

Royal Borough of Greenwich Air Quality Annual Status Report for 2024

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This report provides a detailed overview of air quality in Royal Borough of Greenwich during 2024. It has been produced to meet the requirements of the London Local Air Quality Management (LLAQM) statutory process¹.

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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	
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 not 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) Environmental Target Regulations under the Environment Act 2021

(4) 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?	Which AQMA?	Monitoring Technique	Distance to Relevant Exposure (m) ⁽¹⁾	Distance to kerb of nearest road (m) ⁽²⁾	Inlet Height (m)
GR4	Eltham	Suburban	543978	174655	NO ₂ , PM ₁₀ , PM _{2.5} , and O ₃	Y	N/A	Chemiluminescent FIDAS	Y (0)	N/A	5
GN5	Hoskins St	Roadside	539018	178007	NO ₂ , PM ₁₀ , PM _{2.5}	Yes	N/A	Chemiluminescent and TEOM	0.0	5.0	3.0
GB6	Falconwood	Roadside	544997	175098	NO ₂ , PM ₁₀ , PM _{2.5}	Yes	N/A	Chemiluminescent, TEOM, FDMS	5.0	1.2	3.0
GN6	John Harrison Way	Roadside	539687	179123	NO ₂ , PM ₁₀ , PM _{2.5}	Yes	N/A	Chemiluminescent, TEOM, FDMS	0.0	3.0	3.0
GR7	Blackheath	Roadside	538141	176710	NO ₂ , PM ₁₀	Yes	N/A	Chemiluminescent, TEOM	0.0	10.0	3.0

GR8	Woolwich Flyover	Roadside	540200	178367	NO2, PM10, PM2.5	Yes	N/A	Chemiluminescent, TEOM, BAM	0.0	3.0	3.0
GR9	Westthorpe Avenue	Roadside	541879	175016	NO2, PM10, PM2.5	Yes	N/A	Chemiluminescent, TEOM, FDMS	0.0	12.0	3.0
GN0	Burrage Grove	Roadside	544084	178881	NO2, PM10, PM2.5	Yes	N/A	Chemiluminescent, TEOM, FDMS	1.0	12.0	3.0
GN3	Plumstead High St	Roadside	545560	178526	NO2, PM10, PM2.5	Yes	N/A	Chemiluminescent, TEOM, FDMS	0.0	5.0	3.0
GN4	Fiveways Sidcup	Roadside	543582	172653	NO2, PM10	Yes	N/A	Chemiluminescent, TEOM	5.0	2.0	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? 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)
GW23	Siebert Rd	Roadside	540420	177706	NO2	YES	17.2	2.0	No	2.0
GW24	Plumstead Common Rd	Roadside	543806	177951	NO2	YES	3.0	2.0	No	2.0
GW25	Eltham Rd	Roadside	540099	174881	NO2	YES	3.0	2.0	No	2.0
GW26	Foots Cray Rd	Roadside	544015	173139	NO2	YES	0.5	2.0	No	2.0
GW27	Charlton Village	Roadside	541645	177874	NO2	YES	0.5	2.0	No	2.0
GW29	Woolwich Rd	Roadside	541167	178512	NO2	YES	1.5	2.0	No	2.0
GW32	Banchory Rd	Roadside	540664	177235	NO2	YES	17.1	2.0	No	2.0
GW33	Blackheath Hill	Roadside	537971	176776	NO2	YES	1.5	2.0	No	2.0
GW34	Bannockburn School	Roadside	545490	178543	NO2	YES	3.0	2.0	No	2.0
GW35	Woolwich Rd Greenwich	Roadside	539527	178281	NO2	YES	1.5	2.0	No	2.0
GW36	Boord St	Roadside	539320	179234	NO2	YES	30.0	2.0	No	2.0
GW37	De Lucy school	Urban Background	546630	179557	NO2	YES	215.0	2.0	No	2.0

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)
GW38a	Westthorne Av	Urban Background	541885	175045	NO2	YES	30.0	2.0	No	2.0
GW39a, GW39b, GW39c	Bexley Rd ECC	Urban Background	543986	174660	NO2	YES		2.0	Yes	2.0
GW40	Sherewsbury House	Urban Background	544065	176996	NO2	YES	575.0	2.0	No	2.0
GW41	Sidcup	Roadside	543391	172765	NO2	YES	3.0	2.0	No	2.0
GW42	Greenwich Church St	Roadside	538317	177652	NO2	YES	2.0	2.0	No	2.0
GW43	Creek Rd	Roadside	537353	177632	NO2	YES	2.0	2.0	No	2.0
GW44	Eltham High St	Roadside	543096	174439	NO2	YES	3.6	2.0	No	2.0
GW106	Gran Depot Rd	Roadside	543505	178576	NO2	YES	1.0	2.0	No	2.0
GW48	Greenwich South St	Roadside	538044	176960	NO2	YES	2.5	2.0	No	2.0
GW49	Woolwich High St	Roadside	543472	179217	NO2	YES	1.0	2.0	No	2.0

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)
GW50a, GW50b, GW50c	Woolwich Flyover	Roadside	540203	178367	NO2	YES	3.0	2.0	Yes	2.0
GW51	Bugsby Way	Roadside	539638	179024	NO2	YES	2.0	2.0	No	2.0
GW52	Woolwich High St	Roadside	542842	179108	NO2	YES	1.5	2.0	No	2.0
GW53	Shooters Hill Rd	Roadside	542181	176878	NO2	YES	1.5	2.0	No	2.0
GW54	Westhorne Av	Roadside	541915	175039	NO2	YES	2.5	2.0	No	2.0
GW55a, GW55b, GW55c	Crown Woods Way	Roadside	545005	175097	NO2	YES	1.2	2.0	Yes	2.0
GW56	Sidcup Rd	Roadside	543679	172598	NO2	YES	1.5	2.0	No	2.0
GW57a	Trafalgar Rd	Roadside	538968	177955	NO2	YES	7.0	2.0	No	2.0
GW58a, GW58b, GW58c	Blackheath Hill	Roadside	538143	176712	NO2	YES	10.0	2.0	Yes	2.0

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)
GW59a, GW59b, GW59c	Westthorne Av	Roadside	541883	175016	NO2	YES	12.0	2.0	Yes	2.0
GW60a, GW60b, GW60c	Burrage Grove	Roadside	544086	178882	NO2	YES	12.0	2.0	Yes	2.0
GW101	Plumstead Rd	Roadside	544727	178884	NO2	YES	1.0	2.0	No	2.0
GW102	Plumstead Rd	Roadside	544075	178898	NO2	YES	1.0	2.0	No	2.0
GW61a, GW61b, GW61c	John Harrison Way	Roadside	539687	179123	NO2	YES	3.0	2.0	Yes	2.0
GW31	Deansfield School	Roadside	543383	175664	NO2	YES	3.0	2.0	No	2.0
GW103	Wricklemarsh Rd	Roadside	540935	176575	NO2	YES	9.0	2.0	No	2.0
GW104	Sun lane	Roadside	540743	177072	NO2	YES	12.5	2.0	No	2.0
GW105	Clifton Roundabout	Roadside	541143	174294	NO2	YES	5.0	2.0	No	2.0

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)
GW30	Indus Rd	Roadside	541372	177070	NO2	YES	5.0	2.0	No	2.0
GW28	Dunblane Rd	Roadside	542656	176207	NO2	YES	7.5	2.0	No	2.0

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.

1.2 Comparison of Monitoring Results with AQOs

Table D. Annual Mean NO₂ 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
GR4	543978	174655	Suburban	N/A	N/A	16	17	15	15	10.3	Temp closed	Temp closed
GN5	539018	178007	Roadside	99.6	99.3	43	41	34	33	32	30.9	28.5
GB6	544997	175098	Roadside	96.1	95.6	39	36	27	27	22	17.4	16.8
GN6	539687	179123	Roadside	98.1	97.8	34	33	26	25	23	22	19.8
GR7	538141	176710	Roadside	99.6	99.3	35	38	29	30	27	28	26.3
GR8	540200	178367	Roadside	99.7	82.6	57	52	43	40	40	33.1	33.9
GR9	541879	175016	Roadside	99.4	91.0	38	34	25	26	23.6	21	18.9
GN0	544084	178881	Roadside	96.9	88.7	35	33	26	27	26	23	20.2
GN3	545560	178526	Roadside	90.9	83.2	33	34	30	25	25	23	20.6
GN4	543582	172653	Roadside	97.4	89.2	40	37	26	31	27	24	20.7

Notes:

The annual mean concentrations are presented as µg m⁻³.

Exceedances of the NO₂ annual mean AQO of 40 µg m⁻³ are shown in **bold**.

NO₂ annual means in excess of 60 µg m⁻³, indicating a potential exceedance of the NO₂ hourly mean AQS objective are shown in **bold and underlined**.

Means for diffusion tubes have been corrected for bias.

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

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%).

