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

Date: June 2026

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Local Responsibilities and Commitment

This ASR was prepared by the Environmental Health Department of Surrey Heath Borough with the support and agreement of the following officers and departments:

- Tim Pashen, Principal Environmental Health Officer, Environmental Health & Licensing
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This ASR has been approved by:

- Frances Soper, Head of Environmental Health and Licensing

On behalf of the Surrey County Council Director of Public Health, the Public Health team work closely with Surrey Air Alliance including District and Borough Council partners responsible for submitting ASRs on air quality within their area; to develop initiatives, air quality action plans, and implement actions to improve air quality across the county of Surrey. A copy of this ASR has been provided to Surrey County Council Public Health.

If you have any comments on this ASR, please send them to Environmental Heath at:

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Executive Summary: Air Quality in Our Area

Air Quality in Surrey Heath

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, as well as human made sources such as smoke from fires, emissions from industry and dust from tyres and brakes. PM_{10} refers to particles under 10 micrometres. Fine particulate matter or $PM_{2.5}$ are particles under 2.5 micrometres.

The borough of Surrey Heath is located in the southeast region of England, to the southwest of London. The main air quality issues are associated with the emission of pollutants from road traffic, in particular the M3 motorway. The main pollutant of concern is nitrogen dioxide (NO_2), for which Air Quality Objective (AQO) values are listed in Appendix E. Automatic monitoring of NO_2 and PM_{10} is carried out at one automatic monitoring

station situated in Castle Road, Camberley, approximately 20 metres north of the M3. In addition, the council monitors NO_2 concentrations using diffusion tubes across a network which was expanded in 2022 to 53 locations, including one triplicate site co-located with the automatic monitoring station.

Both the automatic and non-automatic monitoring sites recorded no exceedances of AQO standards for NO_2 and PM_{10} during the 2025 monitoring year. 43 sites observed slight increases from the previous monitoring year for NO_2 with an average overall increase of 8% from 2024 but concentrations remained comfortably within the objective. Over the past five years, NO_2 concentrations have shown a decreasing trend. The continuous monitor also showed a minor increase in PM_{10} (1.3%) from 2024 while remaining below the objective. Over the past five years, PM_{10} showed an increase in 2022 but have remained relatively stable from 2023 to 2025. While monitored annual mean concentrations showed marginal increases in 2025 when compared with 2024, this is not uncommon for locations with low ambient concentrations. This is attributed to annual meteorological variation at present but will be investigated further should this trend continue over the coming years.

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.

Following the revocation of the Air Quality Management Area (AQMA) in December 2024, scoping and developing a local air quality strategy (AQS) were the main focuses of 2025. An interim local AQS which outlines the approaches to manage and improve local air quality between 2026 and March 2029 went out for consultation in February 2026. Following the completion of consultation and further review, this draft strategy will be adopted later this year.

Following successful application, Surrey Heath Borough Council (SHBC) was awarded the Defra Local Authority Air Quality Grant in 2023. SHBC purchased a portable $PM_{2.5}$ and PM_{10} monitor with iMCERT certification in 2023. To establish indicative $PM_{2.5}$ levels, SHBC continued to deploy this monitor in areas with higher exposure risk in 2025, such as at schools and a community centre, as well as areas close to major construction and demolition sites.

A modelling report commissioned by the Surrey Air Alliance (SAA) was published in November 2019. Using 2017 data, the report detailed the influence of road traffic on pollutant concentrations, with major trunk routes such as the M3 motorway and A roads such as the A30, A322 and A325 being clearly demarked with higher concentrations above the national air strategy quality objective along the road corridors and at major junctions. Initial dialogue has started to carry out an updated modelling exercise in 2026 / 2027, using 2024 data to understand how air quality has changed in the past seven years, and how the sources of the key pollutants may have changed. This work is subject to capital bid and funding.

SHBC contributed to the production of a new Joint Strategic Needs Assessment (JSNA) of air quality, which was led by Surrey County Council Public Health team. The JSNA was published in August 2025 at https://www.surreyi.gov.uk/jsna/air-quality/ The majority of JSNA recommendations will be incorporated into the SAA workplan.

SHBC will continue to install Electric Vehicle (EV) charging points in public spaces and upon Council owned land. The council has completed the installation of 46 EV charging bays funded by £250,000 of UK government grants and private finance. Additionally, in May 2026, SHBC finished the installation of an additional 4 EV charging bays outside of this funding mechanism. With a further 31 EV charging bays that will be transferred to the council in spring 2027.

Conclusions and Priorities

The 2025 NO_2 monitoring results indicate a minor increase in annual mean NO_2 concentrations at most monitoring sites across the borough in comparison to the previous year, however all sites have continued to remain compliant with the annual mean AQO. This is not uncommon in areas with low ambient concentrations, such as the levels seen in SHBC. However, SHBC will continue to monitor the trend in the coming years.

Following over six years of consecutive compliance with the AQO within the AQMA, SHBC received recommendation from the Defra to revoke the AQMA in 2023. A committee report was prepared and presented to the Licensing Committee in November 2024, which summarised the air quality in the AQMA and sought approval to revoke the AQMA. The Committee resolved to revoke the AQMA, and a Revocation Order was issued in December 2024.

Following the AQMA revocation, SHBC has maintained extensive monitoring across 53 sites to ensure ongoing compliance and early detection of any emerging issues. The council will

remain vigilant and continue to look closely at the monitoring data along the M3 to ensure good air quality is maintained and no new declarations regarding AQMAs need to be made. Air quality remains a high-profile matter and SHBC is developing a local AQS to maintain compliance and further improve air quality through collaborative work. A key priority is to finalise and implement the AQS, setting clear objectives, measurable Key Performance Indicators (KPIs), and a robust governance. SHBC will prioritise expanding EV charging infrastructure to accelerate the shift to lower emission vehicles. The council will also maintain and, where beneficial, enhance its air quality monitoring. Along with other local authorities in Surrey, SHBC explored an air pollution alert service, AirText. From Q2 2026, residents in Surrey Heath can sign up to this service and receive alerts by text, email or voicemail for air pollution episodes. Funding has been secured for two years by Surrey County Council Public Health team for all Surrey residents, commencing in June 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.

The principal challenges SHBC anticipates facing are that the pollutants that residents are exposed to often come from pollution generated not only within the borough but also from ‘background’ levels transported in from outside the area. For oxides of nitrogen, up to 25% of concentrations recorded at locations away from main roads can be from these background sources. The main source of NO_2 produced within the borough is from road traffic exhausts, but the most significant of these sources, being the motorway and major trunk roads, are ones over which the council has little control. No new significant local sources of air pollution were identified within the borough during 2025.

How to get Involved

For SHBC, Surrey County Council (SCC), Public Health and Highways, Environment Agency, and neighbouring local authorities are air quality partners under the Environmental Act 2021.

As an active member of SAA, SHBC takes a collaborative approach with colleagues at SCC Public Health and Highways, and local authorities in Surrey.

There is continual interest in air quality from Councillors, residents, and the public. SHBC ensures timely response to air quality enquiries, addressing concerns, and providing up to date information and appropriate action. SHBC has redeveloped the council’s air quality

webpages to include information on how the public can protect themselves from potential exposure and the actions they can take to improve local area. For more information, please visit https://www.surreyheath.gov.uk/environment/air-and-land-quality/air-quality

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1 Local Air Quality Management

This report provides an overview of air quality in Surrey Heath 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 Surrey Heath Borough Council (SHBC) 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

AQMAs are declared when there is an exceedance or likely exceedance of an air quality objective. After declaration, the authority should prepare an 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.

SHBC currently does not have any declared AQMAs. A local Air Quality Strategy (AQS) is under development to prevent and reduce polluting activities. The draft of this AQS was developed in January 2026 and has been sent out for consultation with key air quality partners. Following consultation and revision, this strategy will be adopted in 2026.

2.2 Progress and Impact of Measures to address Air Quality in Surrey Heath

Defra's appraisal of last year's ASR concluded the following points. Main appraisal comments are presented as a bullet point list with responses detailed.

- Some measures in Table 2.2 do not have details on Reduction in Pollutant / Emission from Measure or KPIs to measure success. It is recommended that the council complete all sections of this Table with available information and explain how the measure reduces emissions in this section, i.e. reduced congestion, promotion of air quality awareness, increase in sustainable transport.
  Response: This table has been updated (and renamed as Table 2.1) with further information on how the measures can help to improve local air quality.

- There are some discrepancies in Table A.4 between Valid Data Capture for Monitoring Period and Valid Data capture in 2024 with no explanation. This should be checked in future reports.
  Response: The are no discrepancies between data capture in 2025 compared to monitoring period however future ASRs will explain any differences.

- The diffusion tube site type classifications have been updated following previous appraisal. However, the sites SH15, SH22, SH25 should be reviewed again to ensure the site are categorised in accordance with the LAQM site type classifications. There are also minor discrepancies in the diffusion tube site type classifications reported in Table A.2 and the site type classifications in trend graphs in Figure A.1 – Figure A.4.
  Response: Co-location site CM1 and SH15, SH22, and SH25 have been updated to a roadside location following review of LAQM site classifications. Figures have been updated in accordance with Table A.2.

- $PM_{2.5}$ concentrations have not been estimated based on PM_{10} monitored data. LAQM.TG (22) provides guidance on estimating $PM_{2.5}$ from PM_{10} measurements. For local authorities with only PM_{10} monitoring stations available, it is possible to estimate $PM_{2.5}$ concentrations by using a local or national factor. Refer to LAQM.TG (22) for details on applying a local factor. National factor is available on LAQM website.
  Response: $PM_{2.5}$ has been estimated, in accordance with this guidance.

- Trends of annual mean NO_2 concentrations are clearly presented in detail and discussed and a robust comparison with air quality objectives is provided.
  Response: SHBC will continue to analyse and present the trends of annual mean NO_2.

- Maps of the diffusion tube network are clear and comprehensive, showing the monitoring undertaken in this area.
  Response: SHBC will continue to present the diffusion tube network across the borough.

- The Council is developing a local air quality strategy to maintain compliance and further improve air quality through collaborative work. An updated modelling is proposed to be carried out in 2026/2027, using 2024 data to understand how air quality has changed in the past seven years, and how the sources of the key pollutants may have changed. This is welcomed.
  Response: This updated modelling is still discussed, subject to funding.

- Measures to address $PM_{2.5}$ are detailed within the ASR. Links are provided and discussed in regard to the Public Health Outcomes Framework and fraction of mortality attributable to $PM_{2.5}$ emissions. Comparisons to the regional and national average as well as a trend analysis over time is included. This is welcomed and is encouraged to be included in all future reports.
  Response: Included as per previous ASR.

