

Enfield Council Air Quality Annual Status Report for 2024

Date of publication: August 2025



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

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

Contact details:

Ned Johnson

Pollution Control & Planning Enforcement

Enfield Council

Civic Centre

Silver Street

Enfield

EN1 3XH

ned.johnson@enfield.gov.uk

Contents

Abbreviations	5
1. Air Quality Monitoring.....	7
1.1 Locations.....	7
1.2 Comparison of Monitoring Results with AQOs.....	11
2. Action to Improve Air Quality.....	19
2.1 Air Quality Management Areas	19
2.2 Air Quality Action Plan Progress	21
3. Planning Update and Other New Sources of Emissions	28
3.1 New or significantly changed industrial or other sources	28
4. Additional Activities to Improve Air Quality.....	29
4.1 London Borough of Enfield Council Fleet.....	29
4.3 Pan-London NRMM Auditing Project	29
4.4 Air Quality Alerts	30
Appendix A Details of Monitoring Site Quality QA/QC.....	31
A.1 Automatic Monitoring Sites	31
A.2 Diffusion Tubes.....	31
A.3 Adjustments to the Ratified Monitoring Data.....	32
Appendix B Full Monthly Diffusion Tube Results for 2024.....	34
Appendix C Map(s) of Monitoring Locations and AQMAs.....	36

Tables

Table A. Summary of National Air Quality and International Standards, Objectives and Guidelines	6
Table B. Details of Automatic Monitoring Sites for 2024	7
Table C. Details of Non-Automatic Monitoring Sites for 2024	8
Table D. Annual Mean NO ₂ Monitoring Results: Automatic Monitoring (µg m ⁻³)	11
Table E. Annual Mean NO ₂ Monitoring Results: Non-Automatic Monitoring (µg m ⁻³)	12
Table F. NO ₂ Automatic Monitoring Results: Comparison with 1-hour Mean Objective, Number of 1-Hour Means > 200 µg m ⁻³	16
Table G. Annual Mean PM ₁₀ Automatic Monitoring Results (µg m ⁻³)	17
Table H. PM ₁₀ Automatic Monitoring Results: Comparison with 24-Hour Mean Objective, Number of PM ₁₀ 24-Hour Means > 50 µg m ⁻³	18
Table I. Declared Air Quality Management Areas	19
Table J. Delivery of Air Quality Action Plan Measures	21
Table K. Planning requirements met by planning applications in Enfield Council in 2024	28
Table L. Bias Adjustment Factor	31
Table M. NO ₂ Fall off With Distance Calculations	33
Table N. NO ₂ 2024 Diffusion Tube Results (µg m ⁻³)	34
Figures	
Figure A. Map of Non-Automatic Monitoring Sites	36
Figure B. Map of Automatic Monitoring Sites	44

Abbreviations

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

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

Pollutant	Standard / Objective / Guideline	Averaging Period	Date⁽¹⁾
Nitrogen dioxide (NO ₂)	200 µg m ⁻³ not to be exceeded more than 18 times a year	1-hour mean	31 Dec 2005
Nitrogen dioxide (NO ₂)	40 µg m ⁻³	Annual mean	31 Dec 2005
Nitrogen dioxide (NO ₂)	WHO AQG ⁽²⁾ : 10 µg m ⁻³	Annual mean	
Particles (PM ₁₀)	50 µg m ⁻³ not to be exceeded more than 35 times a year	24-hour mean	31 Dec 2004
Particles (PM ₁₀)	WHO AQG ⁽²⁾ : 45 µg m ⁻³ not to be exceeded more than 3-4 times a year	24-hour mean	
Particles (PM ₁₀)	40 µg m ⁻³	Annual mean	31 Dec 2004
Particles (PM ₁₀)	WHO AQG ⁽²⁾ : 15 µg m ⁻³	Annual mean	
Particles (PM _{2.5})	10 µg m ⁻³	Annual mean	2040
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 not to be exceeded more than 3 times a year	24-hour mean	31 Dec 2004
Sulphur dioxide (SO ₂)	WHO AQG ⁽²⁾ : 40 µg m ⁻³ not to be exceeded more than 3-4 times a year	24-hour mean	

Notes:

- (1) Date by which to be achieved by and maintained thereafter
- (2) 2021 World Health Organisation Air Quality Guidelines
- (3) London Mayoral Objective

1. Air Quality Monitoring

1.1 Locations

Table B. Details of Automatic Monitoring Sites for 2024

Site ID	Site Name	Site Type	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Pollutants Monitored	In AQMA?	Which AQMA?	Monitoring Technique	Distance to Relevant Exposure (m) ⁽¹⁾	Distance to kerb of nearest road (m) ⁽²⁾	Inlet Height (m)
ENF1	Bush Hill Park	Suburban	533881	195831	NO2	Yes	Borough wide	Chemiluminescent	8.0	N/A	1.5
ENF4	Derby Road	Roadside	535056	192470	NO2	Yes	Borough wide	Chemiluminescent	32.0	3.0	2.5
ENF5	Bowes Primary School	Roadside	529893	192224	NO2	Yes	Borough wide	Chemiluminescent	1.0	3.0	2.5
ENF7	Prince of Wales School	Urban Background	536886	198497	NO2	Yes	Borough wide	Chemiluminescent	4.0	N/A	1.5

Notes:

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

(2) N/A if not applicable

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

Diffusion Tube ID	Site Name	Site Type	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Pollutants Monitored	In AQMA? Which AQMA?	Distance to Relevant Exposure (m) ⁽¹⁾	Distance to kerb of nearest road (m) ⁽²⁾	Tube Co-located with a Continuous Analyser?	Tube Height (m)
Enfield 1A	Enfield 1A	Kerbside	532668	196555	NO ₂	YES Borough Wide	4.0	0.5	No	2.5
Enfield 2A	Enfield 2A	Kerbside	529753	194332	NO ₂	YES Borough Wide	5.0	1.0	No	2.0
Enfield 3A	Enfield 3A	Roadside	531981	195305	NO ₂	Yes Borough Wide	10.0	1.0	No	2.0
Enfield 4A	Enfield 4A	Roadside	530966	192714	NO ₂	YES Borough Wide	5.0	1.0	No	2.0
Enfield 5A	Enfield 5A	Roadside	534238	196314	NO ₂	Borough Wide	15.0	1.0	No	2.0
Enfield 6	Enfield 6	Urban Background	526449	198404	NO ₂	YES Borough Wide	1.0	8.0	No	2.0
Enfield 7	Enfield 7	Roadside	535460	199849	NO ₂	Yes Borough Wide	10.0	1.0	No	2.5
Enfield 8A	Enfield 8A	Roadside	534195	192806	NO ₂	YES Borough Wide	9.0	1.0	No	2.0
Enfield 9A	Enfield 9A	Urban Background	529945	192118	NO ₂	Yes Borough Wide	4.0	0.5	No	2.0
Enfield 10	Enfield 10	Urban Background	530161	192032	NO ₂	YES Borough Wide	0.0	8.0	No	1.8
Enfield 11	Enfield 11	Roadside	530448	193845	NO ₂	Yes	9.0	1.0	No	1.8

Diffusion Tube ID	Site Name	Site Type	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Pollutants Monitored	In AQMA? Which AQMA?	Distance to Relevant Exposure (m) ⁽¹⁾	Distance to kerb of nearest road (m) ⁽²⁾	Tube Co-located with a Continuous Analyser?	Tube Height (m)
						Borough Wide				
Enfield 12	Enfield 12	Roadside	530374	193289	NO ₂	YES Borough Wide	17.0	1.0	No	1.8
Enfield 13	Enfield 13	Roadside	533201	192083	NO ₂	Yes Borough Wide	16.0	1.0	No	2.0
Enfield 14	Enfield 14	Roadside	533304	192130	NO ₂	YES Borough Wide	12.0	1.0	No	2.0
Enfield 15	Enfield 15	Roadside	533322	192044	NO ₂	Yes Borough Wide	14.0	1.0	No	2.0
Enfield 16	Enfield 16	Roadside	533721	191945	NO ₂	YES Borough Wide	50.0	1.0	No	2.0
Enfield 17	Enfield 17	Roadside	533766	192178	NO ₂	Yes Borough Wide	4.0	1.0	No	2.0
Enfield 18	Enfield 18	Roadside	532165	192954	NO ₂	YES Borough Wide	8.0	1.0	No	2.0
Enfield19	Enfield19	Roadside	531878	192668	NO ₂	Yes Borough Wide	10.0	1.0	No	1.8
Enfield 20	Enfield 20	Roadside	531173	192390	NO ₂	YES Borough Wide	16.0	1.0	No	2.0
Enfield 21	Enfield 21	Roadside	530968	192259	NO ₂	Yes Borough Wide	15.0	1.0	No	2.5

Diffusion Tube ID	Site Name	Site Type	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Pollutants Monitored	In AQMA? Which AQMA?	Distance to Relevant Exposure (m) ⁽¹⁾	Distance to kerb of nearest road (m) ⁽²⁾	Tube Co-located with a Continuous Analyser?	Tube Height (m)
Enfield 22	Enfield 22	Kerbside	531260	193415	NO ₂	YES Borough Wide	13.0	0.5	No	2.5

Notes:

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

(2) N/A if not applicable.

1.2 Comparison of Monitoring Results with AQOs

Table D. Annual Mean NO₂ Monitoring Results: Automatic Monitoring (µg m⁻³)

Site ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Site Type	Valid data capture for monitoring period % ^(a)	Valid data capture 2024 % ^(b)	2018	2019	2020	2021	2022	2023	2024
ENF1	533881	195831	Suburban	99.3	99.3	26	22	18	18	19	17	15
ENF4	535056	192470	Roadside	99.6	99.6	35	37	28	24	26	26	23
ENF5	529893	192224	Roadside	99.7	99.7	44	41	30	30	28	25	24
ENF7	536886	198497	Urban Background	93.8	93.7	23	23	18	18	18	15	14

Notes:

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

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

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

Means for diffusion tubes have been corrected for bias.

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

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

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

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

Table E. Annual Mean NO₂ Monitoring Results: Non-Automatic Monitoring (µg m⁻³)

Diffusion Tube ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Site Type	Valid Data Capture for Monitoring Period (%) ⁽¹⁾	Valid Data Capture 2024 (%) ⁽²⁾	2018	2019	2020	2021	2022	2023	2024
Enfield 1A	532668	196555	Kerbside	100.0	100.0	47.4	57.6	49.8	46.9	45.6	47.6	45.3
Enfield 2A	529753	194332	Kerbside	100.0	100.0	37.5	37.1	30.8	31.8	28.8	25.1	22.7
Enfield 3A	531981	195305	Roadside	100.0	100.0	28.1	23.1	19.7	20.7	17.1	17.1	14.7
Enfield 4A	530966	192714	Roadside	92.5	92.5	30	30.1	27.6	26	22.2	20.3	22.6
Enfield 5A	534238	196314	Roadside	100.0	100.0	42.5	39.5	33.9	34.3	34.6	30.9	27.8
Enfield 6	526449	198404	Urban Background	100.0	100.0	19.7	14	13.2	11.9	11.9	8.4	8.3
Enfield 7	535460	199849	Roadside	92.5	92.5	23.3	20.6	17.3	17.3	16.7	16.6	17.7
Enfield 8A	534195	192806	Roadside	100.0	100.0	48.9	49.2	48.3	46.2	45.6	48.1	39.1
Enfield 9A	529945	192118	Urban Background	100.0	100.0	26.6	24.3	18.6	18.8	17.3	15.2	15.9
Enfield 10	530161	192032	Urban Background	100.0	100.0	37.5	36.6	29.4	27.8	24.1	23.2	21.2
Enfield 11	530448	193845	Roadside	100.0	100.0	N/A	N/A	N/A	17.4	17.6	16.4	17.0
Enfield 12	530374	193289	Roadside	100.0	100.0	N/A	N/A	N/A	15.4	16.9	13.6	11.5
Enfield 13	533201	192083	Roadside	100.0	100.0	N/A	N/A	N/A	27.7	22.5	21.4	19.9
Enfield 14	533304	192130	Roadside	100.0	100.0	N/A	N/A	N/A	26.6	23.9	25.3	19.0
Enfield 15	533322	192044	Roadside	90.6	90.6	N/A	N/A	N/A	32.8	26.3	21.8	18.3
Enfield 16	533721	191945	Roadside	100.0	100.0	N/A	N/A	N/A	23.4	21.9	18.4	18.4
Enfield 17	533766	192178	Roadside	100.0	100.0	N/A	N/A	N/A	33.5	28.8	23.7	20.3
Enfield 18	532165	192954	Roadside	100.0	100.0	N/A	N/A	N/A	30.4	23.3	21.8	19.0
Enfield19	531878	192668	Roadside	100.0	100.0	N/A	N/A	N/A	27.1	21.1	18.7	16.9
Enfield 20	531173	192390	Roadside	100.0	100.0	N/A	N/A	N/A	25.4	20.8	19.1	18.4