Table E. Annual Mean NO₂ 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 2024 (%) ⁽²⁾	2018	2019	2020	2021	2022	2023	2024
GW23	540420	177706	Roadside	100	100.0	31.1	34.6	27.0	28.0	23.0	24.0	21.9
GW24	543806	177951	Roadside	91.67	90.3	45.8	44.8	35.0	37.0	29.0	31.0	32.0
GW25	540099	174881	Roadside	91.67	92.4	32.2	32.2	27.0	27.0	23.0	21.6	20.9
GW26	544015	173139	Roadside	100	100.0	23.8	26.5	22.0	22.0	18.0	16.1	15.7
GW27	541645	177874	Roadside	83.33	83.2	31.9	34.9	26.0	26.0	23.0	25.8	22.7
GW29	541167	178512	Roadside	100	100.0	53.8	49.2	39.0	38.0	29.0	30.4	27.7
GW32	540664	177235	Roadside	100	100.0	39.3	39.5	32.0	30.0	26.0	25.1	21.5
GW33	537971	176776	Roadside	100	100.0	46.6	47.4	37.0	37.0	31.0	33.6	32.6
GW34	545490	178543	Roadside	100	100.0	33.9	35.3	30.0	28.0	26.0	24.9	22.4
GW35	539527	178281	Roadside	91.67	92.4	48.9	52.9	42.0	34.0	29.0	30.6	28.9
GW36	539320	179234	Roadside	100	92.2	46.9	49.3	41.0	30.5	23.0	23.9	22.5
GW37	546630	179557	Urban Background	100	100.0	21.0	21.9	18.0	18.0	14.0	14.4	14.7

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 2024 (%) ⁽²⁾	2018	2019	2020	2021	2022	2023	2024
GW38a	541885	175045	Urban Background	100	100.0	28.3	29.0	22.0	23.0	21.0	18.6	17.2
GW39a, GW39b, GW39c	543986	174660	Urban Background	100	100.0	17.2	18.5	15.0	16.0	14.0	11.8	10.7
GW40	544065	176996	Urban Background	100	100.0	16.9	18.2	16.0	15.0	16.6	11.1	10.7
GW41	543391	172765	Roadside	100	100.0	44.9	47.7	36.0	31.0	27.0	25.3	22.2
GW42	538317	177652	Roadside	100	100.0	40.1	39.8	32.0	32.0	27.0	28.9	25.8
GW43	537353	177632	Roadside	100	100.0	43.5	44.2	33.0	29.0	26.0	25.8	22.8
GW44	543096	174439	Roadside	100	100.0	43.5	47.8	39.0	42.0	34.0	37.0	36.1
GW106	543505	178576	Roadside	100	100.0	35.5	36.0	31.0	30.0	27.0	25.5	24.1
GW48	538044	176960	Roadside	83.33	84.6	33.1	37.8	31.0	28.0	26.0	29.0	28.0
GW49	543472	179217	Roadside	100	100.0	41.8	43.8	33.0	31.0	28.0	27.9	28.6
GW50a, GW50b, GW50c	540203	178367	Roadside	91.67	90.3	54.3	53.2	49.0	41.0	36.0	38.7	37.1

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 2024 (%) ⁽²⁾	2018	2019	2020	2021	2022	2023	2024
GW51	539638	179024	Roadside	100	100.0	37.0	39.0	30.0	29.0	26.0	27.0	24.3
GW52	542842	179108	Roadside	91.67	90.8	37.2	36.6	24.0	24.0	20.0	19.6	19.5
GW53	542181	176878	Roadside	83.33	82.7	29.0	29.8	24.0	24.0	22.0	21.5	20.3
GW54	541915	175039	Roadside	91.67	92.4	50.6	53.0	41.0	40.0	34.0	31.7	29.6
GW55a, GW55b, GW55c	545005	175097	Roadside	100	100.0	42.1	39.9	30.0	29.0	27.0	23.6	22.3
GW56	543679	172598	Roadside	100	100.0	40.6	39.1	32.0	29.0	25.0	26.1	21.3
GW57a	538968	177955	Roadside	100	100.0	29.5	29.7	24.0	24.0	20.0	21.1	20.5
GW58a, GW58b, GW58c	538143	176712	Roadside	100	100.0	37.9	36.6	29.0	30.0	27.0	25.4	25.0
GW59a, GW59b, GW59c	541883	175016	Roadside	100	100.0	35.4	33.7	25.0	25.0	23.0	21.9	19.5

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 2024 (%) ⁽²⁾	2018	2019	2020	2021	2022	2023	2024
GW60a, GW60b, GW60c	544086	178882	Roadside	100	100.0	29.5	29.3	24.0	21.3	21.0	20.3	19.3
GW101	544727	178884	Roadside	75	75.0	56.5	53.8	44.0	41.0	36.0	40.9	41.6
GW102	544075	178898	Roadside	100	100.0	50.5	51.5	50.0	42.0	34.7	36.5	38.9
GW61a, GW61b, GW61c	539687	179123	Roadside	100	100.0	31.9	32.8	26.0	23.0	23.0	25.0	23.4
GW31	543383	175664	Roadside	100	100.0	26.3	26.0	20.0	21.0	19.0	23.7	21.3
GW103	540935	176575	Roadside	91.67	92.4	35.9	35.1	29.0	28.0	21.0	24.1	22.7
GW104	540743	177072	Roadside	91.67	92.4	43.7	44.9	40.0	31.0	28.0	28.2	27.9
GW105	541143	174294	Roadside	91.67	92.4	46.5	46.0	36.0	36.0	29.0	31.0	28.2
GW30	541372	177070	Roadside	91.67	92.4	33.6	32.7	27.0	26.0	23.0	23.4	22.7
GW28	542656	176207	Roadside	91.67	92.4	31.3	29.8	22.0	23.0	19.0	19.4	17.0

☒ 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 $\mu\text{g m}^{-3}$.

Exceedances of the NO_2 annual mean objective of $40\mu\text{g m}^{-3}$ are shown in **bold**.

NO_2 annual means exceeding $60\mu\text{g m}^{-3}$, 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%).

Table F. NO₂ 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
GN5	539018	178007	Roadside	99.7	91.2	1	0	0	0	0	0(70)	0
GB6	544997	175098	Roadside	86.2	78.9	0	0	0	0	0	0(51)	0 (72)
GN6	539687	179123	Roadside	98.1	89.8	0	0	0	0	0	0	0
GR7	538141	176710	Roadside	99.7	91.2	0	0	0	0	0	0	0
GR8	540200	178367	Roadside	99.7	82.6	0	0	0	0	0	0(95)	0 (92)
GR9	541879	175016	Roadside	99.4	91.0	0	0	0	0	0 (91)	0	0
GN0	544084	178881	Roadside	96.9	88.7	0	0	0	0	0	0	0
GN3	545560	178526	Roadside	90.9	83.2	0	0	0	0	0	0	0 (85)
GN4	543582	172653	Roadside	97.4	89.2	0	0	1	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 NO₂ short term AQO of 200 µg m⁻³ over the permitted 18 hours per year are shown in **bold**.

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

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

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

Table G. Annual Mean PM₁₀ 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
GN5	539018	178007	Roadside	99.6	99.3	22	22	19	19	18.8	16	16.3
GB6	544997	175098	Roadside	96.1	95.6	21	19	18	19	17.7	15.8	15.0
GN6	539687	179123	Roadside	98.1	97.8	15	14	19	20	19	16	16.3
GR7	538141	176710	Roadside	99.6	99.3	22	20	19	19	17	14	14.4
GR8	540200	178367	Roadside	98.6	93.6	25	23	21	20	18	16.4	19.2
GR9	541879	175016	Roadside	96.8	96.5	18	15	19	17	19	15	15.3
GN0	544084	178881	Roadside	95.0	94.7	18	17	15	13	14.3	13	13.5
GN3	545560	178526	Roadside	99.8	99.5	18	16	15	13	13.9	12	12.8
GN4	543582	172653	Roadside	99.6	99.3	25	25	23	21	15	14	14.9

Notes

The annual mean concentrations are presented as µg m⁻³.

Exceedances of the PM₁₀ 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. PM₁₀ Automatic Monitoring Results: Comparison with 24-Hour Mean Objective, Number of PM₁₀ 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
GN5	539018	178007	Roadside	99.6	99.3	4	12	6	2	4(30.8)	1	0
GB6	544997	175098	Roadside	96.1	95.6	2	8	6	4	4(27.8)	0(26.5)	0
GN6	539687	179123	Roadside	98.1	97.8	0	6	3	3	3	3	0
GR7	538141	176710	Roadside	99.6	99.3	5	7	5	2	3	0	0
GR8	540200	178367	Roadside	98.6	93.6	6	10	5	5	5	2(26.4)	2
GR9	541879	175016	Roadside	96.8	96.5	4	2	5	1	5	0	0
GN0	544084	178881	Roadside	95.0	94.7	3	7	0	0	3(24.9)	0	0
GN3	545560	178526	Roadside	99.8	99.5	1	5	4	0	0(22.1)	0	0
GN4	543582	172653	Roadside	99.6	99.3	10	17	8	3	3	0	1

Notes

Exceedances of the PM₁₀ 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
GN5	539018	178007	Roadside	98.8	90.4	9	9	8	7.7	8	6.5	6.9
GB6	544997	175098	Roadside	78.8	60.7	13	12	10	13	9.5	8.7	8.9
GN6	539687	179123	Roadside	97.3	89.0	10	11	9	11	10	8.2	7.3
GR8	540200	178367	Roadside	80.1	80.1	12	11	10	11.5	12	-	9.0
GR9	541879	175016	Roadside	96.1	87.9	11	10	8	7	8.7	10	8.7
GN0	544084	178881	Roadside	99.7	91.2	13	11	12	11	12	-	8.8
GN3	545560	178526	Roadside	99.9	91.4	13	13	9	9.4	8.2	7	9.2

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%).

Table J. Other Pollutants

O3 Automatic Monitoring Results: 100ug/m3 as an 8 hour mean, not to be exceeded more than 10 times a year

Site ID	Valid data capture for monitoring period % ^(a)	Valid data capture 2024 % ^(b)	2024
GB6	65	65	9
GR8		87	6
GR9		99	3
GN3	64	64	2

Please note: The low capture rate at both GB6 and GN3 is due to technical problems with the Ozone analysers.

