London Borough of Bexley Air Quality Annual Status Report for 2024

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This report provides a detailed overview of air quality in the London Borough of Bexley during 2024. It has been produced to meet the requirements of the London Local Air Quality Management (LLAQM) statutory process[1].

Contact details:

Jon Fox Manager of Environmental Protection Team. Tel 0203 045 5650

jon.fox@bexley.gov.uk

[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	
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 ($PM_{2.5}$)	10 µg m^{-3}[3]	Annual mean	2040
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) London Mayoral Objective

1. Air Quality Monitoring

1.1 Locations

Table B. Details of Automatic Monitoring Sites for 2024

Site ID	Site Name	Site Type	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Pollutants Monitored	In AQMA?	Monitoring Technique	Distance to Relevant Exposure (m) (1)	Distance to kerb of nearest road (m) (2)	Inlet Height (m)
BX1	Slade Green	Suburban background	551854	176380	NO_2, O3, PM_{10}, $PM_{2.5}$ SO_2	Yes	Chemiluminescent; PM_{10} FIDAS, $PM_{2.5}$ by FIDAS	0	N/A	2.7
BX2	Belvedere Primary School	Urban background	549999	179090	NO_2, PM_{10}, $PM_{2.5}$	Yes	Chemiluminescent; PM_{10} FIDAS $PM_{2.5}$ by FIDAS	0	N/A	2.5
BQ7	Bexley Harris Garrad Academy	Urban background	548465	179469	NO_2, O_3, PM_{10}, $PM_{2.5}$	Yes	Chemiluminescent; PM_{10} FIDAS $PM_{2.5}$ by FIDAS	0	N/A	3.0

Site ID	Site Name	Site Type	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Pollutants Monitored	In AQMA?	Monitoring Technique	Distance to Relevant Exposure (m) (1)	Distance to kerb of nearest road (m) (2)	Inlet Height (m)
GB6	A2 at Falconwood This monitoring station is run by Royal Borough of Greenwich	Kerbside	544999	175098	NO_2, O_3, PM_{10}, $PM_{2.5}$	Yes	Chemiluminescent; PM_{10} TEOM $PM_{2.5}$ by FDMS	10.0	1.0	3.0

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

Table C. Details of Non-Automatic Monitoring Sites for 2024

Diffusion Tube ID	Site Name	Site Type	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Pollutants Monitored	In 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)
BEX_SG	Bexley Deaf Centre, Whitehall Lane	Urban Background	551854	176380	NO_2	YES	0	>50m	YES	2.7
BEX_FW	Orchard Rise West	Kerbside	544999	175098	NO_2	YES	12	2	YES	2.5
BEX_1	2 Queens Street	Roadside	551490	177811	NO_2	YES	20	5	NO	2.5
BEX_2	97 Compton Place	Roadside	551609	177573	NO_2	YES	5	12	NO	2.4
BEX_3	Thanet Road	Kerbside	551581	177398	NO_2	YES	3	2	NO	2.5
BEX_4	Dell View Road	Roadside	551565	177236	NO_2	YES	3	3	NO	2.5
BEX_5	Boundary Street	Urban Background	551607	177216	NO_2	YES	10	10	NO	2.5
BEX_6	3 The Nursery	Urban Background	551615	177061	NO_2	YES	5	12	NO	2.4
BEX_7	1 Peareswood Road	Urban Background	551600	176973	NO_2	YES	2	12	NO	2.6
BEX_8	Colyers Lane	Roadside	551555	176846	NO_2	YES	7	3	NO	2.4
BEX_9	Defoe Close	Urban Background	551551	176780	NO_2	YES	5	12	NO	2.5
BEX_10	3 Bridge Road	Urban Background	551665	176489	NO_2	YES	10	20	NO	2.4
BEX_11	18 Winscroft Drive	Urban Background	554761	175232	NO_2	YES	7.5	12	NO	2.5
BEX_12	30 Wincroft Drive	Urban Background	544868	175193	NO_2	YES	7.5	12	NO	2.5
BEX_13	135 Orchard Rise West	Urban Background	545089	175032	NO_2	YES	5	45	NO	2.5

Diffusion Tube ID	Site Name	Site Type	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Pollutants Monitored	In 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)
BEX_14	143 Orchard Rise West	Urban Background	545094	175050	NO_2	YES	5	30	NO	2.6
BEX_15	Orchard Rise West Footpath	Urban Background	545124	175057	NO_2	YES	7.5	1	NO	2.4
BEX_16	97 Buckingham Avenue	Urban Background	545272	175058	NO_2	YES	7.5	15	NO	2.4
BEX_17	247 Hook Lane	Urban Background	545600	174929	NO_2	YES	20	5	NO	2.5
BEX_18	251 Hook Lane	Urban Background	545623	174960	NO_2	YES	10	25	NO	2.5
BEX_19	1 Chester Road	Urban Background	545644	174859	NO_2	YES	10	5	NO	2.7
BEX_20	41 Leechcroft Avenue	Urban Background	545748	174825	NO_2	YES	10	7.5	NO	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 applicable.

1.2 Comparison of Monitoring Results with AQOs

Table D. Annual Mean NO_2 Monitoring Results: Automatic Monitoring (µg m^{-3})

Site ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Site Type	Valid data capture for monitoring period %[a]	Valid data capture 2024 %[b]	2018	2019	2020	2021	2022	2023	2024
BX1 (Slade Green)	551854	176380	Urban Background	99.8%	99.8%	23	22	18	19	18	16	15
BX2 Belvedere Primary School	549999	179090	Urban Background	94%	94%	28	23	18	16	16	15	15
BQ7 Harris Garrard Academy	548465	179469	Urban Background	90%	90%	21	21	17	17	16	14	13
GB6 A2 at Falconwood	544999	175098	Urban Background	87%	87%	39	36	27	27	22	17.3 (annualised)	17

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**.

Table E. Annual Mean NO_2 Monitoring Results: Non-Automatic Monitoring (µg m^{-3})

Diffusion Tube Site ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Site Type	Valid Data Capture for Monitoring Period (%)(1)	Valid Data Capture 2024 (%)(2)	2024
BEX_FW	551864	176382	Urban Background	100%	100%	22.6
BEX_SG	545003	175099	Urban Background	83%	83%	14.5
BEX_1	551430	177811	Roadside	100%	100%	27.1
BEX_2	551609	177573	Roadside	91%	91%	21.8
BEX_3	551585	177374	Roadside	100%	100%	30.1
BEX_4	551570	177244	Roadside	100%	100%	20.9
BEX_5	551627	177213	Roadside	100%	100%	20.5
BEX_6	551614	177060	Roadside	100%	100%	18.8
BEX_7	551595	176965	Roadside	100%	100%	20.8
BEX_8	551546	176850	Roadside	100%	100%	24.0
BEX_9	551549	176767	Roadside	100%	100%	18.2
BEX_10	551660	176478	Roadside	75%	75%	22.1
BEX_11	544760	175232	Roadside	100%	100%	19.3
BEX_12	544867	175192	Roadside	100%	100%	18.5
BEX_13	545090	174988	Urban Background	58%	58%	14.9
BEX_14	545085	175019	Urban Background	66%	66%	15.6
BEX_15	545092	175065	Roadside	100%	100%	24.3
BEX_16	545272	175057	Roadside	58%	58%	17.7
BEX_17	545600	174928	Roadside	100%	100%	20.0
BEX_18	545623	174960	Urban Background	100%	100%	16.8
BEX_19	545644	174859	Roadside	100%	100%	17.4
BEX_20	545748	174825	Roadside	100%	100%	17.7

Data collection benefited from duplicate tubes being used at each location

☒ **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 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%.