- The Council has updated to the use of a national bias adjustment factor following the suggestion from previous appraisal and has clearly discussed this within the text. This is welcomed.
  Response: SHBC will continue to calculate the local bias adjustment factor for comparison, however the national bias adjustment factor will be used going forwards in line with Defra advice above.

- It is recommended to include the latest diffusion tube AIR-PT results and precision information in the QA/QC of Diffusion Tube Monitoring. The information is available on LAQM website: QA QC Framework and Precision and Accuracy.
  Response: The latest diffusion tube AIR PT results and precision information have been included in this ASR.

- There are some formatting errors in the Table of Contents. As this is a public facing document, these errors should be checked thoroughly and updated prior to final publication.
  Response: Appropriate formatting has been applied throughout the document.

SHBC has taken forward a number of direct measures during the current reporting year of 2025 in pursuit of improving local air quality. Details of all measures completed, in progress or planned are set out in Table 2.1. Eleven measures are included within Table 2.1, with the type of measure and progress made during the reporting year of 2025 presented. Where there have been, or continue to be, barriers restricting the implementation of the measure, these are also presented within Table 2.1.

SHBC no longer have an AQMA but continue to monitor air quality at 53 locations across the borough which allows quick response should any deterioration in condition occur. SHBC is in the development stage of a local air quality strategy to ensure air quality remains a high-profile issue. This remains SHBC's high priority task.

Table 2.1 – Progress on Measures to Improve 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	Develop a local air quality strategy	Policy Guidance and Development Control	Other Policy	2025	2027	SHBC / SCC	SHBC	<Partially funded>	<£10k	Planning	Set priorities to manage and improve local air quality	To be adopted in 2026	1st draft developed in January 2026, to be adopted in 2026	N/A
2	Encourage the use of electric vehicles by providing public charging points	Promoting Low Emission Transport	Procuring alternative Refuelling infrastructure to promote Low Emission Vehicles, EV recharging, Gas fuel recharging	N/A	N/A	SHBC / SCC	Defra and LA	<Partially funded>	Total capital expenditure 400-500k	Implementation	Increase low emission transport	50 has been installed, further 31 to be transferred to the Council in 2027	N/A	N/A
3	Increase SHBC's EV fleet	Promoting Low Emission Transport	Company Vehicle Procurement - Prioritising uptake of low emission vehicles	N/A	N/A	SHBC	SHBC	N/A	N/A	Implementation	Reduce Council's own transport emission	N/A	N/A	Five EVs were procured in 2024, total fleet size is 16
4	AQ monitoring	N/A	N/A	N/A	N/A	SHBC	N/A	N/A	N/A	N/A	Identify risk	ongoing	N/A	Future budget
5	Air Quality information on the SHBC website	Public Information	Via the Internet	N/A	N/A	SHBC	N/A	N/A	N/A	N/A	Raise public awareness	ongoing	N/A	N/A
6	Surrey Air Alliance	Policy Guidance and Development Control	Regional Groups	N/A	N/A	SHBC / SCC	N/A	N/A	N/A	Ongoing	Partnership working	N/A	Ongoing	N/A
7	Age and emission requirements for taxi and private hire vehicle	Promoting Low Emission Transport	Taxi Licensing conditions	N/A	N/A	SHBC	N/A	N/A	N/A	Ongoing	Reduce transport emission	To be reviewed periodically	Taxi and Private Hire Licensing Policy 2026 – 2031 sets vehicle age requirements and emission standards for new applications and renewal applications	N/A
8	Public information to discourage use of bonfire	Public Information	Via the Internet	N/A	N/A	SHBC	N/A	N/A	N/A	N/A	Reduce emission from burning solid fuels	N/A	Drafted materials to support Clean Air Night January 2026 on wood burning and PM pollution	N/A
9	Hybrid working	Promoting Travel Alternatives	Encourage / Facilitate homeworking	N/A	N/A	SHBC	N/A	N/A	N/A	Ongoing	Reduce Council's transport emission	N/A	Ongoing	N/A
10	Prepare LCWIP and active travel funding	Promoting Travel Alternatives	Promotion of cycling and walking	N/A	N/A	SHBC	N/A	N/A	N/A	Ongoing	Promote active travel to reduce transport emission	Plan	Surrey Heath LCWIP was developed in Q1 2024, focuses moved on to business case and secure funding, before the delivery	N/A
11	Promote DEFRA's smoky vehicle reporting	Public Information	Via social media and council website	N/A	N/A	SHBC	N/A	N/A	N/A	Ongoing	Reduce excessive emission lorry and bus	N/A	Ongoing	N/A

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 Strategy[1], 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.

SHBC is taking the following measures to address $PM_{2.5}$.

To put the local concentrations of $PM_{2.5}$ in context within the borough, SHBC makes use of Defra background mapping and modelling. The background annual average $PM_{2.5}$ concentrations in Surrey Heath for 2024 ranged from 6.8 µg/m^3 to 9.0 µg/m^3; the upper limit is estimated to have decreased to 7.2 µg/m^3 in 2025. These concentrations are well below the limit of 20 µg/m^3 and below the 2040 target of 10 µg/m^3.

Following successful grant application, SHBC was awarded the Defra's Local Authority Air Quality Grant of £12,280 in March 2023. This grant supported a 12-month project to procure a portable $PM_{2.5}$ / PM_{10} monitor with iMCERT certification to monitor $PM_{2.5}$ and PM_{10} levels at locations likely to experience higher concentration and/or increased exposure risk, develop website contents and engage with key stakeholders to raise air quality awareness. Following the completion of this project, this portable AQ monitor continued to be deployed in the borough to establish the background concentration. In 2025, SHBC continued to deploy this monitor in areas likely to experience higher concentration and/or with increased exposure risk, e.g. at schools, residential areas / schools close to construction and demolition sites, local community centre and location near trunk road, to monitor the risk of exceedance.

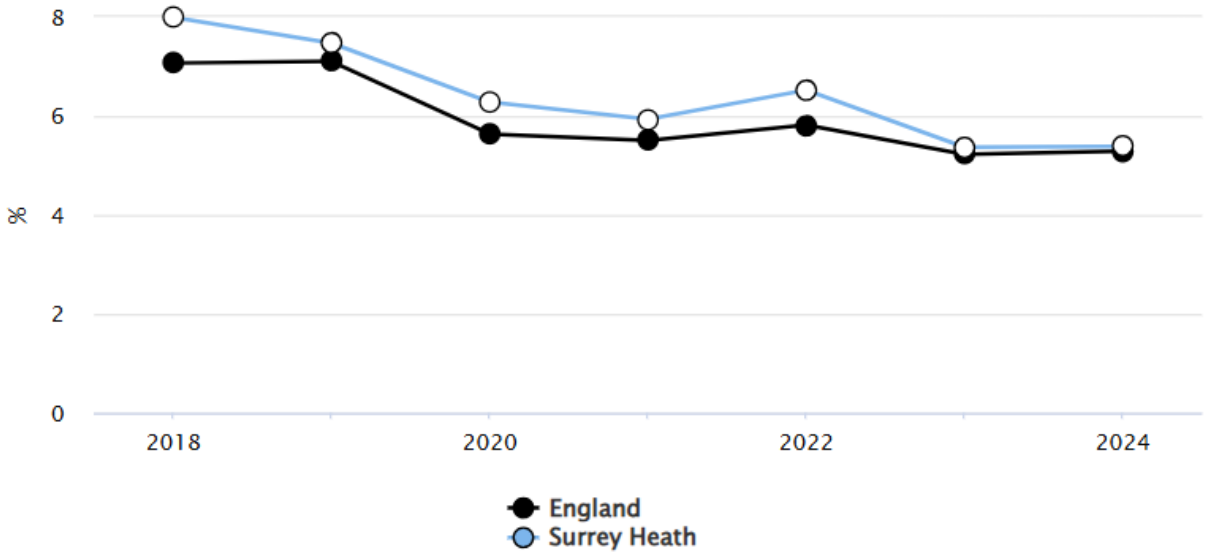
SHBC is continuing to enforce legislation that can have an impact on air quality such as reducing impacts from demolition and construction site, investigating commercial and domestic bonfires and smoke. More information can be found our website: https://www.surreyheath.gov.uk/environment/noise-and-nuisance/bonfires

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

Along with other members of the SAA, SHBC commissioned a countywide $PM_{2.5}$ dispersion modelling study which was carried out by Cambridge Environmental Research Consultants (CERC). Source apportionment was carried out to calculate the relative contributions of each source group (road sources, by vehicle type and non-exhaust component for PM; large industrial sources; other emissions sources; and background) to pollutant emissions and concentrations. The report, published in November 2019 using 2017 data, identified the influence of road traffic on pollutant levels, with major trunk routes such as the M3 motorway and A-roads such as the A30, A322 and A325 being clearly demarked with higher levels above the national air quality objective along the road corridors and at major junctions. For particulate matter, background concentrations from outside Surrey were found to be the most significant contributors to PM_{10} and $PM_{2.5}$, and thus any local measures introduced would have a limited effect on overall levels. Early dialogue has started at SAA for a follow up modelling based on 2024 data. This work is subject to funding.

The Public Health Outcomes Framework (PHOF) has published statistics on the health effects of exposure of the public to fine particulate pollution. SHBC notes PHOF indicator DO1 – Fraction of mortality attributable to particulate ($PM_{2.5}$) air pollution in 2024 (latest available) gives a value of 5.4% which is slightly above the average for both the Southeast region (5.1%) and England (5.3%). The estimated fraction of mortality attributable to particulate ($PM_{2.5}$) air pollution between 2018 and 2024 is shown in **Error! Reference source not found.** for Surrey Heath and across England. The $PM_{2.5}$ fractions for Surrey Heath exhibited a slight increase between 2021 and 2022 as did the average for England, which also saw a minor increase between 2023 and 2024 unlike Surrey Heath which remained the same. However, there is an overall reduction within Surrey Heath and across England.

Figure 2.1 – Public Health Outcomes Framework, Fine Particulate Matter ($PM_{2.5}$)


8
6
4
2
0
%
2018
2020
2022
2024
England
Surrey Heath

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

This section sets out the monitoring undertaken within 2025 by SHBC 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

SHBC undertook automatic (continuous) monitoring at one site during 2025. However, monitoring at this site has ended as of January 2026. Table A.1 in Appendix A shows the details of the automatic monitoring site.

Further details on how the monitors are calibrated and how the data has been adjusted are included in Appendix C. Maps showing the location of the monitoring sites are provided in Appendix D.

3.1.2 Non-Automatic Monitoring Sites

SHBC undertook non- automatic (i.e. passive) monitoring of NO_2 at 53 sites during 2025. Table A.2 in Appendix A presents the details of the non-automatic sites.