2. Action to Improve Air Quality

2.1 Air Quality Management Areas

Air Quality Management Areas (AQMA) 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 AQMA declared by Royal Borough of Greenwich can be found in Table K. The table presents a description of the one AQMA that is currently designated within Royal Borough of Greenwich. Appendix C provides maps of the AQMA and also the air quality monitoring locations in relation to the AQMA. The air quality objectives pertinent to the current AQMA designation are as follows:

- <NO₂ annual mean
- <PM₁₀ 24-hour mean

Table K. 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	Level of Exceedance: Current Year	Number of Years Compliant with Air Quality Objective	Name and Date of AQAP Publication	Web Link to AQAP
Greenwich AQMA	01/07/2001	Nitrogen dioxide NO ₂	The entire Borough	YES	NO ₂ - 49 µg m ⁻³	NO ₂ - 41.6 µg m ⁻³ PM ₁₀ - 19.2 µg m ⁻³	Not yet compliant	Royal Borough of Greenwich	Link here

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	Level of Exceedance: Current Year	Number of Years Compliant with Air Quality Objective	Name and Date of AQAP Publication	Web Link to AQAP
		Particulate matter PM ₁₀			PM ₁₀ - 27 µg m ⁻³			AQAP 2023-2027	

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

☒ Royal Borough of Greenwich **confirm that all current AQAPs have been submitted to GLA.**

2.2 Air Quality Action Plan Progress

Royal Borough of Greenwich adopted a new AQAP for 2023-2027.

Table L provides a brief summary of Royal Borough of Greenwich's progress against the Air Quality Action Plan, showing progress made this year. New projects which commenced in 2024 are shown at the bottom of the table.

Table L. Delivery of Air Quality Action Plan Measures

Measure	LLAQM Action Matrix Theme	Action	Estimated / Actual Completion Date	Organisations Involved	Progress <ul style="list-style-type: none"> Emissions/Concentration data Benefits Negative impacts / Complaints
1	Localised solutions	Undertake a review of our current Smoke Control Orders first implemented in the 1960s to ensure that they are still fit for purpose. Where necessary look to revoke any current Smoke Control Orders and consult on and implement a new single Borough wide Smoke Control Order	Review of SCO- 2026	Local Authority-Environmental Health	Not yet started

Measure	LLAQM Action Matrix Theme	Action	Estimated / Actual Completion Date	Organisations Involved	Progress <ul style="list-style-type: none"> Emissions/Concentration data <ul style="list-style-type: none"> Benefits Negative impacts / Complaints
2	Localised solutions	We are embarking on an ambitious goal to establish 21 new School Streets and enhance the existing 11, resulting in implementing a total of 32 schemes.	2026-2027	Local Authority-Transport	Discussions and planning are ongoing to gather baseline emissions data.
3	Partnership working and raising awareness	We are working in partnership with multiple London Boroughs (co-led by LB Hounslow and LB Camden) to reduce commercial sector vehicle engine idling through engagement and public campaigns. The project will conclude with a research project to assess occupational exposure to air pollutants with vehicles.	2027	Local Authority-Environmental Health	Year one public awareness campaign has been completed.

Measure	LLAQM Action Matrix Theme	Action	Estimated / Actual Completion Date	Organisations Involved	Progress <ul style="list-style-type: none"> Emissions/Concentration data <ul style="list-style-type: none"> Benefits Negative impacts / Complaints
1	Monitoring and other core statutory duties	Action 1.1: Complete a review of our existing automatic and diffusion tube monitoring within the borough, to ensure sites remain relevant and to achieve a high standard of data capture.	Ongoing	Local Authority-Environmental Health and Transport Breathe London PLA	The Royal Borough has one of the largest real time monitoring network in London with ten automatic monitoring station sites. A map showing the locations of the monitoring stations, and the sets of our monitoring data can be accessed here . We have 42 diffusion tube sites, with a total of 56 diffusion tubes. Full location and monitoring details can be accessed in our Annual Status Reports, which can be downloaded from our website . Further to this, in May 2019 the Port of London Authority (PLA) installed several continuous air pollution monitors near

Measure	LLAQM Action Matrix Theme	Action	Estimated / Actual Completion Date	Organisations Involved	Progress <ul style="list-style-type: none"> • Emissions/Concentration data <ul style="list-style-type: none"> • Benefits • Negative impacts / Complaints
					<p>Greenwich Ship Tier to assess the impact of short-term, local river activity on air quality in the area, including cruise visits. This project is in partnership with Breathe London and LB Tower Hamlets.</p> <p>We are also looking into carrying out short term monitoring in the vicinity of several schools as part of a school streets project. We will use the data to help us consider and decide on implementing practical measures to reduce exposure to harmful pollutants.</p>

Measure	LLAQM Action Matrix Theme	Action	Estimated / Actual Completion Date	Organisations Involved	Progress <ul style="list-style-type: none"> Emissions/Concentration data <ul style="list-style-type: none"> Benefits Negative impacts / Complaints
		Action 1.2: We will explore opportunities to engage and work with schools and community groups to undertake their own air quality monitoring.	Ongoing	Local Authority-Environmental Health and Schools	<p>Breathe London have sensors installed and functional at St Mary Magdeline CE School, Haimo Primary School, Ceres Road (junction with Bannockburn Road and Bannockburn Primary School, and St Mary Magdelene Primary School.</p> <p>We will always look for and be open to opportunities to work with our partners internally and externally to identify any schools that could benefit from monitoring.</p>
		Action 1.3: We will prepare Annual Status Reports (ASRs) detailing	Ongoing	Local Authority Environmental Health	Our current Air Quality Action Plan for 2023-2027 has been published and is

Measure	LLAQM Action Matrix Theme	Action	Estimated / Actual Completion Date	Organisations Involved	Progress <ul style="list-style-type: none"> Emissions/Concentration data Benefits Negative impacts / Complaints
		progress against each of the AQAP measures and ensure the Royal Borough of Greenwich's AQAP is formally reviewed and updated, as a minimum, every five years			available on our website. Before publication we consulted with our air quality partners, relevant internal partners and with the public.
		Action 1.4: To ensure that the measures contained within this action plan are integrated across council policies and projects, this and future AQAPs will be signed-off, and future Annual Status Reports reviewed at Director level.	Ongoing	Local Authority- all relevant departments	Air quality is considered and integrated across council policies and projects. All relevant departments were consulted with prior to writing of the AQAP for 2023-2027 and all actions were signed off by the relevant departments.
		Action 1.5: We will work collaboratively across all relevant departments including Environmental Health, Public Health,	March 2026	Local Authority- all relevant departments	We collaborated with all relevant departments when writing our AQAP for 2023-2027. Officers from all departments continue to

Measure	LLAQM Action Matrix Theme	Action	Estimated / Actual Completion Date	Organisations Involved	Progress <ul style="list-style-type: none"> Emissions/Concentration data <ul style="list-style-type: none"> Benefits Negative impacts / Complaints
		Regeneration, Planning & Building Control, Transport, Procurement, Sustainability, Fleet and Waste Services, and Communications to improve air quality in the borough and reduce exposure to air pollution.			consult and collaborate to address any matter that could impact air quality.
		Action 1.6: We will explore opportunities to work more collaboratively with our Air Quality Partners: The Mayor of London, the Environment Agency, the Port of London Authority and our neighbouring boroughs: Lewisham, Bromley, Bexley, Barking and Dagenham, Newham and Tower Hamlets.	Ongoing	Local Authority-Environmental Health	This is an ongoing commitment, and RBG regularly meet with and collaborate with our external partners including the East London Air Quality Cluster Group, GLA, and neighbouring councils. We will be working with several Local Authorities this year to deliver an anti-idling project. This project is being led by

Measure	LLAQM Action Matrix Theme	Action	Estimated / Actual Completion Date	Organisations Involved	Progress <ul style="list-style-type: none"> Emissions/Concentration data <ul style="list-style-type: none"> Benefits Negative impacts / Complaints
					LB Camden and LB Hounslow and partially funded by the Mayor of London.
2	Emissions from developments and buildings	Action 2.1: We will publish and enforce a Code of Construction Practice (CoCP) stipulating air quality minimum standards (& other requirements e.g., noise) expected of construction activities carried out within Royal Greenwich to ensure compliance with industry good practice.	March 2024	Local Authority-Planning	<p>The Council's website contains information for developers on controlling dust emissions during demolition and construction. Planning officers either receive comments on applications requiring, through condition, the submission of a Construction Management Plan or will direct developers to the information on the webpage.</p> <p>Planners have also been made aware of the Low</p>

Measure	LLAQM Action Matrix Theme	Action	Estimated / Actual Completion Date	Organisations Involved	Progress <ul style="list-style-type: none"> Emissions/Concentration data <ul style="list-style-type: none"> Benefits Negative impacts / Complaints
					<p>Emission Zone for Non Road Mobile Machinery (NRMM) and a condition has been created and been used by Planning throughout 2021 requiring compliance of NRMM with LEZ standard.</p> <p>We will be releasing a Code of Construction Practice in 2025 that will provide advice to assist developers to ensure that construction works are undertaken using best practice.</p>
		Action 2.2: We will review, revise, and implement our air quality related standard planning conditions to ensure construction sites	December 2024	Local Authority- Planning and Environmental Health	Environmental Health and planning continue to request that all developments that could impact air quality are required to have

Measure	LLAQM Action Matrix Theme	Action	Estimated / Actual Completion Date	Organisations Involved	Progress <ul style="list-style-type: none"> Emissions/Concentration data <ul style="list-style-type: none"> Benefits Negative impacts / Complaints
		within the borough are suitably assessed, monitored and managed in line with good industry practice, including the GLA NRMM LEZ scheme requirements.			assessments. We review the assessments to ensure standards are in place and mitigation is carried out.
		Action 2.3: We will work with utility companies and statutory undertakers working on the borough's road network to ensure compliance with good industry practice and the NRMM LEZ requirements.	Ongoing/yearly target	Local Authority-Environmental Health and Transport TfL	12 sites were self-compliant and submitted details of their registration to NRMM. 8 sites were non-compliant before interaction however met required emission standards by enacting all recommendations made by officers. 2 sites were non-compliant.

