London Borough of Haringey
Annual Air Quality Status Report 2023

This report provides a detailed overview of air quality in London Borough of Haringey 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

Haringey now operates three automatic monitoring stations (Table B), which are all representative of public exposure.

For Haringey Roadside, (High Road Tottenham, N17) the nearest relevant exposures are residential properties located less than 4m from the kerb; the sample inlet is in line with the building façades, demonstrating relevant exposure. This site is located at 639 High Road, Tottenham and is classified as a Roadside site. Monitoring at this location has been undertaken since December 1994.

The Haringey South site is located in a local park (Priory Park, N8) and is classified as an urban background site. Whilst this location is not defined as a sensitive receptor, it is representative of relevant exposure, being a background site within the Greater London area with monitoring at the location started in November 2012. In 2013, the monitoring equipment was relocated to its current location within the park from another area within the park for safety reasons.

The third automatic monitoring station (Wood Green Monitoring Station, N22) is locally managed by the council and is classified as a Roadside site. Monitoring at this location commenced in May 2021.

1.1   Locations

Table B. Details of Automatic Monitoring Sites for 2023

Site ID	Site Name	X (m)	Y (m)	Site Type	In AQMA? If so, which AQMA?	Distance to Relevant Exposure (m)	Distance to Kerb of Nearest Road (N/A if not applicable) (m)	Inlet height (m)	Pollutants monitored	Monitoring technique
UK-AIR ID: UKA00260 **EU Site ID:** GB0637A	Haringey Roadside (639, High Road)	533894	190707	Roadside	Yes	3m – residential	4m	4m	NO_2,	APNA-370
UK-AIR ID: UKA00568 **EU Site ID:** GB1024A	Haringey South (Priory Park)	529987	188917	Urban Background	Yes	None	N/A	3.5m	NO_2, Ozone	APNA-370; Chemiluminescent

Site ID: HG005	Haringey Wood Green, (14 High Rd Hornsey, London N22 6HH)	531255	189961	Roadside	Yes	2m	1m	2m	NO$_2$, PM10, PM2.5	APNA-370; APDA-372

The Council has been monitoring for nitrogen dioxide by diffusion tube throughout the borough since 2004. Towards the end of 2010, six of the existing monitoring location sites were closed and nine new locations were opened. These nine new locations were chosen as a result of the latest air quality modelling that was carried out in 2009 by Bureau Veritas on behalf of the North London Cluster Group. The modelling identified hotspot locations where the hourly NO2 objective may be at risk of being exceeded and where there is relevant exposure.

In March 2021, nineteen additional monitoring locations HR39 – HR57 were added to the existing sixteen monitoring locations as part of the Council's effort to implements its action on the measures submitted in the approved AQAP.

Table C below gives individual site details, locations for the 2023 monitoring round. There were thirty-five diffusion tubes monitoring locations throughout the borough in 2023. All diffusion tube sites are indicative of relevant exposure from roadside and background sites. The diffusion tubes are located at building facades of residential properties and schools or adjacent to hotspot locations where possible.

Three of the diffusion tubes sites have been at their location long-term (>10 years); these are a mixture of Roadside and Background sites and thus provide good long-term trends. Diffusion tube HR14; a triplicate site from July 2020 is co-located with Haringey Roadside automatic monitoring site and the data is fed into the National Diffusion Tube Co-location study. In 2018, monitoring at locations HR20 and HR28 stopped and monitoring at locations HR36 and HR37 began as detailed in the following table: In 2019, two additional monitoring locations in HR21 and HR38 began whilst HR28 also re-commenced.

Location	Number (see Table C)	Description/Comments

• **Schools**	5	All school diffusion tube monitoring sites are located within 150m of a main road carrying >10,000 vehicles per day. Existing:
		 Diffusion tubes added:
		     2017: HR34 and HR35.
		     2018: HR36.
		     2019: HR21, HR38 whilst HR28 re-commenced.
		     2021: HR39, HR43, HR44, HR45, HR46, HR48, HR50, HR55, HR56 and HR57.
		 Diffusion tube stopped:
		 2018: HR28

Location	Number (see Table C)	Description/Comments
• **Main road**	5	<u>Diffusion tube added:</u> 2018: Monitor HR37; 2020: HR14b and HR14c; 2021: HR40, HR41, HR42, HR47, HR49, HR51, HR52, HR53 and HR54.
• **GP Surgeries**	2	These are located outside GP surgeries i.e., HR24 and HR27.
• **Urban background**	1	HR08 was classified as an urban background site, however the adjacent site has been undergoing redevelopment to mixed use, residential and commercial. Therefore, consideration is still being given to relocation.

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

Site ID	Site Name	X (m)	Y (m)	Site Type	In AQMA? If so, which AQMA?	Distance to Relevant Exposure (m)	Distance to Kerb of Nearest Road (N/A if not applicable) (m)	Inlet height (m)	Pollutants monitored	Tube co-located with an automatic monitor. (Y/N)
HR06	200A, Archway Road, N6 5BA	528945	187682	Roadside	Y	<0.5m	1.5m	2.5m	NO$_2$	N
HR08	7 Cross Lane, N8 7QG	530512	189446	Urban Background	Y	2m	0m	2.5m	NO$_2$	N
HR14a	639 High Road, N17	533890	190710	Roadside	Y	3m	4m	3.5m	NO$_2$	Y
HR14b [d]	639 High Road, N17	533890	190710	Roadside	Y	3m	4m	3.5m	NO$_2$	Y
HR14c [d]	639 High Road, N17	533890	190710	Roadside	Y	3m	4m	3.5m	NO$_2$	Y
HR21 [c]	Lordship Lane Primary School, N22 5PS	532010	190549	Roadside	Y	0m - located in school playground	N/A	1.5m	NO$_2$	N
HR24	Westbury Medical Centre,	532155	190517	Roadside	Y	0m – located on building facade	9m	2.0m	NO$_2$	N

	205 Westbury Av., N22 6RX									
HR25	Rowland Hill Nursery, White Hart Lane	532554	191383	Roadside	Y	0m – located in school playground	7m	1.5m	NO$_2$	N
HR27	The Old Surgery, 572 Green Lanes, N8 0RP	531758	188872	Roadside	Y	0m – located on building facade	4.5m	2.5m	NO$_2$	N
HR28 [c]	Bounds Green Primary School, N11 2QG	530063	191324	Roadside	Y	7.5m	2m	2.5m	NO$_2$	N
HR30	Earlsmead Primary School, N17	533899	189023	Roadside	Y	0m – located within school site.	<0.5m	2.5m	NO$_2$	N
HR31	97/101 High Road, N22 6BB	531245	189935	Roadside	Y	3m	<0.5m	2..0m	NO$_2$	N
HR32	271 Archway Road, N6 5AA	528612	188072	Roadside	Y	<1m	<0.5m	2.0m	NO$_2$	N
HR34 [a]	Coleridge Primary school	531079	187926	Roadside	Y	0m – located within school site.	<0.5m	2.5m	NO$_2$	N
HR35 [a]	Chestnuts Primary School	532324	188766	Roadside	Y	0m – located within school site.	<0.5m	2.5m	NO$_2$	N
HR36 [b]	Holy Trinity CE School, Tottenham	533842	189581	Roadside	Y	0m - On Large Gate Outside Playground Area Somerset Rd, London N17 9EJ	2m	2.0m	NO$_2$	N
HR37 [b]	Weston Park/Broadway, 48 The Broadway, N8 9TP	530123	188420	Roadside	Y	0m - Outside Gail's Bakery 48 The Broadway, London N8 9TP	2m	2.0m	NO$_2$	N
HR38 [c]	Welbourne Primary School N15	533991	189460	Roadside	Y	0m – Located on the school fence	2m	2.5m	NO$_2$	N

