



2026 Air Quality Annual Status Report (ASR)

In fulfilment of Part IV of the Environment Act 1995
Local Air Quality Management, as amended by the
Environment Act 2021

June 2026

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Local Responsibilities and Commitment

This ASR was prepared by the Environmental Health Service of Epsom & Ewell Borough Council with the support and agreement of the Climate Change Officer.

This ASR has been approved by the Chair of the Council's Environment Committee.

Surrey County Council Public Health team is a member of the Surrey Air Alliance (SAA) and as a partner has worked closely with all District and Borough Council teams on the following air quality issues:

- Production of a new Joint Strategic Needs Assessment (JSNA) of air quality published in August 2025 at [Air Quality | Surrey-i](#). The majority of JSNA recommendations will be incorporated into the SAA workplan.
- Funding to expand the airTEXT service provided by Cambridge Environmental Research Consultants (CERC), to all District and Boroughs across Surrey for 2 years which is due to commence in May 2026. This will be supported by research into the reach of the airTEXT service to those with respiratory and cardiovascular conditions, and the impact on hospital admissions for acute episodes during poor air quality events.
- Supporting the national Clean Air Night campaign in January 2026 and the Clean Air Day campaign in June 2026 with social media messaging and articles in various publications for residents.
- Maintaining the Healthy Surrey air quality webpage with up-to-date information which is available at [Air Quality | Healthy Surrey](#).
- New for 2026 is producing quarterly reports on air quality work carried out by SAA for the Prevention and Wider Determinants of Health Delivery Board, which will help raise the profile to the Surrey Health and Wellbeing Board.

If you have any comments on this ASR please send them to the Council via its email address – contactus@epsom-ewell.gov.uk.

Executive Summary: Air Quality in Our Area

Epsom & Ewell in Surrey is one of the UK's smallest districts at only 34km², much of which is open green space, with a local population of 81,000, as per the 2021 Census. Bordered by Reigate & Banstead and Mole Valley, Greater London's Kingston upon Thames and Sutton districts and the borough is located within the M25. Historically Epsom is known for its horse racing, which continues today at Epsom Downs Racecourse. Today the towns of Epsom and Ewell and their surrounding areas are considered commuter belt, with direct train links to central London. Epsom being the last station traveling Southwest out of London, towards Guildford and Dorking, to be included in Transport for London's (TfL) Oyster Card scheme, as well as being part of several TfL bus routes. In August 2023 Greater London's Ultra Low Emission Zone (ULEZ) was expanded to follow Epsom & Ewell's Northern edge, bordering 8 of the 13 wards that make up the borough. The borough is predominantly residential with no large-scale manufacturing or agriculture. Because of this, locally, air pollution is predominantly associated with emissions from road transport and residential emissions.

Air Quality in Epsom and Ewell

Breathing in polluted air affects our health and costs the NHS and our society billions of pounds each year. Air pollution is recognised as a contributing factor in the onset of heart disease and cancer and can cause a range of health impacts, including effects on lung function, exacerbation of asthma, increases in hospital admissions and mortality.

Air pollution particularly affects the most vulnerable in society, children, the elderly, and those with existing heart and lung conditions. Low-income communities are also disproportionately impacted by poor air quality, exacerbating health and social inequalities.

Table ES 1 provides a brief explanation of the key pollutants relevant to Local Air Quality Management and the kind of activities they might arise from.

Table ES 1 - Description of Key Pollutants

Pollutant	Description
Nitrogen Dioxide (NO ₂)	Nitrogen dioxide is a gas which is generally emitted from high-temperature combustion processes such as road transport or energy generation.
Sulphur Dioxide (SO ₂)	Sulphur dioxide (SO ₂) is a corrosive gas which is predominantly produced from the combustion of coal or crude oil.
Particulate Matter (PM ₁₀ and PM _{2.5})	Particulate matter is everything in the air that is not a gas. Particles can come from natural sources such as pollen and sand, as well as human made sources such as smoke from fires, emissions from industry and dust from tyres and brakes. PM₁₀ refers to particles under 10 micrometres. Fine particulate matter or PM_{2.5} are particles under 2.5 micrometres.

Actions to Improve Air Quality

Whilst air quality has improved significantly in recent decades, there are some areas where local action is needed to protect people and the environment from the effects of air pollution.

Conclusions and Priorities

Owing to its suburban location, Epsom & Ewell Borough Council has historically focussed on nitrogen dioxide reduction arising mainly from road transport. Measured levels of NO₂ in the borough have been declining for a decade, with 2025 being the fourth successive non-covid affected year with no locations in which the annual objective for NO₂ was exceeded. This pattern is consistent with local and national trends which show a broad reduction in levels of this pollutant.

Based on data from 2022 – 2024 which demonstrated a sustained reduction in nitrogen dioxide levels, the Council revoked the Ewell High Street AQMA in early 2026. Consequently, it was important to closely observe concentrations in 2025 to ensure this was the correct course of action.

This will be the final Air Quality Annual Status Report authored by the Council since it is due to be abolished in April 2027. In view of this, DEFRA has agreed the Council need not create a new air quality strategy which is ordinarily been required where there are no current AQMAs in a Council area. The Council's air quality obligations will instead pass to East

Surrey Council from Spring 2027 who will be responsible for air quality management in its area including within the former Epsom & Ewell Borough Council boundaries.

How to get Involved

There are several volunteer action groups in the borough that the Council engage with to support wider improvement, such as Sustainable Epsom & Ewell, the Epsom & Ewell Cycling Action Group and the Epsom Common Association. Epsom & Ewell Borough Council regularly updates its climate change and air quality webpages showing all the actions the Council has taken and provides guidance and signposting for residents who want to take action themselves. The Council's full Climate Change Action Plan is also accessible through the Council website.

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1 Local Air Quality Management

This report provides an overview of air quality in Epsom and Ewell during 2025. It fulfils the requirements of Local Air Quality Management (LAQM) as set out in Part IV of the Environment Act (1995), as amended by the Environment Act (2021), and the relevant Policy and Technical Guidance documents.

The LAQM process places an obligation on all local authorities to regularly review and assess air quality in their areas, and to determine whether or not the air quality objectives are likely to be achieved. Where an exceedance is considered likely the local authority must declare an Air Quality Management Area (AQMA) and prepare an Air Quality Action Plan (AQAP) setting out the measures it intends to put in place in order to achieve and maintain the objectives and the dates by which each measure will be carried out. This Annual Status Report (ASR) is an annual requirement showing the strategies employed by Epsom & Ewell Borough Council to improve air quality and any progress that has been made.

The statutory air quality objectives applicable to LAQM in England are presented in Table E.1.

