London Borough of Tower Hamlets

Air Quality Annual Status Report for 2023

Date of publication: 5 August 2024

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

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

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Abbreviations

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

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

Pollutant	Standard / Objective / Guideline	Averaging Period	Date[1]
Nitrogen dioxide (NO_2)	200 µg m^{-3} not to be exceeded more than 18 times a year	1-hour mean	31 Dec 2005
Nitrogen dioxide (NO_2)	40 µg m^{-3}	Annual mean	31 Dec 2005
Nitrogen dioxide (NO_2)	WHO AQG[2]: 10 µg m^{-3}	Annual mean	
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 ($PM_{2.5}$)	20 µg m^{-3}	Annual mean	2020
Particles ($PM_{2.5}$)	London Mayoral Objective[3]: 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 2023.

	Site ID	Site Name	X OS Grid Ref (Easting) (m)	Y OS Grid Ref (Northing) (m)	Site Type	In AQMA? Which AQMA?	Distance from monitoring site to relevant exposure (m)	Distance to kerb of nearest road (m)	Inlet height (m)	Pollutants monitored	Monitoring technique
1	TH2 and TH2P	Mile End [(1)]	535927	182221	Roadside	Whole Borough AQMA	1m (offices) (40m residential)	3	3	NO_2, NO, NO_x, $PM_{2.5}$	Chemiluminescence; BAM for $PM_{2.5}$
2	TH004	Blackwall	538290	181452	Roadside	Whole Borough AQMA	29m (residential)	3	3	NO_2, NO, NO_x, $PM_{2.5}$, PM_{10}, O_3	Chemiluminescence; UV photometric; FDMS TEOM (for PM)
3	TH002	Victoria Park	536487	184238	Background	Whole Borough AQMA	290m (residential)	300	2	NO_2, NO, NO_x, $PM_{2.5}$, PM_{10}	Chemiluminescence; BAM for $PM_{2.5}$andPM_{10}
4	TH001	Millwall Park	538052	178559	Background	Whole Borough AQMA	60m (residential)	60	1.5	NO_2, NO, NO_x, PM_{10}, O_3	Chemiluminescence; BAM UV absorption
5	TH005	King Edward Memorial Park (KEMP) [(2)]	535384	180752	Roadside	Whole Borough AQMA	12m (residential)	2	1.5	NO_x, NO_2 $PM_{2.5}$	T200 Chemiluminescence; BAM 1020

Notes:

(1) Mile End: BAM PM 2.5 monitor installed in 2019

(2) King Edward Memorial Park: Installed in May 2023

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

Diffusion Tube ID	Site Name	X OS Grid Ref (Easting) (m)	Y OS Grid Ref (Northing) (m)	Site Type	In AQMA? Which AQMA?	Distance from monitoring site to relevant exposure(m)	Distance to kerb of nearest road (N/A if not applicable) (m)	Inlet height (m)	Pollutants monitored	Tube co-located with an automatic monitor? (Y/N)
1	Colombia Rd / Gossett Street	533883	182815	Kerbside	Whole Borough AQMA	5	0.5	2.4	NO_2	N
2	Calvert Ave / Boundary Street	533507	182569	Kerbside	Whole Borough AQMA	4	0.5	2.3	NO_2	N
3	Bethnal Green Rd / Brick Lane	533860	182442	Kerbside	Whole Borough AQMA	3	0.5	2.3	NO_2	N
4	Commercial St / Calvin St	533611	182037	Kerbside	Whole Borough AQMA	7	0.5	2.4	NO_2	N
5	Whitechapel High St (KFC)	533985	181426	Kerbside	Whole Borough AQMA	3	0.5	2.3	NO_2	N
6	Mansell St	533800	181021	Kerbside	Whole Borough AQMA	6	0.5	2.2	NO_2	N
7	St Katherine's Way	533992	180376	Roadside	Whole Borough AQMA	10	10	2.3	NO_2	N
8	Wapping High St / Sampson St	534444	180122	Kerbside	Whole Borough AQMA	3	0.5	2.4	NO_2	N

Diffusion Tube ID	Site Name	X OS Grid Ref (Easting) (m)	Y OS Grid Ref (Northing) (m)	Site Type	In AQMA? Which AQMA?	Distance from monitoring site to relevant exposure(m)	Distance to kerb of nearest road (N/A if not applicable) (m)	Inlet height (m)	Pollutants monitored	Tube co-located with an automatic monitor? (Y/N)
9	Cartwright Street	533955	180805	Kerbside	Whole Borough AQMA	5	0.5	2.4	NO_2	N
10	Whitechapel Rd / Adler St	534133	181509	Kerbside	Whole Borough AQMA	6	0.5	2.3	NO_2	N
11	Brick Lane / Princelet St	533866	181860	Kerbside	Whole Borough AQMA	5	0.5	2.3	NO_2	N
12	Buckfast St / Bethnal Green Rd	534259	182580	Kerbside	Whole Borough AQMA	4	0.5	2.5	NO_2	N
13	Squirries St / Gosset St	534313	182810	Kerbside	Whole Borough AQMA	4	0.5	2.3	NO_2	N
14	Warner Place/Hackney Rd	534255	183130	Kerbside	Whole Borough AQMA	17	0.5	2.4	NO_2	N
15	Parmiter St / Cambridge Heath Road	534881	183240	Kerbside	Whole Borough AQMA	4	0.5	2.2	NO_2	N
16	Paradise Row / Bethnal Green Rd	534959	182757	Kerbside	Whole Borough AQMA	3	0.5	2.3	NO_2	N
17	Finnis St / Three Colts Lane	534783	182385	Kerbside	Whole Borough AQMA	2	0.5	2.2	NO_2	N

Diffusion Tube ID	Site Name	X OS Grid Ref (Easting) (m)	Y OS Grid Ref (Northing) (m)	Site Type	In AQMA? Which AQMA?	Distance from monitoring site to relevant exposure(m)	Distance to kerb of nearest road (N/A if not applicable) (m)	Inlet height (m)	Pollutants monitored	Tube co-located with an automatic monitor? (Y/N)
18	Sidney St / Mile End Rd	534968	181878	Roadside	Whole Borough AQMA	6	2	2.3	NO_2	N
19	Philpot St / Commercial Road	534816	181321	Kerbside	Whole Borough AQMA	8	0.5	2.3	NO_2	N
20	Dellow St / The Highway	534951	180779	Roadside	Whole Borough AQMA	4	2	2.2	NO_2	N
21	Queensbridge Rd / Hackney Rd	533985	183122	Kerbside	Whole Borough AQMA	4	0.5	2.2	NO_2	N
22	Wapping Wall / Garnet St	535133	180376	Kerbside	Whole Borough AQMA	3	0.5	2.4	NO_2	N
23	Brodlove Lane	535598	180816	Kerbside	Whole Borough AQMA	3	0.5	2.2	NO_2	N
24	Jubilee Street / Commercial Rd	535174	181290	Kerbside	Whole Borough AQMA	5	0.5	2.3	NO_2	N
25	Cavell St / Stepney Way	534884	181667	Kerbside	Whole Borough AQMA	20	1	2.3	NO_2	N
26	Hannibal Rd / Mile End Rd	535386	182021	Kerbside	Whole Borough AQMA	3	0.5	2.2	NO_2	N

Diffusion Tube ID	Site Name	X OS Grid Ref (Easting) (m)	Y OS Grid Ref (Northing) (m)	Site Type	In AQMA? Which AQMA?	Distance from monitoring site to relevant exposure(m)	Distance to kerb of nearest road (N/A if not applicable) (m)	Inlet height (m)	Pollutants monitored	Tube co-located with an automatic monitor? (Y/N)
27	Roman Rd / Globe Road	535296	182793	Kerbside	Whole Borough AQMA	12	0.5	2.2	NO_2	N
28	Bonner Road	535356	183223	Kerbside	Whole Borough AQMA	7	0.5	2.7	NO_2	N
29	Grove Rd / Old Ford Rd	535930	183385	Kerbside	Whole Borough AQMA	12	0.5	2.4	NO_2	N
30	Fieldgate Street	534239	181565	Kerbside	Whole Borough AQMA	8	0.5	2.3	NO_2	N
31	Whitechapel Market	534516	181744	Roadside	Whole Borough AQMA	15	1.5	2.2	NO_2	N
32	Globe Rd / Mile End Rd	535634	182148	Kerbside	Whole Borough AQMA	4	0.5	2.3	NO_2	N
33	Stepney Green	535545	181604	Urban background	Whole Borough AQMA	30	15	2.4	NO_2	N
34	Pitsea St / Commercial Rd	535797	181164	Kerbside	Whole Borough AQMA	4	0.5	2.3	NO_2	N
35	Narrow St / Limehouse Link	535977	180879	Roadside	Whole Borough AQMA	15	1.5	2.6	NO_2	N

Diffusion Tube ID	Site Name	X OS Grid Ref (Easting) (m)	Y OS Grid Ref (Northing) (m)	Site Type	In AQMA? Which AQMA?	Distance from monitoring site to relevant exposure(m)	Distance to kerb of nearest road (N/A if not applicable) (m)	Inlet height (m)	Pollutants monitored	Tube co-located with an automatic monitor? (Y/N)
36	Locksley St / St Paul's Way	536704	181647	Kerbside	Whole Borough AQMA	40	0.5	2.9	NO_2	N
37	Rhodeswell Rd	536577	181379	Kerbside	Whole Borough AQMA	40	1	2.4	NO_2	N
38	Ben Johnson Road	536080	181721	Kerbside	Whole Borough AQMA	4	0.5	2.6	NO_2	N
39	Harford St / Mile End Rd	536089	182258	Roadside	Whole Borough AQMA	3	1.5	2.2	NO_2	N
40	Thoydon Rd	536105	183049	Kerbside	Whole Borough AQMA	7	0.5	2.4	NO_2	N
41	Ford Close / Roman Rd	536457	183301	Roadside	Whole Borough AQMA	2	1.5	2.3	NO_2	N
42	Victoria Park (Co-location site)	536494	184170	Urban background	Whole Borough AQMA	330	320	2.15	NO_2	Y
43	Victoria Park (Co-location site)	536494	184170	Urban background	Whole Borough AQMA	330	320	2.1	NO_2	Y
44	Parnell Rd/Old Ford Rd	536875	183740	Kerbside	Whole Borough AQMA	4	0.5	2.4	NO_2	N

Diffusion Tube ID	Site Name	X OS Grid Ref (Easting) (m)	Y OS Grid Ref (Northing) (m)	Site Type	In AQMA? Which AQMA?	Distance from monitoring site to relevant exposure(m)	Distance to kerb of nearest road (N/A if not applicable) (m)	Inlet height (m)	Pollutants monitored	Tube co-located with an automatic monitor? (Y/N)
45	St Stephen's Rd / Tredegar Rd	536713	183070	Kerbside	Whole Borough AQMA	3	0.5	2.3	NO_2	N
46	Rhondda Grove / Mile End Rd	536542	182589	Kerbside	Whole Borough AQMA	5	0.5	2.5	NO_2	N
47	Wentworth Mews	536452	182454	Kerbside	Whole Borough AQMA	15	0.5	2.5	NO_2	N
48	Ackroyd Drive	536768	181772	Kerbside	Whole Borough AQMA	40	0.5	2.5	NO_2	N
49	Dod St / Burdett Rd	537049	181292	Kerbside	Whole Borough AQMA	5	0.5	2.5	NO_2	N
50	Rich Street	536937	180987	Roadside	Whole Borough AQMA	3	1.5	2.2	NO_2	N
51	Watney Market	534938	181257	Roadside	Whole Borough AQMA	10	15	2.2	NO_2	N
52	Wick Lane / Autumn St	537304	183619	Kerbside	Whole Borough AQMA	3	0.5	2.4	NO_2	N
53	Fairfield Road / Tredegar Road	537159	183415	Kerbside	Whole Borough AQMA	4	0.5	2.4	NO_2	N

Diffusion Tube ID	Site Name	X OS Grid Ref (Easting) (m)	Y OS Grid Ref (Northing) (m)	Site Type	In AQMA? Which AQMA?	Distance from monitoring site to relevant exposure(m)	Distance to kerb of nearest road (N/A if not applicable) (m)	Inlet height (m)	Pollutants monitored	Tube co-located with an automatic monitor? (Y/N)
54	Bow Rd / Glebe Terrace	537525	182887	Kerbside	Whole Borough AQMA	5	0.5	2.4	NO_2	N
55	TH Cemetery Park	536732	182361	Roadside	Whole Borough AQMA	15	5	2.5	NO_2	N
56	Bow Common Lane / St Paul's Way	537248	181820	Kerbside	Whole Borough AQMA	30	0.5	2.3	NO_2	N
57	Augusta St / Giraud St	537516	181392	Kerbside	Whole Borough AQMA	15	1	2.4	NO_2	N
58	Dolphin Lane	537539	180688	Kerbside	Whole Borough AQMA	7	1	2.9	NO_2	N
59	Westferry Road / Limehouse Link Jnct	537100	180791	Kerbside	Whole Borough AQMA	7	1	2.2	NO_2	N
60	Cascades, Westferry Road	537115	180074	Kerbside	Whole Borough AQMA	18	0.5	2.4	NO_2	N
61	Bow Rd / Alfred St	537056	182773	Kerbside	Whole Borough AQMA	6	0.5	2.4	NO_2	N
62	Mast House Terrace	537348	178690	Kerbside	Whole Borough AQMA	5	0.5	2.7	NO_2	N

Diffusion Tube ID	Site Name	X OS Grid Ref (Easting) (m)	Y OS Grid Ref (Northing) (m)	Site Type	In AQMA? Which AQMA?	Distance from monitoring site to relevant exposure(m)	Distance to kerb of nearest road (N/A if not applicable) (m)	Inlet height (m)	Pollutants monitored	Tube co-located with an automatic monitor? (Y/N)
63	Millwall Park	538246	178689	Urban background	Whole Borough AQMA	300	250	2.3	NO_2	N
64	Lime harbour	537953	179357	Kerbside	Whole Borough AQMA	10	0.5	2.2	NO_2	N
65	Manchester Road / East Ferry Road	538032	178360	Kerbside	Whole Borough AQMA	2	0.5	2.3	NO_2	N
66	Millwall Park	538258	178689	Urban background	Whole Borough AQMA	300	250	2.3	NO_2	N
67	Seyssel Street	538544	178767	Kerbside	Whole Borough AQMA	15	0.5	2.3	NO_2	N
68	Manchester Road / Ollife Street	538431	179044	Kerbside	Whole Borough AQMA	3	0.5	2.3	NO_2	N
69	Lawnhouse Close	538190	179750	Kerbside	Whole Borough AQMA	30	0.5	2.3	NO_2	N
70	Admirals Way	537424	179910	Kerbside	Whole Borough AQMA	15	0.5	2.3	NO_2	N
71	Toynbee St / Commercial St	533689	181705	Roadside	Whole Borough AQMA	10	2	2.5	NO_2	N

Diffusion Tube ID	Site Name	X OS Grid Ref (Easting) (m)	Y OS Grid Ref (Northing) (m)	Site Type	In AQMA? Which AQMA?	Distance from monitoring site to relevant exposure(m)	Distance to kerb of nearest road (N/A if not applicable) (m)	Inlet height (m)	Pollutants monitored	Tube co-located with an automatic monitor? (Y/N)
72	Prestons Road / Coldharbour	538364	180188	Kerbside	Whole Borough AQMA	4	0.5	2.2	NO_2	N
73	John Smith Mews	538742	180756	Kerbside	Whole Borough AQMA	10	0.5	2.3	NO_2	N
74	Poplar High St / Cotton St	538244	180761	Kerbside	Whole Borough AQMA	10	0.5	2.2	NO_2	N
75	Hale Street	537661	180768	Kerbside	Whole Borough AQMA	7	0.5	2.3	NO_2	N
76	Chrisp Street / E India Dock Road	537940	181021	Kerbside	Whole Borough AQMA	20	0.5	2.7	NO_2	N
77	Morris / Barchester Street	537731	181761	Kerbside	Whole Borough AQMA	4	0.5	2.5	NO_2	N
78	Devons Road / Campbell Road	537577	182232	Kerbside	Whole Borough AQMA	10	0.5	2.4	NO_2	N
79	Hatfield Terrace / Fairfield Road	537355	183059	Kerbside	Whole Borough AQMA	3	0.5	2.4	NO_2	N
80	Wrexham Road	537581	183209	Kerbside	Whole Borough AQMA	3	0.5	2.4	NO_2	N

Diffusion Tube ID	Site Name	X OS Grid Ref (Easting) (m)	Y OS Grid Ref (Northing) (m)	Site Type	In AQMA? Which AQMA?	Distance from monitoring site to relevant exposure(m)	Distance to kerb of nearest road (N/A if not applicable) (m)	Inlet height (m)	Pollutants monitored	Tube co-located with an automatic monitor? (Y/N)
81	Bromley High Street / St Leonards	537868	182912	Kerbside	Whole Borough AQMA	5	0.5	2.4	NO_2	N
82	Devas Street / Devons road	537821	182332	Kerbside	Whole Borough AQMA	7	0.5	2.4	NO_2	N
83	Zetland Street / A12	538178	181747	Kerbside	Whole Borough AQMA	50	0.5	2.3	NO_2	N
84	Blair Street (End of Street)	538365	181180	Roadside	Whole Borough AQMA	15	5	2.5	NO_2	N
85	Portree Street	538895	181296	Kerbside	Whole Borough AQMA	4	0.5	2.3	NO_2	N
86	Newport Avenue	538954	180872	Kerbside	Whole Borough AQMA	15	0.5	2.6	NO_2	N
87	Mile End Road Corner Bancroft Rd	535929	182220	Kerbside	Whole Borough AQMA	30	0.5	2.3	NO_2	N
88	Shirbutt St o/s Holy Family School	537555	180892	Kerbside	Whole Borough AQMA	10	0.5	2.3	NO_2	N
89	Thames Path Storers Quay	538730	178733	Roadside	Whole Borough AQMA	4	10	2.3	NO_2	N

Diffusion Tube ID	Site Name	X OS Grid Ref (Easting) (m)	Y OS Grid Ref (Northing) (m)	Site Type	In AQMA? Which AQMA?	Distance from monitoring site to relevant exposure(m)	Distance to kerb of nearest road (N/A if not applicable) (m)	Inlet height (m)	Pollutants monitored	Tube co-located with an automatic monitor? (Y/N)
90	Sextant Avenue	538674	178888	Kerbside	Whole Borough AQMA	4	1	2.3	NO_2	N
91	At the entrance of MOT station	539007	181146	Kerbside	Whole Borough AQMA	8	1.9	2.5	NO2	N
92	At the exit of MOT station	538907	181127	Roadside	Whole Borough AQMA	12	3.7	2.3	NO2	N

1.2 Comparison of Monitoring Results with AQOs

Concentration values are those at the location of the monitoring site (bias adjusted and annualised, as required), not those following any fall-off with distance correction.

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

Site ID	Site type	Valid data capture for monitoring period % [a]	Valid data capture 2023 % [b]	2017 (Annual Mean Concentration (µg m-3))	2018 (Annual Mean Concentration (µg m-3))	2019 (Annual Mean Concentration (µg m-3))	2020 (Annual Mean Concentration (µg m-3))	2021 (Annual Mean Concentration (µg m-3))	2022 (Annual Mean Concentration (µg m-3))	2023 (Annual Mean Concentration (µg m-3))
TH2 Mile End	Automatic	N/A	99	**48**	**47**	35	25	26	23	22
TH004 Blackwall	Automatic	N/A	99	**56**	**51**	**47**	39	37	28	28
TH002 Victoria Park	Automatic	N/A	100	32	26	24	17	16	17	15
TH001 Millwall Park	Automatic	N/A	88	26	23	24	17	17	20	17
TH005 King Edward Memorial Park [c]	Automatic	60	N/A	-	-	-	-	-	-	16

Notes:

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

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

NO_2 annual means in excess of 60 µg m^{-3}, indicating a potential exceedance of the NO_2 hourly mean AQS objective are shown in **bold and underlined**.

Means for diffusion tubes have been corrected for bias.

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

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%).

(c) King Edward Memorial Park: Installed in May 2023

Commentary

Data capture rate of more than 75% was achieved at all automatic monitoring stations except for King Edward Memorial Park (KEMP) site, where annual data capture was 60% due to it being installed and commissioned in May 2023. Data for this site has been annualised in accordance with LLAQM Technical Guidance.

In 2023, compliance against the annual mean NO_2 objective was achieved at all five automatic monitoring sites.

All annual mean NO_2 concentrations were below the national objective of 40µg/m³, including roadside monitors.

The trend over the last 7 years shows an overall reduction in annual mean NO_2 concentrations, with roadside sites showing the biggest reduction. However, since 2022, the roadside sites appear to have plateaued.

The annual mean NO_2 concentrations at background sites were also below the UK legal limits and showed a small decrease compared to last year. There was a significant fall in 2020 due to COVID 19 lockdown and levels have remained low and have not returned to pre COVID levels. The long-term trend shows a continual reduction in NO_2 levels, although they remain above the updated WHO guideline levels.

Reasons for the air quality improvement could be linked to the ULEZ (Ultra Low Emission Zone) expansion, NRMM conditions in place, new planning requirements to monitor for construction dust at construction sites (construction dust conditions), air quality / transport / highways projects, implementations of the AQAP actions, etc.

Figure 1 below shows the trend in annual mean NO_2 concentrations over the last 7 years at the automatic monitoring sites in comparison with the UK legal limit.

Figure 1. Annual Mean NO_2 Monitoring Results: Automatic Monitoring (µg/m^3) from 2017 to 2023.