Diffusion Tube ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Site Type	Valid Data Capture for Monitoring Period (%) ⁽¹⁾	Valid Data Capture 2024 (%) ⁽²⁾	2018	2019	2020	2021	2022	2023	2024
Enfield 21	530968	192259	Roadside	100.0	100.0	N/A	N/A	N/A	28.4	27.3	25.9	24.4
Enfield 22	531260	193415	Kerbside	100.0	100.0	N/A	N/A	N/A	N/A	N/A	25.6	22.1

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

Diffusion tube data has been bias adjusted.

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

Notes:

The annual mean concentrations are presented as $\mu\text{g m}^{-3}$.

Exceedances of the NO₂ annual mean objective of $40\mu\text{g m}^{-3}$ are shown in **bold**.

NO₂ annual means exceeding $60\mu\text{g m}^{-3}$, indicating a potential exceedance of the NO₂ 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%).

7-year data trends for nitrogen dioxide

Over the period 2018 – 2024, all automatic monitoring sites have shown a progressive decline in annual mean concentrations. All background sites have been below the annual mean objective of $40\mu\text{g}/\text{m}^3$, which is not unexpected.

The trend at ENF1 is a steady decline in concentrations of nitrogen dioxide until 2022, when there was a $1\mu\text{g}/\text{m}^3$ increase followed by a decline of $2\mu\text{g}/\text{m}^3$ in 2023 and a further decline of $2\mu\text{g}/\text{m}^3$ in 2024. At ENF7 there has been a continued steady decline in concentrations across the whole 7-year period.

In regard to the roadside locations, at ENF4 concentrations have also been below the objective, this site is positioned in a busy location with standing traffic consistently present during the daytime. Concentrations at this site fell below $30\mu\text{g}/\text{m}^3$ to $28\mu\text{g}/\text{m}^3$ in 2020 with a further decrease in 2021. In 2022 there was a slight increase of $2\mu\text{g}/\text{m}^3$ in comparison to the previous year to $26\mu\text{g}/\text{m}^3$ and this concentration remained unchanged in 2023; in 2024 there has been a decline of $3\mu\text{g}/\text{m}^3$ to $23\mu\text{g}/\text{m}^3$. The slight increase seen in 2022 is likely due to increased traffic levels in comparison to 2021, the decline in 2024 may be due to changes to the traffic composition or weather, only longer-term monitoring will show if the decline continues.

ENF5 is located at Bowes Primary School on the A406 North Circular Road and is 3 metres from the edge of the carriageway at a point where there is regular standing traffic. Until 2020 the annual mean concentration at this site was just above the annual mean objective level. Following 2020 and 2021, where traffic levels were severely impacted by the pandemic it was expected that nitrogen dioxide concentrations would return to levels similar to those measured prior to the pandemic. The monitoring data clearly shows that this is not the case with concentrations at ENF5 falling below those measured in 2020 and 2021. The decline in concentrations has persisted at this site, with reductions in the annual mean seen in 2023 and 2024. The reduction in

concentrations is most likely to be attributed to a combination of factors such as improvements to the vehicle fleet and a change in the number of vehicles using the road network.

The trend at the real-time sites is also seen at the diffusion tube sites as an overall decline at all sites can be seen with no sites being above the 60ug/m³ level in 2024.

Enfield 1A and Enfield 8A were over the annual mean objective after bias-adjustment but following the 'fall-off with distance' adjustment both of these sites were also below the annual mean objective at the nearest receptor. Aside from 2019, Enfield 1A has had very consistent annual mean concentrations with no noticeable decline. Enfield 8A has also had very consistent annual mean results between 2018 – 2023, with this year showing an 8ug/m³ reduction in 2024. Both sites are busy bus routes and the drop off in concentrations may be attributable to changes in the bus fleet.

All other diffusion tube sites have been below the annual mean objective level (with the exception of Enfield 5A in 2018) and the trend for all of them is an overall decline over the 7-year period (please note sites 11-22 were installed later and have less than 7 years of data).

In the case of real-time and diffusion tube monitoring sites the trend over the last 7-years has been a steady decline in nitrogen dioxide concentrations. It was expected that concentrations would increase in 2022 following 2 years heavily affected by the Covid pandemic but this has not been the case and it is assumed that this is a result of changes to the traffic fleet and working habits where more home-working has resulted in lower traffic volumes overall.

Table F. NO₂ Automatic Monitoring Results: Comparison with 1-hour Mean Objective, Number of 1-Hour Means > 200 µg m⁻³

Site ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Site Type	Valid data capture for monitoring period % ^(a)	Valid data capture 2024 % ^(b)	2018	2019	2020	2021	2022	2023	2024
ENF1	533881	195831	Suburban	99.3	99.3	0	0	0	0	0	0	0
ENF4	535056	192470	Roadside	99.6	99.6	0	0	0	0	0	0	0
ENF5	529893	192224	Roadside	99.7	99.7	0	0	0	0	0	0	0
ENF7	536886	198497	Urban Background	93.8	93.7	0	0	0	0	0	0	0

Notes

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

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

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

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

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

Table F illustrates that there have been no exceedances of the hourly mean objective at the automatic monitoring sites in the last 7 years

Table G. Annual Mean PM₁₀ Automatic Monitoring Results (µg m⁻³)

Site ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Site Type	Valid data capture for monitoring period % ^(a)	Valid data capture 2024 % ^(b)	2018	2019	2020	2021	2022	2023	2024
ENF5	529893	192224	Roadside	N/A	N/A	18	19	15	15	18	14.7 (annualised)	N/A

Notes

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

Exceedances of the PM₁₀ annual mean AQO of 40 µg m⁻³ are shown in **bold**.