2 Actions 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 18 months. The AQAP should specify how air quality targets will be achieved and maintained, and provide dates by which measures will be carried out.

Epsom & Ewell Borough Council currently does not have any declared AQMAs. With agreement from DEFRA a local Air Quality Strategy is not being proposed in view of the limited time remaining to Epsom & Ewell Borough Council to prepare, consult, adopt and prosecute such a strategy. Instead, consideration of a strategy local to the Epsom and Ewell area or across the wider east Surrey area will be made in due course by the new East Surrey Council.

Table 2.1 – Declared Air Quality Management Areas

Having revoked the previous Ewell High Street Air Quality Management area in early 2026, the Council has no current AQMAs.

Epsom & Ewell Borough Council confirm the information on UK-Air regarding their AQMA(s) is up to date.

2.2 Progress and Impact of Measures to address Air Quality in Epsom and Ewell

Defra's appraisal of last year's ASR concluded it was correct to revoke the Ewell High Street AQMA (a step the Council completed in January 2026), and commended the way the Council had presented detailed analysis of trends in concentrations to support the decision. Positive comments were received around the narrative the Council had promoted regarding the fraction of mortality attributable to PM_{2.5} and that the Council had adhered to the national diffusion tube deployment calendar.

However the Council had not clearly set out the top three key measures that they would like to raise awareness of amongst local communities in accordance with Defra's FAQ 146 and to remedy this in this report, these measures are set out in table 2.2.

In view of Local Government Reorganisation (LGR) taking place in Surrey resulting in the abolition of Epsom & Ewell Borough Council in spring 2027, the Council does not expect to adopt any additional further measures to be completed over the course of the next reporting year. Instead, the focus will be on rounding out the existing measures and ensuring the 25 year unbroken monitoring results are maintained.

In 2025 Epsom & Ewell Borough Council worked with the Surrey Air Alliance to implement measures in partnership. The Surrey Air Alliance is a strategic grouping of all Surrey based district and borough Councils plus Surrey County Council in its capacity as local highways authority, public health and trading standards functions and National Highways. Through this forum, more regional and coordinated measures can be delivered to reflect the fact that pollution is not confined to one or more council areas. In particular the following measures were delivered:

- Support to [Clean Air Day](#) and [Clean Air Night](#) run by Global Action Plan
- Administration of a historic DEFRA grant issued to Surrey Local Authorities for Air Quality work
- Development of an [AirText](#) Service covering all of the County.
- Contribution to the revision to the air quality chapter of the [Joint Strategic Needs Assessment for air quality](#)

Table 2.2 – Progress on Measures to Improve Air Quality

In 2026 the Council revoked its AQMA and retired the historic air quality action plan associated with this. With agreement from DEFRA, the Council, with limited time remaining before abolition, will not be formulating an air quality strategy from which actions in the following table would ordinarily be drawn. This means there are no specific cost evaluated measures identified for air quality alone. Instead, in the table below appears measures identified in the separate but linked Climate Change Action Plan which have an impact on air quality.

Measure No.	Measure Title	Category	Classification	Year Measure Introduced in AQAP	Estimated / Actual Completion Date	Organisations Involved	Funding Source	Funding Status	Estimated Cost of Measure	Measure Status	Reduction in Pollutant / Emission from Measure	Key Performance Indicator	Progress to Date	Comments / Barriers to Implementation
Priority Air Quality Actions														
1	Identify & implement opportunities to reduce energy consumption from Council owned & operated buildings	Promoting Low Emission Plant	Other Policy	-	Ongoing	Epsom & Ewell Borough Council	Capital reserves	Partially Funded	£1 million	Implementing	Reduction in building energy usage and carbon footprint	Measures Installed	See Climate Change Epsom and Ewell Borough Council	Programme being delivered as part of Council's Climate Change Action Plan
2	Work with Surrey County Council to facilitate on-street residential electric vehicle charge points where there is no scope for off-street charging	Promoting low emission transport	Procuring alternative Refuelling infrastructure to promote Low Emission Vehicles, EV recharging, Gas fuel recharging	-	2028	Epsom & Ewell Borough Council, Surrey County Council, East Surrey Council (from 1/4/27)	Private finance initiative	Funded	£60 million (county wide)	Implementing	Reduction in transport related emissions	Number of charge points installed	See Climate Change Epsom and Ewell Borough Council	Programme being delivered as part of Council's Climate Change Action Plan
3	Promote and provide practical support for residents to access energy efficiency/fuel poverty grant schemes	Public information	Via the Internet	-	Ongoing	Epsom & Ewell Borough Council, Action Surrey (to June 2025), Surrey County Council (from June 2025), East Surrey Council (from April 2027)	Various	Part funded	Zero	Implementing	Products of combustion from domestic heating systems such as particulates and nitrogen dioxide	Number of measures installed	See Climate Change Epsom and Ewell Borough Council	Programme being delivered as part of Council's Climate Change Action Plan

2.3 PM_{2.5} – Local Authority Approach to Reducing Emissions and/or Concentrations

As detailed in Policy Guidance LAQM.PG22 (Chapter 8) and the Air Quality Strategy¹, local authorities are expected to work towards reducing emissions and/or concentrations of fine particulate matter (PM_{2.5}). There is clear evidence that PM_{2.5} (particulate matter smaller 2.5 micrometres) has a significant impact on human health, including premature mortality, allergic reactions, and cardiovascular diseases.

Epsom & Ewell Borough Council considers that the regional issue of particulate exposure is considerably more difficult for an individual local authority than the problem of roadside emissions of NO₂. This is reflected in the approach which places targets not on local government but on the national administration. Nevertheless, the Council recognises it has a role to play in limiting emissions of, and exposure to, fine particulates. Those measures identified in its completed action plan for the Ewell High Street AQMA and those more recent actions in respect of air quality, carbon reduction and energy efficiency contribute to particulate reduction locally, regionally and nationally.

Nationally derived background concentrations for the Epsom & Ewell Area² indicate that 5.8 percent of deaths per year are attributable to particulate air pollution compared with an England average of 5.3, both as at year 2024. This would indicate that there is a position whereby a fraction of mortality within the Epsom & Ewell area is being contributed to by particulate emissions and is reflected on the modelled background levels of 7.7 µg/m³ compared with an England average of 7.1 µg/m³. Although this is within the national objective of 10 µg/m³, the council recognises:

- the scientific evidence that there is no safe level and that the World Health Organisation's recommended maximum exposure is 5 µg/m³.
- The modelled levels outlined above are drawn from an averaged methodology and cannot resolve any very local hotspots, for example domestic solid fuel burning, nor seasonal variations.