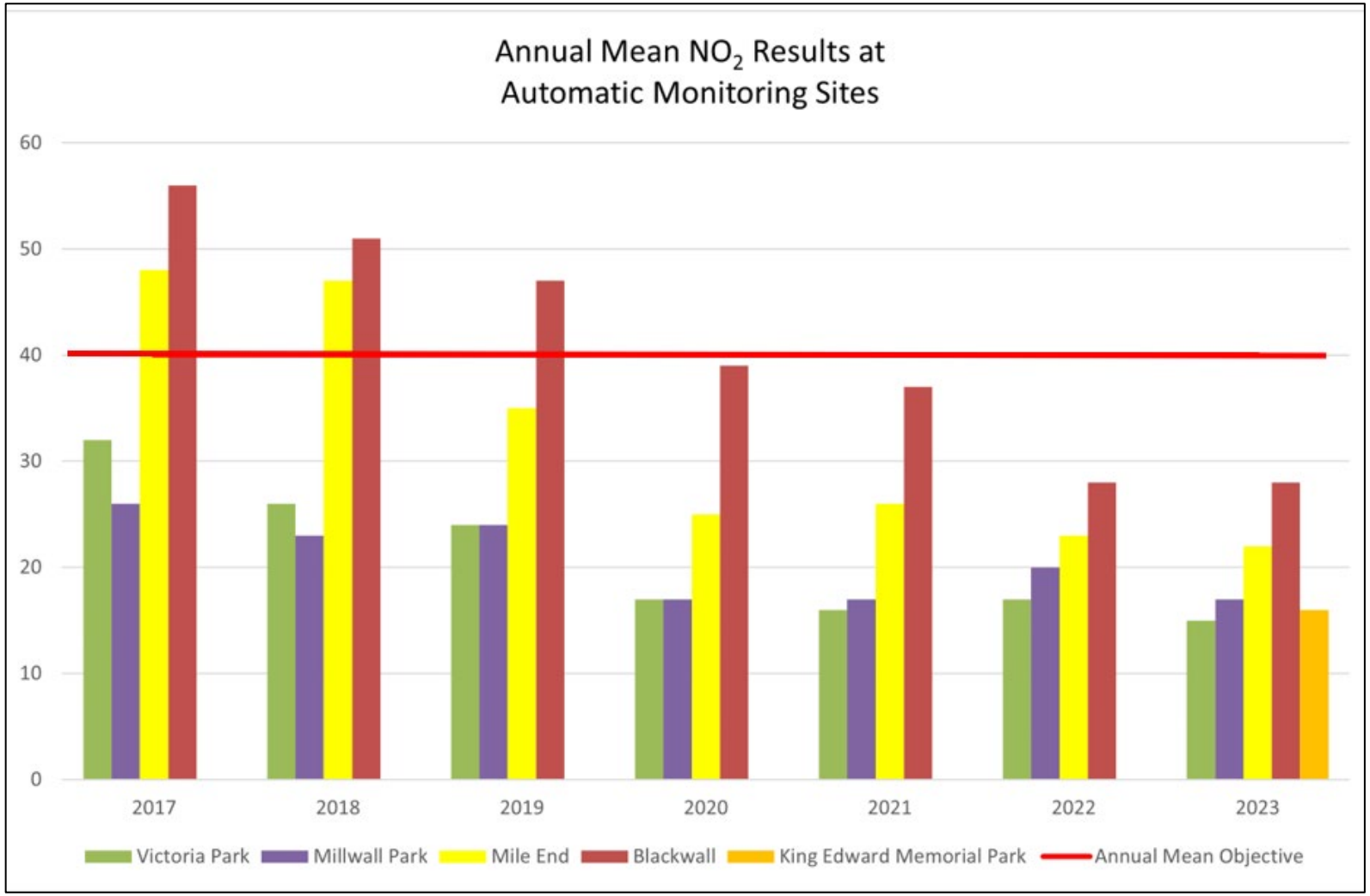


Table E. Annual Mean NO_2 Monitoring Results: Non-Automatic Monitoring (µg/m^3).

Site ID	Site type	Valid data capture for monitoring period % [a]	Valid data capture 2023 % [b]	2017 (Annual Mean Concentration (µg m-3))	2018 (Annual Mean Concentration (µg m-3))	2019 (Annual Mean Concentration (µg m-3))	2020 (Annual Mean Concentration (µg m-3))	2021 (Annual Mean Concentration (µg m-3))	2022 (Annual Mean Concentration (µg m-3))	2023 (Annual Mean Concentration (µg m-3))
1	Colombia Rd / Gossett Street	N/A	92	39	34	33	25	22	20	20
2	Calvert Ave / Boundary Street	N/A	100	**40**	37	35	26	22	21	20
3	Bethnal Green Rd / Brick Lane	N/A	75	**45**	36	37	27	26	26	28
4	Commercial St / Calvin St	N/A	75	**60**	**53**	**48**	34	33	30	26
5	Whitechapel High St (KFC)	N/A	100	**62**	**61**	**48**	34	38	37	33
6	Mansell St	N/A	100	**75**	**50**	**45**	35	30	32	31
7	St Katherine's Way	N/A	50	30	28	28	20	19	25	18
8	Wapping High St / Sampson St	N/A	100	33	31	30	22	21	21	20
9	Cartwright Street	N/A	100	-	33	34	25	22	23	20
10	Whitechapel Rd / Adler St	N/A	42	-	**46**	**40**	29	28	31	26
11	Brick Lane / Princelet St	N/A	92	**40**	35	32	24	22	24	21
12	Buckfast St/Bethnal Green Rd	N/A	83	39	35	32	24	23	22	22
13	Squirries St / Gosset St	N/A	92	-	38	38	27	25	26	22
14	Warner Place / Hackney Rd	N/A	100	**41**	38	35	26	23	26	25
15	Parmiter St / Cambridge Heath Road	N/A	92	-	**45**	**41**	30	29	27	25

Site ID	Site type	Valid data capture for monitoring period % [a]	Valid data capture 2023 % [b]	2017 (Annual Mean Concentration (µg m-3))	2018 (Annual Mean Concentration (µg m-3))	2019 (Annual Mean Concentration (µg m-3))	2020 (Annual Mean Concentration (µg m-3))	2021 (Annual Mean Concentration (µg m-3))	2022 (Annual Mean Concentration (µg m-3))	2023 (Annual Mean Concentration (µg m-3))
16	Paradise Row / Bethnal Green Rd	N/A	67	**42**	**41**	36	28	28	28	24
17	Finnis St / Three Colts Lane	N/A	100	35	29	31	21	20	21	17
18	Sidney St / Mile End Rd	N/A	92	**46**	**40**	37	29	28	26	27
19	Philpot St / Commercial Road	N/A	92	**51**	**44**	**41**	31	30	30	26
20	Dellow St / The Highway	N/A	100	**59**	**52**	**49**	34	38	38	33
21	Queensbridge Rd / Hackney Rd	N/A	100	-	**55**	35	26	24	24	24
22	Wapping Wall / Garnet St	N/A	100	34	32	30	23	25	24	20
23	Brodlove Lane	N/A	92	**46**	**43**	**40**	30	29	29	27
24	Jubilee Street / Commercial Rd	N/A	100	**62**	**64**	**47**	33	37	35	33
25	Cavell St / Stepney Way	N/A	100	**45**	**40**	38	**30**	26	29	28
26	Hannibal Rd / Mile End Rd	N/A	100	**50**	**44**	**42**	29	27	26	25
27	Roman Rd / Globe Rd	N/A	83	-	36	34	26	27	24	23
28	Bonner Road	N/A	92	**40**	37	35	26	32	32	31
29	Grove Rd / Old Ford Rd	N/A	100	**46**	**43**	**40**	28	27	27	26
30	Fieldgate Street	N/A	92	**42**	**46**	38	28	28	29	26
31	Whitechapel Market	N/A	100	**69**	**63**	**54**	**40**	**40**	38	38
32	Globe Rd / Mile End Rd	N/A	100	**52**	**48**	**42**	**30**	30	31	30
33	Stepney Green	N/A	100	37	39	28	24	21	21	19
34	Pitsea St / Commercial Rd	N/A	100	-	37	35	26	26	25	22

Site ID	Site type	Valid data capture for monitoring period % [a]	Valid data capture 2023 % [b]	2017 (Annual Mean Concentration (µg m-3))	2018 (Annual Mean Concentration (µg m-3))	2019 (Annual Mean Concentration (µg m-3))	2020 (Annual Mean Concentration (µg m-3))	2021 (Annual Mean Concentration (µg m-3))	2022 (Annual Mean Concentration (µg m-3))	2023 (Annual Mean Concentration (µg m-3))
35	Narrow St Limehouse Link	N/A	92	-	**86**	**77**	**54**	**61**	**59**	**55**
36	Locksley St / St Paul's Way	N/A	100	36	35	32	26	26	21	24
37	Rhodeswell Rd	N/A	100	36	34	30	27	25	24	22
38	Ben Johnson Road	N/A	100	**44**	36	36	29	28	27	26
39	Harford St / Mile End Rd	N/A	100	**41**	**42**	36	26	28	27	25
40	Thoydon Rd	N/A	100	-	36	33	24	24	24	21
41	Ford Close / Roman Rd	N/A	100	**40**	38	34	26	29	28	25
42	Victoria Park Co-location site	N/A	75	24	22	21	17	15	15	14
43	Victoria Park Co-location site	N/A	75	23	22	21	16	15	14	15
44	Parnell Rd / Old Ford Rd	N/A	100	**42**	35	34	28	28	28	27
45	St Stephen's Rd / Tredegar Rd	N/A	100	**45**	**56**	39	31	29	29	26
46	Rhondda Grove / Mile End Rd	N/A	92	37	**48**	33	26	24	24	21
47	Wentworth Mews	N/A	75	**46**	**48**	**41**	32	32	29	27
48	Ackroyd Drive	N/A	100	**44**	38	37	32	30	29	28
49	Dod St / Burdett Rd	N/A	100	38	33	30	25	22	21	20
50	Rich Street	N/A	100	**42**	**42**	35	29	30	29	27
51	Watney Market	N/A	92	34	33	29	23	24	23	22
52	Wick Lane / Autumn St	N/A	75	**42**	**40**	37	30	30	29	27
53	Fairfield Road/Tredegar Road	N/A	100	**50**	**42**	**43**	35	35	32	31
54	Bow Rd / Glebe Terrace	N/A	100	**57**	**60**	**50**	37	38	**41**	**41**
55	TH Cemetery Park	N/A	100	25	23	22	17	17	17	13

Site ID	Site type	Valid data capture for monitoring period % [a]	Valid data capture 2023 % [b]	2017 (Annual Mean Concentration (µg m-3))	2018 (Annual Mean Concentration (µg m-3))	2019 (Annual Mean Concentration (µg m-3))	2020 (Annual Mean Concentration (µg m-3))	2021 (Annual Mean Concentration (µg m-3))	2022 (Annual Mean Concentration (µg m-3))	2023 (Annual Mean Concentration (µg m-3))
56	Bow Common Lane / St Paul's Way	N/A	100	**40**	37	32	26	25	25	25
57	Augusta St / Girauld St	N/A	92	-	28	27	23	22	21	20
58	Dolphin Lane	N/A	100	32	29	28	23	22	22	20
59	Westferry Road / Limehouse Link Jnct	N/A	100	**40**	37	31	28	28	27	25
60	Cascades, Westferry Road	N/A	92	**41**	39	36	34	32	31	27
61	Bow Rd / Alfred St	N/A	100	**41**	35	35	28	25	25	23
62	Mast House Terrace	N/A	83	34	29	32	27	27	25	24
63	Millwall Park	N/A	58	26	22	24	21	20	19	16
64	Lime harbour	N/A	100	**40**	38	37	36	37	33	30
65	Manchester Road/East Ferry Road	N/A	100	32	28	29	25	23	23	21
66	Millwall Park	N/A	75	29	25	22	18	20	20	17
67	Seyssel Street	N/A	100	34	30	31	27	26	25	23
68	Manchester Road / Ollife Street	N/A	100	33	32	34	26	27	25	25
69	Lawnhouse Close	N/A	100	**41**	34	31	27	26	24	23
70	Admirals Way	N/A	100	-	27	29	24	22	23	19
71	Toynbee St / Commercial St	N/A	92	-	**54**	**45**	35	33	32	30
72	Prestons Road / Coldharbour	N/A	100	**40**	39	38	30	31	28	29
73	John Smith Mews	N/A	100	**40**	32	31	25	26	22	22
74	Poplar High St / Cotton St	N/A	100	-	**64**	**71**	**59**	**55**	**56**	**50**
75	Hale Street	N/A	92	34	34	29	24	24	22	20

Site ID	Site type	Valid data capture for monitoring period % [a]	Valid data capture 2023 % [b]	2017 (Annual Mean Concentration (µg m-3))	2018 (Annual Mean Concentration (µg m-3))	2019 (Annual Mean Concentration (µg m-3))	2020 (Annual Mean Concentration (µg m-3))	2021 (Annual Mean Concentration (µg m-3))	2022 (Annual Mean Concentration (µg m-3))	2023 (Annual Mean Concentration (µg m-3))
76	Chrisp Street / E India Dock Road	N/A	100	**49**	**45**	39	33	33	31	31
77	Morris / Barchester Street	N/A	83	**40**	37	31	26	23	22	21
78	Devons Road / Campbell Road	N/A	75	**47**	**43**	36	32	31	30	30
79	Hatfield Terrace / Fairfield Road	N/A	100	33	32	28	24	25	23	20
80	Wrexham Road	N/A	100	**40**	38	35	28	30	26	25
81	Bromley High Street / St Leonards	N/A	100	38	38	34	29	31	27	25
82	Devas Street / Devons road	N/A	100	**48**	**45**	37	29	32	29	28
83	Zetland Street / A12	N/A	100	**62**	**63**	**52**	**41**	**43**	**41**	**40**
84	Blair Street (End of Street)	N/A	92	**52**	**44**	39	36	32	30	28
85	Portree Street	N/A	100	**48**	**45**	38	34	34	32	30
86	Newport Avenue	N/A	100	33	30	28	22	25	23	21
87	Mile End Road Corner Bancroft Rd	N/A	100	-	**49**	37	31	30	28	26
88	Shirbutt St o/s Holy Family School	N/A	67	-	28	26	21	21	20	20
89	Thames Path Storers Quay	N/A	100	29	26	26	23	22	22	20
90	Sextant Avenue	N/A	100	28	25	24	20	21	19	19
91	At the entrance of MOT station	N/A	92	-	-	-	-	31	23	24

Site ID	Site type	Valid data capture for monitoring period % [a]	Valid data capture 2023 % [b]	2017 (Annual Mean Concentration (µg m-3))	2018 (Annual Mean Concentration (µg m-3))	2019 (Annual Mean Concentration (µg m-3))	2020 (Annual Mean Concentration (µg m-3))	2021 (Annual Mean Concentration (µg m-3))	2022 (Annual Mean Concentration (µg m-3))	2023 (Annual Mean Concentration (µg m-3))
92	At the exit of MOT station	N/A	92	-	-	-	-	39	28	30

☒ **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%).

Commentary

Monitoring results for the 92 diffusion tubes were bias adjusted using the national bias-adjustment factor. The reasons for choosing the national bias-adjustment over the local bias-adjustment is given in the section 'Discussion of Choice of Factor to Use' (Appendix A).

Raw monthly data for all diffusion tube sites can be found in Table Q (NO_2 Diffusion Tube Results) at the end of this report.

Data capture rate of more than 75% was achieved at most non-automatic monitoring sites, except for the following 5 sites:

- ID 7 St Katherine's Way, data capture 50%
- ID 10 Whitechapel Rd / Adler St, data capture 42%
- ID 16 Paradise Row / Bethnal Green Rd, data capture 67%
- ID 63 Millwall Park, data capture 58%
- ID 88 Shirbutt St o/s Holy Family School, data capture 67%

Data from these sites have been annualised in accordance with the procedure described in LAQM TG (19) (see Appendix A3 'Adjustments to the Ratified Monitoring Data' in this report).

In 2023, compliance against the annual mean NO_2 objective was achieved at most sites with the exception of:

- ID 35 Narrow St/Limehouse Link (annual mean decreased compared to 2022)
- ID 54 Bow Rd /Glebe Terrace (annual mean equal to 2022)
- ID 74 Poplar High St/Cotton St (annual mean decreased compared to 2022)
- ID 83 Zetland Street/A12 (annual mean decreased compared to 2022)

The above roads are managed by TfL

There were no NO_2 annual means exceeding 60 µg m^{-3}, indicating a significant air quality improvement within the Borough.

Monitoring data from all sites show a downward trend over the last 7 years., In comparison with 2022:

- 73 sites showed a reduction in NO_2 annual mean.
- 12 sites showed no change in the NO_2 annual mean, equal to 2022.
- 7 sites showed a minor increase in NO_2 annual mean of about 1-3 µg m^{-3}.

Reasons for the air quality improvement could be linked to the ULEZ (Ultra Low Emission Zone) expansion, NRMM conditions in place, new planning requirements, requirements to monitor for construction dust at construction sites (construction dust conditions), air quality / transport / highways projects, implementations of the AQAP actions, etc.

Figures 2, 3 and 4 below show trend in NO_2 diffusion tube annual mean ratified and bias-adjusted monitoring results at all 92 sites over the last 7 years and how they compare with the UK legal limits.

Figure 2. Annual Mean NO_2 Monitoring Results: Non-Automatic Monitoring (µg/m^3) from 2017 to 2023, sites IDs 1 – 30.

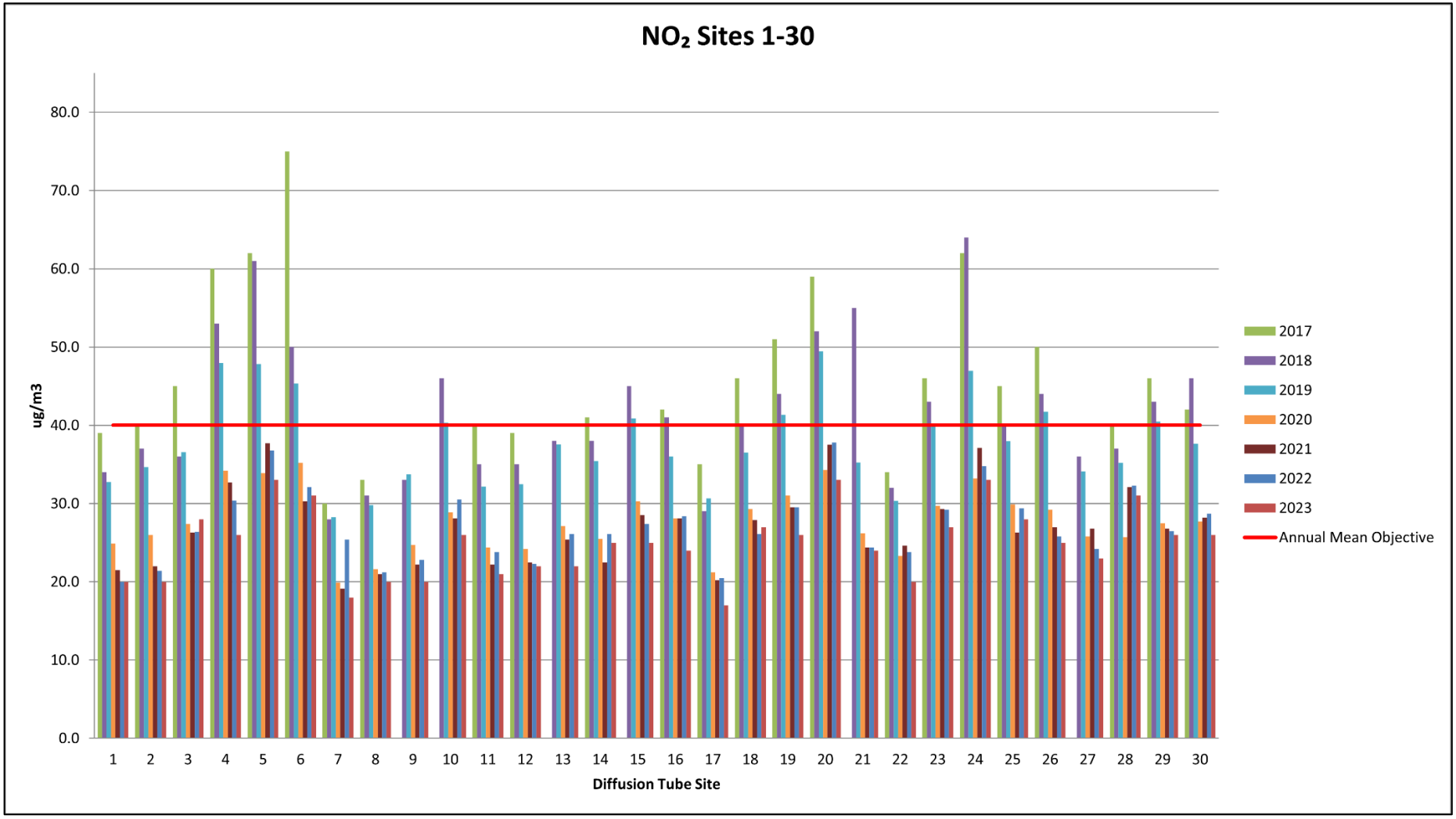


Figure 3. Annual Mean NO_2 Monitoring Results: Non-Automatic Monitoring (µg/m^3) from 2017 to 2023, sites IDs 31 – 60.

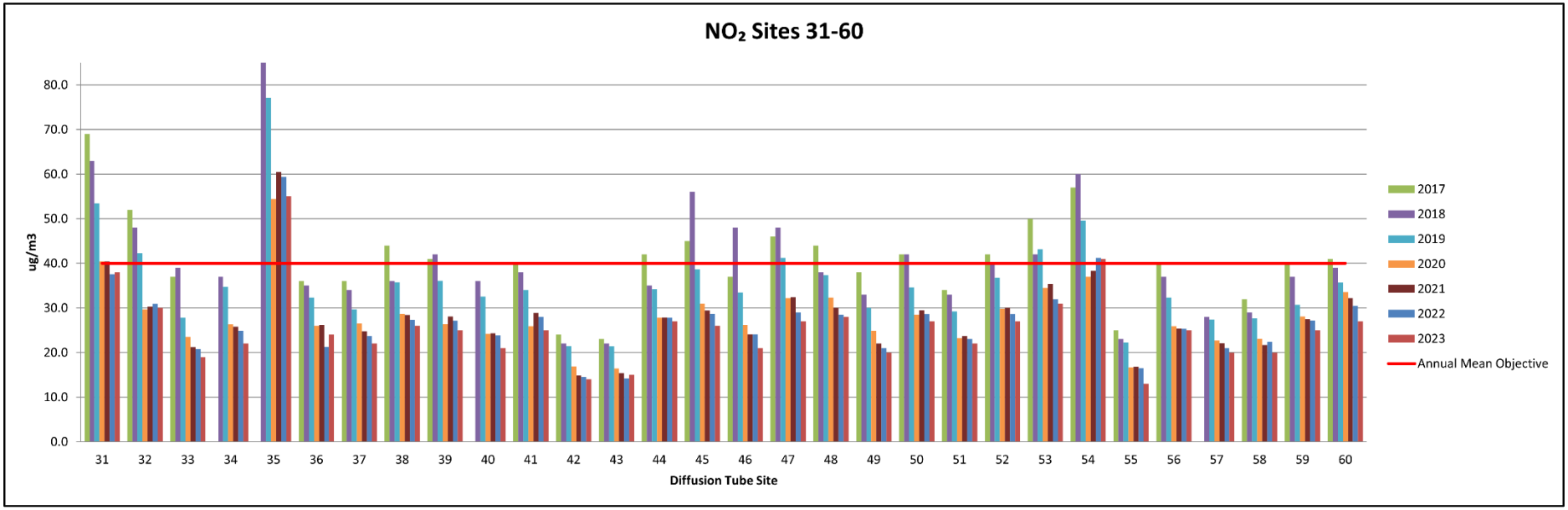


Figure 4. Annual Mean NO_2 Monitoring Results: Non-Automatic Monitoring (µg/m^3) from 2017 to 2023, sites IDs 61 – 92.