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%).

The diffusion tube study in 2024 was carried out in Bexley's two focus areas.

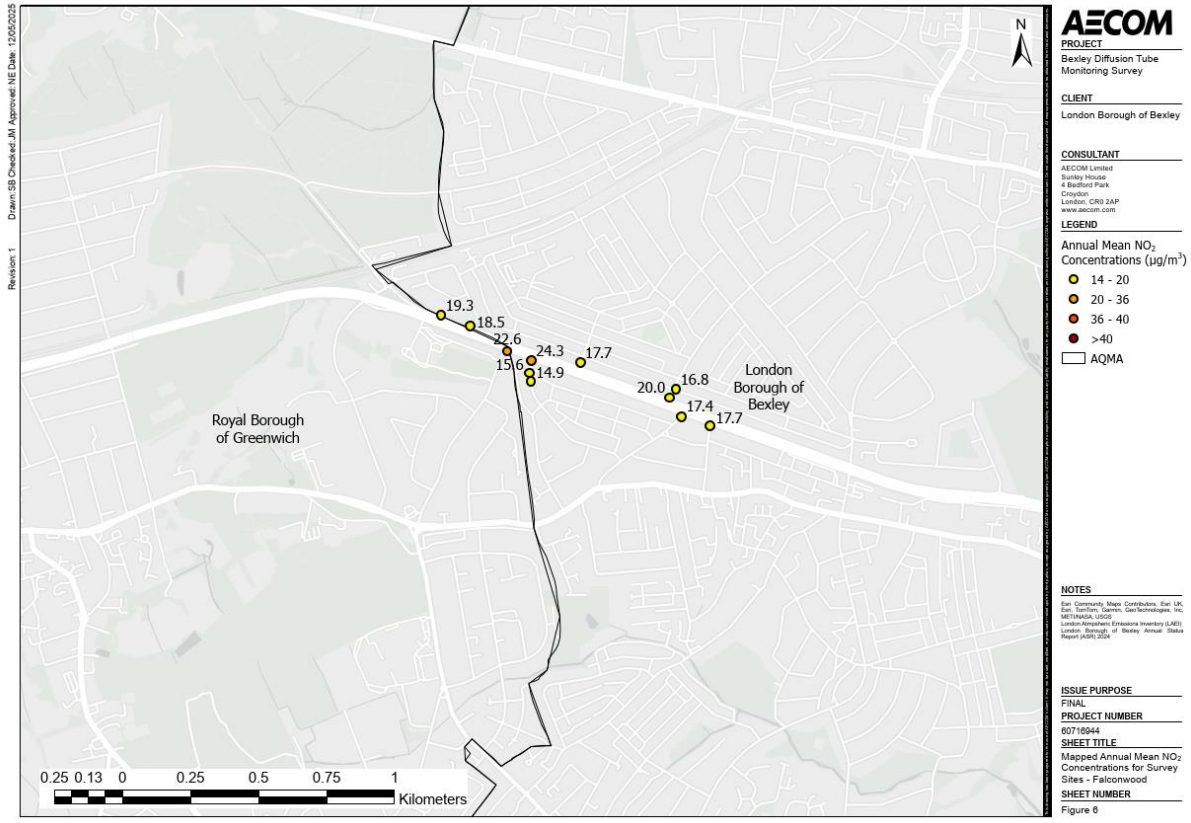
The highest annual mean nitrogen dioxide concentrations was 30 $\mu g/m^3$, against the national air quality objective of 40 $\mu g/m^3$. The results confirm that there are no locations in Bexley which do not achieve the National air quality objective s for nitrogen dioxide. The nitrogen dioxide annual mean objective is 40$\mu g\ m^{-3}$

Looking forward, the combination of fewer fossil fuelled road vehicles and lower average emissions make it very unlikely for nitrogen dioxide levels to return to their previous levels

There have been significant improvements in emissions from the road vehicle fleet as Euro 6 vehicles become more prevalent in the UK Fleet. London has also benefited from the implementation of the ultra low emission zone across the whole of the London area. At the same time zero emission capable vehicles are becoming more common. The pandemic has also changed driving patterns with home working or a hybrid home/office working becoming more common.

Full details of the diffusion tube monitoring in 2024 is in Annex 1.

Map 1 - Mapped Annual Mean NO2 Concentrations for Survey Sites - Falconwood



Map 2 - Mapped Annual Mean NO2 Concentrations for Survey Sites - Erith

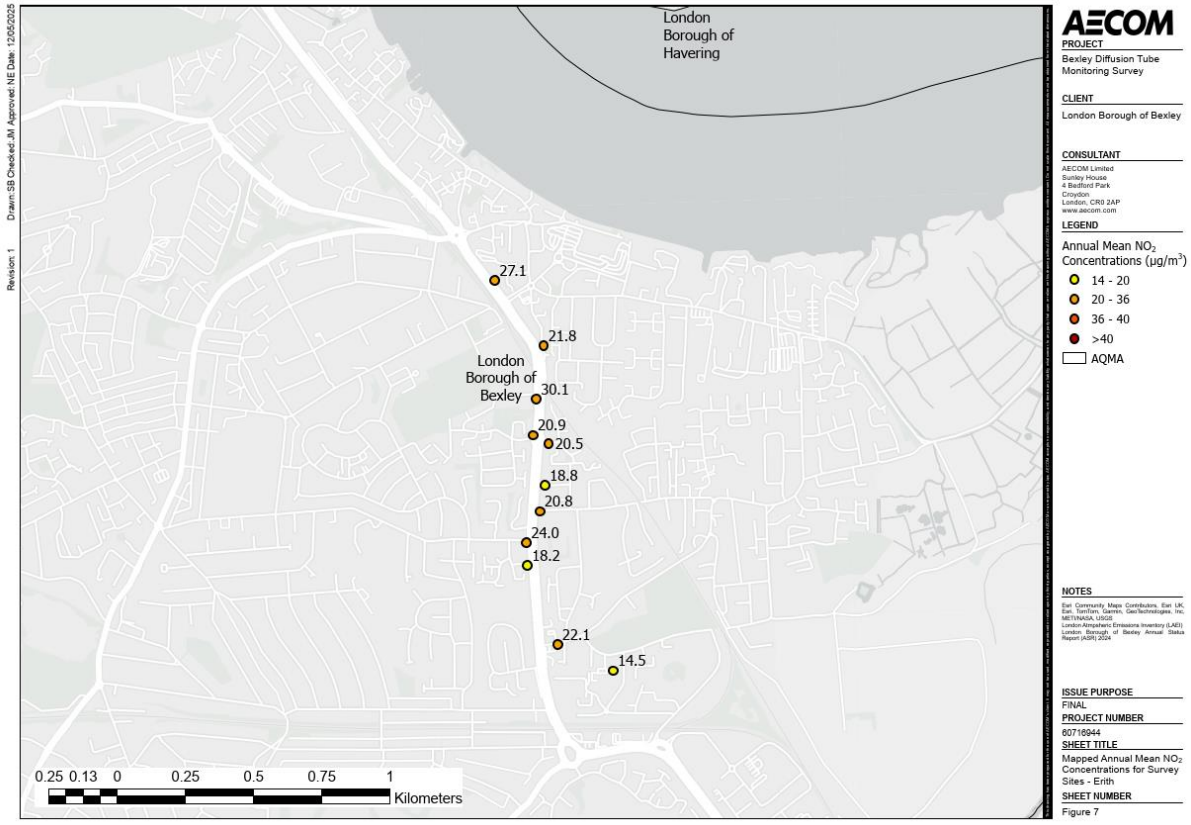


Table F. NO_2 Automatic Monitoring Results: Comparison with 1-hour Mean Objective, Number of 1-Hour Means > 200 µg m^{-3}