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

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

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

The 6-year trend shows that the annual mean at ENF5 remains below the objective level and overall shows a steady decline in concentrations. The slight increase in concentration on 2022 in comparison to 2020 and 2021 is most likely due to an increase in road traffic following the Covid pandemic where 2020 and 2021 had long period of lock-down. The fall is seen again in 2023 although the results must be treated with caution due to a data capture rate of 37% as a result of failure of the analyser. Due to the analyser failure there is no data for 2024, a new analyser was installed in April 2025.

Table H. PM₁₀ Automatic Monitoring Results: Comparison with 24-Hour Mean Objective, Number of PM₁₀ 24-Hour Means > 50 µg m⁻³

Site ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Site Type	Valid data capture for monitoring period % ^(a)	Valid data capture 2024 % ^(b)	2018	2019	2020	2021	2022	2023	2024
ENF5	529893	192224	Roadside	N/A	N/A	2	9	2	0	5	1 (23.1)	N/A

Notes

Exceedances of the PM₁₀ 24-hour mean objective (50 µg m⁻³ over the permitted 35 days per year) are shown in **bold**.

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

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

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

The trend in the data illustrates that PM₁₀ concentrations comply with the daily mean objective for this pollutant. Overall, there is no particular trend in the data with the number of days exceeding the 50ug/m³ varying year on year with no exceedances of the 24-hour mean objective in any year. There is no data for 2024 as the analyser failed in 2023 and was replaced in April 2025.

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 Enfield Council can be found in

. The table presents a description of the AQMA that is currently designated within London Borough of Enfield. Appendix C provides a map 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:

- Nitrogen dioxide
- PM₁₀

Table I. 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
Enfield AQMA	31 st March 2001	NO ₂	Whole borough declaration	YES	50ug/m ³	No exceedance	5 years	Enfield Council Air Quality Action Plan 23/08/2022	https://www.enfield.gov.uk/__data/assets/pdf_file/0017/34271/Enfield-Air-Quality-Action-Plan-2022-Environment.pdf

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
Enfield AQMA	31 st March 2001	PM ₁₀	Whole borough declaration	YES	47 exceedances of the 24-hour mean objective	No exceedance	16 Years	Enfield Council Air Quality Action Plan 23/08/2022	https://www.enfield.gov.uk/__data/assets/pdf_file/0017/34271/Enfield-Air-Quality-Action-Plan-2022-Environment.pdf

- Enfield Council confirm the information on UK-Air regarding their AQMA(s) is up to date.
- Enfield Council confirm that all current AQAPs have been submitted to GLA.

2.2 Air Quality Action Plan Progress

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

Table J. Delivery of Air Quality Action Plan Measures

Measure	LLAQM Action Matrix Theme	Action	Estimated / Actual Completion Date	Organisations Involved	Progress <ul style="list-style-type: none"> Emissions/Concentration data Benefits Negative impacts / Complaints
14	Public health and awareness raising	Encourage schools to join the TfL STARS accredited travel planning programme	Ongoing	Journeys & Places	STARS has now been rebranded as Travel for Life. There are 61 schools involved, 28 are gold, 3 silver and 7 bronze and 23 are engaged.
23	Cleaner transport	Installation of residential electric charge points	Ongoing	Traffic & Transportation	There are 241 public EV charging sockets in the borough
15	Public health and awareness raising	Implement School Streets in appropriate locations to improve air quality at schools	Ongoing	Journeys & Places	There were 26 school streets at the end of 2024 with more to be implemented in 2025. The target is to get 30 schools streets by the end of 2025 and an objective of 50 school streets in the borough altogether.
1	Monitoring and other core statutory duties	Continue to monitor air quality and ensure the network of monitoring sites is appropriate	Ongoing	Environmental Health, Environmental Research Group	The number of automatic monitoring sites has been maintained. All the automatic data is available on the London Air website.

Measure	LLAQM Action Matrix Theme	Action	Estimated / Actual Completion Date	Organisations Involved	Progress <ul style="list-style-type: none"> • Emissions/Concentration data <ul style="list-style-type: none"> • Benefits • Negative impacts / Complaints
					<p>The automatic monitoring sites and passive sites provide data for both background and roadside locations in the borough.</p> <p>Two new Breathe London sensors have been installed and the PM₁₀ analyser at the Bowes Primary monitoring site has been replaced with an analyser that measures both PM₁₀ and PM_{2.5}.</p>
2	Emissions from developments and buildings	Ensuring emissions from construction are minimised.	Ongoing	Environmental Health, Local Planning Authority	<p>100% of major development applications have had a construction management condition attached to them for the control of dust emissions.</p> <p>Where dust complaints are received in regard to dust from building sites all complaints are investigated by the Commercial Nuisance Officer.</p>
3	Emissions from developments and buildings	Ensuring enforcement of Non Road Mobile Machinery (NRMM) air quality policies	Ongoing	Environmental Health, Merton Council	<p>NRMM was inspected through the London-wide NRMM project. There were 10 audits, 5 were compliant, 4 had no NRMM and one site was non-compliant.</p> <p>100% of relevant planning applications include an</p>