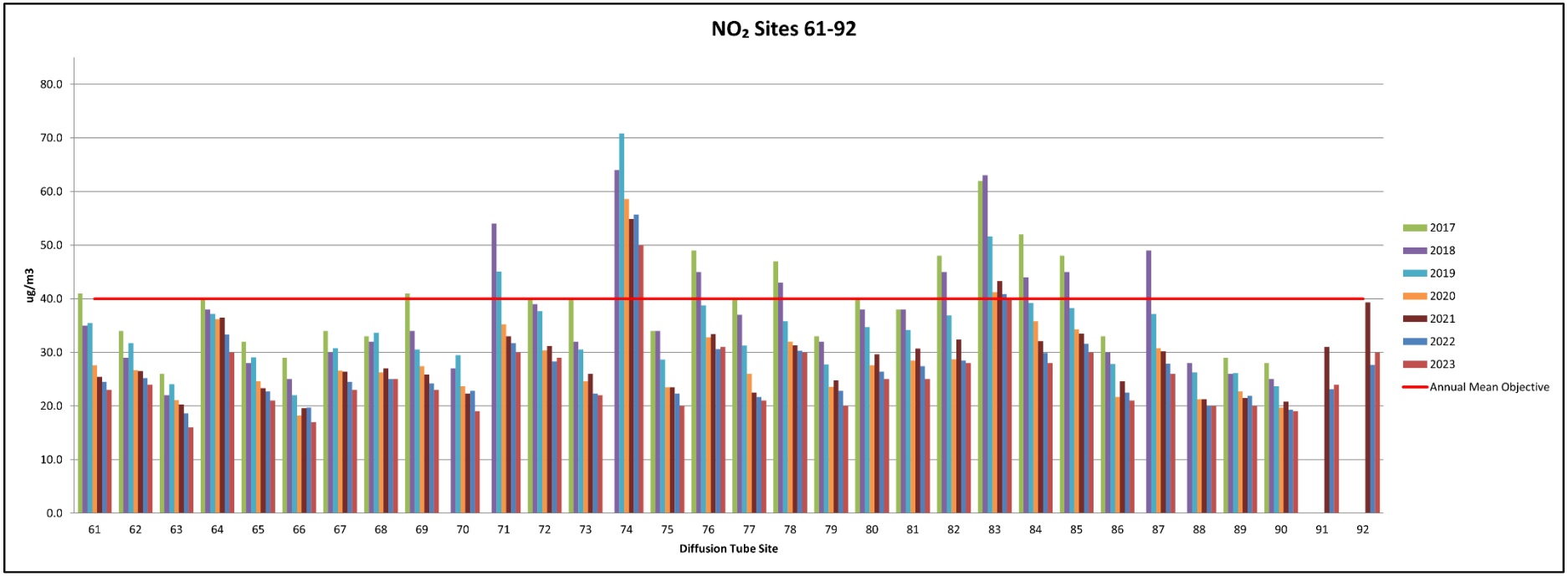


Table F. NO_2 Automatic Monitoring Results: Comparison with 1-hour Mean Objective, Number of 1-Hour Means > 200 µg m^{-3}.

Site ID	Valid data capture for monitoring period % [a]	Valid data capture 2023 % [b]	2017 (Number of Hourly Means > 200µg m-3)	2018 (Number of Hourly Means > 200µg m-3)	2019 (Number of Hourly Means > 200µg m-3)	2020 (Number of Hourly Means > 200µg m-3)	2021 (Number of Hourly Means > 200µg m-3)	2022 (Number of Hourly Means > 200µg m-3)	2023 (Number of Hourly Means > 200µg m-3)
TH2 Mile End	N/A	99	2	0	1	0	0	0	0
TH004 Blackwall	N/A	99	0	0	0	0	0	0	0
TH002 Victoria Park	N/A	100	**24**	1	0	0	0	0	0
TH001 Millwall Park	N/A	88	0	0	0	0	0	0	0
TH005 King Edward Memorial Park [c]	60	N/A	-	-	-	-	-	-	0 (91)

Notes

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

Exceedance of the NO_2 short term AQO of 200 µg m^{-3} over the permitted 18 hours per year are shown in **bold**.

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

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

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

(c) King Edward Memorial Park: Installed in May 2023

Commentary

In 2023, compliance against the 1-hour mean NO_2 objective was achieved at all five automatic monitoring sites.

Since 2020, there were no exceedances of the 1-hour mean, 200µg m^{-3} at any of the automatic monitoring site.

In 2019, only 1 exceedance occurred at Mile End automatic monitoring site (roadside site), although significantly below the permitted 18 days per year.

In 2018, only 1 exceedance occurred at Victoria Park automatic monitoring site, again significantly below the permitted 18 days per year.

Data capture rate of more than 85% was achieved at all nitrogen dioxide automatic monitoring stations. At King Edward Memorial Park site, annual data capture was 60% as previously explained this is due to monitor being installed and commissioned in May 2023 and thus full year's data not available. Therefore, in accordance with LLAQM Technical Guidance, the 99.8th percentile of 1-hour mean has been provided.

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

Site ID	Valid data capture for monitoring period % [a]	Valid data capture 2023 %[b]	2017 (Annual Mean Concentration (µg m^{-3}))	2018 (Annual Mean Concentration (µg m^{-3}))	2019 (Annual Mean Concentration (µg m^{-3}))	2020 (Annual Mean Concentration (µg m^{-3}))	2021 (Annual Mean Concentration (µg m^{-3}))	2022 (Annual Mean Concentration (µg m^{-3}))	2023 (Annual Mean Concentration (µg m^{-3}))
TH004 Blackwall	N/A	78	25	20	20	17	18	-	15
TH001 Millwall Park	N/A	94	20	18	18	18	18	13	15
TH002 Victoria Park	N/A	97	17	18	18	17	16	16	14

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%).

Commentary

Data capture rate of more than 75% was achieved at all automatic monitoring stations.

In 2023, compliance against the UK annual mean PM_{10} objective was achieved at all three monitoring sites and levels have been significantly below the national objective of 40µg/m³ since 2017. However, these still remain significantly higher than the updated WHO guideline levels.

The Blackwall site (with the exception of 2022, when valid annual data capture was less than 25%) has shown a slow reduction in the annual mean PM_{10} since 2017.

At Millwall Park site levels plateaued since 2018 but fell in 2022 and increased in 2023.

At the Victoria Park site, levels plateaued since 2017 with a drop in 2023.

Figure 5 below shows annual mean PM_{10} results at the automatic monitoring sites with a comparison with the UK legal limit.

Figure 5. Annual Mean PM_{10} Automatic Monitoring Results (µg m^{-3}) from 2017 to 2023.

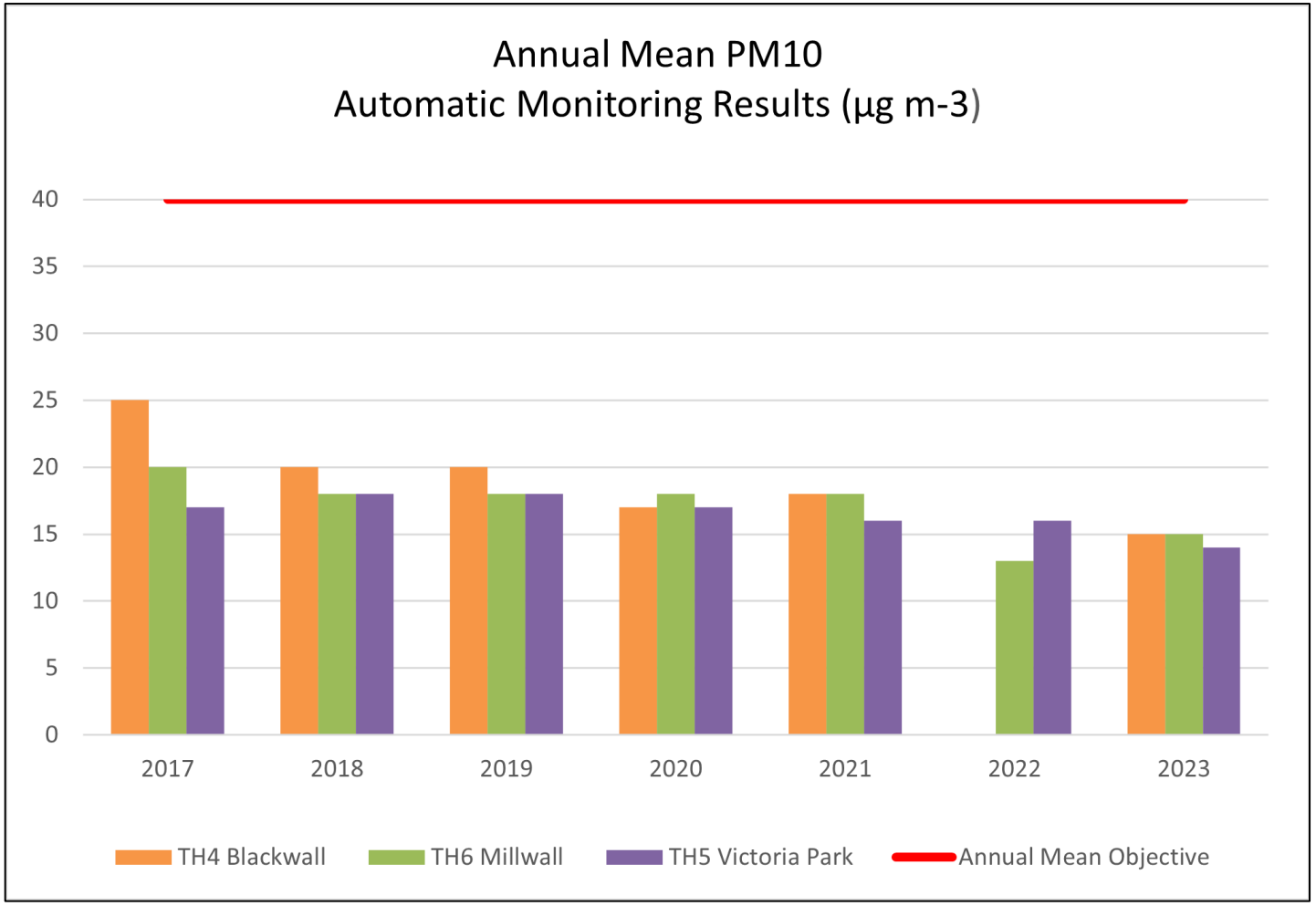


Table H. PM_{10} Automatic Monitoring Results: Comparison with 24-Hour Mean Objective, Number of PM_{10} 24-Hour Means > 50 µg m^{-3}.

Site ID	Valid data capture for monitoring period % [a]	Valid data capture 2023 % [b]	2017 (Number of Daily Means > 50µg m^{-3})	2018 (Number of Daily Means > 50µg m^{-3})	2019 (Number of Daily Means > 50µg m^{-3})	2020 (Number of Daily Means > 50µg m^{-3})	2021 (Number of Daily Means > 50µg m^{-3})	2022 (Number of Daily Means > 50µg m^{-3})	2023 (Number of Daily Means > 50µg m^{-3})
TH004 Blackwall	N/A	78	10	10	8 (35)	4	0 (27.1)	-	1
TH001 Millwall Park	N/A	94	8	1	7 (30)	7	5	4 (31)	1
TH002 Victoria Park	N/A	97	2	1	7	5	1	3	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%).

Commentary

In 2023, compliance against the 24-hour mean PM_{10} objective was achieved at all three automatic monitoring sites. There was only 1 day of exceedance of PM_{10} 24-hour means over 50µg m^{-3} at Millwall Park and Blackwall, significantly below the 35 days permitted per year. There was no exceedance of the 24-hour mean at the Victoria Park site.

All sites show a significant reduction in number of exceedances of the 24-hour mean since 2017.

Data capture rate of more than 75% was achieved at all PM_{10} automatic monitoring stations.

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

Site ID	Valid data capture for monitoring period % [a]	Valid data capture 2023 % [b]	2017 (Annual Mean Concentration (µg m-3))	2018 (Annual Mean Concentration (µg m-3))	2019 (Annual Mean Concentration (µg m-3))	2020 (Annual Mean Concentration (µg m-3))	2021 (Annual Mean Concentration (µg m-3))	2022 (Annual Mean Concentration (µg m-3))	2023 (Annual Mean Concentration (µg m-3))
TH2P Mile End	N/A	81	-	-	10	12	11	9	8
TH004 Blackwall	N/A	75	13	13	12	9	11	8	9
TH002 Victoria Park	N/A	96	-	-	10	12	9	9	8
TH005 King Edward Memorial Park [c]	49	N/A	-	-	-	-	-	-	7

Notes

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

Exceedances of the $PM_{2.5}$ annual mean AQO of 20 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%).

(c) King Edward Memorial Park: Installed in May 2023.

Commentary

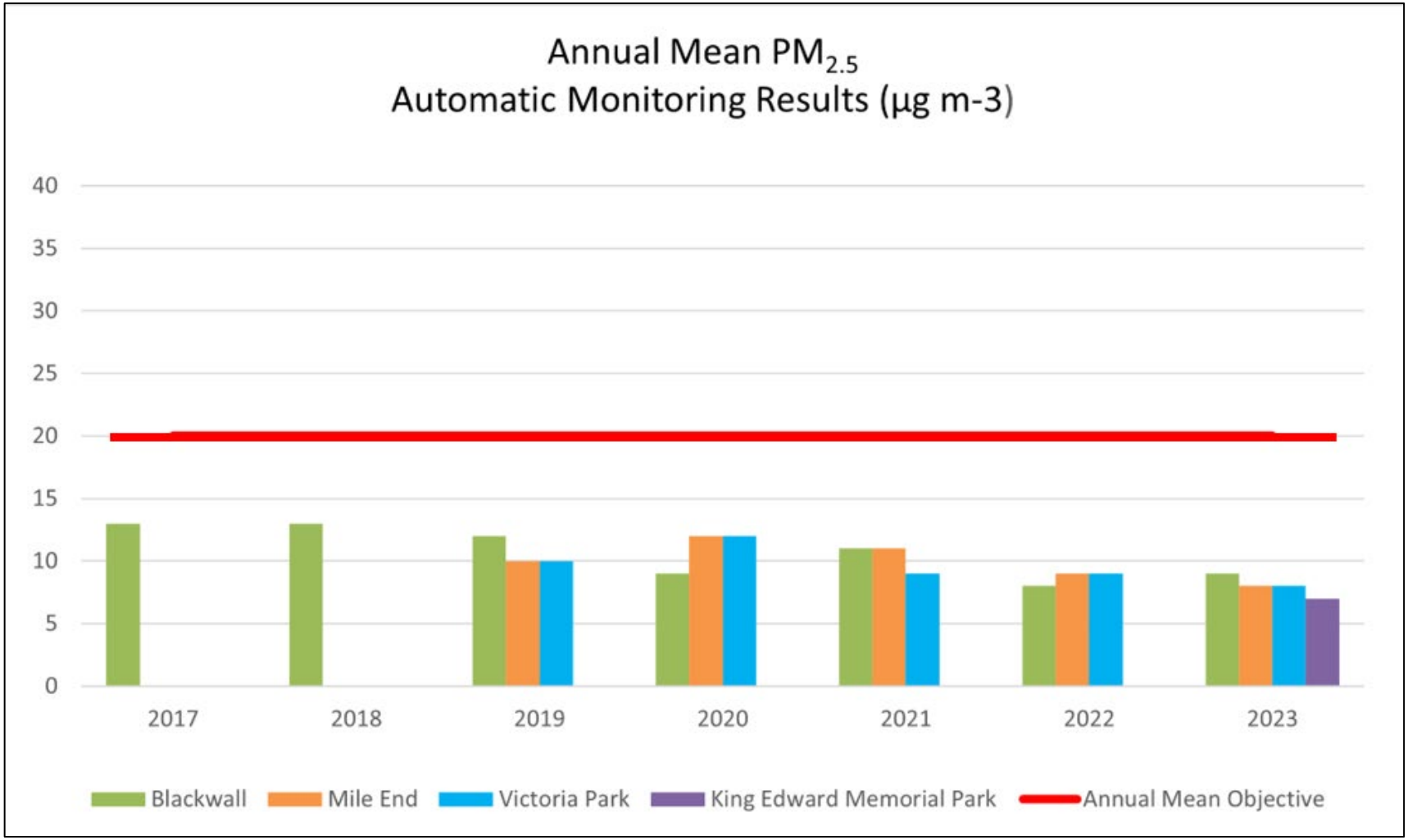
There is a focus on monitoring $PM_{2.5}$ as this pollutant, according to the WHO, can be most damaging to human health. Therefore, the Council In 2019, installed two $PM_{2.5}$ monitors into the existing monitoring site locations of Victoria Park (TH002), and Mile End Road (TH2P). And in 2023, a new automatic monitoring $PM_{2.5}$ analyser was installed at King Edward Memorial Park.

Data capture rate of more than 75% was achieved at all $PM_{2.5}$ automatic monitoring sites expect for King Edward Memorial Park. As the data capture from this site was 49% (less than 75% but greater than 25%), it was possible to annualise the data in accordance with LLAQM Technical Guidance. The data capture for King Edward Memorial Park site has been presented as “valid data capture for monitoring period”, because the $PM_{2.5}$ analyser was installed in May 2023.

Monitoring over the last 7 years show the annual mean $PM_{2.5}$ concentrations at all monitoring sites are below the air quality objective of 25 $\mu g/m^3$ and slow downward trend since 2020. Levels in 2022 and 2023 are below the London Mayor’s 2030 objective but still above the latest WHO guideline levels.

As $PM_{2.5}$ is transboundary, measures taken locally may not have an impact on the overall levels at the monitoring sites.

Figure 6. Annual Mean $PM_{2.5}$ Automatic Monitoring Results (µg m^{-3}) from 2017 to 2023.



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.

In the London Borough of Tower Hamlets, an Air Quality Management Area (AQMA) was declared covering the whole Borough in 2000.

The AQMA was declared for the following pollutants:

I. Nitrogen Dioxide: The London Borough of Tower Hamlets was failing to meet the EU annual average limit for this pollutant at some monitoring stations and modelling indicated it was being breached at several other areas across the Borough.

II. Particulate Matter: Even though the London Borough of Tower Hamlets was meeting the EU limits for PM_{10}, it was exceeding the World Health Organisation (WHO) air quality guideline for this pollutant. We also have a formal responsibility to work towards reductions of $PM_{2.5}$, which is a fraction of PM_{10}. Concentrations of $PM_{2.5}$ are measured at specific monitoring points throughout the Borough. The Council supports the London Mayor's 2030 commitment to achieving the WHO 2005 guidelines levels for $PM_{2.5}$ (10ug/m³).

The Air Quality Action Plan (AQAP) 2022 – 2027 is the latest AQAP prepared by the London Borough of Tower Hamlets.

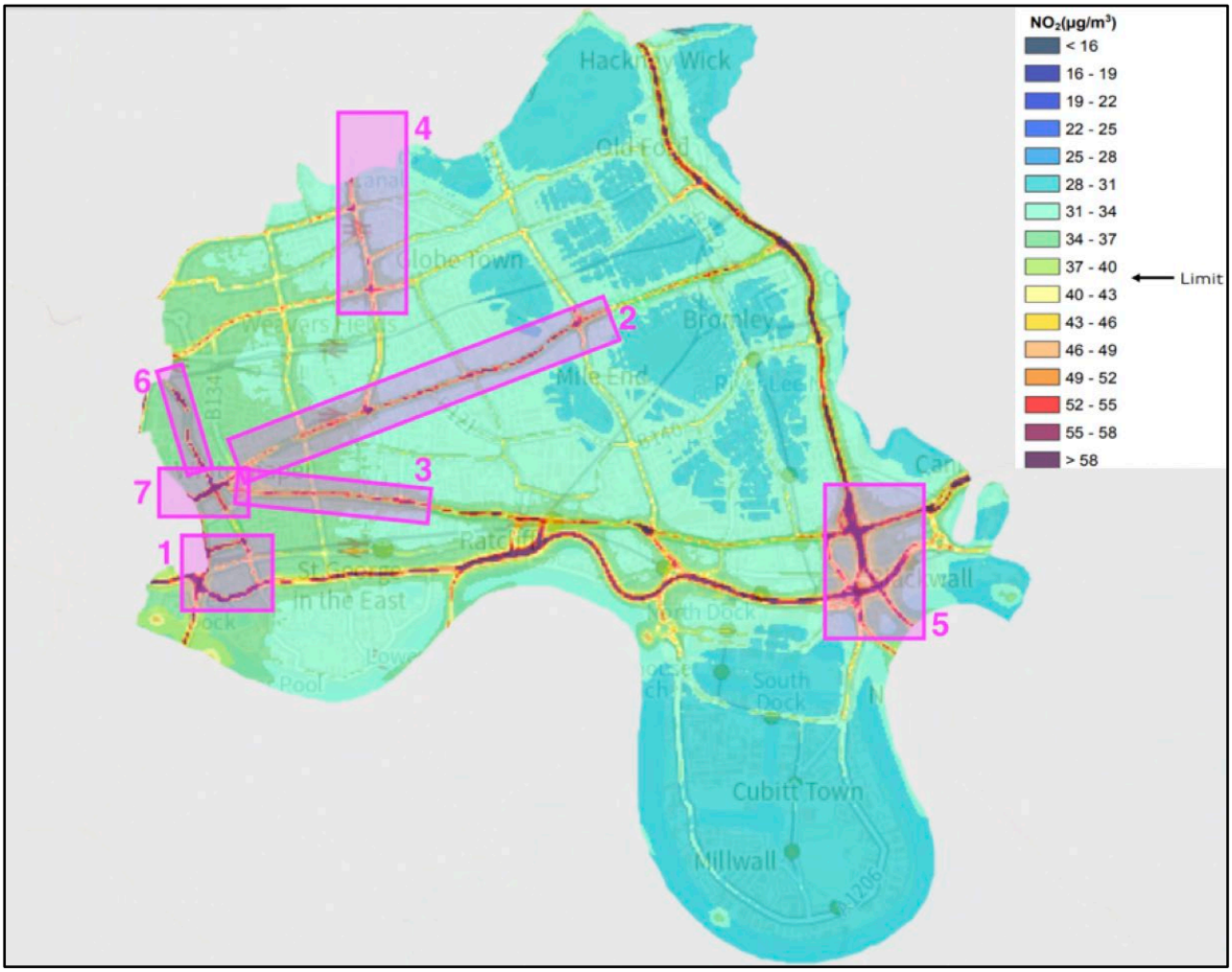
An Air Quality Focus Area is a location that has been identified as having high levels of pollution and human exposure, such as residential properties, schools, hospitals, care homes and town centres.

In the London Borough of Tower Hamlets, there are 7 focus areas for Nitrogen Dioxide: Their names and their locations are listed below and showed in Figure 7. These focus areas are based on the LAEI 2016 data. The GLA have now revisited and reviewed

the focus areas against the updated 2019 LAEI data. The conclusion is that problem remains at these focus areas, therefore, the 7 focus areas remain unchanged.

NO_2 Focus Areas LAEI 2016 – Tower Hamlets		
Reference ID for Figure 7	**Name**	**LAEI 2016 ID**
1	Tower Hill/Tower Gateway/Cable St/The Highway	157
2	A11 Whitechapel Road to Mile End junction A1205 Burdett Road	158
3	Commercial Road from Aldgate East to junction with Jubilee Street	159
4	A107 Cambridge Heath Rd/Bethnal Green Rd to Mare St/Well Street	160
5	Blackwall A13 East India Dock Road/Aspen Way/Blackwall Tunnel	161
6	Commercial Street	162
7	Aldgate and Aldgate East	163

Figure 7. Map of Air the Quality Focus Areas for Nitrogen Dioxide.