HR39 [e]	Fortismere School, N10 1NE	528180	189842	Roadside	Y	2m	1m	2.0m	NO_2	N
HR40 [e]	Opposite Highgate Private Hospital, 17 – 19 View Road, Highgate. N6 4DJ	527884	188089	Roadside	Y	5m	<0.5m	2.5m	NO_2	N
HR41 [e]	258 Muswell Hill Broadway, N10 3SH	528797	189636	Roadside	Y	1m	1m	2.5m	NO_2	N
HR42 [e]	15 Stanhope Road, N6 5NE	529254	188051	Roadside	Y	1m	1m	2.5m	NO_2	N
HR43 [e]	St Aidan's VC Primary School, N4 4RR	531018	188018	Roadside	Y	2m	<0.5m	2.0m	NO_2	N
HR44 [e]	North Harringay Primary School, N8 0NU	531303	189128	Roadside	Y	5m	1m	2.0m	NO_2	N
HR45 [e]	Tiverton Primary School, Pulford Road. N15 6SP	532866	188246	Roadside	Y	5m	1m	2.0m	NO_2	N
HR46 [e]	St John Vianney Roman Catholic Primary School, N15 3HB	531882	189187	Roadside	Y	5m	1m	2.0m	NO_2	N
HR47 [e]	134 West Green Rd, N15 5AD	533117	189142	Roadside	Y	3m	1m	2.5m	NO_2	N
HR48 [e]	Mulberry Primary School, N17 9RB	534022	190341	Roadside	Y	2m	<0.5m	2.0m	NO_2	N
HR49 [e]	151 Mount Pleasant Road, N17 6TQ	533199	190058	Roadside	Y	1m	1m	2.5m	NO_2	N
HR50 [e]	Belmont Junior School, Rusper Road, N22 6RA	532063	189889	Roadside	Y	2m	1m	2.0m	NO_2	N
HR51 [e]	76 Coburg Road, N22 6UB	530691	189963	Roadside	Y	5m	1m	2.5m	NO_2	N
HR52 [e]	263 Victoria Road, N22 7XH	529423	190621	Roadside	Y	3m	1m	2.5m	NO_2	N
HR53 [e]	56 Partridge Way, N22 8DW	530497	190904	Roadside	Y	5m	2m	2.5m	NO_2	N

HR54 [e]	Woodside High Road/ White Hart Lane, N22 5QJ	531617	191114	Roadside	Y	5m	1m	2.5m	NO$_2$	N
HR55 [e]	Risley Ave. Primary, London N17 7AB	533257	190739	Roadside	Y	5m	<0.5m	2.0m	NO$_2$	N
HR56 [e]	Dukes Aldridge Academy, Almond Road, N17 0PG	534205	191270	Roadside	Y	5m	<0.5m	2.0m	NO$_2$	N
HR57 [e]	Campsbourne School Nightingale Lane, N8 7AF	530186	189628	Roadside	Y	1m	1m	2.0m	NO$_2$	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	2018	2019	2020	2021	2022	2023
UK-AIR ID: UKA00260 **EU Site ID:** GB0637A	Automatic		85.3	40	39	37	33	32	30	27
UK-AIR ID: UKA00568 **EU Site ID:** GB1024A	Automatic		95.0	24	23	22	16	18	17	16
Site ID: HG005	Automatic		98.0	-	-	-	-	**44**	**44**	**48**

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%).

The concentration of NO_2 monitored along the two Haringey Roadside locations for the automatic monitoring stations were still higher than that recorded at London Haringey Priory Park South.

No exceedances of the NO_2 annual objective of 40µg/m3 have been identified at either of the two existing Haringey locations, therefore the annual objective has been achieved. However, there is an exceedance of the annual objective at the locally managed (Wood Green Monitoring Station).

The NO_2 trend at the Haringey Priory Park South location remains steady, whilst the Haringey Roadside location has continued to see a fall in NO_2 concentrations.

Table E. Annual Mean NO₂ Monitoring Results: Non-Automatic Monitoring (µg/m³)

Diffusion Tube ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Site Type	Valid Data Capture for Monitoring Period (%) (1)	Valid Data Capture 2023 (%) (2)	2017	2018	2019	2020	2021	2022	2023
HR06	528945	187682	Roadside		100	**41**	35	36.3	30.2	32.8	35.2	32.2
HR08	530512	189446	Urban Background		100	27	19	29.5	20.3	25.3	26.4	26.1
HR14a	533890	190710	Roadside		100	34	33	34.1	30.1	30.7	28.8	26.7
HR14b [d]	533890	190710	Roadside		100	-	-	-	33	30.4	30.6	27.3
HR14c [d]	533890	190710	Roadside		100	-	-	-	30.2	31.8	32.2	28.3
HR21 [c]	532010	190549	Roadside		100	30	-	23	22	21.4	23.3	19.8
HR24	532155	190517	Roadside		83.3	33	33	34.1	28.7	30.8	32.9	27.4
HR25	532554	191383	Roadside		91.7	29	35	27.4	20.2	23.0	24.5	22.4
HR27	531758	188872	Roadside		91.7	33	31	36.4	29	32.7	31.2	30.8
HR28 [C]	530063	191324	Roadside		91.7	34	-	30.7	29	30.5	26.7	25.3
HR30	533899	189023	Roadside		83.3	**40**	**44**	39.6	33.1	30.1	32.1	26.4
HR31	531245	189935	Roadside		100	**52**	<u>**65**</u>	<u>**67.8**</u>	<u>**71.5**</u>	<u>**62.3**</u>	<u>**64.5**</u>	<u>**61.1**</u>
HR32	528612	188072	Roadside		100	**55**	<u>**66**</u>	**53.4**	**49.5**	**54.0**	**50.9**	**45.8**
HR34 [a]	531079	187926	Roadside		83.3	31	31	32.1	28.2	29.7	32.0	34.8
HR35 [a]	532324	188766	Roadside		100	22	31	30.5	22.3	23.8	25.5	23.0
HR36 [b]	533842	189581	Roadside		91.7	-	30	33.9	29.1	29.1	29.3	29.8
HR37 [b]	530123	188420	Roadside		83.3	-	36	**42.2**	29.6	32.3	33.4	35.8
HR38 [C]	533991	189460	Roadside		91.7	-	-	24.5	21.4	22.4	23.6	21.9
HR39 [e]	528180	189842	Roadside		75	-	-	-	-	21.6	26.6	21.7
HR40 [e]	527884	188089	Roadside		100	-	-	-	-	25.5	29.3	26.1

Diffusion Tube ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Site Type	Valid Data Capture for Monitoring Period (%) (1)	Valid Data Capture 2023 (%) (2)	2017	2018	2019	2020	2021	2022	2023
HR41 [e]	528797	189636	Roadside		75	-	-	-	-	**42.5**	**44.0**	**48.9**
HR42 [e]	529254	188051	Roadside		83.3	-	-	-	-	21.0	22.7	21.9
HR43 [e]	531018	188018	Roadside		100	-	-	-	-	19.3	21.2	20.2
HR44 [e]	531303	189128	Roadside		100	-	-	-	-	19.9	21.1	19.6
HR45 [e]	532866	188246	Roadside		91.7	-	-	-	-	17.5	22.1	18.5
HR46 [e]	531882	189187	Roadside		100	-	-	-	-	20.6	21.1	24.3
HR47 [e]	533117	189142	Roadside		91.7	-	-	-	-	30.3	30.2	26.3
HR48 [e]	534022	190341	Roadside		83.3	-	-	-	-	20.6	23.8	23.0
HR49 [e]	533199	190058	Roadside		91.7	-	-	-	-	23.7	27.4	20.2
HR50 [e]	532063	189889	Roadside		100	-	-	-	-	19.2	20.8	19.4
HR51 [e]	530691	189963	Roadside		100	-	-	-	-	20.4	21.9	18.5
HR52 [e]	529423	190621	Roadside		91.7	-	-	-	-	28.7	27.4	26.1
HR53 [e]	530497	190904	Roadside		100	-	-	-	-	22.5	25.7	20.5
HR54 [e]	531617	191114	Roadside		100	-	-	-	-	20.9	25.3	21.7
HR55 [e]	533257	190739	Roadside		91.7	-	-	-	-	31.2	31.3	30.3
HR56 [e]	534205	191270	Roadside		100	-	-	-	-	22.5	23.9	20.2
HR57 [e]	530186	189628	Roadside		100	-	-	-	-	19.9	21.5	20.7

[a] monitoring started in 2017, [b] added in 2018, [c] added in 2019, [d] added in 2020 and [e] added in 2021.

☒ **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 **<u>bold and underlined</u>**.

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%).

Similarly to the 2022 data, HR31 (Wood Green High Road) and HR32 (Archway/Southwood) continues to exceed the NO$_2$ annual air quality objective. However, the overall concentrations of NO$_2$ have decreased at these sites when compared to 2022 data. HR41 (Muswell Hill) continues to exceed the annual objective, showing an increase in annual mean NO$_2$ concentrations when compared to 2022 data. These results are in accordance with the fact that the diffusion tubes are located in, or adjacent to, hotspot locations as identified by Bureau Veritas AQ modelling.

