London Borough of Brent Air Quality Annual Status Report for 2023

Date of publication: May 2024

This report provides a detailed overview of air quality in the London Borough of Brent during 2023. It has been produced to meet the requirements of the London Local Air Quality Management (LLAQM) statutory process[1].

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

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Abbreviations

Abbreviation	Description
AQAP	Air Quality Action Plan
AQMA	Air Quality Management Area
AQN	Air Quality Neutral
AQO	Air Quality Objective
AQP	Air Quality Positive
BEB	Buildings Emission Benchmark
CAB	Cleaner Air Borough
EV	Electric Vehicle
GLA	Greater London Authority
LAEI	London Atmospheric Emissions Inventory
LAQM	Local Air Quality Management
LLAQM	London Local Air Quality Management
NRMM	Non-Road Mobile Machinery
PM_{10}	Particulate matter less than 10 micron in diameter
$PM_{2.5}$	Particulate matter less than 2.5 micron in diameter
TEB	Transport Emissions Benchmark
TfL	Transport for London

Table A. Summary of National Air Quality and International Standards, Objectives and Guidelines

Pollutant	Standard / Objective / Guideline	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
Nitrogen dioxide (NO_2)	WHO AQG[2]: 10 µg/m^3	Annual mean	
Nitrogen dioxide (NO_2)	WHO AQG[3]: 30 µg/m^3	Annual mean	
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})	WHO AQG[2]: 45 µg/m^3 not to be exceeded more than 3-4 times a year	24-hour mean	
Particles (PM_{10})	40 µg/m^3	Annual mean	31 Dec 2004
Particles (PM_{10})	WHO AQG[2]: 15 µg/m^3	Annual mean	
Particles (PM_{10})	WHO AQG[4]: 20 µg/m^3	Annual mean	
Particles ($PM_{2.5}$)	20 µg/m^3	Annual mean	2020
Particles ($PM_{2.5}$)	London Mayoral Objective[4]: 10 µg/m^3	Annual mean	2030
Particles ($PM_{2.5}$)	WHO AQG[2]: 5 µg/m^3	Annual mean	
Particles ($PM_{2.5}$)	Target of 15% reduction in concentration at urban background locations	3-year mean	Between 2010 and 2021
Particles ($PM_{2.5}$)	WHO AQG[2]: 15 µg/m^3	24-hour mean	
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
Sulphur dioxide (SO_2)	WHO AQG[2]: 40 µg/m^3 not to be exceeded more than 3-4 times a year	24-hour mean	

Notes:

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

(2) 2021 World Health Organisation Air Quality Guidelines

(3) 2021 World Health Organisation Air Quality Guidelines NO_2 Interim Target 2

(4) 2021 World Health Organisation Air Quality Guidelines PM_{10} Interim Target 4

(5) London Mayoral Objective

1. Air Quality Monitoring

1.1 Locations

Automatic Monitoring Sites

The London Borough of Brent operates four automatic monitoring sites: three are roadside sites (BT4, BT6 and BT8) and one is an industrial site (BT5). Sites BT4, BT5, BT6 and BT8 measure NO_2, PM_{10} and $PM_{2.5}$; and BT4 also measures O_3. All four are located within the Council's Air Quality Management Area (AQMA). The automatic monitoring sites continuously measure pollutant levels to determine annual mean concentrations of NO_2, PM_{10} and $PM_{2.5}$, 24-hour mean concentrations of PM_{10}, and 1-hour mean concentrations of NO_2. Details of automatic monitoring sites are given in Table B.

Table B. Details of Automatic Monitoring Sites for 2023

Site ID	Site Name	Site Type	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Pollutants Monitored	In AQMA? Which AQMA?	Monitoring Technique	Distance to Relevant Exposure (m) (1)	Distance to kerb of nearest road (m) (2)	Inlet Height (m)
BT4	IKEA	Roadside	520866	185169	NO_2, PM_{10}, $PM_{2.5}$, O_3	Yes	Chemiluminescent; BAM	38.0	3.7	1.6
BT5	Neasden Lane	Industrial	521511	185204	NO_2, PM_{10}, $PM_{2.5}$	Yes	Chemiluminescent; BAM	35.0	4.0	2.5
BT6	John Keble Primary School	Roadside	521619	183554	NO_2, PM_{10}, $PM_{2.5}$	Yes	Chemiluminescent; BAM	10.0	2.0	2.5
BT8	Ark Franklin Primary Academy	Roadside	523716	183030	NO_2, PM_{10}, $PM_{2.5}$	Yes	Chemiluminescent; BAM	10.0	3.3	2.5

Notes:

(1) 0m if the monitoring site is at a location of exposure (e.g. installed on the façade of a residential property).

(2) N/A if not applicableNon-Automatic Monitoring Sites

In 2023 the London Borough of Brent maintained 122 non-automatic monitoring sites comprising all NO_2 diffusion tubes, which are used to indicate annual mean concentrations. Details of non-automatic monitoring sites are given in Table C.

Table C. Details of Non-Automatic Monitoring Sites for 2023

Diffusion Tube ID	Site Name	Site Type	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Pollutants Monitored	In AQMA? Which AQMA?	Distance to Relevant Exposure (m) (1)	Distance to kerb of nearest road (m) (2)	Tube Co-located with a Continuous Analyser?	Tube Height (m)
1	Junction of Kenton Road / Upton Gardens	Roadside	516929	188560	NO_2	Yes	15.0	2.0	No	1.5
2	Harrow Road, Sudbury Court Drive	Roadside	515793	186042	NO_2	Yes	10.0	1.0	No	1.5
4	Junction of Shaftesbury Avenue / Woodcock Hill	Roadside	518240	187747	NO_2	Yes	6.0	1.0	No	1.5
7	Bridgewater Road / Ealing Road	Roadside	517942	183721	NO_2	Yes	17.0	2.0	No	1.5
9	Junction of East Lane / Wembley Hill Road	Roadside	518499	186168	NO_2	Yes	20.0	2.0	No	1.5
17	Old Church Lane junction with Neasden Lane	Roadside	520480	186537	NO_2	Yes	4.0	1.0	No	1.5
21a	Central Way, Park Royal	Roadside	520077	182853	NO_2	Yes	4.0	1.0	No	1.5
22	Junction of Kingsbury Road / Edgware Road	Roadside	521447	188730	NO_2	Yes	5.0	1.0	No	1.5

Diffusion Tube ID	Site Name	Site Type	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Pollutants Monitored	In AQMA? Which AQMA?	Distance to Relevant Exposure (m) (1)	Distance to kerb of nearest road (m) (2)	Tube Co-located with a Continuous Analyser?	Tube Height (m)
23	Junction North Circular Road / Chartley Avenue	Roadside	521213	186125	NO_2	Yes	10.0	2.0	No	1.5
26	Dudden Hill Lane junction with Willesden High Road	Roadside	522191	184821	NO_2	Yes	19.0	1.0	No	1.5
29	Junction Dollis Hill Lane / Cricklewood	Roadside	523191	186571	NO_2	Yes	12.0	1.0	No	1.5
30	Chichele Road near Melrose Avenue	Roadside	523663	185353	NO_2	Yes	9.8	1.0	No	1.5
33a	Fryent Country Park		519572	187691	NO_2	Yes	50.0	1.0	No	1.5
41	R/O 246 Neasden Lane	Roadside	521455	185920	NO_2	Yes	3.0	4.0	No	1.5
48	Kilburn Park Road near junction with Shirland Road	Roadside	525196	182517	NO_2	Yes	2.0	1.0	No	1.5
52A	IKEA,Hut, North Circular Road (Tube 1 of 4)	Roadside	520874	185173	NO_2	Yes	10.0	3.7	No	1.5
52B	IKEA,Hut, North Circular Road (Tube 2 of)	Roadside	520874	185173	NO_2	Yes	10.0	3.7	No	1.5
52C	IKEA,Hut, North Circular Road (Tube 3 of 4)	Roadside	520874	185173	NO_2	Yes	10.0	3.7	No	1.5

Diffusion Tube ID	Site Name	Site Type	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Pollutants Monitored	In AQMA? Which AQMA?	Distance to Relevant Exposure (m) (1)	Distance to kerb of nearest road (m) (2)	Tube Co-located with a Continuous Analyser?	Tube Height (m)
52D	IKEA,Hut, North Circular Road (Tube 4 of 4)	Roadside	520874	185173	NO_2	Yes	10.0	1.0	No	1.5
53	Junction Ealing Road /Wembley High Road	Roadside	518026	185028	NO_2	Yes	15.0	1.0	No	1.5
54	Ealing Road/Riverside Gardens	Roadside	518236	183207	NO_2	Yes	4.0	1.0	No	1.5
60	Junction of Bridge Road/Forty Avenue	Roadside	519475	186557	NO_2	Yes	35.0	1.0	No	2.0
61	Forty Lane, F/O Old Brent Town Hall	Roadside	519762	186600	NO_2	Yes	40.0	1.0	No	2.0
62	Junction of Kings Drive/Forty Lane	Roadside	519667	186604	NO_2	Yes	40.0	1.0	No	2.5
63	King's Drive, Opposite 37 King's Drive	Roadside	519703	187007	NO_2	Yes	7.0	1.0	No	2.5
64	The Paddocks, Opposite 9 The Paddocks	Roadside	519824	186715	NO_2	Yes	20.0	1.0	No	2.1
65	Junction of Aybone Road/ NCR, Next to 517 NCR	Roadside	521313	186529	NO_2	Yes	7.0	1.0	No	2.2
66	Junction of Heather Road/Tanfield Avenue	Roadside	521912	186514	NO_2	Yes	20.0	1.0	No	2.1

Diffusion Tube ID	Site Name	Site Type	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Pollutants Monitored	In AQMA? Which AQMA?	Distance to Relevant Exposure (m) (1)	Distance to kerb of nearest road (m) (2)	Tube Co-located with a Continuous Analyser?	Tube Height (m)
67	Dawpool Road, F/O 24 Dawpool Road	Roadside	521651	186611	NO_2	Yes	5.0	1.0	No	2.1
68	Junction of Randall Avenue/NCR, Next to 730 NCR	Roadside	521448	186626	NO_2	Yes	5.0	1.0	No	2.5
69	Wrentham Avenue, F/O 65 Wrentham Avenue	Roadside	523782	183527	NO_2	Yes	8.0	1.0	No	2.1
70	Junction of Peploe Road/Chevening Road, F/O 72 Chevening Road	Roadside	523828	183338	NO_2	Yes	5.0	1.0	No	2.1
71	Queens Park recreational area, on CCTV camera post	Urban Background	524179	183232	NO_2	Yes	25.0	45.0	No	2.1
72	Harvist Road, F/O 139 Harvist Road	Roadside	524142	183120	NO_2	Yes	5.0	1.0	No	2.1
73	Junction of Harvist Road/Salisbury Road, Opposite Kilburn Police Station	Roadside	524607	183267	NO_2	Yes	3.0	1.0	No	2.1
74	Junction of Salisbury	Roadside	524283	183882	NO_2	Yes	5.0	3.0	No	2.1

Diffusion Tube ID	Site Name	Site Type	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Pollutants Monitored	In AQMA? Which AQMA?	Distance to Relevant Exposure (m) (1)	Distance to kerb of nearest road (m) (2)	Tube Co-located with a Continuous Analyser?	Tube Height (m)
	Road/Chevening Road									
75	Junction of Woodcock Hill/Woodcock Hill	Roadside	517499	187778	NO_2	Yes	15.0	3.0	No	2.1
76	Lindsay Drive, near junction with Branksome Way	Roadside	518430	188406	NO_2	Yes	5.0	1.0	No	2.1
77	Beverly Drive, near junction of Sandhurst road	Roadside	519100	189827	NO_2	Yes	11.0	1.0	No	2.1
78	Harrow Road junction of Watford Road	Roadside	516721	185478	NO_2	Yes	12.0	2.0	No	2.1
79A	Ark Franklin AQ station (Tube 1 of 3)	Roadside	523721	183008	NO_2	Yes	10.0	2.0	No	1.5
79B	Ark Franklin AQ station (Tube 2 of 3)	Roadside	523721	183008	NO_2	Yes	10.0	2.0	No	1.5
79C	Ark Franklin AQ station (Tube 3 of 3)	Roadside	523721	183008	NO_2	Yes	10.0	2.0	No	1.5
BRT42	Police Station, Craven Park	Roadside	521131	183995	NO_2	Yes	3.0	3.0	No	1.5
BRT43	Pitfield Way	Roadside	520242	184541	NO_2	Yes	20.0	2.0	No	1.5
BRT53	High Road Wembley	Roadside	518303	185181	NO_2	Yes	4.0	0.5	No	1.5
BRT55	High Street, Harlesden	Roadside	521743	183361	NO_2	Yes	3.0	0.5	No	1.5

Diffusion Tube ID	Site Name	Site Type	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Pollutants Monitored	In AQMA? Which AQMA?	Distance to Relevant Exposure (m) (1)	Distance to kerb of nearest road (m) (2)	Tube Co-located with a Continuous Analyser?	Tube Height (m)
BRT56	Chamberlayne Road	Roadside	523635	183153	NO_2	Yes	15.0	0.5	No	1.5
BRT57	Kilburn Bridge	Roadside	525419	183612	NO_2	Yes	8.0	0.5	No	1.5
BRT58	51 High Road, Willesden	Roadside	523031	184655	NO_2	Yes	2.0	0.5	No	1.5
SZ2	Wykeham, Annesley Close j/w Aboyne Road	Roadside	521069	186250	NO_2	Yes	Unknown	0.5	No	1.5
SZ41	Leopold, Hawkeshead Road j/w Oldfield Road & Roundwood Road	Roadside	521624	184275	NO_2	Yes	Unknown	0.4	No	1.5
SZ1	Harlesden, Minet Avenue j/w Acton Lane	Roadside	521103	183408	NO_2	Yes	Unknown	0.3	No	1.5
SZ3A	Elsley Primary School, Tokyngton Avenue	Roadside	518900	184774	NO_2	Yes	Unknown	2.0	No	1.5
SZ3B	Esley Primary School Berkhamsted Avenue at Gaddesden Avenue	Roadside	518913	184670	NO_2	Yes	Unknown	2.2	No	1.5
SZ10	Christ church, Clarence Road, Willesden Lane & Torbay Road	Roadside	524585	184031	NO_2	Yes	Unknown	0.8	No	1.5

