the data is available in Appendix C of this report. **Sharing data** • Results of the monitoring stations are collated in the Annual Status Report which is made available on Brent's Air Quality section of the website: https://www.brent.gov.uk/services-for-residents/environment/air-quality/air-quality-reports/ • LB Brent holds membership of the London Air Quality Network, which means our automatic monitoring site data, is included in periodic LAQN reporting mechanisms. https://www.londonair.org.uk/london/asp/publicbulletin.asp?region=0&bulletin=hourly&site=&lat=51.5585&lon=-0.267803&Species=All&laEdge=&VenueCode=&zoom=11&WhoBulletin=N **Air Quality Sensor trials** • Brent are proactively seeking ways to further extend the monitoring network: ○ Low-cost sensor trials conducted in 2021 in partnership with Imperial College London. Five Air Quality sensors were co-located at Brent automatic monitoring stations for comparison. **Breathe London Network** • We joined the Breathe London network, which is a network of small sensors supplied by Imperial College London, which collect data that aims to provide greater detail on London's air pollution. The network is funded by the London Mayor. • As part of our membership, we were able to install three Clarity Nodes sensors. The first installation was in February 21 at our monitoring station BT4 Wembley, as a co-located reference site, followed by two further installations in September 21 at High Road, Wembley and Carlton Vale Road, Kilburn. • Data is reported via a live feed on the Breathe London website.

Action ID	Theme	Action	2021 update
			https://www.breathelondon.org/sensor-info?sitecode=CLDP0028&species=both
2.1	Emissions from developments and buildings	Ensuring emissions from construction are minimised.	**Construction dust** • Dust management plans required for all major construction sites. • Planning conditions required by Environmental Monitoring team where dust pollution likely. • Brent responds to all statutory nuisance dust/particulate pollution complaints • Enforcement under nuisance control legislations or planning enforcement. • Member of the London Low Emission Construction Partnership (LLECP) http://www.clec.uk/about/about-project/llecp-partners
2.2	Emissions from developments and buildings	Ensuring enforcement of non-road mobile machinery (NRMM) air quality policies	**NRMM enforcement** • Brent is a member of the MAQF pan-London NRMM project. Over 2021, 35 site audits were completed with a 66% compliance rate.
2.3	Emissions from developments and buildings	Reducing emissions from CHP Reducing emissions from CHP (uecontind)	**CHP emissions** • The Brent Local Plan 2019-2041 stipulates a move away from individual gas boilers. • The draft Policy BSUI1 allows for heat network developments to be tapped into as long as the heat network has a decarbonisation plan • At present, any development proposal with planned CHPs are reviewed by the environmental monitoring team to confirm low emission status, with a sustainability checklist used to encourage uptake of greener energy sources. Any CHP proposal would need to prove that local air quality is not affected and that sensitive receptors are not adversely affected by emissions. An AQ neutral assessment would be required. https://www.brent.gov.uk/media/154774/Sustainability%20Checklist%20v4%20Oct2011.xlsx

Action ID	Theme	Action	2021 update
2.4	Emissions from developments and buildings	Enforce Air Quality Neutral policy	• Planning cases are assessed for air quality issues with Local Plan policies addressing a range of construction and development emissions. • Over 2021, Brent's Local Plan was being examined by Inspectors. The Brent Local Plan was adopted in February 2022. In addition, London Plan 2021 required all developments to be Air Quality Neutral, not just major developments. All major developments in Growth Areas and AQFA (Air Quality Focus Areas are required to be Air Quality Positive, as identified within the Brent Air Quality Action Plan and draft Brent Local Plan. • All major developments are reviewed for air quality issues at the pre-application stage as well as during the planning process. Mitigation or modifications of proposed plans are required where poor air quality or high exposure levels are highlighted. https://www.brent.gov.uk/services-for-residents/planning-and-building-control/before-you-make-a-planning-application/planning-pre-application-advice-service/ https://www.brent.gov.uk/services-for-residents/planning-and-building-control/planning-policy/shaping-brent-s-future-together/ https://www.brent.gov.uk/services-for-residents/planning-and-building-control/planning-policy/current-planning-policy-consultations/
2.5	Emissions from developments and buildings	Ensuring adequate, appropriate, and well-located green space and infrastructure is included in new and	The Brent Local Plan 2019-2041 was adopted by Full Council in February 2022. This states that "All minor residential developments (less than 10 dwellings) are required to deliver an Urban Greening Factor of 0.4 on site. Brent Local Plan also requires all major developments to achieve UGF in line with London Plan Policy G5. • The new Local Plan includes policies to promote tree planting and secure new open space. ○ 40% of each residential development site needs to be capable of providing bio-diverse environments (Urban Greening Factor 0.4) ○ This is an extension of the London Plan, which only stipulates the Urban Greening Factor for larger developments.

Action ID	Theme	Action	2021 update
		existing developments	○ Minimum open space requirements, e.g. number of Local Parks set out for new Growth Areas and on-site delivery in Open Space Deficiency Areas.
2.6	Emissions from developments and buildings	Declaring Smoke Control Zones and ensuring they are fully promoted and enforced	• The whole of Brent Borough is a smoke control zone. This is to control emissions from domestic chimneys caused by the burning of coal and wood. Any complaints or reports related to violation of this is actioned by the Regulatory Service team under the Clean Air Act. In 2021, 0 complaints were received in relation to this. • Standard practice is that during any complaint/ investigatory visits, environmental health officers advise and direct operators/residents/retailers. The council issues guidance to assist businesses and residents to make informed choices about the least polluting fuels and equipment they can use. Brent Council have joined the GLA Wood burning working group to collaborate on efforts to ensure the revised regulations are well communicated. As part of this, all premises selling solid fuel were identified (45) and the GLA sent out a communication to advise them of the Air Quality (Domestic Solid Fuels Standards) (England) Regulations 2020. Brent Council officers conducted site visits in August 2020 to audit suppliers. • Guidance can be found at this URL under the “Smoke control area header: https://www.brent.gov.uk/services-for-residents/environment/air-quality/air-quality-management-area/ • Brent has signed up to the Defra Smoke Control Area data sharing project. • Smoke complaints in relation to bonfires are managed through the statutory nuisance process or the illegal disposal of waste if the burning is being carried out by a business.

Action ID	Theme	Action	2021 update
2.7	Emissions from developments and buildings	Promoting and delivering energy efficiency and energy supply retrofitting projects in workplaces and homes through EFL retrofit programmes such as RE:FIT, RE:NEW and through borough carbon offset funds	In July 2019, Brent Council declared a Climate and Ecological Emergency and in April 2021 Brent's Cabinet approved their Climate and Ecological Emergency Strategy which committed to: • Aim for carbon neutrality by 2030. • Achieve zero carbon in Council buildings by 2030. https://www.brent.gov.uk/council-news/july-2019/climate-emergency-declared-by-brent/ https://www.brent.gov.uk/your-community/climate-emergency/our-response-to-the-climate-emergency/ One of the five key themes within this strategy is Homes, Buildings and the Built Environment. This holds a long-term objective of: 'By 2030, as many homes and buildings in the borough as possible will be more energy efficient, be powered by renewable sources and be resilient to future adverse weather events caused by climate change – and we will do all in our gift to achieve an average rating of Energy Performance Certificate B in directly owned council stock". **In the first year of delivery (2021-2022), Brent:** • Developed a plan for the council to achieve net zero carbon emissions from the council's own estate and operations by 2030 • Commissioned a detailed assessment of our own housing to identify the energy efficiency measures required and the potential costs for housing types, with consideration across all housing tenures. • Undertook three retrofitting pilot projects to improve the energy efficiency of a number of specific void properties in the council's own stock. This resulted in a carbon saving of 8.5 tonnes. • Launched the Brent Climate Offset Fund to incentivise domestic and non-domestic energy efficiency and renewable energy measures

Action ID	Theme	Action	2021 update
2.7	Emissions from developments and buildings	Promoting and delivering energy efficiency and energy supply retrofitting projects in workplaces and homes through EFL retrofit programmes such as RE:FIT, RE:NEW and through borough carbon offset funds. (continued)	• Planned the delivery of the tower block works programme, which will include retrofitting work to improve the energy efficiency of properties within at least three council tower blocks – beginning work to our target of an average of EPC B in our housing stock by 2030. This is due to commence in 2022. **Projects:** **1. Launch of Carbon Offset Fund** • Brent has recruited a planning group of between 30-60 residents to take part in a planning group to set the criteria for launch of applications for the borough's Carbon Offset Fund. • This is the council's first participatory budgeting process with a view to be rolled out to other grant schemes if it is successful. • The applications for carbon reduction projects were judged at a community decision day in autumn 2021: ○ £400k will be spent on direct works a range of residential properties and community buildings ○ £100k will be spent on education projects e.g. community art project in school. ○ Projects to start in 2022 **2. Solar Together (RE:NEW scheme)** • Brent participates in the Mayor of London's Solar Together project, helping residents install solar panels. • Over 2021, phase 4 was delivered, with 12 installations completed and a further 9 planned. Over the past three years, the Solar Together scheme has saved around 67 tonnes of CO2 though the installation of solar panels at over 100 residential properties, with more installations planned for 2022. https://www.brent.gov.uk/solartogether **3. EcoFurb** • Brent participates in EcoFurb, encouraging residents to refurbish homes to a high standard of energy efficiency