Measure	LLAQM Action Matrix Theme	Action	Estimated / Actual Completion Date	Organisations Involved	Progress <ul style="list-style-type: none"> Emissions/Concentration data <ul style="list-style-type: none"> Benefits Negative impacts / Complaints
		Action 2.4: We will work with the relevant parties to ensure compliance with the air quality provisions of the Silvertown Tunnel CoCP including the NRMM LEZ requirements.	Ongoing	Local Authority-Environmental Health and Transport TfL	The Silvertown Tunnel is complete and is open to the public. We will work with TfL regarding their own AQ monitoring of the area.
		Action 2.5: We will continue to require Air Quality Assessments for all major developments in the borough.	Ongoing	Local Authority-Planning, Environmental Health	In 2024 we received 8 applications for major developments in the borough that were required to submit air quality assessments.
		Action 2.6: We will require all building developments within the borough to comply with the Mayor of London's Air Quality Neutral Standard.	Ongoing	Local Authority-Planning, Environmental Health	All full major planning application approved in 2024 were AQN

Measure	LLAQM Action Matrix Theme	Action	Estimated / Actual Completion Date	Organisations Involved	Progress <ul style="list-style-type: none"> Emissions/Concentration data Benefits Negative impacts / Complaints
		Action 2.7: We will require all development proposals within the borough's defined Air Quality Focus Areas demonstrate that design measures have been proposed and implemented to minimise exposure to poor air quality.	Ongoing	Local Authority-Planning, Environmental Health	One site, through their air quality assessment was identified as requiring additional measures to minimise exposure.
		Action 2.8: We will publish Air Quality Planning Guidance to support developers to understand our air quality and planning requirements within the Royal Borough.	2025	Local Authority-Planning, Environmental Health	We have developed supplementary planning guidance on climate resilience. This should be formally approved by Cabinet in November 2025.
		Action 2.9: We will ensure an Air Quality Positive approach is applied to	Estimated 2025	Local Authority-Planning,	A draft Local Plan is expected in summer 2025,

Measure	LLAQM Action Matrix Theme	Action	Estimated / Actual Completion Date	Organisations Involved	Progress <ul style="list-style-type: none"> Emissions/Concentration data <ul style="list-style-type: none"> Benefits Negative impacts / Complaints
		future masterplans prepared in the Royal Borough and large-scale developments requiring an EIA.		Environmental Health	which will guide planning decisions.
		Action 2.10: We will require all relevant commercial kitchen planning applications to identify the most appropriate odour control measures and filtration systems to be employed.	Ongoing	Local Authority-planning, Environmental Health	All applications where a commercial kitchen is proposed includes conditions in respect of odour control.
		Action 2.11: We will continue to raise awareness about the Royal Borough's Smoke Control Area requirements on the council's website and enforce the provisions of the Clean Air Act.	Ongoing	Local Authority-Environmental Health, Communications	Our website is updated with the latest information regarding the borough smoke control area and the Clean Air Act. In 2025 we will review our current smoke control

Measure	LLAQM Action Matrix Theme	Action	Estimated / Actual Completion Date	Organisations Involved	Progress <ul style="list-style-type: none"> Emissions/Concentration data <ul style="list-style-type: none"> Benefits Negative impacts / Complaints
					orders to understand if they are still fit for purpose, or if they need to be updated. Where enforcement is necessary, it will be proportionate and in line with our own enforcement policy.
		Action 2.12: Through promotion on the Council's website and active engagement at the point of sale with local suppliers of fuels and appliances, we will raise awareness of the 'Ready to Burn' scheme and 'Eco Design' stoves regulations.	Ongoing	Local Authority-Environmental Health and Communications	Website has up to date information in relation to Clean Air Act requirements. Officers liaised with local shops and suppliers of fuel to provide information on fuels and appliances.
		Action 2.13: We will continue to seek improvements in our	Ongoing	Local Authority-Housing /	To date under the Social Housing Decarbonisation

Measure	LLAQM Action Matrix Theme	Action	Estimated / Actual Completion Date	Organisations Involved	Progress <ul style="list-style-type: none"> Emissions/Concentration data <ul style="list-style-type: none"> Benefits Negative impacts / Complaints
		existing building stock within the borough through energy efficiency and retrofit projects and explore future funding opportunities where available.		Sustainability/Asset Management / Repairs	Fund Wave 2.1 we have carried out retrofit of 215 properties. We received £5.3m to retrofit 665 which will be completed within this current wave of funding. RBG applied for Warm Homes: Social Housing Fund Wave 3 in late 2024 and we have been awarded £10.3m which will be used alongside our co-funding to deliver retrofit measures to 1,120 homes.
		Action 2.14: We will use and promote the 'Retrofit Accelerator – Homes' and 'Retrofit Accelerator – Workplace' programmes to	N/A	Local Authority-Housing / Sustainability/Asset	There is no 'Retrofit Accelerator Workplace' programme in place during the timeframe of this AQAP.

Measure	LLAQM Action Matrix Theme	Action	Estimated / Actual Completion Date	Organisations Involved	Progress <ul style="list-style-type: none"> Emissions/Concentration data <ul style="list-style-type: none"> Benefits Negative impacts / Complaints
		encourage the uptake of energy efficiency retrofitting projects in the borough's workplaces and houses.		Management / Repairs	
3	Public health and raising awareness	Action 3.1: We will continue to raise awareness about the detrimental health effects of air pollution and ensure information regarding local air quality is kept under review and readily available to the local community.	Ongoing	Local Authority- Public Health and Environmental Health	<p>Public health campaigns this year have included promotion of Clean Air Night raising awareness about the harm from burning wood.</p> <p>Our website was updated in 2023 to better reflect current air quality information.</p> <p>Public health continues to engage with local community groups such as the Charlton Athletic Community Trust delivering</p>

Measure	LLAQM Action Matrix Theme	Action	Estimated / Actual Completion Date	Organisations Involved	Progress <ul style="list-style-type: none"> Emissions/Concentration data <ul style="list-style-type: none"> Benefits Negative impacts / Complaints
					information to young people about air quality.
		Action 3.2: We will continue to support the airTEXT pollution alert service and promote the service more widely to local GPs and pharmacies along with promotion through the Councils website.	Completed in 2025	Local Authority- Public Health and Environmental Health	<p>In 2024/2025 we carried out a campaign to raise awareness of airTEXT. We promoted the service through GP surgeries and through our libraries. We asked GPs to promote airTEXT within their surgeries and encouraged them to share information with service users who have cardio-vascular or respiratory issues when appropriate.</p> <p>We also sent promotional materials to all our libraries</p>

Measure	LLAQM Action Matrix Theme	Action	Estimated / Actual Completion Date	Organisations Involved	Progress <ul style="list-style-type: none"> Emissions/Concentration data <ul style="list-style-type: none"> Benefits Negative impacts / Complaints
					and to Charlton Athletic Community Trust.
		Action 3.3: We will continue to promote and encourage more walking and cycling in the Borough.	Ongoing	Local Authority-Communications and Transport	<p>We use London Plan Policies to reduce car dependency.</p> <p>We also have an Active Travel Action Plan and we provide updates on this plan. The committee update for 2024 can be found here.</p> <p>For 2025 significant work is underway to develop the local cycle network. Collaborations with Transport for London (TfL) are in place to develop cycle routes in Greenwich Town Centre and other areas. An enhanced cycle route</p>

Measure	LLAQM Action Matrix Theme	Action	Estimated / Actual Completion Date	Organisations Involved	Progress <ul style="list-style-type: none"> Emissions/Concentration data <ul style="list-style-type: none"> Benefits Negative impacts / Complaints
					scheme in Plumstead and Abbey Wood is being developed based on stakeholder feedback. A procurement process for expanding cycle hangers is also underway, with substantial increases expected by Autumn.
		Action 3.4: We will continue to promote and encourage the borough's schools to engage with the TfL STARS scheme and gain accreditation.	Ongoing	Local Authority-Transport	<p>The TfL STARS scheme has been renamed TfL Travel for Life scheme.</p> <p>This action has been achieved. We have increased the number of schools accredited on the scheme by 10% each year. In 2024 admissions: Gold</p>

Measure	LLAQM Action Matrix Theme	Action	Estimated / Actual Completion Date	Organisations Involved	Progress <ul style="list-style-type: none"> Emissions/Concentration data <ul style="list-style-type: none"> Benefits Negative impacts / Complaints
					(27), Silver (1), Bronze (12) and Engaged (19).
		Action 3.5: We will promote and encourage the use of innovative and emerging technologies by local businesses	Ongoing	Local Authority-Communications, Business Team	In March 2024 businesses came together for the Greener Greenwich Summit, organised by the South East London Chamber of Commerce and supported by the Council. 160 plus attendees shared innovative ideas across renewable energy use, waste management, recycling and reuse, sustainable transport, developing green skills, and the use of technology and IT systems to make a difference and to make Greenwich even greener.