¹ Defra. Air Quality Strategy – Framework for Local Authority Delivery, August 2023

² [Fingertips | Department of Health and Social Care](#)

3 Air Quality Monitoring Data and Comparison with Air Quality Objectives and National Compliance

This section sets out the monitoring undertaken within 2025 by Epsom & Ewell Borough Council and how it compares with the relevant air quality objectives. In addition, monitoring results are presented for a five-year period between 2021 and 2025 to allow monitoring trends to be identified and discussed.

3.1 Summary of Monitoring Undertaken

3.1.1 Automatic Monitoring Sites

Epsom & Ewell Borough Council does not operate any automatic monitoring sites.

3.1.2 Non-Automatic Monitoring Sites

Epsom & Ewell Borough Council undertook non- automatic (i.e. passive) monitoring of NO₂ at 25 sites during 2025.

Table A.2 in Appendix A presents the details of the non-automatic sites. This monitoring was in the same locations as 2024 which in turn were based on the previous years. In some locations the Council can demonstrate unbroken records dating back to 1999.

Maps showing the location of the monitoring sites are provided in Appendix D. Further details on Quality Assurance/Quality Control (QA/QC) for the diffusion tubes, including bias adjustments and any other adjustments applied (e.g. annualisation and/or distance correction), are included in Appendix C.

3.2 Individual Pollutants

The air quality monitoring results presented in this section are, where relevant, adjusted for bias, annualisation (where the annual mean data capture is below 75% and greater than 25%), and distance correction. Further details on adjustments are provided in Appendix C.

3.2.1 Nitrogen Dioxide (NO₂)

Table A.3 and Table A.4 in Appendix A compare the ratified and adjusted monitored NO₂ annual mean concentrations for the past five years with the air quality objective of 40µg/m³. Note that the concentration data presented represents the concentration at the location of the monitoring site, following the application of bias adjustment and annualisation, as required (i.e. the values are exclusive of any consideration to fall-off with distance adjustment).

For diffusion tubes, the full 2025 dataset of monthly mean values is provided in Appendix B. Note that the concentration data presented in Table B.1 does not include distance corrected values since none approached the national objective.

There were no locations in which the national objectives were exceeded including inside of the former Ewell High Street Air Quality Management Area supporting the decision to revoke the status. Of note in the 2025 dataset was the number of missing or compromised diffusion tubes where, for example, the tube was inaccessible, missing or tampered with. This has led to a greater need to annualise data in this case for 10 sites, compared to 2024 data where it was for just 3.

Across all sites, concentrations of Nitrogen dioxide were in line with 2024 data and taken as an average across the entire dataset appear slightly lower. Although the methodology prevents drawing strong conclusions about an actual decline in concentrations over a 12

month period, they were no greater than the previous year and continue to follow a downward trend that may be flattening compared to earlier in the decade, but which is still significantly below the levels recorded in the 2000s and 2010s.

3.2.2 Particulate Matter (PM₁₀)

The Council did not undertake any monitoring for PM₁₀ in the monitoring year.

3.2.3 Particulate Matter (PM_{2.5})

The Council did not undertake any monitoring for PM_{2.5} in the monitoring year.

3.2.4 Sulphur Dioxide (SO₂)

The Council did not undertake any monitoring for SO₂ in the monitoring year.

Appendix A: Monitoring Results

Table A.1 – Details of Automatic Monitoring Sites

The Council does not operate any automatic monitoring sites.

Table A.2 – Details of Non-Automatic Monitoring Sites

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)
EE1	The Clock tower-Roadside	Roadside	520732	160762	NO2	No	13.0	2.5	No	2.1
EE3	26 The Crescent-Background	Urban Background	519293	160026	NO2	No	9.0	2.0	No	2.0
EE6	Jct Kingston Rd/ Worcester Park Rd-Kerbside	Kerbside	520525	165040	NO2	No	8.2	6.8	No	2.1
EE7	Jct Ruxley Lane/Kingston Rd-Kerbside	Kerbside	520916	164636	NO2	No	4.2	6.8	No	2.3
EE9	Chessington Road, Ewell	Roadside	519830	163740	NO2	No	2.4	3.2	No	2.4
EE10	High Street, Ewell - kerbside	Kerbside	521998	162633	NO2	No	0.5	1.3	No	2.1
EE14	Hook Road Epsom-roadside	Roadside	520885	161308	NO2	No	3.4	1.6	No	2.0
EE16	Church Street/High Street Ewell	Roadside	522026	162624	NO2	No	0.1	1.1	No	1.7
EE17	40A High Street Ewell	Roadside	522025	162563	NO2	No	0.1	2.0	No	2.2
EE22	High Street, Epsom - roadside	Roadside	520965	160871	NO2	No	3.0	0.5	No	2.3

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)
EE36	Capitol Square, Church Street	Urban Centre	521069	160817	NO2	No	0.2	9.2	No	2.1
EE37	British Heart Foundation, High Street	Roadside	520726	160857	NO2	No	0.6	4.5	No	2.4
EE38	Station approach south	Roadside	520726	160857	NO2	No	0.1	2.8	No	1.8
EE39	The Parade	Roadside	520844	160729	NO2	No	0.2	3.3	No	2.1
EE42	High Street/East Street	Roadside	521004	160901	NO2	No	0.0	7.7	No	2.1
EE43	Kiln Lane	Roadside	521478	161447	NO2	No	0.3	5.5	No	2.3
EE45	Castle Parade	Roadside	522211	163103	NO2	No	0.4	8.3	No	2.1
EE46	Waterloo Road	Kerbside	520724	161027	NO2	No	4.6	0.6	No	2.1
EE47	Chessington Road	Roadside	520713	162968	NO2	No	0.2	4.7	No	1.9
EE48	Ewell High Street South	Roadside	522022	162502	NO2	No	0.4	1.7	No	2.1
EE49	37 South Street, Epsom	Roadside	520580	160586	NO2	No	0.2	3.5	No	2.2
EE50	Major Plaice Ewell High Street	Kerbside	521975	162677	NO2	No	7.5	0.9	No	2.1
EE51	Station approach north	Roadside	520702	160872	NO2	No	3.0	3.3	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)
EE52	77 London Road, Ewell	Roadside	522303	163213	NO2	No	0.5	4.6	No	1.8
EE53	115 London Road, Ewell	Roadside	522369	163289	NO2	No	0.0	14.5	No	1.8

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 A.3 – Annual Mean NO₂ Monitoring Results: Automatic Monitoring (µg/m³)

The Council does not carry out automatic monitoring.