Measure	LLAQM Action Matrix Theme	Action	Estimated / Actual Completion Date	Organisations Involved	Progress <ul style="list-style-type: none"> • Emissions/Concentration data <ul style="list-style-type: none"> • Benefits • Negative impacts / Complaints
					appropriate NRMM planning condition.
4	Emissions from developments and buildings	Reducing emissions from CHP	Ongoing	Environmental Health, Local Planning Authority	Where CHPs and biomass are proposed, planning conditions are applied. There have been no biomass applications in 2024 and any CHP was for gas-fired plant.
5	Emissions from developments and buildings	Enforcing Air Quality Neutral policies.	Ongoing	Environmental Health, Local Planning Authority	Air Quality Neutral is reviewed through Air Quality Assessments for planning applications. There were 3 assessments last year that were not air quality neutral due to transport emissions. All of which were required to put in measures to reduce impacts, such as more electric charging points.
6	Emissions from developments and buildings	Ensuring adequate, appropriate, and well located green space and infrastructure is included in new developments.	Ongoing	Local Authority	Enfield aims to be internationally recognised as the greenest borough in London at the cornerstone of London's national park. The Blue Green Strategy has 7 aims to improve blue and green spaces within the borough.
7	Emissions from developments and buildings	Ensuring that Smoke Control Zones are appropriately identified and fully promoted and enforced	Ongoing	Environmental Health	The whole borough is covered by Smoke Control Area Orders. 100% of complaints relating to smoke from a chimney serving a building in a smoke control area were investigated in 2024.
8	Emissions from developments and buildings	Promoting and delivering retrofit projects.	Ongoing	Property Development	There is an ongoing programme of upgrades to corporate

Measure	LLAQM Action Matrix Theme	Action	Estimated / Actual Completion Date	Organisations Involved	Progress <ul style="list-style-type: none"> • Emissions/Concentration data <ul style="list-style-type: none"> • Benefits • Negative impacts / Complaints
					buildings, the current round of which is delivering interventions including insulation, heat pumps and solar PV to a number of sites, including the Civic Centre.
9	Emissions from developments and buildings	Master planning and redevelopment areas aligned with Air Quality Positive and Healthy Streets approaches.	Ongoing	Planning Policy Journeys & Places	The most recent adopted masterplans are for Enfield Town and Meridian Water. Both include elements of the Healthy Streets approach.
10	Emissions from developments and buildings	Carry out air quality assessments of the impact of the existing Low Emission Neighbourhoods and any future schemes.	Ongoing	Journeys & Places	There are currently 2 Low Emission Neighbourhoods which have been assessed and made permanent
11	Public health and awareness raising	Director of Public Health to sign off Statutory Annual Status Reports and all new Air Quality Action Plans.	Ongoing	Environmental Health Public Health	This report will be sent to the Director of Public Health, as will future air quality reports.
12	Public health and awareness raising	Engagement with businesses	Ongoing	Environmental Health Camden Council	<p>The Climate Action Plan includes actions around engaging with businesses both as suppliers to the Council and as part of economic development work.</p> <p>A Sustainable and Ethical Procurement Policy is being developed which includes climate action requirements for suppliers.</p>

Measure	LLAQM Action Matrix Theme	Action	Estimated / Actual Completion Date	Organisations Involved	Progress <ul style="list-style-type: none"> • Emissions/Concentration data <ul style="list-style-type: none"> • Benefits • Negative impacts / Complaints
					<p>The new MAQF project for anti-idling is aimed at businesses and as part of this project we will be engaging with selected businesses to reduce vehicle emissions.</p>
13	Public health and awareness raising	Promotion of availability of airText	Ongoing	Environmental Health AirText	Enfield Council continues to be part of the airText consortium.
14	Public health and awareness raising	Encourage schools to join the TfL STARS accredited travel planning programme	Ongoing	Journeys & Places	<p>STARS has now been rebranded as Travel for Life.</p> <p>There are 61 schools involved, 28 are gold, 3 silver and 7 bronze and 23 are engaged.</p>
15	Public health and awareness raising	Implement School Streets in appropriate locations to improve air quality at schools	Ongoing	Journeys & Places	<p>There were 26 school streets at the end of 2024 with more to be implemented in 2025.</p> <p>The target is to get 30 schools streets by the end of 2025 and an objective of 50 school streets in the borough altogether.</p>
16	Delivery servicing and freight	Reducing emissions by working with suppliers who are committed to switching to low or zero emission modes of transport	Ongoing	Procurement	<p>The draft Enfield Sustainable and Ethical procurement policy focusses on four main themes: social value, ethical procurement, supporting the local economy and climate action. Where relevant and proportionate, sustainable logistical measures may be</p>

Measure	LLAQM Action Matrix Theme	Action	Estimated / Actual Completion Date	Organisations Involved	Progress <ul style="list-style-type: none"> • Emissions/Concentration data <ul style="list-style-type: none"> • Benefits • Negative impacts / Complaints
					required, dependant on the specific contracts being let.
17	Borough fleet actions	Reducing the emissions from the Council's fleet	2030	Fleet & Passenger Transport Services	Currently 18% of the fleet are EV.
18	Localised solutions	Green Infrastructure	Complete	Enfield Council	Enfield's Blue & Green Strategy has been approved and is in place.
19	Localised solutions	Low Emission Neighbourhoods (LENs)	Ongoing	Journeys & Places	Currently there are two Quieter Neighbourhoods, the Fox Lane scheme and the Bowes scheme. Both schemes have now been made permanent.
20	Cleaner transport	Discouraging unnecessary idling by taxis and other vehicles through anti-idling campaigns or enforcement activity	Ongoing	Environmental Health	We are part of the latest London anti-idling campaign, which is focused on emissions from businesses.
21	Cleaner transport	Ensure that transport and air quality policies and projects are integrated	Ongoing	Journeys & Places Environmental Health	The link between air quality and transport policies has been established for many years in Enfield and this will continue to be the case going forward. This is achieved through regular meetings and joint working on projects such as school streets.
22	Cleaner transport	Regular Car Free Days	Ongoing		The Council support play streets which can be applied for usually on the basis of 1 day per month for a year, the council will cover the cost of 1 road closure per year linked to specific events (eg world car free day)

Measure	LLAQM Action Matrix Theme	Action	Estimated / Actual Completion Date	Organisations Involved	Progress <ul style="list-style-type: none"> • Emissions/Concentration data <ul style="list-style-type: none"> • Benefits • Negative impacts / Complaints
23	Cleaner transport	Installation of residential electric charge points	Ongoing	Traffic & Transportation	There are 241 public EV charging sockets in the borough
24	Cleaner transport	Installation of rapid chargers to help enable the take up of electric taxis, cabs and commercial vehicles	Ongoing	Traffic & Transportation	There are 34 rapid EV charging sockets in the borough
25	Cleaner transport	Provision of infrastructure to support walking and cycling	Ongoing	Journeys & Places Traffic & Transportation	The provision of cycling and walking infrastructure is ongoing. There are several large-scale plans which are dependent on funding being secured.
26	Localised solutions	Inspect authorised processes in line with the risk based approach	Ongoing	Environmental Health	100% of inspections due were completed
27	Localised solutions	Continued enforcement of the smoke nuisance provisions of the Environmental Protection Act 1990	Ongoing	Environmental Health	All complaints regarding smoke nuisance were investigated. There were 73 smoke nuisance complaints