Site ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Site Type	Valid data capture for monitoring period %(a)	Valid data capture 2024 %(b)	2018	2019	2020	2021	2022	2023	2024
BX1 (Slade Green)	551854	176380	Urban Background	99.8%	99.8%	0	0	0	0	0	0	0
BX2 Belvedere Primary School	549999	179090	Urban Background	94%	94%	0	0	0	0	0	0	0
BQ7 Harris Garrard Academy	548465	179469	Urban Background	90%	90%	0	0	0	0	0	0	0
GB6 A2 at Falconwood	544999	175098	Urban Background	87%	87%	0	0	0	0	0	0 (99.8th percentile 65.8 µgm^{-3})	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 fu ll calendar year would be 50%)

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

Site ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Site Type	Valid data capture for monitoring period %(a)	Valid data capture 2024 %(b)	2018	2019	2020	2021	2022	2023	2024
BQ9 (Slade Green)	551854	176380	Urban Background	95%	95%	18	17	13	14	15	14	12
BX2 Belvedere Primary School	549999	179090	Urban Background	96%	96%	19	19	18	18	14 (annualised)	13	12
BQ7 Harris Garrard Academy	548465	179469	Urban Background	67%	67%	19	18	18	17	13 (annualised)	11	11
GB6 A2 at Falconwood	544999	175098	Urban Background	93%	93%	21	19	18	19	17	15.8 (annualised)	16

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

Site ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Site Type	Valid data capture for monitoring period %[a]	Valid data capture 2024 %[b]	2018	2019	2020	2021	2022	2023	2024
BQ9 (Slade Green)	551854	176380	Urban Background	95%	95%	1	8	1	1	5	0	0
BX2 Belvedere Primary School	549999	179090	Urban Background	96%	96%	7	11	7	3	0	0	0
BQ7 Harris Garrard Academy	548465	179469	Urban Background	67%	67%	1	4	3	1	0	0	0
GB6 A2 at Falconwood	544999	175098	Urban Background	93%	93%	2	8	6	4	2	0	0

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

Site ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Site Type	Valid data capture for monitoring period %[(a)]	Valid data capture 2024 %[(b)]	2018	2019	2020	2021	2022	2023	2024
BQ9 (Slade Green)	551854	176380	Urban Background	95%	95%	12	12	9	9	9	8	7.8
BX2 Belvedere Primary School	549999	179090	Urban Background	96%	96%	-	-	-	-	8 (annualised)	8	7.3
BQ7 Harris Garrard Academy	548465	179469	Urban Background	67%	67%	-	-	-	-	8 (annualised)	7	(7) 6.8 Annualised
GB6 A2 at Falconwood	544999	175098	Urban Background	69%	69%	-	-	-	-	9 (annualised)	9 (annualised)	(9) 8.9 annualised

Notes

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

Exceedances of the $PM_{2.5}$ annual mean concentration target of 10 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%).

(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 J. 2024 SO_2 Automatic Monitoring Results: Comparison with Objectives

Site ID	Valid data capture for monitoring period %[(a)]	Valid data capture 2024 %[(b)]	Number of 15-minute means > 266 µg m^{-3}	Number of 1-hour mean > 350 µg m^{-3}	Number 24-hour mean > 125 µg m^{-3}
BX1 Slade Green	90%	90%	0	0	0

Notes

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

Exceedances of the SO_2 objectives are shown in **bold** (15-min mean = 35 allowed a year, 1-hour mean = 24 allowed a year, 24-hour mean = 3 allowed a year).

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

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

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

Table K. Other Pollutants - Ozone

Site ID	Valid data capture for monitoring period %[(a)]	Valid data capture 2024 %[(b)]	2024
BX1 Slade Green	99	99	14 days>100 µg/m^3
BQ6 Belvedere West	92	92	18 days>100 µg/m^3
GB6 A2 at Falconwood	63	63	9 days>100 µg/m^3

2. Action to Improve Air Quality

2.1 Air Quality Management Areas

Air Quality Management Areas (AQMAs) are declared when there is an exceedance or likely exceedance of an air quality objective. 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.

A summary of AQMAs declared by London Borough of Bexley can be found in Table L. The table presents a description of the one whole borough AQMA that is currently designated within London Borough of Bexley. Appendix C provides maps of AQMA(s) and also the air quality monitoring locations in relation to the AQMA. The air quality objectives pertinent to the current AQMA designation(s) are as follows:

- NO_2 annual mean;
- PM_{10} annual mean

Table L. 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?	Level of Exceedance: Declaration (National Air Quality Objective – 40)	Level of Exceedance: Current Year (National Air Quality Objective – 40)	Number of Years Compliant with Air Quality Objective	Name and Date of AQAP Publication
Bexley Air Quality Management Area	1/3/2007	Nitrogen Dioxide, PM10	Whole borough declaration for both pollutants	YES	Nitrogen Dioxide – 48 µg/m^3 A2 at Falconwood PM10 – 27 µg/m^3 A2 at Falconwood	Nitrogen Dioxide – 17µg/m^3 A2 at Falconwood PM10 – 15.8 µg/m^3 A2 at Falconwood	6 years	In preparation at time of publication

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

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

2.2 Air Quality Action Plan Progress

Table M provides a brief summary of London Borough of Bexley progress against the Air Quality Action Plan, showing progress made this year.

Table M. Delivery of Air Quality Action Plan Measures

Measure	LLAQM Action Matrix Theme	Action description	Estimated / Actual Completion Date	Outputs, targets and Key Performance Indicators	Action Taken in 2024
	Air Quality monitoring	Continuation of real time monitoring sites, with continuous monitoring stations at 3 background locations measuring nitrogen dioxide, PM10 and PM2.5	2030	Output: All continuous monitoring data is available through www.Londonair.org Target for each station to achieve a minimum of 90% data capture in each year.	In 2024 Bexley maintained its continuous air quality monitoring stations. A twelve month diffusion study was implemented with the aim of examining geographical variation in nitrogen dioxide close to the roadside at both of Bexley's Air Quality Focus Areas. The study utilised identical duplicate tubes co located at twenty locations at both Focus areas. Duplicate tubes were used to increase the reliability of the results. Triplicate control tubes were located at continuous monitoring sites.
	Emissions from developments and buildings	Ensuring emissions from construction are minimised	2030	Output: This action ensures that emissions at construction sites are proactively considered at the start of the project. The developer plans the development and any necessary mitigation	Undertaken through reviewing planning applications, with conditions applied in relation to GLA SPG on the control of dust and emissions from construction and demolition. Visits to construction sites are complaint based. Resources currently not

Measure	LLAQM Action Matrix Theme	Action description	Estimated / Actual Completion Date	Outputs, targets and Key Performance Indicators	Action Taken in 2024
				measures. These measures are considered throughout the development process. The proposed mitigation measures are checked before development starts and simplifies enforcement. Major sites are checked for compliance. Target: 100% of construction sites implementing a “Major” Planning development shall include a condition requiring a code of construction practice, where this is relevant. 100% of complaints with planning conditions and nuisance requirements are checked.	enough to be proactive on checking up on construction sites. When complaints occur, compliance with planning conditions and nuisance requirements are checked. 2024 11 major applications received. All had condition relating to CEMP
	Emissions from developments and buildings	Ensuring enforcement of Non Road Mobile Machinery (NRMM) air quality policies	2030	Output: Reduced emissions from plant and machinery on major construction sites Target: 100% of Major Planning applications which are granted planning permission are conditioned to use on Non Road Mechanical Machinery that is	Conditions relating to NRMM applied as per approved GLA wording. Enforcement is via participation with the London wide enforcement project (run by Merton). Enforcement therefore consistent. Choice of plant is considered before construction starts.