Diffusion Tube ID	Site Name	Site Type	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Pollutants Monitored	In AQMA? Which AQMA?	Distance to Relevant Exposure (m) (1)	Distance to kerb of nearest road (m) (2)	Tube Co-located with a Continuous Analyser?	Tube Height (m)
SZ4a	John Keble, Crownhill Road Manor Park Road to Harlesden Gardens	Roadside	521643	183579	NO_2	Yes	Unknown	0.5	No	1.5
SZ19	Ark Franklin, Kempe Road between Chamberlayne Road & Peploe Road	Roadside	523744	183076	NO_2	Yes	Unknown	0.4	No	1.5
SZ8	St Marys CE Primary, Garnet Road j/w Mayo Road	Roadside	521314	184712	NO_2	Yes	Unknown	0.4	No	1.5
SZ4b	Convent Jesus & Mary Language College, Crownhill Road Manor Park Road to Harlesden Gardens	Roadside	521718	183649	NO_2	Yes	Unknown	0.4	No	1.5
SZ5a	St Joseph Primary, Goodson Road j/w Brownlow Road & Leopold Road	Roadside	521394	184264	NO_2	Yes	Unknown	0.4	No	1.5
SZ5b	St Joseph Primary, Leopold Road j/w	Roadside	521364	184185	NO_2	Yes	Unknown	0.4	No	1.5

Diffusion Tube ID	Site Name	Site Type	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Pollutants Monitored	In AQMA? Which AQMA?	Distance to Relevant Exposure (m) (1)	Distance to kerb of nearest road (m) (2)	Tube Co-located with a Continuous Analyser?	Tube Height (m)
	Goodson Road & Northcote Road									
SZ11b	Stonebridge Primary, Wesley Road at Hillside	Roadside	520525	183861	NO_2	Yes	Unknown	0.4	No	1.5
SZ12	Our Lady of Grace Infants, Dollis Hill Avenue at A5 & Mount Road	Roadside	523167	186491	NO_2	Yes	Unknown	0.3	No	1.5
SZ11A	Our Lady of Lourdes, Wesley Road at Hillside	Roadside	520480	183908	NO_2	Yes	Unknown	0.4	No	1.5
SZ15	St Mary Magdalens, Linacre at junction with Acland Road	Roadside	522934	184702	NO_2	Yes	Unknown	0.6	No	1.5
SZ16	Convent of J & M Infants, Access Road to school between houses 19 & 25	Roadside	523039	184745	NO_2	Yes	Unknown	0.6	No	1.5
SZ18	Princes Frederica, Purves Road	Roadside	523224	183045	NO_2	Yes	Unknown	1.1	No	1.5
SZ81	Brentfield Primary, Meadow Garth by Homefield Close	Roadside	520512	184580	NO_2	Yes	Unknown	2.8	No	1.5
SZ17	Northview, Northview	Roadside	521618	185525	NO_2	Yes	Unknown	1.9	No	1.5

Diffusion Tube ID	Site Name	Site Type	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Pollutants Monitored	In AQMA? Which AQMA?	Distance to Relevant Exposure (m) (1)	Distance to kerb of nearest road (m) (2)	Tube Co-located with a Continuous Analyser?	Tube Height (m)
	Crescent j/w Southview									
SZ14A	St Joseph Juniors, Chatsworth Avenue j/w Harrow Road	Roadside	518837	185102	NO_2	Yes	Unknown	0.3	No	1.5
SZ27	Oakington Manor School	Roadside	519913	185066	NO_2	Yes	Unknown	1.2	No	1.5
SZ4c	MapleWalk, Crownhill Road Manor Park Road to Harlesden Gardens	Roadside	521781	183700	NO_2	Yes	Unknown	0.7	No	1.5
SZ20B	Malorees I & J, Christchurch Avenue between Aylestone Avenue & Brondesbury Park	Roadside	524003	183995	NO_2	Yes	Unknown	0.7	No	1.5
SZ20A	Queens Park Community, Aylestone Avenue between Chudleigh Road & Christchurch Avenue	Roadside	523678	183956	NO_2	Yes	Unknown	0.6	No	1.5
SZ22	Kingsbury High, Bacon Lane from school to Roe Lane	Roadside	519883	189197	NO_2	Yes	Unknown	0.3	No	1.5

Diffusion Tube ID	Site Name	Site Type	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Pollutants Monitored	In AQMA? Which AQMA?	Distance to Relevant Exposure (m) (1)	Distance to kerb of nearest road (m) (2)	Tube Co-located with a Continuous Analyser?	Tube Height (m)
SZ7	Mora, Mora Road J/W Temple Road & Wotton Road/St Michael's Road	Roadside	523119	185933	NO_2	Yes	Unknown	0.8	No	1.5
SZ14B	St Joseph Infants, WAvenuerley Avenue j/w Harrow Road	Roadside	518835	185012	NO_2	Yes	Unknown	0.0	No	1.5
SZ63	Preston Manor Upper School, Hollycroft Avenue J/W Highfield Avenue	Roadside	518603	186544	NO_2	Yes	Unknown	0.6	No	1.5
SZ23	Kingsbury Green, Old Kenton Lane	Roadside	520065	188673	NO_2	Yes	Unknown	0.4	No	1.5
SZ6	Preston Park, College Road Glendale Gardens & Thirlmere Gardens	Roadside	517900	187137	NO_2	Yes	Unknown	0.8	No	1.5
SZ25A	Claremont High School	Roadside	518243	188627	NO_2	Yes	Unknown	1.8	No	1.5
SZ24	Mount Stewart I & J, Mount Stewart Avenue between Abercorn Gardens and Manning Gardens	Roadside	517739	187912	NO_2	Yes	Unknown	0.3	No	1.5
SZ25B	Uxendon School	Roadside	518184	188539	NO_2	Yes	Unknown	0.8	No	1.5

Diffusion Tube ID	Site Name	Site Type	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Pollutants Monitored	In AQMA? Which AQMA?	Distance to Relevant Exposure (m) (1)	Distance to kerb of nearest road (m) (2)	Tube Co-located with a Continuous Analyser?	Tube Height (m)
SZ26	Sudbury Primary School	Roadside	516559	185913	NO_2	Yes	Unknown	0.6	No	1.5
SZ231	Slough Lane (St Robert Southwell Primary School)	Roadside	520211	188478	NO_2	Yes	Unknown	1.8	No	2.3
PM16a	Fortunegate Road	Roadside	521348	183912	NO_2	Yes	Unknown	0.5	No	2.5
PM16b	Roundwood Road	Roadside	521741	184243	NO_2	Yes	Unknown	2.0	No	2.2
PM19a	Chamberlayne road (Manor School)	Roadside	523453	183500	NO_2	Yes	Unknown	0.3	No	2.3
PM19b	Tiverton Road	Roadside	523931	183500	NO_2	Yes	Unknown	0.3	No	2.3
PM19c	Salusbury road (Salusbury primary school)	Roadside	524520	183495	NO_2	Yes	Unknown	0.4	No	2.3
PM20a	No 80 Victoria Rd	Roadside	524599	183990	NO_2	Yes	Unknown	Unknown	No	1.5
PM20b	60 Brondesbury Rd	Roadside	524995	183470	NO_2	Yes	Unknown	Unknown	No	1.5
PM20c	Kilburn High Road	Roadside	524907	184274	NO_2	Yes	Unknown	0.2	No	2.3
PM25a	Agave Road	Roadside	523246	185765	NO_2	Yes	Unknown	0.6	No	2.4
PM25b	Ashford Road	Roadside	523581	185671	NO_2	Yes	Unknown	1.8	No	2.2
PM25c	Anson Road	Roadside	523560	185395	NO_2	Yes	Unknown	0.5	No	2.3
PM26a	Gladstone Park Gardens	Roadside	522941	186263	NO_2	Yes	Unknown	0.6	No	2.4
PM26b	Dollis Hill Lane (Our Lady of Grace School)	Roadside	522563	186233	NO_2	Yes	Unknown	2.0	No	2.4
PM29a	Carlton Avenue East	Roadside	517896	186958	NO_2	Yes	Unknown	0.8	No	2.4

Diffusion Tube ID	Site Name	Site Type	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Pollutants Monitored	In AQMA? Which AQMA?	Distance to Relevant Exposure (m) (1)	Distance to kerb of nearest road (m) (2)	Tube Co-located with a Continuous Analyser?	Tube Height (m)
PM29b	Grasmere Avenue	Roadside	518008	187311	NO_2	Yes	Unknown	0.2	No	2.4
PM29c	Preston Road	Roadside	518280	187411	NO_2	Yes	Unknown	0.7	No	2.4
PM32a	Princes Avenue	Roadside	519588	189311	NO_2	Yes	Unknown	0.4	No	2.4
PM32b	Brampton Road	Roadside	519432	188972	NO_2	Yes	Unknown	2.5	No	2.4
PM32c	Berkeley Road	Roadside	519268	188982	NO_2	Yes	Unknown	2.4	No	2.4
PM22A	Walm Lane	Roadside	523854	185249	NO_2	Yes	Unknown	0.4	No	1.5
PM22B	Lydford Road	Roadside	523770	185086	NO_2	Yes	Unknown	0.6	No	1.5
PM22E	Dartmouth Road	Roadside	523846	184875	NO_2	Yes	Unknown	0.5	No	1.5
PM22C	Exeter Road	Roadside	524333	184827	NO_2	Yes	Unknown	0.5	No	1.5
PM22D	Shoot-up Hill	Roadside	524486	184877	NO_2	Yes	Unknown	0.6	No	1.5
PM23B	Acland Road	Roadside	522970	184812	NO_2	Yes	Unknown	0.3	No	1.5
PM23A	Chapter Road	Roadside	522708	184973	NO_2	Yes	Unknown	0.4	No	1.5
PM14b	Craven Park	Roadside	521049	183874	NO_2	Yes	7.5	1.6	No	1.5
PM14C	Nicoll Road	Roadside	521401	183542	NO_2	Yes	Unknown	0.5	No	1.5
PM14D	Connaught Road	Roadside	521321	183478	NO_2	Yes	Unknown	0.4	No	1.5
PM14A	Lawrence Avenue	Roadside	520763	183700	NO_2	Yes	Unknown	2.2	No	1.5
PM28B	Clarendon Gardens	Roadside	518367	185872	NO_2	Yes	Unknown	1.2	No	1.5
PM28C	Castleton Avenue	Roadside	518172	186004	NO_2	Yes	Unknown	0.9	No	1.5
PM28E	Meadow Way	Roadside	517952	185913	NO_2	Yes	Unknown	2.1	No	1.5
PM28D	St John's Road	Roadside	518076	185421	NO_2	Yes	Unknown	0.3	No	1.5
PM36A	Cecil Avenue	Roadside	518590	185172	NO_2	Yes	Unknown	0.4	No	1.5
PM36B	Harrow Road	Roadside	519200	184899	NO_2	Yes	Unknown	0.9	No	1.5
PM28A	East Lane	Roadside	517811	186252	NO_2	Yes	Unknown	0.9	No	1.5
PM20d	Willesden Lane, opposite The Kilburn Arms	Roadside	524603	183984	NO_2	Yes	Unknown	0.5	No	1.5
PM20e	No 26 Dyne Rd	Roadside	524620	184266	NO_2	Yes	Unknown	0.5	No	1.5
CR47	191 Church Road	Roadside	521511	184679	NO_2	Yes	Unknown	0.5	No	1.5

Diffusion Tube ID	Site Name	Site Type	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Pollutants Monitored	In AQMA? Which AQMA?	Distance to Relevant Exposure (m) (1)	Distance to kerb of nearest road (m) (2)	Tube Co-located with a Continuous Analyser?	Tube Height (m)
CR79	A407 High Road, Church End	Roadside	521465	184692	NO_2	Yes	Unknown	0.5	No	1.5

Notes:

(1) 0m if the monitoring site is at a location of exposure (e.g. installed on the façade of a residential property).

(2) N/A if not applicable.

1.2 Comparison of Monitoring Results with AQOs

NO_2 Concentrations

Table D provides annual mean NO_2 concentrations at automatic monitoring sites for the years 2017 to 2023 inclusive. The concentration values are those at the monitoring site. Exceedances of the 40 µg/m^3 AQO (Table A) for annual mean NO_2 are highlighted. Details of monitoring site QA/QC for 2023 measurements are given in Appendix A.

Table D. Annual Mean NO_2 Ratified Monitoring Results: Automatic Monitoring (µg/m^3)

Site ID	Site type	Valid data capture for monitoring period %[a]	Valid data capture 2023 %[b]	2017	2018	2019	2020	2021	2022	2023
BT4	Automatic	83.1	83.1	**72.0**	**71.0**	**63.0**	**49.0**	**46.4**	**43.2**	38.7
BT5	Automatic	99.5	99.5	**46.0**	38.0	38.0	29.0	30.0	28.0	24.8
BT6	Automatic	87.9	87.9	**45.0**	39.0	37.0	29.0	28.7	27.7	24.1
BT8	Automatic	64.6	64.6	**54.0**	**46.0**	**41.0**	29.0	31.5	28.6	23.0

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 1-hour mean AQO are shown in **bold and underlined**.

Means for diffusion tubes have been corrected for bias.

All means have been annualisedin accordance with LLAQM Technical Guidance if valid data capture for the calendar year is less than 75% and greater than 25%.

Concentrations are those at the location of monitoring and not those following any fall-off with distance adjustment.

(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%).