Measure	LLAQM Action Matrix Theme	Action	Estimated / Actual Completion Date	Organisations Involved	Progress <ul style="list-style-type: none"> Emissions/Concentration data <ul style="list-style-type: none"> Benefits Negative impacts / Complaints
4	Delivering servicing and freight	Action 4.1: In collaboration with Royal Greenwich's business community, we will explore opportunities to implement sustainable freight initiatives within the borough exploring solutions such as last mile delivery, consolidation centres, river freight and delivery retiming.	Ongoing	Local Authority-Transport	We are looking to promote the use of consolidation centres and FORS/CLOCS schemes during construction. We can use DfT traffic data to monitor traffic volumes. Micro-consolidation for freight capital funding requested-work to continue in Transport Planning team including river freight.
		Action 4.1: A Traffic Management Plan will be a requirement for all relevant developments.	Ongoing	Local Authority-Planning and Transport	Though we do not have the exact figures all major developments within the Borough are required to submit a traffic management plan.

Measure	LLAQM Action Matrix Theme	Action	Estimated / Actual Completion Date	Organisations Involved	Progress <ul style="list-style-type: none"> Emissions/Concentration data <ul style="list-style-type: none"> Benefits Negative impacts / Complaints
		Action 4.2: We will introduce the following minimum emission standards in contracts for the use of Heavy Goods Vehicles (HGVs) and Light Duty Vehicles (LDVs) and Cars: <ul style="list-style-type: none"> HGVs (>3.5T) - Euro VI LDVs (≤3.5T) - Zero emission, or where not reasonably feasible, Euro 6 (Diesel) or Euro 4 (Petrol) Cars – Zero or Ultra Low Emission Vehicle (ULEV), or where not reasonably feasible, Euro 6 (Diesel) or Euro 4 (Petrol). 	Completed	Local Authority-Procurement	During procurement process for any new vehicles, we ask for contracts to detail the added social value which includes detail on economic and environmental factors. We ask for all new fleet contracts or new vehicles introduced into our service to at least meet minimum emission standards, if not better.
		Action 4.3: We will introduce minimum emission standards in construction and works	Ongoing	Local Authority-Procurement	During procurement process for any new work contracts, we ask for detail the added social value which includes

Measure	LLAQM Action Matrix Theme	Action	Estimated / Actual Completion Date	Organisations Involved	Progress <ul style="list-style-type: none"> Emissions/Concentration data <ul style="list-style-type: none"> Benefits Negative impacts / Complaints
		contracts for construction machinery (Non- Road Mobile Machinery – NRMM) aligned with the Mayor of London’s NRMM Low Emission Zone Central Activities Zone (CAZ) and Opportunity Areas standard but be applicable to all contracts across the whole borough.			detail on economic and environmental factors. We ask for all new works contracts for NRMM to meet at least the minimum standards, if not better.
5	Reducing emissions from council fleets	Action 5.1: Our vehicle fleet will meet the following minimum emission standards • HGVs (>3.5T) - Euro VI • LDVs (≤3.5T) - Euro 6 (Diesel) or Euro 4 (Petrol)	Completed	Local Authority- Fleet Management, Procurement	All vehicles within our fleet meet the emissions standards.
		Action 5.2: We will continue to replace and upgrade our vehicle fleet	2030	Local Authority- Fleet Management	6.1% of our fleet are fully electric and 1.1% of our

Measure	LLAQM Action Matrix Theme	Action	Estimated / Actual Completion Date	Organisations Involved	Progress <ul style="list-style-type: none"> Emissions/Concentration data <ul style="list-style-type: none"> Benefits Negative impacts / Complaints
		with zero emission vehicles when reasonably feasible to achieve our goal of 100% zero emissions vehicles by 2030			fleet are plug in hybrid electric.
		Action 5.3: We will maintain a minimum Bronze level as a FORS Accredited Operator.	Ongoing	Local Authority- Fleet Management	This has been maintained for 2024
6	Localised solutions	Action 6.1: We will use the new Green Infrastructure Framework to inform our revised Local Plan and our future Green Infrastructure Strategy.	Ongoing	Local Authority- Planning, Regeneration, Parks and Open Spaces	A draft Local Plan is expected in summer 2025, which will guide planning decisions.
		Action 6.2: We will commission a baseline tree canopy survey to better inform the value and benefits of the Royal Borough's trees and aid	Completed	Local Authority- Regeneration, Parks and Open Spaces	We completed tree canopy baseline assessment in association with ITree/ Treeconomics which we will be using to assess periodic canopy cover / ecosystem

Measure	LLAQM Action Matrix Theme	Action	Estimated / Actual Completion Date	Organisations Involved	Progress <ul style="list-style-type: none"> Emissions/Concentration data Benefits Negative impacts / Complaints
		the development of our future Green Infrastructure Strategy			benefits changes (when reassessed) and to inform some of our tree planting.
		Action 6.3: We will plant 5000 trees by the end of 2026 as part of the strategy to increase tree canopy within the Royal Borough.	Completed	Local Authority-Regeneration, Parks and Open Spaces	We have achieved our target of planting 5000 trees ahead of schedule.
		Action 6.4: We will prepare a Green Infrastructure Strategy and ensure GI supports both Air Quality Neutral and Air Quality Positive policy approaches to development in the borough and reduced exposure to air pollution.	Ongoing	Local Authority-Regeneration	Our focus is on the Climate Resilience SPD which has been developed and is waiting to be formally adopted. Any new Green Infrastructure Framework will be considered jointly in future with all relevant departments. Our new local plan and Climate resilience

Measure	LLAQM Action Matrix Theme	Action	Estimated / Actual Completion Date	Organisations Involved	Progress <ul style="list-style-type: none"> Emissions/Concentration data <ul style="list-style-type: none"> Benefits Negative impacts / Complaints
					SPD will consider Air Quality in their policies.
		Action 6.5: We will combine 'Green Infrastructure' and the 'Healthy Streets' Approach in public high street design to create greener walking and cycling routes to encourage active travel options away from the borough's most polluted streets.	2030	Local Authority-Regeneration, Parks and Open Spaces, Transport	The Council's Transport Strategy was adopted in 2022 and contains several objectives relating to this – on healthier, greener, and cleaner Greenwich. In the planning department we have adopted our Urban Design Guide SPD in 2023, which deals with all elements of street and open space.
7	Cleaner transport	Action 7.1: We will invest and work with TfL to implement the expansion and improvement of cycling infrastructure focussing particularly on	Ongoing	Local Authority-Transport	We continue to work closely with TfL to expand and improve cycling

Measure	LLAQM Action Matrix Theme	Action	Estimated / Actual Completion Date	Organisations Involved	Progress <ul style="list-style-type: none"> Emissions/Concentration data Benefits Negative impacts / Complaints
		the south and east of the borough and designated Opportunity Areas.			<p>infrastructure in the borough. This includes:</p> <p>The delivery of section 2 of the Greenwich to Woolwich Cycle Route from Anchor and Hope Lane to Woolwich Ferry Roundabout, which is scheduled to begin construction in Summer 2025.</p> <p>Continuing to progress our cycle network development programme which includes seven routes at different stages of development, with construction expected to</p>

Measure	LLAQM Action Matrix Theme	Action	Estimated / Actual Completion Date	Organisations Involved	Progress <ul style="list-style-type: none"> • Emissions/Concentration data • Benefits • Negative impacts / Complaints
					<p>begin on several of these routes this and the next financial year.</p> <p>Significant work is underway to develop the local cycle network. Collaborations with Transport for London (TfL) are in place to develop cycle routes in Greenwich Town Centre and other areas. An enhanced cycle route scheme in Plumstead and Abbey Wood is being developed based on stakeholder feedback. A procurement process for expanding cycle hangers is also underway, with</p>

Measure	LLAQM Action Matrix Theme	Action	Estimated / Actual Completion Date	Organisations Involved	Progress <ul style="list-style-type: none"> Emissions/Concentration data <ul style="list-style-type: none"> Benefits Negative impacts / Complaints
					substantial increases expected by Autumn.
		Action 7.2: We will deliver the Active Travel Policy Framework Action Plan to support our local community in the transition to reduced reliance on cars and encourage walking or cycling.	Completed	Local Authority-Transport	Transport Strategy has been published and can be found here . The strategy includes active travel measures to help encourage walking, cycling and public transport.
		Action 7.3: We will work with Transport for London to support and lobby for public transport improvements across the borough that foster connectivity, particularly north-south connections, and links to Thamesmead and Abbey Wood.	Ongoing	Local Authority-Transport	Significant work is underway to develop the local cycle network. Collaborations with Transport for London (TfL) are in place to develop cycle routes in Greenwich Town Centre and other areas. An enhanced cycle route scheme in Plumstead and Abbey Wood is being

Measure	LLAQM Action Matrix Theme	Action	Estimated / Actual Completion Date	Organisations Involved	Progress <ul style="list-style-type: none"> Emissions/Concentration data Benefits Negative impacts / Complaints
					developed based on stakeholder feedback. A procurement process for expanding cycle hangers is also underway, with substantial increases expected by Autumn.
		Action 7.4: We will continue to promote and support car club providers to encourage membership in the Royal Borough and the increased use of electric vehicles.	Ongoing	Local Authority-Transport	We currently have 40 active car club permits.
		Action 7.5: We will deliver the Electric Vehicle Policy Framework Action Plan to implement a comprehensive charging infrastructure network across the borough.	2030	Local Authority-Transport	We are reviewing the locations for future EV investment. We have been successful in obtaining LEVI funding to deliver up to 1,150 lamp post chargers in