Measure	LLAQM Action Matrix Theme	Action description	Estimated / Actual Completion Date	Outputs, targets and Key Performance Indicators	Action Taken in 2024
					Condition applied to anything with construction. 2024 11 major applications received. All had condition relating to CEMP
<4.1>	Emissions from developments and buildings	Enforcing planning policies relating to future potential heat networks. policies	2030	Output: This policy ensures that new developments close to the area that would be served if the London Heat Network becomes available. Target: 100% of relevant major planning applications within the heat network priority areas	Bexley Local Plan policy DP31 Part 1 expects developments within heat network priority areas to be designed to facilitate cost-effective connections to the existing or proposed network in accordance with the London Plan. The London Heat Map website https://apps.london.gov.uk/heatmap/?_gl=1*q7kybz*_ga*MTcyMjgxNjA5MC4xNjg0NTAyNjY0*_ga_PY4SWZN1RJ*MTY4ODM4NjMzNC4xLjAuMTY4ODM4NjMzNC42MC4wLjA identifies Cory's Riverside Resource Recovery (RRR) Energy from Waste (EfW) facility as a supply site. The preamble to policy DP31 provides further information. Also, part 1.c of strategic policy SP14 supports the provision of decentralised energy networks in the borough. Any proposed through planning system, would apply conditions.

Measure	LLAQM Action Matrix Theme	Action description	Estimated / Actual Completion Date	Outputs, targets and Key Performance Indicators	Action Taken in 2024
<5.1>	Emissions from developments and buildings	Enforcing Air Quality Neutral (AQN) policies	2030	Output: This policy prevents "creeping" pollution through the land development process. All Major sites are required to be "Air Quality Neutral" or implement mitigation so that the development is no more polluting than before the development. Target: 100 % of all relevant major planning approved applications to demonstrate that they meet at least air quality neutral standard for emissions (based on a rolling average)	AQN reviewed through Air Quality Assessments for planning applications. In the cases where applications are not AQN, review with planners re: measures required. Also would ask for Air Quality Positive statements where relevant. 2024 11 major applications received. All had condition relating to Air Quality Neutral
<6.1>	Emissions from developments and buildings	Ensuring adequate, appropriate, and well-located green space and infrastructure is included in new developments	2030	Output: Ensuring future development includes provision of green space Target: 100% of relevant schemes achieving the target urban greening factor score (Local Plan Monitoring Indicator LPM-42) Criteria: Applications for major developments (e.g. 10 or more dwellings, or 1,000m2 or more of nonresidential floor space)	2024: Four development proposals triggered the requirement to include an urban greening factor calculation with the planning application and of these two did. One was for the new residential development proposed on the former Electrobase site in Crayford, and the other was for a mixeduse scheme on Fraser Road in Erith. In both cases the score achieved surpassed the target. The other proposals included detailed landscaping schemes,

Measure	LLAQM Action Matrix Theme	Action description	Estimated / Actual Completion Date	Outputs, targets and Key Performance Indicators	Action Taken in 2024
				are required to quantify what urban greening factor (set out in Table 8.2 of the London Plan) score the proposed scheme will achieve. Applications should demonstrate a score of at least 0.4 for major residential schemes and at least 0.3 for major mixed-use or commercial schemes.	which were considered acceptable
<7.1>	Emissions from developments and buildings	Ensuring that Smoke Control Zones are appropriately identified and fully promoted and enforced	2030	Output: Reduction in local emissions of PM and PM2.5. Target: 100 % of service requests relating to emissions from chimneys in a smoke control area to be responded to within 5 working days of receipt. 100% of investigations to be concluded within 6 weeks.	Enforcement of Smoke Control Zone is reactive (complaints based). Cases are investigated by a letter to start with, then proportionately escalating depending upon the response, to arranged visits. There is good compliance with the Smoke Control Area across Bexley. 4 complaints concerning smoke from chimneys were received in 2024. Of these, two were not substantiated, one was compliant, using an authorised fuel and the fourth was a wood fired grill in an allotment shed. This was resolved without the need for formal intervention by using charcoal instead of wood as the fuel

Measure	LLAQM Action Matrix Theme	Action description	Estimated / Actual Completion Date	Outputs, targets and Key Performance Indicators	Action Taken in 2024
	Emissions from developments and buildings	Master planning and redevelopment areas aligned with Air Quality Positive and Healthy Streets Policies	2030	Output: Where masterplanning or redevelopment areas are used improving air quality is a key target for these schemes. Target: 100% of master planning and redevelopment areas are to include encouragement towards achieving Air Quality Positive results.	Master planning and redevelopment areas are only used occasionally. When they are used the Air Quality Positive and Healthy Streets Policies will be encouraged throughout the project. 2024 There were no Master Planning or redevelopment areas in 2024.
	Emissions from developments and buildings	Assessing impact of commercial cooking	2030	Output: collate an emission inventory of commercial kitchen extraction systems based on the Food premises register. Target: to be completed by Dec 2026 Output: To assess the locations and identify areas with a high concentration of commercial extracts, looking for clusters and close proximity to pollution sensitive premises. Target: Prioritise all commercial cooking extracts and establish a monitoring	As the contribution to urban pollution from road traffic decreases, secondary sources that have not seen a similar decrease will become more important as their relative contribution becomes more significant. This action is to develop an emission inventory for commercial cooking extracts so that areas with large numbers of these extracts can be identified. This will enable an inspection program to be produced. The extract system s can then be prioritised for inspection to ensure that they are all functioning correctly. 2024

Measure	LLAQM Action Matrix Theme	Action description	Estimated / Actual Completion Date	Outputs, targets and Key Performance Indicators	Action Taken in 2024
				programme by December 2027. Output: Implement the monitoring programme Target: For the first round, Inspect 100% cooking extract systems identified by December 2030 starting with highest priorities identified.	The project had not stared in this year.
	Public health and awareness raising	Public Health department taking shared responsibility for borough air quality issues and implementation of Air Quality Action Plans.	2030	Output: Number of public health contracts assessed, reviewed and renewed which include air quality positive requirements Target: this is an ongoing commitment	Air quality is recognised as a crosscutting theme and is embedded across various public health functions, including Environmental Protection, health intelligence, and children's and respiratory health. We aim to embed air quality requirements into future Public Health contracts.
	Public health and awareness raising	Promotion of availability of airTEXT	2030	Output: Increased awareness of the airTEXT programme. GPs kept aware of the availability of airTEXT Target: Share 100% of airTEXT alerts with subscribers. 100% of	Bexley is currently part of the airTEXT consortium and will continue to review the impact of this measure on behavioural change and share best practice with other members, for the duration of the plan.