Table A.4 – 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 2025 (%) ⁽²⁾	2021	2022	2023	2024	2025
EE1	520732	160762	Roadside	100.0	55.8	22.2	24.1	19.5	18.2	17.7
EE3	519293	160026	Urban Background	100.0	92.3	13.6	14.0	11.2	10.7	11.7
EE6	520525	165040	Kerbside	100.0	67.3	27.6	28.4	20.4	19.4	18.4
EE7	520916	164636	Kerbside	100.0	92.3	29.7	29.7	22.1	19.3	19.7
EE9	519830	163740	Roadside	100.0	42.3	21.2	22.2	17.4	16.1	14.4
EE10	521998	162633	Kerbside	100.0	65.4	32.3	34.9	26.5	26.1	22.4
EE14	520885	161308	Roadside	100.0	92.3	21.5	21.9	17.4	15.1	17.5
EE16	522026	162624	Roadside	100.0	75.0	22.6	23.8	17.9	16.7	16.5
EE17	522025	162563	Roadside	100.0	57.7	26.3	25.7	20.7	18.2	19.5
EE22	520965	160871	Roadside	100.0	75.0	31.5	26.6	24.0	22.5	23.2
EE36	521069	160817	Urban Centre	100.0	100.0	20.6	20.6	17.0	16.3	2.5

Diffusion Tube ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Site Type	Valid Data Capture for Monitoring Period (%) ⁽¹⁾	Valid Data Capture 2025 (%) ⁽²⁾	2021	2022	2023	2024	2025
EE37	520726	160857	Roadside	100.0	92.3	26.5	28.2	21.9	19.7	15.2
EE38	520726	160857	Roadside	100.0	63.5	17.8	20.0	15.6	15.2	19.2
EE39	520844	160729	Roadside	100.0	51.9	23.0	24.3	19.3	17.7	14.8
EE42	521004	160901	Roadside	100.0	90.4	19.4	19.1	18.5	15.9	17.9
EE43	521478	161447	Roadside	100.0	67.3	22.6	23.2	19.3	15.4	15.9
EE45	522211	163103	Roadside	100.0	100.0	19.0	21.2	15.7	14.6	16.8
EE46	520724	161027	Kerbside	100.0	57.7	22.5	22.2	19.8	17.0	15.9
EE47	520713	162968	Roadside	100.0	100.0	21.2	21.9	17.9	16.7	16.6
EE48	522022	162502	Roadside	100.0	100.0	23.5	24.4	22.2	16.8	16.7
EE49	520580	160586	Roadside	100.0	100.0	28.6	30.9	25.0	22.1	15.8
EE50	521975	162677	Kerbside	100.0	100.0	31.1	32.1	25.3	21.1	21.7
EE51	520702	160872	Roadside	100.0	100.0	23.2	25.6	19.6	16.8	21.9
EE52	522303	163213	Roadside	100.0	90.4	34.3	32.1	27.5	23.2	18.2

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 2025 (%) ⁽²⁾	2021	2022	2023	2024	2025
EE53	522369	163289	Roadside	100.0	67.3	18.2	18.4	15.1	15.7	22.6

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

☒ 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 $\mu\text{g}/\text{m}^3$.

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

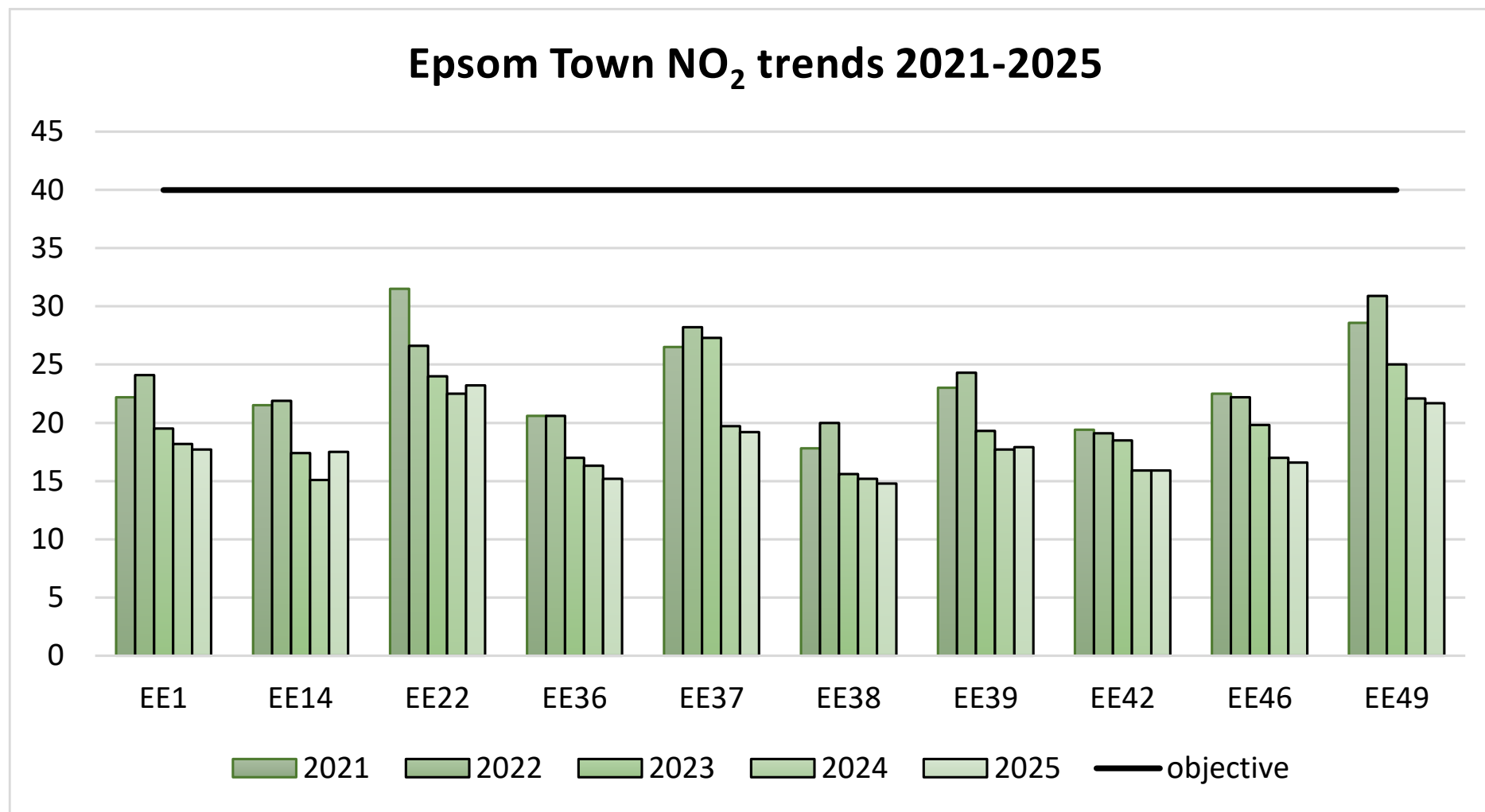
NO₂ annual means exceeding $60\mu\text{g}/\text{m}^3$, indicating a potential exceedance of the NO₂ 1-hour mean objective are shown in **bold and underlined**.