Action ID	Theme	Action	2021 update
2.7	Emissions from developments and buildings	Promoting and delivering energy efficiency and energy supply retrofitting projects in workplaces and homes through EFL retrofit programmes such as RE:FIT, RE:NEW and through borough carbon offset funds. (continued)	**4. <u>Warmer Homes Advice Service</u>** • 76 Warmer Home Advice Service consultations delivered to residents over 2021(175 cumulatively since 2018) **5. <u>Green Homes Grant (Fuel Poverty Alleviation scheme):</u>** • Brent are part of a West London Consortia of Boroughs (led by Ealing) who have been awarded funding under the Green Homes Grant - Local Authority Delivery to support refurbishment of homes to improve their energy rating. The Grant scheme is for households in energy inefficient properties. The scheme offers a house survey, plan, agreement of works. It aims to improve insulation and make housing heat source pump ready. Installations commenced in in March 2021 • This will fund on average £10k per property for owner occupied properties and also rented properties (£5k plus landlords top up with £2.5k) • To be eligible, the total household income must be less than £30k/year (including benefits). The scheme is a quality assured fully managed service providing a whole house plan rather than just single measures. Each property will have an energy survey and measures proposed as part of the scheme • Overall, 152 households contacted the scheme – 95 were eligible and, of those, 89 progressed. 43 households were completed in 2021, with the rest to be completed over 2022. https://www.brent.gov.uk/your-community/brent-going-green/in-your-home/home-insulation/ **6. <u>Companion scheme home upgrade grant (HUG)</u>** – <u>starting 2022.</u> • This scheme is starting in 2022 and will target properties which are not currently heated by gas. Oil and solid fuel heated properties are being prioritised. **7. <u>South Kilburn - neighbourhood heating</u>** • A district energy network is being developed in South Kilburn to reduce total emissions. The aim is to be able to provide heating to over 1000 homes in south Kilburn from a low emission source.

Action ID	Theme	Action	2021 update
2.7	Emissions from developments and buildings	Promoting and delivering energy efficiency and energy supply retrofitting projects in workplaces and homes through EFL retrofit programmes such as RE:FIT, RE:NEW and through borough carbon offset funds. (continued)	• Over 2019/2020, a low carbon heat source was identified and officers are now exploring commercial viability. https://www.brent.gov.uk/your-community/regeneration/south-kilburn-regeneration/the-development-process/neighbourhood-heating-system/ **8. Energy Efficiency Works in Brent Corporate Buildings** • Energy audit surveys have been completed on 16 of Brent's largest retained corporate buildings with the highest energy consumption, giving detailed recommendations at each site for energy efficiency measures upgrades works, each with forecasts of energy savings and costs for installation and implementation. A £3.2m grant has been secured to decarbonise Brent Council buildings, with works to be completed in 2022. • The project will be funded using £3.2m of grant funding won through the Public Sector Decarbonisation Scheme (PSDS), via the Government department BEIS (Department for Business, Energy & Industrial Strategy), and administered by Salix Finance, a non-departmental public body. Brent have funded an additional £500k to contribute towards LED lighting in council owned buildings meaning the majority of council buildings will have LED lighting • The RE:FIT procurement scheme will be used for the majority of buildings to deliver projects with verifiable energy savings. • The project proposal includes a range of hard measures such as insulation of walls, floors, roofs and pipes, improved glazing, and a small number of heat pumps, and other measures such as intelligent controls and improved sub-metering. **Energy emissions and new developments:**

Action ID	Theme	Action	2021 update
2.7	Emissions from developments and buildings	Promoting and delivering energy efficiency and energy supply retrofitting projects in workplaces and homes through EFL retrofit programmes such as RE:FIT, RE:NEW and through borough carbon offset funds. (continued)	• Brent follows the London plan • All major residential developments have a zero carbon target with a minimum requirement of 35% over building regulations. • From January 2019, major developments were required to assess their strategy against SAP10 emission standards (electricity emissions are lower than building regulations requirements). • Most major developments have zero local emission systems such as air source heat pumps. • Building regulations regulate emissions from plant, for both new build and where existing supplies are updated. These are low or even zero emission at source. **Council Building policy** As part of Brent's Sustainable Procurement Policy, from 2021 the council have committed to prioritise non-combustion based heating systems wherever possible when building new homes.
2.8	Emissions from developments and buildings	Master planning and redevelopment areas aligned with Air Quality Positive and	**Masterplanning** • Growth areas and most major site allocations require a masterplanning approach. This will promote high quality environments that provide good mix of uses and quality public realm to reduce the need to travel and support more sustainable forms of travel.

Action ID	Theme	Action	2021 update
		Healthy Streets approaches	• Brent's new Local Plan was adopted in February 2022 and it conforms to the new London Plan. Planning guidance published in relation to the new London Plan will be complied with and incorporated into Brent's planning assessment procedures, for example the upcoming Air Quality Positive guidance. • Brent's Local Plan stipulates: ○ All major developments within Growth Areas and Air Quality Focus Areas to be air quality positive. This is an extension of the new London Plan. ○ All applicants complete an air quality impact assessment. Any requirements imposed require discharge of the conditions on completion. ○ All residential developments to achieve Urban Greening Factor of 0.4 and a target score of 0.3 for predominately commercial development ○ Healthy streets approach embedded. ○ Supporting car free development as the starting point for new development in areas with good public transport accessibility where possible ○ Major non-residential development (1000 square metres or more) attaining BREEAM Excellent https://www.brent.gov.uk/services-for-residents/planning-and-building-control/planning-policy/shaping-brent-s-future-together/ https://www.brent.gov.uk/services-for-residents/planning-and-building-control/planning-policy/current-planning-policy-consultations/
3.1	Public health and awareness raising	Public Health department taking shared responsibility for borough air quality issues and	Brent's Public Health team take shared responsibility for AQ issues in the borough. A Senior Public Health Strategist has air quality in their remit and the Draft Brent Health and Wellbeing Strategy incorporates the aim of improving air quality. **Key Projects relating to Public Health:** **Information sharing**

Action ID	Theme	Action	2021 update
		implementation of Air Quality Action Plans.	• In February 2021, a Health and Wellbeing virtual fair was held which featured a webinar on the topic of air pollution, sharing how residents can get more information and what they can do to help reduce their exposure. https://www.brentwellbeingfair.tv/ • Brent's Air Quality and Public Health team are collaborating to develop a plan for sharing air quality alerts to Brent's most vulnerable residents through Brent's GP network. Pollution alerts are now sent to all Early Years' Settings. **Air Quality Action Plan review and update** • Over the course of 2021/2022, the council will be reviewing and updating its Air Quality Action Plan. The Public Health team sit on the Air Quality Steering Group and will be key stakeholders in this process.
3.2	Public health and awareness raising	Engagement with businesses	• As part of Brent's Air Quality Action Plan review, a survey was sent out to businesses, asking them how the council can support them with green initiatives via the business newsletter. • Idling Action webinars and information were shared with business networks. • Set up a cargo bike trial in Harlesden town centre, engaging 29 businesses on the benefits of using a cargo bike. 3 businesses trialled the use of a cargo bike, through Brent funded subsidies. Developed plans for a cargo bike scheme in Willesden Green for 2022, in partnership with Cross River Partnership. This is being launched in Spring 2022. • ULEZ information shared with business networks.

Action ID	Theme	Action	2021 update
3.2	Public health and awareness raising	Engagement with businesses (continued)	• Working with Restart Project to promote circular electronics businesses – WLWA have led on the expansion of the Repair Directory to include Brent businesses • Green Business Guides published in November 2021 include advice and resources on cutting energy usage and increasing energy efficiency of operations..https://www.brent.gov.uk/businessguides • Currently designing a business support scheme that will involve energy audits and grants for businesses to improve the energy efficiency of their premises • 92 businesses now signed up to the Brent Environmental Network. This is a network of local residents, businesses, community groups and schools. Businesses can sign up to receive a monthly newsletter with ideas and practical tips for reducing environmental impact. Receive links to support and resources e.g. grants and funding opportunities https://www.brent.gov.uk/your-community/climate-emergency/community/brent-environmental-network/ • Promoted a series of Clean Air Day resources and top tips in Brent Business News with reach of 10,000 subscribers. • Brent held the Small Business Awards 2021 which includes an award category for “Most Green Business” https://www.brent.gov.uk/news-in-brent/2021/december-2021/brent-small-business-saturday-2021-award-winners-announced
3.3	Public health and awareness raising	Supporting a direct alerts service such as Airtext, and promotion and dissemination of high	Raising awareness of air pollution for the residents of Brent is a priority. The main channels for raising awareness are: **1) AirTEXT** • Brent has renewed AirTEXT subscription for 2021-2022 ○ Brent has a total of 206 subscribers, with 43 new subscribers over 2021.