HR30 (Earlsmead Primary) and HR37 (Weston Park/Broadway Crouch End) continue to achieve the annual air quality objective.

The data presented represents monitoring results for a 12-month period (January – December) and tubes are exposed in accordance with the UK Defra guidance LAQM.TG (16).

Diffusion tubes are considered to have limitations. Therefore, the government recommends that tubes should be co-located with an automatic analyser to determine a bias adjustment factor, which is then applied to the raw annual average concentrations for the same year to obtain bias adjusted results. Haringey co-locates a diffusion tube at HR14 (639 High Road, Tottenham) and submits the data annually.

Using the Diffusion Tube Processing Tool, the local bias adjustment factor has been calculated for this co-location study. The local factor has been calculated to be 0.81. However, the study was identified as having 'poor' overall continuous monitor data capture (<90%) meaning the local factor should be treated with caution.

Therefore, it is the national laboratory average adjustment factor (Lambeth Scientific Services) that is applied to the raw annual average concentrations to obtain the bias adjusted results. This has been done to ensure consistency with previous reports and due to the uncertainty of the local bias adjustment factor.

The bias adjustment factors can be found on the website: https://laqm.defra.gov.uk/air-quality/air-quality-assessment/national-bias/.

The bias adjustment factor used was 0.85, based on 3 studies by Lambeth Scientific Services for year 2023.

The raw data from the co-located diffusion tubes are submitted annually to the NO2 diffusion tube network data managers for verification of the diffusion tubes and calculation of the laboratory bias adjustment factor.

Table F. NO₂ 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	2018	2019	2020	2021	2022	2023
UK-AIR ID: UKA00260 **EU Site ID:** GB0637A		85.3	5	0	0	0	0	0	0
UK-AIR ID: UKA00568 **EU Site ID:** GB1024A		95.0	0	0	0	0	0	0	0
Site ID: HG005		98.0	-	-	-	-	0 (120)	0	2

Notes

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

Exceedance of the NO₂ short term AQO of 200 µg m⁻³ over the permitted 18 hours per year are shown in **bold**.

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

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

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

No exceedances of the NO₂ hourly objective (200 µg/m3 over the permitted 18 hours per year) have been identified at the Haringey locations. Therefore, the annual objective has been achieved.

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	2018	2019	2020	2021	2022	2023
Site ID: HG005		96.3	-	-	-	-	16	19	16

Notes

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

Exceedances of the PM$_{10}$ annual mean AQO of 40 µg m^{-3} are shown in **bold**.

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

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

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

Whilst monitoring for PM$_{10}$ ceased in Haringey in 2014, this was recommenced at the Wood Green monitoring station in May 2021. However, the historical PM$_{10}$ monitoring data is available at: https://uk-air.defra.gov.uk/data/.

No exceedances of the PM$_{10}$ annual objective of 40µg/m3 have been identified at the Haringey location. Therefore, the annual objective has been achieved.

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	2018	2019	2020	2021	2022	2023
Site ID: HG005		96.6	-	-	-	-	0 (24)	8	1

Notes

Exceedances of the PM$_{10}$ 24-hour mean objective (50 µg m^{-3} over the permitted 35 days per year) are shown in **bold.**

Where the period of valid data is less than 85% of a full year, the 90.4th percentile is provided in brackets.

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

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

No exceedances of the PM$_{10}$ 24-hour mean objective (50 µg/m3 over the permitted 35 days per year) have been identified at the Haringey location. Therefore, the 24-hour mean objective has been achieved.

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	2018	2019	2020	2021	2022	2023
Site ID: HG005		96.6	-	-	-	-	10	12	10

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%).

In January 2016; Defra's AURN London Network managers (Environmental Research Group, Kings College, London) notified the Council of its intention to remove the PM$_{2.5}$ Defra network monitor from the HGY1 location to another location, outside of the borough:

'Under the AQ Directive, Defra are required to regularly assess the monitoring requirements in the UK. During the most recent assessment, London was found to have a greater number of PM$_{2.5}$ instruments than required under the directive but the number in some other zones and agglomerations in the UK were identified as requiring additional PM measurement. Defra therefore needs to move the PM$_{2.5}$ instrument from the site at Haringey Roadside to another AURN site'.

However, whilst PM$_{2.5}$ monitoring was stopped in the borough since that time, this was recommenced at the Wood Green monitoring station in May 2021. The historical PM$_{2.5}$ monitoring data is available at: https://uk-air.defra.gov.uk/data/.

No exceedances of the PM$_{2.5}$ annual objective of 25μg/m3 have been identified at the Haringey location. Therefore, the annual objective has been achieved.

Table J. Other Pollutants

Days where maximum rolling 8hr mean >100ug/m3: (AQS Objective <=10) for Ozone

Site ID	Valid data capture for monitoring period %[a]	Valid data capture 2023 %[b]	2023
UK-AIR ID: UKA00568 **EU Site ID:** GB1024A		83.8	**46**

Notes

Exceedances of the Ozone rolling 8-hour mean objective maximum rolling 8hr mean (>100ug/m3: (AQS Objective <= 10)) 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%).

There is an exceedance of the annual objective of Days where maximum rolling 8hr mean >100ug/m3: (AQS Objective <= 10) for Ozone identified at the Haringey Roadside (Tottenham High Road Location). Therefore, the annual objective has not been achieved.

2. Action to Improve Air Quality

2.1 Air Quality Management Areas

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

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

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

Table K. Declared Air Quality Management Areas

AQMA Name	Date of Declaration	Pollutants and Air Quality Objectives	One Line Description	Is air quality in the AQMA influenced by roads controlled by Highways England?	Level of Exceedance: Declaration	Level of Exceedance: Current Year	Number of Years Compliant with Air Quality Objective	Name and Date of AQAP Publication	Web Link to AQAP
Haringey AQMA	01/07/2001	NO_2 – Annual Mean	Borough wide AQMA	NO	-	61.1	0	London Borough of Haringey AQAP 2019-2024	AQAP

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
Haringey AQMA	01/07/2001	PM10 – 24 Hour Mean	Borough wide AQMA	NO	-	1 Exceedance (50 µg m-3 over the permitted 35 days per year)	3	London Borough of Haringey AQAP 2019-2024	AQAP

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

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

2.2 Air Quality Action Plan Progress

Table L provides a brief summary of London Borough of Haringey's progress against the Air Quality Action Plan, showing progress made this year (2023).

Table L. Delivery of Air Quality Action Plan Measures

Measure	LLAQM Action Matrix Theme	Action	Progress • Emissions/Concentration data • Benefits • Negative impacts / Complaints
1.	**Monitoring and other core statutory duties**	a. With the support of all relevant teams, monitoring to include maintaining the borough's two automatic and 13 NO$_x$ diffusion tube monitors across the borough and expand monitoring networks, especially around schools. b. Complete and submit Annual Status Reports on time. c. Update AQAPs every five years at a minimum and follow LLAQM guidance when doing this; check/amend AQMA's as required.	• Monitoring continues at the additional 19 NO$_x$ diffusion tubes, 1 automatic monitoring station and 2 indicative monitors added in 2021. • In 2023, the Council increased monitoring by an additional 4 indicative monitors. This takes our total monitoring sites to 35 passive sites, 3 automatic monitoring sites and 6 indicative monitors. • The works to install the replacement for an end-of-life ozone analyser at our Priory Park site is underway. However, due to a software error with the replacement analyser the works have not been completed. These works will continue into 2024. • Following the update in our last progress report that Haringey Low Emission Neighbourhood Feasibility Study was conducted at Tottenham High Road with the result submitted January 2021 and that following its review, the council is seeking funding to progress Haringey's preferred solutions.
2.	**Emissions from developments and buildings**	a. Investigate the potential for larger development areas to proactively assess air quality impacts cumulatively. b. Ensuring emissions from demolition and construction are minimised	• The Council continue to deliver on this measure. In 2023, 29 planning applications were required to submit a dust management plan and register with the Considerate Constructors Scheme.
3.	**Emissions from developments and buildings**	a. Ensuring enforcement of non-road mobile machinery (NRMM) air quality policies	• The Council continues to deliver on this measure in conjunction with its partner (GLA). In 2023, of the 15 sites audited, 7 were in compliant, 2 have not yet a NRMM within the scope (37 – 560KW) on site that can be audited, and 6 sites were completed. • 30 sites were registered on the NRMM website in 2023.
4.	**Emissions from developments and buildings**	a. Reducing emissions from CHP.	• The council continues to monitor the impact of CHP plant within our borough and in 2023, only two developments with CHPs boiler was subject to GLA emissions limits and/or other restrictions to reduce emissions but no Biomass boiler was installed for the year.