3. Planning Update and Other New Sources of Emissions

Table K. Planning requirements met by planning applications in Enfield Council in 2024

Condition	Number <Please complete all fields in this column with the total numbers>
Number of planning applications where an air quality impact assessment was reviewed for air quality impacts	10
Number of planning applications required to undertake construction dust monitoring and reporting (Please specify how you get access to dust monitoring data i.e. online tool or CSV file)	<u>0</u>
Number of CHPs/Biomass boilers refused on air quality grounds	<u>0</u>
Number of CHPs/Biomass boilers subject to GLA emissions limits and/or other restrictions to reduce emissions as detailed in Air Quality Neutral LPG (london.gov.uk) point 3.1.5.	<u>0</u>
Number of developments required to install Ultra-Low NO _x boilers	<u>0</u>
Number of developments where an AQ Neutral building and/or transport assessments undertaken	<u>10</u>
Number of developments where the AQ Neutral building and/or transport assessments not meeting the benchmark and so required to include additional mitigation	<u>3</u>
Number of planning applications with S106 agreements including other requirements to improve air quality	<u>0</u>
Number of planning applications with CIL payments that include a contribution to improve air quality	<u>1</u>
<p>NRMM: Greater London (excluding Central Activity Zone, Canary Wharf and Opportunity Areas)</p> <p>Number of planning applications with conditions related to NRMM included.</p> <p>Number of developments registered at www.nrmm.london.</p> <p>Number of audits (based on the pan-London project report and / or inhouse auditing programme)% of sites unregistered prior to audit</p> <p>% of sites compliant with</p> <p>Stage IIIB of the Directive and/or exemptions to the policy.</p>	<p>122 conditions included</p> <p>8 registered</p> <p>10 audits</p> <p>20% sites unregistered prior to audit</p> <p>83% sites compliant after audit</p>

3.1 New or significantly changed industrial or other sources

No new sources

4. Additional Activities to Improve Air Quality

4.1 London Borough of Enfield Council Fleet

There are 52 zero emissions vehicles in the Council's fleet, this is also the number of zero emission ready vehicles, which is 18% of the council's fleet

4.2 Planning Enforcement

Planning Enforcement investigate alleged breaches of planning conditions, due to the sheer number of complaints the team investigates every year it is not possible for officers to check compliance at every site in the borough. Where the NRMM audits show non-compliance a planning enforcement investigation can be raised for an officer to visit. Breaches of planning control can be actioned with a Enforcement Notice served under the Town & Country Planning Act.

4.3 Pan-London NRMM Auditing Project

Enfield Council is continuing to support the NRMM Enforcement project in 2025-26.

Please provide details on the following:

- What is the standard wording you use for NRMM conditions on construction/demolition sites?
1. 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.
 2. Evidence that all plant and machinery to be used during the demolition and construction phases of the development shall meets Stage IV of EU Directive 97/68/ EC for both NOx and PM emissions shall be submitted to the Local Planning Authority.
 3. 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.

- Where is this wording applied?
Planning conditions when attached to decisions notices
- What sites is this condition applied to?
The condition is applied to all relevant planning applications.

4.4 Air Quality Alerts

Enfield Council is a member of the airTEXT consortium.

Appendix A Details of Monitoring Site Quality QA/QC

A.1 Automatic Monitoring Sites

All sites are calibrated every two weeks, LSO duties are performed in-house; audits take place every 6 months. The sites are audited by a contractor who is engaged by the London Air Quality Network. Any issues raised at audit are fixed during the routine servicing that follows, which is also on a six-monthly basis.

PM₁₀ Monitoring Adjustment

No PM₁₀ data for 2024.

A.2 Diffusion Tubes

- The laboratory supplying the diffusion tubes is Socotec.
- The preparation is 50% TEA:50% acetone.
- Socotec follows the procedures set out in the Harmonisation Practical Guidance.
- The precision results for 2024 were 30 good and 3 bad. The Air NO₂ PT determined that Socotec were deemed to be satisfactory.
- The correction factor applied for the tubes is 0.78 for 2024 (factor taken from the National Bias Adjustment spreadsheet, version 04/25).
- Enfield Council does not have a co-location study.

Discussion of Choice of Factor to Use

Table L. Bias Adjustment Factor

Year	Local or National	If National, Version of National Spreadsheet	Adjustment Factor
2024	National	04/25	0.78
2023	National	03/24	0.77
2022	National	03/23	0.76
2021	National	06/22	0.78
2020	National	-	0.75
2019	National	-	0.75
2018	National	-	0.77
2017	National	-	0.77

A.3 Adjustments to the Ratified Monitoring Data

Short-term to Long-term Data Adjustment

No data required annualization in 2024.

Distance Adjustment

Fall off with distance adjustment was applied to diffusion tubes Enfield 1A and Enfield 8A. The online tool was used to do this.