Measure	LLAQM Action Matrix Theme	Action description	Estimated / Actual Completion Date	Outputs, targets and Key Performance Indicators	Action Taken in 2024
				high pollution alerts from GLA will also be shared with subscribers. share 100% of high alerts with stakeholders / retweet 100% high pollution alerts issued by MOL	2024 All airTEXT alerts are shared with Subscribers. Bexley continues to be part of this Pan London project to provide reliable predictions of air quality, and consequentially early warnings of high pollution levels for subscribers.
	Delivery, servicing and freight	Update of procurement policies to reduce pollution from logistics and servicing	2030	Output: Reduced emissions from vehicles used in Bexley contracts. Progressive improvements are required. Target: 100% of relevant procurement policies are to require logistics elements of contract to be zero emission capable by 2030	Bexley contracts currently require at least the minimum ULez standard for vehicles used in association with the contract. The policy does look for gradual improvement with zero emissions at tail pipe capability by 2030. The aim remains that all procurement looks for zero emission capability by 2030
	Borough fleet actions	Increasing the number of hydrogen, electric, hybrid, bio-methane and cleaner vehicles in the boroughs' fleet Smarter Driver Training for	2030	Output: Reduced emissions from vehicles used in Bexley contracts. Progressive improvements are required. Target:	Very small council fleet. 3 vehicles owned by grounds maintenance; 3 land rovers for specific projects (inspecting sites, safety for public and hence need off road vehicles). Used to lease but have now purchased 2 new vehicles. Waste team have a hybrid vehicle, libraries have 2 vehicles and a mayoral vehicle. Council

Measure	LLAQM Action Matrix Theme	Action description	Estimated / Actual Completion Date	Outputs, targets and Key Performance Indicators	Action Taken in 2024
		drivers of vehicles in Borough Own Fleet i.e. through training of fuel efficient driving and providing regular re-training of staff		All waste collection vehicles to be zero emission capable (at tailpipe) by 2030	have trialled electric waste collections vehicles. Theis raised a number of issues that require addressing before full roll out. The key impediment is lack of suitable recharging facilities, which will need to be fully addressed before a full roll out. The waste collection contract recognises that all waste collection vehicles used as part of the contract will be zero emission capable by 2030. Contract requires use telematics to monitor drivers' behaviour and investigate drivers who routinely use excessive acceleration or braking and who appear to be idling unnecessarily. They also closely monitor the volume of fuel each vehicle uses and will speak to drivers who appear to be using more fuel than expected. The contract requires. Procurement is moving towards zero emission capability in vehicles by 2030
	Localised solutions	Low emission neighbourhoods.	2030		Not being actively pursued at this time
	Cleaner Transport	Ensure that Transport and Air Quality	2030	Output: This action ensures that the most significant aspects of Bexley's activity, that is	Air quality risks will be fully evaluated in all transport feasibility studies and proposals.

Measure	LLAQM Action Matrix Theme	Action description	Estimated / Actual Completion Date	Outputs, targets and Key Performance Indicators	Action Taken in 2024
		projects are integrated		transportation management and local air quality management are working together rather than in opposition. Projects in LIP3 are coordinated with local air quality management. Target: Individual projects are highlighted in the Local Implementation Plan. Their timescale is shorter that this Air Quality Action Plan. This action is to enable reporting of these projects in the Annual Status Report. Heads of Transport will sign off AQAPs and review them annually.	
	Cleaner transport	Discouraging unnecessary idling by taxis, coaches and other vehicles (e.g. through anti-idling campaigns or enforcement activity)	2030	Output: Discouraging unnecessary engine idling, therefore reducing emissions. Target: 100% of service requests complaint about idling will be fully investigated in line with the Council's normal service standards.	We will take enforcement action to address persistent idling in target areas and identified by complaints. There are very few complaints about stationary idling in Bexley. We will continue to identify opportunities for local, and regional campaigns to target idling at hotspots. 2024 Bexley receive on service request concerning unnecessary

Measure	LLAQM Action Matrix Theme	Action description	Estimated / Actual Completion Date	Outputs, targets and Key Performance Indicators	Action Taken in 2024
					idling outside a primary school. The complaint was investigated and whilst it was found that no formal intervention was justified, the matter was referred to the school to communicate with parents and guardians to discourage the practice.
	Cleaner Transport	Regular temporary car free days	2030	Output: These days improve public awareness of the possible alternative transport modes, possibly resulting in some road users using alternative transport modes. Target: Bexley will participate and promote a Car Free day each year.	2024 This action was not in place in 2024
	Cleaner transport	Installation of Ultra-low Emission Vehicle (ULEV) infrastructure (electric vehicle charging points, rapid electric	2030	Output: Increased availability of electric vehicle recharging facilities encourages an increased take up of electric vehicles. The uptake is dependant upon the availability of refuelling/recharging facilities. Target: A total of 1000 units by 2030 (subject to funding)	2024 23 electric vehicle recharging posts were installed in the street and in public car parks. Each post was fitted with 2 sockets, so a total of 46 sockets were installed.

Measure	LLAQM Action Matrix Theme	Action description	Estimated / Actual Completion Date	Outputs, targets and Key Performance Indicators	Action Taken in 2024
		vehicle charging point and hydrogen refuelling stations)			
	Cleaner transport	Provision of infrastructure to support walking and cycling	2030	Output: Improving safe cycling infrastructure encourages more people to switch to low polluting active transport. Improved health and lower pollution is the result. Target: There are a number of schemes implemented to support walking and cycling. Proportions of trips made by walking and cyclin. Their timescales are usually shorter that theis Air Quality Action Plan. This action is included to enable reporting in the Annual Status Reports as these schemes are progressed and completed.	We will install cycle parking in affordable housing estates, and implement a range of public realm improvements particularly in Erith Town Centre, implemented under the Erith Links Programme. Local area accessibility is an ongoing programme of dropped kerbs, zebra crossings near to key locations such as near care homes, schools etc. New Cycle Hub at Abbey Wood.

3. Planning Update and Other New Sources of Emissions

Table N. Planning requirements met by planning applications in London Borough of Bexley in 2024

Condition	Number
Number of planning applications where an air quality impact assessment was reviewed for air quality impacts	7
Number of planning applications required to monitor for construction dust	0
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	0
Number of developments required to install Ultra-Low NOx boilers	0
Number of developments where an AQ Neutral building and/or transport assessments undertaken	7
Number of developments where the AQ Neutral building and/or transport assessments not meeting the benchmark and so required to include additional mitigation	0
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, 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 with the GLA through the relevant NRMM website and that all NRMM used on-site is compliant with Stage IV of the Directive and/or exemptions to the policy.	N/A
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.	7 conditions included 5 registered and compliant 2 not yet registered (consents not yet implemented). Auditing undertaken by London wide NRMM group led by L.B.Merton.

3.1 New or significantly changed industrial or other sources

No new sources identified.

4. Additional Activities to Improve Air Quality

4.3 Pan-London NRMM Auditing Project

All planning permissions for applications that are classified as "Major" application have conditions relating to both Construction Management Plans and Non Road Mechanical Machinery attached to them. Hese conditions are attached to the decision notice. The construction management plan requires the developer to submit a plan detailing the phasing of works, and the processes and methodology that will be relied upon to minimise adverse acoustic and air quality impacts from the construction phase.

The standard condition relating to the use of Non Road Mechanical Machinery states:

"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 comply with London Plan Policy SI 1 in the interests of maintaining local air quality. The Non-Road Mobile Machinery must be registered prior to the commencement of development, as it is used in the demolition/construction process."

There are two standard conditions relating to a construction/demolition management plan.