Measure	LLAQM Action Matrix Theme	Action	Progress • Emissions/Concentration data • Benefits • Negative impacts / Complaints
		b. Enforcing CHP air quality policy. Ensure smaller developments use ultra-low NO$_x$ Boilers.	• Moreover, five developments were also subject to install Ultra-Low NOx boilers.
5.	**Emissions from developments and buildings**	a. Enforce Air Quality Neutral (AQN) policy	• We continue to enforce this policy, and in 2023, there were 19 developments where AQ Neutral/Transport Assessments were undertaken.
6.	**Emissions from developments and buildings**	a. Ensuring adequate, appropriate, and well-located green space and infrastructure is included in new and existing developments.	• The Council continues to ensure that exposure in amenity spaces is considered during development. This means having the activities appropriate in existing amenity areas and at the design stage for the new sites. We aim to ensure there is a provision for green infrastructure in each development approved by the planning service.
7.	**Emissions from developments and buildings**	a. Declaring Smoke Control Zones and ensuring they are fully promoted. To include: an awareness campaign, engagement with suppliers, and active enforcement. b. Ensuring that Smoke Control Areas are appropriately identified and fully enforced.	• The Council continues to enforce smoke emissions from bonfires. • We continue to be a member of the GLA wood burning working group and was successful in our Defra joint bid with other local authorities on a London wide project. • We still receive complaints about smoke from wood burning on canal boats and from restaurants using charcoal grills and in 2023, the Council received 69 bonfire complaints which was about 14% less than the number of similar complaints received in 2022. • In 2024, the Council was successful in joining a multi-borough Mayors Air Quality Fund bid, securing £35,000 of funding for a "Healthy Waterways" project. The project aims to target the boating community to encourage positive changes to reduce CO2 emissions and exposure to air pollution by transitioning to electricity for heating and cooking. • However, Haringey Council civil enforcement officers continue to deal with perpetrators whilst we also intensify our awareness campaign through our website and constant response to public enquiries on this.
8.	**Emissions from developments and buildings**	a. 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 to replace old boilers/top-	• The School Capital Team has engaged with the Mayor of London's RE;FIT Accelerator team to identify the costs and benefits of replacing fossil fuel heating systems with more energy efficient and lower carbon producing alternatives. It is anticipated that a bid will be submitted to the next round of the Public Sector Decarbonisation Scheme in autumn 2024 to seek funding to implement a number of high priority projects at approximately three sites.

Measure	LLAQM Action Matrix Theme	Action	Progress • Emissions/Concentration data • Benefits • Negative impacts / Complaints
		up lost insulation in combination with other energy conservation measures.	• The council has adopted its Council Housing Energy Action Plan to retrofit all its stock to an average EPC by 2035. The first retrofit project has commenced and is expected to retrofit 289 homes with insulation measures. • The Council has an Affordable Energy Strategy to tackle fuel poverty in the borough and offers energy advice through SHINE London. This service provides a Home Energy Doctor service which installs small energy efficiency measures in the home. 366 households were supported in 2023 with 103 energy doctor visits taking place. • 73 households received energy efficiency works through the GLA's Warmer Homes scheme promoted by the Council. • Energy efficiency works are promoted to homeowners and private landlords via the council communication channels and this includes promotion of the Ecofurb Advice Service which helps plan energy efficiency projects and link homeowners to trusted installers. • The on-site regulated carbon savings are increasing year-on-year in new build developments, with higher fabric efficiencies and lower space heating demand, as well as more developments proposing heat pump solutions instead of on-site fossil fuel burning. • Schemes achieved on average a reduction of 72% (residential) and 52% (non-residential) in 2023, compared in Building Regulations Part L 2021. This excludes applications without any energy strategy and is not weighted by the size of development. This includes some proposals to improve energy efficiency in existing buildings. • The New Local Plan policies are being developed in response to the new Building Regulations Part L, aiming to set higher standards for energy efficiency and energy supply to new buildings and the extension and retrofit of existing buildings. • Some of the collected Section 106 carbon offset contributions have been allocated to the Community Carbon Fund. In 2022/23, 11 carbon reduction projects by community groups have been implemented in Year 1 and 2 of the funding programme. This includes installing solar photovoltaic panels, replacement LED lighting, new glazing, electric bikes and cargo bike, repair of materials, local food production, and behaviour change events. These result in lower energy and heating demand. These projects include wider community engagement on climate change awareness, reducing energy use, changing travel behaviours, and reducing carbon emissions and improving air quality.
9.	**Emissions from developments and buildings**	a. Installation of residential electric charge points within developments. b. Master planning and redevelopment areas aligned with Air Quality Positive and Healthy Streets approaches.	• The Council currently has 231 EV points now installed at various locations in the borough on the public highway, and are planning on installing an additional 38 EVCPs in 2024. • A map to these points can be found at: EVCPs Locations Haringey – Google My Maps • In addition to the above, the council continues to recommend installation of EVCP within new developments at the planning stage.

Measure	LLAQM Action Matrix Theme	Action	Progress • Emissions/Concentration data • Benefits • Negative impacts / Complaints
			• The Council continues to consult on and plan the next batches of school streets.
10.	**Public health and awareness raising**	a. Public Health department taking shared responsibility for borough air quality issues and implementation of Air Quality Action Plans. b. Public Health Teams should be supporting engagement with local stakeholders (businesses, schools, community groups and healthcare providers). They should be asked for their support via the DPH when projects are being developed. c. Directors of Public Health (DsPH) fully briefed on the scale of the problem in your local authority area; what is being done, and what is needed. A briefing should be provided d. Directors of Public Health to have responsibility for ensuring their Joint Strategic Needs Assessment (JSNA) has up to date information on air quality impacts on the population e. Strengthening co-ordination with Public Health by ensuring that at least one public health specialist within the borough has air quality responsibilities outlined in their job profile f. Director of Public Health to sign off Statutory Annual Status Reports and all new Air Quality Action Plans	• Public Health continue to work with Regeneration to improve green spaces and trees within the town centres and areas in negative deficit of trees and green space. • We are also working at a strategic level to work with planning policy to improve air quality within the new local plan; parks and green space strategy and housing strategy. • Public Health are preparing an updated Air Quality Joint Strategic Needs Assessment (JSNA) which is expected to be completed in 2024/25.

Measure	LLAQM Action Matrix Theme	Action	Progress • Emissions/Concentration data • Benefits • Negative impacts / Complaints
11.	**Public health and awareness raising**	a. Engagement with businesses as part of the 'Liveable Neighbourhoods' project in Crouch End	• Project was put on hold indefinitely by TfL so no further progress on this project.
12.	**Public health and awareness raising**	a. Supporting Airtext, promotion and dissemination of high pollution alert services.	• The Council has continued to deliver on this measure in 2023 by disseminating high pollution alert service to members of the public. • AirText awareness raising was mainly carried out by the Active Travel Team as part of their work, promoting the AirText information to our schools and giving them information regarding usage. Promotion occurs at every engagement event such as school training and school fairs, sustainable Haringey events, road shows, park events, walking events. • In 2023, there were 6 public events and 4 school events.
13.	**Public health and awareness raising**	a. Encourage schools to join the TfL STARS accredited travel planning programme	• The Smarter Travel Team have 59 Travel Plans accredited for 2022/23. These include: 38 gold, 4 silver, 5 bronze and 12 engaged. • Smarter Travel also promote the Travel For Life scheme to every school and this is included in the MOU for every school street scheme. The Council have developed in-house resources that support the travel plan scheme, such as the year 6 transition project, road safety leaflets and encourage schools to take part in the national campaigns such as Brake's Beep Beep days, Walk to school Week and the Sustrans Big Walk and Wheel. • The Council also assists schools that are keen to deliver after school play streets to highlight being car free. We also support the Metropolitan Police Force with speed awareness projects. • In addition, the Smarter Travel Team support our schools to engage with commissioned partners to access cycle training which builds active/independent travel.
14.	**Public health and awareness raising**	a. Air quality in and around schools	• Smarter Travel have delivered an additional school street in 2023, bringing the total to 24 School Streets located across the borough. We continue to offer support and guidance to schools and help to deliver these schemes. • 8 further school streets schemes are planned to commence on 15th April 24. • A map showing these school streets can be found at: School Streets map	Haringey Council. • We also support the national campaigns that discourage car use.