Means for diffusion tubes have been corrected for bias. All means have been “annualised” as per LAQM.TG22 if valid data capture for the full calendar year is less than 75%. See Appendix C for details.

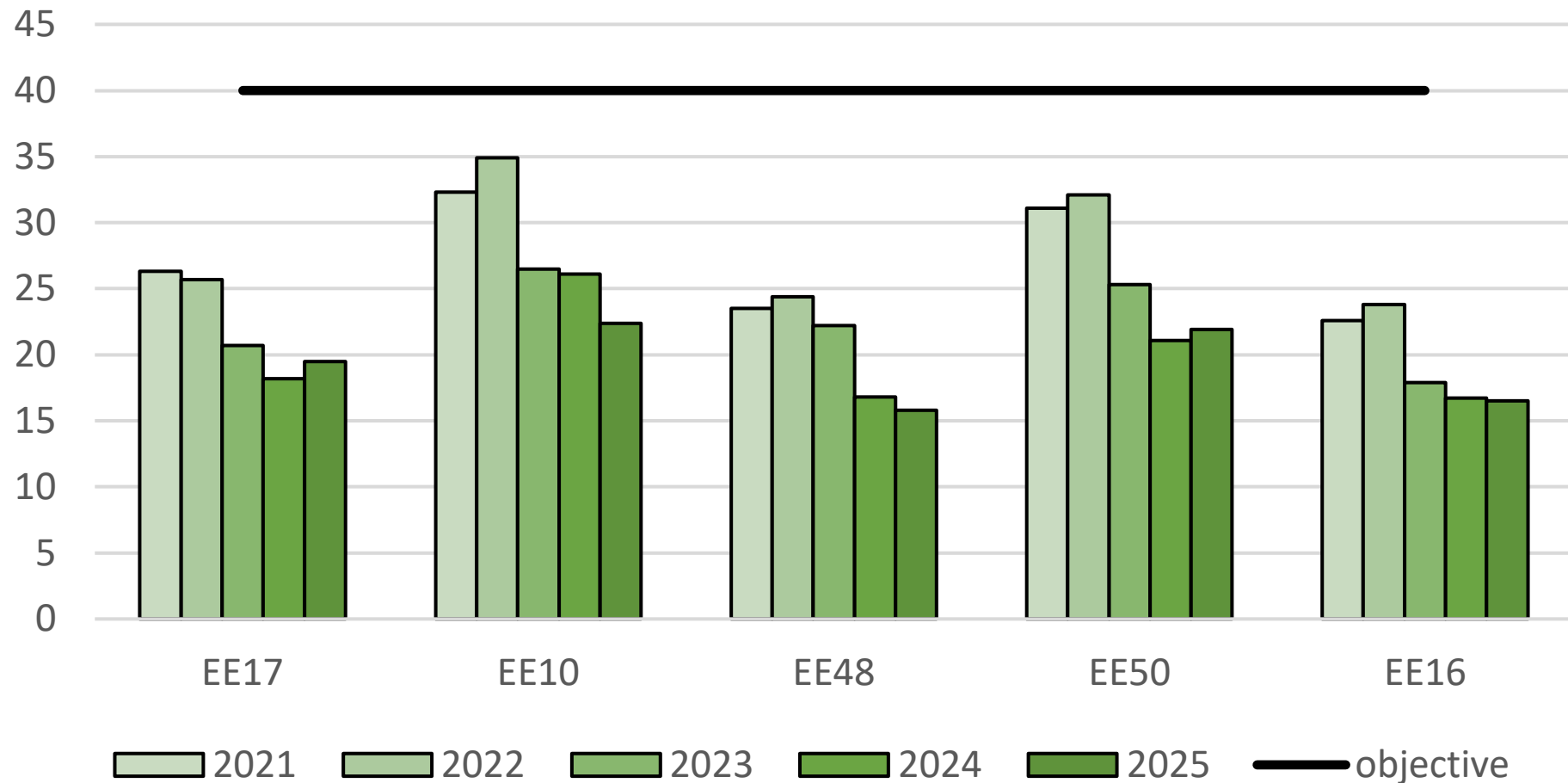
Concentrations are those at the location of monitoring and not those following any fall-off with distance adjustment.

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

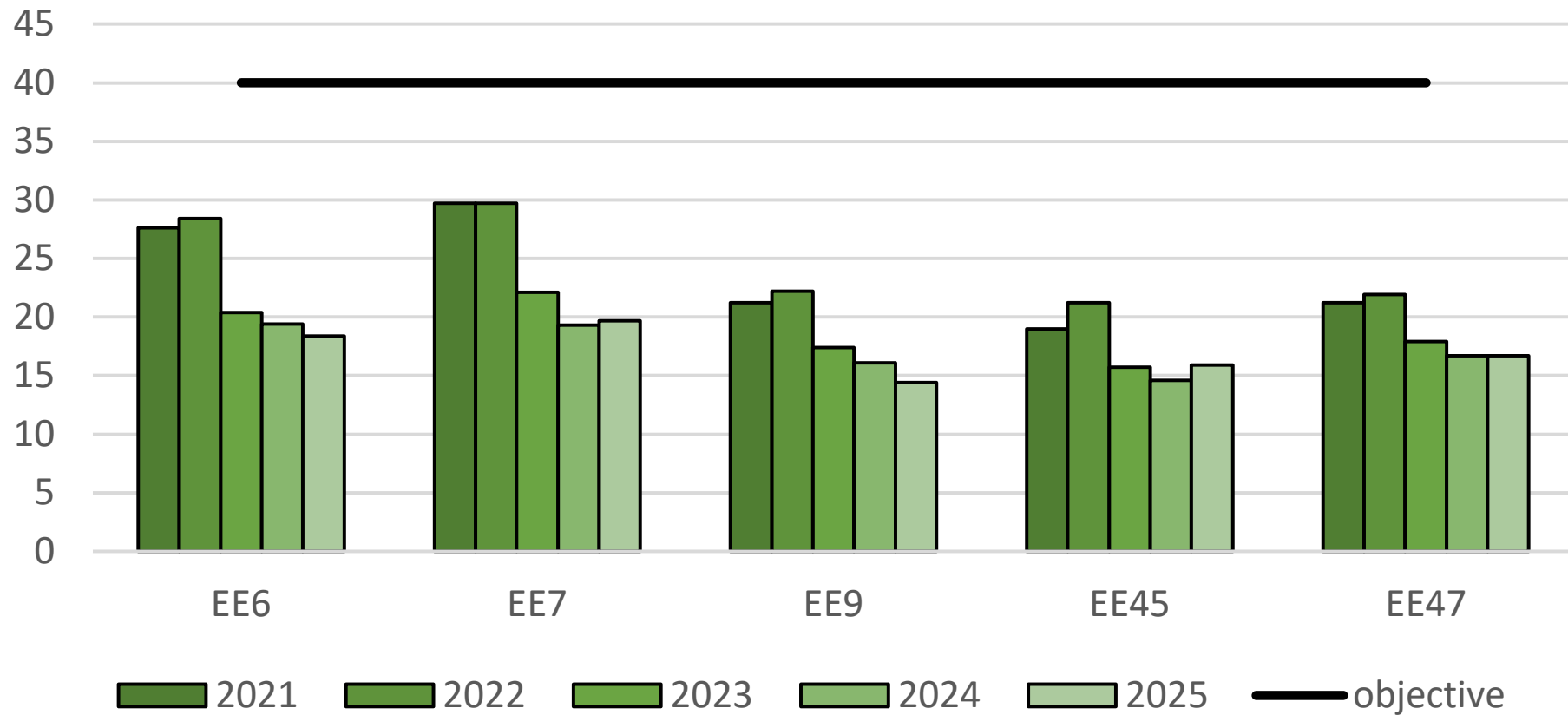
(2) Data capture for the full calendar year (e.g. if monitoring was carried out for 6 months, the maximum data capture for the full calendar year is 50%).