The automatic monitoring stations have measured, on average, a decrease of 46% in the annual mean concentration of NO_2 since 2018. Monitored concentrations dropped between 2019 and 2023 by 36%. Monitoring location BT4 (IKEA, North Circular) fell below the NO_2 annual mean AQO of 40 µg/m^3 at 38.7 µg/m^3 in 2023, for the first time in seven years. However, it should be noted that monitored concentrations remain within 10% of the AQO of 40 µg/m^3 (Table A) and this remains a location of concern. In 2023, monitoring locations BT5, BT6 and BT8 were below the WHO interim 2 guideline[2] of 30 µg/m^3 (Table A) but above the WHO guideline of 10 µg/m^3 (Table A). The trends in annual mean NO_2 concentrations are illustrated in Figure 1.

[2] 9789240034433-eng.pdf (who.int)

Figure 1: Graph showing trends of annual mean NO_2 concentrations 2017-2023

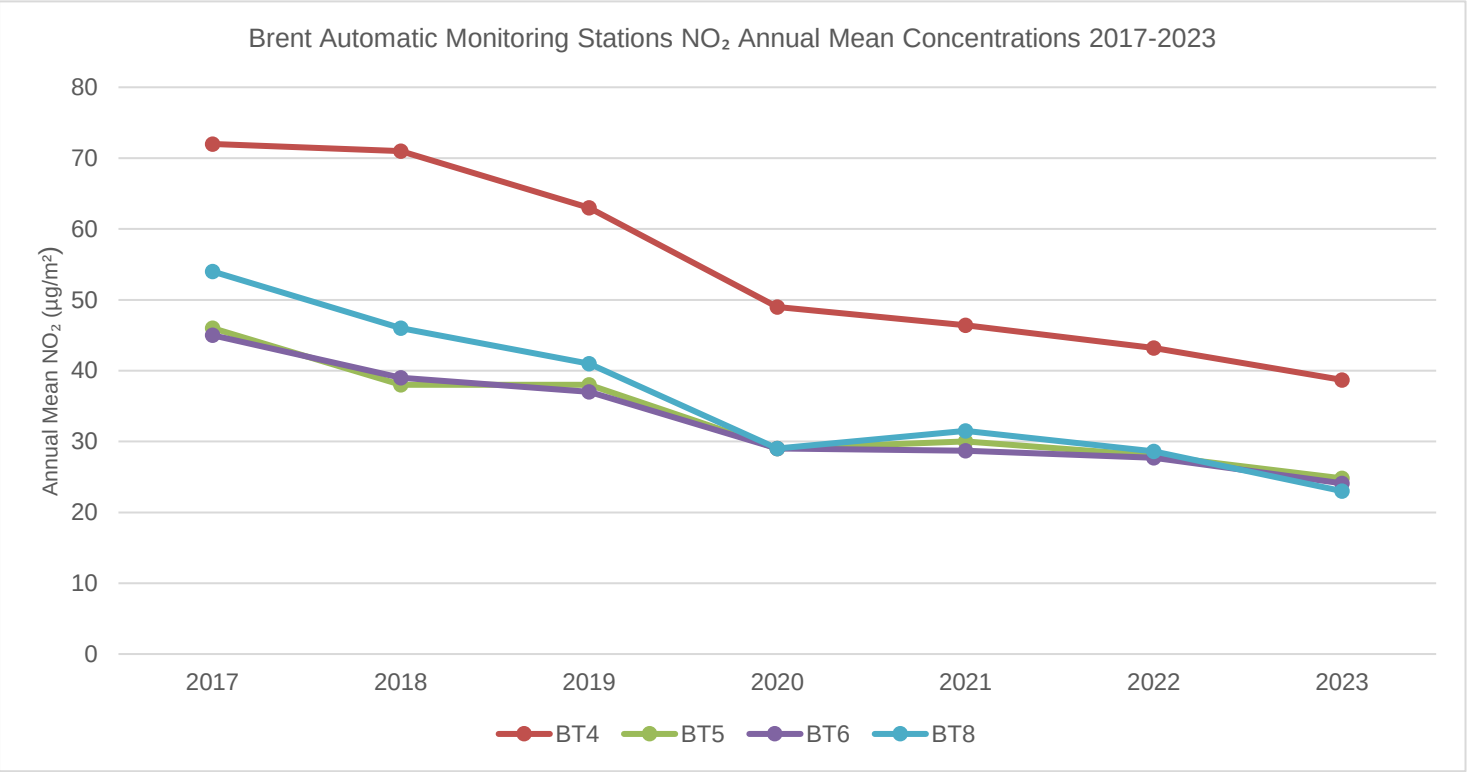


Table E provides annual mean NO_2 concentrations at non-automatic monitoring sites for the years 2017 to 2023 inclusive. The concentration values are those at the monitoring site. Exceedances of the 40 µg/m^3 AQO (Table A) for annual mean NO_2 are highlighted. Details of monitoring site QA/QC for 2023 measurements are given in Appendix A.

Table E. Annual Mean NO2 Ratified and Bias Adjusted Monitoring Results: Non-Automatic Monitoring (µg/m^3)

Diffusion Tube ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Site Type	Valid Data Capture for Monitoring Period (%) (1)	Valid Data Capture 2023 (%) (2)	2017	2018	2019	2020	2021	2022	2023
1	516929	188560	Roadside	100.0	100.0	36.2	LD	39.8	28.4	31.8	27.7	22.3
2	515793	186042	Roadside	92.7	92.7	**41.8**	LD	**40.6**	27.4	33.9	31.4	18.9
4	518240	187747	Roadside	100.0	100.0	**42.7**	LD	37.9	28.9	30.2	30.9	22.7
7	517942	183721	Roadside	75.0	75.0	**62.8**	LD	**56.2**	37.2	**49.8**	**46.7**	28.0
9	518499	186168	Roadside	86.6	86.6	**49.9**	LD	**47.4**	35.1	**40.5**	39.2	20.3
17	520480	186537	Roadside	75.0	75.0	**55.7**	LD	**51.6**	36.0	39.0	**40.4**	22.0
21a	520077	182853	Roadside	100.0	100.0	**46.9**	LD	**41.6**	30.6	32.4	30.7	21.7
22	521447	188730	Roadside	100.0	100.0	**58.1**	LD	**46.9**	36.6	**44.9**	35.5	26.6
23	521213	186125	Roadside	100.0	100.0	**93.9**	LD	**83.1**	**58.4**	**60.9**	**53.7**	30.5
26	522191	184821	Roadside	100.0	100.0	**61.9**	LD	39.5	25.8	31.1	33.2	21.8
29	523191	186571	Roadside	93.0	93.0	**55.6**	LD	35.3	26.6	29.3	28.8	23.8
30	523663	185353	Roadside	90.6	90.6	**51.3**	LD	37.7	26.2	29.2	29.6	23.9
33a	519572	187691	Urban Background	100.0	100.0	22.2	LD	**40.2**	26.0	29.1	27.9	17.6
41	521455	185920	Roadside	75.0	75.0	**60.1**	LD	**42.3**	**43.1**	**50.6**	**46.7**	**40.4**
48	525196	182517	Roadside	100.0	100.0	**59.9**	LD	**41.8**	30.1	33.3	30.3	24.6
52A	520874	185173	Roadside	92.5	92.5	**86.6**	LD	37.7	30.3	35.5	34.0	37.7
52B	520874	185173	Roadside	92.5	92.5	**86.6**	LD	37.7	30.3	35.5	34.0	37.7
52C	520874	185173	Roadside	83.1	83.1	**86.6**	LD	37.7	30.3	35.5	34.0	37.2
52D	520874	185173	Roadside	92.5	92.5	**86.6**	LD	37.7	30.3	35.5	34.0	37.6
53	518026	185028	Roadside	92.5	92.5	**68.3**	LD	**71.5**	**49.9**	**64.5**	**62.4**	28.6
54	518236	183207	Roadside	92.7	92.7	**46.0**	LD	**42.3**	27.1	31.2	30.6	25.4
60	519475	186557	Roadside	90.3	90.3		LD	**47.9**	33.1	**44.3**	**42.7**	24.2

Diffusion Tube ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Site Type	Valid Data Capture for Monitoring Period (%) (1)	Valid Data Capture 2023 (%) (2)	2017	2018	2019	2020	2021	2022	2023
61	519762	186600	Roadside	100.0	100.0		LD	**65.0**	**49.6**	**61.2**	**59.0**	25.2
62	519667	186604	Roadside	86.6	86.6		LD	**40.6**	26.6	30.4	31.6	31.0
63	519703	187007	Roadside	100.0	100.0		LD	26.0	19.0	20.5	20.2	27.9
64	519824	186715	Roadside	86.6	86.6		LD	33.5	23.0	28.5	28.0	28.0
65	521313	186529	Roadside	83.1	83.1		LD	**45.1**	33.7	34.2	32.8	29.6
66	521912	186514	Roadside	90.6	90.6		LD	34.6	25.3	29.2	28.8	24.8
67	521651	186611	Roadside	100.0	100.0		LD	**45.8**	24.1	26.0	25.7	26.0
68	521448	186626	Roadside	92.5	92.5		LD	34.6	32.4	32.5	30.3	32.1
69	523782	183527	Roadside	100.0	100.0		LD	33.0	21.6	25.8	24.0	19.2
70	523828	183338	Roadside	92.5	92.5		LD	33.0	21.5	23.5	22.8	22.2
71	524179	183232	Urban Background	92.7	92.7		LD	30.2	20.1	22.8	22.4	20.4
72	524142	183120	Roadside	90.6	90.6		LD	35.6	24.9	26.7	25.3	20.2
73	524607	183267	Roadside	100.0	100.0		LD	38.1	26.0	30.0	28.5	23.4
74	524283	183882	Roadside	100.0	100.0		LD	31.4	22.4	26.2	23.7	17.9
75	517499	187778	Roadside	100.0	100.0		LD	31.4	19.5	22.7	21.3	18.4
76	518430	188406	Roadside	100.0	100.0		LD	25.9	21.8	18.3	18.0	18.5
77	519100	189827	Roadside	100.0	100.0		LD	31.2	23.0	24.9	23.3	16.7
78	516721	185478	Roadside	92.5	92.5		LD	**43.8**	30.7	33.2	32.1	23.4
79A	523721	183008	Roadside	75.0	75.0		LD	34.2	28.6	30.0	27.3	20.4
79B	523721	183008	Roadside	75.0	75.0		LD	34.2	28.6	30.0	27.3	22.1
79C	523721	183008	Roadside	75.0	75.0		LD	34.2	28.6	30.0	27.3	22.4
BRT42	521131	183995	Roadside	100.0	100.0	**42.4**	LD	**40.2**	26.8	30.6	30.9	24.4
BRT43	520242	184541	Roadside	100.0	100.0	**73.7**	LD	**63.8**	**46.5**	**41.9**	**40.4**	24.3
BRT53	518303	185181	Roadside	100.0	100.0	**64.9**	LD	**66.3**	**74.3**	**57.7**	**65.3**	29.3
BRT55	521743	183361	Roadside	90.3	90.3	**76.7**	LD	**88.4**	**40.6**	**116.5**	**82.2**	28.1
BRT56	523635	183153	Roadside	100.0	100.0	**58.3**	LD	**67.5**	**40.7**	38.4	34.4	29.0
BRT57	525419	183612	Roadside	81.2	81.2	**64.4**	LD	**55.2**	33.8	**53.3**	**49.8**	35.3
BRT58	523031	184655	Roadside	90.3	90.3	52.7	LD	**48.6**	**40.5**	38.4	35.6	31.4
SZ2	521069	186250	Roadside	100.0	100.0					25.6	25.2	24.5
SZ41	521624	184275	Roadside	90.6	90.6					22.1	21.5	18.0

Diffusion Tube ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Site Type	Valid Data Capture for Monitoring Period (%) (1)	Valid Data Capture 2023 (%) (2)	2017	2018	2019	2020	2021	2022	2023
SZ1	521103	183408	Roadside	100.0	100.0					25.6	25.8	20.5
SZ3A	518900	184774	Roadside	92.7	92.7					21.5	20.4	17.5
SZ3B	518913	184670	Roadside	75.5	75.5					20.5	19.7	23.8
SZ10	524585	184031	Roadside	100.0	100.0					24.0	22.7	19.5
SZ4a	521643	183579	Roadside	80.9	80.9					26.9	26.9	22.1
SZ19	523744	183076	Roadside	100.0	100.0					24.0	23.3	19.6
SZ8	521314	184712	Roadside	100.0	100.0					25.0	25.5	19.8
SZ4b	521718	183649	Roadside	83.3	83.3					27.9	28.0	19.8
SZ5a	521394	184264	Roadside	100.0	100.0					22.6	21.9	19.3
SZ5b	521364	184185	Roadside	90.6	90.6					24.6	22.9	19.9
SZ11b	520525	183861	Roadside	75.8	75.8					23.7	23.1	25.4
SZ12	523167	186491	Roadside	90.6	90.6					24.1	24.4	19.1
SZ11A	520480	183908	Roadside	100.0	100.0					21.0	23.2	25.6
SZ15	522934	184702	Roadside	100.0	100.0					23.9	25.6	19.8
SZ16	523039	184745	Roadside	100.0	100.0					22.4	22.2	17.9
SZ18	523224	183045	Roadside	93.8	93.8					26.6	25.0	21.3
SZ81	520512	184580	Roadside	100.0	100.0					24.3	23.0	20.5
SZ17	521618	185525	Roadside	100.0	100.0					26.8	25.6	22.6
SZ14A	518837	185102	Roadside	100.0	100.0					22.8	23.4	20.4
SZ27	519913	185066	Roadside	100.0	100.0					22.8	23.0	21.5
SZ4c	521781	183700	Roadside	100.0	100.0					23.4	23.8	20.0
SZ20B	524003	183995	Roadside	100.0	100.0					21.5	19.9	16.6
SZ20A	523678	183956	Roadside	100.0	100.0					19.2	18.9	17.5
SZ22	519883	189197	Roadside	90.6	90.6					18.1	17.5	15.3
SZ7	523119	185933	Roadside	100.0	100.0					23.0	22.5	18.7
SZ14B	518835	185012	Roadside	90.6	90.6					24.7	23.8	19.9
SZ63	518603	186544	Roadside	77.2	77.2					19.8	20.0	21.2
SZ23	520065	188673	Roadside	92.5	92.5					21.8	19.6	14.5
SZ6	517900	187137	Roadside	100.0	100.0					19.7	19.2	16.3
SZ25A	518243	188627	Roadside	100.0	100.0					19.7	19.0	17.2
SZ24	517739	187912	Roadside	90.3	90.3					19.2	16.9	17.2