Measure	LLAQM Action Matrix Theme	Action	Estimated / Actual Completion Date	Organisations Involved	Progress <ul style="list-style-type: none"> Emissions/Concentration data Benefits Negative impacts / Complaints
					the borough, with a target of 200 per year.
		Action 7.6: We will continue to use and promote the Workplace Charging Scheme in the borough to encourage and expand the workplace EV Infrastructure.	Ongoing	Local Authority-Transport	We do not currently count the number of business applications, but this can be requested from Office of Zero Emission Vehicles. We will be looking to communicate via press release regarding the grant opportunities for businesses.
		Action 7.7: We will engage with local communities and using an evidence-based approach, we will identify areas in the Royal Borough that would most benefit from the	Ongoing	Local Authority-Transport	We currently have one LTN- this was introduced in November 2024. This is a trial LTN for 18 months which covers The West and East Greenwich

Measure	LLAQM Action Matrix Theme	Action	Estimated / Actual Completion Date	Organisations Involved	Progress <ul style="list-style-type: none"> Emissions/Concentration data <ul style="list-style-type: none"> Benefits Negative impacts / Complaints
		implementation of through-traffic reduction schemes.			Neighbourhood Management scheme.
		Action 7.8: We will support any through-traffic reduction scheme identified for potential implementation with real-time air quality monitoring.	Ongoing	Local Authority-Transport	Real time monitoring is collected during scheme delivery of traffic reduction schemes such as LTNs and Neighbourhood Management schemes. Air quality monitoring is implemented as a key metric as part of schemes such as this.
		Action 7.9: We will review the lessons learnt from the permanent and temporary School Streets and explore their continuation and expansion to other schools in the borough.	2026	Local Authority-Transport	We currently have 11 School Streets. Previous feedback taken onboard and our approach has been adjusted accordingly. Engagement with stakeholders is currently ongoing to expand the

Measure	LLAQM Action Matrix Theme	Action	Estimated / Actual Completion Date	Organisations Involved	Progress <ul style="list-style-type: none"> Emissions/Concentration data <ul style="list-style-type: none"> Benefits Negative impacts / Complaints
					<p>scheme to another 21 more schools.</p> <p>The potential outcome will be 32 School Streets in total using ANPR enforcement.</p> <p>We are currently looking into carrying out baseline assessments on the current air quality in and around schools.</p>
		Action 7.10: We will support School Streets identified for potential implementation with real-time air quality monitoring.	2026	Local Authority-Transport	Real time monitoring will be installed in partnership with the council's air quality team to ensure that the approach taken and the data collected meets the policy requirements of the councils Air Quality Action Plan. Air quality counts are due to be

Measure	LLAQM Action Matrix Theme	Action	Estimated / Actual Completion Date	Organisations Involved	Progress <ul style="list-style-type: none"> • Emissions/Concentration data • Benefits • Negative impacts / Complaints
					commissioned commencing September 2025.
		Action 7.11: We will expand the coverage of Controlled Parking Zones (CPZ's) to the whole borough.	Ongoing	Local Authority-Transport	<p>30% of borough coverage on CPZ and plans to implement a further 50% coverage via Phase 1 of "Sustainable Streets" scheme.</p> <p>Greenwich Council has started a consultation on "Sustainable Streets" scheme which includes plans to extend controlled parking zones in several areas of the borough include Charlton, Kidbrooke and Blackheath, Plumstead, Shooters Hill, West Thamesmead and Woolwich.</p>

Measure	LLAQM Action Matrix Theme	Action	Estimated / Actual Completion Date	Organisations Involved	Progress <ul style="list-style-type: none"> • Emissions/Concentration data • Benefits • Negative impacts / Complaints
		Action 7.12: We will progress an emission-based charging structure to help drive the purchase of low emission vehicles in Royal Greenwich	Completed	Local Authority-Transport	We introduced changes to parking charges as well as resident and business permits, as part of our commitment to achieving net zero carbon emissions by 2030. Since 24th July 2023, charges have been based on vehicles' carbon dioxide (CO2) emissions. This means that vehicles with low emissions will be charged less than those with higher emissions.
		Action 7.13: We will investigate the benefits of introducing road user charging measures such as a workplace parking levy.	Ongoing	Local Authority-Transport	Identified as priority in the Transport Strategy and being explored and is being explored in the 'sustainable streets' consultation, but this was reviewed as part of our

Measure	LLAQM Action Matrix Theme	Action	Estimated / Actual Completion Date	Organisations Involved	Progress <ul style="list-style-type: none"> Emissions/Concentration data <ul style="list-style-type: none"> Benefits Negative impacts / Complaints
					Kerbside Strategy but requires own view on RBG staffing and car parks before commencing with borough wide view on private workplace parking-supporting the expansion of ULEZ.

3. Planning Update and Other New Sources of Emissions

Table M. Planning requirements met by planning applications in Royal Borough of Greenwich in 2024

Condition	Number
Number of planning applications where an air quality impact assessment was reviewed for air quality impacts	8
Number of planning applications required to undertake construction dust monitoring and reporting (Please specify how you get access to dust monitoring data i.e. online tool or CSV file)	<u>9</u>
Number of CHPs/Biomass boilers refused on air quality grounds	<u>0</u>
Number of CHPs/Biomass boilers subject to GLA emissions limits and/or other restrictions to reduce emissions as detailed in Air Quality Neutral LPG (london.gov.uk) point 3.1.5.	<u>0</u>
Number of developments required to install Ultra-Low NO _x boilers	<u>0</u>
Number of developments where an AQ Neutral building and/or transport assessments undertaken	<u>7</u>
Number of developments where the AQ Neutral building and/or transport assessments not meeting the benchmark and so required to include additional mitigation	<u>1</u>
Number of planning applications with S106 agreements including other requirements to improve air quality	<u>0</u>
Number of planning applications with CIL payments that include a contribution to improve air quality	<u>0</u>
NRMM: Central Activity Zone, Canary Wharf and Opportunity Areas Number of planning applications with conditions related to NRMM included. Number of developments registered at www.nrmm.london . Number of audits (based on the pan-London project report and / or inhouse auditing programme) % of sites unregistered prior to audit % of sites compliant with Stage IV of the Directive and/or exemptions to the policy.	3
NRMM: Greater London (excluding Central Activity Zone, Canary Wharf and Opportunity Areas) Number of planning applications with conditions related to NRMM included. Number of developments registered at www.nrmm.london . Number of audits (based on the pan-London project report and / or inhouse auditing programme) % of sites unregistered prior to audit % of sites compliant with	6

Condition	Number
Stage IIIB of the Directive and/or exemptions to the policy.	

3.1 New or significantly changed industrial or other sources

No new point of source identified. However, the Silvertown Tunnel was officially opened this year.

4. Additional Activities to Improve Air Quality

4.1 London Borough of Greenwich Fleet

6.1% of our fleet are fully electric and 1.1% of our fleet are plug in hybrid electric.

4.2 Planning Enforcement

During the planning process the Planning Department liaise with Environmental Protection Team to request comments on air quality.

When a developer submits a planning application the Planning team consult with Environmental Protection Team, who will review air quality assessments and other documentation related to the development. If air quality concerns are identified, then the Environmental Protection Team will raise this to the Planning Team. The Planning department can impose conditions or obligations through Section 106 agreements to mitigate the impact to air quality.

4.3 Pan-London NRMM Auditing Project

The Borough is continuing to support the NRMM Enforcement project in 2025-2026.

The standard wording used for NRMM conditions forms part of our construction management plan and is follows:

Prior to the commencement of the development, a Demolition/Construction Management Plan (D/CMP) shall be submitted to, and approved in writing by, the Local Planning Authority to minimise impacts to the local highway network and to control noise, vibration and air pollutants generated as a result of the construction process.

These documents shall be prepared in accordance with the London Freight Plan, 'The control of dust and emissions from construction and demolition' Supplementary Planning Guidance, the Council's Construction Site Noise Code of Practice, BRE Pollution Control Guides 'Controlling particles and noise pollution from construction sites' and 'Controlling particles, vapour and noise pollution from construction sites'. The D/CMP shall include details of (but shall not be limited to):

- *loading and unloading of plant and materials;*
- *storage of plant and materials;*

- *programme of works;*
- *measures for traffic management and encouragement of sustainable modes of transport for workers;*
- *details of a vehicle booking system*
- *provision of boundary hoarding and visibility zones of construction traffic routing;*
- *hours of construction;*
- *means to prevent deposition of mud on the highway;*
- *likely noise levels to be generated from plant and construction works;*
- *a dust risk assessment using an objective method of measurement for each working site;*
- *means to monitor and control dust, noise and vibrations;*
- *haulage routes;*
- *a site plan identifying location of site entrance, exit, wheel washing, hard standing hoarding (distinguishing between solid hoarding and other barriers such as heras and monarflex sheeting), stock piles, dust suppression, location of water supplies and location of nearest neighbouring receptors;*
- *bonfire policy;*
- *confirmation that a mobile crusher will/won't be used on site and if so, a copy of the permit and intended dates of operation;*
- *details of an air quality impact assessment for the construction phase, including details of monitoring (with particular reference to particulates);*
- *confirmation of all Non-Road Mobile Machinery (NRMM) to be used, or a statement confirming that NRMM will not be used. All Non-Road Mobile Machinery (NRMM) and plant to be used on site of net power between 37kW and 560 kW must be registered at <http://nrmm.london/>. An inventory of all Non-Road Mobile Machinery (NRMM) shall be kept on site during the course of site preparation and construction phases. All machinery should be regularly serviced and service logs kept on site for inspection. Records should be kept on site which details proof of emission limits for all equipment. This documentation should be made available to local authority officers as required until development completion;*

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

Reason 9:

To ensure that the proposed development does not interfere with the free flow of traffic and conditions of safety on the public highway, and to ensure the development process does not have a significant adverse impact on the amenities of nearby residential properties in accordance with Policies E(a) and IM5 of the Royal Greenwich Local Plan: Core Strategy with Detailed Policies (2014).