Figure A.1 – Trends in Annual Mean NO₂ Concentrations

Ewell Village NO₂ trends 2021-2025



West Ewell, Stoneleigh and surrounding areas NO₂ trends 2021-2025



Appendix B: Full Monthly Diffusion Tube Results for 2025

Table B.1 – NO₂ 2025 Diffusion Tube Results (µg/m³)

DT ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual Mean: Raw Data	Annual Mean: Annualised and Bias Adjusted (0.85)	Annual Mean: Distance Corrected to Nearest Exposure	Comment
EE1	520732	160762	29.0	32.0	32.0					14.0	16.4	17.1	22.5		23.3	17.7	-	
EE3	519293	160026	19.0	18.0	21.0	13.7	9.9	10.1	9.1		10.0	12.9	14.9	12.9	13.8	11.7	-	
EE6	520525	165040	32.0	28.0	34.0	24.4	18.4	16.5				16.5		19.0	23.6	18.4	-	
EE7	520916	164636	32.0	28.0	30.0	24.6	21.2	20.4	17.4	14.9		23.1	24.4	19.3	23.2	19.7	-	
EE9	519830	163740	24.0	24.0					15.0	11.4		14.9			17.9	14.4	-	
EE10	521998	162633	39.0	36.0	36.0		22.7		20.3	15.5	23.1		27.1		27.5	22.4	-	
EE14	520885	161308	29.0	29.0	33.0	21.5	15.7		14.4	13.6	16.1	20.0	18.6	15.9	20.6	17.5	-	
EE16	522026	162624	30.0		31.0	19.3	13.9	16.4	11.6	12.9			22.6	16.8	19.4	16.5	-	
EE17	522025	162563		23.0	33.0	23.3		27.2	16.5				25.5	19.0	23.9	19.5	-	
EE22	520965	160871	35.0	33.0	35.0	31.6	25.2	27.0		16.9		24.1		17.9	27.3	23.2	-	
EE36	521069	160817	3.0	4.0	4.0	4.0	2.6	4.8	1.7	1.5	2.7	3.7	2.1	1.6	3.0	2.5	-	
EE37	520726	160857	28.0	22.0	27.0	19.6	15.2		14.0	12.3	13.5	15.9	15.6	13.1	17.8	15.2	-	
EE38	520726	160857	30.0	31.0	28.0	26.0		21.8	18.0		20.1		23.2		24.8	19.2	-	
EE39	520844	160729	27.0				14.8	13.8			12.2	15.9		16.6	16.7	14.8	-	
EE42	521004	160901	26.0	27.0	30.0	26.0	19.7	19.9	12.8	14.0	15.4	18.1	22.4		21.0	17.9	-	
EE43	521478	161447	15.0	23.0	25.0		25.1	19.2	16.9				20.5	16.2	20.1	15.9	-	
EE45	522211	163103	28.0	24.0	28.0	22.0	16.0	15.4	15.3	13.2	15.1	17.0	24.3	18.8	19.8	16.8	-	

EE46	520724	161027	24.0	19.0	28.0	22.8		15.7	12.3					26.4	21.2	15.9	-	
EE47	520713	162968	28.0	31.0	33.0	18.7	16.1	15.4	11.8	13.4	16.0	19.3	16.7	14.4	19.5	16.6	-	
EE48	522022	162502	27.0	26.0	31.0	22.0	13.7	14.9	20.5	14.7	13.9	19.2	17.8	15.2	19.7	16.7	-	
EE49	520580	160586	28.0	23.0	26.0	20.3	15.7	15.5	12.6	12.0	16.2	16.6	22.2	14.5	18.6	15.8	-	
EE50	521975	162677	31.0	33.0	35.0	31.6	23.9	23.1	17.3	18.6	19.2	24.4	27.6	21.2	25.5	21.7	-	
EE51	520702	160872	38.0	29.0	33.0	29.3	21.4	25.4	20.7	22.3	20.1	25.0	26.0	19.0	25.8	21.9	-	
EE52	522303	163213	25.0	31.0	30.0	27.1		22.1	18.7	14.0	13.9	17.8	20.8	14.8	21.4	18.2	-	
EE53	522369	163289	35.0	27.0	37.0	30.0	29.8	26.5				28.2		19.0	29.1	22.6	-	

☒ All erroneous data has been removed from the NO₂ diffusion tube dataset presented in Table B.1

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

☒ National bias adjustment factor used

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

☒ Epsom & Ewell Borough Council confirm that all 2025 diffusion tube data has been uploaded to the Diffusion Tube Data Entry System

Notes:

Exceedances of the NO₂ annual mean objective of 40µg/m³ are shown in **bold**.

NO₂ annual means exceeding 60µg/m³, 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: Supporting Technical Information / Air Quality Monitoring Data QA/QC

New or Changed Sources Identified Within Epsom and Ewell During 2025

Epsom & Ewell Borough Council has not identified any new or substantially changed sources relating to air quality within the reporting year of 2025.

Additional Air Quality Works Undertaken by Epsom & Ewell Borough Council During 2025

Epsom & Ewell Borough Council has not completed any additional works within the reporting year of 2024.