Diffusion Tube ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Site Type	Valid Data Capture for Monitoring Period (%) (1)	Valid Data Capture 2023 (%) (2)	2017	2018	2019	2020	2021	2022	2023
SZ25B	518184	188539	Roadside	90.6	90.6					17.6	18.1	15.3
SZ26	516559	185913	Roadside	78.8	78.8					24.8	20.7	22.5
SZ231	520211	188478	Roadside	75.5	75.5					21.2	19.4	15.1
PM16a	521348	183912	Roadside	75.0	75.0					27.9	26.8	25.1
PM16b	521741	184243	Roadside	90.6	90.6					23.0	21.9	23.9
PM19a	523453	183500	Roadside	100.0	100.0					31.6	32.4	23.3
PM19b	523931	183500	Roadside	90.6	90.6					24.4	23.2	20.0
PM19c	524520	183495	Roadside	93.8	93.8					28.3	27.7	23.3
PM20a	524599	183990	Roadside	83.1	83.1							17.5
PM20b	524995	183470	Roadside	100.0	100.0							21.0
PM20c	524907	184274	Roadside	75.0	75.0					34.3	36.5	25.5
PM25a	523246	185765	Roadside	100.0	100.0					25.1	23.4	19.8
PM25b	523581	185671	Roadside	75.0	75.0					24.3	23.0	19.3
PM25c	523560	185395	Roadside	81.2	81.2					26.9	25.4	19.3
PM26a	522941	186263	Roadside	100.0	100.0					24.8	23.2	19.2
PM26b	522563	186233	Roadside	90.6	90.6					24.7	23.7	20.1
PM29a	517896	186958	Roadside	85.2	85.2					23.6	22.7	19.9
PM29b	518008	187311	Roadside	100.0	100.0					21.7	20.2	18.4
PM29c	518280	187411	Roadside	100.0	100.0					34.2	32.7	18.5
PM32a	519588	189311	Roadside	100.0	100.0					25.4	20.7	17.0
PM32b	519432	188972	Roadside	100.0	100.0					22.9	21.2	18.7
PM32c	519268	188982	Roadside	90.3	90.3					23.4	21.5	16.4
PM22A	523854	185249	Roadside	100.0	100.0					26.1	24.3	20.0
PM22B	523770	185086	Roadside	100.0	100.0					24.6	22.9	19.2
PM22E	523846	184875	Roadside	100.0	100.0					22.7	20.9	21.8
PM22C	524333	184827	Roadside	90.3	90.3					23.2	22.2	19.9
PM22D	524486	184877	Roadside	100.0	100.0					**43.1**	**44.7**	27.1
PM23B	522970	184812	Roadside	100.0	100.0					24.0	23.8	19.7
PM23A	522708	184973	Roadside	100.0	100.0					26.1	25.8	21.0
PM14b	521049	183874	Roadside	65.3	65.3					37.1	35.8	**58.2**
PM14C	521401	183542	Roadside	92.7	92.7					24.4	24.8	20.8

Diffusion Tube ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Site Type	Valid Data Capture for Monitoring Period (%) (1)	Valid Data Capture 2023 (%) (2)	2017	2018	2019	2020	2021	2022	2023
PM14D	521321	183478	Roadside	90.6	90.6					25.1	25.2	21.0
PM14A	520763	183700	Roadside	90.3	90.3					24.9	25.2	21.5
PM28B	518367	185872	Roadside	86.6	86.6					21.4	21.2	18.0
PM28C	518172	186004	Roadside	93.8	93.8					24.7	23.9	18.4
PM28E	517952	185913	Roadside	93.8	93.8					22.3	21.1	22.3
PM28D	518076	185421	Roadside	86.3	86.3					24.0	24.0	25.7
PM36A	518590	185172	Roadside	100.0	100.0					28.6	27.5	23.6
PM36B	519200	184899	Roadside	100.0	100.0					31.2	30.0	22.8
PM28A	517811	186252	Roadside	100.0	100.0					**41.5**	38.6	20.4
PM20d	524603	183984	Roadside	57.8	57.8							18.8
PM20e	524620	184266	Roadside	75.0	75.0							19.8
CR47	521511	184679	Roadside	67.2	67.2							22.7
CR79	521465	184692	Roadside	65.1	65.1							30.8

☒ **Annualisation has been conducted where data capture is <75% and >25% in line with LLAQM.TG19.**

☒ **Diffusion tube data has been bias adjusted.**

☒ **Reported concentrations are those at the location of the monitoring site (bias adjusted and annualised, as required), i.e. prior to any fall-off with distance correction.**

Notes:

The annual mean concentrations are presented as µg/m^3.

Exceedances of the NO_2 annual mean objective of 40µg/m^3 are shown in **bold**.

NO_2 annual means exceeding 60µg/m^3, indicating a potential exceedance of the NO_2 1-hour mean AQO 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%.

LD: Low Data Capture Rate: Therefore, not annualised (as per LAQM.TG(16))[3], due to extremely low data capture or unavailability of an appropriate factor for all diffusion tube sites.

Concentrations are those at the location of monitoring and not those following any fall-off with distance adjustment.

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

(2) Data capture for the full calendar year (e.g. if monitoring was carried out for 6 months, the maximum data capture for the full calendar year is 50%).

Since 2019, annual mean NO_2 concentrations have decreased at the majority of sites. For 2023, there are only two sites that indicate exceedance of the AQO of 40 µg/m^3 (Table A): 41 (246 Neasden Lane) and PM14b (Craven Park). Both are at roadside. (Note: after annualisation and adjustment for distance to the nearest location with relevant exposure, the only exceedance remaining is adjacent to PM14b. For details, see Appendix A Table Q.)

[3] Most recent technical guidance at time of calculating the 2018 monitoring results

Table F gives the number of exceedances of the 200 µg/m^3 AQO threshold for 1-hour mean NO_2 concentrations (Table A) at automatic monitoring sites for the years 2017 to 2023 inclusive. The values are those at the monitoring site. Details of monitoring site QA/QC for 2023 measurements are given in Appendix A.

Table F. NO_2 Ratified Automatic Monitoring Results: Comparison with 1-hour Mean AQO, Number of 1-Hour Means >200 µg/m^3

Site ID	Valid data capture for monitoring period %([a])	Valid data capture 2023 %([b])	2017	2018	2019	2020	2021	2022	2023
BT4	83.1	83.1	**33**	1	9	0	2	0	2
BT5	99.5	99.5	17	1	2	0	0	0	0
BT6	87.9	87.9	0	0	0	0	0	0	0
BT8	64.6	64.6	0	0	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%)

For 2023, BT4 measured two exceedances of the 200 µg/m^3 threshold, and BT5, BT6 and BT8 measured no exceedances; therefore, the AQO for 1-hour mean NO_2 (Table A) was met at these sites.

PM_{10} Concentrations

Table G provides annual mean PM_{10} concentrations at automatic monitoring sites for the years 2017 to 2023 inclusive. The concentration values are those at the location of the monitoring site. Details of monitoring site QA/QC for 2023 measurements are given in Appendix A.

Table G. Annual Mean PM_{10} Ratified Automatic Monitoring Results (µg/m^3)

Site ID	Valid data capture for monitoring period %([a])	Valid data capture 2023 %([b])	2017	2018	2019	2020	2021	2022	2023
BT4	98.1	98.1	33.0	32.0	30.0	26.0	25.6	27.9	25.7
BT5	92.8	92.8	30.0	28.0	26.0	21.0	21.4	18.9	16.7
BT6	97.4	97.4	20.0	20.0	19.0	19.0	17.6	16.7	15.2
BT8	98.8	98.8	19.0	19.0	18.0	17.0	17.6	17.2	14.8

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%).

All four automatic monitoring sites measuring PM_{10} have recorded decreases since 2017. All sites meet the annual mean PM_{10} AQO of 40 µg/m^3 (Table A). Three of the sites (BT5, BT6 and BT8) meet the WHO interim target 4 of 20 µg/m^3 (Table A). The trends in annual mean concentrations are illustrated in Figure 2.

Figure 2: Graph showing trends of annual mean PM_{10} concentrations 2017-2023

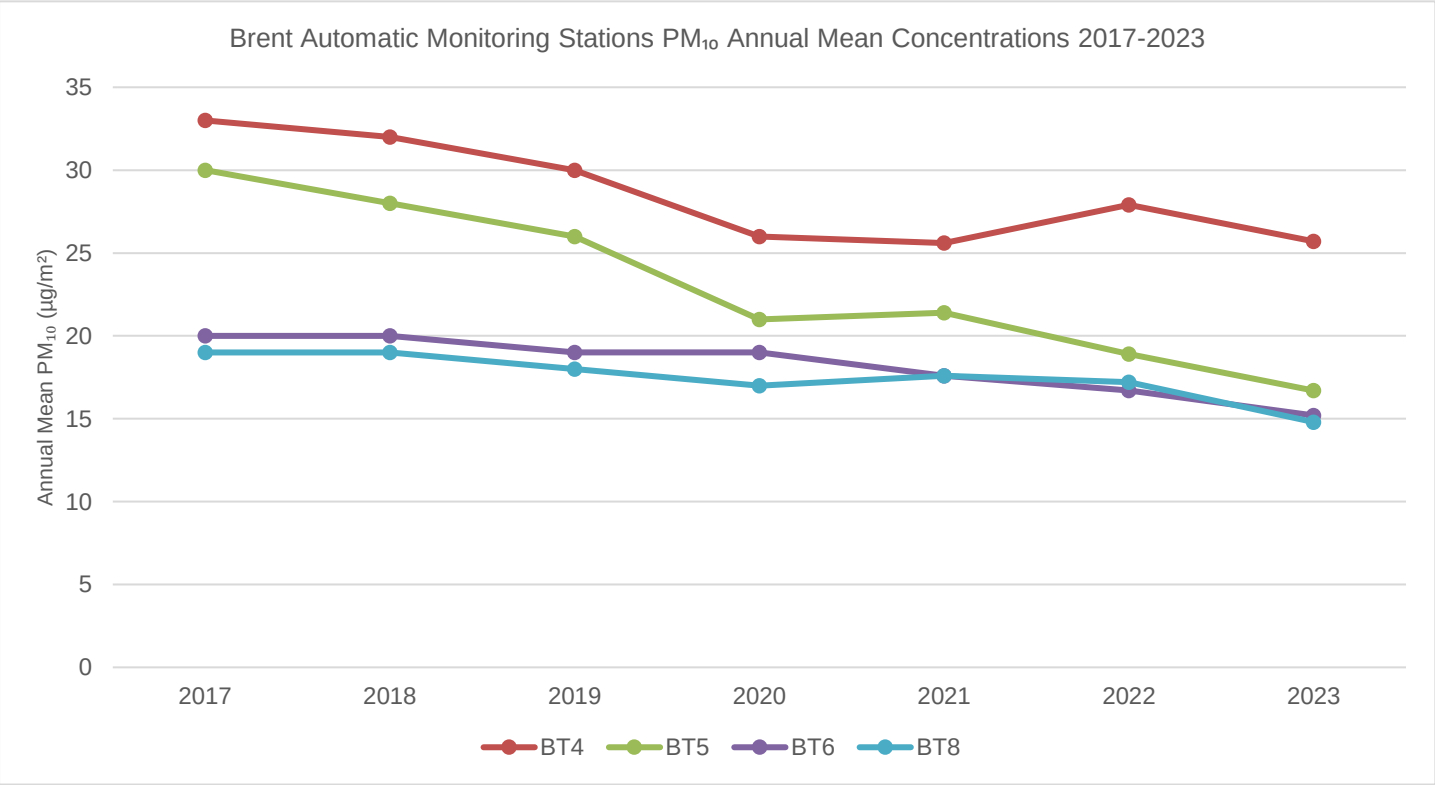


Table H gives the number of exceedances of the 50 µg/m^3 AQO threshold for 24-hour mean PM_{10} concentrations (Table A) at automatic monitoring sites for the years 2017 to 2023 inclusive. The values are those at the location of the monitoring site. Details of monitoring site QA/QC for 2023 measurements are given in Appendix A.

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

Site ID	Valid data capture for monitoring period %[(a)]	Valid data capture 2023 %[(b)]	2017	2018	2019	2020	2021	2022	2023
BT4	98.1	98.1	**41**	**37**	29	20	16	24	21
BT5	92.8	92.8	29	22	11	3	4	3	0
BT6	97.4	97.4	20	1	4	4	0	1	0
BT8	98.8	98.8	0	1	1	1	1	1	0

Notes

Results are presented as the number of 24-hour periods where concentrations greater than 50 µg/m^3 have been recorded (no more than 35 are permitted).

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%).

For 2023, BT4 automatic monitoring location measured 21 exceedances of the 50 µg/m^3 threshold, and BT5, BT6 and BT8 measured no exceedances; therefore, the AQO for 24-hour mean PM_{10} (Table A) was met at these sites.

$PM_{2.5}$ Concentrations

Table I provides annual mean $PM_{2.5}$ concentrations at automatic monitoring sites for the years 2017 to 2023 inclusive. The concentration values are those at the location of the monitoring site. Details of monitoring site QA/QC for 2023 measurements are given in Appendix A.