Action ID	Theme	Action	2021 update
3.3	Public health and awareness raising	pollution alert services Supporting a direct alerts service such as Airtext, and promotion and dissemination of high pollution alert services	An Airtext tile has been added to the council website to simplify the user journey and make it easier to sign up. https://www.brent.gov.uk/environment/air-quality/airtext AirText has been promoted through the following channels during the year: • Social media – as part of Clean Air Day and Car free Day • Pollution alerts are shared through social media and an air text link is added (e.g. https://twitter.com/brent_council/status/1417471101861605376 and emailing to early years settings. • Air Quality Action Plan community engagement – AirText information was shared with all respondents, reaching 488 residents across the borough **2) Brent Council Air Quality website** • Residents can access relevant reports and data. https://www.brent.gov.uk/services-for-residents/environment/air-quality/ **3) Sharing automatic monitoring site data with King's College London's London Air Quality Network** • Ensuring this is available to residents on the Council website. https://www.brent.gov.uk/services-for-residents/environment/air-quality/air-quality-monitoring-data/ **4) Sharing GLA Air Pollution alerts with residents** • Brent retweets GLA air pollution alerts • Alerts are also shared with all early years' settings. (voluntary and independent (PVI) settings (approx. 115) and all childminders (approx. 150)) • Work is ongoing over to share alerts with GP networks. Communication campaigns during Clean Air Day and Car Free Day promoted clean air route finders as well as other actions to take on high pollution days

Action ID	Theme	Action	2021 update

3.4	Public health and awareness raising	Encourage schools to join the TfL STARS accredited travel planning programme	**Supporting STARs –Brent's programme**
			• Brent reaches out to all schools in the Borough to put in place travel plans
			• Schools are encouraged to achieve higher levels of compliance, attain STARS accreditation or maintain existing gold accreditation.
			• Brent encourages schools to engage with this at least once in the academic year – workshops and assemblies are offered.
			  ○ The School Travel Plan covers:
			  ○ Road safety
			  ○ Air quality
			  ○ Anti-idling
			  ○ Sustainable travel,
			  ○ Modal shift.
			• Brent has proactively added in environmental aspects to School Travel Plans
			• Youth Travel Ambassadors and Junior Road Safety Ambassadors are encouraged so schools can continue the programme throughout the year.
			• Healthy Streets officers (TFL funded) help give assistance for the hard to engage schools.
			• Due to the pandemic, engaging with Schools on the STARs programme was paused over the course of 2020. This was restarted in May 2021 with an interim accreditation that gold schools can apply for if theirs expires this year and they are unable to provide evidence to for a full 3-year application.
			• Over 2021, engagement focussed on implementation of 30 School Streets and supporting schools with COVID-19 responses e.g. providing engineering support with widening pavements, signage, promoting active travel rather than increasing car usage.
			STARs Accreditation

Action ID	Theme	Action	2021 update
3.4	Public health and awareness raising	Encourage schools to join the TfL STARS accredited travel planning programme (continued)	47% of Brent Schools have a School Travel Plan in 2021/2022 (35 schools in total). Of these, 77% have achieved Gold status (27 schools). https://www.brent.gov.uk/services-for-residents/transport-and-streets/road-safety-and-transport-policy/school-travel-plans/ **School Climate Champions Network** As part of the first year delivery plan for the council's Climate and Ecological Emergency Strategy we have committed to engaging with school-led approaches on the climate emergency agenda, supporting the establishment of a professional network of climate emergency leaders/champions within schools to share best practice. The first meeting of this network met in April 2021 and included an agenda section on school signing up the STARS travel-planning programme, and encouraged schools to think about encouraging other schools to join the programme.
3.5	Public health and awareness raising	Air quality in and around schools	Significant work has been undertaken over the course of the past year to improve air quality outside schools. There has been continuous engagement to encourage active travel through the roll-out of School Street schemes. **School Streets** • The School Streets programme has expanded rapidly in Brent over 2020 through the TfL Streetspace Scheme. School Streets are schemes that prohibit vehicles, (except emergency, service and residents vehicles); from entering streets near schools during morning and afternoon peak hours. They help make the

Action ID	Theme	Action	2021 update
3.5	Public health and awareness raising	Air quality in and around schools (continued)	route safer for pupils, promote walking and cycling, and cut the number of polluting cars contributing to local air pollution. • In 2020, Brent made two 'school streets' permanent, which were previously being piloted. They are enforced using CCTV cameras with Automated Number Plate Recognition (ANPR) technology. 30 additional schools participated in pilot School Streets schemes. These were consulted on in 2021 • 26 School Streets are now being made permanent, which brings Brent's total to 28 permanent school street schemes. • A report from GLA finds that School Streets can result in up to 23% reduction in NO2. https://www.brent.gov.uk/services-for-residents/transport-and-streets/making-travel-safer-and-healthier/school-streets/ https://www.brent.gov.uk/council-news/august-2020/traffic-free-streets-coming-to-30-schools-in-time-for-september/ **Green Infrastructure in playgrounds** • Hedera helix Woerner ivy screens were installed in the playgrounds of two schools in 2021. The playgrounds border a busy road. **No Idling campaign** • Brent is part of the pan-London anti-idling campaign.

Action ID	Theme	Action	2021 update
			• Idling enforcement officers re-started enforcement from Summer 2021 and visitd school areas in response to complaints. Two school events took place in Jan 2022 (target of 2 agreed with GLA as part of the pan-London Idling Action group). • In 2021, 206 idling signs were installed outside nurseries, playgroups, and other hotspots.
4.1	Delivery servicing and freight	Update of procurement policies to reduce pollution from logistics and servicing	• In March 2021, the council published a new Sustainable Procurement Policy. • This ensures sustainability commitments are considered consistently as part of the procurement process, according to the following themes: - Ecology - Energy - Food - Transport - Waste and Resources - Water conservation • All quotes and tenders above £25,000 that involve deliveries/vehicles will be advised to include the relevant criteria detailed in the Brent sustainability assessment measures spreadsheet. As part of the tender evaluation process, contractors that adopt low emission vehicles such as electric, hybrid, LPG will be scored more favourably. In order to enable this, contractors must provide a list of all vehicles to be used in the first year of the contract https://lbdigitalservices.sharepoint.com/sites/intranet/resources/procurement/Pages/Site%20pages/sustainability.aspx Brent's current target in the Climate Emergency is "through the Sustainable Procurement Policy, we will aspire to review and replace our current fleet with low emission models over the next ten years." • Brent is part of the West London Alliance Low Carbon Procurement group which aims to enable a positive and effective procurement-led response across West London to the climate emergency and 2030 emissions reduction targets. This compliments some of our own commitments detailed in our Procurement sustainably policy. This has resulted in documents which are now included in the procurement process: ○ West London Alliance Low Carbon Charter

Action ID	Theme	Action	2021 update
4.1	Delivery servicing and freight	Update of procurement policies to reduce pollution from logistics and servicing	○ West London Carbon Procurement Policy ○ Toolkit part 1 and 2 **Example procurement activities with aim of reducing emissions:** • New Civic Centre car club tender in 2021 - Current fleet is a mixture of petrol and hybrid The aim is that the new fleet will be as close to 100% electric and hybrid as possible.
4.2	Delivery servicing and freight	Reducing emissions from deliveries to local businesses and residents	Brent updated its Long Term Transport Strategy and identified the need to develop a Delivery and Servicing Action Plan The council commissioned a feasibility study to assess potential for Brent businesses to use cargo bikes as a zero emission delivery option. Following this, a cargo bike trial and business engagement was conducted in Harlesden town centre in Spring 2021, in partnership with MP Smarter Travel. A total of 29 businesses were engaged and 3 business trialled cargo bikes as part of their operations using Brent Council subsidies. The council is also one of the Cross River Partnership partners on a successful DEFRA bid for a Willesden Green Clean Air Village project. This project has been developed over the course of 2021 with the project launching in Spring 2022.
5.1	Borough Fleet	Reducing emissions from council fleets	In response to the climate and ecological emergency, Brent have committed to develop a plan to achieve net zero carbon for the Council's own estate and operations by 2030. The Council is actively exploring opportunities for reducing emissions from its activities: • Through the development of a new Sustainable Procurement Policy, we will aspire to review and replace our current fleet with low emission models over the next ten years.

Action ID	Theme	Action	2021 update
5.1	Borough Fleet	Reducing emissions from council fleets	• Additionally, the Council is developing a Staff Travel Plan to support Council staff in reducing car usage and adopting active modes of travel wherever possible, capitalising on the opportunity to build back greener following the COVID-19 pandemic. • Anti-Idling guidance has been published for Brent staff, members, and suppliers and contractors to encourage those travelling around the borough to switch off their engine wherever possible. This has been disseminated to Council staff and suppliers, with workshops offered on the topic. • In 2021/2022 the council purchased a cargo bike to trial for use in its own operations • The council has started a tender process for the re-procurement of its zipcar fleet – with the intention for vehicles to be replaced by low-emission vehicles wherever possible.
6.1	Localised solutions	Expanding and improving green Infrastructure (GI)	**Green Infrastructure in council policies** Improving green infrastructure, as well as following a Healthy Streets approach, is central to Brent's 2019-2040 Inclusive Growth Strategy and 2019-2041 Local Implementation Plan. In addition, the Brent Long Term Transport Strategy was reviews and consulted on over 2021. A core aim of the Draft Long Term Transport Strategy is making our streets safer, greener and more inclusive. Expanding the provision of 'green' infrastructure, including the greater use of 'parklets', street trees, green walls and Sustainable Drainage Systems (SuDS) as a means of reducing environmental impact and mitigating climate change, is a key priority. It is anticipated that the revised plan will be published in 2022. Nature and Green Space is included as a theme in Brent's Climate Emergency strategy, with the following actions planned for 2021/22:

Action ID	Theme	Action	2021 update
6.1	Localised solutions	Expanding and improving green Infrastructure (GI) (continued)	• A Green Infrastructure Vision for Brent for 2030 has been drafted. Engagement work is underway before the final document is published in 2022. • Expansion of Brent's tree planting programme in the borough, targeting planting at areas of deprivation, poor air quality and canopy cover. Greening, including new street trees and rain gardens, continued to be embedded in major public realm and transportation schemes over the course of 2021. This will help establish a greener and more pleasant environment to encourage active travel. The Brent Local Plan 2019-2041 was adopted by Full Council in February 2022, including requirement for "All minor residential developments (less than 10 dwellings) are required to deliver an Urban Greening Factor of 0.4 on site." **Specific Projects:** **<u>Kensal Corridor:</u>** • The first phase of public realm improvement at Kensal Rise Overground Station and the adjacent section of Kensal Rise is due to commence in the summer of 2021 with completion early in 2022. This will provide new wider pavements, cycle parking and amenities with a new green roof cycle shelter near the station, pedestrian crossings, trees and greening including rain gardens. Further phases of the Kensal Corridor scheme will be programmed when funding becomes available. Information about the scheme is available on our website; https://www.brent.gov.uk/kensalcorridor **<u>South Kilburn Regeneration</u>**