A summary of the Air Quality Management Area (AQMA) declared by the London Borough of Tower Hamlets can be found in Table J. The table presents a description of the AQMA that is currently designated within the Borough. Appendix C provides maps of AQMA and also the air quality monitoring locations in relation to the AQMA.

Table J. Declared Air Quality Management Areas.

AQMA Name	Date of Declaration	Pollutants and Air Quality Objectives	One Line Description	Is air quality in the AQMA influenced by roads controlled by Highways England?	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
Tower Hamlets AQAM	06/12/2000 (as per the UK-AIR DEFRA website: AQMA Details - Defra, UK)	Nitrogen Dioxide (NO_2) and Particulate Matter (PM_{10}) (as per the UK-AIR DEFRA website: AQMA Details - Defra, UK)	The whole borough. Source: Transport and Industrial source (as per the UK-AIR DEFRA website: AQMA Details - Defra, UK)	No	NO_2 above annual mean at multiple sites, and PM_{10} above 24-hour mean at multiple sites. (as per the UK-AIR DEFRA website: AQMA Details - Defra, UK)	Automatic monitoring sites did not exceed the PM_{10} annual mean of 40 µg m^{-3} or the PM_{10} 24-hour mean objective (50 µg m^{-3} over the permitted 35 days per year). Four non-automatic monitoring sites (after national bias-adjustment and annualisation) exceeded the annual mean of 40 µg m^{-3}. The sites are: - ID 35 Narrow St/Limehouse Link - ID 54 Bow Rd /Glebe Terrace - ID 74 Poplar High St/Cotton St - ID 83 Zetland Street/A12 Non-automatic monitoring sites (after national bias-adjustment, annualisation, and fall off with distance correction) did not exceed the annual mean of 40 µg m^{-3}. However, a fall off with distance correction was not possible at site ID 83.	• NO2 Automatic Sites: Compliant since 2020 (4 years of compliance). • NO2 non automatic sites: Not all sites have achieved compliance. For 2023, most sites compliant except for 4 sites • PM10 Automatic Sites: Compliance with both annual mean and 24-hour mean since 2012 (12 years of compliance).	London Borough of Tower Hamlets Air Quality Action Plan (AQAP) 2022 – 2027 Date of publication- 26 October 2022	Visit: https://www.towerhamlets.gov.uk/lgnl/environment_and_waste/environmental_health/pollution/air_quality/Advanced_information_on_air_quality/Action_plan_and_reports.aspx

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

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

2.2 Air Quality Action Plan Progress

Tower Hamlets' air quality action plan was adopted in 2022. This is a 5-year plan covering period 2022-2027. There are 30 actions to be delivered over the term of the plan by key stakeholders across the Council.

Table K provides a brief summary of the London Borough of Tower Hamlets progress against the new Air Quality Action Plan 2022.- 2027, showing progress made this year.

Table K. Delivery of Air Quality Action Plan Measures.

Measure	LLAQM Action Matrix Theme	Action	Progress	Further information
1	Monitoring and other core statutory duties	Maintaining, and where possible expanding monitoring networks, and fulfilling other statutory duties. (GLA Foundation Action)	We continue to maintain and implement both the Borough-wide NO_2 diffusion tubes (passive monitoring) and the continuous monitoring networks. We continue to investigate and implement further monitoring where necessary. 5 reference monitoring stations are operating and maintained in the Borough, monitoring pollutants of concern to ensure air quality objectives are being met and to assess the effectiveness of local and regional policies. King Edward Memorial Park site is the latest addition to our reference monitors.	Air quality in Tower Hamlets is measured with 92 NO_2 diffusion tubes and 5 automatic monitoring stations. Our automatic monitoring stations measure a wide variety of pollutants, including NO_2, PM_{10}, $PM_{2.5}$ and O_3.

Measure	LLAQM Action Matrix Theme	Action	Progress	Further information
		(b) Continue to ensure that all air pollution monitoring data is available to the public and the website is regularly updated with the latest available data.	London Borough of Tower Hamlets website updated with latest air quality monitoring results: both monthly diffusion tube data, and air quality continuous monitoring data are entered onto LBTH website. Data are available in the ASR, on Council plasma screens. and online (Council website).	Details of our monitoring can be found here: https://www.towerhamlets.gov.uk/lgnl/environment_and_waste/environmental_health/pollution/air_quality/Advanced_information_on_air_quality/Monitoring.aspx
2	Monitoring and other core statutory duties	Support the London Mayor's 2030 commitment to achieving the WHO interim guideline level for $PM_{2.5}$ annual mean concentration (10ug/m³) with an aspiration to achieving the new WHO target of 5 ug/m³ in the shortest possible time.	We are actively working with the Mayor of London to achieve the WHO interim guideline level for $PM_{2.5}$ annual mean concentration by 2030. Latest monitoring data shows compliance with the interim guideline levels for $PM_{2.5}$.	This is a new action introduced following public consultation on the new air quality action plan. We're supporting the Mayor of London's commitment to achieving the WHO interim target by 2030 and subject to emerging policies from the GLA regarding the 2021 WHO guidelines, have aspiration to meet the new WHO guideline level in the shortest possible time.
3	Emissions from developments and buildings	Ensuring emissions from construction are minimised. (GLA Foundation Action)	Major and minor planning applications are reviewed by the London Borough of Tower Hamlets Environmental Health Department (Pollution Team) in respect to air pollution and air quality. The Pollution Team provides air quality comments and recommends relevant conditions. Adopted Policy: Local Plan 2013: DM9 (Improving Air Quality)/ Requires an Air Quality Assessment to demonstrate how it will prevent and reduce air pollution during construction and demolition. New Local Plan: D.ES2 (Air Quality). Development is required to meet or exceed air quality neutral and consider impacts of pollution	GLA's guidance (The Control of Dust and Emissions during Construction and Demolition Supplementary Planning Guidance or successor documents). Similarly, developers are required to submit a transport logistics assessment in accordance with TfL's (Construction Logistics Guidance).

Measure	LLAQM Action Matrix Theme	Action	Progress	Further information
			during construction and operation of the Proposed Development. New Local Plan: D.TR4 (Sustainable Delivery and Servicing). Development that generates a significant number of vehicle trips for goods or materials during its construction and/or operational phases is required to demonstrate sustainable transport). New Local Plan: S.TR1 (Sustainable Travel). Travel choice (including connectivity and affordability) and sustainable travel will be improved within the borough and to other parts of London, and beyond. Development will therefore be expected to prioritise the needs of pedestrians and cyclists as well as access to public transport, including river transport, before vehicular modes of transport. New Local Plan Policy D.TR2 (Impacts on the Transport Network): Major development and any development that is likely to have a significant impact on the transport network will be required to submit a transport assessment or transport statement as part of the planning application.	
4	Emissions from developments and buildings	Ensuring enforcement of non-road mobile machinery (NRMM) air quality policies. (GLA Key Selected Measure)	Planning applications are reviewed by the London Borough of Tower Hamlets Environmental Health Department (Pollution Team) in respect to air pollution and air quality. The Pollution Team provides air quality comments and recommends relevant conditions. Relevant NRMM conditions are recommended for each major site during planning consultations.	Compliance monitoring currently being carried out by London Borough of Merton as part of a pan London project funded by the GLA. This project was due to finish in March 2022 but has been extended for 3 years. Enforcement of NRMM planning condition is down to individual Boroughs.

Measure	LLAQM Action Matrix Theme	Action	Progress	Further information
			Monthly planning decisions are forwarded to the London Borough of Merton to feed into the London wide NRMM scheme for their inspections on follow up. CIL Tracker of when projects commence on site is now also sent to the Pollution Team, from Planning. New Local Plan: D.SG4 (Planning and Construction of a New Development), require construction to comply with NRMM low emission zone requirements and minimize air quality and dust pollution. For further details, see Table L. Planning requirements met by planning applications in the London Borough of Tower Hamlets in 2023.	The NRMM register can be found here: https://www.london.gov.uk/what-we-do/environment/pollution-and-air-quality/non-road-mobile-machinery-register/login/register
5	Emissions from developments and buildings	Reducing emissions from Combined Heat and Power (CHP) (new developments only) Ensure policy met. (GLA Foundation action)	Planning applications are reviewed by the Borough of Tower Hamlets Environmental Health Department (Pollution Team) in respect to air pollution and air quality. The Pollution Team provides air quality comments and recommends relevant conditions. Planning applications are reviewed for CHP and relevant conditions recommended. Comments are provided on major planning applications as required by GLA SPG on Sustainable Design and Construction.	The carbon content in electricity has reduced and therefore all new schemes meet their responsibilities for electricity. From 2025 no new gas connections (Govt future homes standard, heat, and energy strategy). Planning applications must adhere to the zero carbon requirements. https://www.towerhamlets.gov.uk/lgnl/environment_and_waste/environmental_health/pollution/air_quality/Advanced_information_on_air_quality/Air-Quality-and-Planning.aspx
6	Emissions from	Enforcing Air Quality Neutral policy or its successor	Major planning applications reviewed by the Borough of Tower Hamlets Environmental Health Department (Pollution Team) in respect to air	We provide advice to developers on meeting air quality neutral standards: https://www.towerhamlets.gov.uk/lgnl/enviro

Measure	LLAQM Action Matrix Theme	Action	Progress	Further information
	developments and buildings	(GLA Foundation Action)	pollution and air quality. The Pollution Team provides air quality comments and recommends relevant conditions. Air quality neutral policies are adopted. Planning applications for major developments are reviewed to ensure compliance with GLA air quality neutral policy. New Local Plan: D.ES2 (Air Quality). Development is required to meet or exceed air quality neutral and consider impacts of pollution during construction and operation of the Proposed Development.	nment_and_waste/environmental_health/pollution/air_quality/Advanced_information_on_air_quality/Air-Quality-and-Planning.aspx
7	Emissions from developments and buildings	Ensuring adequate, appropriate, and well-located green space and infrastructure is included in new developments.	This action is ongoing. The Local Plan Policy D.ES3 (Urban Greening and Biodiversity) requires developments to protect and enhance biodiversity, maximising 'living building' elements and increasing the provision of trees. The London Borough of Tower Hamlets' local validation list requires the submission of an Urban Greening Statement for major developments, to provide assessment based on the Urban Greening Factor (UGF) model in accordance with London Plan Policy G5. The London Plan Policy G5 requires major development to achieve a UFG score of 0.4 for residential development and 0.3 for commercial development. The London Borough of Tower Hamlets' Local Plan is currently being reviewed and revised, and an UGF policy in will be included in the new local plan to align with London Plan requirements. This will fall within our 'Biodiversity and Open Space' theme. Following this monitoring of UGF can be included a Key Monitoring Indicator (KMI) in the	The London Plan acknowledges that the existing natural environment should be protected, enhanced, and new green space and infrastructure should be supported. Green walls, hedges, trees, and other green infrastructure may help to reduce people's exposure to air pollution, when used as a well-designed buffer between emission sources and population. Extra consideration should be given to new developments containing sensitive receptors, such as schools and care homes. At the same time, green infrastructure can serve important amenity functions, such as children's play parks or as traffic free walking and cycling routes. The council will aim to ensure that new development proposals integrate green space and infrastructure, and that they act as a barrier between roads and new developments. https://www.towerhamlets.gov.uk/Documents/Planning-and-building-control/Strategic-

Measure	LLAQM Action Matrix Theme	Action	Progress	Further information
			Annual Monitoring Report (AMR) of the Local Plan.	Planning/Local-Plan/Green_Grid_Update_2017.pdf
8	Emissions from developments and buildings	(a) Consolidate and update Tower Hamlets' historic Smoke Control orders	A Cabinet report will be presented to the Cabinet to seek approval to consolidate Smoke Control Orders, by including moored vessels in the Smoke Control Area. The report will be taken to Cabinet in latter part of 2024 to seek approval to go out to public consultation to revoke existing Smoke Control Orders and to introduce a consolidated order covering the whole borough. Tower Hamlets participates in the GLA Wood Burning Working Group and contribute to the outcomes of the group.	The London Borough of Tower Hamlets was declared a Smoke Control Area under the Clean Air Act 1956. This wasn't updated and consolidated under the Clean Air Act 1993.
		(b) Delivering annual awareness campaigns	Regular annual and / or seasonal awareness campaigns have been carried out as usual (wood burning, idling, high pollution levels, clean air day in June, etc.). See Action 12 as well. As part of our Communications Plan on Air Quality, we are developing awareness campaigns to help inform and educate the public. We are also working with neighbouring Boroughs (Hackney, Newham, and City of London Councils) on a project called AirAware, a webtool (funded by the Defra Air Quality Grant) that educates the public around air quality. We have been promoting this project regularly.	https://www.air-aware.co.uk/
		(c) Enforcement of smoke control zone breaches	Complaints / investigation records are maintained and updated on Council database. Regulatory controls are in place and investigated and / or	LAEI 2019 data shows domestic wood burning accounts for 1% PM_{10} and 3% of $PM_{2.5}$ emissions in the Borough.

Measure	LLAQM Action Matrix Theme	Action	Progress	Further information
		GLA Key Selected Measure	enforced reactively through complaint investigations. In 2023, a total of 22 complaints about smoke control zone breaches, 5 of which related to canal boats. Publicity and campaign about wood burning for smoke control area over winter months. A best practice leaflet aimed at canal boat owners has been produced and promoted via Council's webpage, social media, CRT and relevant boating associations and fortnightly engagement with boat owners during the winter months. For further information, see action 17.	
9	Emissions from developments and buildings	Promoting and delivering energy efficiency and energy supply retrofitting projects in workplaces and homes through EFL retrofit programmes such as RE:FIT, RE:NEW and through Borough carbon offset funds. (GLA Key Selected Measure)	The Council will improve energy efficiency via the Carbon Fund programme of retrofitting activities such as boiler replacements, and solar power panels on housing stock and on domestic properties. The Council will apply for external funding where practicable / available (for example the private sector decarbonisation fund). The Council will continue to promote energy efficiency advice, guidance, and grant opportunities (subject to funding and eligibility criteria) to residents in council and private homes. To assist private residents on benefits a residential energy efficiency project is currently going through the asset management / capital delivery sign off process. It is proposed that the delivery will be procured via the Fusion21 retrofit framework in Q3 23/24. In 2023, to reduce emissions from Council buildings and supply renewable electricity, we	In 2022, we agreed £3.7m worth of retrofit activities over the next three years. The intention is to add to this package (funding dependent). Note that delivery fluctuates depending on the number and scale of retrofit. We offer a range of energy advice and information about energy efficiency, grants, and advice https://www.towerhamlets.gov.uk/lgnl/environment_and_waste/Sustainability/Tower_Hamlets_Energy/Energy_advice_and_information/Energy_advice_and_information.aspx

Measure	LLAQM Action Matrix Theme	Action	Progress	Further information
			commenced to roll out photovoltaics (PV). The tender process for preferred delivery partner from the Re:Fit started. For PV rollout the procurement process commenced, and bids received. Moderation meeting took place in September 2023 on bids and preferred supplier to be on contract to commence late 2023. For residential energy efficiency project currently working with procurement partners on the framework to market. As previously noted, Q3 23/24 is the anticipated date for to out to market for procuring service partner. At the end of 2023, the chosen contractor was on board for PV project and the site surveys were to be undertaken in 2024. Residential Energy Efficiency Project are currently out to tender. Closing for bids in February 2024. Home Energy Advice (Green Doctor) project is due to go out to tender in January 2024.	
10	Emissions from developments and buildings	(a) Planning policy is aligned with Air Quality Positive (GLA Foundation Action)	The Council is undertaking a review of the Local Plan to ensure policies promote air quality positive and healthy streets. Air Quality Positive Statements are required for developments subject to an Environmental Impact Assessment (EIA), in accordance with Local Plan Policy S1 1: Improving air quality. All EIA's in LBTH are accompanied by an Air Quality Positive Statement, and this requirement is made clear in LBTH EIA Scoping Opinions. We are currently in the process of writing our new	

Measure	LLAQM Action Matrix Theme	Action	Progress	Further information
			Local Plan policies, with the aim to consult on a Regulation 18 draft Local Plan. Regulation 18 consultation of the new Local Plan completed in late 2023 and further refinements to planning policies as relevant are ongoing ahead of the Regulation 19 consultation expected in summer 2024. Policy D.ES2: Air quality is being updated to reflect the London Plan requirement that all major development and large-scale development subject to an Environmental Impact Assessment (EIA) should implement an Air Quality Positive Approach. Policy S.TR1 Sustainable travel is being updated to include stronger requirements to implement the Heathy Streets Approach. The review of the Local Plan is progressing, with policy D.ES2 (proposed policy D.CG9) and S.TR1 being updated.	
		(b) Highway improvements to follow the Healthy Streets approach (GLA Foundation Action)	The Council will undertake Healthy Street assessment against ten Healthy Streets criteria. We will re-design where necessary and then rescore to see level of improvement (subject to funding).	One of the ways we will deliver a key objective in our Local Plan: sharing the benefits of growth https://www.towerhamlets.gov.uk/Documents/Planning-and-building-control/Strategic-Planning/Local-Plan/Introduction.pdf
11	Emissions from developments and buildings	Reduce the use of private cars by residents by encouraging car free developments and limiting number of parking spaces in new developments	The Council is reviewing all major planning applications every year to ensure they meet the latest parking standards. Local Plan Policy D.TR3 (Parking and Permit-free), requires developments to meet the parking	Parking standards for new developments now included in the local plan

Measure	LLAQM Action Matrix Theme	Action	Progress	Further information
			standards in Appendix 3 of the local plan, to minimise car parking. LBTH Highways are consulted on all relevant planning applications, to ensure this standard is met. This is an ongoing action. All developments are required to be car free other than blue badge accessible bays.	
12	Public health and awareness raising	Public Health department will assist in the development of air quality communications / campaigns to ensure an evidence-based approach is followed to support behavioural change, whilst also advocating for improved air quality locally and regionally. (GLA Foundation Action)	See Action 8b as well. This is an ongoing action. An Air Quality Communications Strategy Plan has been drafted and Communications team is developing it together with the Pollution Team. This Plan has been shared with Public Health as well, for collaboration. See also action 18.	
13	Public health and awareness raising	Develop an air quality focused Joint Strategic Needs Assessment (JSNA) and maximise opportunities for further research and evaluation.	The Air quality JSNA, following recommendation by the Public Health Senior Leadership Team, required to be reviewed and changes to be made. This work has now been completed and will be presented at the PH SLT early 2024. Following which, it will be shared widely with the senior officers across the Council in 2024 and published at the same time.	
14	Public health and	Supporting a direct alerts service such as airTEXT,	The Council uses social media to help disseminate the Mayor's alerts (high and very	air Text service is operated by Cambridge Environmental Research Consultants

<table>
<tr><th>Measure</th><th>LLAQM Action Matrix Theme</th><th>Action</th><th>Progress</th><th>Further information</th></tr>
<tr><td></td><td>awareness raising</td><td>and promotion and dissemination of high pollution alert services, such as the Mayor's air pollution forecasts

(GLA Key Selected Measure)</td><td>high) to raise awareness and reduce exposure amongst vulnerable residents.

Mayor's air Pollution alerts (high air pollution levels in the borough) coming from airTEXT are posted on Council social media by Comms.

AirTEXT is still ongoing and renewed.

Annual airTEXT statistics for Tower Hamlets at the end of 2023:

<table><tr><td>Number of subscribers</td><td>436</td></tr><tr><td>Number of new subscribers</td><td>40</td></tr><tr><td>Number of airText Tower Hamlets alert days</td><td>32</td></tr><tr><td>Number of emails</td><td>1,462</td></tr><tr><td>Number of sms</td><td>5,439</td></tr><tr><td>Number of voicemails</td><td>79</td></tr></table></td><td>(CERC) on subscription basis for local authorities but free to use for residents https://www.towerhamlets.gov.uk/lgnl/environment_and_waste/environmental_health/pollution/air_quality/air_text_-_air_pollution_forec.aspx</td></tr>
<tr><td>15</td><td>Public health and awareness raising</td><td>Encouraging schools to join the TfL STARS accredited travel planning programme

(GLA Foundation Action)</td><td>The Council works in partnership with schools in the Borough to maintain or apply for the TfL STARS accreditation. The Council encourages schools to share their good news stories and activities via the STARS website.

STARs data are collated annually. TfL rebranded STARs programme from September 2023, which may potentially have impact on target setting for this action.

Number of schools engaged with the scheme:
- 66 schools aiming for accreditation</td><td>STARS (Sustainable Travel: Active Responsible Safe) is a TfL accreditation scheme. It rewards London schools and nurseries for rolling-out safer and sustainable travel activities.</td></tr>
</table>

Measure	LLAQM Action Matrix Theme	Action	Progress	Further information
			- 52 schools engaged % of schools engaged in STARS (TfL Travel for Life) programme (with current level of resources): 52/117 (41%) 3rd KPI: Number of schools at level Bronze, Silver and Gold accreditation: - Bronze: 29 - Silver: 12 - Gold: 25 Engagement is at the same levels as past years. However, it is getting very hard given the reduced budget.	
16	Public health and awareness raising	Extending schools air quality audits to all polluted schools (GLA Key Selected Measure)	The Pollution Team is undertaking four air quality audits per year at high polluted schools.	We use the guidance and toolkits produced by TfL Mayor's School Air Quality Audit Programme to support local authorities undertaking air quality audits around schools https://www.london.gov.uk/sites/default/files/school_aq_audits_-_toolkit_of_measures_dr_v3.3.pdf Links to information about the London-wide campaign against idling engines as a source of pollution can be found on our website: https://www.towerhamlets.gov.uk/lgnl/environment_and_waste/environmental_health/pollution/air_quality/Air_quality_information_and_campaigns/Anti-idling-action-days-and-volunteering.aspx

Measure	LLAQM Action Matrix Theme	Action	Progress	Further information
17	Public health and awareness raising	Tackle issues with emissions from Canal Boats	Subject to securing funding and outcome of public consultation, the Council will explore the feasibility of bringing moored vessels such as canal boats into scope of smoke control area (SCA). We will carry out a public consultation and look at the feasibility of including canal boats into SCA scope by end of 2024. This will depend on when DEFRA produces guidance on this and whether funding could be secured. The Council carries out an annual winter awareness campaign for boaters to raise awareness of air pollution from burning wood. Regular monthly visits are carried out during winter months (December - February) around the Canal to engage with boaters. However, not always boaters are present or available. If there is no direct engagement, leaflets are always left. In 2023, a total of 7 boaters were directly engaged.	A smoke control area is an area where people and businesses must not emit a substantial amount of smoke from a chimney, buy or sell unauthorised fuel for use in a smoke control area unless it's used in an 'exempt' appliance (appliances which are approved for use in smoke control areas). Links with action 8(a).
18	Public health and awareness raising	Develop and implement a communications strategy for disseminating air quality information in the Borough to raise awareness of the impacts of poor air quality and encourage behaviour change	This is an ongoing action. An Air Quality Communications Strategy Plan has been drafted and the Communications Team is developing it together with the Pollution Team. This Plan has been shared with Public Health as well, for collaboration. See also action 12.	Addresses consultation feedback where majority of responders said the Council's communication on air pollution is not 'very well' or 'not well at all' and that the Council should implement campaigns to raise air quality awareness. Also addresses recommendations from the Coroner's Prevention of Future Deaths report after the death of Ella Kissi-Debrah in terms of increasing awareness of air pollution.
19	Delivery servicing and freight	Updating of procurement policies to reduce pollution from logistics	Procurement is in the process of reviewing internal policies to reflect the impending roll out	

Measure	LLAQM Action Matrix Theme	Action	Progress	Further information
		and servicing (GLA Foundation Action)	of the revised Procurement Act 2023, which will go live October 2024.	
20	Delivery servicing and freight	Reducing emissions from deliveries to local businesses and residents (GLA Foundation Action)	The Council is considering the feasibility of providing EV-only loading bays, ULEV only areas and Virtual Loading Bays. We are working with BIDs and business groups to encourage local consolidation and last mile deliveries. We are using the TfL retiming deliveries guidance to assess application and benefit. We are communicating with our residents to raise awareness of the impact that home deliveries and missed deliveries has on air quality. The Local Plan 2020 includes Policy D.TR4 Sustainable delivery and servicing which assesses the impact of deliveries from potential new developments and aims to mitigate their impacts and make them more sustainable. This is done through trying to shift freight to water or rail or active travel and EVs. The Local Plan team are also exploring commissioning a freight study to understand it's impacts and how we can amend the above policy to encourage modal shift and identify potential locations for sustainable freight hubs. We do not have any Key Monitoring Indicators for this in the Local Plan 2020, but as we prepare the new plan, we could work towards a monitoring mechanism to assess this in the future.	