Table I. Annual Mean $PM_{2.5}$ Automatic Monitoring Results ($\mu g/m^3$)

Site ID	Valid data capture for monitoring period %[(a)]	Valid data capture 2023 %[(b)]	2017	2018	2019	2020	2021	2022	2023
BT4	98.8	98.8	21.4	20.0	20.7	13.0	13.5	12.8	11.2
BT5	93.9	47.2							8.7
BT6	79.4	28.1							11.0
BT8	98.6	36.8	14.7	14.6	18.9	13.7	7.4	7.5	11.9

Notes

The annual mean concentrations are presented as $\mu g/m^3$.

Exceedances of the $PM_{2.5}$ annual mean AQO of 20 $\mu g/m^3$ are shown in **bold**.

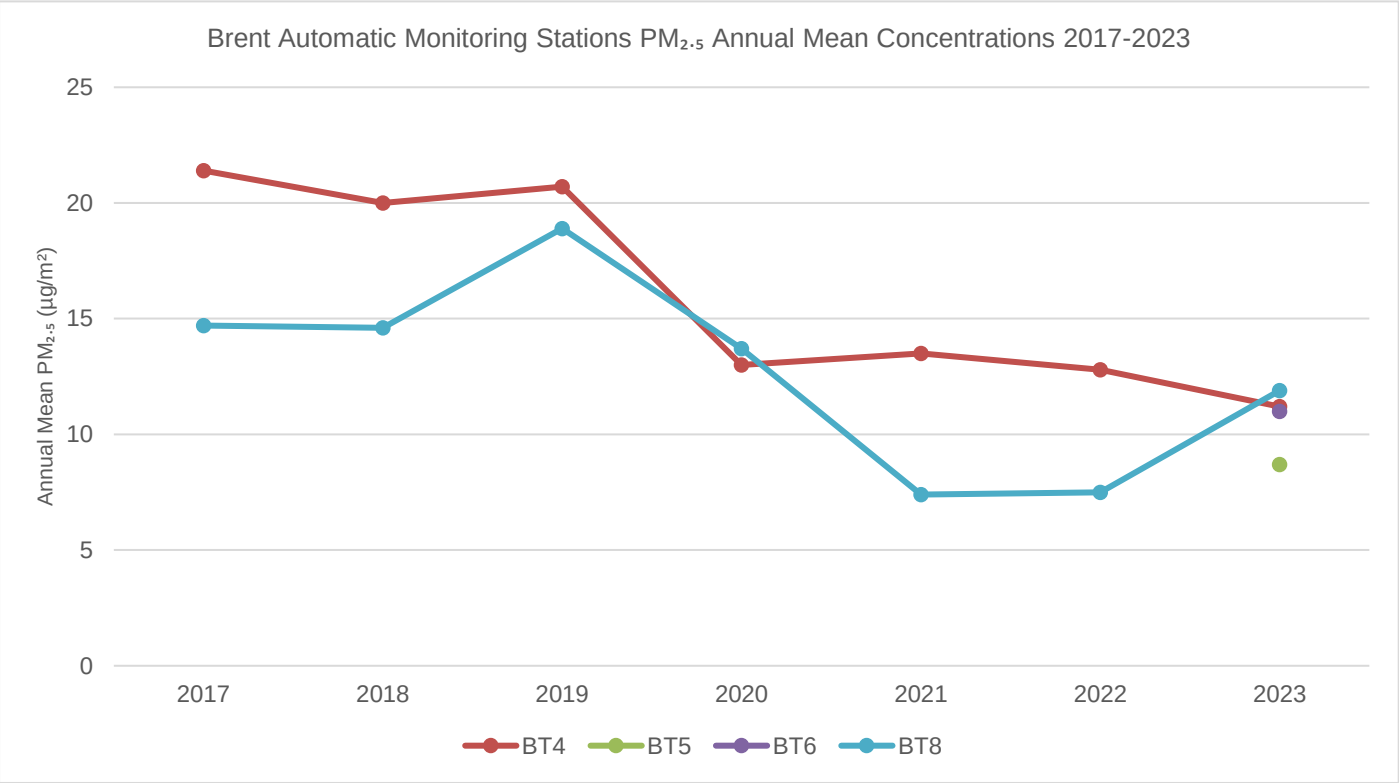
All means have been annualised in accordance with LLAQM Technical Guidance, if valid data capture is less than 75% and more than 25%.

(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%).

Generally, monitored $PM_{2.5}$ concentrations appear to have declined since 2017, other than a slight increase in 2023 at monitoring location BT8. However, the monitored concentration at this location is still lower in 2023 than in 2017.

Figure 3: Graph showing trends of annual mean $PM_{2.5}$ concentrations 2017-2023



2. Action to Improve Air Quality

2.1 Air Quality Management Areas

An AQMA is declared when there is an exceedance or likely exceedance of an AQO. After declaration, the authority should prepare an Air Quality Action Plan (AQAP) within 12 months. The AQAP should specify how air quality targets will be achieved and maintained and provide dates by which measures will be carried out.

Details of the AQMA declared by Brent Council are given in Table J. Appendix C provide a map of the AQMA and also the air quality monitoring locations in relation to the AQMA. The AQO pertinent to the current AQMA designation are as follows:

- NO_2 annual mean;
- PM_{10} 24-hour mean.

Table J. Declared Air Quality Management Areas

AQMA Name	Date of Declaration	Pollutants and Air Quality Objectives	One Line Description	Is air quality in the AQMA influenced by roads controlled by Highways England?	Number of Years Compliant with Air Quality Objective	Name and Date of AQAP Publication	Web Link to AQAP
Borough wide AQMA	June 2023	Annual mean NO_2 and 24 hour PM_{10}	The 2006 AQMA has been extended to encompass the entire Borough of Brent	Yes	0	Air Quality Action Plan 2023 – 2027	London Borough of Brent Air Quality Action Plan 2023 to 2027

☐ **The London Borough of Brent confirm the information on UK-Air regarding their AQMA(s) is up to date.**

☒ **The London Borough of Brent confirm that all current AQAPs have been submitted to GLA.**

2.2 Air Quality Action Plan Progress

Table K summarises the London Borough of Brent's progress against the Air Quality Action Plan, showing progress in 2023. New measures which commenced in 2023 are shown at the bottom of the table.

Table K. Delivery of Air Quality Action Plan Measures

Measure	LLAQM Action Matrix Theme	Action	Progress
M1	Monitoring and other core statutory duties	Maintaining and where possible, expand monitoring networks, and fulfilling other statutory duties	Brent Council maintains 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 measure O_3. All automatic stations are calibrated fortnightly and audited every six months during 2023. All automatic stations were serviced twice a year. The contract states a 48hr breakdown response service to maintain a high data capture. There are 127 diffusion tubes in Brent Council's jurisdiction. All existing sites have been retained and maintained throughout 2023 with the addition of two sites. 45 of these diffusion tubes are part of Brent's statutory air quality monitoring network and in 2020 a network of 70 tubes were deployed for monitoring School Streets and Low Traffic Neighbourhood schemes. All diffusion tubes are analysed in UKAS accredited labs and the data has been bias adjusted, where appropriate. Results from the automatic monitoring stations and diffusion tubes are collated in the Annual Status Report which is made available on Brent's Air Quality section of the website. The 2022 Annual Status Report was submitted in accordance with the timescales and in accordance with the local authorities' responsibilities under Part IV of the Environment Act 1995. Brent Council holds membership of the London Air Quality Network. This includes the automatic monitoring site data in periodic LAQN reporting mechanisms. During 2023, three of the four automatic monitoring stations received an overhaul of equipment, replacing TEOM analysers with BAM monitoring equipment. In addition, BT5 and BT6 started monitoring $PM_{2.5}$.
M3	Monitoring air pollution and other core statutory duties	Support new monitoring technologies e.g. supporting the GLA/ICL	Brent Council maintained the three Breathe London nodes which are currently in place until the end of 2024. Brent Council extended this network with a fifth node during 2023 and have supported Breathe London by providing prompt assistance to investigating data failures and responding to breakdowns when they have been reported.

Measure	LLAQM Action Matrix Theme	Action	Progress
		Breathe London monitoring regime	
M4	Monitoring air pollution and other core statutory duties	Monitor the impact of Transport schemes implemented in the borough by working with Healthy Streets and Parking	Diffusion tube monitoring is included in all new school streets schemes implemented. This will also be implemented in future healthy neighbourhoods when introduced. Data from these studies are included in the air quality annuals status reports and published on the Council's website.
M5	Monitoring air pollution and other core statutory duties	Share air quality monitoring data in an easy-to-access format	Membership was renewed for the 2023/24 period with Imperial College London who provide the LondonAir service. This website allows users to request weekly, quarterly and annual site reports as well as seeing live station data. A dedicated Air Quality dashboard is being developed as part of the Air Quality Needs Assessment.
HD1	Homes buildings and developments	Ensuring emissions from construction are minimised by adhering to London Plan and LBB planning policy	Statutory Nuisance Code DPDU (Dust Only) was introduced to our Premises Reporting IT System. 2023 quarterly figures are: 1st Quarter = 7 2nd Quarter = 9 3rd Quarter =3 4th Quarter = 0 Dust from building sites or commercial premises is reported through Brent Council's Noise and Nuisances webpage. All major developments are required to submit Demolition and Construction Management plans to cover dust controls. A Construction Method Statement (CMS) condition is attached to consents for sites with dust risk, which includes a requirement for monitoring protocols.
HD2	Homes buildings and developments	Ensuring enforcement on non-road mobile machinery (NRMM) air quality policies	Throughout 2023, the most up to date NRMM wording has been used for planning conditions. Brent Council maintained its membership for the pan-London NRMM project.
HD3	Homes buildings and developments	Reducing emissions from Combined Heat and Power	Metropolitan was awarded a 25-year contract to operate the heating network for the Quintain development at Wembley Park. This includes a heat network serving 5,200 new homes; two 1.5 Mwe CHP engines; and three 10MW gas boilers.

Measure	LLAQM Action Matrix Theme	Action	Progress
HD4	Homes buildings and developments	Enforce Air Quality Neutral, Air Quality Positive policy and Healthy Streets approaches, with more stringent application of mitigation required in the Brent Air Quality Focus Areas and Growth Areas	Air Quality Positive Assessments are required for major developments within Air Quality Focus Areas (AQFAs) and Growth areas. Air Quality Neutral Assessments are required for all other areas.
HD5	Homes buildings and developments	Ensuring adequate, appropriate, and well-located green space and infrastructure is included in new and existing developments	When required, Urban Greening Factors is generally achieved, or at least maximised as far as is practicable.
HD6	Homes buildings and developments	Promote and enforce Smoke Control Zones and ensuring they are fully promoted and enforced	Brent Council's smoke control and bonfires webpages have been updated to include advice about burning wood as a fuel and contains a link to Defra's Burn Better guidance. No non complaint fuel was found to be sold in the borough during 2023. Smoke from bonfires is reported on the Council's webpage. In 2023, 130 complaints of statutory nuisance due to bonfires were received. Two smoke nuisance abatement notices were issued. Brent Council is working closely with Waste Enforcement to produce an advisory/ warning leaflet targeting commercial bonfires.
HD7	Homes buildings and developments	Promoting and delivering energy efficiency and retrofitting projects in workplaces and homes through Brent	The Brent for Business Energy Efficiency Scheme commissioned Groundwork London to deliver energy audits for 54 businesses with the option of them then applying for a grant to support with retrofit recommendations from that audit report. 25 businesses received a grant for items including LED lighting systems; solar panels; air conditioning systems; improved installations; and double glazing systems. Headline projections as a result of funded interventions from the related energy efficiency audits include annual savings of over 36 Tco2E; 75,000kWh and approximately £20,000. It is estimated there will be a 60% reduction in payback period of funded interventions for businesses as a result of the grant. A similar scheme is open for applications as part of the Camden & Brent Business

Measure	LLAQM Action Matrix Theme	Action	Progress
			Climate Challenge. This is delivering energy audits, training support, energy data management and potential retrofit grants to up to 40 Brent businesses. All schools have access to information on reducing energy use via the Brent Schools Climate Action Guide which includes a specific step on decarbonisation. The guide has been promoted via all available media channels, set out to all schools in the Headteachers bulletin and spoken about at the Brent headteacher's school planning meeting. Brent Council applied to and successfully received funding from Wave 2.1 of the Social Housing Decarbonisation Fund which is being used to install carbon reduction measures in 129 homes.
RA1	Public health and awareness raising	Public Health department taking shared responsibility for borough air quality issues and implementation of Air Quality Action Plans	The AQAP was signed off by Dr Melanie Smith. The actions included in the AQAP have started to be implemented and have been presented to the Health and Wellbeing Board. Community volunteering services information assets include leaflets which were distributed on clean air day. Similar leaflets were taken to all community events to raise awareness. The Councils Public Health Team have been working with the NHS ICB to access asthma data submitted by GP practices so that the council have information on how many residents have asthma. The aim is to use this data to better direct air pollution messaging to those who need it most. Senior Public Health Analyst works with a colleague that has access to database dashboard WSIC. Whole system integrated care dashboard. The Air Quality Joint Strategic Needs Assessment is reviewed every year.
RA2	Public health and awareness raising	Raise awareness of the health impacts of air pollution, encouraging community action through the Brent Environmental Network, Brent Schools' Climate Champion Network, and through Brent volunteering organisations, giving the private sector,	Clean air day and car free day is celebrated on an annual basis. Brent Environmental Network newsletter is sent out on a monthly basis which includes sustainability related articles. Brent Council holds bi-monthly meetings with Schools Climate Action Coordinator. The Council supports events in the Green Neighbourhood areas.