Measure	LLAQM Action Matrix Theme	Action	Progress • Emissions/Concentration data • Benefits • Negative impacts / Complaints
15.	**Delivery servicing and freight**	a. Update of procurement policies to reduce pollution from logistics and servicing. b. Ensure local authority procurement policies include a requirement for suppliers with large fleets to have attained bronze Fleet Operator Recognition Scheme (FORS) accreditation or equivalent standard. c. Priority loading for ultra-low emission delivery vehicles.	• Discussions held with capital projects team about including FORS as a tendering requirement for LBH capital projects. Follow up work with the Capital projects team is ongoing. • FORS Silver standard for construction deliveries is required within Construction Logistics Plans (CLPs) for schemes with high / cumulative impacts, including Tottenham Hale and Wood Green. Regular monitoring work takes place to ensure suppliers' compliance with FORS. • Contractors are required, via Construction Logistics Plans, to explore feasible options to move materials (and waste away) by river or by rail. For example, utilising the Cranford Industrial Estate in Hornsey which produces, via an on-site batching plant, ready mix concrete using aggregates brought in by rail. • The Council also continues to follow the rules set by procurement for any freight that falls under our service areas.
16.	**Delivery servicing and freight**	a. Reducing emissions from deliveries to local businesses and residents: Re-organisation of freight to support consolidation (or micro-consolidation) of deliveries, by setting up or participating in new logistics facilities, and/or Potentially additional cost depending upon type of contract and distance needed to travel	• With this major exercise likely to have contractual, cost and service disruption implications, this action will be reviewed as part of the new contract which expires in one year when service round is due for review.
17.	**Borough Fleet**	a. Reducing emissions from council fleets: Increasing the number of hydrogens, electric, hybrid, bio-methane and cleaner vehicles in the boroughs' fleet	• A review of how the Council's Waste Fleet will transition to a Zero Emission (ZE) fleet (waste and cleansing services only) has been undertaken as part of the service review looking at the future options for waste and cleansing services from 2027 when the current contract with Veolia expires and a new fleet replacement programme will begin. The results of the work will feed into recommendations for future service options currently timetabled for a Cabinet Decision in October 2024. • Four EV vehicles have been added to the Housing service fleet along with the procurement of a new Fuel card contract with WEX UK which has opened access to a national charging infrastructure. • As part of the modernisation of the Lordship Lane Depot, the diesel fleet will be replaced with an EV model and the depot will be upgraded with charging points to facilitate the switch to Hybrid and EV units. This is currently an on-going process.

Measure	LLAQM Action Matrix Theme	Action	Progress • Emissions/Concentration data • Benefits • Negative impacts / Complaints
18.	**Localised solutions**	a. Expanding and improving green Infrastructure (GI)	• The Council adopted a new Parks and Green Space Strategy in July 2023 which includes measures to address air pollution and improve air quality i.e. tree planting and promotion of walking and cycling. • The Council has started the implementation of a UKSPF funding project called "Tottenham Green Streets" which aims to introduce SUDS, tree planting and nature conservation aspects into the street scene between Down Lane Park Hartington Park and Somerford Grove Open Space. It is anticipated that this project will continue into 2024/2025. • The Parks Team are implementing a two-year meadow planting project at a number of parks and verges across the borough. • During 2023, the Council planted 551 new trees. 481 of these were street trees, 48 were planted in parks and open spaces and 22 on housing sites. • Noel Park and St Pauls school streets have incorporated extensive rain gardens which are aimed at increasing the green infrastructure. • The school street delivered at Devonshire Hill Nursery and Primary includes additional trees planted along their street increasing the green canopy in this area.
19.	**Localised solutions**	a. Low Emission Neighbourhoods (LENs) b. Low Emission Vehicle Strategy c. Road closures around Schools d. Public recognition of businesses that contribute to good air quality e. Publicity of air quality status and Council activity	• Smarter Travel have delivered an additional school street in 2023, bringing the total to 24 School Streets located across the borough. We continue to offer support and guidance to schools and help to deliver these schemes. • 8 further school streets schemes are planned to commence on 15th April 24. • A map showing these school streets can be found at: School Streets map	Haringey Council. • In July 2023, the Council prepared an Interim 6-month review of the three Low Traffic Neighbourhoods that were implemented in 2022, which indicated that all three LTNs are starting to deliver the intended objective. • A 12 months review of the LTN schemes is currently being prepared and is expected to be completed in 2024.
20.	**Cleaner transport**	a. Ensuring that Transport and Air Quality policies and projects are integrated	• Officers from both Transport Planning and Pollution Teams continue to work together as evident in the Council's ongoing School Streets and Low Traffic Neighbourhood projects. • Transport Team provides considerable input into AQAPs and AQ on all major transport projects and planning applications.
21.	**Cleaner transport**	a. Discouraging unnecessary idling by taxis and other vehicles	• The Council continues to drive behavioural change through its participation in the Pan London Anti-idling Project and enforcement.

Measure	LLAQM Action Matrix Theme	Action	Progress • Emissions/Concentration data • Benefits • Negative impacts / Complaints
			• The Council has increased anti-idling road signage at idling hotspots. • We continue to work with TFL and GLA to reduce emissions from transport sources.
22.	**Cleaner transport**	a. Regular temporary car free days	• The Council continues to offer assistance with School Play Street days. • Two resident led play streets have been organised.
23.	**Cleaner transport**	a. Using parking policy to reduce pollution emissions such as free or discounted parking charges or residential parking permits for zero emission cars and/ or surcharges on diesel vehicles below Euro 6 standards for Resident and Controlled Parking Zone permits	• No further update beside the progress reported in the 2022 report.
24.	**Cleaner transport**	a. Installation of Ultra-low Emission Vehicle (ULEV) infrastructure (electric vehicle charging points, rapid electric vehicle charging point and hydrogen refuelling stations): Support GLA in the Expansion of ULEZ b. Increasing the proportion of electric, hydrogen and ultra-low emission vehicles in Car Clubs c. Increase the introduction and use of electric vehicle Car Clubs across the borough d. Reprioritisation of road space; reducing parking at some destinations and or restricting parking on congested high streets and A roads to improve bus journey times,	• In 2023 the Council installed an additional 56 EV points, with a total of 231 EV points now installed at various locations in the borough. These are Lamp column, standard, fast and rapid EV points. A map to these points can be found at: EVCPs Locations Haringey – Google My Maps • We have also consulted on a proposal to install additional 38 EVCPs in 2023 and we are now preparing a programme to install the charging points this year (2024). • In 2023, to help expand the EV charging network in the borough, Haringey has also submitted an Expression of Interest to Department for Transport's Office of Zero Emission Vehicles (OZEV) LEVI funding, aiming to join Tranche 2. • Haringey joined Partnership 6 for the funding as required, comprising neighbouring boroughs LB Brent, LB Hillingdon, LB Harrow and LB Hammersmith & Fulham (LBHF), and LB Ealing. LBHF is the lead borough for the partnership. The allocation for Partnership was confirmed as £7,544,000 in October 2023. The council will follow the next steps to receive the funding and complete a formal application as a partnership in 2024/2025.

Measure	LLAQM Action Matrix Theme	Action	Progress • Emissions/Concentration data • Benefits • Negative impacts / Complaints
		cycling experience, and reduce emissions caused by congested traffic.	
25.	**Cleaner transport**	a. Provision of infrastructure to support walking and cycling. To enable cycling by increasing the number of secure cycle parking spaces.	• In 2023 the Council installed 46 bike hangers, accommodating an additional 276 bikes. A total of 209 cycle storage facilities are installed across the borough which can accommodate 1254 bikes. A map to these hangers can be found at: On street Cycle Parking (storage) Locations - Haringey – Google My Maps. • We have also consulted on a proposal to install a further 103 bike hangers which can accommodate 618 bikes and these will be installed in May/June 2024.