Table M. NO₂ Fall off With Distance Calculations

Site ID	Distance (m): Monitoring Site to Kerb	Distance (m): Receptor to Kerb	Monitored Concentration (Annualised and Bias Adjusted ($\mu\text{g m}^{-3}$))	Background Concentration ($\mu\text{g m}^{-3}$)	Concentration Predicted at Receptor ($\mu\text{g m}^{-3}$)	Comments
Enfield 1A	0.5	4.5	45.3	13.7	33	
Enfield 8A	1.0	10	39.1	18.8	29.7	

Appendix B Full Monthly Diffusion Tube Results for 2024

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

DT ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Jan	Feb	Mar	Apr	May	June	Jul	Aug	Sept	Oct	Nov	Dec	Annual Mean: Raw Data	Annual Mean: Bias Adjusted	Annual Mean: Distance Corrected to Nearest Exposure	Comment
Enfield 1A	532668	196555	65.7	68.9	55.9	47.8	59.1	61.8	59.9	56.6	59	71.2	46	44.7	58.1	45.3	33	
Enfield 2A	529753	194332	37.4	42.2	31.2	19.2	24.9	23.4	26.6	27.4	25.3	36.1	28.3	26.7	29.1	22.7		
Enfield 3A	531981	195305	26.6	21.7	18.8	16.1	14.7	13	14.2	13.4	20.7	22	24.2	20.9	18.9	14.7		
Enfield 4A	530966	192714	34.2	30.7	25.8		21.4	22.3	27.8	25.7	27.6	37.1	35.2	30.5	28.9	22.6		
Enfield 5A	534238	196314	43.9	40.5	32.7	30.3	37.7	33.2	33	33	39	35.8	37.5	31.5	35.7	27.8		
Enfield 6			16	13.1	10.9	9.4	7.9	6.8	5	8.8	7.7	12.7	14.9	14.1	10.6	8.3		
Enfield 7	535460	199849	28.8	22.3		7.6	24.9	22.7	23.5	19.7	29.6	33.8	12.7	23.9	22.7	17.7		
Enfield 8A	534195	192806	61.8	63.2	51.9	52.2	43	50.8	57.9	50.3	51.6	58.8	41.5	19.2	50.2	39.1	29.7	
Enfield 9A	529945	192118	25.3	24.9	13.5	16.8	17.3	15.3	16.4	15.2	20.7	26.6	30.2	22.9	20.4	15.9		
Enfield 10	530161	192032	32.4	33.1	22.9	34.4	24.7	20.3	22.4	22.2	22.7	36.2	29.3	26.2	27.2	21.2		
Enfield 11	530448	193845	28	28.3	18.8	15.3	15.5	14.5	15.6	15.2	19.3	34.3	32.2	25.3	21.9	17.0		
Enfield 12	530374	193289	15.1	22.9	15.6	13.8	11.2	9.6	9	12.6	12.1	22.2	17.7	15.4	14.8	11.5		
Enfield 13	533201	192083	28.4	30.6	23.6	28.2	21.6	22.6	19.1	21.9	21.8	34.2	31.4	22.6	25.5	19.9		
Enfield 14	533304	192130	35.4	31.8	21.4	29.3	21.9	18.2	16.9	21.6	16.6	29.5	21.1	28.1	24.3	19.0		
Enfield 15	533322	192044	29.9	30.8	20.5	23	20.3	15.5	17.1	17.9	24.1		33.5	25.8	23.5	18.3		
Enfield 16	533721	191945	29.9	31.1	17.7	25.9	18.6	18.8	16.9	20.4	24	28.3	31.3	19.6	23.5	18.4		
Enfield 17	533766	192178	37.2	31.9	23	27.1	24.6	20.5	20.3	19.3	30.2	32.7	14.4	31.2	26.0	20.3		
Enfield 18	532165	192954	35.9	35	21.8	16.8	18	18.4	20.9	16	21.7	34.7	29	24.5	24.4	19.0		
Enfield19	531878	192668	23.3	31.6	20	20.6	17	14.4	16.5	15.7	18.2	30.2	29.5	22.6	21.6	16.9		
Enfield 20	531173	192390	30.4	18.6	20.2	36.8	21.2	17.4	18.4	18.7	23.4	30.2	22	26	23.6	18.4		
Enfield 21	530968	192259	36.2	20.2	34.7	24	29.8	33.1	34.1	34.8	34.6	45.8	16.8	31	31.3	24.4		
Enfield 22	531260	193415	35.5	36.9	24	31.8	23.9	24.6	24.4	25.5	31.5	40.2	31.1	10	28.3	22.1		

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

- Annualisation has been conducted where data capture is <75% and >25% in line with LLAQM.TG19.
- Local bias adjustment factor used.
- National bias adjustment factor used.
- Where applicable, data has been distance corrected for relevant exposure in the final column.
- Enfield Council confirm that all 2024 diffusion tube data has been uploaded to the Diffusion Tube Data Entry System.

Notes:

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

NO₂ annual means exceeding 60µg m⁻³, indicating a potential exceedance of the NO₂ 1-hour mean objective are shown in **bold and underlined**.

See Appendix C for details on bias adjustment and annualisation.