Dem/Con Management Plan

Prior to the commencement of development, a [Demolition and] Construction Management and Logistics Plan shall be submitted to and approved in writing by the Local Planning Authority. The Plan shall include details of:

The location of notice boards on the site to include details of the site manager, including contact details (phone, email, postal address) and 'out of hours' contact details;

A strategy for the parking of vehicles of site operatives and visitors;

A strategy for the loading and unloading of plant and materials;

A strategy for the storage of plant and materials used in constructing the development;

Details of days/hours of work and deliveries of construction materials;

Measures to be adopted to maintain the site in a tidy condition in terms of disposal/storage of rubbish, storage and unloading of building materials and similar construction activities;

Measures to be adopted to ensure that pedestrian access past the site on the public footpaths is safe and not (unduly) obstructed during construction works;

Construction site lighting;

Reasonable measures to be adopted, such as a restriction on the size of construction vehicles and machinery accessing the site, to minimise any potential damage occurring to adjacent streets throughout the construction period;

Location of vehicle and construction machinery access during the period of site works including identification of any works necessary to the public highway necessary to provide a means of access during the construction and/or operation of the development;

Numbers and timing of truck movements throughout the day and the proposed routes broken down by size of trucks;

Vehicle holding areas;

Construction traffic routes;

Means of minimising noise and vibration (including any piling), and compliance with BS 5228;

Procedures including wheel washing for controlling sediment runoff, dust and the removal of soil, debris and demolition and construction materials from public roads or places;

A Dust Management Plan, including details of mitigation measures for dust and emissions during demolition and construction along with a monitoring regime for the same in accordance with Air Quality: Best Practice Guidance - The Control of Dust and Emissions During Construction and Demolition Supplementary Planning Guidance (published by the Greater London Authority, July 2014);

A Demolition and Construction Site Waste Management Plan which includes details of managing demolition and construction waste having regard to the site waste hierarchy (prevention, reuse, recycling, recovery, safe disposal).

Location of workers' conveniences (e.g. toilets, showers); and,

Details of the erection and maintenance of security hoarding including decorative displays and facilities for public viewing, where appropriate.

The development hereby permitted shall only be carried out in accordance with the approved details.

Reason: In order to ensure that the construction of the development is undertaken in a manner which minimises its' effect on the local environment. These details are required at the start of the project as they relate to the construction works.

OR

Prior to the commencement of development, a [Demolition and] Construction Management and Logistics Plan shall be submitted to and approved in writing by the Local Planning Authority. The Plan shall include details of:

construction methods and techniques;

management of construction and associated vehicle movements and parking, including deliveries of construction materials.

means of minimising noise and vibration (including any piling), and compliance with BS 5228;

means of minimising dust and similar emissions, in accordance with Air Quality: Best Practice Guidance - The Control of Dust and Emissions During Construction and Demolition Supplementary Planning Guidance (published by the Greater London Authority, July 2014);

construction site lighting;

the location of notice boards on the site to include details of the site manager, including contact details (phone, email, postal address) and 'out of hours' contact details.

The development hereby permitted shall only be carried out in accordance with the approved details.

Reason: In order to ensure that the construction of the development is undertaken in a manner which minimises its' effect on the local environment. These details are required at the start of the project as they relate to the construction works.

4.4 Air Quality Alerts

Bexley supports the Pan Lond airTEXT project and also the Mayor's air quality alerts. Any predictions of "High" pollution levels are disseminated to Schols and GP surgeries.

4.5 Air Quality Positive

There have not been any air quality positive developments to date.

Appendix A Details of Monitoring Site Quality QA/QC

A.1 Automatic Monitoring Sites

Details of Monitoring Site QA/QC

Daily automatic calibration Zero air is generated by passing air through scrubbers and passed through the reaction cell. Span gas is generated by a permeation tube and passed to the reaction chamber to give the span calibration response. The daily automatic calibrations are used as a check on the instrument performance and drift.

Fortnightly analyser inspection and manual calibration.

Manual calibrations are carried out on a fortnightly basis using zero air generators and calibration gases traceable to national standards. The analyser is taken out of service and the inlet filter is changed prior to connecting the calibration gases. The zero air and span gases are run through the analyser and the responses noted together with the instrument gain factor. The output of the analyser is then adjusted to the correct certificated value and the new instrument gain factor noted. The calibrations are used to rescale the generated raw data from the analyser, using calculated instrument span factors. This work is carried out by the Environmental Research Group (ERG) at Kings College, London, who also handle the data from the stations on behalf of Bexley Council. Any anomalies noted during these fortnightly calibrations are followed up with a service call out, and additional checks are made on the data for that period. TEOM filters are changed when required in accordance with the manufacturer's instructions. Inlet heads are cleaned at this time.

Six Monthly Checks.

All stations are serviced in accordance with the manufacturer's recommendations at 6 monthly intervals. In addition, 6 monthly calibration checks are made by a third party (Ricardo) Data Ratification Measurements from analysers have to go through a number of checks before they are considered 'ratified'. The first stage of ratification occurs automatically as data is downloaded from the analysers. Data is checked by a series of protocols and then scaled using results from manual calibrations. Measurements appearing on the hourly bulletin ('current air quality') has undergone automatic checks only. 44 The second stage occurs each day as air quality analysts manually check the data, confirm any automatic checks and flag up any faults that require attention. Measurements appearing on the daily bulletin ('Yesterday's Air Quality') and the seven and 30 day graphs will have undergone this second stage. The third and fourth ratification stages occur in the coming months as more information becomes available. Data can be viewed over a longer time periods and results from fortnightly manual calibrations, equipment services and equipment audits can be considered. Measurements cannot be considered 'final' until all stages of the ratification process are complete. The time lag is usually between six month and a year.

PM10 Monitoring Adjustment

"The Volatile Correction Model" is used to correct TEOM measurements made at the Falconwood Roadside site. All statistics and readings from this site where quoted are TEOM x 1.3.

Measurements from BX1 Slade Green, BQ6 Belvedere West and BX2 Belvedere are made using FIDAS instruments. These are reference equivalent and do not require any post measurement manipulation of the data.

A.2 Diffusion Tubes

Diffusion tube methodology and results are set out in a separate report "Bexley Diffusion Tube Monitoring Survey – Project number: 60726514" by AECOM Limited. This is reproduced in full in Appendix B

Discussion of Choice of Factor to Use

Table O. Bias Adjustment Factor

Year	Local or National	If National, Version of National Spreadsheet	Adjustment Factor
2024	National	V04/25	0.88

Defra's National Diffusion Tube Bias Adjustment Factors sheet[2] (v04/25) was used to determine the appropriate national bias adjustment factor for 2024. A national bias adjustment factor of 0.88 for the laboratory used, Gradko and the analysis method 50% TEA in Acetone, was used at all sites.

The diffusion tube data have been corrected for bias using an adjustment factor. Bias represents the overall tendency of the diffusion tubes to under or over-read relative to the reference chemiluminescence analyser. LAQM TG.22 provides guidance with regard to the application of a bias adjustment factor to correct diffusion

[2] Defra (2025). National Bias Adjustment Factor. Available at: https://laqm.defra.gov.uk/air-quality/air-quality-assessment/national-bias/

tube monitoring. The national database of diffusion tube co-location surveys provides bias factors for the relevant laboratory and preparation method.

Triplicate co-location studies can be used to determine a local bias factor based on the comparison of diffusion tube results with data taken from NOx/NO2 continuous analysers.

A combined local bias adjustment factor of 0.74 was calculated from the two co-located sites at Slade Green and Falconwood continuous monitoring stations. This factor is lower than the national bias adjustment factor of 0.88 in 2024.