3. Planning Update and Other New Sources of Emissions

Table M. Planning requirements met by planning applications in London Borough of Haringey in 2023

Condition	Number
Number of planning applications where an air quality impact assessment was reviewed for air quality impacts	19
Number of planning applications required to monitor for construction dust	29
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	2
Number of developments required to install Ultra-Low NO_X boilers	5
Number of developments where an AQ Neutral building and/or transport assessments undertaken	16
Number of developments where the AQ Neutral building and/or transport assessments not meeting the benchmark and so required to include additional mitigation	3
Number of planning applications with S106 agreements including other requirements to improve air quality	<u>0</u>
Number of planning applications with CIL payments that include a contribution to improve air quality	<u>0</u>
NRMM: Central Activity Zone, Canary Wharf and Opportunity Areas Number of conditions related to NRMM included. Number of developments registered and compliant. Number of audits % of sites unregistered prior to audit Please include confirmation that you have checked that the development has been registered with the GLA through the relevant NRMM website and that all NRMM used on-site is compliant with Stage IV of the Directive and/or exemptions to the policy.	NA
NRMM: Greater London (excluding Central Activity Zone, Canary Wharf and Opportunity Areas) Number of conditions related to NRMM included. Number of developments registered and compliant. Number of audits % of sites unregistered prior to audit Please include confirmation that you have checked that the development has been registered at www.nrmm.london and that all NRMM used on-site is compliant with Stage IIIB of the Directive and/or exemptions to the policy.	30 There are 30 conditions related to NRMM at the relevant building sites. 30 sites were registered on the nrmm website in 2023. In 2023, of the 15 sites audited, 7 were in compliant, 2 have not yet a NRMM within the scope (37 – 560KW) on site that can be audited, and 6 sites were completed. The Council will continue to work to ensure development sites are compliant regarding

Condition	Number
	emissions from NRMM. The borough is a member of the Pan London NRMM monitoring scheme hosted by Merton Council. It aims to continue to collate reports on, and to monitor the emissions from NRMM on development sites across London ensuring standards are applied consistently.

Records of the above information on planning applications are kept in the Haringey internal database called M3. This is also duplicated in the pollution team planning folder for officers' comment and recommendation.

The NRMM record is from the yearly audit report submitted to the council through its membership of Pan London NRMM as well as from the registered information on the nrmm.london website for the council.

3.1 New or significantly changed industrial or other sources

No new sources identified.

4.   Additional Activities to Improve Air Quality

4.1   London Borough of Haringey Fleet

We can't provide details of how many a) zero emission and b) zero emission capable vehicles there are within our borough's fleet, and what percentage of the fleet these represent.

However, the Housing service fleet have procured four EV vehicles to add to the total fleet, as well as the Smarter Travel Team procuring a further two E-Cargo Bikes for the Council's Pool Bike fleet.

A review of how the Council's Waste Fleet will transition to a Zero Emission (ZE) fleet (waste and cleansing services only) has also been undertaken, looking at the future options for waste and cleansing services from 2027 when the current contract with Veolia expires and a new fleet replacement programme will begin. The results of the work will feed into recommendations for future service options currently timetabled for a Cabinet Decision in October 2024.

Moreover, "a fleet review is starting to follow the in-sourcing of Home for Haringey into the Council. This increase in the number of vehicles under a single management system will enable the Council to increase its supply of Zero Emission and Zero Emission Capable vehicles."

4.2   NRMM Enforcement Project

We can confirm that the London Borough of Haringey will continue to support the NRMM Enforcement project in 2024-2025.

The standard wording used when recommending NRMM planning conditions is as follows:

NRMM (x3)

a.   Prior to the commencement of the development, evidence of site registration at http://nrmm.london/ to allow continuing details of Non-Road Mobile Machinery (NRMM) and plant of net power between 37kW and 560 kW to be uploaded during the construction phase of the development shall be submitted to and approved by the Local Planning Authority.

   REASON: To protect local air quality and comply with Policy 7.14 of the London Plan and the GLA NRMM LEZ

b.   Evidence that all plant and machinery to be used during the demolition and construction phases of the development shall meets Stage IIIA of EU Directive 97/68/ EC for both NOx and PM emissions shall be submitted to the Local Planning Authority.

   REASON: To protect local air quality and comply with Policy 7.14 of the London Plan and the GLA NRMM LEZ

c. During the course of the demolitions, site preparation and construction phases, an inventory and emissions records for all Non-Road Mobile Machinery (NRMM) shall be kept on site. The inventory shall demonstrate that all NRMM is regularly serviced and detail proof of emission limits for all equipment. All documentation shall be made available for inspection by Local Authority officers at all times until the completion of the development.

REASON: To protect local air quality and comply with Policy 7.14 of the London Plan and the GLA NRMM LEZ

The above conditions are recommended for all planning applications that include demolition and/or construction phases.

4.3   Air Quality Alerts

We can confirm that London Borough of Haringey support *air*TEXT (https://www.airtext.info/) which can be accessed through the following link on the council website:

https://new.haringey.gov.uk/environment/pollution/air-quality/airtext-air-quality-alerts

Appendix A   Details of Monitoring Site Quality QA/QC

A.1   Automatic Monitoring Sites

Haringey's two automatic monitoring stations are part affiliated to the Automatic Urban & Rural Network (AURN) whilst the third is locally managed by Ricardo Energy and Environment (Ricardo). AURN sites have Defra funding as the data is more rigorously scrutinised with traceability to EU standards. Part affiliated sites are part funded by Defra and part funded by the local authority.

Defra's London AURN data manager is the Environmental Research Group (ERG), Imperial College London. ERG collates the data on a daily basis, validates it before sending it onto the national data managers, who ratify it to EU standards.

Routine calibrations are undertaken monthly for both the (roadside sites) and (background site) by ESU1. Each site is audited bi-annually following a full service. The calibrations support the quality assurance and quality control (QA/QC) checks that are carried out on the raw data to the AURN standard. This is to ensure that:

- Data is representative of ambient concentrations in the area.
- Measurements are accurate and precise to meet monitoring requirements.
- Data can be consistently compared with data from national and international standard sites.
- Measurements are consistent over time.

Further information on data validation and ratification is available on the Defra website: https://uk-air.defra.gov.uk/data/changes-to-ratified-data.

PM_{10} Monitoring Adjustment

Whilst PM10 monitoring recommenced in May 2021, no monitoring adjustment was done for the year 2023 data.

A.2   Diffusion Tubes

Haringey's diffusion tubes are prepared and analysed by Lambeth Scientific Services which is a UKAS accredited laboratory. This laboratory participates in the Air Proficiency Testing (AIR – PT) scheme to meet European standards and is involved in the network field inter-comparison exercise operated by LGC, which assesses the sampling and analytical performance of the tubes. Nitrogen dioxide diffusion tubes are prepared using the 50% triethanolamine (TEA) in acetone method.

Co-ordination of a quality assurance/quality control (QA/QC) framework, aimed at the analytical laboratories that supply and analyse the diffusion tubes currently comprises:

- Promotion of the independent Air Proficiency Testing (AIR – PT) scheme, operated by the Health and Safety Laboratory, with yearly assessment against agreed performance criteria.
- Operation of a field intercomparison exercise, in which diffusion tubes are co-located with an automatic analyser: from January 2006 this is at a roadside site.
- Operation of a QC solution testing scheme. Participation is recommended for any laboratory that prepares or analyses NO2 diffusion tubes used by Local Authorities for LAQM purposes.
- Quarterly summaries of participating laboratories' performance in the Air Proficiency Testing (AIR – PT) scheme over the preceding 12 months, prepared by LGC.

Factor from Local Co-location Studies

Diffusion tubes are considered to have limitations. Therefore, the government recommends that tubes should be co-located with an automatic analyser to determine a bias adjustment factor, which is then applied to the raw annual average concentrations for the same year to obtain bias adjusted results.

Haringey co-locates a diffusion tube at one of our roadside locations, HR14 (639 High Road, Tottenham), and submits the data annually.

The local bias adjustment factor for this co-location study has been calculated to be 0.81.

Discussion of Choice of Factor to Use

The local factor has been calculated to be 0.81.

However, the study was identified as having 'poor' overall continuous monitor data capture (<90%) meaning the local factor should be treated with caution.

Therefore, it is the national laboratory average adjustment factor (Lambeth Scientific Services) that is applied to the raw annual average concentrations to obtain the bias adjusted results.

This has been done to ensure consistency with previous reports and due to the uncertainty of the local bias adjustment factor.