Measure	LLAQM Action Matrix Theme	Action	Progress	Further information
			A sustainable freight study has been commissioned which is investigating the possibility of KP1 (number of consolidation/last mile delivery schemes in place) and how this can be supported in the emerging Local Plan. The emerging Local Plan supports the delivery of infrastructure such as the charging network for Ultra Low Emission Vehicles in new developments. As part of the Sustainable Freight Study, WSP are organising a number of stakeholder engagement sessions with local businesses, particularly the Aldgate BID, to discuss opportunities and constraints for utilising freight consolidation and last mile delivery methods, and understand how uptake can be encouraged within Tower Hamlets businesses. The study is due to conclude by mid-May 2024, so we expect to have a clearer picture of future opportunities for freight consolidation schemes in the borough.	
21	Borough fleet actions	Reducing emissions from Council fleets by replacing the council's fleet with zero tail pipe emission vehicles (GLA Key Selected Measure)	Between 2023 and 2027, The Council will continue to invest in vehicle telematics and driver training to help improve vehicles utilisation and reduce the impact of poor driving habits on air pollution. The Council will implement Phase 1 of our fleet management strategy: - Replacing up to 117 of our fleet of small vans and cars - Upgrading our depots with electrical	In 2020/21 we used 1,873 metric tonnes of CO_2 emissions from our owned transport. A move to green fuels will substantially reduce the CO_2 emitted. https://www.towerhamlets.gov.uk/lgnl/environment_and_waste/Sustainability/carbon_reduction.aspx It is important to note emissions still occur from brake and tyre wear.

Measure	LLAQM Action Matrix Theme	Action	Progress	Further information
			infrastructure improvements including electrical vehicle charging points The Council will plan the commencement of Phase 2 of our fleet replacement strategy relating to larger vehicles such as waste, recycling vehicles and passenger transport vehicles. • Percentage of local authority drivers who have undertaken 'smart' driver training: The Council Fleet Policy, which includes guidance on smart driving, is being published. All teams have been instructed to induct their drivers accordingly. • Percentage of cleaner vehicles in the fleet: at the end of 2023, cleaner vehicles constituted 3.23% of our fleet. • Achieve zero tail pipe emission fleet by 2025: The goal of achieving zero pipe emissions will be delayed due to the current unavailability of charging infrastructure.	All our current vehicles meet the latest current standards for emissions. In 2021 we obtained £4.9 million in capital funding for replacement of cars, vans and light commercial vehicles with Ultra Low Emission equivalents.
22	Localised solutions	Expanding and improving green infrastructure (GLA Foundation Action)	The Council has planted 931 trees across the Borough highways, parks and housing estates during the 2023 planting season. This is broken down as: - 631 trees in Quarter 3, with 148 trees across highways, 197 trees across parks and 286 trees across Tower Hamlets sites - 299 trees in Quarter 4, with 228 trees across highways, 63 trees across parks and 8 trees across Tower Hamlets sites.	Outcome four in our Infrastructure Delivery Plan focusses on public realm and environment improvements for cleaner and more attractive streets, open and green spaces https://www.towerhamlets.gov.uk/lgnl/community_and_living/Regeneration-in-Tower-Hamlets/Approach-and-delivery.aspx

Measure	LLAQM Action Matrix Theme	Action	Progress	Further information
23	Localised solutions	Low Emission Neighbourhoods (LENs) and Business Low Emissions Neighbourhoods (BLENs) (GLA Foundation Action)	The Council is exploring the feasibility of introducing more LENs / BLENs in the Borough (subject to funding and local support). The Council will prioritise and focus on introducing these in high polluting areas.	
24	Localised solutions	Implementing a Carbon Emissions Reduction Programme for Council properties (i.e. council offices) including boiler replacements and insulation projects	This work is on-going work over several years to improve energy efficiency of replacement plant and carbon reduction of buildings. We identified our capital programme for the financial year 2023-2024. Funding streams have been a real issue with supporting this workstream and we may need to proceed by drafting individual PIDS (project initiation documents) for a decision at the capital working group for buildings where spend required is in excess of what the CLM capital programme can afford. There are 226 buildings within the current CLM portfolio, and we have a rolling annual fund of only £2m capital per year. This is under review, and we will meet shortly with the sustainability team to explore all options open. In 2023, we met with the Sustainability Team to discuss options of both internal and external funding to support the on-going work. We agreed that we would continue to pursue external funding where necessary and continue with capital programme replacing and making carbon neutral where possible. Programme for 2023 / 2024 has been agreed. Also, a new project board has been set up and we will review buildings in further detail as the funding is a real issue across the estate.	This project will utilise carbon offset funding and any external funding, in particular the Public Sector Decarbonisation Scheme (PSDS), to reduce both CO_2 and NO_2 from building emissions by replacing gas boilers with ASHPs. Measure against carbon reduction target Offset funding plus need for grants too.

Measure	LLAQM Action Matrix Theme	Action	Progress	Further information
25	Cleaner transport	Discouraging vehicle idling (GLA Foundation Action)	The Pollution Team provided training and advice to Civil Enforcement Officers engaging with drivers about idling. No agreement yet with the Parking Team: As per Action 25, the Parking Team should start idling patrol within the Borough. Currently, the Pollution Team is carrying out enforcement visits. Pollution Team continues to respond to idling complaints and continue to undertake enforcement visits to hotspot locations, deploying signage as appropriate. The Pollution Team supports school and community no idling campaigns. Statistics for 2023: - Number / percentage of drivers complying with request (discouraging vehicle idling): 48 vehicles discouraged from idling. 100% comply with request - Number of enforcement visits undertaken: 19 - Number of idling complaints responded to within 3 working days: 16 - Number of anti-idling patrols / events held: 16 - No-idling signs installed: 16	We will liaise with London Councils for DfT approved 'no engine idling' signs. Once in place, we will investigate creating a Traffic Management Order under the Road Traffic Regulations Act 1984 to enable our CEOs to issue PCNs.
26	Cleaner transport	Regular temporary car free days and pedestrianisation schemes	No car-free days events held, because clarification is needed on whether there is political support for holding large-scale car free events and for resident led Play Streets.	Pedestrianisation schemes links in with Council's Low Emission neighbourhoods' initiatives.

Measure	LLAQM Action Matrix Theme	Action	Progress	Further information
		(GLA Key Selected Measure)	Street parties was held successfully for king's coronation in May 2023. Residents supported in holding street party events for King's Coronation during May 2023. Clean Air Day event co-ordinated by St Stephen's Health Centre and Public Health took place at William Place, Roman Road in June 2023. Going forward some steer is required from mayor's office on this action due to potential conflicts with other mayoral priorities.	
27	Cleaner transport	Using parking policy to reduce pollution emissions (GLA Foundation Action)	The Council uses fees and charges to discourage heavily polluting vehicles in favour of greener vehicles. We have a surcharge for diesel cars and heavily reduced parking fees for electric vehicles, applying to both residents and visitors. In 2023, we increased (9% increase on all charges) the charges for 2023/2024, and we are currently commencing works on the fees and charges for 2024/2025. The Council encourages car clubs that use hybrid or solely electric vehicles into the Borough. The Council also investigates the use of car clubs for Council staff business use. We are currently in discussion with our car club provider in sourcing 4 vehicles to be situated around the new Town Hall for staff to use. BS bays have been installed around the new Town Hall already.	Information about parking, our policies and procedures can be found here: https://www.towerhamlets.gov.uk/lgnl/transport_and_streets/Parking/Parking.aspx
28	Cleaner transport	Installation of Ultra-low Emission Vehicle (ULEV) infrastructure (e.g., electric vehicle charging	Subject to available funding, suitable locations, and power supply capacity, we aim to install 20 rapid chargers by 2025/2026: (a) install at least 150 slow charging point on lamp posts; (b) install	We have commissioned a EV charging point delivery plan which projects the number and location of charging points and other infrastructure required to support the move

Measure	LLAQM Action Matrix Theme	Action	Progress	Further information
		points, rapid electric vehicle charging point and hydrogen refuelling stations) (GLA Key Selected Measure)	at least 24 fast charging points; (c) install electric charging points on Petticoat Lane and Brick Lane, to serve market traders and electric vehicle users. In relation to the proposal for Brick Lane and Middlesex Street: Highways and Procurement were engaged ahead of tender process. Highways for their expert advice. Trial holes at both Middlesex Street and Brick Lane were commissioned to see what infrastructure might be suitable for the locations so the Tender can be more specific. Tender process underway for new contract. Some locations have been identified and a working group to deliver the project is being implemented. Approval to procure a 3-charging point (slow, rapid, fast) contract goes cabinet in early 2024.	towards cleaner transport. https://democracy.towerhamlets.gov.uk/mgConvert2PDF.aspx?ID=112327#:~:text=This%20delivery%20plan%20estimates%20a,Tower%20Hamlets%20streets%20by%202025.&text=However%2C%20the%20ambition%20will%20be,across%20the%20borough%20by%202025
29	Cleaner transport	Provision of infrastructure to support walking and cycling (GLA Key Selected Measure)	The Council will identify potential cycle routes on Borough roads and explore the feasibility of implementing them. The Council will continue to ensure new major developments provide sustainable transport infrastructure such as secure cycle parking facilities. The percentage of residents living within 400m of a 'high quality' cycle route are available by Sustrans (source: Sustrans Walking & Cycling Index).	The Tower Hamlets Transport Strategy sets out an overall target for 90% of journeys in the Borough to be made by walking, cycling or public transport by 2041. Specific targets for cycling and walking will be set out in the walking and cycling plan to be published in 2022. http://democracy.towerhamlets.gov.uk/documents/s160545/Appendix%20A%20Tower%20Hamlets%20Transport%20Strategy%202019-2041.pdf

Measure	LLAQM Action Matrix Theme	Action	Progress	Further information
			The number of secure cycle parking spots across the Borough are: 21 secure parking spaces installed (18 secure residential cycle parking spaces and 3 secure workplace cycle parking spaces).	
30	Cleaner transport	Continue to encourage staff sustainable travel	The Council will update the Staff Travel Plan to ensure it remains relevant and proactive. The Council will continue to encourage staff sustainable travel by providing Dr Bike services and staff subscriptions to the TFL cycle hire scheme for site visits. However, no funding available until further notice to deliver Dr Bike sessions and procure new staff cycle hire subscriptions. Funding constraints will impact upon future delivery of Dr Bike sessions and staff cycle hire subscriptions. Data monitoring is ongoing, and cycle hire trip data are now available for 2023. Dr Bike sessions should be available by March 2024. In 2023: A total of 3 Dr Bike sessions, due to lack of funding.	

3. Planning Update and Other New Sources of Emissions

The total number of planning applications in 2023 (minor and major applications, requests for Environmental Impact Assessments EIAs, full planning applications, and submissions of details) is 205.

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

Condition			Number
Number of planning applications where an air quality impact assessment was reviewed for air quality impacts			60
Number of planning applications required to monitor for construction dust			57
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			5
Number of developments required to install Ultra-Low NO_X boilers			19
Number of developments where an AQ Neutral building and/or transport assessments undertaken			57
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	• Total number of audits in 2023: 17 • % of sites unregistered prior to audit - 24% sites of sites audited were cold engaged and therefore not registered prior to auditing. - 76% sites audited were not cold engaged and therefore not registered prior to auditing.	NRMM: Central Activity Zone, Canary Wharf and Opportunity Areas	• 23 conditions related to NRMM • 10 developments registered and compliant • 0 development unregistered/uncompliant and being chased
		NRMM: Greater London (excluding Central Activity Zone, Canary Wharf and Opportunity Areas)	• 23 conditions related to NRMM • 4 developments registered and compliant • 1 development unregistered/uncompliant and being chased

Commentary

All major planning applications are referred to the Pollution Team for review and comments. Each application is individually reviewed to ensure that the GLA SPGs on the ‘Sustainable Design and Construction’, as well as **‘**The Control of Dust and Emissions During Construction and Demolition’ is followed.

Where there are compliance issues, Pollution Officers recommend either further information to be obtained from the applicant, or relevant conditions recommended including NRMM conditions where necessary. Enforcement of planning conditions are a matter for the planning department. Where breaches of NRMM condition is identified by the London borough of Merton NRMM team, this is referred to planning enforcement for follow up action.

3.1 New or significantly changed industrial or other sources

No new sources were identified in 2023.

4. Additional Activities to Improve Air Quality

4.1 London Borough of Tower Hamlets Fleet

At the end of December 2022, Tower Hamlets fleet consisted of 281 vehicles in total. Of these, 5 were Zero Emission vehicles, and 2 were non-Zero Emission Capable vehicles (hybrids).

4.2 NRMM Enforcement Project

Tower Hamlets continue to support the NRMM project by:

- Providing match funding.
- Forwarding details of major applications determined by the Council to the project team.
- Checking sites for completion.
- Follow up action on non-compliance reported to us.
- Including NRMM condition on major planning applications consent.

<u>Standard wording for NRMM conditions</u>

The London Borough of Tower Hamlets applies the following Construction Plant and Machinery (NRMM) condition in the Decision Notice of all major planning applications.

Construction Plant and Machinery (NRMM) condition:

a) Prior to the commencement of the development, details of all plant and machinery to be used at the demolition and construction phases have been submitted to, and approved in writing by, the Local Planning Authority. All Non-Road Mobile Machinery (NRMM) used during the course of the development that is within the scope of the Greater London Authority 'Control of Dust and Emissions during Construction and Demolition' Supplementary Planning Guidance (SPG) dated July 2014, or any subsequent amendment or guidance, shall comply with the emission requirements therein. All Non-Road Mobile

Machinery (NRMM) and plant to be used on the site of net power between 37kW and 560kW has been registered at http://nrmm.london/

b) Proof of registration must be submitted to the Local Planning Authority prior to the commencement of any works on site.

c) The NRMM used during the demolition and construction phases [as detailed above] must be carried out in accordance with the approved details.

d) An inventory of all Non-Road Mobile Machinery (NRMM) must be kept on site during the course of the demolitions, 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.

Reason: To manage and prevent further deterioration of existing low-quality air across London in accordance with London Plan 2021, NPPF 186, D.ES2 of Tower Hamlets Local Plan 2031 (2020).

The London Borough of Tower Hamlets Code of Construction Practice (CoCP) 2023

The following details have been included in Table 8e NRMM (Non-Road Mobile Machinery) of the new Tower Hamlets CoCP issued in April 2023:

- All NRMM (such as generators, excavators, piling machines, etc.) to be used during construction must comply with emission requirements and the scope of the 'Control of Dust and Emissions SPG' (or any subsequent amendment).
- Noise sensitive receptors (see 8.27 above) must be, wherever possible, protected from NRMM noise generation by location away from their boundaries.
- Register, prior to the commencement of any demolition and/or construction works, all NRMM of net power (between 37kW and 560 Kw) for use on site with http://nrmm.london.
- No Idling Policy must be implemented for all NRMM when stationary. Engines to be switched off NRMM should, wherever possible, be powered by electric and hybrid solutions as opposed to noisier petrol and diesel engines (also applied to delivery vehicles).

4.3 Air Quality Alerts

Tower Hamlets support *air*TEXT (https://www.airtext.info/). Details can be found in Action 6 of Table I 'Delivery of Air Quality Action Plan Measures'.

The borough cascades the Mayor's air quality alert messages through social media.

Appendix A Details of Monitoring Site Quality QA/QC

A.1 Automatic Monitoring Sites

Calibrations at all Tower Hamlets automatic monitoring sites are now undertaken by Ricardo Energy & Environment. Millwall Park and Victoria Park are both background sites, so they are calibrated every 4 weeks. Tower Hamlets roadside sites (Blackwall, Mile End, and King Edward Memorial Park) are calibrated every 2 weeks. All sites are provided with ISO 17025 QC audits by Ricardo every 6 months.

Note: The Blackwall site was operated by Imperial College until the end of 2022.

PM_{10} Monitoring Adjustment

Millwall Park – 1020 Heated BAM, correction applied Victoria Park – TEOM, VCM correction applied Both VCM and BAM correction is applied automatically when data is downloaded from Air Quality England web site.

A.2 Diffusion Tubes

- Lab supplying and analysing the tubes:

  SOCOTEC Unit 12, Moorbrook, Southmead Industrial Park Didcot OX11 7HP

- Preparation method used:

  The tubes were prepared by spiking acetone: triethanolamine (50:50) onto the grids prior to the tubes being assembled. The tubes were desorbed with distilled water and the extract analysed using a segmented flow autoanalyser with ultraviolet detection.

- Confirmation that the lab follows the procedures set out in the Practical Guidance:

  The samples have been analysed in accordance with SOCOTEC's standard operating procedure ANU/SOP/1015 Issue 1. This method meets the guidelines set out in DEFRA's 'Diffusion Tubes For Ambient NO_2 Monitoring: Practical Guidance.'

- Results of laboratory precision results:

This analysis of diffusion tube samples to determine the amount of nitrogen dioxide present on the tube is within the scope of our UKAS schedule. Any further calculations and assessments requiring exposure details and conditions fall outside the scope of our accreditation. In the AIR PT intercomparison scheme for comparing spiked Nitrogen Dioxide diffusion tubes, SOCOTEC currently holds the highest rank of a 'Satisfactory' laboratory.

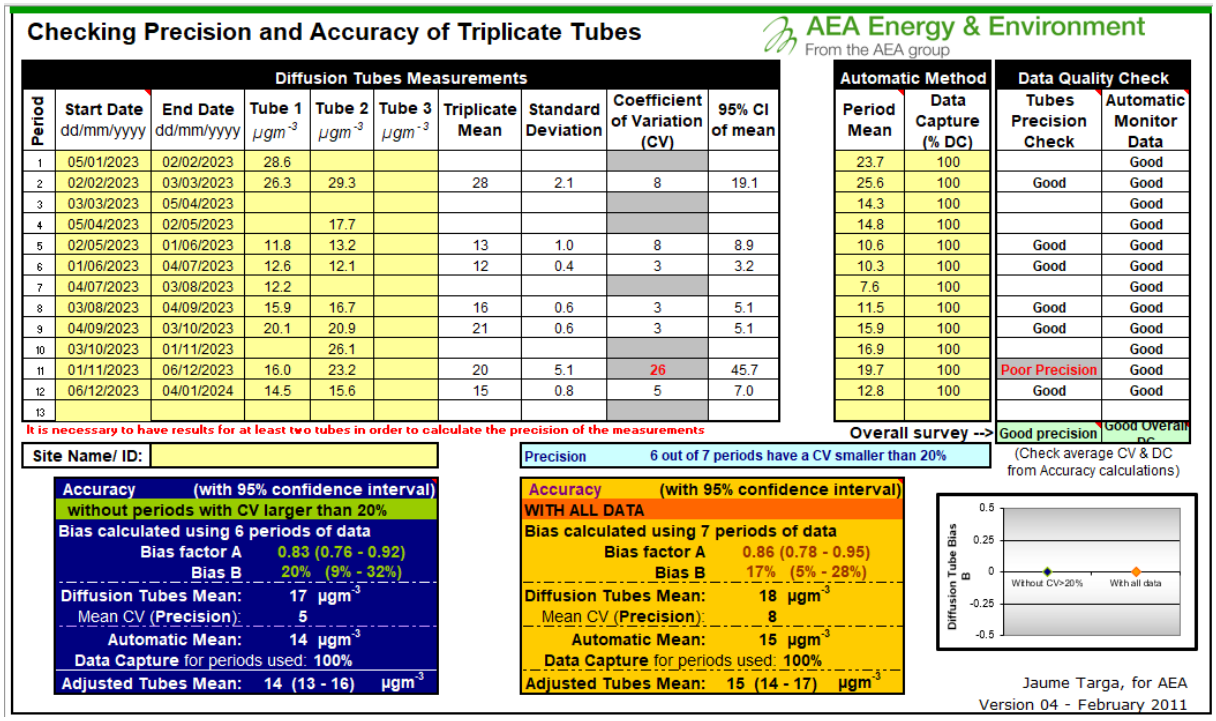
Factor from Local Co-location Studies

As every year, a co-location study was undertaken with the use of the two diffusion tubes at Victoria Park automatic monitoring site, which has high quality chemiluminescence results (to national AURN standards).

We have two diffusion tubes (the non-automatic monitoring sites of ID 42 Victoria Park co-location site, and ID 43 Victoria Park co-location site) co-located with the automatic monitoring site Victoria Park TH002.

As per the LLAQM Technical Guidance 19, we have calculated the local bias-adjustment factor from our co-location study (Table M).

Table M. Local Bias Adjustment Factor for 2023.