Action ID	Theme	Action	2021 update
6.1	Localised solutions	Expanding and improving green Infrastructure (GI) (continued)	• Large-scale urban regeneration project ongoing over a fifteen year programme that is approximately half way through delivering over 2,400 new high quality homes, new and improved open spaces and public realm, retail, education and health facilities. • Next phase (subject to funding) includes regeneration of Carlton Vale Boulevard aim to create a vibrant Boulevard with improved transport links, lighting, street furniture and artwork https://www.carltonvaleboulevard.co.uk/ ○ This green spine will focus on improving the health and well-being of residents and will deliver improvements to air quality, sustainable drainage solutions and increased biodiversity. Opportunities for planting and greening include planting ~150 additional trees (include a variety of species), new rain gardens, significant improvements to the urban realm and ongoing air quality monitoring. Other proposals: • A new larger high quality urban park and improved public realm • Improved environmental standards and a site-wide energy solution https://www.brent.gov.uk/your-community/regeneration/south-kilburn-regeneration/what-is-happening-in-south-kilburn/ https://www.brent.gov.uk/your-community/regeneration/south-kilburn-regeneration/the-development-process/ **Kilburn High Road Improvement Scheme** Brent and Camden councils have been working together to develop a public realm improvement scheme that will help to transform the high road. The main objectives of the Kilburn High Road improvement scheme are to reduce the dominance of traffic on the high road, help create a place that people want to visit and spend

Action ID	Theme	Action	2021 update
6.1	Localised solutions	Expanding and improving green Infrastructure (GI) (continued)	time in, and support businesses. Emphasis is also placed on improving pedestrian safety and encouraging greater pedestrian and cycle activity. • The implementation of the Kilburn High Road scheme is to be undertaken in several phases. Construction of the Lower section (between West End Lane and Greville Place) was completed in March 2022. Consultation on the Upper and Middle sections (Christchurch Avenue to West End Lane) is expected to take place later in 2022. • This project includes the introduction of new street trees into the town centre (between West End Lane and Coventry Close) The introduction of wider pavements provides the necessary space for the planting of new trees in the town centre. https://www.brent.gov.uk/your-community/regeneration/kilburn-high-road/ **Green Screens pilot @ Brent Schools** • Hedera helix Woerner ivy screens were installed in the playgrounds of two schools in 2021. The playgrounds border a busy road. **Other projects** • Development of a rain garden in Silver Jubilee Park • The council has secured funding for the creation of a Biodiversity Centre at Welsh Harp, improving the existing building on the ground there. • Over 2021, 407 trees were planted. • Funding secured for a living wall in Willesden Green.

Action ID	Theme	Action	2021 update
7.1	Cleaner transport	Ensuring that Transport and Air Quality policies and projects are integrated	**Brent Long Term Transport Strategy 2015-2035 (LTTS)** • The Brent Long Term Transport Strategy 2015-2035 (LTTS) is being reviewed and is out for consultation - it provides the strategic direction for investment in transport in Brent, with the overarching aim of improving transport options for all and to reduce the negative impacts of travel on the borough. It includes air quality targets. Public consultation in Spring 2022. One of the proposed core aims of this strategy is "Reduce traffic and facilitate healthy, sustainable travel" https://www.brent.gov.uk/your-community/coronavirus/changes-to-council-services/transport-and-streets/ Brent's Inclusive Growth Strategy 2019 -2040 also prioritises sustainable travel and modal shift **Air Quality Action Plan review** • Over the course of 2021/2022, the council is reviewing and updating its Air Quality Action Plan. The Transportation Planning team sit on the Air Quality Steering Group and are key stakeholders in the development of the plan.
7.2	Cleaner transport	Discouraging unnecessary idling by taxis and other vehicles	• The council is part of the pan-London idling action group and has supported the #Engines Off campaign in 2021. https://www.brent.gov.uk/council-news/february-2021/engine-off-every-stop-brent-joins-campaign-to-tackle-invisible-threat/ https://www.brent.gov.uk/services-for-residents/environment/air-quality/no-idling-campaign/ https://twitter.com/Brent_Council/status/1366425610516652035 **Enforcement**

Action ID	Theme	Action	2021 update
7.2	Cleaner transport	Discouraging unnecessary idling by taxis and other vehicles	• Brent enforces idling with FPNs under The Road Traffic (Vehicle Emissions) (Fixed Penalty) (England) Regulations 2002. • In 2021 an online reporting form was launched and webpages updated with further information. These reports have been used to target enforcement activity. • https://www.brent.gov.uk/services-for-residents/environment/air-quality/no-idling-campaign/ • An enforcement reporting tool was also launched for enforcement officers to record their interactions with drivers. Over 2021, the team engaged with over 600 drivers. **Brent's own operations** • In 2021, Anti-Idling guidance was published for Brent staff, members, and suppliers and contractors to encourage those travelling around the borough to switch off their engine wherever possible. This has been disseminated to council staff and suppliers, with workshops offered on the topic. • Additionally, idling guidance and #enginesoff information, including advertisement of a free workshop, was circulated to all suppliers and contractors on procurement database – 99 in total. **"No idling" signs** • In 2021, 206 idling signs were installed outside nurseries, playgroups, and other hotspots.
7.3	Cleaner transport	Regular temporary car free days	Brent supported Car Free Day 2021 at Priory Park Road, off Kilburn High Road, on Saturday 18 September. A section of Priory Park Road was closed to allow for cycling activities and stalls. News: Playtime on Brent streets for London Car Free Day/ Brent Council The council also reviewed and simplified the Play Street application process and held a campaign to encourage more play streets for 2021. Eight play street locations in total for 2021.

Action ID	Theme	Action	2021 update
7.4	Cleaner transport	Using parking policy to reduce pollution emissions	• Brent Council's resident parking permits are carbon emissions based. The key policies are: ○ Vehicle emissions are graded as low, medium or high. The cost of the parking permit then depends on how the vehicle is graded. ○ There is a £100 diesel surcharge for resident and annual visitor on street parking permits for 2021. This was implemented with from 2019 with annual increases planned: ▪ 2019 – surcharge was £50 ▪ April 2020 – surcharge increased to £75 ▪ April 2021 – surcharge increased to £100 ○ Increased fees for residential parking permits for household's second and third vehicles https://www.brent.gov.uk/services-for-residents/parking/parking-permits/parking-charges/ • The aim is to reward environmentally responsible behaviour. • Fees are designed to promote the modal shift from passenger vehicle use to active and sustainable travel. • Additionally, Parking officers are supporting the School Streets programme with ad hoc enforcement over 2020 as well as planning for the implementation of ANPR cameras for a number of schemes in 2021/2022.
7.5	Cleaner transport	Installation of Ultra-low Emission Vehicle (ULEV) infrastructure (electric vehicle charging	The Council has an extensive programme of installing electric vehicle charging points across the borough. Work has also commenced on the development of an Electric Vehicle Charge Point (EVCP) Delivery Plan that will set out the Council's approach to accelerating delivery of EVCP infrastructure in the borough in line with objectives of the Council's emerging Climate Change Strategy and Air Quality priorities. The Plan will identify the types of infrastructure required (and locations for these), establish mechanisms for funding/delivery and set out the range of processes for implementation.

Action ID	Theme	Action	2021 update
		points, rapid electric vehicle charging point and hydrogen refuelling stations)	Recent data from ZapMap reveals that around 34% of on-street households in Brent are within 5 minutes' walk of a public charger. **EVCPS** To date across the borough we have: • 5 Rapid Charging Points • 67 Source London Charging Points, with 7 of those installed in 2021 • Over 300 Lamp Column Charging points, with over 200 of those installed in 2021
7.6	Cleaner transport	Provision of infrastructure to support walking and cycling	Supporting walking and cycling through public realm improvements and provision of infrastructure is a central tenet across the council's transport policies. The council has embedded the Healthy Streets Approach across all key policies. **Examples of public realm improvement projects:** • Kensal Corridor regeneration – new cycle lanes included in plans. https://www.brent.gov.uk/your-community/regeneration/kensal-corridor/ • South Kilburn Regeneration • Kilburn High Road • Church End regeneration **Walking and cycling initiatives and infrastructure:** Over 2020, the Council implemented an ambitious programme of Active Travel initiatives in response to the COVID-19 pandemic. The council was successful in bidding for TfL Streetspace funding, and through this has continued to raise awareness of the effects of car travel on air quality and encouraged behavioural change towards sustainable travel. This has been achieved through the implementation of: **1) School Streets**

Action ID	Theme	Action	2021 update
7.6	Cleaner transport	Provision of infrastructure to support walking and cycling (continued)	- 26 school street schemes are being made permanent, which means there are 28 school streets across the borough. Further school streets are being investigated over 2022. - ANPR cameras are being investigated to aid enforcement. **2) Brent Healthy Neighbourhoods** • Engagement work led by Living Streets has been completed and analysed. The recommendation is to remove 4 of the 5 healthy neighbourhoods and to re-engage with the local community to develop new schemes. https://www.brent.gov.uk/services-for-residents/transport-and-streets/brent-healthy-neighbourhoods/ **3) Pop up cycle lane on Harrow Road** • In September 2020, the council implemented a new temporary segregated cycling lane between Wembley Triangle and the A406 North Circular Road (approx. 1.5km). We are currently working with TfL on developing a permanent strategic cycle lane on this route. https://www.brent.gov.uk/services-for-residents/transport-and-streets/making-travel-safer-and-healthier/improving-cycling/ **4) Wembley to Willesden Healthy Streets Corridor (Cycle Future Route 23)** • The council are working together with Transport for London (TfL) to develop Healthy Streets improvements between Wembley and Willesden Junction. These changes would make it easier and safer to walk, cycle,