A.3 Adjustments to the Ratified Monitoring Data

Short-term to Long-term Data Adjustment

No short ter to long term data adjustment has been made except for annualization where data capture is low.

Distance Adjustment

No Distance adjustment was necessary.

Table P. Non-Automatic Monitoring Data Adjustment

Site ID	Annualisation Factor London Bexley	Annualisation Factor Soutwark A2 Old Kent Road	Annualisation FactorThorrock	Average Annualisation Factor	Raw Data Annual Mean (µg m^{-3})	Annualised Annual Mean (µg m^{-3})
BEX_5	1.1062	1.0917	1.0582	1.0854	21.4	20.5
BEX_13	1.0183	1.0078	0.9935	1.0065	17.3	14.9
BEX_14	0.9574	0.9826	0.9959	0.9786	17.6	15.6
BEX_16	1.1062	1.0917	1.0582	1.0854	20.5	17.7

Table Q. Automatic NO_2 Monitoring Data Adjustment- Belvedere West BQ7

Background Site	Annual Data Capture (%)	Annual Mean (A_m)	BQ7 Belvedere West	
			Period Mean (P_m)	Ratio (A_m / P_m)
Belvedere	94%	14.9	11	0.972
Lambeth – Streatham Green	100%	17.2	17.8	0.969
Lewisham – Deptford	91	14.9	15.4	0.967
Southwark – Elephant and Castle	96	15.7	16.1	0.974
Average (R_a)			0.97	
Raw Data Annual Mean (M)			13	
Annualised Annual Mean (M x R_a)			12.6	

Table R. Automatic PM_{10} Monitoring Data Adjustment - Belvedere West BQ7

Background Site	Annual Data Capture (%)	Annual Mean (A_m)	Belvedere West BQ7 (67%)	
			Period Mean (P_m)	Ratio (A_m / P_m)
Belvedere	96	12.4	12.2	1.013
Lambeth – Streatham Green	97	15.7	15.8	0.992
Southwark Elephant and Castle	97	12.6	12.6	1.004
Average (R_a)			1.003	
Raw Data Annual Mean (M)			11	
Annualised Annual Mean (M x R_a)			11	

Table S. Automatic $PM_{2.5}$ Monitoring Data Adjustment - Belvedere West BQ7 and Falconwood GB6

Background Site	Annual Data Capture (%)	Annual Mean (A_m)	Belvedere West BQ7 (67%)		Falconwood GB6 (69%)	
			Period Mean (P_m)	Period Mean (P_m)	Ratio (A_m / P_m)	Ratio (A_m / P_m)
Belvedere BX2	96	7.3	7.5	7.5	0.98	0.98
Lewisham – Deptford LW5	98	8.6	9	9	0.957	0.957
Southwark – Elephant and Castle	97	7.8	8.1	8.1	0.971	0.971
Average (R_a)			0.969		0.99	
Raw Data Annual Mean (M)			7		9	
Annualised Annual Mean (M x R_a)			6.8		8.9	

Table T. NO_2 Fall off With Distance Calculations

No distance correction has been carried out for any site. Fall off with distance adjustments are not required as all bias-adjusted monitored concentrations are below 36 µg/m^3. Therefore, taking into account the inherent uncertainty in diffusion tube monitoring, compliance with the NO_2 annual objective of 40 µg/m^3 at relevant exposure can be presumed.

Appendix B Full Monthly Diffusion Tube Results for 2024

Table U. NO_2 2024 Diffusion Tube Results (µg m^{-3})

Tube ID	X	Y	NO_2 Monthly Mean Concentrations (µg/m^3)												Annual Mean (µg/m^3)	
			January	February	March	April	May	June	July	August	September	October	November	December	Raw Data	Annualised and National Bias Adjusted (0.88)
BEX1a	551430	177811	35.6	34.2	34.7	28.6	29.1	27.6	27.1	25.7	29.9	33.9	33.4	27.9	-	-
BEX1b	551430	177811	35.3	32.8	34.4	30.0	27.3	24.7	29.7	28.3	30.6	32.9	39.5	26.1	30.8	27.1
BEX2a	551609	177573	29.0	29.8	25.5	23.6	20.0	21.9	22.9	24.6	25.4		28.6	14.2	-	-
BEX2b	551609	177573	29.6	27.7	27.2	24.3	21.8	22.6	25.2	21.7	24.5		32.6	21.8	24.8	21.8
BEX4a	551570	177244	29.3	25.2	25.1	15.1	26.4	20.7	20.1	19.4	22.3	31.0	38.1	18.2	-	-
BEX4b	551570	177244	26.9	22.7	24.7	17.5	22.0	20.8	20.8	20.5	23.0		29.1	20.3	23.8	20.9
BEX3a	551585	177374	31.7	32.7	36.9	27.6	33.3	31.7	36.3	33.2	35.0	36.6	34.2	29.0	-	-
BEX3b	551585	177374	35.8	36.7	35.7	32.9	35.4	33.5	34.8	32.4	33.3	40.7	41.7	29.9	34.2	30.1
BEX6a	551614	177060	26.5	21.4	22.3	15.9	20.3	16.9	17.6	18.4	21.9	26.9	26.7	19.5	-	-
BEX6b	551614	177060	27.8	23.7	20.7	17.6	18.2	17.4	17.8	18.8	19.9	24.5	31.9	19.4	21.3	18.8
BEX7a	551595	176965	30.7	24.7	25.4	20.2	21.5	21.4	20.9	19.8	23.0	26.9	27.2	20.8	-	-
BEX7b	551595	176965	34.1	23.4	24.0	18.8	22.7	19.9	18.4	19.3	24.0	25.0	32.7	21.2	23.6	20.8
BEX10a	551660	176478			27.0			24.3	19.3	15.1	27.1	28.5	31.5	21.2	-	-
BEX10b	551660	176478	30.1		25.0			22.7	23.1	16.2	26.3	31.4	32.2	21.3	25.1	22.1
BEX_SGa	551864	176382	22.2	17.4	20.4	12.7	16.7	14.1	13.8	21.1	16.1			15.7	-	-
BEX_SGb	551864	176382	19.3	20.3	19.4	13.0	15.0	14.3	12.6	19.9	17.0			13.3	-	-
BEX_SGc	551864	176382	21.7	16.8	18.8	11.5	15.5	13.6	13.1	14.1	17.6			15.8	16.4	14.5
BEX8a	551546	176850	36.2	27.2	30.8	23.3	20.7	28.0	25.5	15.9	29.2	33.0	38.4	26.5	-	-
BEX8b	551546	176850	35.6	28.7	30.4	25.8	20.7	27.1	26.7	16.7	21.4	28.9	32.2	25.3	27.3	24.0