QA/QC of Diffusion Tube Monitoring

Epsom & Ewell Borough Council utilises diffusion tubes supplied and analysed by Lambeth Scientific Services, who use a 50% TEA in acetone method of preparation, following procedures in accordance with the Practical Guidance Documents.

The analysing laboratory participates in the AIR NO₂ Proficiency Testing Scheme for diffusion tubes with provides Quality Assurance / Quality Control (QA/QC). During the measurement period it scored between 50% and 100% (mode=100%) in AIR testing representing a reasonable performance.

Diffusion tube monitoring was completed in compliance with the 2025 Diffusion Tube Monitoring Calendar.

Diffusion Tube Annualisation

Table C.1 – Annualisation Summary (concentrations presented in $\mu\text{g}/\text{m}^3$)

Site ID	Annualisati on Factor Brighton Preston Park	Annualisati on Factor Westminste r	Annualisati on Factor Hillingdon	Annualisati on Factor None	Average Annualisati on Factor	Raw Data Annual Mean	Annualised Annual Mean
EE1	0.9129	0.8717	0.8932	-	0.8926	23.3	20.8
EE6	0.9012	0.8942	0.9545	-	0.9166	23.6	21.6
EE9	0.9443	0.9423	0.9577	-	0.9481	17.9	16.9
EE10	0.9337	0.9519	0.9889	-	0.9581	27.5	26.3
EE17	0.9308	0.9574	0.9864	-	0.9582	23.9	22.9
EE38	0.8891	0.9072	0.9343	-	0.9102	24.8	22.5
EE39	1.0711	1.0386	1.0063	-	1.0386	16.7	17.4
EE43	0.8942	0.9167	0.9791	-	0.9300	20.1	18.7
EE46	0.8562	0.8682	0.9311	-	0.8852	21.2	18.7
EE53	0.9012	0.8942	0.9545	-	0.9166	29.1	26.6

Diffusion Tube Bias Adjustment Factors

The diffusion tube data presented within the 2025 ASR have been corrected for bias using an adjustment factor. Bias represents the overall tendency of the diffusion tubes to under or over-read relative to the reference chemiluminescence analyser. LAQM.TG22 provides guidance with regard to the application of a bias adjustment factor to correct diffusion tube monitoring. Triplicate co-location studies can be used to determine a local bias factor based on the comparison of diffusion tube results with data taken from NO_x/NO_2 continuous analysers. Alternatively, the national database of diffusion tube co-location surveys provides bias factors for the relevant laboratory and preparation method.

Epsom & Ewell Borough Council have applied a national bias adjustment factor of 0.85 to the 2025 monitoring data. A summary of bias adjustment factors used by Epsom & Ewell Borough Council over the past five years is presented in Table C.2.

Table C.2 – Bias Adjustment Factor

Monitoring Year	Local or National	If National, Version of National Spreadsheet	Adjustment Factor
2025	National	03/26	0.85
2024	National	03/25	0.81
2023	National	06/24	0.8
2022	National	03/23	0.94
2021	County	-	0.97

National Diffusion Tube Bias Adjustment Factor Spreadsheet							Spreadsheet Version Number: 03/26			
Follow the steps below in the correct order to show the results of relevant co-location studies							This spreadsheet will be updated at the end of June 2026			
Data only apply to tubes exposed monthly and are not suitable for correcting individual short-term monitoring periods							LAQM Helpdesk Website			
Whenever presenting adjusted data, you should state the adjustment factor used and the version of the spreadsheet										
This spreadsheet will be updated every few months; the factors may therefore be subject to change. This should not discourage their immediate use.										
The LAQM Helpdesk is operated on behalf of Defra and the Devolved Administrations by Bureau Veritas, in conjunction with contract partners AECOM and the National Physical Laboratory.					Spreadsheet maintained by the National Physical Laboratory. Original compiled by Air Quality Consultants Ltd.					
Step 1:		Step 2:	Step 3:	Step 4:						
Select the Laboratory that Analyses Your Tubes from the Drop-Down List		Select a Preparation Method from the Drop-Down List	Select a Year from the Drop-Down List	Where there is only one study for a chosen combination, you should use the adjustment factor shown with caution. Where there is more than one study, use the overall factor ² shown in blue at the foot of the final column.						
If a laboratory is not shown, we have no data for this laboratory.		If a preparation method is not shown, we have no data for this method at this laboratory.	If a year is not shown, we have no data ²	If you have your own co-location study then see footnote ⁴ . If uncertain what to do then contact the Local Air Quality Management Helpdesk at LAQMhelpdesk@bureauveritas.com or 0800 0327953						
Analysed By ¹	Method	Year	Site Type	Local Authority	Length of Study (months)	Diffusion Tube Mean Conc. (Dm) (µg/m ³)	Automatic Monitor Mean Conc. (Cm) (µg/m ³)	Bias (B)	Tube Precision ³	Bias Adjustment Factor (A) (Cm/Dm)
Lambeth Scientific Services	50% TEA in acetone	2025	KS	Marleybone Road Intercomparison	12	39	31	23.6%	G	0.81
Lambeth Scientific Services	50% TEA in acetone	2025	UB	Spelthorne Borough Council	12	23	21	12.1%	G	0.89
Lambeth Scientific Services	50% TEA in acetone	2025		Overall Factor ² (2 studies)				Use	0.85	

Notes:

A single local bias adjustment factor has been used to bias adjust the 2025 diffusion tube results.