Action ID	Theme	Action	2021 update
7.6	Cleaner transport	Provision of infrastructure to support walking and cycling (continued)	and use public transport in the area. Making the area safer, greener and reducing car travel. Early public engagement was undertaken in early 2020 but further design development was paused due to the pandemic and a focus on temporary walking and cycling improvement schemes delivered through the London Streetspace Plan Development design work restarted in 2021 but progress is dependent on funding. It is anticipated that a public consultation will be held by early 2023. Construction is subject to confirmation of future funding. Opportunities for planting and additional green infrastructure include areas around bus stops, build outs, and changes to junctions. Examples could include using planting and rain gardens to separate cycle traffic and motor traffic and exploring opportunities for tree planting on build outs and near junctions. **5) Cycle parking:** • There are currently 104 bike hangars across the borough, and 20 more a planned for installation over the next year. Rental costs are also being reviewed. **6) Other cycling initiatives:** • Brent runs a Try Before You Bike scheme for bikes, e-bikes and cargo bikes. Since April 2020, 95 bikes have been delivered, 51 over 2021. https://www.brent.gov.uk/services-for-residents/transport-and-streets/cycling/try-a-bike-for-a-month/

3. Planning Update and Other New Sources of Emissions

Table K. Planning requirements met by planning applications in LB Brent in 2021

Condition	Number
Number of planning applications where an air quality impact assessment was reviewed for air quality impacts	465
Number of planning applications required to monitor for construction dust	310
Number of CHPs/Biomass boilers refused on air quality grounds	
Number of CHPs/Biomass boilers subject to GLA emissions limits and/or other restrictions to reduce emissions	
Number of developments required to install Ultra-Low NO_x boilers	
Number of developments where an AQ Neutral building and/or transport assessments undertaken	160
Number of developments where the AQ Neutral building and/or transport assessments not meeting the benchmark and so required to include additional mitigation	30
Number of planning applications with S106 agreements including other requirements to improve air quality	0
Number of planning applications with CIL payments that include a contribution to improve air quality	0
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.	e.g. 12 conditions included 6 registered and compliant 2 unregistered/uncompliant and being chased.
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.	e.g. 12 conditions included 6 registered and compliant 2 unregistered/uncompliant and being chased.

Process for ensuring planning applications are reviewed:

An Environmental Health Officer reviews planning applications to ensure that local air quality management is considered. Each application is reviewed to establish the potential air quality impact of the development as well as considering the impact on any new sensitive receptors brought to the area because of the development. Air

quality assessments are requested for applications dependent on the size, location or type of development. The department follows the GLA guidance for developments that require an air quality neutral assessment. NRMM conditions are considered appropriate for major developments within the area.

3.1 New or significantly changed industrial or other sources

No new sources identified.

4. Additional Activities to Improve Air Quality

4.1 London Borough of Brent Fleet

Brent's current target in the Climate Emergency is "through the Sustainable Procurement Policy, we will aspire to review and replace our current fleet with low emission models over the next ten years." The majority of Brent's fleet is contracted and so the introduction of the Sustainable Procurement Policy in 2021 will enable the council to fulfil this target. To date, Brent directly owns five electric/hybrid vehicles and one electric cargo bike, making up 10% of Brent's owned fleet.

4.2 NRMM Enforcement Project

LBB is continuing to support the NRMM Enforcement project in 2022 – 23.

4.2 Air Quality Alerts

LBB supports *air*TEXT (https://www.airtext.info/) and actively promotes the service to encourage residents to sign up to air pollution alerts.

Appendix A Details of Monitoring Site Quality QA/QC

A.1 Automatic Monitoring Sites

QA/QC for Brent's automatic monitoring stations is provided by ERG Imperial College London. These stations are calibrated fortnightly by their local site operator (LSO), with annual audits carried out by the National Physics Laboratory

A.2 Diffusion Tubes

All diffusion tubes are prepared and provided by Gradko International Limited. The tubes are set up and collected by the local site operator 'We Care4 Air' and analysis undertaken by Gradko using UKAS Accredited Methods. Tubes are prepared using the preparation method 20% Tri-ethanolamine (TEA) in de-ionised water.

Annual averages have been bias adjusted using the Brent BT4 local bias adjustment factor for 2021, from the national database available on the LAQM website at

https://laqm.defra.gov.uk/air-quality/air-quality-assessment/national-bias/

For the 2021 data a local Bias Adjustment Factor of 0.91 was used which was calculated by the National Physical laboratory.

LBB submitted the BT4 2021 co-location study to be included in the national bias adjustment factor.

Discussion of Choice of Factor to Use

The local Bias Adjustment Factor has been used in accordance with paragraph 7.210 in LAQM TG16. The local factor is representative of a roadside site; this is representative of monitoring sites across Brent, which are mostly categorised as roadside. In addition, the co-location site has been assessed to have "good" precision by NPL. The co-location study involved 4 diffusion tubes being located with site BT4, which produces high quality chemiluminescence results, with QA/QC carried out by ERG Imperial College London. In addition, the local Bias Adjustment Factor is higher (0.91) than the national factor (0.84), hence providing a more precautionary estimate of air quality across the borough, ensuring that concentrations are not being under-estimated. Therefore, it is considered that the local Bias Adjustment Factor is more appropriate for 2021 and has therefore been selected for data processing.

Table L. Bias Adjustment Factor

Year	Local or National	If Local, Version of National Spreadsheet	Adjustment Factor
2019	National	03/20	0.91
	Gradko 20% TEA in water (2029, 27 studies)		
2020	National	03/21	0.81
	Gradko 20% TEA in water (2020, 18 studies)		
2021	National	03/22	0.84
	Gradko 20% TEA in water (2021, 32 studies)		
	Local	03/22	0.91

A.3 Adjustments to the Ratified Monitoring Data

Short-term to Long-term Data Adjustment

A final measurement data set was produced by ERG Imperial following retrospective ratification of the measurements using procedures which comply with the requirements of LLAQM.TG (19). During ratification, information from regular calibration, audits and daily manual validation were used to establish an operational and calibration history of the instruments. The pollution measurements were then corrected to establish traceability to National Meteorological Standards. Details of the monitoring site and the final data set can be found at www.londonair.org.uk.

Where capture is less than 75% and greater than 33% of a full calendar year (less than 9 months), the mean would be 'annualised' – i.e. adjusted using the methodology outlined in LLAQM.TG (19) before being compared to annual mean objectives.

Distance Adjustment

If an exceedance is measured at a monitoring site which is not representative of public exposure, the procedure specified in LLAQM.TG(19) was used to estimate the concentration at the nearest receptor. Table N contains the results of distance adjustment.

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

Site ID	Annualisation Factor London Hillingdon Urban Background (Harlington)	Annualisation Factor London Camden Bloomsbury Urban Background	Annualisation Factor London Westminster Urban Background (Horseferry Road)	Annualisation Factor Site 4 Name	Average Annualisation Factor	Raw Data Annual Mean (µg m^{-3})	Annualised Annual Mean (µg m^{-3})	Comments
9	1.0421	1.0374	1.0534		1.0443	42.6	44.5	
22	1.0757	1.1406	1.0744		1.0969	45.0	49.3	

Table N. NO_2 Fall off With Distance Calculations

Diffusion Tube ID	Distance (m)		NO_2 Annual Mean Concentration ($\mu g/m^3$)			Comment
	Monitoring Site to Kerb	Receptor to Kerb	Bias Adjusted	Background	Predicted at Receptor	
7	2.0	19.0	49.8	21.4	34.8	
9	2.0	22.0	40.5	19.5	28.7	*Warning: your receptor is more than 20m further from the kerb than your monitor - treat result with caution.*
17	1.0	5.0	39.0	21.8	33.5	
22	1.0	6.0	44.9	20.63	*36.1*	*Predicted concentration at Receptor within 10% the AQS objective.*
23	2.0	12.0	60.9	24.72	**45.7**	*Predicted concentration at Receptor above AQS objective.*
41	4.0	7.0	50.6	25.7	**46.7**	*Predicted concentration at Receptor above AQS objective.*
52	1.0	41.0	46.2	24.0	29.6	*Warning: your receptor is more than 20m further from the kerb than your monitor - treat result with caution.*
53	1.0	16.0	64.5	21.6	**40.6**	*Predicted concentration at Receptor above AQS objective.*
60	1.0	36.0	44.3	21.2	27.6	*Warning: your receptor is more than 20m further from the kerb than your monitor - treat result with caution.*

Diffusion Tube ID	Distance (m)		NO_2 Annual Mean Concentration ($\mu g/m^3$)			Comment
	Monitoring Site to Kerb	Receptor to Kerb	Bias Adjusted	Background	Predicted at Receptor	
61	1.0	41.0	61.2	21.2	31.2	*Warning: your receptor is more than 20m further from the kerb than your monitor - treat result with caution.*
BRT43	2.0	22.0	41.9	25.4	32.6	*Warning: your receptor is more than 20m further from the kerb than your monitor - treat result with caution.*
BRT53	0.5	4.5	57.7	21.6	**43.7**	*Predicted concentration at Receptor above AQS objective.*
BRT55	0.5	3.5	116.5	24.1	**84.7**	*Warning: Monitored NO2 concentrations <5µg/m3 or >110µg/m3 are rare in the UK - this calculation will still work, but please check your data. Predicted concentration at Receptor above AQS objective.*
BRT56	0.5	15.5	38.4	22.4	28.7	
BRT57	0.5	8.5	53.3	25.9	*39.6*	*Predicted concentration at Receptor within 10% the AQS objective.*
BRT58	0.5	2.5	38.4	22.2	33.8	