Measure	LLAQM Action Matrix Theme	Action	Progress
		community organisations and campaign groups information on air quality, what is going on in the borough and the opportunity to take action	
RA3	Public health and awareness raising	Ensure schools join the TfL STARS accredited travel planning programme	All schools are encouraged to participate in the TfL STARS programme and support available when required. 52% of participating schools have an accredited travel plan (41 schools) of which 73% are gold, 10% silver and 17% bronze.
RA4	Public health and awareness raising	Work with schools and nurseries to improve air quality and to raise awareness about pollution in the local areas	Information has been circulated to schools about the Schools Pollution Helpdesk via the Head Teachers bulletin. There are bimonthly meetings between the Council and Schools Climate Action Coordinator and the Council supports events in the Green Neighbourhood areas. Low pollution route map projects are currently in the works and will be delivered to 104 educational establishments in 2024/25. They will include a presentation about air quality and planning routes to school via walking and/ or cycling. Three trial school streets are now permanent, with a total of 31 school streets in operation, all enforced using CCTV. Work began to introduce three new trial schemes for 2024. Four schemes are being expanded into 2024 to help mitigate the parking displacement problems.
RA5	Public health and awareness raising	Engage with businesses, supporting them to reduce emissions from their operations	The Green Business Guides published on the Councils website contains relevant guidance for businesses from a variety of sectors to reduce emissions. Businesses also have the option of financial support to transition from a diesel/ petrol vehicle to an electric cargo bike for delivering through the cargo bike scheme.
RA6	Public health and awareness raising	Work with Public Health and Brent's NHS Integrated Care Board to reduce exposure of patients to poor air quality, both indoor and outdoor	Brent Council are working with GP surgeries, pharmacies and care providers to reach vulnerable groups to highlight the risk of air pollution.

Measure	LLAQM Action Matrix Theme	Action	Progress
RA7	Public heath and awareness	Promote air pollution alerts and route planner tools	The Council subscribes to airTEXT. As part of the project detailed above (RA4) 104 educational establishments will receive individual low pollution walking route maps which includes both a 5 and 10 minute walking radius. Presentations will be delivered in support of this together with a before and after travel survey.
RA8	Public health and awareness	Raise awareness of indoor air pollution and how to reduce exposure	Brent Councils Housing is managed by Brent Housing Management.
RA9	Public health and awareness	Share air pollution data transparently with residents, reporting against both UK Air Quality Objectives and World Health Organisation Targets	An online dashboard being progressed within the research and insights team.
L1	Localised solutions	Expand and improve green infrastructure across the borough	Two community orchards with approximately 20 trees were planted and a community garden has been planned to be built in summer 2024. Green Corridors study was completed in Church End and Roundwood, with funding for suggested walking and cycling infrastructure improvements sought regularly. Highways Green Infrastructure Design and Maintenance Guide was completed in 2023. A pilot study planned to plant 200m^2 of wildflowers on green verge across Kingsbury Green Neighbourhood is expected to be trialled in Autumn 2024. Green and Healthy school street schemes introduced outside 3 schools (Our Lady of Grace Infants, Leopold Primary and Oakington Manor Primary), in partnership with TfL and GLA. Schemes aim to improve the environment outside schools to make the area more resilient to flooding, support biodiversity and more pleasant to walk and cycle through. This is achieved by replacing paving with rain gardens, planting new trees, and adding plants to grass verges.
L2	Localised solution	Introduce Green Neighbourhoods across the borough, with the aim of focussing sustainable solutions in priority areas	Completion of projects within existing green neighbourhoods ongoing. Brent Councils discussion and timeline to support two new development led Green Neighbourhoods ongoing. Church End and Roundwood Green Neighbourhood scheme has helped towards an overall 14% increase in active travel across the borough since last year 2021-22, meaning more pupils are

Measure	LLAQM Action Matrix Theme	Action	Progress
			getting to school by walking, cycling or scooting. Church End and Roundwood Green Neighbourhood scheme covers Leopold Primary School, St. Josephs Primary School, St. Mary's Primary School, St Claudine's Secondary School, John Keble Primary School and Maple Walk Primary School. The School Street Scheme at Leopold also links to the plans for enhanced greening infrastructure improvements along Hawkshead Road. Two new bike hangers were installed (one on Essex Road and one on Franklyn Road). 42 households engaged with the 'Greening Grey Britain' initiative where 800 plants were given to residents along with an information booklet on the plants upkeep and the importance of connecting to nature and biodiversity in urban spaces. Brent Council has delivered five permanent school streets in the Kingsbury Green Neighbourhood area to include Claremont High School, Kingsbury Green Primary School, Mount Stewart Infant and Junior Schools, St Robert Southwell RC Primary School and Uxendon Manor Primary School. Brent Council are working with residents to make green infrastructure improvements to Leybourne Open Space.
L3	Localised solutions	Ensure AQAP is aligned with LBB Climate Emergency strategy	Air quality officers are involved in the Green Infrastructure and Sustainable Travel Climate Action Work Streams and Groups
L5	Localised solutions	Develop location specific action plans for Air Quality Focus Areas as part of the Local Implementation (LIP) programme	Harlesden Town Centre options appraisal to be completed in 2024. A consultant has been appointed and will progress with resident engagement sessions first. Queens Park Healthy Neighbourhood Feasibility Study was planned in 2023 to be commenced in Spring 2024.
CT1	Cleaner transport	Ensure that Transport and Air Quality policies are integrated	Throughout 2023, regular meetings were held with the teams to ensure a joint approach.
CT3	Cleaner transport	Installation of Ultra-low Emission Vehicle (ULEV) infrastructure	£7.54m was awarded to a partnership of 6 boroughs including Brent through the 2023/24 Local Electric Vehicle Infrastructure (LEVI) Capital Fund.

Measure	LLAQM Action Matrix Theme	Action	Progress
			In 2023, 283 lamp column chargers were installed. This was funded through the 23/24 OLEV funding. A further 44 Source London chargers were installed and funded through the 23/24 OLEV funding. 20 of the proposed 160 Zest chargers were installed and funded by the CPO and Uber. Brent Council are researching home charging solutions and bench marking with other boroughs to identify potential solutions for residents with no off-street parking.
CT4	Cleaner transport	Continue to work in partnership with TfL to prioritise actions required to improve local air quality in Brent	Completion of Kensal Corridor improvements scheme in partnership with TfL. Scheme included new wider pavements, trees and greening, cycling amenities, waiting and loading restrictions and street furniture.
CT5	Cleaner transport	Encourage Car Clubs to use low emission and alternative fuel vehicles in their fleet by increasing the proportion of electric, hydrogen and low emission vehicles	During 2023 a shared mobility action plan was drafted, due to be completed in 2024. The number of electric vehicles in the fleet is increasing. 8 of the 56 vehicles in the fleet are electric. Enterprise and Zipcar provide utilisation data on a regular basis.
CT6	Cleaner transport	Hold regular temporary car free days	Brent supported Car Free Day in Crownhill Road NW10 on 22 September 2023. Activities included information stalls, Dr Bike, cycle training and arts and crafts. In 2023, 10 play streets were held across the borough.
CT7	Cleaner transport	Discourage unnecessary engine idling	One idling event per month outside a school, apart from August. During these events, a total of 121 drivers were engaged.
CT8	Cleaner transport	Provision of infrastructure to support walking and cycling	Public consultation on phase 1 of Wembley – Willesden Junction Healthy Streets Corridor Scheme (Formerly CFR 23) between Wembley Central and Harlesden undertaken by TfL between Nov-Dec 2023. Awaiting publication of consultation report and details of next steps.
CT10	Cleaner transport	Reducing emissions from deliveries to local businesses and residents	Brent Council contacted 261 businesses to encourage them to switch to cargo bike use for deliveries. 12 trials are currently in progress. Eight cargo bikes have been purchased and four are being used as courier services. Brent's Bikes for Business promotional video project has been extended to allow more time for businesses to consider using a cargo bike for deliveries.

Measure	LLAQM Action Matrix Theme	Action	Progress
CT11	Cleaner transport	Reducing emissions from council fleets/ accelerate uptake of new low emission vehicles in borough fleet	During 2023, a comprehensive review of Council fleet and fleet management processes was completed and a Head of Transport Operations was appointed who is responsible for overseeing the process for decarbonising the fleet. The Corporate Travel Plan was drafted and includes an updated staff travel survey. Once approved, this will be launched to staff.
CT12	Cleaner transport	Encourage walking and cycling in the borough by providing support	703 adults and 2187 children participated in cycle training sessions. 30 residents hired bikes via the Try Before you Bike scheme which was advertised at Green Neighbourhood events and via social media posts and on the website. 13 of the 25 social prescribing vouchers have been distributed, of which 10 are still being rented. 45 Dr Bike sessions were held at four locations across the borough. During these events, 439 bikes were checked.

3. Planning Update and Other New Sources of Emissions

Table L. Planning requirements met by planning applications in the London Borough of Brent in 2023

Condition	Number
Number of planning applications where an air quality impact assessment was reviewed for air quality impacts	104
Number of planning applications required to monitor for construction dust	69
Number of CHPs/Biomass boilers refused on air quality grounds	0
Number of CHPs/Biomass boilers subject to GLA emissions limits and/or other restrictions to reduce emissions	1
Number of developments required to install Ultra-Low NO_X boilers	0
Number of developments where an AQ Neutral building and/or transport assessments undertaken	97
Number of developments where the AQ Neutral building and/or transport assessments not meeting the benchmark and so required to include additional mitigation	1
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: Greater London (excluding Central Activity Zone, Canary Wharf and Opportunity Areas) Number of conditions related to NRMM included. Number of developments registered and compliant. Number of audits % of sites unregistered prior to audit 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 IIIB of the Directive and/or exemptions to the policy.	73 NRMM conditions included 13 developments registered and compliant 17 audits 4 developments non-compliant

An Environmental Health Officer (EHO) 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 (AQAs) are requested for applications dependent on the size, location and type of development. The department follows Brent's Local Plan for developments that require an Air Quality Neutral (AQN) and Air Quality Positive (AQP) assessments. 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

LBB commissioned MP Smarter Travel to undertake a comprehensive review of their existing fleet and fleet management processes, with the intention of developing a clear route map of what needs to be undertaken to transition their fleet to low emission vehicles by 2030. This work was completed in Autumn 2023 and forms a key strand of the boroughs plan to achieving net zero carbon across the council's estate and operations by 2030.

4.2 NRMM Enforcement Project

The London Borough of Brent continued to support the NRMM Enforcement project in 2023 and will continue in 2024.

An example wording used for NRMM conditions on construction/ demolition sites is "*All Non-Road Mobile Machinery (NRMM) of net power of 37kW and up to and including 560kW used during the course of the demolition, site preparation and construction phases shall comply with the emission standards set out in chapter 7 of the GLA's supplementary planning guidance 'Control of Dust and Emissions During Construction and Demolition' dated July 2014 (SPG), or subsequent guidance. Unless it complies with the standards set out in the SPG, no NRMM shall be on site, at any time, whether in use or not, without the prior written consent of the local planning authority. The developer shall keep an up to date list of all NRMM used during the demolition, site preparation and construction phases of the development on the online register at https://nrmm.london/*"

Reason: to protect local amenity and air quality in accordance with Brent Policy BSUI2 and London Plan Policy SI 1".

The above example NRMM condition is typically applied to major developments. However, it should be noted that it may also be applied for a minor scheme that has a CMS and is with an AQMA/ Air Quality Focus Area if the Council deems it necessary.

4.2 Air Quality Alerts

LBB supports airText 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.

PM_{10} Monitoring Adjustment

No adjustments have been made to the PM_{10} data.

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.

Diffusion Tube Bias Adjustment Factors – National

Diffusion tube adjustment factors were obtained from the national bias adjustment calculator. Tubes were analysed by Gradko as detailed in the table below. As shown the table, national bias adjustment factors over the past four years have remained relatively similar.

Table M. Bias Adjustment Factor - National

Year	Version of National Spreadsheet	Adjustment Factor
2019	03/20	0.91
2020	03/21	0.81
2021	03/22	0.84
2022	03/23	0.83
2023	03/24	0.81

Diffusion Tube Bias Adjustment Factors – Local

Site BT4 (Ikea) and BT8 (Ark Franklin Primary School) were used in the local co-location study. Both are roadside sites. BT4 has four diffusion tubes co-located (ID 52). As the co-location study requires either duplicates or triplicates, using professional judgement it was decided that 52C was not included in the calculations.

The omission of this tube was decided as it had the lowest data capture out of the four diffusion tubes. BT8 has three diffusion tubes co-located (ID 79). The local bias adjustment factor calculations are shown in the table below.

The calculations show a combined local bias adjustment factor of 0.83.

Table N. Bias Adjustment Factor - National

	Local Bias Adjustment Input 1 (BT8)	**Local Bias Adjustment Input 2 (BT5)**
Periods used to calculate bias	5	8
Bias Adjustment Factor A	0.83 (0.74 – 0.94)	0.83 (0.76 – 0.90)
Diffusion Tube Mean (µg/m^3)	27.1	46.2
Mean CV (Precision)	4.6%	3.2%
Automatic Mean (µg/m^3)	22.5	38.1
Data Capture	94.%	97%
Adjusted Tube Mean (µg/m^3)	22 (20 – 25)	38 (35 – 42)
Overall Diffusion Tube Precision	Good overall Precision	Good overall Precision
Overall Continuous Monitor Data Capture	Poor Overall Data Capture	Poor Overall Data Capture

Discussion of Choice of Factor to Use

A comparison was made between the local and national bias adjustment factors when processing the 2023 annual average diffusion tube data, with the national factor being selected. Although the local bias adjustment factor is higher (0.83) than the national factor (0.81) and would provide a more precautionary estimate of air quality across the borough, both of the co-location studies had poor overall continuous monitor data capture, and therefore the local bias adjustment factor should be treated with caution.

Table O shows the bias adjustment factors used in previous years.

Table O. Bias Adjustment Factor

Year	**Local or National**	**If National, Version of National Spreadsheet**	**Adjustment Factor**
2019	National	03/20	0.91
2020	National	03/21	0.81
2021	National	03/22	0.84
2022	Local	-	0.92
2023	National	03/23	0.81
2016	Local	-	0.88

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.TG19. During ratification, information from regular calibration, audits and daily manual validation were used to establish an operational and calibration history of the instrument. 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 the LondonAir website. Data capture at all sites which recorded less than 75% data capture during 2023 have been annualised according to the method set out in Boxes 7.9 and 7.10 of LLAQM.TG19.