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. Maps showing the location of the monitoring sites are provided in Appendix D.

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 (NO_2)

Table A.3 and Table A.4 in Appendix A compare the ratified and adjusted monitored NO_2 annual mean concentrations for the past five years with the air quality objective of 40 µg/m^3. 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. Distance correction was not required in 2025.

Table A.5 in Appendix A compares the ratified continuous monitored NO_2 hourly mean concentrations for the past five years with the air quality objective of 200 µg/m^3, not to be exceeded more than 18 times per year.

The automatic station at Castle Road (CM1), located within the former AQMA, recorded an annual mean NO_2 concentration of 22.9 µg/m³ in 2025. This represents an increase from 21.5 µg/m³ in 2024. This however is a decrease from the concentration recorded in 2023 (23.8 µg/m³). Concentrations at CM1 have decreased by approximately 24% over the past five years. No exceedances of the 1-hour mean NO_2 objective (200 µg/m³ not to be exceeded more than 18 times per year) were recorded at CM1 in 2025, consistent with results since 2020. However, data capture was low for 2025 at 65.6%, as such the 99.8th percentile is also considered which was recorded at 77.8 µg/m^3, as this is below 200 µg/m³ the monitor is still considered to be compliant with the objective. These results confirm continued compliance with both short- and long-term NO_2 objectives at the borough's primary automatic monitoring site.

Across the non-automatic network, all 53 diffusion tube sites recorded annual mean NO_2 concentrations well below the 40 µg/m³ air quality objective. In 2025, the highest recorded concentration was 19.1 µg/m³ at SH16 (Wood Road).

Figures A.1, A.2 and A.4 illustrate a consistent borough-wide reduction in NO_2 concentrations over time. While concentrations rose slightly in 2022 following the easing of COVID-19 restrictions, the downward trend resumed in 2023 and continued into 2024. 2025 measured small increases in concentrations from 2024 at some sites however concentrations remain below the AQO and were lower than measured concentrations in earlier years. These reductions over the past five years reflect the lasting effects of emissions improvements, vehicle fleet turnover, and SHBC's sustained monitoring and

policy efforts. While there is a marginal increase in 2025, it is not uncommon for areas with low ambient concentrations, such as Surrey Heath, to see such variations. This has been attributed to meteorological variation at present but will be investigated further should this trend continues.

It should be noted there is a marked drop in diffusion tube concentrations between 2023 and 2024, as seen in Figure A.1. This was influenced in part by the application of the national bias adjustment factor, which is lower than the local bias adjustment factors applied in previous years. This methodological change was implemented following Defra's appraisal recommendations arising from the 2024 ASR regarding the suitability of CM1 as a co-location site, as the automatic monitor does not meet the micro-siting criteria within LAQM.TG (22).

Additionally, no diffusion tube locations recorded annual mean concentrations above 60 µg/m³, which indicates that none are likely to have exceeded the 1-hour mean objective, in accordance with guidance from LAQM.TG (22).

3.2.2 Particulate Matter (PM_{10})

Table A.6 in Appendix A: Monitoring Results compares the ratified and adjusted monitored PM_{10} annual mean concentrations for the past five years with the air quality objective of 40µg/m^3.

Table A.7 in Appendix A compares the ratified continuous monitored PM_{10} daily mean concentrations for the past five years with the air quality objective of 50µg/m^3, not to be exceeded more than 35 times per year.

The annual mean PM_{10} concentration at CM1 in 2025 was 15.8 µg/m³, a slight increase from the 2024 value of 15.6 µg/m³. This value however is below the average concentration in 2022 and 2023, continuing the overall downward trend. This value remains well below the annual mean AQO of 40 µg/m³. Similarly, the daily mean PM_{10} concentrations only exceeded the 50 µg/m³ threshold on one occasion during 2025, meaning the objective of no more than 35 exceedances was fully met. Due to low data capture, the 90.4th percentile is also considered, which was recorded at 27.0 µg/m³ for 2025, and as this is below 200 µg/m³ the monitor is still considered to be compliant with the objective.

The PM_{10} concentrations over the past five years suggests that pollutant levels are stabilising at relatively low background levels in the absence of significant new emission sources. The temporary increase observed in 2022, likely linked to increased traffic and

resumption of post-pandemic activities, has since reversed, with concentrations in 2023, 2024 and 2025, returning to levels similar to those recorded in 2021.

Based on these recent results, it is reasonable to conclude that PM_{10} concentrations in Surrey Heath are unlikely to increase significantly in the near future, provided that current emissions sources and trends remain consistent.

3.2.3 Particulate Matter ($PM_{2.5}$)

$PM_{2.5}$ concentrations are not monitored; however, they have been estimated using a PM_{Coarse} factor in accordance with LAQM.TG22. PM_{Coarse} factors have been derived for an Urban Traffic site, Hounslow Brentford (HS5) from the borough Hounslow, as the closest LAQM Roadside site to measure both PM_{10} and $PM_{2.5}$.

Calculation of the PM_{Coarse} factor is shown in Table A.8, application of this factor to the Surrey Heath automatic monitor are shown in Table A.9. The resultant estimated $PM_{2.5}$ concentrations is only indicative and cannot be used for compliance against the annual mean $PM_{2.5}$ AQO. However, they do suggest that $PM_{2.5}$ levels are above both the Environmental Target Regulations Level (10 µg m^{-3}) and World Health Organisation (WHO) Air Quality Guidance (AQG) levels (5 µg m^{-3}).

Appendix A: Monitoring Results

Table A.1 – Details of Automatic Monitoring Sites

Site ID	Site Name	Site Type	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Pollutants Monitored	In AQMA?	Which AQMA? (1)	Monitoring Technique	Distance to Relevant Exposure (m) (1,2)	Distance to kerb of nearest road (m) (1)	Inlet Height (m)
CM1	Castle Road, Camberly	Urban Centre	488647	159807	NO_2, PM_{10}	No	N/A	Chemiluminescent; Beta Attenuation Monitor (BAM)	20.0	17.0	2.5

Notes:

(1) N/A if not applicable

(2) 0m if the monitoring site is at a location of exposure (e.g. installed on the façade of a residential property).

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)
SH 1	A30 Bagshot	Roadside	491010	163344	NO_2	NO	8.0	6.0	No	1.8
SH 2	Windle Valley Daycare Centre	Roadside	491065	163337	NO_2	NO	<0.1	4.0	No	1.8
SH 3	Snows Ride School Windlesham	Urban Background	492810	164408	NO_2	NO	<0.1	33.0	No	1.8
SH 4	Shaftesbury Road Bisley	Urban Background	494654	159444	NO_2	NO	31.0	157.0	No	1.8
SH 5	Chestnut Avenue	Roadside	489460	160586	NO_2	NO	24.0	15.0	No	1.8
SH 6	Church Lane Bisley	Roadside	494974	159611	NO_2	NO	15.0	2.0	No	1.8
SH 7	M3 Brickhill roadside	Other	496191	164418	NO_2	NO	78.0	30.0	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)
SH 8	M3 Brickhill 150m back	Urban Background	496170	164472	NO_2	NO	39.0	88.0	No	1.8
SH 9	A30 Jolly Farmer	Roadside	489617	161874	NO_2	NO	20.0	15.0	No	1.8
SH 10	A30 Homebase	Urban Centre	485796	160074	NO_2	NO	<0.1	16.0	No	1.8
SH 11	Watchetts School Camberley	Urban Centre	486937	159011	NO_2	NO	4.0	18.0	No	1.8
SH 12	High Street Camberley	Kerbside	487490	160788	NO_2	NO	3.0	1.0	No	1.8
SH 13	Le Marchant Road	Urban Centre	488727	159591	NO_2	NO	12.0	25.0	No	1.8
SH 14	Badgers Copse	Urban Centre	488603	159675	NO_2	NO	4.0	14.0	No	1.8
SH 16	Wood Road	Urban Centre	486834	158336	NO_2	NO	18.0	23.0	No	1.8
SH 17	Portsmouth Road at Ravenswood M3/A325	Other	489297	160440	NO_2	NO	33.0	21.0	No	1.8
SH 20	Deepcut Bridge Road	Roadside	490396	157290	NO_2	NO	2.0	2.0	No	1.8
SH 21	Benner Lane	Roadside	495156	161078	NO_2	NO	15.0	4.0	No	1.8
SH 23	Red Road/Maultway	Roadside	490698	160351	NO_2	NO	9.0	12.0	No	1.8
SH 24	High Street, Chobham	Roadside	497347	161697	NO_2	NO	2.0	2.0	No	1.8
SH 15, SH 22, SH 25	AQM	Roadside	488647	159807	NO_2	NO	17.0	17.0	Yes	2.5
SH 26	College Ride, Camberley	Roadside	487762	161393	NO_2	NO	7.0	5.0	No	1.8
SH 27	361 Gford Road, Bisley	Roadside	495553	158854	NO_2	NO	6.0	8.0	No	1.8
SH 28	Queens Road, Bisley	Roadside	495343	159031	NO_2	NO	10.0	7.0	No	1.8
SH 29	Heath Park Windlesham	Suburban	494228	163480	NO_2	NO	102.0	36.0	No	1.0
SH 30	Matalan, Frimley Road	Urban Centre	487318	158515	NO_2	NO	24.0	23.0	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)
SH 31	Old Pond Close	Urban Centre	487022	158419	NO_2	NO	6.0	19.0	No	1.8
SH 32	Two Hoots, Old Pond Close	Urban Centre	486979	158393	NO_2	NO	4.0	21.0	No	1.0
SH 33	Wood Road Garages	Urban Centre	486843	158319	NO_2	NO	17.0	25.0	No	1.8
SH 34	Brackendale Road	Urban Centre	488052	159239	NO_2	NO	20.0	36.0	No	1.8
SH 35	Prior End	Urban Centre	489189	160209	NO_2	NO	18.0	41.0	No	1.8
SH 36	Youlden Drive	Urban Centre	489350	160389	NO_2	NO	20.0	18.0	No	1.8
SH 37	Crawley Drive	Roadside	489082	160265	NO_2	NO	20.0	5.0	No	1.8
SH 38	Swift Lane	Urban Centre	491702	163139	NO_2	NO	<0.1	16.0	No	1.8
SH 39	Frimley Green Road	Roadside	488724	156857	NO_2	NO	4.0	6.0	No	1.8
SH 40	Frimley Park Hospital	Kerbside	487845	158520	NO_2	NO	<0.1	1.0	No	1.8
SH 41	Watchetts Drive	Kerbside	487196	158885	NO_2	NO	15.0	1.0	No	1.8
SH 42	Tomlinscote Way	Roadside	489062	158770	NO_2	NO	17.0	2.0	No	1.8
SH 43	Upper Chobham Road	Roadside	489242	159042	NO_2	NO	19.0	2.0	No	1.8
SH 44	Frimley Park Hospital Denly	Roadside	487943	158549	NO_2	NO	26.0	2.0	No	1.8
SH 45	Grove School	Roadside	488011	158513	NO_2	NO	128.0	13.0	No	1.8
SH 46	Bagshot Green	Kerbside	491398	162885	NO_2	NO	7.0	1.0	No	1.8
SH 47	Badger Drive	Roadside	492111	162110	NO_2	NO	17.0	10.0	No	1.8
SH 48	Hawkswood Avenue	Roadside	488602	158448	NO_2	NO	11.0	2.0	No	1.8
SH 49	High Street Bagshot	Roadside	491017	163181	NO_2	NO	<0.1	5.0	No	1.8
SH 50	Guildford Road Bagshot	Roadside	491303	163313	NO_2	NO	4.0	3.0	No	1.8
SH 51	School Lane Bagshot	Roadside	491033	162945	NO_2	NO	10.0	2.0	No	1.8
SH 52	Freemantle Road	Roadside	491564	163565	NO_2	NO	5.0	2.0	No	1.8
SH 53	Crawley Ridge	Roadside	489009	161166	NO_2	NO	3.0	2.0	No	1.8
SH 54	Frimley High Street	Roadside	487485	157828	NO_2	NO	<0.1	5.0	No	1.8
SH 55	Heatherside School	Roadside	490495	159630	NO_2	NO	8.0	3.0	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)
SH 56	Sherrard Way	Roadside	488421	155510	NO_2	NO	6.0	2.0	No	1.8
SH 57	156 Mytchett Road	Roadside	488955	154901	NO_2	NO	<0.1	10.0	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 NO_2 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 (%) (1)	Valid Data Capture 2025 (%) (2)	2021	2022	2023	2024	2025
CM1	488647	159807	Urban Centre	65.6	65.6	30.0	28.0	23.8	21.5	22.9