Appendix B Full Monthly Diffusion Tube Results for 2021

Table O. NO_2 Diffusion Tube Results

Diffusion Tube ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	NO_2 Mean Concentrations (µg/m^3)												Simple Annual Mean (µg/m3)		
			Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Raw Data	Bias Adjusted (0.91) and annualised	Distance Corrected to Nearest Exposure
1	516929	188560	44.9	36.5	41.5	27.6	30.4	30.1	30.6	30.0	33.5	32.8	44.3	37.6	35.0	31.8	-
2	515793	186042	45.1	37.9	37.2	30.9	33.1	35.4	33.8	29.8	40.8	40.8	47.1	35.6	37.3	33.9	-
4	518240	187747	37.8	42.2	36.0	34.1	32.7	31.1	13.8	25.3	39.4	34.1	39.7	32.7	33.2	30.2	-
7	517942	183721	65.7	61.1	55.0	51.0	53.0	58.9	52.3	53.5	58.1	54.6	52.0	41.0	54.7	**49.8**	34.8
9	518499	186168		47.0			40.0	36.3		35.5			54.9	41.7	42.6	**40.5**	28.7
17	520480	186537	49.5	46.1	48.8	40.2	46.9	32.7	35.9	33.3	42.3	51.3	47.1	40.7	42.9	39.0	33.5
21a	520077	182853	41.0	39.9	39.7	34.0	32.6	30.4	31.1	29.6	37.6	38.8	38.0	34.6	35.6	32.4	-
22	521447	188730				47.1			44.6	42.4	50.5			40.4	45.0	**44.9**	36.1
23	521213	186125	77.4	67.5	66.2	53.8	64.7	65.2	58.7	64.7	66.5	74.9	86.1	57.9	67.0	**60.9**	**45.7**

Diffusion Tube ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	NO_2 Mean Concentrations (µg/m^3)												Simple Annual Mean (µg/m3)		
			Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Raw Data	Bias Adjusted (0.91) and annualised	Distance Corrected to Nearest Exposure
26	522191	184821	40.5		38.6	31.7	28.5		27.8	25.0	37.9		39.4	38.3	34.2	31.1	-
29	523191	186571	39.1	37.8	39.4	31.1	26.2	27.5	29.7	22.9	35.5	30.5	36.4	29.6	32.1	29.3	-
30	523663	185353	38.2	34.4	35.5	29.2	26.5	25.3	30.5	26.9	35.4	34.2	36.7	32.9	32.1	29.2	-
33a	519572	187691	37.5	34.5	38.0	29.5	33.2	32.9	30.6	24.9	38.3	35.9	39.0	10.3	32.0	29.1	-
41	521455	185920	57.5	57.4	57.6	53.3	65.2	51.3	52.2	52.0	56.2	60.4	56.9	47.3	55.6	**50.6**	**46.7**
48	525196	182517	46.0	41.2	38.2	32.9	32.7	33.1	33.1	23.4	38.8	39.7	48.2	31.7	36.6	33.3	-
52a	520874	185173	52.0	56.1	54.6	56.5	55.0	41.1	48.0	44.2	57.0	49.8	51.5	41.5	-	**-**	-
52b	520874	185173	52.4	55.6	52.6	59.6	56.0	49.6	46.9	43.5	57.2	50.2	50.1	43.6	-	**-**	-
52c	520874	185173	47.2	56.3	52.9	55.6	53.2	43.8	47.0	46.3	59.8	50.5	50.6	43.7	-	**-**	-
52d	520874	185173	52.2	55.4	52.4	56.5	51.4	47.0	45.6	45.0	56.7	48.6	52.1	44.5	50.8	**46.2**	29.6
53	518026	185028	73.2	57.0	66.4	56.2	66.1	59.8	77.8	69.8	82.9	84.3	82.1	75.4	70.9	**64.5**	**40.6**

Diffusion Tube ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	NO_2 Mean Concentrations (µg/m^3)												Simple Annual Mean (µg/m3)		
			Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Raw Data	Bias Adjusted (0.91) and annualised	Distance Corrected to Nearest Exposure
54	518236	183207	43.4	37.1	35.8	27.5	30.1	27.5	28.4	25.1	36.5	41.7	41.1	37.3	34.3	31.2	-
60	519475	186557	52.1	59.2	38.6	41.0		44.2	55.6	44.1	57.9	51.4	44.5	46.4	48.6	**44.3**	27.6
61	519762	186600	62.4	59.8	69.7	53.5	70.1	66.1	75.3	65.5	75.9	71.0	77.3	60.4	67.2	**61.2**	31.2
62	519667	186604	37.6		35.6	25.1	31.0	28.5	32.9	28.3	39.0	39.5	36.9	33.4	33.4	30.4	-
63	519703	187007	30.1	31.2	24.8	18.6	18.7	15.3	15.7	14.1	24.5	26.4	27.3	23.9	22.6	20.5	-
64	519824	186715	36.7	35.3	33.4	24.4	26.9	27.4	25.4	24.0	35.8	35.4	38.0	32.6	31.3	28.5	-
65	521313	186529		49.9	39.2	38.8	39.3	28.2	32.2	28.8	39.0	43.8	38.0	36.1	37.6	34.2	-
66	521912	186514	37.8	36.5	35.4	30.1	27.4	24.0		24.7	30.5	33.0	38.1	35.5	32.1	29.2	-
67	521651	186611	36.9	32.4	33.7	26.9	24.2	20.7	18.0	20.8	30.1	30.6	37.5	31.7	28.6	26.0	-
68	521448	186626		38.2	42.7	38.8	33.2	31.5	27.5	31.9	36.1	38.1	40.5	34.1	35.7	32.5	-
69	523782	183527	38.4	32.4	31.3	23.2	23.4	21.0	21.8	20.2	31.4	30.9	35.6	30.8	28.4	25.8	-

Diffusion Tube ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	NO_2 Mean Concentrations (µg/m^3)												Simple Annual Mean (µg/m3)		
			Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Raw Data	Bias Adjusted (0.91) and annualised	Distance Corrected to Nearest Exposure
70	523828	183338	35.8	31.7	28.0	22.3	20.7	17.9	19.9	17.4	24.9	27.1	33.0	31.0	25.8	23.5	-
71	524179	183232	35.1	31.6	28.8	19.6	20.0	16.6	19.5	14.7	26.4	23.3	33.3	31.4	25.0	22.8	-
72	524142	183120	40.2	35.6	33.2	23.5	25.8	21.4	23.5	19.4	31.3	30.7	35.8	31.8	29.3	26.7	-
73	524607	183267	35.7	39.9	35.8	28.6	32.1	32.2	31.3	23.4	37.6	32.5	35.9	30.7	33.0	30.0	-
74	524283	183882	32.4	31.8	32.9			23.1		19.2	29.6	27.6	33.4	28.8	28.8	26.2	-
75	517499	187778	31.8	31.0	25.7	22.6	22.1	18.9	20.4	17.2		27.7	30.8	26.7	25.0	22.7	-
76	518430	188406		26.4	23.1	18.0	13.5	12.2	15.9	13.1	21.4	23.8	27.9	25.8	20.1	18.3	-
77	519100	189827	35.7	32.1	28.5	23.6	24.5	19.2	21.9	17.6	30.6	29.5	33.2	31.5	27.3	24.9	-
78	516721	185478	42.7	39.3	38.4	28.8	31.8	36.4	36.0	30.3	37.0	42.7	38.1	36.1	36.5	33.2	-
79a	523721	183008	38.1	32.9	41.0	28.1	27.0	19.3	28.3	25.0	37.8	33.5	45.7	28.4	-	-	-
79b	523721	183008	45.0	37.5	39.2	32.9	29.1	18.0	28.7	26.0	36.5			33.5	-	-	-

Diffusion Tube ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	NO_2 Mean Concentrations (µg/m^3)												Simple Annual Mean (µg/m3)		
			Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Raw Data	Bias Adjusted (0.91) and annualised	Distance Corrected to Nearest Exposure
79c	523721	183008	41.3	34.9	38.9	33.3	25.9	19.0	27.2	26.3	37.0			32.8	33.0	30.0	-
BRT42	521131	183995	38.3	39.1	33.3	35.1	33.0	27.8	29.8	23.7	38.3	36.3	35.4	33.3	33.6	30.6	-
BRT43	520242	184541	52.6	51.6	50.5	42.2	44.5	38.1	42.0	36.3	50.7	50.6	49.1	44.4	46.0	**41.9**	32.6
BRT53	518303	185181	64.4	52.2	58.9	49.1	67.4	54.2	75.0	60.9	72.7	76.2	69.1	60.4	63.4	**57.7**	**43.7**
BRT55	521743	183361	98.3	104.4	127.8	102.0	118.9	155.7	131.3	119.7	159.8	147.3	148.7	122.6	128.0	**116.5**	**84.7**
BRT56	523635	183153	50.4	44.0	53.4	35.5	37.6	24.9	35.5	36.0	50.0	47.4	47.2	44.7	42.2	38.4	28.7
BRT57	525419	183612	60.6	55.6	55.0		88.1	46.2	54.0	44.6	61.4	61.8	64.7	52.8	58.6	**53.3**	**39.6**
BRT58	523031	184655	49.5	44.9	41.8	37.7	39.3	36.2	39.5	33.3	50.6	43.0	47.3	43.5	42.2	38.4	33.8

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 **bold and underlined**.