NO_2 diffusion tube concentrations were annualised using automatic monitoring sites which reported data capture about 85% during 2023. Monitoring sites in background locations were prioritised to avoid any local effects that may occur at Urban Centre, Roadside or Kerbside sites.

4 diffusion tubes were annualised since data capture at the sites was reported below 75% during 2023. Four background automatic monitoring sites were used to undertake the annualisation calculations (Hillingdon, North Kensington, Haringey and Bloomsbury). These were chosen as they are the closest background automatic monitoring sites to the diffusion tubes.

2023 automatic monitoring data was obtained from Defra. Details of the annualisation calculations are provided in Table P.

Distance Adjustment

If the monitored concentration is above 36 µg/m^3 (10% below the relevant AQO) 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 Q contains the results of distance adjustment.

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

Site ID	Annualisation Factor Hillingdon	Annualisation Factor N. Kensington	Annualisation Factor Haringey	Annualisation Factor Bloomsbury	Annualisation Factor Westminster	Average Annualisation Factor	Raw Data Annual Mean (µg/m^3)	Annualised Annual Mean (µg/m^3)	Comments
PM14b	1.0722	1.2273	1.1781	1.1587	-	1.1591	62.0	71.8	NO_2
PM20d	0.9800	0.9697	1.0077	1.0293	-	0.9967	23.3	23.2	NO_2
CR47	1.0370	1.1040	1.1091	1.0963	-	1.0866	25.8	28.0	NO_2
CR79	0.9978	1.0576	1.0692	1.0385	-	1.0408	36.6	38.0	NO_2
BT8	1.0721	1.0850	1.0547	1.0236	-	1.0588	21.7	23.0	NO_2
BT5	-	-	-	1.2105	1.1775	1.1940	7.3	8.7	$PM_{2.5}$
BT6	-	-	-	1.0898	1.0499	1.0698	10.3	11.0	$PM_{2.5}$
BT8	-	-	-	1.1328	1.0928	1.1128	10.7	11.9	$PM_{2.5}$

Table Q. NO_2 Fall off With Distance Calculations

Site ID	Distance (m): Monitoring Site to Kerb	Distance (m): Receptor to Kerb	Monitored Concentration (Annualised and Bias Adjusted ($\mu g/m^3$)	Background Concentration ($\mu g/m^3$)	Concentration Predicted at Receptor ($\mu g/m^3$)	Comments
41	4.0	7.0	**40.4**	23.8	37.8	Predicted concentration at receptor within 10% the AQS objective (Table A).
52A	3.7	13.7	37.7	22.3	32.2	
52B	3.7	13.7	37.7	22.3	32.2	
52C	3.7	13.7	37.2	22.3	31.8	
52D	1.0	11.0	37.6	22.3	30.2	
PM14b	1.6	9.1	**58.2**	22.7	**44.4**	Predicted concentration at receptor above AQS objective (Table A).

Appendix B Full Monthly Diffusion Tube Results for 2023

Table R. NO_2 2023 Diffusion Tube Results (µg/m^3)

Diffusion Tube ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	NO_2 Mean Concentrations (µg/m^3)												Time Weighted Annual Mean (µg/m^3)		
			Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Raw Data	Bias Adjusted (0.81) and Annualised	Distance Corrected to Nearest Exposure
1	516929	188560	38.6	37.6	25.4	35.9	31.9	28.2	20.5	12.5	18.9	24.4	31.7	26.1	27.5	22.3	
2	515793	186042	36.8	48.1	18.8	28.5	11.5	10.5	11.6	13.2	23.5		33.1	25.7	23.4	18.9	
4	518240	187747	37.5	42.3	17.8	18.5	34.1	31.0	29.8	30.8	18.9	24.9	31.5	20.6	28.0	22.7	
7	517942	183721	55.1		20.2	23.8	23.0	21.4	27.3	26.7	58.1	60.0			34.5	28.0	
9	518499	186168	51.1		23.8	19.7	14.8	13.1	13.4	22.7	21.1		35.5	28.3	25.0	20.3	
17	520480	186537	49.2	43.8	21.9	20.3	13.1	12.8	12.1	14.3		62.7			27.1	22.0	
21a	520077	182853	40.7	40.3	24.7	22.6	19.0	17.1	17.4	18.7	24.7	30.2	37.6	28.2	26.7	21.7	
22	521447	188730	43.5	47.9	33.6	35.5	34.3	29.0	26.3	28.0	33.3	24.7	35.1	25.9	32.9	26.6	
23	521213	186125	73.4	58.2	26.6	36.6	15.6	17.9	19.2	21.2	31.7	35.2	61.3	50.3	37.6	30.5	
26	522191	184821	47.1	32.6	23.6	34.3	16.3	16.3	18.1	17.9	24.0	28.0	36.8	26.8	26.9	21.8	
29	523191	186571	35.3	46.3	30.1	30.6	27.8	22.1		21.1	28.7	31.2	33.1	23.5	29.4	23.8	
30	523663	185353		41.3	32.7	23.6	31.0	27.6	25.2	24.2	32.8	33.2	32.1	24.9	29.6	23.9	
33a	519572	187691	30.6	31.1	24.4	15.3	10.9	10.7	10.9	13.7	30.5	32.1	30.5	20.9	21.7	17.6	
41	521455	185920	56.7	40.2	56.8	24.2	49.4		52.8	44.6	62.7	57.8			49.9	**40.4**	37.8
48	525196	182517	38.6	41.7	31.4	30.2	24.2	24.0	25.4	25.7	30.8	33.2	35.8	25.5	30.4	24.6	
52A	520874	185173	53.7	48.4	45.6	55.8		48.1	39.9	40.5	52.7	48.1	42.9	38.8	46.6	37.7	32.2
52B	520874	185173	50.6	53.7	45.0	52.9		46.4	40.5	41.8	57.1	47.5	43.3	38.3	46.6	37.7	32.2
52C	520874	185173		53.6	45.9	52.3		44.9	39.8	41.4	54.7	49.3	43.9	38.1	45.9	37.2	31.8

52D	520874	185173	49.8	50.8	48.1	55.3		46.5	39.9	42.3	54.9	45.8	44.9	35.0	46.4	37.6	30.2
53	518026	185028	69.6	58.6	20.5	49.2		8.3	11.0	34.5	20.7	27.0	51.8	37.6	35.3	28.6	
54	518236	183207	40.3	35.9	38.9	27.4	17.3	24.6	27.7	26.9	46.6		34.0	25.7	31.4	25.4	
60	519475	186557	45.6	46.2	33.8	34.1	28.1	22.9	12.1	22.3	21.5	28.5		33.6	29.9	24.2	
61	519762	186600	68.1	35.9	43.1	44.3	17.2	16.0	15.7	17.6	22.2	27.5	33.6	27.0	31.1	25.2	
62	519667	186604	34.5		25.8	23.5	37.9	37.5	37.1	49.2	23.9		52.7	54.6	38.3	31.0	
63	519703	187007	26.9	28.2	29.4	28.2	46.2	48.1	46.8	33.1	42.5	43.1	25.7	21.1	34.5	27.9	
64	519824	186715	34.2		52.6	53.0	20.7	23.7	27.7	26.9	52.7		32.9	24.3	34.6	28.0	
65	521313	186529	41.4	39.8	44.2	27.9		29.7	35.3		43.7	42.7	35.7	27.4	36.6	29.6	
66	521912	186514		38.0	31.3	34.4	28.0	25.9	26.3	20.2	37.9	42.4	34.0	23.8	30.6	24.8	
67	521651	186611	37.9	35.4	39.9	44.7	27.7	28.9	25.1	26.5	28.5	34.7	31.9	25.4	32.1	26.0	
68	521448	186626	42.2	40.2	47.3	55.3	39.7	42.0	45.2	26.8		35.5	35.9	29.3	39.6	32.1	
69	523782	183527	31.5	31.1	23.0	30.1	16.1	15.2	16.7	16.9	23.7	26.9	31.0	23.0	23.7	19.2	
70	523828	183338	32.4	33.3	23.2	21.8	24.5	24.1	27.8	26.9		37.4	30.7	21.9	27.4	22.2	
71	524179	183232	28.9	33.5	22.4	34.8	16.2	32.8	15.7	17.5	25.0		28.9	21.3	25.2	20.4	
72	524142	183120	32.6	36.6	24.9	22.1	15.2	16.3	17.3		24.9	26.1	31.3	26.5	24.9	20.2	
73	524607	183267	32.2	37.2	29.4	28.4	27.1	25.6	22.3	24.2	34.5	31.4	33.9	23.3	28.9	23.4	
74	524283	183882	31.1	34.5	23.7	16.6	14.8	14.6	13.7	14.9	21.5	25.8	31.1	22.7	22.1	17.9	
75	517499	187778	28.9	29.7	20.3	16.7	11.7	10.4	12.3	23.5	35.5	38.9	27.9	18.9	22.7	18.4	
76	518430	188406	27.5	26.3	24.5	26.1	20.5	21.0	24.3	12.4	23.4	27.8	24.5	18.2	22.8	18.5	
77	519100	189827	29.6	30.6	5.1	24.2	17.8	18.3	16.9	17.1	18.5	24.5	27.6	20.9	20.7	16.7	
78	516721	185478	43.0	42.8	20.1	30.1		16.3	14.5	19.0	33.8	36.5	38.6	27.3	28.9	23.4	

79A	523721	183008		38.7	29.5	27.1	11.4	20.4	21.5		26.4		29.1	24.5	25.2	20.4	
79B	523721	183008		37.7	29.7	27.1	22.7	15.1	21.5		28.0	30.7	34.8		27.2	22.1	
79C	523721	183008		40.4	30.5	26.1	23.6	19.7			27.0	29.5	32.0	23.7	27.7	22.4	
BRT42	521131	183995	34.8	41.4	31.3	38.1	28.1	12.3	21.7	24.5	35.7	36.7	36.2	27.1	30.2	24.4	
BRT43	520242	184541	45.7	51.5	24.6	23.5	16.4	14.6	15.7	18.4	27.9	46.6	42.0	36.4	30.0	24.3	
BRT53	518303	185181	63.7	64.4	50.5	17.4	25.4	22.1	19.8	21.3	25.6	28.0	51.2	40.2	36.2	29.3	
BRT55	521743	183361	80.2	38.1	31.5	21.0	18.8	19.5	23.4	22.5	25.1	29.9		61.7	34.7	28.1	
BRT56	523635	183153	44.0	47.5	35.1	41.3	29.7	28.2	28.1	28.5	37.5	37.0	42.5	32.4	35.8	29.0	
BRT57	525419	183612		61.6		31.7	35.8	35.8	44.2	41.0	54.3	48.2	48.3	40.2	43.5	35.3	
BRT58	523031	184655	45.6	50.2	40.5	21.6	21.2		37.2	36.9	49.4	43.8	43.1	37.0	38.8	31.4	
SZ2	521069	186250	33.2	81.5	30.2	19.1	22.1	23.8	23.8	35.7	20.3	25.5	32.6	24.6	30.3	24.5	
SZ41	521624	184275	30.5	31.8	21.9	21.1	14.7	13.7	15.1	16.7	22.8	27.7	29.3		22.2	18.0	
SZ1	521103	183408	36.7	39.2	26.7	22.0	18.0	16.6	17.3	19.2	22.8	25.8	34.2	24.7	25.2	20.5	
SZ3A	518900	184774	30.1	29.6	19.9	20.3	14.6	14.9	12.9	16.5	31.5		27.8	20.0	21.6	17.5	
SZ3B	518913	184670	27.0	26.4	4.6	20.9	38.7	43.3	49.3	40.5				17.5	29.4	23.8	
SZ10	524585	184031	33.0	34.6	24.2	19.0	20.5	18.1	17.7	18.8	26.4	28.0	29.4	20.7	24.1	19.5	
SZ4a	521643	183579		80.7	23.8	23.8	16.4	15.1	18.7	19.4	28.0	35.9		26.9	27.3	22.1	
SZ19	523744	183076	32.0	34.6	23.9	23.7	15.6	15.9	19.0	20.2	25.4	27.8	30.3	24.0	24.2	19.6	
SZ8	521314	184712	35.8	35.7	26.5	20.1	18.2	15.8	16.8	18.5	25.0	28.8	29.8	23.7	24.5	19.8	
SZ4b	521718	183649		38.7	25.4	23.5	17.1	16.1	17.6	17.6	25.6		37.3	26.6	24.4	19.8	
SZ5a	521394	184264	31.0	33.1	23.3	22.9	16.1	14.8	17.1	18.5	25.6	30.1	31.0	23.4	23.8	19.3	
SZ5b	521364	184185	30.5	34.8		33.8	16.5	16.5	17.5	17.5	23.4	29.0	31.0	22.7	24.6	19.9	