Appendix C Map(s) of Monitoring Locations and AQMAs

Figure A. Map of Non-Automatic Monitoring Sites



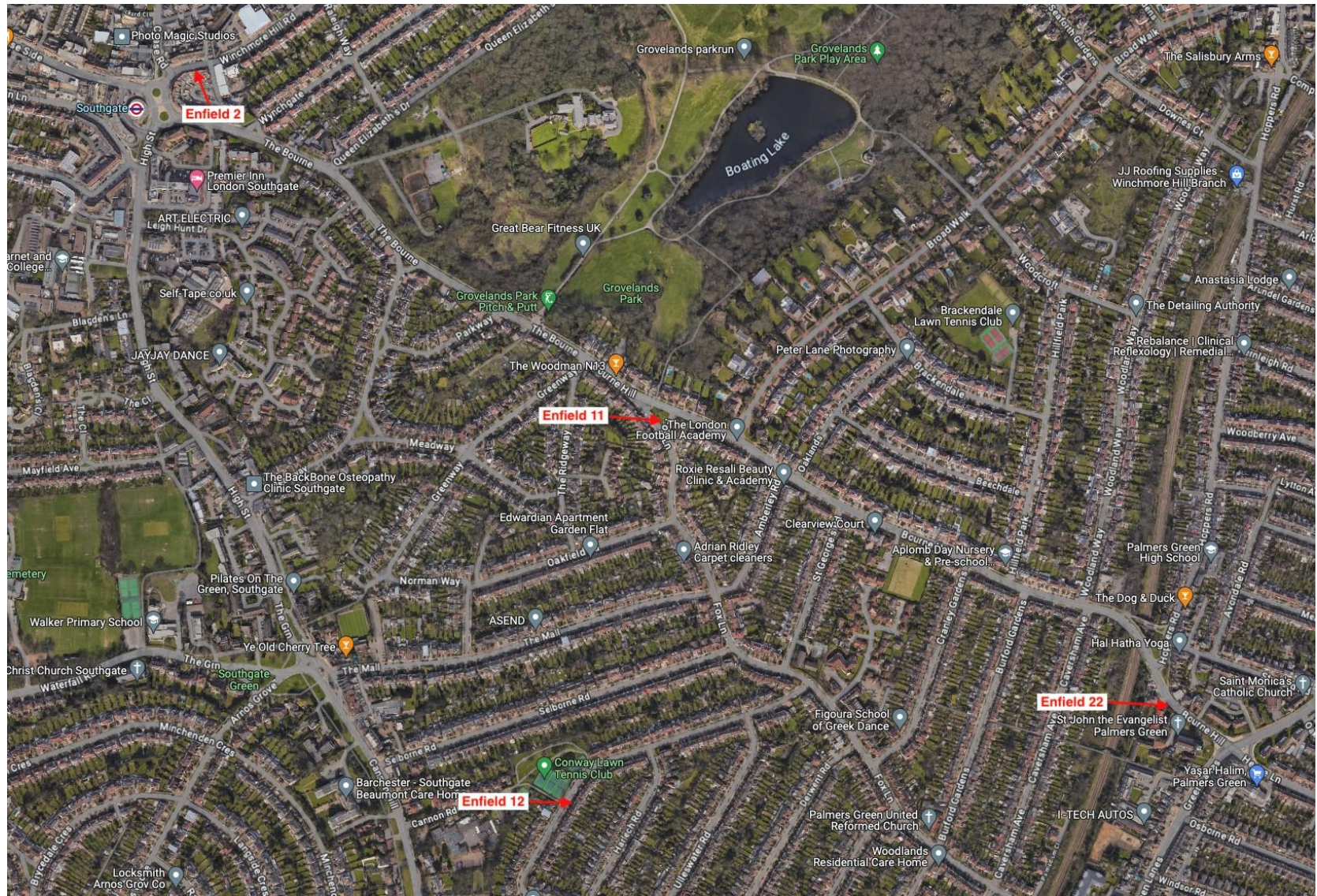














Figure B. Map of Automatic Monitoring Sites

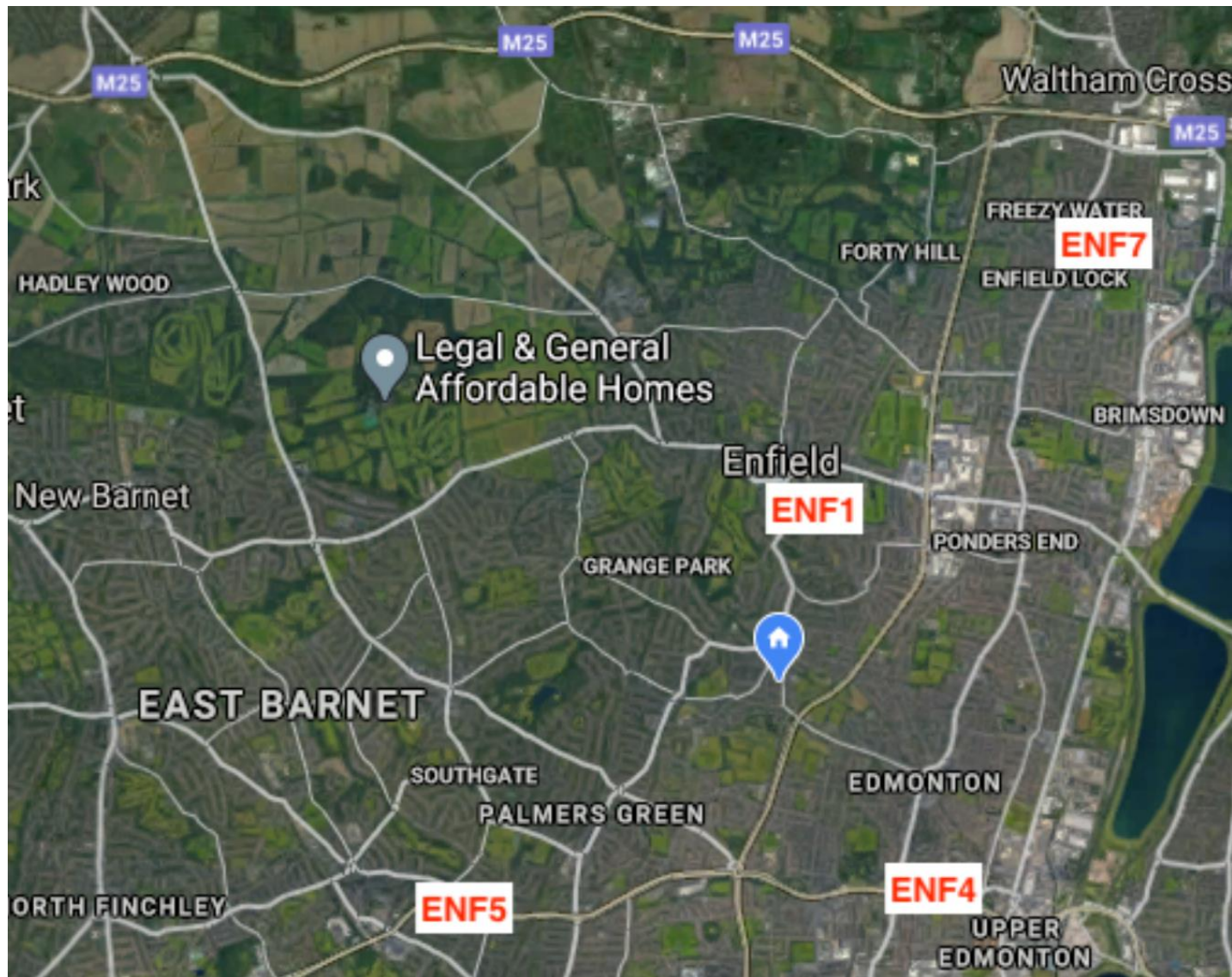


Figure C. AQMA Map: Whole Borough