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 25%.

(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%).

Appendix C Brent School Streets and Healthy Neighbourhood monitoring results

In 2020, a secondary network of diffusion tubes were deployed for monitoring of School Streets and Low Traffic Neighbourhood schemes. The results of these are presented below. The same QA/QC process, as described in Appendix A, has been applied to this set of results.

Table P. School Street NO_2 Diffusion Tube Results

Site ID	Site Name	Site Type	X OS Grid Reference	Y OS Grid Reference	Data Capture (%)	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Raw Annual Mean (µg/m3)	Bias Adjusted Annual Mean (µg/m3)
SZ1	Harlesden, Minet Avenue j/w Acton Lane	Roadside	521103	183408	92	35.8	32.7	32.2	25.1	24.8	21.2	21.8	20.0		33.5	34.2	28.6	28.2	25.6
SZ2	Wykeham, Annesley Close j/w Aboyne Road	Roadside	521069	186250	91	36.9	32.2	31.1	22.5	27.3	19.4	21.6	19.2	30.2	34.5	34.4		28.1	25.6
SZ3A	Elsley Primary School, Tokyngton Avenue	Roadside	518900	184774	75		30.0	25.4	22.4	19.9	14.7			21.7	24.1	27.1	26.8	23.6	21.5
SZ3B	Esley Primary School Berkhamsted Avenue at Gaddesden Avenue	Roadside	518913	184670	100	31.6	27.8	23.0	18.7	18.7	15.2	16.6	14.6	24.8	24.6	29.7	25.3	22.5	20.5

Site ID	Site Name	Site Type	X OS Grid Reference	Y OS Grid Reference	Data Capture (%)	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Raw Annual Mean (µg/m3)	Bias Adjusted Annual Mean (µg/m3)
SZ4a	John Keble, Crownhill Road Manor Park Road to Harlesden Gardens	Roadside	521643	183579	100	37.1	34.8	31.6	24.4	24.9	19.3	24.0	21.9	31.5	34.9	36.7	33.7	29.6	26.9
SZ4b	Convent Jesus & Mary Language College, Crownhill Road Manor Park Road to Harlesden Gardens	Roadside	521718	183649	100	39.2	35.9	33.5	23.9	28.4	19.3	24.0	21.5	32.1	36.4	40.6	33.8	30.7	27.9
SZ4c	MapleWalk, Crownhill Road Manor Park Road to Harlesden Gardens	Roadside	521781	183700	92	35.0	30.2	29.1	21.9	21.8	17.7	20.0	17.3		30.7	31.2	28.0	25.7	23.4
SZ5a	St Joseph Primary, Goodson Road j/w Brownlow Road & Leopold Road	Roadside	521394	184264	83		30.3	29.6	21.7	20.1	18.2	19.8	17.8	27.2	29.0	34.3		24.8	22.6
SZ5b	St Joseph Primary, Leopold Road j/w Goodson	Roadside	521364	184185	100	36.7	33.0	32.4	23.0	22.3	18.5	20.5	18.3	29.8	31.2	34.7	23.3	27.0	24.6

Site ID	Site Name	Site Type	X OS Grid Reference	Y OS Grid Reference	Data Capture (%)	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Raw Annual Mean (µg/m3)	Bias Adjusted Annual Mean (µg/m3)
	Road & Northcote Road																		
SZ6	Preston Park, College Road Glendale Gardens & Thirlmere Gardens	Roadside	517900	187137	100	30.4	28.8	22.7	17.8	15.7	14.9	15.2	13.2	22.9	24.1	27.8	26.5	21.7	19.7
SZ7	Mora, Mora Road J/W Temple Road & Wotton Road/St Michael's Road	Roadside	523119	185933	83	31.5	33.9		23.1	19.6	18.6		17.7	27.8	23.3	30.9	26.4	25.3	23.0
SZ8	St Marys CE Primary, Garnet Road j/w Mayo Road	Roadside	521314	184712	91	34.9	30.0	28.7		21.8	19.0	20.4	19.7	30.2	29.2	35.4	32.6	27.4	25.0
SZ10	Christ church, Clarence Road, Willesden Lane & Torbay Road	Roadside	524585	184031	92	34.9	31.4	31.5	21.2	21.7	18.8	18.7		26.9	26.4	30.2	28.8	26.4	24.0
SZ11A	Our Lady of Lourdes, Wesley Road at Hillside	Roadside	520480	183908	91	30.9	30.5	26.4	22.4	20.2	17.9	18.3	15.5	25.3	23.8	23.1		23.1	21.0

Site ID	Site Name	Site Type	X OS Grid Reference	Y OS Grid Reference	Data Capture (%)	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Raw Annual Mean (µg/m3)	Bias Adjusted Annual Mean (µg/m3)
SZ11b	Stonebridge Primary, Wesley Road at Hillside	Roadside	520525	183861	100	33.5	29.9	26.5	25.6	20.5	18.3	20.7	17.4	25.6	29.7	35.3	29.3	26.0	23.7
SZ12	Our Lady of Grace Infants, Dollis Hill Avenue at A5 & Mount Road	Roadside	523167	186491	91	35.5	31.9	27.7	26.2	21.4	21.2	22.8	17.8	29.1	26.8	31.3		26.5	24.1
SZ14A	St Joseph Juniors, Chatsworth Avenue j/w Harrow Road	Roadside	518837	185102	92	34.3	32.3	27.2	23.4	19.7	20.3	20.0	16.3	28.7	25.9		26.9	25.0	22.8
SZ14B	St Joseph Infants, WAvenuerley Avenue j/w Harrow Road	Roadside	518835	185012	92	33.6	35.5	26.7	24.7	20.6		21.1	16.7	29.2	27.4	32.9	30.1	27.1	24.7
SZ15	St Mary Magdalens, Linacre at junction with Acland Road	Roadside	522934	184702	100	33.8	30.6	28.3	23.2	22.5	19.2	20.7	17.4	27.3	29.5	32.8	29.7	26.3	23.9
SZ16	Convent of J & M Infants, Access Road to school between 19 & 25	Roadside	523039	184745	100	34.3	30.0	27.6	23.3	19.2	16.2	18.6	15.6	25.9	26.7	29.3	28.6	24.6	22.4

Site ID	Site Name	Site Type	X OS Grid Reference	Y OS Grid Reference	Data Capture (%)	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Raw Annual Mean (µg/m3)	Bias Adjusted Annual Mean (µg/m3)
SZ17	Northview, Northview Cres j/w Southview	Roadside	521618	185525	92	36.5	31.5	31.9	24.2		20.8	21.4	21.8	30.2	33.3	38.9	33.5	29.5	26.8
SZ18	Princes Frederica, Purves Road	Roadside	523224	183045	100	38.0	31.7	32.4	25.9	25.0	25.1	24.4	21.4	32.9	31.6	32.9	28.9	29.2	26.6
SZ19	Ark Franklin, Kempe Road between Chamberlayne Road & Peploe Road	Roadside	523744	183076	91	35.8	30.5	30.8	20.9	22.3	17.3	19.2	19.4	29.1	31.1	33.6		26.4	24.0
SZ20A	Queens Park Community, Aylestone Avenue between Chudleigh Road & Christchurch Avenue. Christchurch Avenue between Aylestone Avenue & Brondesbury Park	Roadside	523678	183956	100	28.9	25.4	23.9	17.7	17.0	14.1	16.2	13.1	22.0	23.6	27.7	23.8	21.1	19.2
SZ20B	Malorees I & J, Aylestone Avenue	Roadside	524003	183995	100	33.0	31.3	25.2	20.8	18.6	16.0	17.9	15.3	25.6	23.2	28.6	28.2	23.6	21.5

Site ID	Site Name	Site Type	X OS Grid Reference	Y OS Grid Reference	Data Capture (%)	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Raw Annual Mean (µg/m3)	Bias Adjusted Annual Mean (µg/m3)
	between Chudleigh Road & Christchurch Avenue. Christchurch Avenue between Aylestone Avenue & Brondesbury Park																		
SZ22	Kingsbury High, Bacon Lane from school to Roe Lane	Roadside	519883	189197	100	27.2	24.9	21.8	18.9	14.9	13.5	13.8	12.3	21.3	22.0	26.3	22.5	19.9	18.1
SZ23	Kingsbury Green, Old Kenton Lane	Roadside	520065	188673	84		29.8	25.0	22.1	20.5	18.2	18.2		26.2	23.8	31.0	24.7	23.9	21.8
SZ231	Slough Lane (St Robert Southwell Primary School)	Roadside	520211	188478	100	29.5	29.6	24.7	21.7	19.8	18.2	17.7	14.9	24.6	25.2	28.8	25.1	23.3	21.2
SZ24	Mount Stewart I & J, Mount Stewart Avenue between Abercorn Gardens and	Roadside	517739	187912	84			20.9	42.3	17.5	13.2	13.7	11.3	20.2	22.0	25.9	24.1	21.1	19.2

Site ID	Site Name	Site Type	X OS Grid Reference	Y OS Grid Reference	Data Capture (%)	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Raw Annual Mean (µg/m3)	Bias Adjusted Annual Mean (µg/m3)
	Manning Gardens																		
SZ25A	Claremont Primary School	Roadside	518243	188627	100	30.2	26.3	22.4	18.9	16.6	12.1	15.4	12.9	23.0	23.8	29.2	28.5	21.6	19.7
SZ25B	Uxendon Primary School	Roadside	518184	188539	93	25.9		21.4	17.9	15.3	13.7	14.6	11.8	20.1	21.0	23.3	27.7	19.3	17.6
SZ26	Sudbury Primary School	Roadside	516559	185913	91	34.8	26.2	28.1		42.2	17.9	20.6	17.7	27.7	24.7	31.8	28.3	27.3	24.8
SZ27	Oakington Manor School	Roadside	519913	185066	100	33.5	32.6	25.3	22.5	20.6	16.5	20.0	14.9	26.6	27.0	31.6	29.6	25.0	22.8
SZ41	Leopold, Hawkeshead Road j/w Oldfield Road & Roundwood Road	Roadside	521624	184275	100	32.7	29.7	27.9	22.2	20.3	15.3	18.2	15.9	25.9	25.3	30.8	27.9	24.3	22.1
SZ63	Preston Manor Upper School, Hollycroft Avenuenue J/W Highfield Avenuenue	Roadside	518603	186544	100	30.7	25.9	23.8	18.6	17.6	13.6	16.0	13.4	21.4	25.7	28.9	25.9	21.8	19.8
SZ81	Brentfield Primary, Meadow Garth by	Roadside	520512	184580	100	33.3	33.8	31.3	24.8	22.4	20.2	21.3	18.8	27.2	27.0	32.2	28.3	26.7	24.3

Site ID	Site Name	Site Type	X OS Grid Reference	Y OS Grid Reference	Data Capture (%)	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Raw Annual Mean (µg/m3)	Bias Adjusted Annual Mean (µg/m3)
	Homefield Close																		

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 **bold and underlined**.