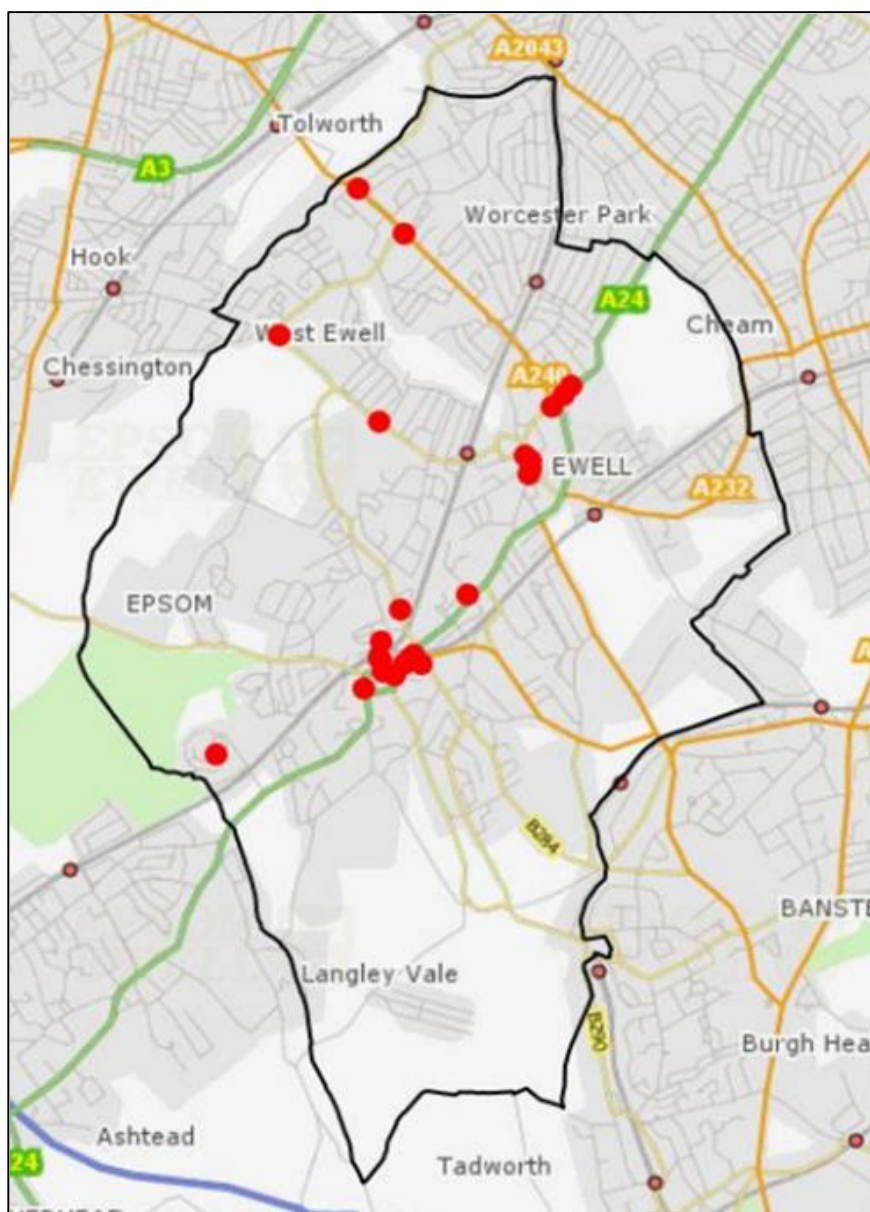
NO₂ Fall-off with Distance from the Road

Wherever possible, monitoring locations are representative of exposure. However, where this is not possible, the NO₂ concentration at the nearest location relevant for exposure has been estimated using the Diffusion Tube Data Processing Tool/NO₂ fall-off with distance calculator available on the LAQM Support website. Where appropriate, non-automatic annual mean NO₂ concentrations corrected for distance are presented in Table B.1.

No diffusion tube NO₂ monitoring locations within Epsom and Ewell required distance correction during 2025.

Appendix D: Map(s) of Monitoring Locations and AQMAs

Figure D.1 – Maps of Non-Automatic Monitoring Sites



Locations of non-automatic monitoring sites within the previous Ewell High Street Air Quality Management Area.



Locations of non-automatic monitoring sites outside of the previous Ewell High Street Air Quality Management Area.

	EE1 High Street, Epsom		EE3 The Crescent, Epsom
	EE6 Kingston Road, Worcester Park		EE7 Kingston Road, Ewell

	EE9 Chessington Road, Ewell		EE10 High Street, Ewell
	EE14 Hook Road, Epsom		EE16 Church Street, Epsom
	EE17 Junction High Street and Cheam Road, Ewell		EE22 High Street, Epsom
	EE36 Church Street, Epsom		EE37 High Street, Epsom
	EE38 Station Approach South, Epsom		EE39 The Parade, Epsom

	EE42 East Street, Epsom		EE43 Kiln Lane, Epsom
	EE45 Castle Parade, Ewell		EE46 Waterloo Road, Epsom
	EE47 Chessington Road, Ewell		EE48 High Street, Ewell
	EE49 South Street, Epsom		EE50 High Street, Ewell
	EE51 Station Approach North, Epsom		EE52 London Road, Ewell
	EE53 London Road, Ewell		

Appendix E: Summary of Air Quality Objectives in England

Table E.1 – Air Quality Objectives in England³

Pollutant	Air Quality Objective: Concentration	Air Quality Objective: Measured as
Nitrogen Dioxide (NO ₂)	200µg/m ³ not to be exceeded more than 18 times a year	1-hour mean
Nitrogen Dioxide (NO ₂)	40µg/m ³	Annual mean
Particulate Matter (PM ₁₀)	50µg/m ³ , not to be exceeded more than 35 times a year	24-hour mean
Particulate Matter (PM ₁₀)	40µg/m ³	Annual mean
Sulphur Dioxide (SO ₂)	350µg/m ³ , not to be exceeded more than 24 times a year	1-hour mean
Sulphur Dioxide (SO ₂)	125µg/m ³ , not to be exceeded more than 3 times a year	24-hour mean
Sulphur Dioxide (SO ₂)	266µg/m ³ , not to be exceeded more than 35 times a year	15-minute mean

³ The units are in microgrammes of pollutant per cubic metre of air (µg/m³).

Glossary of Terms

Abbreviation	Description
AQAP	Air Quality Action Plan - A detailed description of measures, outcomes, achievement dates and implementation methods, showing how the local authority intends to achieve air quality limit values'
AQMA	Air Quality Management Area – An area where air pollutant concentrations exceed / are likely to exceed the relevant air quality objectives. AQMAs are declared for specific pollutants and objectives
ASR	Annual Status Report
Defra	Department for Environment, Food and Rural Affairs
DMRB	Design Manual for Roads and Bridges – Air quality screening tool produced by National Highways
EEBC	Epsom & Ewell Borough Council
JSNA	Joint Strategic Needs Assessment
LAQM	Local Air Quality Management
NO ₂	Nitrogen Dioxide
NO _x	Nitrogen Oxides
PM ₁₀	Airborne particulate matter with an aerodynamic diameter of 10µm or less
PM _{2.5}	Airborne particulate matter with an aerodynamic diameter of 2.5µm or less
QA/QC	Quality Assurance and Quality Control
SAA	Surrey Air Alliance
SCC	Surrey County Council
SO ₂	Sulphur Dioxide

References

- Local Air Quality Management Technical Guidance LAQM.TG22. August 2022.
Published by Defra in partnership with the Scottish Government, Welsh Assembly Government and Department of the Environment Northern Ireland.
- Local Air Quality Management Policy Guidance LAQM.PG22. August 2022.
Published by Defra in partnership with the Scottish Government, Welsh Assembly Government and Department of the Environment Northern Ireland.
- Chemical hazards and poisons report: Issue 28. June 2022. Published by UK Health Security Agency
- Air Quality Strategy – Framework for Local Authority Delivery. August 2023.
Published by Defra.