Checking Precision and Accuracy of Triplicate Tubes

AEA Energy & Environment
From the AEA group

Diffusion Tubes Measurements										Automatic Method		Data Quality Check	
Period	Start Date dd/mm/yyyy	End Date dd/mm/yyyy	Tube 1 µgm^{-3}	Tube 2 µgm^{-3}	Tube 3 µgm^{-3}	Triplicate Mean	Standard Deviation	Coefficient of Variation (CV)	95% CI of mean	Period Mean	Data Capture (% DC)	Tubes Precision Check	Automatic Monitor Data
1	05/01/2023	02/02/2023	28.6							23.7	100		Good
2	02/02/2023	03/03/2023	26.3	29.3		28	2.1	8	19.1	25.6	100	Good	Good
3	03/03/2023	05/04/2023								14.3	100		Good
4	05/04/2023	02/05/2023		17.7						14.8	100		Good
5	02/05/2023	01/06/2023	11.8	13.2		13	1.0	8	8.9	10.6	100	Good	Good
6	01/06/2023	04/07/2023	12.6	12.1		12	0.4	3	3.2	10.3	100	Good	Good
7	04/07/2023	03/08/2023	12.2							7.6	100		Good
8	03/08/2023	04/09/2023	15.9	16.7		16	0.6	3	5.1	11.5	100	Good	Good
9	04/09/2023	03/10/2023	20.1	20.9		21	0.6	3	5.1	15.9	100	Good	Good
10	03/10/2023	01/11/2023		26.1						16.9	100		Good
11	01/11/2023	06/12/2023	16.0	23.2		20	5.1	26	45.7	19.7	100	Poor Precision	Good
12	06/12/2023	04/01/2024	14.5	15.6		15	0.8	5	7.0	12.8	100	Good	Good
13													
										Overall survey -->		Good precision	Good Overall DC

It is necessary to have results for at least two tubes in order to calculate the precision of the measurements

Site Name/ ID:

Precision: 6 out of 7 periods have a CV smaller than 20%

(Check average CV & DC from Accuracy calculations)

Accuracy (with 95% confidence interval) without periods with CV larger than 20%
Bias calculated using 6 periods of data
Bias factor A: 0.83 (0.76 - 0.92)
Bias B: 20% (9% - 32%)
Diffusion Tubes Mean: 17 µgm^{-3}
Mean CV (Precision): 5
Automatic Mean: 14 µgm^{-3}
Data Capture for periods used: 100%
Adjusted Tubes Mean: 14 (13 - 16) µgm^{-3}

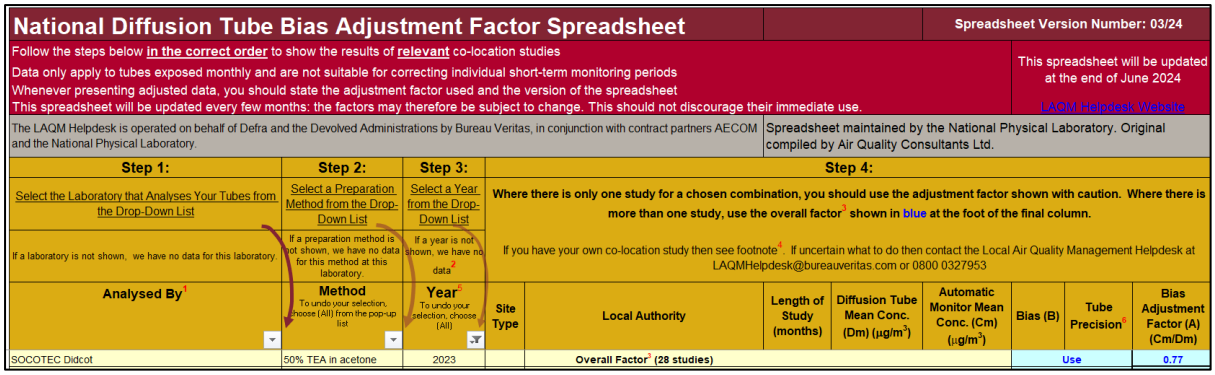
Accuracy (with 95% confidence interval) WITH ALL DATA
Bias calculated using 7 periods of data
Bias factor A: 0.86 (0.78 - 0.95)
Bias B: 17% (5% - 28%)
Diffusion Tubes Mean: 18 µgm^{-3}
Mean CV (Precision): 8
Automatic Mean: 15 µgm^{-3}
Data Capture for periods used: 100%
Adjusted Tubes Mean: 15 (14 - 17) µgm^{-3}

Jaume Targa, for AEA
Version 04 - February 2011

Discussion of Choice of Factor to Use

Using diffusion tubes as part of our review and assessment, we are reporting in this ASR both the local bias-adjustment factor from our co-location study, and the bias-adjustment factor from the national database:

- The local bias-adjustment factor is 0.83 (see previous paragraph for calculations)
- The national bias-adjustment factor is 0.77 as per 03/2024 (SOCOTEC Didcot, 50% TEA in acetone):



National Diffusion Tube Bias Adjustment Factor Spreadsheet — Spreadsheet Version Number: 03/24

Follow the steps below **in the correct order** to show the results of **relevant** co-location studies
Data only apply to tubes exposed monthly and are not suitable for correcting individual short-term monitoring periods
Whenever presenting adjusted data, you should state the adjustment factor used and the version of the spreadsheet
This spreadsheet will be updated every few months: the factors may therefore be subject to change. This should not discourage their immediate use.

This spreadsheet will be updated at the end of June 2024

LAQM Helpdesk Website

The LAQM Helpdesk is operated on behalf of Defra and the Devolved Administrations by Bureau Veritas, in conjunction with contract partners AECOM and the National Physical Laboratory.

Spreadsheet maintained by the National Physical Laboratory. Original compiled by Air Quality Consultants Ltd.

Step 1:	Step 2:	Step 3:	Step 4:							
Select the Laboratory that Analyses Your Tubes from the Drop-Down List	Select a Preparation Method from the Drop-Down List	Select a Year from the Drop-Down List	Where there is only one study for a chosen combination, you should use the adjustment factor shown with caution. Where there is more than one study, use the overall factor[3] shown in blue at the foot of the final column.							
If a laboratory is not shown, we have no data for this laboratory	If a preparation method is not shown, we have no data for this method at this laboratory.	If a year is not shown, we have no data[2]	If you have your own co-location study then see footnote[4]. If uncertain what to do then contact the Local Air Quality Management Helpdesk at LAQMHelpdesk@bureauveritas.com or 0800 0327953							
Analysed By[1]	Method To undo your selection, choose (All) from the pop-up list	Year[2] To undo your selection, choose (All)	Site Type	Local Authority	Length of Study (months)	Diffusion Tube Mean Conc. (Dm) (µg/m³)	Automatic Monitor Mean Conc. (Cm) (µg/m³)	Bias (B)	Tube Precision[5]	Bias Adjustment Factor (A) (Cm/Dm)
SOCOTEC Didcot	50% TEA in acetone	2023	Overall Factor[3] (28 studies)					Use		0.77

The decision of which of the two factors to use depends upon a number of reasons that needed to be considered. Ultimately, for 2023, we decided to use the national bias-adjustment over the local bias-adjustment factor. We think that the national bias-adjustment factor is more representative for the following reasons:

1. Diffusion tubes measurement periods: 3 monitoring periods of tube 1 of the co-location study do not have available data (3rd, 4th and 10th monitoring periods), and other 3 monitoring periods of tube 2 do not have data (1st, 3rd and 7th monitoring periods). In the 3rd monitoring period, both tubes were found missing, and data are not available for this period.
2. The length of the monitoring study: The LLAQM.TG(19) states that the duration of the whole diffusion tube study is not representative if it is less than one year (especially, if it is less than 9 monitoring periods). Even if each tube has 9 monitoring periods, by combining them together, the co-location study only has 7 effective monitoring periods in which both diffusion tube measurements are present.
3. Coefficient of variation: In the 11th monitoring period, the coefficient of variation is too high. This is due to a remarkable difference in the two diffusion tubes measurements in the same month (16 µg m^{-3} for tube 1, and 23.2 µg m^{-3} for tube 2, in the same 11th monitoring period).
4. Data quality check: Even if the automatic monitor data has good data capture (data capture is 100% for all 12 monitoring periods), only 6 monitoring periods of the co-location study have good tubes precision check. There are no data quality check available for 5 monitoring periods (1st, 3rd, 4th, 7th, and 10th monitoring periods) and the 11th monitoring period has poor precision.

Table N. Bias Adjustment Factor.

Year	Local or National	If National, Version of National Spreadsheet	Adjustment Factor
2023	National	03/2024 (SOCOTEC Didcot, 50% TEA in acetone)	0.77
2022	National	03/2023 (SOCOTEC Didcot, 50% TEA in acetone)	0.76
2021	National	03/2022 (SOCOTEC Didcot, 50% TEA in acetone)	0.78
2020	National	03/2021 (SOCOTEC Didcot, 50%TEA, 50% Acetone)	0.77
2019	National	03/2020	0.75
2018	National	03/2019	0.77
2017	National	03/2018	0.77

A.3 Adjustments to the Ratified Monitoring Data

Short-term to Long-term Data Adjustment

In 2023, data capture rate of 75% was not achieved at 5 non-automatic monitoring sites and at 2 automatic monitoring analysers.

Non-Automatic Monitoring Sites (diffusion tubes) NO_2:

- ID 7 St Katherine's Way, data capture 50%
- ID 10 Whitechapel Rd / Adler St, data capture 42%
- ID 16 Paradise Row / Bethnal Green Rd, data capture 67%
- ID 63 Millwall Park, data capture 58%
- ID 88 Shirbutt St o/s Holy Family School, data capture 67%

Automatic Monitoring Site NO_2:

- TH005 King Edward Memorial Park, data capture 60%

Automatic Monitoring Site $PM_{2.5}$:

- TH005 King Edward Memorial Park, data capture 49%

Consequently, it has been necessary to annualise the results of these sites in accordance with the procedure described in LAQM TG (19). Calculations for each site are set out below.

As reference for NO_2, Millwall Park and Victoria Park automatic monitoring sites were used. Both sites are background sites.

As reference for $PM_{2.5}$, Newham Wren Close (Newham Council) and Victoria Park automatic monitoring sites were used. Both sites are background sites.

Table O. Short-Term to Long-Term Monitoring Data Adjustment (7 sub-tables included):

Table O1. Short-Term to Long-Term Monitoring Data Adjustment - Diffusion tube Site ID 7 St Katherine's Way.

	Diffusion tube period					Site ID 7 (St Katherine's Way) data capture: 50%								
	Start Date	End Date	B1 = Newham Wren Close	D1 = Site ID 7 (St Katherine's Way)	B1 when D1 is available				Start Date	End Date	B1 = Victoria Park TH002	D1 = Site ID 7 (St Katherine's Way)	B1 when D1 is available
1	05/01/2023	02/02/2023	27.2	30.1	27.2	Am1/Pm1 = Annualisation Factor = R1 =	0.87	1	05/01/2023	02/02/2023	23.7	30.1	23.7
2	02/02/2023	03/03/2023	31.4	22.8	31.4	Am2/Pm2 = Annualisation Factor = R2 =	0.85	2	02/02/2023	03/03/2023	25.6	22.8	25.6
3	03/03/2023	05/04/2023	20.0	22.1	20.0	(R1+R2)/2 = Ra =	0.86	3	03/03/2023	05/04/2023	14.3	22.1	14.3
4	05/04/2023	02/05/2023	20.1	27.4	20.1	Estimate of Mean = M x Ra =	23.42	4	05/04/2023	02/05/2023	14.8	27.4	14.8
5	02/05/2023	01/06/2023	14.9					5	02/05/2023	01/06/2023	10.6		
6	01/06/2023	04/07/2023	14.8					6	01/06/2023	04/07/2023	10.3		
7	04/07/2023	03/08/2023	12.4			Site ID 7 (St Katherine's Way) = Estimate of Mean x bias-adjustment factor (0.77) =	18.03	7	04/07/2023	03/08/2023	7.6		
8	03/08/2023	04/09/2023	14.3					8	03/08/2023	04/09/2023	11.5		
9	04/09/2023	03/10/2023	19.2					9	04/09/2023	03/10/2023	15.9		
10	03/10/2023	01/11/2023	20.7	35.0	20.7			10	03/10/2023	01/11/2023	16.9	35.0	16.9
11	01/11/2023	06/12/2023	26.2					11	01/11/2023	06/12/2023	19.7		
12	06/12/2023	04/01/2024	17.2	25.8	17.2			12	06/12/2023	04/01/2024	12.8	25.8	12.8
		Average	19.87	27.20	22.77					Average	15.33	27.20	18.05
			Am1	M	Pm1						Am2	M	Pm2
				M= mean									
			Am= Annuam mean		Pm= Period mean								

Table O2. Short-Term to Long-Term Monitoring Data Adjustment - Diffusion tube Site ID 10 Whitechapel Rd / Adler St.

	Diffusion tube period					Site ID 10 (Whitechapel Rd / Adler St) data capture: 42%						
	Start Date	End Date	B1 = Newham Wren Close	D1 = Site ID 10 (Whitechapel Rd / Adler St)	B1 when D1 is available				Start Date	End Date	B1 = Victoria Park TH002	D1 = Site ID 10 (Whitechapel Rd / Adler St)	B1 when D1 is available
1	05/01/2023	02/02/2023	27.2			Am1/Pm1 = Annualisation Factor = R1 =	1.06	1	05/01/2023	02/02/2023	23.7		
2	02/02/2023	03/03/2023	31.4			Am2/Pm2 = Annualisation Factor = R2 =	1.09	2	02/02/2023	03/03/2023	25.6		
3	03/03/2023	05/04/2023	20.0			(R1+R2)/2 = Ra =	1.07	3	03/03/2023	05/04/2023	14.3		
4	05/04/2023	02/05/2023	20.1			Estimate of Mean = M x Ra =	33.99	4	05/04/2023	02/05/2023	14.8		
5	02/05/2023	01/06/2023	14.9	26.5	14.9			5	02/05/2023	01/06/2023	10.6	26.5	10.6
6	01/06/2023	04/07/2023	14.8	27.8	14.8			6	01/06/2023	04/07/2023	10.3	27.8	10.3
7	04/07/2023	03/08/2023	12.4			Site ID 10 (Whitechapel Rd / Adler St) = Estimate of Mean x bias-adjustment factor (0.77) =	26.17	7	04/07/2023	03/08/2023	7.6		
8	03/08/2023	04/09/2023	14.3					8	03/08/2023	04/09/2023	11.5		
9	04/09/2023	03/10/2023	19.2					9	04/09/2023	03/10/2023	15.9		
10	03/10/2023	01/11/2023	20.7	34.1	20.7			10	03/10/2023	01/11/2023	16.9	34.1	16.9
11	01/11/2023	06/12/2023	26.2	40.9	26.2			11	01/11/2023	06/12/2023	19.7	40.9	19.7
12	06/12/2023	04/01/2024	17.2	29.0	17.2			12	06/12/2023	04/01/2024	12.8	29.0	12.8
		Average	19.87	31.66	18.76					Average	15.33	31.66	14.09
			Am1	M	Pm1						Am2	M	Pm2
				M= mean									
			Am= Annuam mean		Pm= Period mean								

Table O3. Short-Term to Long-Term Monitoring Data Adjustment - Diffusion tube Site ID 16 Paradise Row / Bethnal Green Road.

	Diffusion tube period					Site ID 16 (Paradise Row / Bethnal Green Rd) data capture: 67%						
	Start Date	End Date	B1 = Newham Wren Close	D1 = Site ID 16 (Paradise Row / Bethnal Green Rd)	B1 when D1 is available				Start Date	End Date	B1 = Victoria Park TH002	D1 = Site ID 16 (Paradise Row / Bethnal Green Rd)	B1 when D1 is available
1	05/01/2023	02/02/2023	27.2			Am1/Pm1 = Annualisation Factor = R1 =	0.82	1	05/01/2023	02/02/2023	23.7		
2	02/02/2023	03/03/2023	31.4			Am2/Pm2 = Annualisation Factor = R2 =	1.05	2	02/02/2023	03/03/2023	25.6		
3	03/03/2023	05/04/2023	20.0	36.4	20.0	(R1+R2)/2 = Ra =	0.94	3	03/03/2023	05/04/2023	14.3	36.4	14.3
4	05/04/2023	02/05/2023	20.1	36.4	20.1	Estimate of Mean = M x Ra =	31.57	4	05/04/2023	02/05/2023	14.8	36.4	14.8
5	02/05/2023	01/06/2023	14.9	28.7	14.9			5	02/05/2023	01/06/2023	10.6	28.7	10.6
6	01/06/2023	04/07/2023	14.8					6	01/06/2023	04/07/2023	10.3		
7	04/07/2023	03/08/2023	12.4			Site ID 16 (Paradise Row / Bethnal Green Rd) = Estimate of Mean x bias-adjustment	24.31	7	04/07/2023	03/08/2023	7.6		
8	03/08/2023	04/09/2023	14.3	26.3	14.3			8	03/08/2023	04/09/2023	11.5	26.3	11.5
9	04/09/2023	03/10/2023	19.2	37.9	19.2			9	04/09/2023	03/10/2023	15.9	37.9	15.9
10	03/10/2023	01/11/2023	20.7	39.2	20.7			10	03/10/2023	01/11/2023	16.9	39.2	16.9
11	01/11/2023	06/12/2023	26.2	28.3	26.2			11	01/11/2023	06/12/2023	19.7	28.3	19.7
12	06/12/2023	04/01/2024	17.2	36.6	17.2			12	06/12/2023	04/01/2024	12.8	36.6	12.8
		Average	19.87	33.73	24.23					Average	15.33	33.73	14.57
			Am1	M	Pm1						Am2	M	Pm2
				M= mean									
			Am= Annuam mean		Pm= Period mean								

Table O4. Short-Term to Long-Term Monitoring Data Adjustment - Diffusion tube Site ID 63 Millwall Park.

	Diffusion tube period					Site ID 63 (Millwall Park) data capture: 58%						
	Start Date	End Date	B1 = Newham Wren Close	D1 = Site ID 63 (Millwall Park)	B1 when D1 is available				Start Date	End Date	B1 = Victoria Park TH002	D1 = Site ID 63 (Millwall Park)	B1 when D1 is available
1	05/01/2023	02/02/2023	27.2	30.9	27.2	Am1/Pm1 = Annualisation Factor = R1 =	1.01	1	05/01/2023	02/02/2023	23.7	30.9	23.7
2	02/02/2023	03/03/2023	31.4			Am2/Pm2 = Annualisation Factor = R2 =	0.99	2	02/02/2023	03/03/2023	25.6		
3	03/03/2023	05/04/2023	20.0			(R1+R2)/2 = Ra =	1.00	3	03/03/2023	05/04/2023	14.3		
4	05/04/2023	02/05/2023	20.1			Estimate of Mean = M x Ra =	21.13	4	05/04/2023	02/05/2023	14.8		
5	02/05/2023	01/06/2023	14.9					5	02/05/2023	01/06/2023	10.6		
6	01/06/2023	04/07/2023	14.8					6	01/06/2023	04/07/2023	10.3		
7	04/07/2023	03/08/2023	12.4	15.4	12.4	Site ID 63 (Millwall Park) = Estimate of Mean x bias-adjustment factor (0.77) =	16.27	7	04/07/2023	03/08/2023	7.6	15.4	7.6
8	03/08/2023	04/09/2023	14.3	18.8	14.3			8	03/08/2023	04/09/2023	11.5	18.8	11.5
9	04/09/2023	03/10/2023	19.2	21.7	19.2			9	04/09/2023	03/10/2023	15.9	21.7	15.9
10	03/10/2023	01/11/2023	20.7	22.0	20.7			10	03/10/2023	01/11/2023	16.9	22.0	16.9
11	01/11/2023	06/12/2023	26.2	24.3	26.2			11	01/11/2023	06/12/2023	19.7	24.3	19.7
12	06/12/2023	04/01/2024	17.2	14.4	17.2			12	06/12/2023	04/01/2024	12.8	14.4	12.8
		Average	19.87	21.07	19.60					Average	15.33	21.07	15.46
			Am1	M	Pm1						Am2	M	Pm2
				M= mean									
			Am= Annuam mean		Pm= Period mean								

Table O5. Short-Term to Long-Term Monitoring Data Adjustment - Diffusion tube Site ID 88 Shirbutt St o/s Holy Family School.

	Diffusion tube period					Site ID 88 (Shirbutt St o/s Holy Family School) data capture: 67%								
	Start Date	End Date	B1 = Newham Wren Close	D1 = Site ID 88 (Shirbutt St o/s Holy Family School)	B1 when D1 is available				Start Date	End Date	B1 = Victoria Park TH002	D1 = Site ID 88 (Shirbutt St o/s Holy Family School)	B1 when D1 is available
1	05/01/2023	02/02/2023	27.2	30.70	27.2	Am1/Pm1 = Annualisation Factor = R1 =	1.13	1	05/01/2023	02/02/2023	23.7	30.70	23.7
2	02/02/2023	03/03/2023	31.4			Am2/Pm2 = Annualisation Factor = R2 =	1.16	2	02/02/2023	03/03/2023	25.6		
3	03/03/2023	05/04/2023	20.0	21.00	20.0	(R1+R2)/2 = Ra =	1.14	3	03/03/2023	05/04/2023	14.3	21.00	14.3
4	05/04/2023	02/05/2023	20.1	27.30	20.1	Estimate of Mean = M x Ra =	25.26	4	05/04/2023	02/05/2023	14.8	27.30	14.8
5	02/05/2023	01/06/2023	14.9	20.30	14.9			5	02/05/2023	01/06/2023	10.6	20.30	10.6
6	01/06/2023	04/07/2023	14.8	19.80	14.8			6	01/06/2023	04/07/2023	10.3	19.80	10.3
7	04/07/2023	03/08/2023	12.4	16.10	12.4	Site 88 (Shirbutt St o/s Holy Family School) = Estimate of Mean x bias-adjustment	19.45	7	04/07/2023	03/08/2023	7.6	16.10	7.6
8	03/08/2023	04/09/2023	14.3	19.90	14.3			8	03/08/2023	04/09/2023	11.5	19.90	11.5
9	04/09/2023	03/10/2023	19.2					9	04/09/2023	03/10/2023	15.9		
10	03/10/2023	01/11/2023	20.7					10	03/10/2023	01/11/2023	16.9		
11	01/11/2023	06/12/2023	26.2					11	01/11/2023	06/12/2023	19.7		
12	06/12/2023	04/01/2024	17.2	21.60	17.2			12	06/12/2023	04/01/2024	12.8	21.60	12.8
			19.87	**22.09**	**17.61**					**Average**	**15.33**	**22.09**	**13.22**
			Am1	**M**	**Pm1**						**Am2**	**M**	**Pm2**
				M= mean									
			Am= Annuam	22.09	Pm= Period mean								

Table O6. Short-Term to Long-Term Monitoring Data Adjustment - Automatic Monitoring Site TH005 King Edward Memorial Park – $PM_{2.5}$.