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

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

☒ **Where exceedances of the NO_2 annual mean objective occur at locations not representative of relevant exposure, the fall-off with distance concentration has been calculated and reported concentration provided in brackets for 2025.**

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**.

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%).

Table A.4 – Annual Mean NO_2 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 2025 (%) (2)	2021	2022	2023	2024	2025
SH 1	491010	163344	Roadside	100.0	100.0	18.7	27.7	20.8	11.9	12.5
SH 2	491065	163337	Roadside	100.0	100.0	20.4	25.7	17.0	11.0	12.1
SH 3	492810	164408	Urban Background	100.0	100.0	18.1	20.3	14.8	9.0	11.3
SH 4	494654	159444	Urban Background	100.0	100.0	15.0	18.0	12.7	8.2	9.9
SH 5	489460	160586	Roadside	100.0	100.0	27.1	27.0	23.6	14.0	14.8
SH 6	494974	159611	Roadside	100.0	100.0	23.0	21.7	20.0	12.9	12.9
SH 7	496191	164418	Other	82.5	82.5	32.4	30.4	23.3	13.1	13.8
SH 8	496170	164472	Urban Background	100.0	100.0	20.2	23.9	19.2	10.2	12.8
SH 9	489617	161874	Roadside	100.0	100.0	19.2	22.6	18.0	11.5	12.9
SH 10	485796	160074	Urban Centre	100.0	100.0	30.8	30.4	26.4	16.3	17.2
SH 11	486937	159011	Urban Centre	100.0	100.0	28.3	27.7	22.4	15.3	14.3
SH 12	487490	160788	Kerbside	100.0	100.0	25.0	26.7	21.8	14.0	13.8
SH 13	488727	159591	Urban Centre	100.0	100.0	22.4	23.4	19.3	12.0	12.7
SH 14	488603	159675	Urban Centre	100.0	100.0	29.5	27.1	22.7	13.0	13.7
SH 16	486834	158336	Urban Centre	90.4	90.4	34.2	34.4	29.3	17.2	19.1
SH 17	489297	160440	Other	92.3	92.3	27.2	24.3	21.8	11.9	13.3
SH 20	490396	157290	Roadside	82.7	82.7	20.5	21.3	17.9	9.6	12.3
SH 21	495156	161078	Roadside	100.0	100.0	19.8	20.5	17.9	10.3	11.9
SH 23	490698	160351	Roadside	100.0	100.0	22.4	24.4	19.6	11.7	13.0
SH 24	497347	161697	Roadside	100.0	100.0	29.6	28.7	24.3	15.8	15.2
SH 15, SH 22, SH 25	488647	159807	Roadside	100.0	100.0	28.7	28.4	24.0	14.9	15.4

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 2025 (%) (2)	2021	2022	2023	2024	2025
SH 26	487762	161393	Roadside	100.0	100.0	19.9	22.6	18.8	11.8	13.4
SH 27	495553	158854	Roadside	100.0	100.0	22.1	22.1	18.5	11.3	12.5
SH 28	495343	159031	Roadside	100.0	100.0	24.1	24.2	20.8	13.4	13.4
SH 29	494228	163480	Suburban	90.4	90.4	24.9	25.0	20.9	12.6	13.2
SH 30	487318	158515	Urban Centre	100.0	100.0	35.7	31.4	27.2	16.8	16.2
SH 31	487022	158419	Urban Centre	91.0	91.0	30.6	28.0	23.8	14.9	15.4
SH 32	486979	158393	Urban Centre	100.0	100.0	27.3	27.1	22.2	13.8	14.8
SH 33	486843	158319	Urban Centre	83.3	83.3	32.9	31.4	27.9	18.0	18.0
SH 34	488052	159239	Urban Centre	92.3	92.3	24.0	23.4	19.9	12.2	13.6
SH 35	489189	160209	Urban Centre	100.0	100.0	25.3	24.7	21.3	12.0	12.8
SH 36	489350	160389	Urban Centre	100.0	100.0	29.5	24.4	22.7	11.3	12.0
SH 37	489082	160265	Roadside	92.3	92.3	28.4	30.1	23.9	15.0	15.6
SH 38	491702	163139	Urban Centre	100.0	100.0	27.3	27.4	24.2	14.8	16.2
SH 39	488724	156857	Roadside	82.7	82.7	23.6	23.3	19.6	12.5	13.2
SH 40	487845	158520	Kerbside	100.0	100.0	32.6	34.7	25.8	16.5	14.9
SH 41	487196	158885	Kerbside	100.0	100.0	23.8	24.3	19.5	12.4	13.3
SH 42	489062	158770	Roadside	100.0	100.0	17.7	19.3	15.9	9.4	11.1
SH 43	489242	159042	Roadside	100.0	100.0	23.1	22.1	18.7	10.9	12.4
SH 44	487943	158549	Roadside	100.0	100.0	31.4	32.0	27.0	17.3	16.0
SH 45	488011	158513	Roadside	83.3	83.3	32.2	29.3	28.4	17.1	16.4
SH 46	491398	162885	Kerbside	100.0	100.0	19.0	22.5	16.4	9.5	10.6
SH 47	492111	162110	Roadside	100.0	100.0	19.4	20.4	16.5	9.2	10.5
SH 48	488602	158448	Roadside	100.0	100.0	20.6	23.4	17.3	9.8	10.9
SH 49	491017	163181	Roadside	90.4	90.4	26.7	27.7	23.1	15.2	14.6
SH 50	491303	163313	Roadside	100.0	100.0	27.4	26.7	25.6	15.1	14.8
SH 51	491033	162945	Roadside	100.0	100.0	18.4	22.2	15.4	9.3	10.7

Diffusion Tube ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Site Type	Valid Data Capture for Monitoring Period (%) (1)	Valid Data Capture 2025 (%) (2)	2021	2022	2023	2024	2025
SH 52	491564	163565	Roadside	92.3	92.3	22.2	24.2	19.4	12.0	13.9
SH 53	489009	161166	Roadside	100.0	100.0	19.4	22.2	15.4	9.1	10.5
SH 54	487485	157828	Roadside	100.0	100.0	29.8	29.5	22.9	14.3	14.3
SH 55	490495	159630	Roadside	82.7	82.7	19.9	23.5	18.0	10.3	12.7
SH 56	488421	155510	Roadside	82.7	82.7	-	21.3	17.0	10.5	12.5
SH 57	488955	154901	Roadside	82.7	82.7	-	25.6	18.3	11.0	12.9

☒ **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 µg/m^3.

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

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

Means for diffusion tubes have been corrected for bias. All means have been “annualised” 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.2 – Trends in Annual Mean NO_2 Concentrations – Historic Roadside and Kerbside Locations (1)