4.4 Air Quality Alerts

The borough support airTEXT (<https://www.airtext.info/>) and information provided on the website as below:

https://www.royalgreenwich.gov.uk/info/200205/pollution_and_noise/885/air_pollution_warnings_by_text

The website also provides advice for people susceptible to air pollution.

Appendix A Details of Monitoring Site Quality QA/QC

A.1 Automatic Monitoring Sites

A Local Site Operator (LSO) visits the monitoring sites every two weeks to visually inspect and check the site operation and to carry out zero/span calibration of the gas analysers. Six monthly UKAS accredited independent equipment audits are carried out by Ricardo Energy & Environment which also carry out on-site certification of gas cylinders. Additionally, six monthly equipment service visits are carried out by Matts Monitors Ltd

PM₁₀ Monitoring Adjustment

PM₁₀ measurements are automatically recalculated as EU reference equivalent using the Volatile Correction Model (VCM) – Correction applied to TEOM measurements. PM_{2.5} BAM gravimetric equivalent (correction applied)

A.2 Diffusion Tubes

- Diffusion Tubes are prepared and analysed by UKAS accredited Gradko International Ltd
- Diffusion Tubes are prepared using 50% triethanolamine with acetone method and analysed using UV spectrometry
- The lab follows the procedures set out in the Defra Technical Guidance for LAQM TG(19)
- Laboratory Precision Results:

Precision Summary Table

Diffusion Tube Preparation Method	2024 Good	2024 Bad
Gradko, 50% TEA in Acetone	11	0

Gradko participates in the AIR-PT scheme. This is a performance testing programme that has combined two long running PT (proficiency testing) schemes – LCC Standards STAKCS PT scheme and HSL Workplace Analysis Scheme for Proficiency (WASP). The latest results available for Gradko for the latest two periods show that

100% of results have a deviation of less than two, meaning all results were satisfactory.

Discussion of Choice of Factor to Use

- Both Local and National bias adjustment factors were available. The more conservative value was used for the bias adjustment which is the national factor of 0.88 (spreadsheet version 03/25). The impact of this will mean that our readings will be higher than if the Local Bias Adjustment Factor (0.80) were used. The local bias adjustment factor was calculated based on the 6 co-location studies with 'Good data capture' using the diffusion tube data processing tool (DTDPT).



Local Bias Adjustment Outputs - Information Only

Go back to STEP 3 - Bias Adjustment to define factor							
	STEP 3a Local Bias Adjustment Input 1	STEP 3b Local Bias Adjustment Input 2	STEP 3c Local Bias Adjustment Input 3	STEP 3d Local Bias Adjustment Input 4	STEP 3e Local Bias Adjustment Input 5	STEP 3f Local Bias Adjustment Input 6	STEP 3g Local Bias Adjustment Input 7
Periods used to calculate bias	9	10	12	11	12	12	12
Bias Adjustment Factor A	0.82 (0.73 - 0.85)	0.65 (0.57 - 0.74)	0.93 (0.85 - 1)	0.84 (0.76 - 0.92)	0.92 (0.85 - 1.02)	0.73 (0.67 - 0.81)	
Diffusion Tube Bias B	22% (19% - 26%)	55% (35% - 75%)	8% (0% - 16%)	20% (3% - 37%)	8% (1% - 16%)	36% (27% - 49%)	
Diffusion Tube Mean (µg/m ³)	42.0	24.7	28.4	22.8	21.9	26.6	
Mean CV (Precision)	2.4%	5.8%	2.4%	5.2%	5.2%	5.2%	
Automatic Mean (µg/m ³) (for periods used to calculate bias)	34.3	16.0	26.2	19.1	20.2	19.5	
Data Capture (for periods used to calculate bias)	100%	98%	98%	98%	98%	98%	
Overall Data Capture	98%	98%	98%	98%	98%	98%	
Adjusted Tube Mean (µg/m ³)	34 (33 - 36)	16 (14 - 18)	26 (24 - 28)	19 (17 - 21)	20 (19 - 22)	16 (15 - 18)	
Overall Diffusion Tube Precision	Good Overall Precision	Good Overall Precision	Good Overall Precision	Good Overall Precision	Good Overall Precision	Good Overall Precision	
Overall Continuous Monitor Data Capture	Good Overall Data Capture	Good Overall Data Capture	Good Overall Data Capture	Good Overall Data Capture	Good Overall Data Capture	Good Overall Data Capture	
Combined Local Bias Adjustment Factor	0.80						

Table N. Bias Adjustment Factor

Year	Local or National	If National, Version of National Spreadsheet	Adjustment Factor
2024	National	03/25	0.88
2023	Local		0.84
2022	Local		0.82
2021	Local		0.83
2020	Local		0.82
2019	LWEP		0.90
2018	LWEP		0.85
2017	LWEP		0.93

A.3 Adjustments to the Ratified Monitoring Data

Short-term to Long-term Data Adjustment

Distance Adjustment

A calculation to correct for distance was carried out for GW44 Eltham High St, GW50a, GW50b, GW50c Woolwich Flyover, GW101 Plumstead Rd and GW102 Plumstead Rd. The procedure used was that which is specified in LLAQM.TG(19). The local annual mean background NO₂ concentration was taken from Bexley Belvedere a nearby Urban Background continuous monitoring site. The distance adjustment was calculated using the NO₂ fall off with distance tool included within the Diffusion Tube Data Processing Tool. The outputs are shown in Table T.

Table O. Non-Automatic Monitoring Data Adjustment

Annualisation has not been required at any site

Table P. Automatic NO₂ Monitoring Data Adjustment

Annualisation has not been required at any site

Table Q. Automatic PM₁₀ Monitoring Data Adjustment

Annualisation has not been required at any site

Table R. Automatic PM_{2.5} Monitoring Data Adjustment

The annual capture rate for PM_{2.5} at GB6, Falconwood, was below 75%. The annualisation was carried out using the annualisation Tool included within the Automatic Data Processing Tool. The results are shown in the table below.

Background Site	Annual Data Capture (%)	Annual Mean (A _m)	GB6							
			Period Mean (P _m)	Ratio (A _m / P _m)	Period Mean (P _m)	Ratio (A _m / P _m)	Period Mean (P _m)	Ratio (A _m / P _m)	Period Mean (P _m)	Ratio (A _m / P _m)
Bexley Belvedere	88.2	7.4	7.8	0.960						
Lewisham Deptford	89.5	8.8	8.8	0.999						
Soutwark Elephant&Castle	88.4	8.0	8.2	0.980						
Average (R _a)			0.979							
Raw Data Annual Mean (M)			9.0							
Annualised Annual Mean (M x R _a)			8.9							

Table S. NO₂ Fall off With Distance Calculations

Site ID	Distance (m): Monitoring Site to Kerb	Distance (m): Receptor to Kerb	Monitored Concentration (Annualised and Bias Adjusted ($\mu\text{g m}^{-3}$))	Background Concentration ($\mu\text{g m}^{-3}$)	Concentration Predicted at Receptor ($\mu\text{g m}^{-3}$)	Comments
GW44	2.0	5.6	36.1	15.0	31.0	
GW50a GW50b GW50c	2.0	5.0	37.1	15.0	32.4	
GW101	2.0	3.0	41.6	15.0	39.1	Predicted concentration at Receptor within 10% the AQS objective
GW102	2.0	3.0	38.9	15.0	36.6	Predicted concentration at Receptor within 10% the AQS objective

Appendix B Full Monthly Diffusion Tube Results for 2024

Table T. NO₂ 2024 Diffusion Tube Results (µg m⁻³)

DT ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Jan	Feb	Mar	Apr	May	June	Jul	Aug	Sept	Oct	Nov	Dec	Annual Mean: Raw Data	Annual Mean: Annualised and Bias Adjusted <(x.x)>	Annual Mean: Distance Corrected to Nearest Exposure	Comment
GW23	540420	177706	33.5	24.4	21.4	24.0	26.7	20.9	19.4	17.8	27.3	26.1	34.1	22.6	24.9	21.9		
GW24	543806	177951	39.3	34.7	32.0	34.6	37.0	37.9	35.9	32.6	39.8	34.0	41.8		36.3	32.0		
GW25	540099	174881	31.9	23.5	21.3	20.4	24.7	22.3	21.4	20.5	25.1	27.4		22.4	23.7	20.9		
GW26	544015	173139	20.4	17.0	17.3	14.9	15.7	14.3	15.9	14.0	19.8	23.9	25.4	16.2	17.9	15.7		
GW27	541645	177874	33.3	29.9	24.6	24.5	28.4	26.4		9.7	25.6		33.2	22.6	25.8	22.7		
GW29	541167	178512	41.2	36.8	35.3	31.6	27.6	29.5	29.7	27.0	30.7	34.2	27.7	25.8	31.4	27.7		
GW32	540664	177235	32.9	26.1	23.9	20.7	23.5	20.9	22.6	20.8	24.3	25.1	33.6	19.3	24.5	21.5		
GW33	537971	176776	41.7	38.9	37.2	35.6	35.1	40.0	36.8	30.6	41.3	39.4	38.5	29.1	37.0	32.6		
GW34	545490	178543	31.5	29.0	25.8	19.9	26.3	24.4	24.7	21.1	23.7	32.1	31.3	15.9	25.5	22.4		
GW35	539527	178281	39.7	36.6	32.9	30.6	33.2	33.3	32.1	31.0	32.6	37.4		22.0	32.9	28.9		
GW36	539320	179234	31.6	32.1	24.1	20.8	23.6	22.9		24.4	23.6	28.3	28.4	21.7	25.6	22.5		
GW37	546630	179557	22.9	16.8	15.0	11.5	13.2	13.2	13.3	14.0	15.0	21.1	24.7	19.9	16.7	14.7		
GW38a	541885	175045	25.6	22.2	17.8	14.5	19.7	15.8	18.3	15.3	20.7	23.9	21.7	18.6	19.5	17.2		
GW39a	543986	174660	17.9	13.9	11.3	8.8	11.0	8.8	9.5	9.5	11.8	13.6	16.0	12.8	-	-		Triplicate Site with GW39a, GW39b and GW39c - Annual data provided for GW39c only