	Diffusion tube period				
	Start Date	End Date	B1 = Newham Wren Close	D1 = TH005 King Edward Memorial Park	B1 when D1 is available
1	01/01/2023	31/01/2023	10.8		
2	01/02/2023	28/02/2023	12.8		
3	01/03/2023	31/03/2023	7.9		
4	01/04/2023	30/04/2023	10.0		
5	01/05/2023	31/05/2023	9.1	10.4	9.1
6	01/06/2023	30/06/2023	10.4		
7	01/07/2023	31/07/2023	6.7	8.6	6.7
8	01/08/2023	31/08/2023	6.3	9.5	6.3
9	01/09/2023	30/09/2023	11.9		
10	01/10/2023	31/10/2023	7.9	5.8	7.9
11	01/11/2023	30/11/2023	8.2	7.1	8.2
12	01/12/2023	31/12/2023	8.1	5.4	8.1
		Average	**9.18**	**7.79**	**7.72**
			Am1	**M**	**Pm1**
				M= mean	
			Am= Annuam mean		Pm= Period mean

TH005 King Edward Memorial Park site for PM2.5 data capture: 49%

Am1/Pm1 = Annualisation Factor = R1 =	1.19
Am2/Pm2 = Annualisation Factor = R2 =	1.23
(R1+R2)/2 = Ra =	1.21
Estimate of Mean = M x Ra =	9.44

TH005 King Edward Memorial Park for PM2.5 = Estimate of Mean x bias-adjustment	**7.27**

	Start Date	End Date	B1 = Victoria Park TH002	D1 = TH005 King Edward Memorial Park	B1 when D1 is available
1	01/01/2023	31/01/2023	7.8		
2	01/02/2023	28/02/2023	11.8		
3	01/03/2023	31/03/2023	6.9		
4	01/04/2023	30/04/2023	10.0		
5	01/05/2023	31/05/2023	6.8	10.4	6.8
6	01/06/2023	30/06/2023	8.7		
7	01/07/2023	31/07/2023	6.2	8.6	6.2
8	01/08/2023	31/08/2023	7.6	9.5	7.6
9	01/09/2023	30/09/2023	12.6		
10	01/10/2023	31/10/2023	6.6	5.8	6.6
11	01/11/2023	30/11/2023	6.4	7.1	6.4
12	01/12/2023	31/12/2023	5.8	5.4	5.8
		Average	**8.08**	**7.79**	**6.55**
			Am2	**M**	**Pm2**

Table O7. Short-Term to Long-Term Monitoring Data Adjustment - Automatic Monitoring Site TH005 King Edward Memorial Park - NO_2.

	Diffusion tube period					TH005 King Edward Memorial Park for NO2 data capture: 60%						
	Start Date	End Date	B1 = TH001 Millwall Park	D1 = TH005 King Edward Memorial Park	B1 when D1 is available				Start Date	End Date	B1 = Victoria Park TH002	D1 = TH005 King Edward Memorial Park	B1 when D1 is available
1	01/01/2023	31/01/2023	24.2			Am1/Pm1 = Annualisation Factor = R1 =	1.13	1	01/01/2023	31/01/2023	23.2		
2	01/02/2023	28/02/2023	26.7			Am2/Pm2 = Annualisation Factor = R2 =	1.16	2	01/02/2023	28/02/2023	26.4		
3	01/03/2023	31/03/2023	18.4			(R1+R2)/2 = Ra =	1.15	3	01/03/2023	31/03/2023	13.9		
4	01/04/2023	30/04/2023	13.5			Estimate of Mean = M x Ra =	20.97	4	01/04/2023	30/04/2023	15.8		
5	01/05/2023	31/05/2023	13.3	17.5	13.3			5	01/05/2023	31/05/2023	10.7	17.5	10.7
6	01/06/2023	30/06/2023	13.8	18.3	13.8			6	01/06/2023	30/06/2023	11.1	18.3	11.1
7	01/07/2023	31/07/2023	8.2	14.2	8.2	TH005 King Edward Memorial Park for NO2 = Estimate of Mean x bias-adjustment	16.15	7	01/07/2023	31/07/2023	7.5	14.2	7.5
8	01/08/2023	31/08/2023	10.5	16.9	10.5			8	01/08/2023	31/08/2023	10.5	16.9	10.5
9	01/09/2023	30/09/2023	17.3	23.8	17.3			9	01/09/2023	30/09/2023	16.3	23.8	16.3
10	01/10/2023	31/10/2023	18.1	19.3	18.1			10	01/10/2023	31/10/2023	16.8	19.3	16.8
11	01/11/2023	30/11/2023	20.7	19.7	20.7			11	01/11/2023	30/11/2023	18.9	19.7	18.9
12	01/12/2023	31/12/2023	16.4	16.6	16.4			12	01/12/2023	31/12/2023	15.0	16.6	15.0
		Average	16.76	18.28	14.79					Average	15.52	18.28	13.37
			Am1	M	Pm1						Am2	M	Pm2
				M= mean									
			Am= Annuam mean		Pm= Period mean								

Distance Adjustment

All NO_2 diffusion tube results have been adjusted to estimate the concentrations at the nearest receptor, using the LAQM NO_2 Fall-off with Distance Calculator (Version 4.2) in line with the procedure specified in LLAQM.TG (19).

The methodology consists of comparing the monitored NO_2 annual mean concentrations at a given point against known relationships between NO_2 concentrations and the distance from a road source.

As background concentration, the NO_2 annual mean concentration from the automatic monitoring site Victoria Park TH002 was used.

See Table P for the NO_2 fall off with distance calculations.

Table P. NO_2 Fall off With Distance Calculations.

Background concentration = NO_2 annual mean concentration from the automatic monitoring site Victoria Park TH002.

Site Name/ID	Distance (m)		NO_2 Annual Mean Concentration ($\mu g/m^3$)			Comment
	Monitoring Site to Kerb	Receptor to Kerb	Background	Monitored at Site	Predicted at Receptor	
1 Colombia Rd / Gossett Street	0.5	5.5	15.0	19.6	17.6	
2 Calvert Ave / Boundary Street	0.5	4.5	15.0	20.3	18.2	

Site Name/ID	Distance (m)		NO_2 Annual Mean Concentration (µg/m^3)			Comment
	Monitoring Site to Kerb	Receptor to Kerb	Background	Monitored at Site	Predicted at Receptor	
3 Bethnal Green Rd / Brick Lane	0.5	3.5	15.0	27.7	23.3	
4 Commercial St / Calvin St	0.5	7.5	15.0	26.3	20.9	
5 Whitechapel High St (KFC)	0.5	3.5	15.0	32.9	26.7	
6 Mansell St	0.5	6.5	15.0	30.5	23.5	

Site Name/ID	Distance (m)		NO_2 Annual Mean Concentration (µg/m^3)			Comment
	Monitoring Site to Kerb	Receptor to Kerb	Background	Monitored at Site	Predicted at Receptor	
7 St Katherine's Way	10.0	20.0	15.0	18.0	17.2	
8 Wapping High St / Sampson St	0.5	3.5	15.0	20.4	18.5	
9 Cartwright Street	0.5	5.5	15.0	20.3	18.1	
10 Whitechapel Rd / Adler St	0.5	6.5	15.0	26.2	21.1	

Site Name/ID	Distance (m)		NO_2 Annual Mean Concentration (µg/m^3)			Comment
	Monitoring Site to Kerb	Receptor to Kerb	Background	Monitored at Site	Predicted at Receptor	
11 Brick Lane / Princelet St	0.5	5.5	15.0	21.0	18.5	
12 Buckfast St / Bethnal Green Rd	0.5	4.5	15.0	22.1	19.3	
13 Squirries St / Gosset St	0.5	4.5	15.0	22.1	19.3	
14 Warner Place / Hackney Rd	0.5	17.5	15.0	25.0	18.7	

Site Name/ID	Distance (m)		NO_2 Annual Mean Concentration ($\mu g/m^3$)			Comment
	Monitoring Site to Kerb	Receptor to Kerb	Background	Monitored at Site	Predicted at Receptor	
15 Parmiter St / Cambridge Heath Road	0.5	4.5	15.0	24.9	21.1	
16 Paradise Row / Bethnal Green Rd	0.5	3.5	15.0	24.3	21.1	
17 Finnis St / Three Colts Lane	0.5	2.5	15.0	17.4	16.7	
18 Sidney St / Mile End Rd	2.0	8.0	15.0	26.5	22.8	

Site Name/ID	Distance (m)		NO_2 Annual Mean Concentration ($\mu g/m^3$)			Comment
	Monitoring Site to Kerb	Receptor to Kerb	Background	Monitored at Site	Predicted at Receptor	
19 Philpot St / Commercial Road	0.5	8.5	15.0	26.4	20.7	
20 Dellow St / The Highway	2.0	6.0	15.0	33.3	28.6	
21 Queensbridge Rd / Hackney Rd	0.5	4.5	15.0	23.8	20.4	
22 Wapping Wall / Garnet St	0.5	3.5	15.0	19.8	18.1	

Site Name/ID	Distance (m)		NO_2 Annual Mean Concentration (µg/m^3)			Comment
	Monitoring Site to Kerb	Receptor to Kerb	Background	Monitored at Site	Predicted at Receptor	
23 Brodlove Lane	0.5	3.5	15.0	26.6	22.6	
24 Jubilee Street / Commercial Rd	0.5	5.5	15.0	32.6	25.1	
25 Cavell St / Stepney Way	1.0	21.0	15.0	28.2	20.1	Warning: Receptor is more than 20m further from the kerb than monitor – Treat result with caution
26 Hannibal Rd / Mile End Rd	0.5	3.5	15.0	25.0	21.6	

Site Name/ID	Distance (m)		NO_2 Annual Mean Concentration (µg/m^3)			Comment
	Monitoring Site to Kerb	Receptor to Kerb	Background	Monitored at Site	Predicted at Receptor	
27 Roman Rd / Globe Road	0.5	12.5	15.0	23.4	18.6	
28 Bonner Road	0.5	7.5	15.0	31.4	23.5	
29 Grove Rd / Old Ford Rd	0.5	12.5	15.0	26.1	19.8	
30 Fieldgate Street	0.5	8.5	15.0	26.3	20.6	

Site Name/ID	Distance (m)		NO_2 Annual Mean Concentration (µg/m^3)			Comment
	Monitoring Site to Kerb	Receptor to Kerb	Background	Monitored at Site	Predicted at Receptor	
31 Whitechapel Market	1.5	16.5	15.0	37.9	25.8	
32 Globe Rd / Mile End Rd	0.5	4.5	15.0	29.3	23.7	
33 Stepney Green	15.0	45.0	15.0	19.0	17.1	Warning: Receptor is more than 20m further from the kerb than monitor – Treat result with caution
34 Pitsea St / Commercial Rd	0.5	4.5	15.0	22.4	19.5	

Site Name/ID	Distance (m)		NO_2 Annual Mean Concentration (µg/m^3)			Comment
	Monitoring Site to Kerb	Receptor to Kerb	Background	Monitored at Site	Predicted at Receptor	
35 Narrow St / Limehouse Link	1.5	16.5	15.0	54.9	33.9	
36 Locksley St / St Paul's Way	0.5	40.5	15.0	24.1	17.0	Warning: Receptor is more than 20m further from the kerb than monitor – Treat result with caution
37 Rhodeswell Rd	1.0	41.0	15.0	21.6	16.7	Warning: Receptor is more than 20m further from the kerb than monitor – Treat result with caution
38 Ben Johnson Road	0.5	4.5	15.0	26.3	21.9	

Site Name/ID	Distance (m)		NO_2 Annual Mean Concentration (µg/m^3)			Comment
	Monitoring Site to Kerb	Receptor to Kerb	Background	Monitored at Site	Predicted at Receptor	
39 Harford St / Mile End Rd	1.5	4.5	15.0	24.5	22.2	
40 Thoydon Rd	0.5	7.5	15.0	20.6	17.9	
41 Ford Close / Roman Rd	1.5	3.5	15.0	25.4	23.5	
42 Victoria Park (Co-location site)	N/A - distances must be less than 50m					

Site Name/ID	Distance (m)		NO_2 Annual Mean Concentration ($\mu g/m^3$)			Comment
	Monitoring Site to Kerb	Receptor to Kerb	Background	Monitored at Site	Predicted at Receptor	
43 Victoria Park (Co-location site)	N/A - distances must be less than 50m					
44 Parnell Rd / Old Ford Rd	0.5	4.5	15.0	26.7	22.2	
45 St Stephen's Rd / Tredegar Rd	0.5	3.5	15.0	25.5	21.9	
46 Rhondda Grove / Mile End Rd	0.5	5.5	15.0	20.6	18.2	

Site Name/ID	Distance (m)		NO_2 Annual Mean Concentration (µg/m^3)			Comment
	Monitoring Site to Kerb	Receptor to Kerb	Background	Monitored at Site	Predicted at Receptor	
47 Wentworth Mews	0.5	15.5	15.0	27.1	19.8	
48 Ackroyd Drive	0.5	40.5	15.0	27.6	17.8	Warning: Receptor is more than 20m further from the kerb than monitor – Treat result with caution
49 Dod St / Burdett Rd	0.5	5.5	15.0	20.1	17.9	
50 Rich Street	1.5	4.5	15.0	26.9	24.0	

Site Name/ID	Distance (m)		NO_2 Annual Mean Concentration (µg/m^3)			Comment
	Monitoring Site to Kerb	Receptor to Kerb	Background	Monitored at Site	Predicted at Receptor	
51 Watney Market	15.0	25.0	15.0	21.6	20.1	Warning: Receptor is more than 20m further from the kerb than monitor – Treat result with caution
52 Wick Lane / Autumn St	0.5	3.5	15.0	27.2	23.0	
53 Fairfield Road / Tredegar Road	0.5	4.5	15.0	31.2	24.9	
54 Bow Rd / Glebe Terrace	0.5	5.5	15.0	41.4	30.2	

Site Name/ID	Distance (m)		NO_2 Annual Mean Concentration (µg/m^3)			Comment
	Monitoring Site to Kerb	Receptor to Kerb	Background	Monitored at Site	Predicted at Receptor	
55 TH Cemetery Park	5.0	20.0	15.0	13.3	-	Error: Measured concentration must be above background concentration.
56 Bow Common Lane / St Paul's Way	0.5	30.5	15.0	25.1	17.8	Warning: Receptor is more than 20m further from the kerb than monitor – Treat result with caution
57 Augusta St / Giraud St	1.0	16.0	15.0	19.6	17.0	
58 Dolphin Lane	1.0	8.0	15.0	19.9	17.8	

Site Name/ID	Distance (m)		NO_2 Annual Mean Concentration (µg/m^3)			Comment
	Monitoring Site to Kerb	Receptor to Kerb	Background	Monitored at Site	Predicted at Receptor	
59 Westferry Road / Limehouse Link jnct	1.0	8.0	15.0	25.0	20.8	
60 Cascades, Westferry Road	0.5	18.5	15.0	27.3	19.4	
61 Bow Rd / Alfred St	0.5	6.5	15.0	23.2	19.5	
62 Mast House Terrace	0.5	5.5	15.0	23.9	20.1	

Site Name/ID	Distance (m)		NO_2 Annual Mean Concentration ($\mu g/m^3$)			Comment
	Monitoring Site to Kerb	Receptor to Kerb	Background	Monitored at Site	Predicted at Receptor	
63 Millwall Park	N/A - distances must be less than 50m					
64 Lime harbour	0.5	10.5	15.0	30.4	22.1	
65 Manchester Road / East Ferry Road	0.5	2.5	15.0	20.9	19.2	
66 Millwall Park	N/A - distances must be less than 50m					

Site Name/ID	Distance (m)		NO_2 Annual Mean Concentration (µg/m^3)			Comment
	Monitoring Site to Kerb	Receptor to Kerb	Background	Monitored at Site	Predicted at Receptor	
67 Seyssel Street	0.5	15.5	15.0	23.2	18.2	
68 Manchester Road / Ollife Street	0.5	3.5	15.0	24.9	21.5	
69 Lawn house Close	0.5	30.5	15.0	23.7	17.4	Warning: Receptor is more than 20m further from the kerb than monitor – Treat result with caution
70 Admirals Way	0.5	15.5	15.0	19.4	16.7	

Site Name/ID	Distance (m)		NO_2 Annual Mean Concentration (µg/m^3)			Comment
	Monitoring Site to Kerb	Receptor to Kerb	Background	Monitored at Site	Predicted at Receptor	
71 Toynbee St / Commercial St	2.0	12.0	15.0	29.5	23.4	
72 Prestons Road / Coldharbour	0.5	4.5	15.0	28.5	23.3	
73 John Smith Mews	0.5	10.5	15.0	21.6	18.0	
74 Poplar High St / Cotton St	0.5	10.5	15.0	50.4	31.3	

Site Name/ID	Distance (m)		NO_2 Annual Mean Concentration (µg/m^3)			Comment
	Monitoring Site to Kerb	Receptor to Kerb	Background	Monitored at Site	Predicted at Receptor	
75 Hale Street	0.5	7.5	15.0	19.9	17.6	
76 Chrisp Street / E India Dock Road	0.5	20.5	15.0	31.4	20.6	Warning: Receptor is more than 20m further from the kerb than monitor – Treat result with caution
77 Morris / Barchester Street	0.5	4.5	15.0	21.0	18.7	
78 Devons Road / Campbell Road	0.5	10.5	15.0	29.0	21.5	

Site Name/ID	Distance (m)		NO_2 Annual Mean Concentration (µg/m^3)			Comment
	Monitoring Site to Kerb	Receptor to Kerb	Background	Monitored at Site	Predicted at Receptor	
79 Hatfield Terrace / Fairfield Road	0.5	3.5	15.0	19.7	18.1	
80 Wrexham Road	0.5	3.5	15.0	24.9	21.5	
81 Bromley High Street / St Leonards	0.5	5.5	15.0	24.5	20.5	
82 Devas Street / Devons road	0.5	7.5	15.0	28.4	22.0	

Site Name/ID	Distance (m)		NO_2 Annual Mean Concentration ($\mu g/m^3$)			Comment
	Monitoring Site to Kerb	Receptor to Kerb	Background	Monitored at Site	Predicted at Receptor	
83 Zetland Street / A12	N/A - distances must be less than 50m					
84 Blair Street (End of Street)	5.0	20.0	15.0	27.5	22.3	
85 Portree Street	0.5	4.5	15.0	29.7	24.0	
86 Newport Avenue	0.5	15.5	15.0	21.4	17.5	

Site Name/ID	Distance (m)		NO_2 Annual Mean Concentration (µg/m^3)			Comment
	Monitoring Site to Kerb	Receptor to Kerb	Background	Monitored at Site	Predicted at Receptor	
87 Mile End Road Corner Bancroft Rd	0.5	30.5	15.0	25.5	17.9	Warning: Receptor is more than 20m further from the kerb than monitor – Treat result with caution
88 Shirbutt St o/s Holy Family School	0.5	10.5	15.0	19.5	17.1	
89 Thames Path Storers Quay	10.0	14.0	15.0	19.7	19.1	
90 Sextant Avenue	1.0	5.0	15.0	19.3	17.9	

Site Name/ID	Distance (m)		NO_2 Annual Mean Concentration (µg/m^3)			Comment
	Monitoring Site to Kerb	Receptor to Kerb	Background	Monitored at Site	Predicted at Receptor	
91 At the entrance of MOT station	1.9	9.9	15.0	23.6	20.3	
92 At the exit of MOT station	3.7	15.7	15.0	29.2	23.6	

Appendix B Full Monthly Diffusion Tube Results for 2023

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

Site ID		Location	Valid data capture for monitoring period %	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual Mean - Raw Data	Annual Mean - National bias-adjusted (as per 0.77 factor 03/2024) and annualised (LLAQM Technical Guidance)	NO_2 Fall off With Distance Calculations
1		Colombia Rd/Gossett Street	92	37.7	34.5	22.5	25.4	-	16.4	16.2	16.3	25.8	29.6	32.5	23.5	25.5	19.6	17.6
2		Calvert Ave/Boundary Street	100	36.6	35.4	23.1	25.7	17.0	19.0	18.1	21.6	27.7	31.7	31.7	29.3	26.4	20.3	18.2
3		Bethnal Green Rd/ Brick Lane	75	**44.3**	**45.5**	-	34.4	22.1	22.9	29.4	-	-	**41.7**	**45.2**	38	35.9	27.7	23.3
4		Commercial St/Calvin St	75	-	-	-	31.9	29.5	29.7	26.3	31.3	**42.0**	**44.2**	**41.7**	31.2	34.2	26.3	20.9
5		Whitechapel High St (KFC)	100	**45.8**	**54.2**	39.1	**41.2**	34.2	32.7	35.6	38.1	**46.3**	**52.5**	**48.9**	**44.5**	**42.8**	32.9	26.7
6		Mansell St	100	39.7	**51.2**	39.6	39.8	29.5	29.5	38.3	34.5	**43.7**	**44.9**	**46.1**	39.3	39.7	30.5	23.5
7		St Katherine's Way	50	30.1	22.8	22.1	27.4	-	-	-	-	-	35.0	-	25.8	27.2	18.0	17.2
8		Wapping High St/Sampson St	100	35.6	39.9	22.6	27.4	21.3	18.4	19.9	22.7	27.9	33.0	30.9	18.3	26.5	20.4	18.5
9		Cartwright Street	100	34.4	**40.2**	25.3	22.9	20.4	18.2	21.2	21.4	28.6	31.7	26.6	26.0	26.4	20.3	18.1
10		Whitechapel Rd/Adler St	42	-	-	-	-	26.5	27.8	-	-	-	34.1	**40.9**	29.0	31.7	26.2	21.1
11		Brick Lane/Princelet St	92	36.9	36.1	27.9	27.6	20.7	19.8	19.9	20.6	30.6	-	31.3	28.5	27.3	21.0	18.5
12		Buckfast St/Bethnal Green Rd	83	34.2	37.8	26.8	29.2	21.5	-	-	21.6	30.4	30.1	34.3	21.5	28.7	22.1	19.3
13		Squirries St/Gosset St	92	37.7	32.6	25.3	33.0	25.2	21.5	20.6	22.4	-	32.5	34.1	31.2	28.7	22.1	19.3
14		Warner Place/Hackney Rd	100	**42.1**	34.4	28.1	35.8	22.9	24.7	23.4	28.8	**40.8**	**41.2**	33.8	34.3	32.5	25.0	18.7
15		Parmiter St/ Cambridge Heath Road	92	**45.8**	-	30.1	36.8	22.9	25.2	21.3	27.4	36.0	33.6	**41.3**	35.3	32.3	24.9	21.1
16		Paradise Row/Bethnal Green Rd	67	-	-	36.4	36.4	28.7	-	-	26.3	37.9	39.2	28.3	36.6	33.7	24.3	21.1
17		Finnis St/Three Colts Lane	100	28.3	35.0	19.3	23.2	16.1	14.6	14.2	17.4	23.2	28.6	27.2	23.5	22.6	17.4	16.7
18		Sidney St/Mile End Rd	92	**40.1**	28.4	36.1	36.6	28.3	28.0	27.7	30.1	38.2	**40.0**	**45.2**	-	34.4	26.5	22.8