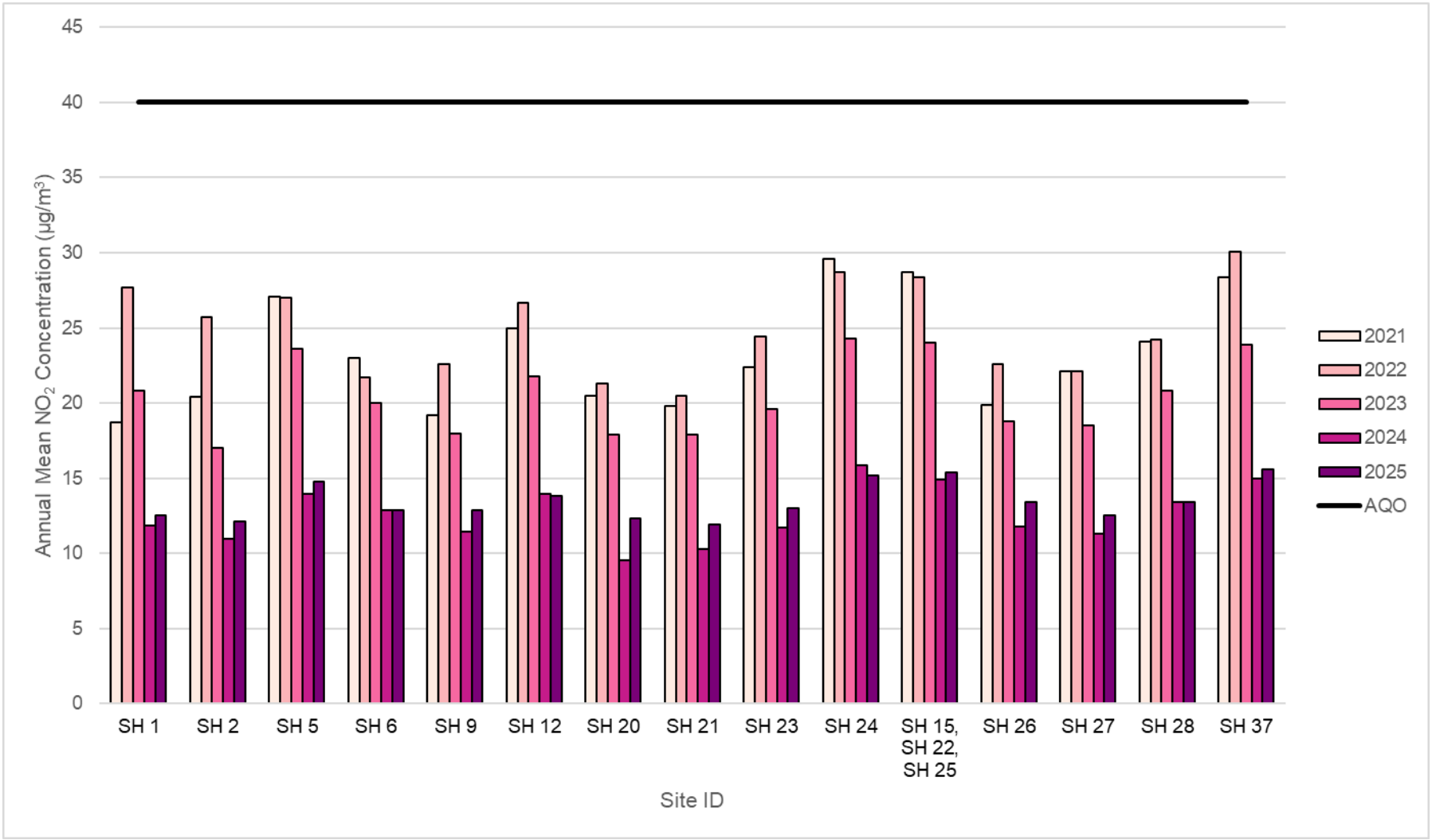


Figure A.3 – Trends in Annual Mean NO_2 Concentrations – Historic Roadside and Kerbside Locations (2)

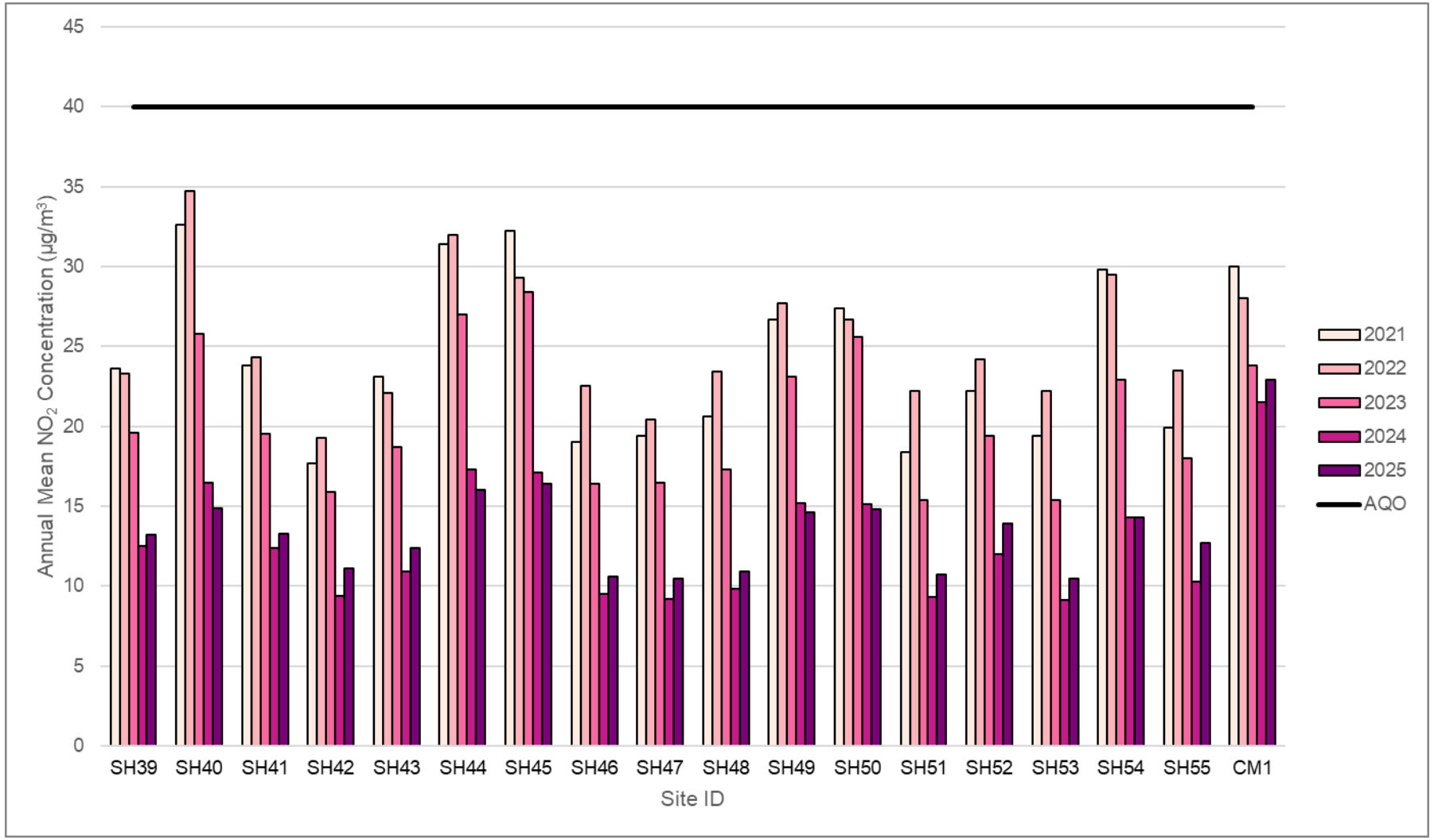


Figure A.4 – Trends in Annual Mean NO_2 Concentrations – Roadside Locations introduced in 2022

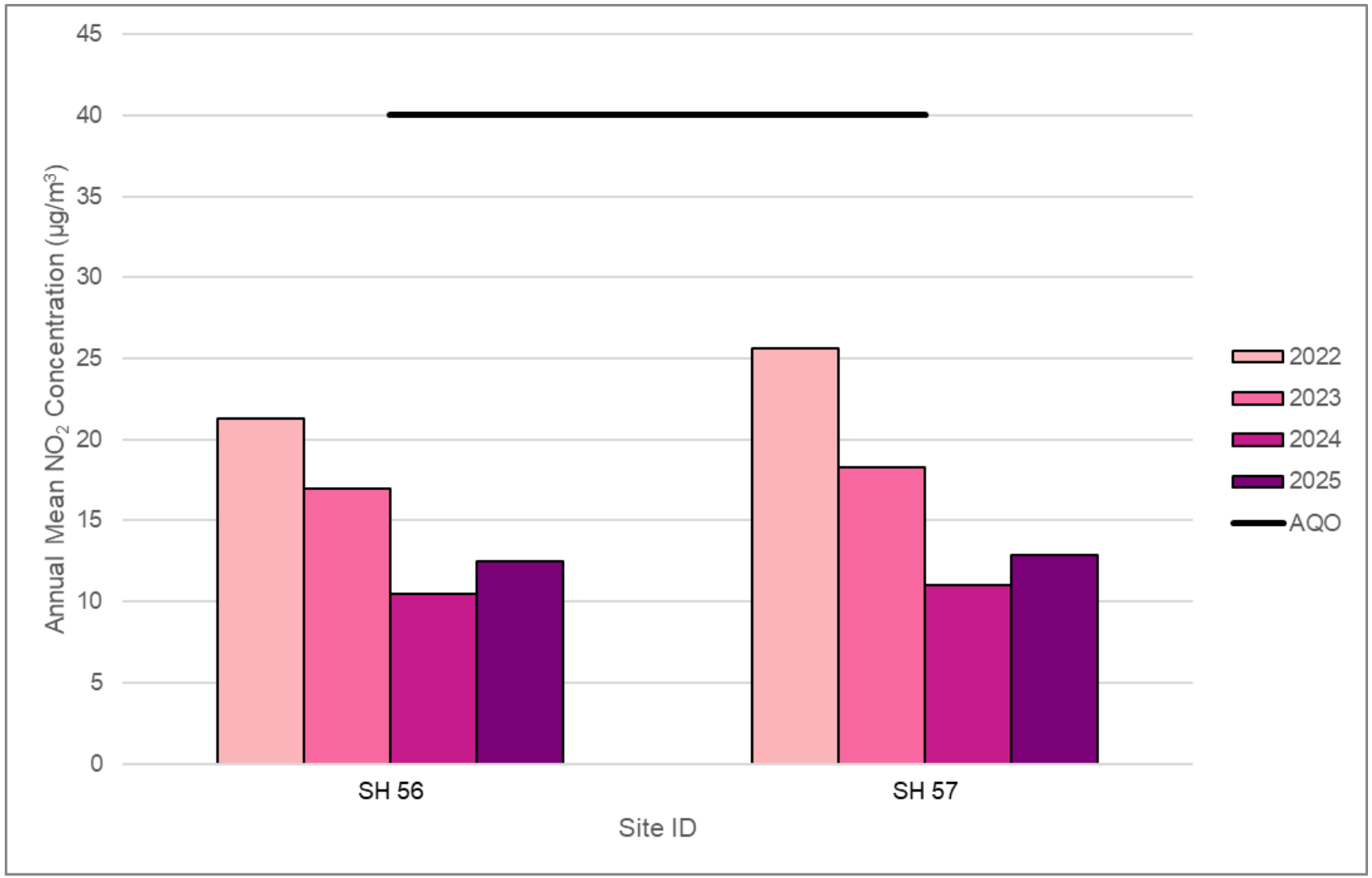


Figure A.5 – Trends in Annual Mean NO_2 Concentrations – Urban Background and Suburban Locations