GW39b	543986	174660	17.4	14.4	10.1	9.2	10.3	7.0	9.6	9.7	11.7	14.1	16.2	14.7	-	-		Triplicate Site with GW39a, GW39b and GW39c - Annual data provided for GW39c only
GW39c	543986	174660	17.5	13.9	10.7	8.9	10.9	9.1	10.1	9.7	11.8	15.4	17.8	12.5	12.1	10.7		Triplicate Site with GW39a, GW39b and GW39c - Annual data provided for GW39c only
GW40	544065	176996	16.1	14.1	11.4	9.6	11.1	8.6	9.9	9.4	11.8	13.7	17.1	12.4	12.1	10.7		
GW41	543391	172765	32.9	27.6	20.5	24.7	24.6	24.8	22.3	20.1	27.4	23.0	28.8	25.7	25.2	22.2		
GW42	538317	177652	33.7	31.5	26.4	27.4	23.2	30.6	28.8	27.9	32.4	34.3	35.5	19.8	29.3	25.8		
GW43	537353	177632	30.0	32.8	27.8	20.5	25.7	21.9	24.2	21.3	27.3	30.8	24.5	23.5	25.9	22.8		
GW44	543096	174439	44.6	42.6	37.2	40.7	21.7	43.5	44.3	39.0	49.7	44.0	45.6	39.8	41.1	36.1	31.0	
GW106	543505	178576	36.7	30.0	25.3	23.3	26.8	24.3	24.9	20.1	27.3	28.2	37.2	24.7	27.4	24.1		
GW48	538044	176960	38.8	35.7	30.4	29.7	31.1		27.2	27.0		33.3	35.3	30.2	31.9	28.0		
GW49	543472	179217	36.2	34.4	26.4	25.0	31.5	36.8	31.9	27.7	31.3	35.1	42.6	31.1	32.5	28.6		
GW50a	540203	178367	46.1	48.1	44.7	39.8	39.6	42.8	39.9	41.5	38.3	39.9	31.0		-	-		Triplicate Site with GW50a, GW50b and GW50c - Annual data provided for GW50c only
GW50b	540203	178367	47.4	48.9	48.2	37.0	38.9	41.6	42.4	43.9	38.3	40.2	46.4		-	-		Triplicate Site with GW50a, GW50b and GW50c - Annual data provided for GW50c only

GW50c	540203	178367	41.5	47.7	45.7	35.0	41.2	41.2	42.1	42.3	38.1	45.8	45.6		42.2	37.1	32.4	Triplicate Site with GW50a, GW50b and GW50c - Annual data provided for GW50c only
GW51	539638	179024	33.9	33.1	24.0	23.0	28.1	23.8	27.6	25.4	27.0	30.6	30.4	24.0	27.6	24.3		
GW52	542842	179108	27.8	22.5	18.4	18.6		19.9	19.0	18.4	22.7	23.5	29.8	22.7	22.1	19.5		
GW53	542181	176878	28.5	26.6	23.1	18.6	21.0	19.8	22.5	21.4	21.2	27.7			23.0	20.3		
GW54	541915	175039	41.9	33.2		33.0	38.5	30.8	33.4	27.5	35.8	37.1	37.4	21.6	33.6	29.6		
GW55a	545005	175097	28.2	24.8	22.5	25.0	28.1	21.5	24.3	19.9	30.2	29.8	31.4	20.3	-	-		Triplicate Site with GW55a, GW55b and GW55c - Annual data provided for GW55c only
GW55b	545005	175097	32.8	30.1	22.0	20.2		21.3	23.3	20.2	29.6	27.7	32.1	22.6	-	-		Triplicate Site with GW55a, GW55b and GW55c - Annual data provided for GW55c only
GW55c	545005	175097	31.7	25.5	25.1	20.8	28.8	22.2	24.9	18.8	26.3	29.6	19.8	20.7	25.3	22.3		Triplicate Site with GW55a, GW55b and GW55c - Annual data provided for GW55c only
GW56	543679	172598	31.7	26.1	24.4	18.3	26.2	22.8	23.3	21.6	23.7	28.4	31.0	13.4	24.2	21.3		
GW57a	538968	177955	30.4	24.9	21.6	19.8	22.2	21.0	19.6	19.2	20.7	24.1	30.8	24.8	23.2	20.5		

GW58a	538143	176712	34.3	31.0	29.3	27.5	29.2	25.9	26.4	25.1	28.5	29.6	32.2	23.6	-	-		Triplicate Site with GW58a, GW58b and GW58c - Annual data provided for GW58c only
GW58b	538143	176712	33.8	30.5	28.8	27.3	27.3	25.4	26.3	23.1	28.1	28.6	30.8	25.3	-	-		Triplicate Site with GW58a, GW58b and GW58c - Annual data provided for GW58c only
GW58c	538143	176712	33.9	32.4	30.7	25.5	28.4	24.8	27.0	24.0	28.8	28.7	36.4	22.3	28.4	25.0		Triplicate Site with GW58a, GW58b and GW58c - Annual data provided for GW58c only
GW59a	541883	175016	28.2	25.3	21.6	17.7	22.9	17.0	21.7	17.5	24.3	30.5	27.4	20.5	-	-		Triplicate Site with GW59a, GW59b and GW59c - Annual data provided for GW59c only
GW59b	541883	175016	28.0	25.0	21.7	17.2	21.4	17.4	20.3	18.7	25.5	27.9	24.1	16.9	-	-		Triplicate Site with GW59a, GW59b and GW59c - Annual data provided for GW59c only

GW59c	541883	175016	26.4	24.3	23.7	18.7	22.0	16.2	21.8	5.9	23.6	26.4	26.7	21.3	22.1	19.5		Triplicate Site with GW59a, GW59b and GW59c - Annual data provided for GW59c only
GW60a	544086	178882	28.0	24.5	19.9	18.3	23.0	20.0	18.1	15.0	22.9	23.1	26.7	22.1	-	-		Triplicate Site with GW60a, GW60b and GW60c - Annual data provided for GW60c only
GW60b	544086	178882	25.5	24.2	19.9	20.2	23.4	19.4	18.8	17.6	22.8	25.7	27.1	18.9	-	-		Triplicate Site with GW60a, GW60b and GW60c - Annual data provided for GW60c only
GW60c	544086	178882	29.1	20.7	18.6	19.4		20.9	18.5	17.1	21.3	24.8	29.7	20.5	21.9	19.3		Triplicate Site with GW60a, GW60b and GW60c - Annual data provided for GW60c only
GW101	544727	178884	48.6			45.2		44.7	47.6	46.8	45.2	55.4	51.5	40.7	47.3	41.6	39.1	
GW102	544075	178898	46.5	48.0	46.1	40.3	41.7	46.7	44.7	39.9	44.1	49.8	46.4	36.0	44.2	38.9	36.6	
GW61a	539687	179123	32.1	30.8	24.8	21.5	25.1	23.6	22.8	23.1	26.0	24.5	28.9	26.3	-	-		Triplicate Site with GW61a, GW61b and GW61c - Annual data provided for GW61c only

GW61b	539687	179123	32.0	31.7	26.4	23.0	24.3	23.4	23.9	23.0	24.2	29.5	33.2	31.3	-	-		Triplicate Site with GW61a, GW61b and GW61c - Annual data provided for GW61c only
GW61c	539687	179123	33.4	32.0	25.3	22.2	22.7	21.9	23.7	23.8	21.8	31.2	32.2	32.7	26.6	23.4		Triplicate Site with GW61a, GW61b and GW61c - Annual data provided for GW61c only
GW31	543383	175664	27.7	25.8	19.8	23.0	23.8	21.2	20.6	20.4	24.7	27.5	29.8	25.5	24.2	21.3		
GW103	540935	176575	33.8	25.8	22.3	21.5	23.4		20.7	22.8	23.5	28.4	29.8	31.9	25.8	22.7		
GW104	540743	177072	39.1	39.9	30.5	26.7	26.7		28.4	29.6	27.2	30.1	37.7	33.0	31.7	27.9		
GW105	541143	174294	40.7	34.6	27.8	31.4	35.3		30.5	24.8	36.1	32.0	32.4	26.6	32.0	28.2		
GW30	541372	177070	31.6	27.0	23.0	21.7	24.1		22.3	22.8	25.7	27.9	29.7	28.5	25.8	22.7		
GW28	542656	176207	26.1	20.8	16.3	14.8	16.9		18.3	16.0	19.1	20.4	23.7	20.2	19.3	17.0		

☒ All erroneous data has been removed from the NO₂ diffusion tube dataset presented in Table T .

☒ 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.

☒ Royal Borough of Greenwich confirm that all 2024 diffusion tube data has been uploaded to the Diffusion Tube Data Entry System .

Notes:

Exceedances of the NO₂ annual mean objective of 40µg m⁻³ are shown in **bold**.

NO₂ annual means exceeding 60µg m⁻³, indicating a potential exceedance of the NO₂ 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 AQMA

Figure A. Map of Non-Automatic Monitoring Site(s)



Figure B. Map of Automatic Monitoring Site(s)