			NO_2 Monthly Mean Concentrations (µg/m^3)												Annual Mean (µg/m^3)	
Tube ID	X	Y	January	February	March	April	May	June	July	August	September	October	November	December	Raw Data	Annualised and National Bias Adjusted (0.88)
BEX9a	551549	176767	19.9	19.7	20.2	13.9	29.0	16.4	16.6	20.9	19.9	22.7	26.2	19.1	-	-
BEX9b	551549	176767	21.6	18.2	20.8	14.6	30.1	15.5	15.6	19.2	21.1	24.8	32.2	17.3	20.6	18.2
BEX20a	545748	174825	27.9	19.8	18.7	16.7	19.9	16.7	15.1	14.7	24.7	22.4	29.4	17.6	-	-
BEX20b	545748	174825	20.4	20.6	21.1	18.0	18.7	16.5	15.1	13.7	20.6	23.9	29.8	21.6	20.1	17.7
BEX19a	545644	174859	25.6	17.4	21.4	16.4	20.2	16.0	14.8	14.3	21.7	21.6	30.2	17.8	-	-
BEX19b	545644	174859	27.4	19.1	20.5	16.8	20.5	15.8	14.7	13.4	21.2	23.3	27.5	17.6	19.8	17.4
BEX_FWa	545003	175099	30.9	25.2	28.7	22.0	26.2	23.9		33.8	27.3	29.5	31.7	23.6	-	-
BEX_FWb	545003	175099	24.5	25.8	27.8	21.4	28.9	24.8	21.8	22.9	28.1	29.1	30.8	17.5	-	-
BEX_FWc	545003	175099	23.8	24.6	23.2	19.3	29.3	23.9	21.2	22.1	30.0	31.4	28.3	20.9	25.7	22.6
BEX15a	545092	175065	35.0	28.0	29.3	22.8	28.0	23.9	22.9	25.0	29.7	31.0	38.9	25.6	-	-
BEX15b	545092	175065	32.3	25.4	25.5	20.6	28.3	26.9	24.3	24.4	30.9	20.6	33.0	29.3	27.6	24.3
BEX14a	545085	175019	24.0	16.3	17.6	12.2	15.5	12.9							-	-
BEX14b	545085	175019	23.7	17.6	19.1	13.6	17.3	13.4		12.0			27.1		17.6	15.6
BEX13a	545090	174988		17.8	15.2	11.5	15.3			11.9			22.0		-	-
BEX13b	545090	174988	25.4	16.1	17.8	12.3	16.2			12.8					17.3	14.9
BEX11a	544760	175232	23.9	22.0	19.4	16.5	21.5	19.6	21.2	19.4	23.1	25.7	26.6	16.3	-	-
BEX11b	544760	175232	26.6	25.2	26.2	17.1	20.8	20.6	19.9	20.0	21.9	25.7	29.5	17.4	21.9	19.3
BEX12a	544867	175192	26.4	25.1	22.5	15.8	19.4	17.9	20.4	18.4	19.4	25.0	26.6	21.2	-	-
BEX12b	544867	175192	26.0	17.8	21.8		19.8	19.8	19.0	19.5	19.2	24.6	24.3	18.1	21.0	18.5
BEX16a	545272	175057	23.6		23.2	16.0	19.7			18.1			26.7	18.6	-	-
BEX16b	545272	175057	22.5		22.8	16.0	18.4			20.8			24.0	17.4	20.5	17.7
BEX18a	545623	174960	25.2	20.1	21.3	14.9		15.4	15.2	15.7	18.7	20.3	24.6	21.5	-	-
BEX18b	545623	174960	27.0	21.0	21.8	14.2	16.0	15.4	14.7	16.2	17.0	21.1	27.8	15.7	19.0	16.8

Tube ID	X	Y	NO_2 Monthly Mean Concentrations (µg/m^3)												Annual Mean (µg/m^3)	
			January	February	March	April	May	June	July	August	September	October	November	December	Raw Data	Annualised and National Bias Adjusted (0.88)
BEX17a	545600	174928	26.9	23.8	21.1	15.5	20.7	20.5	19.4	19.8	19.3	28.0	31.3	24.3	-	-
BEX17b	545600	174928	27.1	25.9	25.1	17.8	22.1	18.7	19.4	18.6	23.0	27.3	28.1	21.4	22.7	20.0
BEX5a	551627	177213			23.7	16.6	21.5	20.6	21.4	19.9				20.8	-	-
BEX5b	551627	177213			22.8	17.6	20.9	21.2	20.8				26.4	22.5	21.4	20.5

☒ **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 LLAQM.TG19.**

☐ **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 Bexley confirm that all 2024 diffusion tube data has been uploaded to the Diffusion Tube Data Entry System (confirm by selecting in box).**

Notes:

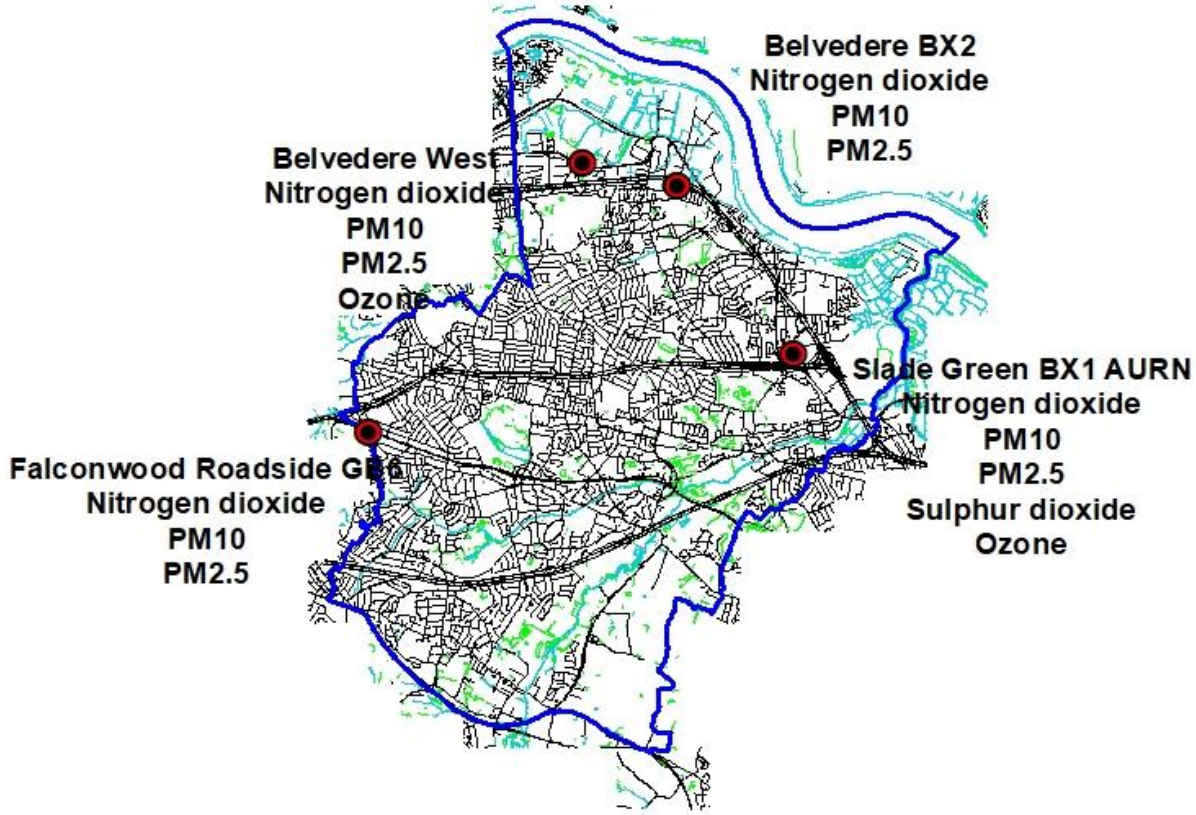
Exceedances of the NO_2 annual mean objective of 40µg m^{-3} are shown in **bold**.

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 C for details on bias adjustment and annualisation.

Appendix C Map(s) of Monitoring Locations and AQMAs

Map 3 - Continuous monitoring stations.



Annex 1 - Bexley Diffusion Tube Monitoring Survey