Table N. Bias Adjustment Factor

Year	Local or National	If National, Version of National Spreadsheet	Adjustment Factor
2023	National	03/24	0.85
2022	National	03/23	0.97
2021	National	03/22	0.97
2020	National	03/21	0.96

A.3   Adjustments to the Ratified Monitoring Data

Short-term to Long-term Data Adjustment

Where data capture is less than 75% and greater than 25% of a full calendar year (between 3 and 9 months), the mean should be "annualised" – i.e. adjusted using the methodology outlined in LLAQM.TG(19) before being compared to annual mean objectives.

HR39 was adjusted in line with the methodology outlined in LLAQM.TG(19).

The result of this adjustment is displayed in Table P.

Distance Adjustment

The exceedances measured at HR31, HR32 and HR41 are not representative of public exposure. Therefore, in line with LLAQM.TG(19) distance adjustment has been undertaken to estimate NO_2 concentrations at the nearest receptor.

The result of this adjustment can be found in Table Q.

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

Site ID	Annualisation Factor Haringey Roadside	Annualisation Factor Haringey Priory South Park	Annualisation Factor Haringey Wood Green	-	Average Annualisation Factor	Raw Data Annual Mean (µg m^{-3})	Annualised Annual Mean (µg m^{-3})	Comments
HR39	0.9714	0.9672	0.9531	-	0.9639	25.6	24.7	

Table P. NO$_2$ Fall off With Distance Calculations

Site ID	Distance (m): Monitoring Site to Kerb	Distance (m): Receptor to Kerb	Monitored Concentration (Annualised and Bias Adjusted (µg m^{-3})	Background Concentration (µg m^{-3})	Concentration Predicted at Receptor (µg m^{-3})	Comments
HR31	0.5	3.5	61.1	19.7	46.9	Predicted concentration at Receptor above AQS objective.
HR32	0.5	1.5	45.8	18.8	40.6	Predicted concentration at Receptor above AQS objective.
HR41	1.0	2.0	48.9	18.9	44.7	Predicted concentration at Receptor above AQS objective.

Appendix B   Full Monthly Diffusion Tube Results for 2023

Table Q. NO$_2$ 2023 Diffusion Tube Results (µg/m^3)

DT ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Jan	Feb	Mar	Apr	May	June	Jul	Aug	Sept	Oct	Nov	Dec	Annual Mean: Raw Data	Annual Mean: Annualised and Bias Adjusted (0.85)	Annual Mean: Distance Corrected to Nearest Exposure	Comment
HR06	528945	187682	35.0	48.0	39.0	39.0	36.0	30.0	26.0	26.0	47.0	45.0	42.0	41.0	37.8	32.2		
HR08	530512	189446	40.0	42.0	28.0	28.0	26.0	20.0	28.0	22.0	38.0	33.0	32.0	31.0	30.7	26.1		
HR14a	533890	190710	32.0	33.0	31.0	32.0	33.0	23.0	26.0	24.0	38.0	42.0	32.0	31.0	31.4	26.7		
HR14b	533890	190710	33.0	40.0	31.0	31.0	29.0	24.0	29.0	20.0	38.0	41.0	37.0	32.0	32.1	27.3		
HR14c	533890	190710	35.0	39.0	38.0	33.0	30.0	25.0	30.0	25.0	41.0	40.0	30.0	33.0	32.3	28.3		
HR21	532010	190549	29.0	30.0	25.0	22.0	21.0	19.0	14.0	12.0	27.0	27.0	30.0	24.0	23.3	19.8		
HR24	532155	190517	33.0	45.0		34.0		28.0	37.0	26.0	39.0	4.0	40.0	36.0	32.2	27.4		
HR25	532554	191383	27.0	36.0	26.0	27.0	25.0	28.0	19.0	22.0	29.0	25.0	26.0		26.4	22.4		
HR27	531758	188872	36.0	44.0		37.0	38.0	33.0	31.0	24.0	41.0	39.0	41.0	35.0	36.3	30.8		
HR28	530063	191324	27.0	37.0	34.0	24.0	24.0		53.0	17.0	27.0	29.0	22.0	34.0	29.8	25.3		
HR30	533899	189023		37.0	36.0		34.0	30.0	23.0	22.0	34.0	36.0	34.0	24.0	31.0	26.4		
HR31	531245	189935	66.0	78.0	64.0	80.0	68.0	57.0	69.0	50.0	100.0	76.0	80.0	75.0	71.9	**61.1**	46.9	
HR32	528612	188072	52.0	63.0	52.0	50.0	38.0	46.0	49.0	48.0	60.0	64.0	64.0	61.0	53.9	**45.8**	40.6	
HR34	531079	187926	26.0	37.0	32.0	28.0	21.0	31.0			80.0	61.0	47.0	46.0	40.9	34.8		
HR35	532324	188766	34.0	36.0	27.0	21.0	25.0	17.0	23.0	21.0	29.0	31.0	31.0	29.0	27.0	23.0		
HR36	533842	189581	41.0	41.0	30.0	21.0	52.0	34.0	31.0	26.0	34.0	38.0	37.0		35.0	29.8		
HR37	530123	188420	51.0	49.0	43.0	33.0			28.0	31.0	51.0	43.0	48.0	33.0	42.1	35.8		
HR38	533991	189460	29.0	35.0	19.0	26.0		25.0	18.0	20.0	29.0	29.0	29.0	25.0	25.8	21.9		
HR39	528180	189842	32.0	34.0		26.0	22.0		23.0	16.0	28.0	28.0	21.0		25.6	21.7		
HR40	527884	188089	33.0	40.0	32.0	30.0	35.0	27.0	19.0	20.0	39.0	40.0	24.0	30.0	30.8	26.1		
HR41	528797	189636		53.0	48.0		49.0		55.0	54.0	61.0	78.0	63.0	57.0	57.6	**48.9**	44.7	
HR42	529254	188051	36.0	32.0	27.0	22.0	28.0	18.0	20.0	16.0			33.0		25.8	21.9		
HR43	531018	188018	31.0	32.0	24.0	22.0	17.0	16.0	19.0	14.0	27.0	28.0	31.0	24.0	23.8	20.2		
HR44	531303	189128	30.0	31.0	23.0	22.0	19.0	14.0	18.0	16.0	27.0	27.0	26.0	23.0	23.0	19.6		
HR45	532866	188246	30.0	27.0	24.0	21.0	19.0	15.0	17.0	13.0	22.0		28.0	24.0	21.8	18.5		
HR46	531882	189187	28.0	32.0	25.0	40.0	35.0	27.0	23.0	21.0	22.0	31.0	32.0	27.0	28.6	24.3		
HR47	533117	189142	32.0	37.0		25.0	30.0	26.0	28.0	20.0	38.0	32.0	41.0	31.0	30.9	26.3		
HR48	534022	190341	32.0	34.0	27.0		20.0	19.0		15.0	24.0	35.0	35.0	30.0	27.1	23.0		
HR49	533199	190058	28.0		26.0	24.0	19.0	18.0	15.0	14.0	25.0	32.0	33.0	27.0	23.7	20.2		
HR50	532063	189889	31.0	24.0	19.0	22.0	22.0	15.0	18.0	12.0	24.0	30.0	31.0	26.0	22.8	19.4		
HR51	530691	189963	25.0	19.0	26.0	25.0	23.0	18.0	14.0	15.0	27.0	25.0	25.0	19.0	21.8	18.5		
HR52	529423	190621	29.0		27.0	29.0	25.0	27.0	20.0	22.0	35.0	41.0	44.0	39.0	30.7	26.1		
HR53	530497	190904	23.0	28.0	24.0	23.0	23.0	20.0	17.0	16.0	33.0	20.0	33.0	29.0	24.1	20.5		
HR54	531617	191114	35.0	33.0	27.0	13.0	19.0	19.0	18.0	17.0	33.0	31.0	31.0	31.0	25.6	21.7		
HR55	533257	190739	36.0	42.0	32.0	34.0	29.0	24.0		25.0	43.0	47.0	46.0	34.0	35.6	30.3		
HR56	534205	191270	27.0	27.0	22.0	23.0	21.0	23.0	16.0	18.0	21.0	29.0	32.0	26.0	23.8	20.2		
HR57	530186	189628	32.0	25.0	21.0	33.0	25.0	19.0	15.0	16.0	25.0	28.0	29.0	24.0	24.3	20.7		

☒ **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 Haringey 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 **<u>bold and underlined</u>**.