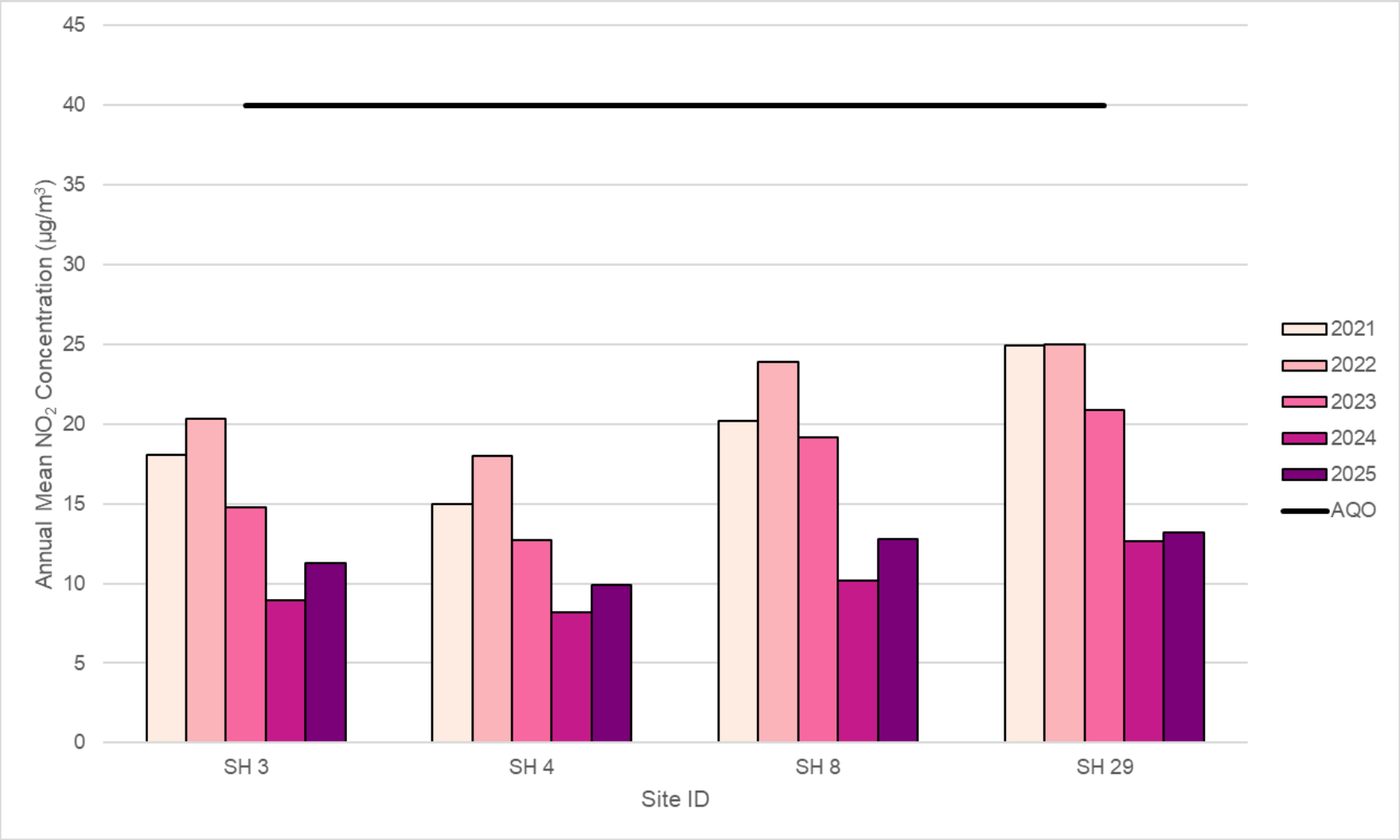


Figure A.6 – Trends in Annual Mean NO_2 Concentrations – Urban Centre and Other Locations

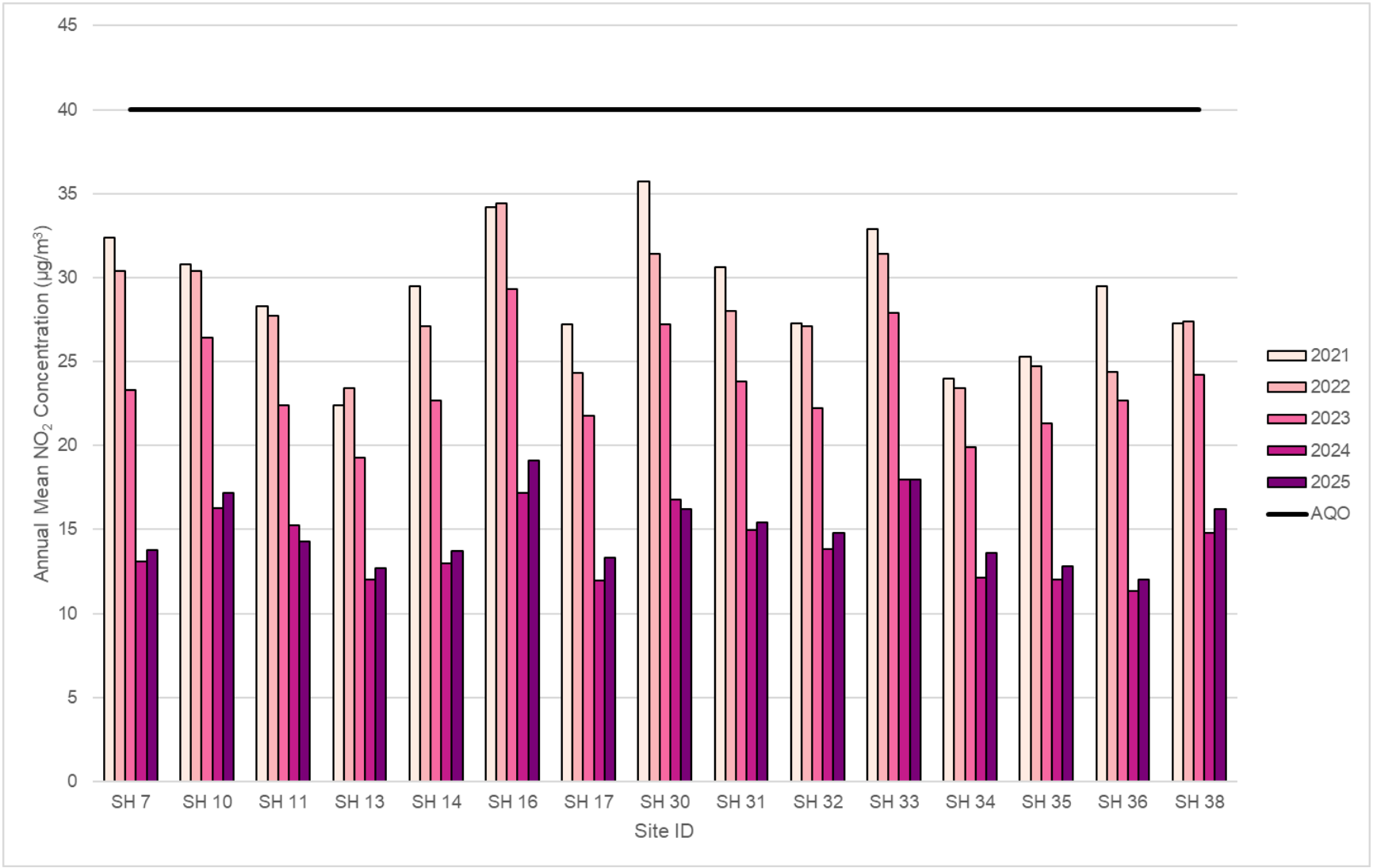


Table A.5 – 1-Hour Mean NO_2 Monitoring Results, Number of 1-Hour Means > 200µg/m^3

Site 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
CM1	488647	159807	Urban Centre	65.6	65.6	0	0	0	0	0 (78)

Notes:

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

Exceedances of the NO_2 1-hour mean objective (200µg/m^3 not to be exceeded more than 18 times/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.

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

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

Table A.6 – Annual Mean PM_{10} Monitoring Results ($\mu g/m^3$)

Site 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
CM1	488647	159807	Urban Centre	72.8	72.8	14.0	19.8	16.5	15.6	15.8

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

Notes:

The annual mean concentrations are presented as $\mu g/m^3$.

Exceedances of the PM_{10} annual mean objective of $40\mu g/m^3$ are shown in **bold**.

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.

(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.7 – Trends in Annual Mean PM_{10} Concentrations

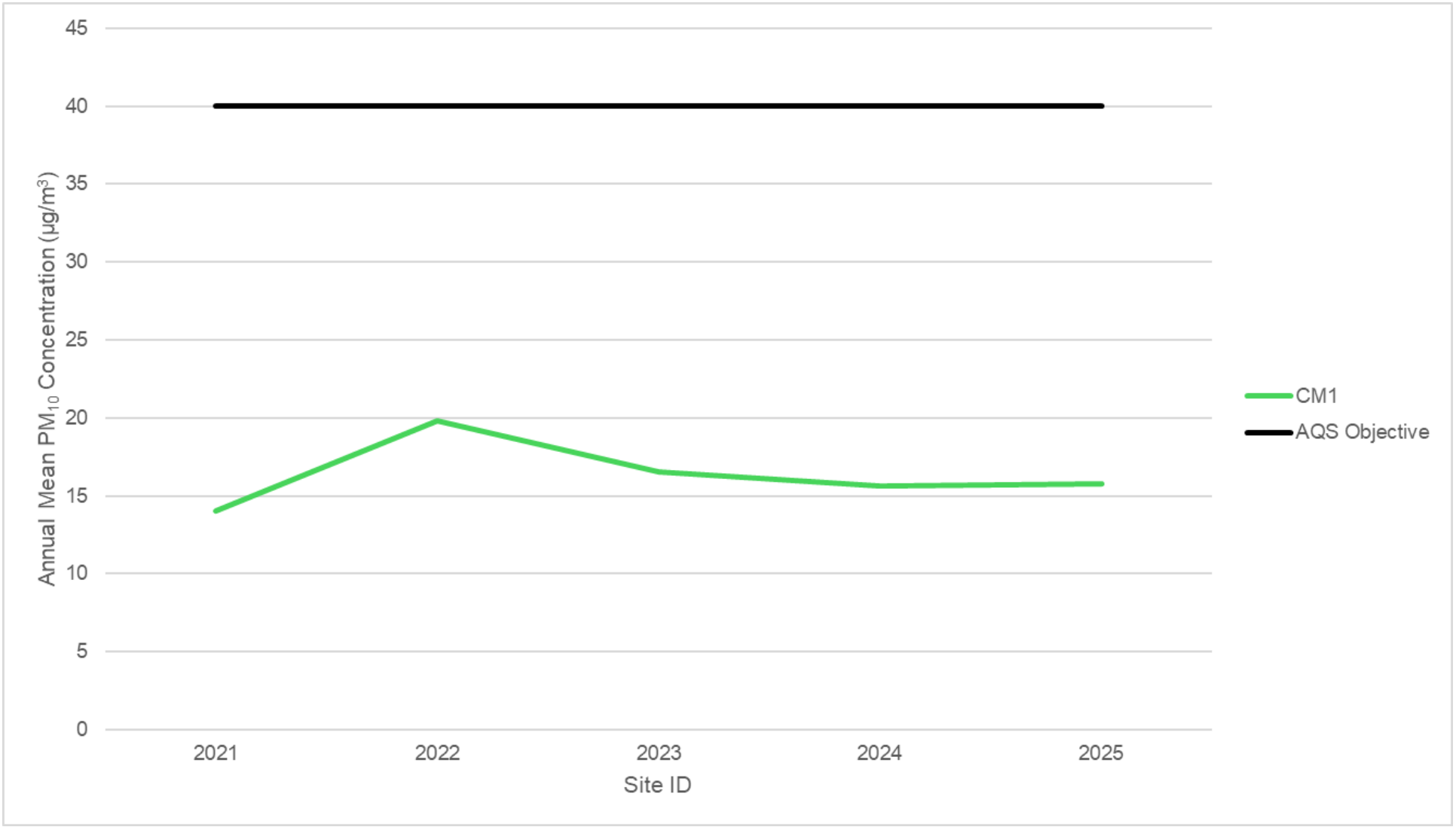


Table A.7 – 24-Hour Mean PM_{10} Monitoring Results, Number of PM_{10} 24-Hour Means > 50µg/m^3

Site 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
CM1	488647	159807	Urban Centre	72.8	72.8	0	0	0	0	1(27)

Notes:

Results are presented as the number of 24-hour periods where daily mean concentrations greater than 50µg/m^3 have been recorded.