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 25%.

Table Q. Brent Healthy Neighbourhood NO_2 Diffusion Tube Results

Site ID	Site Name	Site Type	X OS Grid Reference	Y OS Grid Reference	Data Capture (%)	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Raw Annual Mean (µg/m3)	Bias Adjusted and Annual Mean (µg/m3)
PM14A	Lawrence Avenue	Roadside	520763	183700	100.0	28.9	33.0	31.0	25.4	24.4	20.1	20.9	18.4	27.2	31.2	36.6	31.2	27.3	24.9
PM14b	Craven Park	Roadside	521049	183874	92.3	45.5	41.5	45.2	39.3	39.1		32.1	33.7	44.7	43.9	43.4	40.1	40.8	*37.1*

Site ID	Site Name	Site Type	X OS Grid Reference	Y OS Grid Reference	Data Capture (%)	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Raw Annual Mean (µg/m3)	Bias Adjusted and Annual Mean (µg/m3)
PM14C	Nicoll Road	Roadside	521401	183542	100.0	36.0	31.4	28.7	23.4	22.6	18.2	20.6	17.7	26.7	30.9	35.3	29.9	26.8	24.4
PM14D	Connaught Road	Roadside	521321	183478	100.0	37.7	28.1	31.9	24.4	24.2	18.7	23.2	20.7	28.0	29.7	35.7	29.2	27.6	25.1
PM16a	Fortunegate Road	Roadside	521348	183912	100.0	36.4	34.1	32.4	26.8	22.6	22.9	22.9	21.4	29.8	33.0	52.6	32.4	30.6	27.9
PM16b	Roundwood road	Roadside	521741	184243	92.3	33.7	30.7		20.7	23.0	19.1	20.5	17.0	27.9	28.0	30.8	26.8	25.3	23.0
PM19a	Chamberlayne road (Manor School)	Roadside	523453	183500	91.5		36.7	41.6	29.8	31.9	24.2	28.9	26.4	37.9	40.2	45.3	39.4	34.8	31.6
PM19b	Tiverton Road	Roadside	523931	183500	81.7		32.0	31.7	22.5	23.0	23.1	22.8	19.7	30.8		33.3	29.6	26.9	24.4
PM19c	Salusbury road (Salusbury primary school)	Roadside	524520	183495	100.0	39.4	36.7	34.7	27.0	25.3	27.0	29.7	21.7	34.3	33.9	35.6	27.7	31.1	28.3
PM20c	Kilburn High Road	Roadside	524907	184274	91.5		40.3	47.6	33.4	33.5	33.0	36.3	29.9	40.9	40.7	44.8	34.0	37.7	34.3
PM22A	Walm Lane	Roadside	523854	185249	100.0	37.5	33.4	31.9	24.4	25.6	21.5	24.2	20.4	29.8	30.6	37.7	26.8	28.6	26.1
PM22B	Lydford Road	Roadside	523770	185086	100.0	35.6	32.6	32.2	22.3	23.1	21.0	20.8	19.3	28.7	29.4	33.8	26.1	27.1	24.6
PM22C	Exeter Road	Roadside	524333	184827	100.0	35.8	31.5	29.6	19.6	20.2	17.9	21.3	16.3	25.8	27.9	32.4	27.2	25.5	23.2

Site ID	Site Name	Site Type	X OS Grid Reference	Y OS Grid Reference	Data Capture (%)	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Raw Annual Mean (µg/m3)	Bias Adjusted and Annual Mean (µg/m3)
PM22D	Shoot up hill	Roadside	524486	184877	100.0	56.6	47.5	54.1	40.2	43.8	42.4	46.6	35.4	51.8	48.7	55.7	45.2	47.3	**43.1**
PM22E	Dartmouth Road	Roadside	523846	184875	100.0	33.0	30.4	29.3	23.1	21.5	16.8	19.2	16.1	25.7	25.3	32.9	26.1	24.9	22.7
PM23A	Chapter Road 1 (between Windsor and Osborne)	Roadside	522708	184973	92.3	37.4	32.6	31.3	26.3	26.0	20.2	22.0	20.4		31.8	36.7	30.6	28.7	26.1
PM23B	Acland Road	Roadside	522970	184812	100.0	34.0	31.6	29.3	23.1	21.7	17.6	19.3	19.2	27.9	29.7	32.1	31.1	26.4	24.0
PM25a	Agave road	Roadside	523246	185765	100.0	36.3	32.4	31.5	25.4	20.4	20.6	25.5	19.8	29.3	26.6	32.7	30.1	27.5	25.1
PM25b	Ashford road	Roadside	523581	185671	82.2	36.9	32.1	30.6		20.3	19.9	21.6	19.7	29.1	28.6		28.5	26.7	24.3
PM25c	Anson road	Roadside	523560	185395	100.0	39.4	33.9	31.7	28.6	22.2	25.2	26.1	21.5	31.1	29.3	38.1	28.0	29.6	26.9
PM26a	Gladstone Park Gardens	Roadside	522941	186263	100.0	41.7	33.0	30.4	23.4	21.9	17.6	21.5	17.3	27.3	29.5	34.7	28.6	27.2	24.8
PM26b	Dollis Hill Lane (Our Lady of Grace School)	Roadside	522563	186233	92.3	42.8	33.0	30.6	23.4	20.1	19.6	21.4	18.3		26.8	35.1	27.7	27.2	24.7
PM28A	East Lane	Roadside	517811	186252	100.0	51.8	50.2	48.3	41.2	47.8	43.3	46.8	36.3	53.0	42.7	44.7	40.7	45.6	**41.5**
PM28B	Clarendon Gardens	Roadside	518367	185872	100.0	31.7	28.3	24.6	21.0	20.1	15.6	18.4	15.6	25.8	27.9	26.3	26.4	23.5	21.4

Site ID	Site Name	Site Type	X OS Grid Reference	Y OS Grid Reference	Data Capture (%)	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Raw Annual Mean (µg/m3)	Bias Adjusted and Annual Mean (µg/m3)
PM28C	Castleton Avenue	Roadside	518172	186004	100.0	37.5	33.6	29.3	22.3	23.2	18.1	20.8	17.3	27.5	32.0	34.5	30.1	27.2	24.7
PM28D	St John's Road	Roadside	518076	185421	100.0	34.8	31.6	28.7	21.4	24.6	16.3	21.2	17.1	28.8	29.4	33.9	28.4	26.3	24.0
PM28E	Meadow Way	Roadside	517952	185913	100.0	33.6	28.8	27.9	20.2	19.8	16.1	17.7	15.6	26.7	27.4	33.7	26.5	24.5	22.3
PM29a	Carlton Avenue East	Roadside	517896	186958	100.0	35.6	31.7	29.3	21.8	22.5	18.1	21.0	15.8	27.1	28.6	33.0	26.8	26.0	23.6
PM29b	Grasmere Avenue	Roadside	518008	187311	92.3	32.0	27.5	22.9	19.9	18.9	15.1	17.0		23.6	26.9	30.8	27.5	23.8	21.7
PM29c	Preston Road	Roadside	518280	187411	91.3	44.3	38.0	38.6	29.7	36.3	31.9	37.0	29.4	39.0	42.6	46.7		37.6	34.2
PM32a	Princes Avenue	Roadside	519588	189311	91.3	36.2	32.6	31.7	24.5	24.3	21.5	22.8	18.9	31.6	29.7	33.7		28.0	25.4
PM32b	Brampton Road	Roadside	519432	188972	100.0	34.1	29.5	27.3	22.3	20.7	18.1	19.7	16.4	26.6	27.4	33.8	26.4	25.2	22.9
PM32c	Berkeley Road	Roadside	519268	188982	100.0	36.5	31.7	28.0	22.5	17.1	19.0	19.5	16.7	27.1	28.4	32.9	29.7	25.7	23.4
PM36A	Cecil Avenue	Roadside	518588	185174	82.8	41.5	37.8	32.5	28.7	26.2	26.6	26.9	24.6	33.6	35.4			31.4	28.6
PM36B	Harrow Road	Roadside	519199	184909	100.0	46.1	40.3	35.5	29.3	29.6	26.7	30.6	25.3	37.8	36.7	42.8	31.1	34.3	31.2

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 **bold and underlined**.

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 25%.