See Appendix C for details on bias adjustment and annualisation.

Appendix C   Map(s) of Monitoring Locations and AQMAs

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

Air quality Diffusion Tube sites across London Borough of Haringey - 2023

KEY

● Diffusion Tubes < 40 (_g m-3)

● Diffusion Tubes > 40 (_g m-3)
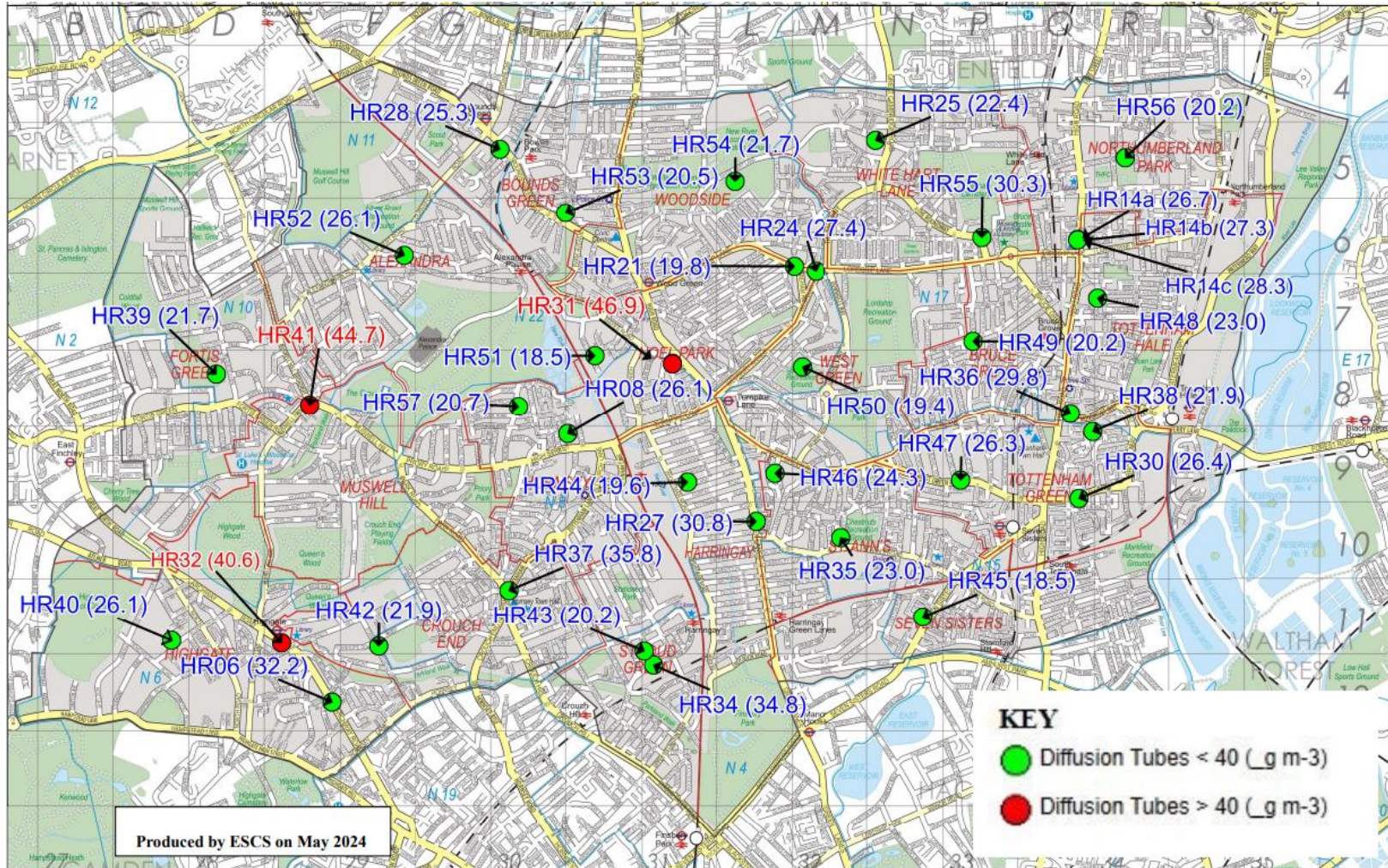
Produced by ESCS on May 2024

This map is reproduced from Ordnance Survey material with the permission of Ordnance Survey on behalf of the Controller of Her Majesty's Stationary Office © Crown Copyright LB Haringey 100019199 2023

Figure B. Map of Automatic Monitoring Site(s)
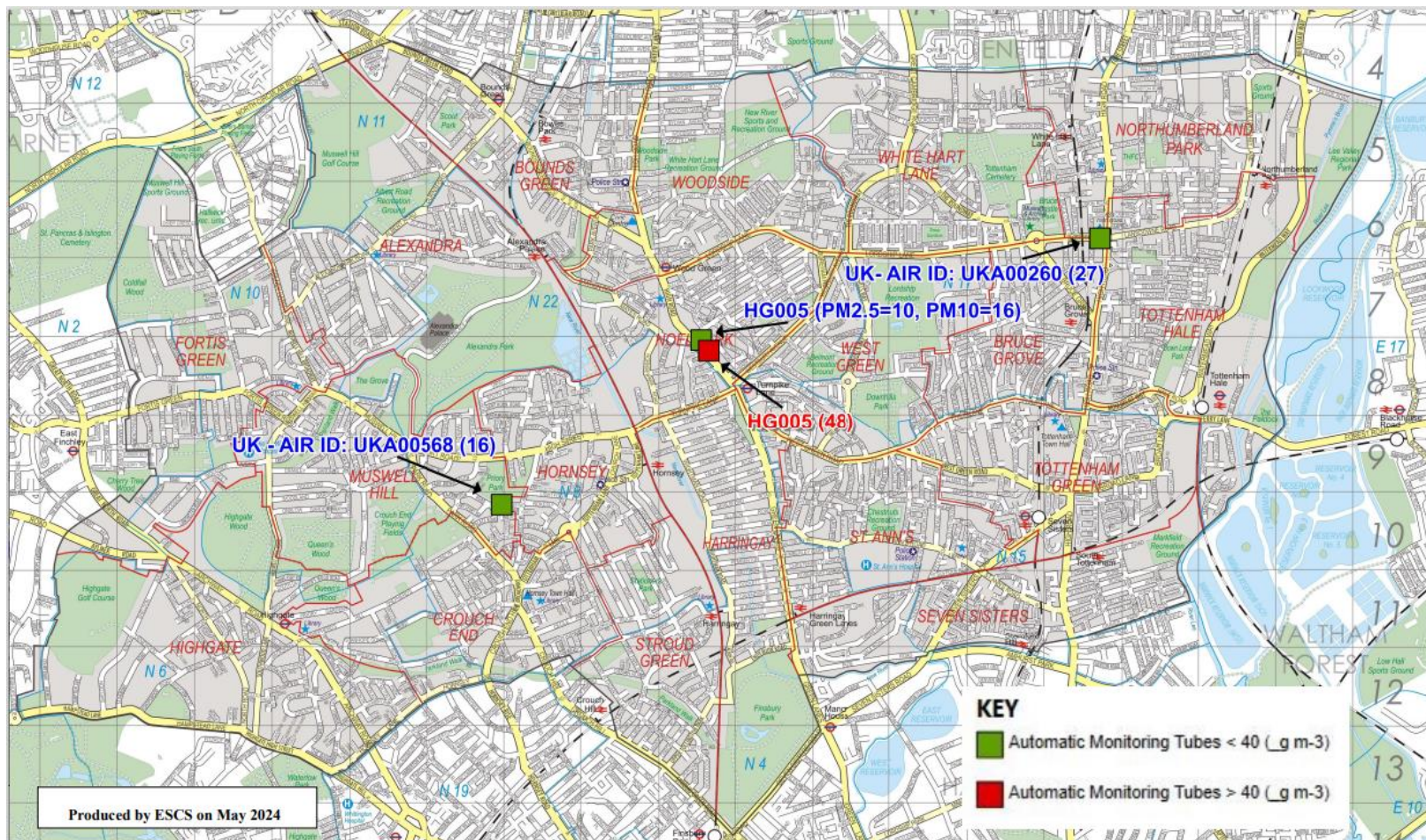
Air quality Automatic monitoring sites across London Borough of Haringey - 2023