Exceedances of the PM_{10} 24-hour mean objective (50µg/m^3 not to be exceeded more than 35 times/year) are shown in **bold**.

If the period of valid data is less than 85%, the 90.4th percentile of 24-hour means is provided in brackets.

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

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

Table A.8 – Annual Mean PM_{Coarse} Factor Calculation (µg/m^3)

Site ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Site Type	Valid PM_{10} Data Capture for 2025 (%)	Valid $PM_{2.5}$ Data Capture for 2025 (%)	Annual PM_{10}	Annual $PM_{2.5}$	PM_{Coarse}
HS5	517425	178070	Uraban Traffic	88.1	88.9	13.8	11.6	2.2

Notes:

The annual mean concentrations are presented as µg/m^3.

Table A.9 – Estimated Annual Mean $PM_{2.5}$ Automatic Monitoring Results for 2025 (µg/m^3)

Site ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Site Type	Valid PM_{10} Data Capture for 2025 (%)	Annual PM_{10}	Applied PM_{Coarse}	Estimated Annual $PM_{2.5}$
CM1	488647	159807	Urban Centre	72.8	15.8	2.2	13.6

Notes:

The annual mean concentrations are presented as µg/m^3.

Appendix B: Full Monthly Diffusion Tube Results for 2025

Table B.1 – NO_2 2025 Diffusion Tube Results ($\mu g/m^3$)

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
SH 1	491010	163344	20.0	20.0	24.0	16.8	10.6	11.4	10.7	11.0	10.2	12.1	14.3	15.8	14.7	12.5	-	
SH 2	491065	163337	19.0	20.0	22.0	17.5	9.0	11.9	9.7	13.1	10.3	10.3	14.0	14.6	14.3	12.1	-	
SH 3	492810	164408	16.0	17.0	19.0	13.4	10.6	9.3	10.6	10.7	10.0	14.4	15.7	12.2	13.2	11.3	-	
SH 4	494654	159444	13.0	14.0	16.0	11.9	10.2	10.0	10.3	10.5	7.2	9.6	16.4	11.0	11.7	9.9	-	
SH 5	489460	160586	23.0	20.0	26.0	21.6	11.2	14.8	10.7	15.4	15.2	15.2	17.7	18.5	17.4	14.8	-	
SH 6	494974	159611	25.0	21.0	21.0	17.0	10.3	10.8	9.9	11.1	11.7	13.3	15.4	16.0	15.2	12.9	-	
SH 7	496191	164418	18.0	20.0	20.0	22.7	14.1	15.4	10.7	12.8	12.0			16.2	16.2	13.8	-	
SH 8	496170	164472	19.0	20.0	21.0	16.6	17.7	14.5	10.5	10.3	10.3	13.5	13.4	13.5	15.0	12.8	-	
SH 9	489617	161874	22.0	19.0	26.0	21.3	11.5	11.7	9.7	9.0	11.0	11.1	14.9	15.1	15.2	12.9	-	
SH 10	485796	160074	33.0	26.0	26.0	24.0	15.0	13.5	11.0	14.9	16.6	21.2	21.2	20.6	20.3	17.2	-	
SH 11	486937	159011	26.0	22.0	23.0	17.8	10.1	15.5	9.0	11.1	12.8	16.2	20.7	17.7	16.8	14.3	-	
SH 12	487490	160788	23.0	16.0	27.0	17.2	10.8	16.3	11.1	11.0	10.3	17.6	16.0	18.5	16.2	13.8	-	
SH 13	488727	159591	21.0	15.0	25.0	15.1	10.5	13.5	8.3	13.2	10.5	14.4	16.4	16.2	14.9	12.7	-	
SH 14	488603	159675	19.0	17.0	24.0	19.0	13.4	14.9	8.5	12.0	13.9	15.0	17.8	18.3	16.1	13.7	-	
SH 15	488647	159807	21.0	19.0	24.0	21.5	14.7	19.6	11.7	19.0	15.2	18.6	17.5	15.1	-	-	-	Triplicate Site with SH 15, SH 22 and SH 25 - Annual data provided for SH 25 only
SH 16	486834	158336	28.0	26.0	30.0	26.4	13.9	21.2		16.0	15.8	19.1	27.5	23.4	22.5	19.1	-	
SH 17	489297	160440	19.0	17.0	26.0	18.8	11.0	14.3	7.9	13.7		14.0	15.7	15.2	15.7	13.3	-	
SH 20	490396	157290	23.0	17.0	19.0	15.9	8.3	11.1			8.2	13.3	14.8	13.8	14.4	12.3	-	

SH 21	495156	161078	20.0	20.0	21.0	15.9	9.6	9.9	8.0	10.8	9.0	10.3	19.0	13.9	14.0	11.9	-	
SH 22	488647	159807	21.0	18.0	25.0	21.7	14.3	17.7	11.4	13.4	16.4	17.5	18.1	11.8	-	-	-	Triplicate Site with SH 15, SH 22 and SH 25 - Annual data provided for SH 25 only
SH 23	490698	160351	23.0	20.0	25.0	13.5	12.8	12.8	7.3	13.5	11.4	13.5	13.9	16.4	15.3	13.0	-	
SH 24	497347	161697	27.0	21.0	31.0	20.9	16.1	16.3	10.8	10.3	12.8	16.5	14.0	17.8	17.9	15.2	-	
SH 25	488647	159807	23.0	18.0	23.0	18.5	15.0	19.5	10.1	16.0	16.7	24.5	19.0	19.4	18.1	15.4	-	Triplicate Site with SH 15, SH 22 and SH 25 - Annual data provided for SH 25 only
SH 26	487762	161393	21.0	17.0	21.0	20.5	14.1	12.5	6.5	10.5	12.5	12.7	25.1	16.2	15.8	13.4	-	
SH 27	495553	158854	20.0	19.0	20.0	19.5	11.6	10.3	9.3	10.3	11.3	15.0	15.4	15.3	14.8	12.5	-	
SH 28	495343	159031	25.0	21.0	25.0	14.8	10.5	13.4	9.6	14.8	13.2	11.4	15.8	15.0	15.8	13.4	-	
SH 29	494228	163480	22.0	17.0	28.0	18.8	10.3	13.7	10.8	9.3	11.1	13.9	15.8		15.5	13.2	-	
SH 30	487318	158515	25.0	25.0	29.0	19.3	16.7	19.5	11.2	14.9	12.8	17.5	16.4	21.7	19.1	16.2	-	
SH 31	487022	158419	23.0	25.0	23.0	20.6		19.6	10.0	13.7	13.4	16.3	16.3	18.1	18.1	15.4	-	
SH 32	486979	158393	21.0	23.0	24.0	21.3	11.9	14.2	10.6	16.0	14.0	15.4	19.0	18.5	17.4	14.8	-	
SH 33	486843	158319	27.0	27.0		25.6		20.2	20.2	19.0	18.6	19.9	13.5	20.8	21.2	18.0	-	
SH 34	488052	159239	20.0	23.0	21.0	18.9	10.8	11.3	6.9	11.9		10.8	23.0	18.4	16.0	13.6	-	
SH 35	489189	160209	20.0	18.0	20.0	24.6	10.6	12.3	9.0	10.7	11.9	14.3	15.4	14.2	15.1	12.8	-	
SH 36	489350	160389	19.0	15.0	23.0	15.5	10.5	12.0	9.6	10.2	11.3	13.6	14.6	15.2	14.1	12.0	-	
SH 37	489082	160265	25.0	22.0	30.0	24.1	13.9	14.3	10.2	12.9	14.0	14.9		20.3	18.3	15.6	-	
SH 38	491702	163139	25.0	24.0	31.0	28.0	16.4	17.0	10.3	13.7	14.8	14.3	18.0	16.9	19.1	16.2	-	
SH 39	488724	156857	23.0	19.0	22.0	16.2	9.0	13.4			11.3	12.8	15.7	12.7	15.5	13.2	-	
SH 40	487845	158520	27.0	20.0	28.0	20.6	11.2	13.7	10.5	10.2	12.3	18.9	16.9	21.1	17.5	14.9	-	
SH 41	487196	158885	23.0	22.0	21.0	18.0	9.7	15.8	6.9	12.2	11.1	11.4	18.4	17.8	15.6	13.3	-	
SH 42	489062	158770	19.0	20.0	22.0	13.1	10.6	11.0	5.2	7.3	8.2	9.5	18.3	12.8	13.1	11.1	-	
SH 43	489242	159042	17.0	19.0	19.0	17.8	9.9	18.9	8.0	13.4	12.8	11.6	14.5	12.5	14.5	12.4	-	

SH 44	487943	158549	30.0	20.0	28.0	21.3	12.4	19.8	19.0	12.0	11.9	17.9	13.9	20.3	18.9	16.0	-	
SH 45	488011	158513	27.0	28.0		17.9		19.6	12.8	14.6	13.5	18.1	20.1	21.6	19.3	16.4	-	
SH 46	491398	162885	18.0	17.0	20.0	14.9	9.0	11.0	5.5	6.1	8.7	9.5	18.4	12.2	12.5	10.6	-	
SH 47	492111	162110	19.0	17.0	19.0	15.6	11.5	11.1	5.8	6.4	7.9	10.3	13.4	10.6	12.3	10.5	-	
SH 48	488602	158448	19.0	19.0	18.0	14.2	8.9	12.6	6.5	9.9	8.8	11.2	11.3	15.1	12.9	10.9	-	
SH 49	491017	163181	27.0	23.0	23.0	20.6	11.1	16.4		11.8	11.7	14.2	13.1	17.0	17.2	14.6	-	
SH 50	491303	163313	25.0	24.0	26.0	26.1	19.8	15.1	10.5	11.1	11.1	14.7	16.1	9.5	17.4	14.8	-	
SH 51	491033	162945	16.0	17.0	20.0	14.9	13.3	11.9	5.7	7.5	8.1	9.4	17.4	9.3	12.5	10.7	-	
SH 52	491564	163565	21.0	18.0	26.0	24.7	13.8	11.7	7.1	11.6		17.0	13.9	14.5	16.3	13.9	-	
SH 53	489009	161166	19.0	16.0	21.0	13.9	9.3	10.5	6.5	7.5	8.4	9.1	14.8	12.9	12.4	10.5	-	
SH 54	487485	157828	24.0	22.0	26.0	21.9	11.5	14.5	9.3	11.1	12.9	15.9	14.9	18.5	16.9	14.3	-	
SH 55	490495	159630	22.0	16.0	19.0	15.1	10.1	11.0			13.2	11.2	18.3	13.5	14.9	12.7	-	
SH 56	488421	155510	21.0	17.0	19.0	15.1	10.5	13.5			12.9	11.0	14.5	12.1	14.7	12.5	-	
SH 57	488955	154901	22.0	20.0	21.0	15.6	11.1	11.3			12.2	10.7	13.7	13.6	15.1	12.9	-	

☒ **All erroneous data has been removed from the NO_2 diffusion tube dataset presented in Table B.1**.