SZ11b	520525	183861	35.5	35.7	32.5	43.1	26.8	26.6	25.1	26.2			31.8		31.3	25.4	
SZ12	523167	186491	29.4	36.0		21.7	19.3	17.1	18.2	17.4	23.5	28.7	30.4	20.9	23.6	19.1	
SZ11A	520480	183908	31.6	29.9	43.4	23.5	33.7	35.9	39.5	39.1	23.2	28.5	28.2	20.2	31.6	25.6	
SZ15	522934	184702	30.6	35.9	25.1	23.0	17.0	17.4	19.6	19.5	27.2	28.9	29.0	23.0	24.5	19.8	
SZ16	523039	184745	27.7	33.2	23.3	24.3	16.4	14.2	14.2	16.2	22.8	26.3	27.7	21.0	22.1	17.9	
SZ18	523224	183045	33.0		26.2	23.6	35.0	15.8	19.3	20.3	27.1	30.5	32.9	26.3	26.3	21.3	
SZ81	520512	184580	34.9	34.5	26.0	24.1	17.9	19.6	23.4	13.2	28.2	32.7	29.7	22.2	25.3	20.5	
SZ17	521618	185525	37.5	31.7	26.4	31.3	18.5	17.6	18.0	21.3	32.7	35.3	34.3	30.9	27.9	22.6	
SZ14A	518837	185102	31.0	33.2	32.2	25.6	19.1	19.3	15.1	19.2	28.7	34.0	27.4	19.8	25.2	20.4	
SZ27	519913	185066	33.2	35.9	37.4	25.0	19.0	19.7	18.8	23.6	26.2	27.9	30.6	21.5	26.6	21.5	
SZ4c	521781	183700	32.3	35.3	26.0	25.4	16.2	13.5	17.8	18.9	24.3	27.9	34.0	25.6	24.7	20.0	
SZ20B	524003	183995	28.1	30.0	23.3	21.8	11.7	19.0	11.8	13.9	19.2	22.2	25.4	19.7	20.6	16.6	
SZ20A	523678	183956	26.7	28.3	18.3	20.9	17.8	12.1	18.8	20.8	27.2	29.4	24.7	18.0	21.6	17.5	
SZ22	519883	189197	26.0	25.7	4.6	21.3	15.0	13.9	14.9	16.7	22.6	29.3	22.0		18.9	15.3	
SZ7	523119	185933	29.8	35.4	23.4	23.7	17.6	17.2	16.0	16.4	24.3	28.2	28.5	19.8	23.1	18.7	
SZ14B	518835	185012	32.1	31.4		26.4	11.1	23.4	22.6	24.7	24.6	28.3	26.0	20.0	24.6	19.9	
SZ63	518603	186544	29.3		27.1	36.8	32.6	28.2		14.8	24.6	26.5		19.1	26.2	21.2	
SZ23	520065	188673	27.6	25.4	4.4		16.3	14.4	15.0	18.0	16.1	22.6	23.5	16.1	17.9	14.5	
SZ6	517900	187137	26.2	24.5	31.7	20.1	13.4	13.0	12.2	14.5	17.2	23.2	25.6	17.9	20.1	16.3	
SZ25A	518243	188627	27.7	26.2	25.9	22.1	16.5	15.6	14.8	22.7	17.8	23.7	24.2	17.2	21.3	17.2	
SZ24	517739	187912	24.9	23.7	20.6	36.0	12.3		23.5	13.9	18.4	24.1	23.8	14.8	21.2	17.2	
SZ25B	518184	188539		23.8	20.9	16.6	10.1	8.4	11.4	17.8	30.9	33.4	22.9	14.7	18.8	15.3	

SZ26	516559	185913	33.6		32.1			21.6	22.4	21.8	35.6	38.9	26.9	19.6	27.7	22.5	
SZ231	520211	188478	27.9	32.7	24.8	17.7	11.7	12.6	12.2	13.9				16.3	18.7	15.1	
PM16a	521348	183912	34.2	47.9	29.7	25.9	19.3				31.2	34.6	33.9	25.5	31.0	25.1	
PM16b	521741	184243	34.0	42.9	32.0	20.0	25.5	23.1	23.2	25.6	37.3	37.5	27.6		29.5	23.9	
PM19a	523453	183500	39.3	45.8	34.2	24.6	19.7	19.5	18.5	18.4	26.9	28.3	41.9	27.4	28.7	23.3	
PM19b	523931	183500	32.3	32.5	24.1	19.8	19.8	19.1	20.0	19.8	27.3	28.8	28.8		24.7	20.0	
PM19c	524520	183495	33.6		30.2	21.2	26.8	24.9	22.5	24.8	35.7	34.0	33.3	28.2	28.7	23.3	
PM20a	524599	183990	31.3	35.7	5.7	24.9	18.0	18.2	18.7	19.3	27.2			22.5	21.6	17.5	
PM20b	524995	183470	32.4	38.5	26.7	23.6	21.2	20.1	20.6	22.2	30.4	28.0	28.1	21.9	25.9	21.0	
PM20c	524907	184274		32.9	23.6	30.5	24.7		32.6	33.2	41.3		31.9	34.1	31.5	25.5	
PM25a	523246	185765	30.3	36.2	25.9	22.7	20.0	17.1	16.0	18.0	26.2	28.7	30.4	23.9	24.5	19.8	
PM25b	523581	185671	32.0	35.4	24.5	24.1	18.4	15.7	14.7		23.7	28.1			23.9	19.3	
PM25c	523560	185395		36.8		31.2	20.1	17.2	16.2	18.3	24.5	26.3	28.0	23.6	23.8	19.3	
PM26a	522941	186263	30.4	34.6	24.5	22.4	17.2	14.1	16.3	18.1	25.8	30.6	31.3	21.9	23.7	19.2	
PM26b	522563	186233	34.0	35.9	23.9	22.8	17.1	17.9	15.1		23.6	29.7	30.0	23.7	24.8	20.1	
PM29a	517896	186958	30.3	30.4	55.2	18.1	12.0	12.7	13.9	13.9			33.0	22.0	24.6	19.9	
PM29b	518008	187311	28.9	27.3	24.7	22.2	16.0	13.1	16.1	16.3	30.3	33.6	27.6	18.9	22.7	18.4	
PM29c	518280	187411	40.6	38.9	21.2	18.8	12.6	11.9	13.3	17.6	21.6	26.9	28.5	23.3	22.8	18.5	
PM32a	519588	189311	35.5	27.7	18.9	17.6	12.8	11.7	11.9	21.8	18.1	24.8	27.2	22.3	21.0	17.0	
PM32b	519432	188972	31.4	32.6	21.2	22.4	24.0	22.8	20.4	14.2	18.8	23.1	27.4	19.9	23.0	18.7	
PM32c	519268	188982	32.4	30.8	5.0	20.0	15.6	14.5	11.6	17.5	28.4	30.6		20.3	20.2	16.4	
PM22A	523854	185249	34.6	35.7	24.1	22.2	17.9	16.6	15.9	19.1	27.0	29.9	31.9	23.0	24.7	20.0	

PM22B	523770	185086	31.1	35.4	23.1	21.3	17.1	16.5	17.5	17.1	25.9	28.3	30.6	22.0	23.7	19.2	
PM22E	523846	184875	27.2	32.1	21.7	21.6	15.8	15.2	19.6	32.5	40.9	36.3	40.9	21.0	27.0	21.8	
PM22C	524333	184827	33.3	35.1	22.7	37.6	16.6		16.2	11.4	23.0	27.9	28.7	20.7	24.6	19.9	
PM22D	524486	184877	45.5	55.4	39.5	44.2	31.8	31.2	33.1	16.9	24.1	26.8	29.7	29.6	33.5	27.1	
PM23B	522970	184812	30.9	34.3	24.3	25.0	17.2	15.9	16.5	18.7	24.8	30.0	30.7	24.5	24.3	19.7	
PM23A	522708	184973	36.2	38.4	26.5	17.7	16.6	16.9	19.8	21.4	28.1	31.4	33.7	25.1	25.9	21.0	
PM14b	521049	183874			60.9	26.5	64.8	67.7	68.6	61.2	75.4	70.4			62.0	**58.2**	**44.4**
PM14C	521401	183542	35.4	35.1	26.3	22.2	20.0	18.0	21.1	22.0	28.1		33.1	21.9	25.7	20.8	
PM14D	521321	183478	32.4	36.7	25.1	29.4	18.2	16.9	18.6		23.7	29.5	32.2	24.4	26.0	21.0	
PM14A	520763	183700	33.2	35.6	22.9	33.2	16.7		15.2	17.9	33.4	28.8	31.9	24.4	26.5	21.5	
PM28B	518367	185872	30.7		24.1	21.6	16.1	15.6	16.4	18.6	31.0		27.9	18.8	22.2	18.0	
PM28C	518172	186004	33.0		30.8	20.2	13.9	17.2	14.7	17.4	20.4	25.8	30.6	22.4	22.8	18.4	
PM28E	517952	185913	28.7		21.5	22.8	15.9	51.9	45.8	18.6	24.8	25.9	27.0	20.0	27.5	22.3	
PM28D	518076	185421	30.9		20.9	62.7	45.5	13.5	17.8	45.9		35.4	30.1	20.6	31.7	25.7	
PM36A	518590	185172	36.3	38.1	36.1	28.9	19.2	18.2	14.4	18.0	57.8	29.4	33.5	23.6	29.2	23.6	
PM36B	519200	184899	36.2	40.0	28.8	30.2	23.9	15.1	14.0	16.7	23.6	55.4	34.3	24.4	28.1	22.8	
PM28A	517811	186252	45.3	37.6	22.8	16.4	12.6	12.9	13.8	15.4	31.0	32.3	37.3	25.2	25.2	20.4	
PM20d	524603	183984	33.0				15.4		16.8	16.9	24.1	28.6	26.4		23.3	18.8	
PM20e	524620	184266	28.2		39.7	35.6	16.4	16.4	16.0	17.1	23.1	26.5			24.5	19.8	
CR47	521511	184679	39.8		27.7		19.7	18.1	19.2	20.7	28.0	32.4			25.8	22.7	
CR79	521465	184692	43.8		37.6	25.7	26.7		35.1	34.8	43.5	43.7			36.6	30.8	

☒ **All erroneous data has been removed from the NO_2 diffusion tube dataset presented in Table R.**

☒ **Annualisation has been conducted where data capture is <75% and >25% in line with LAQM.TG22.**

☐ **Local bias adjustment factor used.**

☒ **National bias adjustment factor used.**

☒ **Where applicable, data has been distance corrected for relevant exposure in the final column.**

☒ **London Borough of Brent confirm that all 2023 diffusion tube data has been uploaded to the Diffusion Tube Data Entry System.**

Notes:

Exceedances of the NO_2 annual mean objective of 40µg/m^3 are shown in **bold**.

NO_2 annual means exceeding 60µg/m^3, indicating a potential exceedance of the NO_2 1-hour mean objective are shown in **bold and underlined**.

See Appendix A for details on bias adjustment and annualisation.

Appendix C Map(s) of Monitoring Locations and AQMA

Figure 4: Map of Monitoring Sites (North Brent)

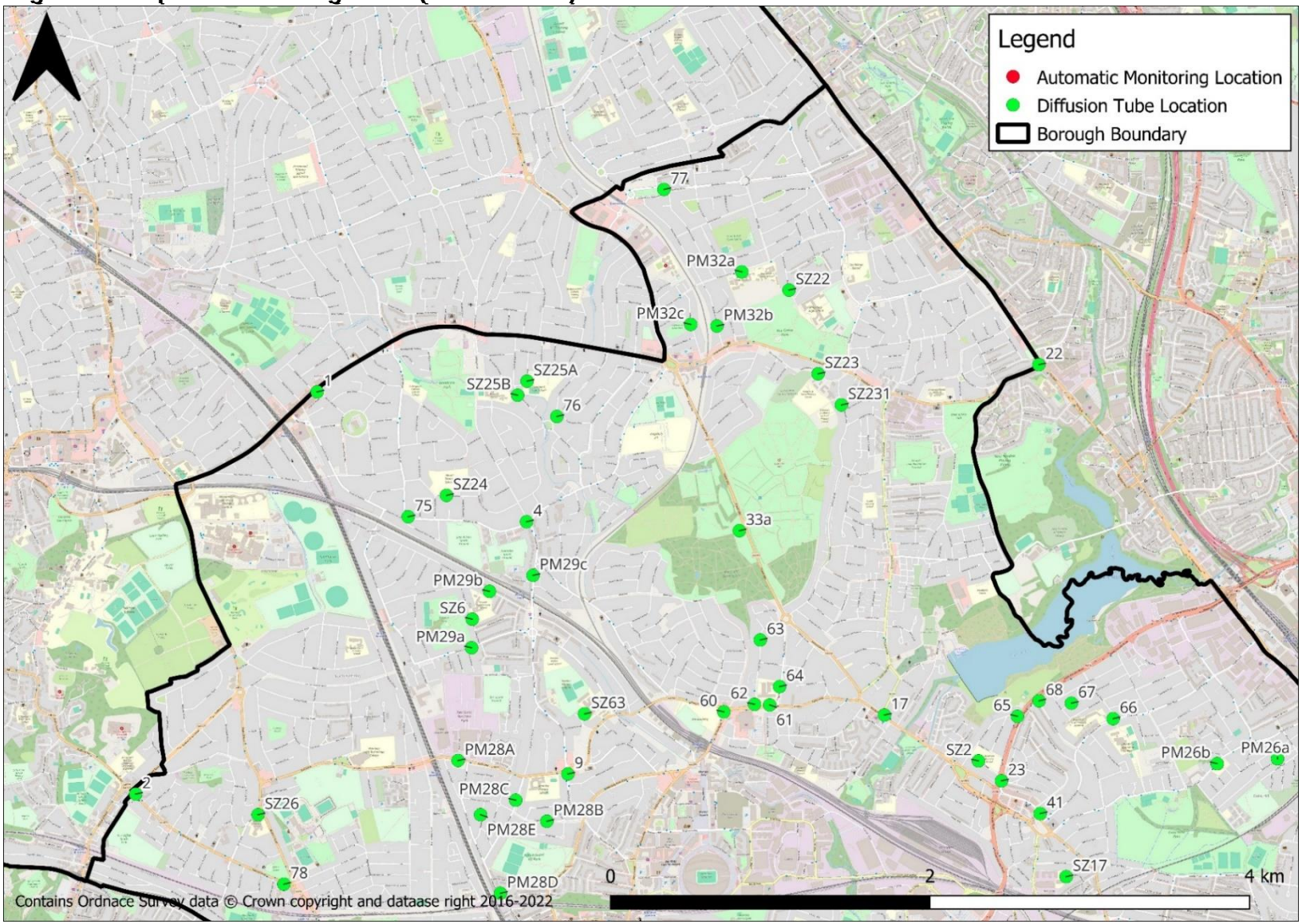


Figure 5: Map of Monitoring Sites (South Brent)