Site ID		Location	Valid data capture for monitoring period %	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual Mean - Raw Data	Annual Mean - National bias-adjusted (as per 0.77 factor 03/2024) and annualised (LLAQM Technical Guidance)	NO_2 Fall off With Distance Calculations
19		Philpot St/Commercial Road	92	**48.3**	39.8	-	36.1	24.5	31.1	24.2	28.4	39.8	**44.7**	**42.5**	18.4	34.3	26.4	20.7
20		Dellow St/The Highway	100	**45.4**	**50.8**	**40.4**	**43.7**	29.9	**43.0**	36.5	38.0	**53.2**	**51.8**	**44.7**	**41.5**	**43.2**	33.3	28.6
21		Queensbridge Rd/Hackney Rd	100	**40.7**	**41.9**	27.7	34.0	22.7	23.5	20.3	25.5	34.6	35.9	32.7	30.9	30.9	23.8	20.4
22		Wapping Wall/Garnet St	100	33.5	29.6	23.1	31.5	25.7	24.4	16.8	20.9	30.0	27.1	28.7	17.0	25.7	19.8	18.1
23		Brodlove Lane	92	46.7	**43.6**	-	21.9	22.5	31.4	29.1	32.3	**43.1**	38.4	39.7	30.6	34.5	26.6	22.6
24		Jubilee Street/Commercial Rd	100	**57.6**	**47.5**	**57.5**	31.9	39.8	38.6	28.4	37.0	**46.9**	**46.0**	**49.0**	27.6	**42.3**	32.6	25.1
25		Cavell St/Stepney Way	100	**45.9**	**54.3**	38.1	37.9	27.3	25.9	29.7	28.6	38.2	38.1	38.0	37.7	36.6	28.2	20.1 Warning: Receptor is more than 20m further from the kerb than monitor – Treat result with caution
26		Hannibal Rd/Mile End Rd	100	**46.2**	39.8	32.6	30.9	22.2	26.8	27.1	27.0	34.2	36.4	37.4	29.1	32.5	25.0	21.6
27		Roman Rd/Globe Road	83	37.2	**43.3**	29.2	33.3	24.1	21.5	19.2	23.1	-	37.3	35.1	-	30.3	23.4	18.6
28		Bonner Road	92	**53.0**	**52.8**	38.3	**46.0**	37.5	36.0	37.9	37.9	-	34.0	37.4	37.9	**40.8**	31.4	23.5
29		Grove Rd/Old Ford Rd	100	39.8	**42.6**	26.2	37.2	25.9	29.9	25.5	29.9	38.7	38.9	38.7	33.1	33.9	26.1	19.8
30		Fieldgate Street	92	37.2	43.2	26.4	38.9	29.1	32.4	24.1	27.4	**50.3**	-	32.4	33.7	34.1	26.3	20.6
31		Whitechapel Market	100	**48.5**	**64.1**	**44.2**	**50.0**	**45.4**	**41.7**	**43.8**	**45.0**	**55.6**	**55.3**	**54.6**	**43.0**	**49.3**	37.9	25.8
32		Globe Rd/Mile End Rd	100	**48.3**	**46.4**	**48.5**	33.1	32.8	35.6	26.6	30.9	39.1	**40.5**	**43.5**	31.2	38.0	29.3	23.7
33		Stepney Green	100	39.1	35.3	24.3	25.2	16.2	16.9	16.2	19.4	28.1	28.1	21	26	24.7	19.0	17.1
34		Pitsea St/Commercial Rd	100	**44.6**	36.9	29.6	33.0	19.1	24.9	20.2	22.1	24.9	29.0	37.2	26.9	29.0	22.4	19.5
35		Narrow St/Limehouse Link	92	**73.9**	**97.9**	**60.2**	**75.3**	**77.5**	**72.7**	**58.7**	**66.8**	-	**74.1**	**71.0**	**55.5**	**71.2**	**54.8**	33.9
36		Locksley St/St Paul's Way	100	**42.4**	**43.4**	30.5	38.8	24.3	21.8	16.8	23.9	32.9	33.7	37.9	29.1	31.3	24.1	17.0 Warning: Receptor is more than 20m further from the kerb than monitor – Treat result with caution
37		Rhodeswell Rd	100	38.4	**41.3**	32.5	29.9	22.7	20.1	17.7	21.2	24.4	30.2	28.9	30.1	28.1	21.6	16.7
38		Ben Johnson Road	100	**46.0**	39.2	37.0	37.6	27.5	30.5	22.5	28.7	37.5	39.3	**41.6**	21.7	34.1	26.3	21.9
39		Harford St/Mile End Rd	100	38.2	36.6	31.7	33.2	31.3	32.6	21.6	23.9	35.3	35.0	37.8	24.5	31.8	24.5	22.2

Site ID		Location	Valid data capture for monitoring period %	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual Mean - Raw Data	Annual Mean - National bias-adjusted (as per 0.77 factor 03/2024) and annualised (LLAQM Technical Guidance)	NO_2 Fall off With Distance Calculations
40		Thoydon Rd	100	36.2	33.4	26.0	30.3	20.7	21.8	18.1	21.7	29.6	28.9	30.1	24.1	26.7	20.6	17.9
41		Ford Close/Roman Rd	100	**40.0**	**43.5**	29.5	**40.8**	33.6	25.9	21.1	27.0	36.7	37.6	27.6	32.3	33.0	25.4	23.5
42		Victoria Park (Co-location site)	75	28.6	26.3	-	-	11.8	12.6	12.2	15.9	20.1	-	16.0	14.5	17.6	13.5	N/A
43		Victoria Park (Co-location site)	75	-	29.3	-	17.7	13.2	12.1	-	16.7	20.9	26.1	23.2	15.6	19.4	15.0	N/A
44		Parnell Rd/Old Ford Rd	100	-	**47.5**	32.9	35.9	24.6	25.1	25.7	30.9	39.0	**43.3**	39.9	36.2	34.6	26.6	22.2
45		St Stephen's Rd/Tredegar Rd	100	**40.2**	**43.4**	31.4	37.8	28.4	26.4	22.3	26.0	35.4	**42.3**	34.3	29.2	33.1	25.5	21.9
46		Rhondda Grove/Mile End Rd	92	**42.8**	30.8	28.7	30.4	20.4	20.6	19.0	19.9	-	32.4	24.2	25.1	26.8	20.6	18.2
47		Wentworth Mews	75	-	**46.4**	35.2	-	-	31.7	27.0	28.2	**40.8**	**43.2**	37.3	26.9	35.2	27.1	19.8
48		Ackroyd Drive	100	**45.0**	**47.4**	32.1	37.0	24.1	28.8	22.1	34.8	38.7	**45.3**	**44.1**	30.2	35.8	27.6	17.8 Warning: Receptor is more than 20m further from the kerb than monitor – Treat result with caution
49		Dod St/Burdett Rd	100	32.6	34.6	25.9	27.5	17.6	19.4	18.2	20.1	26.6	32.6	33.7	24.4	26.1	20.1	17.9
50		Rich Street	100	**46.8**	**52.1**	33.6	--	30.9	30.5	27.8	34.1	32.0	35.9	35.3	25.6	35.0	26.9	24.0
51		Watney Market	92	37.1	34.4	28.4	29.5	19.6	24.6	22.6	24.7	30.7	-	32.6	24.6	28.1	21.6	20.1
52		Wick Lane/Autumn St	75	-	**43.4**	-	36.1	28.1	27.4	-	31.1	37.1	**45.0**	**41.5**	28.7	35.4	27.2	23.0
53		Fairfield Road/Tredegar Road	100	**42.8**	**53.6**	38.1	**48.4**	38.7	32.4	31.5	36.3	**42.6**	**49.0**	34.7	38.2	**40.5**	31.2	24.9
54		Bow Rd /Glebe Terrace	100	**53.1**	**70.3**	54.1	**62.3**	**47.8**	**47.4**	**40.4**	**45.9**	**66.7**	**68**	**48.1**	**40.5**	**53.7**	**41.3**	30.2
55		TH Cemetery Park	100	28.1	28.1	18.0	20.1	14.1	13.0	10.8	14.1	16.6	20.1	12.8	12.2	17.3	13.3	N/A
56		Bow Common Lane/St Paul's Way	100	37.3	**48.3**	29.9	**54.6**	23.3	23.2	25	25.1	33	38.6	29.1	24.3	32.6	25.1	17.8 Warning: Receptor is more than 20m further from the kerb than monitor – Treat result with caution
57		Augusta St/Giraud St	92	-	**42.7**	26.7	28.2	19.8	16.3	16.4	19.5	22.5	29.4	28.6	29.4	25.4	19.6	17.0
58		Dolphin Lane	100	33.1	36.5	26.7	26.7	17	17.9	19.2	22.8	28.1	27.7	34.1	20.6	25.9	19.9	17.8

Site ID		Location	Valid data capture for monitoring period %	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual Mean - Raw Data	Annual Mean - National bias-adjusted (as per 0.77 factor 03/2024) and annualised (LLAQM Technical Guidance)	NO_2 Fall off With Distance Calculations
59		Westferry Road/Limehouse Link jnct	100	**43.2**	**50.1**	31.3	35.4	23.9	26.2	24.0	27.4	32.5	34.7	36.2	25.0	32.5	25.0	20.8
60		Cascades, Westferry Road	92	**42.7**	**43.4**	30.5	**41.3**	30.2	29.0	23.4	35.6	**41.5**	37.9	33.9	-	35.4	27.3	19.4
61		Bow Rd/Alfred St	100	**45.8**	**42.4**	27.7	30.1	18.8	24.8	21.3	22.3	31.9	33.8	31.2	30.8	30.1	23.2	19.5
62		Mast House Terrace	83	**41.2**	**41.8**	26.9	35.1	24.8	-	22.7	26.8	-	36.1	26.6	28.8	31.1	23.9	20.1
63		Millwall Park	58	30.9	-	-	-	-	-	15.4	18.8	21.7	22.0	24.3	14.4	21.1	16.3	N/A
64		Limeharbour	100	**44.5**	**51.7**	34.3	**40.9**	33.6	35.9	30.9	35.5	**47.8**	**45.2**	**40.6**	32.2	39.4	30.4	22.1
65		Manchester Road/East Ferry Road	100	34.5	36.2	23.6	30.4	23.8	20.6	19.2	23.0	35.9	26.1	29.6	23.2	27.2	20.9	19.2
66		Millwall Park	75	-	29.3	16.8	21.7	-	-	14.0	18.0	24.8	21.7	26.1	20.4	21.4	16.5	N/A
67		Seyssel Street	100	**40.3**	**41.3**	27.2	31.3	26.6	27.0	20.6	26.4	29.7	33.9	29.9	27.3	30.1	23.2	18.2
68		Manchester Road/Ollife Street	100	**40.9**	**43.4**	25.0	37.4	25.5	25.7	21.9	27.9	35.7	37.6	37.0	29.4	32.3	24.9	21.5
69		Lawnhouse Close	100	**41.2**	39.3	21.5	33.2	23	26.1	21.1	28.3	37.1	37.4	30.7	29.9	30.7	23.7	17.4 Warning: Receptor is more than 20m further from the kerb than monitor – Treat result with caution
70		Admirals Way	100	29.6	36.5	24.3	28.8	19.0	20.6	19.3	24.3	28.5	28.4	21.1	22.4	25.2	19.4	16.7
71		Toynbee St/Commercial St	92	**46.7**	**57.8**	35.9	38.6	33.6	24.4	29.5	29.7	**42.1**	**44.6**	-	38.1	38.3	29.5	23.4
72		Prestons Road/ Coldharbour	100	**42.5**	**54.8**	29.8	**43.3**	32.0	31.5	28.9	32.0	38.8	**40.9**	**41.0**	28.4	37.0	28.5	23.3
73		John Smith Mews	100	36.7	**42.6**	23.2	30.2	26.5	24.2	19.5	23.3	26.8	25.1	33.5	24.8	28.0	21.6	18.0
74		Poplar High St/Cotton St	100	**61.4**	**79.5**	**60.4**	**66.5**	**55.7**	**55.7**	**64.7**	**65.7**	**81.3**	**78**	**60.6**	**56.2**	**65.5**	**50.4**	31.3
75		Hale Street	92	30.6	**40.9**	25.2	27.6	19.5	20.0	16.8	20.7	26.4	30.9	-	25.4	25.8	19.9	17.6
76		Chrisp Street/E India Dock Road	100	**44.1**	**50.4**	33.8	**41.8**	30.1	32.7	29.3	36.3	**41.3**	**47.2**	**66**	36.4	**40.8**	31.4	20.6 Warning: Receptor is more than 20m further from the kerb than monitor – Treat result with caution
77		Morris/Barchester Street	83	32.0	**41.0**	25.9	-	20.5	19.1	19.4	20.5	27.5	32.5	33.7	-	27.2	21.0	18.7
78		Devons Road / Campbell Road	75	**45.6**	**42.1**	39.5	**46.6**	36.2	33.6	29.7	-	-	**42.7**	-	23.2	37.7	29.0	21.5
79		Hatfield Terrace/Fairfield Road	100	31.0	25.5	25.8	32.9	25.5	20.3	16.2	18.8	29.4	27.6	31.3	22.5	25.6	19.7	18.1

Site ID		Location	Valid data capture for monitoring period %	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual Mean - Raw Data	Annual Mean - National bias-adjusted (as per 0.77 factor 03/2024) and annualised (LLAQM Technical Guidance)	NO_2 Fall off With Distance Calculations
80		Wrexham Road	100	39.8	**45.0**	32.7	38.9	33.4	24.4	19.2	25.6	32.0	34.2	35.8	26.7	32.3	24.9	21.5
81		Bromley High Street/ St Leonards	100	38.1	**44.8**	32.8	32.2	24.1	25.2	26.1	33.1	36.5	39.3	18.0	31.4	31.8	24.5	20.5
82		Devas Street /Devons road	100	39.3	**55.4**	32.5	**45.4**	**43.6**	32.9	22.7	29.5	34.2	36.7	**40.4**	30.0	36.9	28.4	22.0
83		Zetland Street/A12	100	**48.6**	**61.6**	**48.2**	**62.2**	**43.6**	**50.1**	**40.9**	**49.0**	**61.3**	**51.6**	**55.8**	**52.8**	**52.1**	**40.1**	N/A
84		Blair Street (End of Street)	92	**45.5**	31.0	**41.8**	35.1	22.6	25.3	36.8	34.7	**41.8**	--	**43.5**	34.6	35.7	27.5	22.3
85		Portree Street	100	39.2	**48.6**	33.5	38.1	30.5	30.9	29.4	37.5	**46.1**	**49**	**46**	33.7	38.5	29.7	24.0
86		Newport Avenue	100	34.9	39.8	22.3	33.8	23.4	23.4	22.0	24.4	28.5	31.0	27.9	22.0	27.8	21.4	17.5
87		Mile End Road Corner Bancroft Rd	100	**45.2**	36.5	32.8	37.2	30.5	30.2	23.9	28.9	37.2	38.5	28.2	27.8	33.1	25.5	17.9 Warning: Receptor is more than 20m further from the kerb than monitor – Treat result with caution
88		Shirbutt St o/s Holy Family School	67	30.7	-	21.0	27.3	20.3	19.8	16.1	19.9	-	-	-	21.6	22.1	19.5	17.1
89		Thames Path Storers Quay	100	37.3	32.1	20.9	32.3	17.9	21.8	16.1	21.0	32.2	29.9	25.7	19.8	25.6	19.7	19.1
90		Sextant Avenue	100	33.6	32.6	20.0	28.8	17.8	21.1	24.2	20.7	27.2	25.6	27.1	22.0	25.1	19.3	17.9
91		At the entrance of MOT station	92	**40.6**	**40.4**	30.6	35.2	23.3	25.0	27.6	28.9	-	32.3	23.2	30.7	30.7	23.6	20.3
92		At the exit of MOT station	92	**43.1**	**48.1**	34.5	**41.5**	29.7	34.5	33.7	36.7	-	**40.6**	**40.3**	33.8	37.9	29.2	23.6

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

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

☐ **Local bias adjustment factor used**

☒ **National bias adjustment factor used**

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

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

Notes:

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

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

See Appendix C for details on bias adjustment and annualisation.

Appendix C Maps of Monitoring Locations and of the Air Quality Management Area (AQMA) declared by the London Borough of Tower Hamlets (the whole borough)

Figure 8. Map of Non-Automatic Monitoring Sites.

(Details of sites are in Table C)

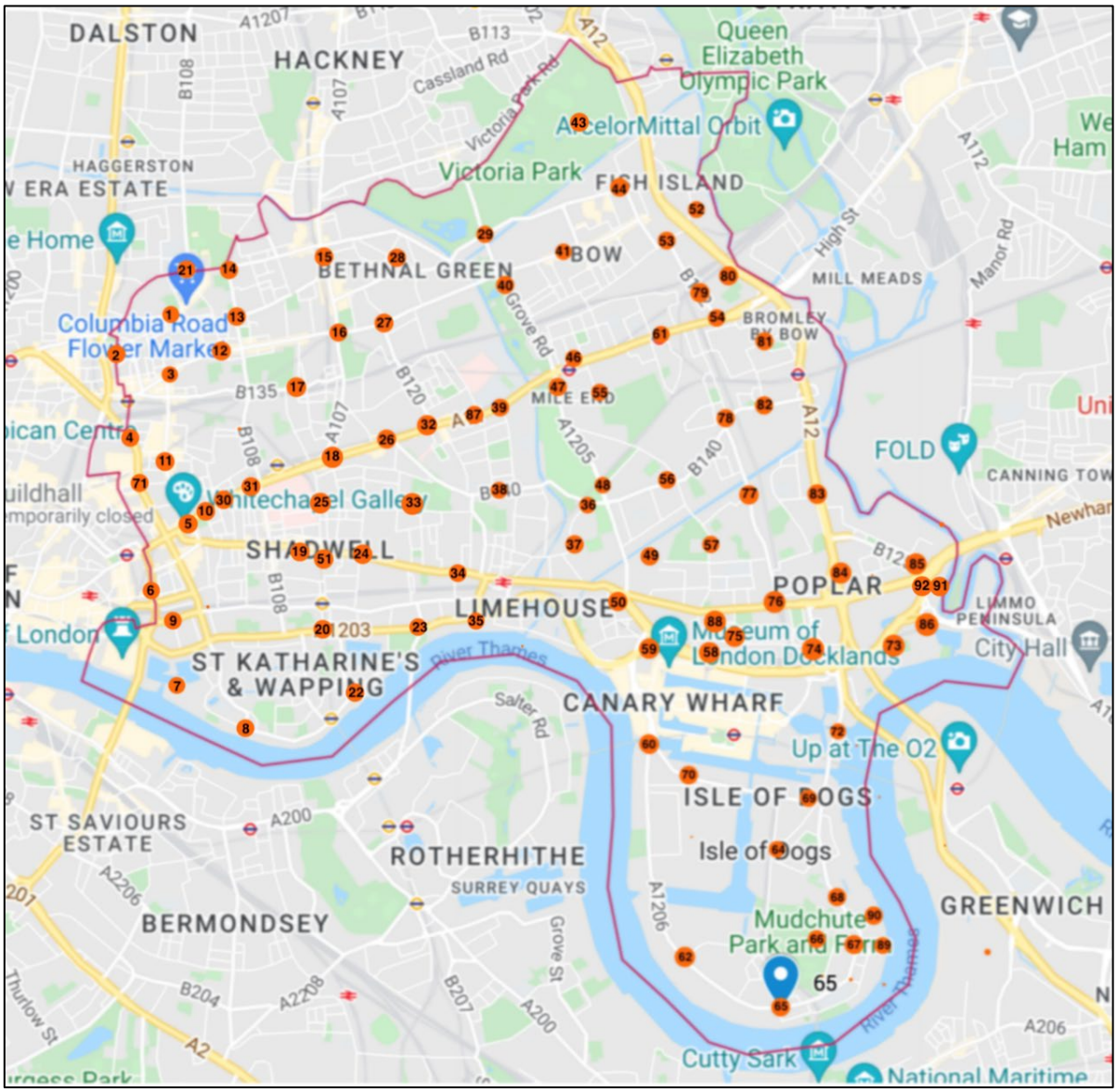
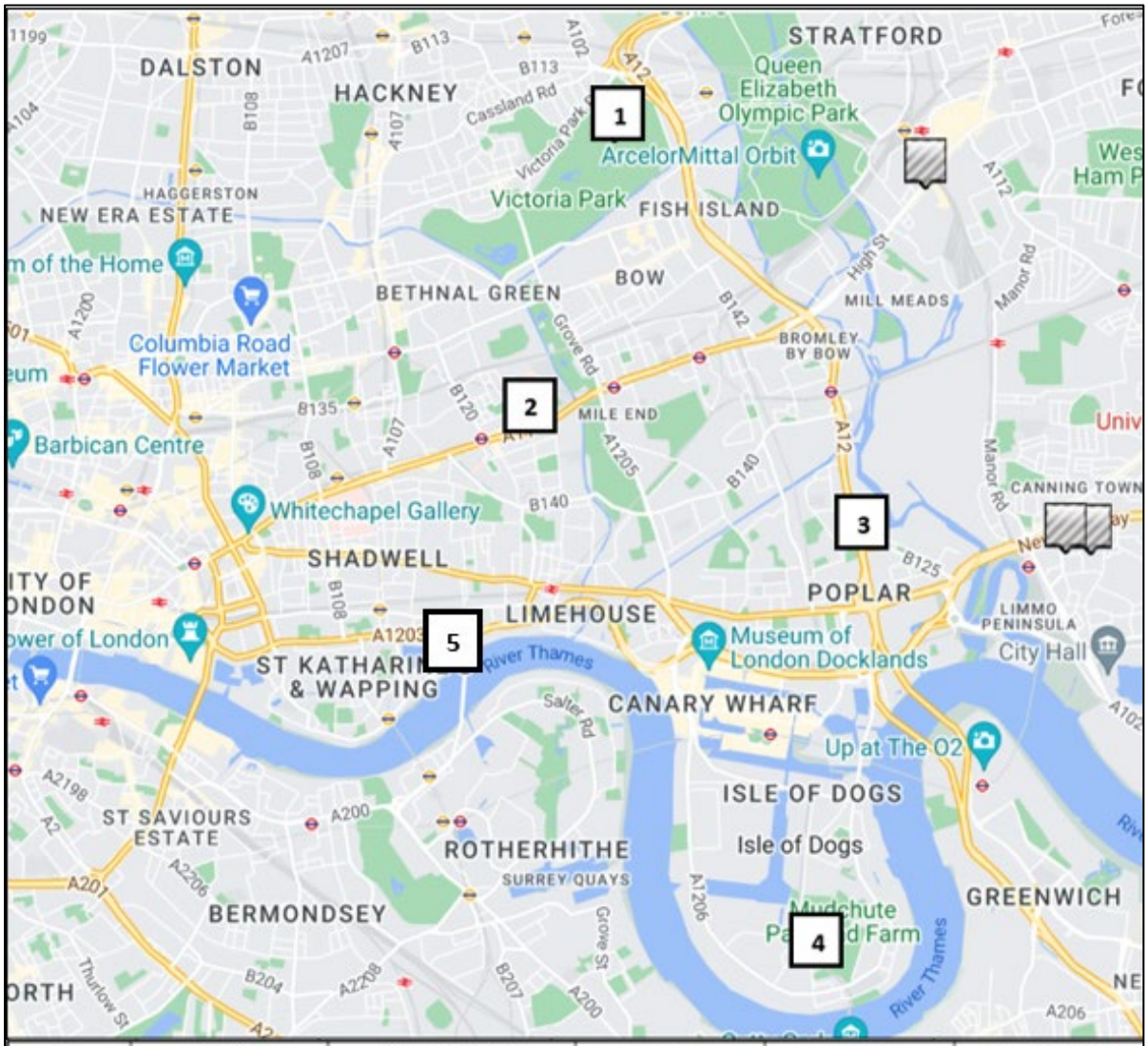


Figure 9. Map of Automatic Monitoring Sites.

(Details of sites are in Table B)



1	TH002	Victoria Park	536487	184238	Background
2	TH2 and TH2P	Mile End	535927	182221	Roadside
3	TH004	Blackwall	538290	181452	Roadside
4	TH001	Millwall Park	538052	178559	Background
5	TH005	King Edward Memorial Park	535384	180752	Roadside