☒ **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.**

☒ **Surrey Heath Council confirm that all 2025 diffusion tube data have been uploaded to the Diffusion Tube Data Entry System.**

Notes:

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

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

See Appendix C for details on bias adjustment and annualisation.

Appendix C: Supporting Technical Information / Air Quality Monitoring Data QA/QC

New or Changed Sources Identified Within SHBC During 2025

SHBC has not identified any new sources relating to air quality within the reporting year of 2024.

Additional Air Quality Works Undertaken by SHBC During 2025

SHBC has not completed any additional works within the reporting year of 2025.

QA/QC of Diffusion Tube Monitoring

SHBC's NO_2 diffusion tubes are supplied and analysed by Lambeth Scientific Services Ltd, a National Measurement Accreditation Service (NAMAS) approved laboratory, using the 50% triethanolamine (TEA) in Acetone method. This method conforms to the guidelines set out in Defra's 'Diffusion Tubes for Ambient NO_2 Monitoring: Practical Guidance' document.

The Ambient, Indoor, Workplace Air and Stack Emissions Proficiency Testing Scheme (AIR PT) is an independent proficiency-testing program managed by LGC Standards and supported by the Health and Safety Laboratory (HSL). Defra and the Devolved Administrations recommend that diffusion tubes used for LAQM be sourced from laboratories that have proven their performance through the AIR PT scheme. The AIR NO_2 PT is a crucial component of the UK NO_2 Network's QA/QC processes, serving as an effective tool for evaluating the analytical capabilities of laboratories that provide diffusion tubes to Local Authorities for LAQM purposes.

During 2025 Lambeth Scientific Services Ltd participated in the AIR PT programme, and obtained 100% ratings for AIR PT AR068 (January-February 2025), and AIR PT AR069 (April-June 2025), 75% rating for AIR PT AR071 (July-September 2025) and 50% rating for AIR PT AR072 (October-December 2025). Results can be found at: https://laqm.defra.gov.uk/wp-content/uploads/2026/03/AIR-PT-Rounds-62-to-74-February-2024-February-2026.pdf

Diffusion tube deployments were done following the Defra Calendar where possible, slight delays of 1 – 2 days occurred for the collection of some deployments due to postal delays.

Diffusion Tube Annualisation

All diffusion tube monitoring locations within Surrey Heath recorded data capture of 75% therefore it was not required to annualise any monitoring data. In addition, any sites with a data capture below 25% do not require annualisation.

Diffusion Tube Bias Adjustment Factors

The diffusion tube data presented within the 2026 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.

Due to concerns raised regarding the suitability of the CM1 automatic monitoring station for use as a co-location site, particularly that it may not meet the micro-siting criteria outlined in LAQM.TG(22) and is situated at a distance from the M3, as well as the poor overall data capture recorded at CM1 for 2025, SHBC have opted to apply a national bias adjustment factor of 0.85 to the 2025 monitoring data.

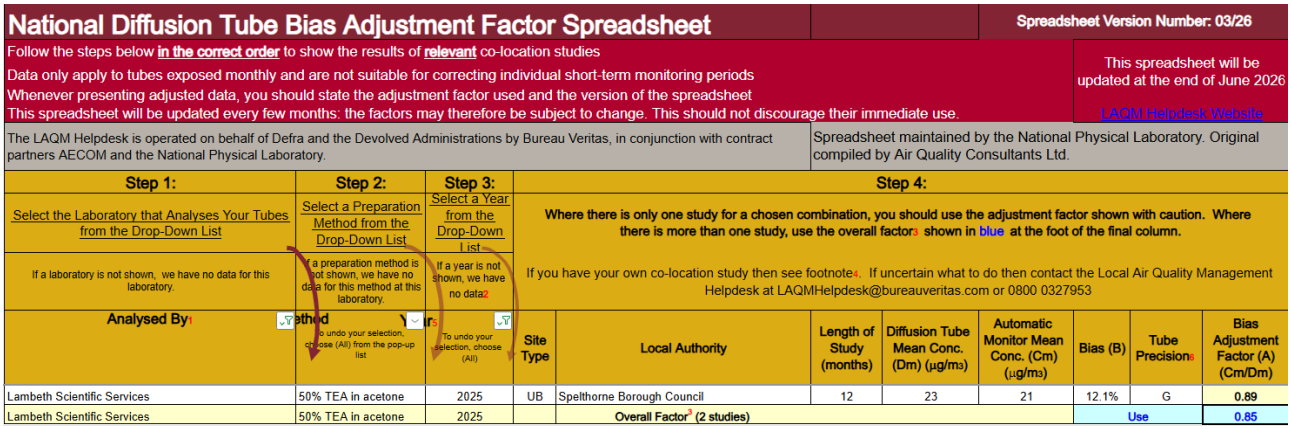
A summary of bias adjustment factors used by SHBC over the past five years is presented in Table C.1. The calculation using the LAQM national bias adjustment spreadsheet is shown in **Error! Reference source not found.**. The local bias adjustment factor was also calculated for comparison, which is provided in Table C.3

Table C.1 – Bias Adjustment Factor

Monitoring Year	Local or National	If National, Version of National Spreadsheet	Adjustment Factor
2025	National	03/26	0.85
2024	National	04/25	0.81
2023	Local	-	1.09
2022	Local	-	1.30

2021	Local	-	1.36

Figure C.8 – National Diffusion Tube Bias Adjustment Factor Spreadsheet



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

This spreadsheet will be updated at the end of June 2026

LAQM Helpdesk Website

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

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

Step 1: Select the Laboratory that Analyses Your Tubes from the Drop-Down List

If a laboratory is not shown, we have no data for this laboratory.

Step 2: Select a Preparation Method from the Drop-Down List

If a preparation method is not shown, we have no data for this method at this laboratory.

Step 3: Select a Year from the Drop-Down List

If a year is not shown, we have no data[2]

Step 4: Where there is only one study for a chosen combination, you should use the adjustment factor shown with caution. Where there is more than one study, use the overall factor[3] shown in blue at the foot of the final column.

If 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[5]	Site Type	Local Authority	Length of Study (months)	Diffusion Tube Mean Conc. (Dm) (µg/m3)	Automatic Monitor Mean Conc. (Cm) (µg/m3)	Bias (B)	Tube Precision[6]	Bias Adjustment Factor (A) (Cm/Dm)
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[3] (2 studies)				Use		0.85

Table C.2 – Local Bias Adjustment Calculation

	Local Bias Adjustment Input 1
Periods used to calculate bias	5
Bias Factor A	1.33 (1.1 – 1.68)
Bias Factor B	-25% (-40% - -9%)
Diffusion Tube Mean (µg/m^3)	19.7
Mean CV (Precision)	6.8%
Automatic Mean (µg/m^3)	26.1
Data Capture	64%
Adjusted Tube Mean (µg/m^3)	26 (22 – 33)

Notes:

A single local bias adjustment factor has been calculated using the 2025 diffusion tube results.

NO_2 Fall-off with Distance from the Road

Wherever possible, monitoring locations are representative of exposure. However, where this is not possible, the NO_2 concentration at the nearest location relevant for exposure has been estimated using the Diffusion Tube Data Processing Tool/NO_2 fall-off with distance calculator available on the LAQM Support website. Where appropriate, non-automatic annual mean NO_2 concentrations corrected for distance are presented in Table B.1.

No NO_2 monitoring locations within the borough required distance correction during 2024, since none were within 10% of the objective (>36 µg/m^3).

QA/QC of Automatic Monitoring

During 2025, the Castle Road site was locally operated by SHBC. QA/QC procedures involved maintenance and calibration of the kit by Wecare4Air as well as data validation, scaling and ratification and Quality Control by Air Quality Data Management. All data have been ratified according to Defra LAQM Technical Guidance (TG22) standards. Further details of the validation and ratification process are available in Appendix F of this report.

Automatic Monitoring Annualisation

During 2025 the Castle Road automatic monitoring site, CM1, recorded a data capture rate of 65.6% for NO_2 and 72.8% for PM_{10}, both of which are less than 75%. Therefore, annualisation was conducted for both pollutants in accordance with LAQM.TG22.

Table C.3 – Automatic NO_2 Annualisation Summary (concentrations presented in µg/m³)

Background Site	Annual Data Capture	Annual Mean (A_m)	CM1	
			Period Mean (P_m)	Ratio (A_m/P_m)
Chilbolton Observatory	95.7	6.5	7.0	0.921
London Hillingdon	96.1	24.8	27.2	0.913
Oxford St Ebbes	96.2	11.2	12.2	0.918
Reading New Town	98.7	11.7	13.0	0.898
Average (R_a)			**0.913**	
Raw Data Annual Mean (M)			**25.0**	
Annualised Annual Mean (M x R_a)			**22.9**	

Table C.4 – Automatic PM_{10} Annualisation Summary (concentrations presented in µg/m³)

Background Site	Annual Data Capture	Annual Mean (A_m)	CM1	
			Period Mean (P_m)	Ratio (A_m/P_m)
Chilbolton observatory	99.6	11.4	11.5	0.983
London Hillingdon	95.3	16.7	17.6	0.951
Oxford St Ebbes	99.6	10.2	10.6	0.961

Reading New Town	99.6	12.3	12.9	0.954
Average (R_a)			**0.962**	
Raw Data Annual Mean (M)			**16.4**	
Annualised Annual Mean (M x R_a)			**15.8**	

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

Figure D.9 – Map of Monitoring Sites Southwest

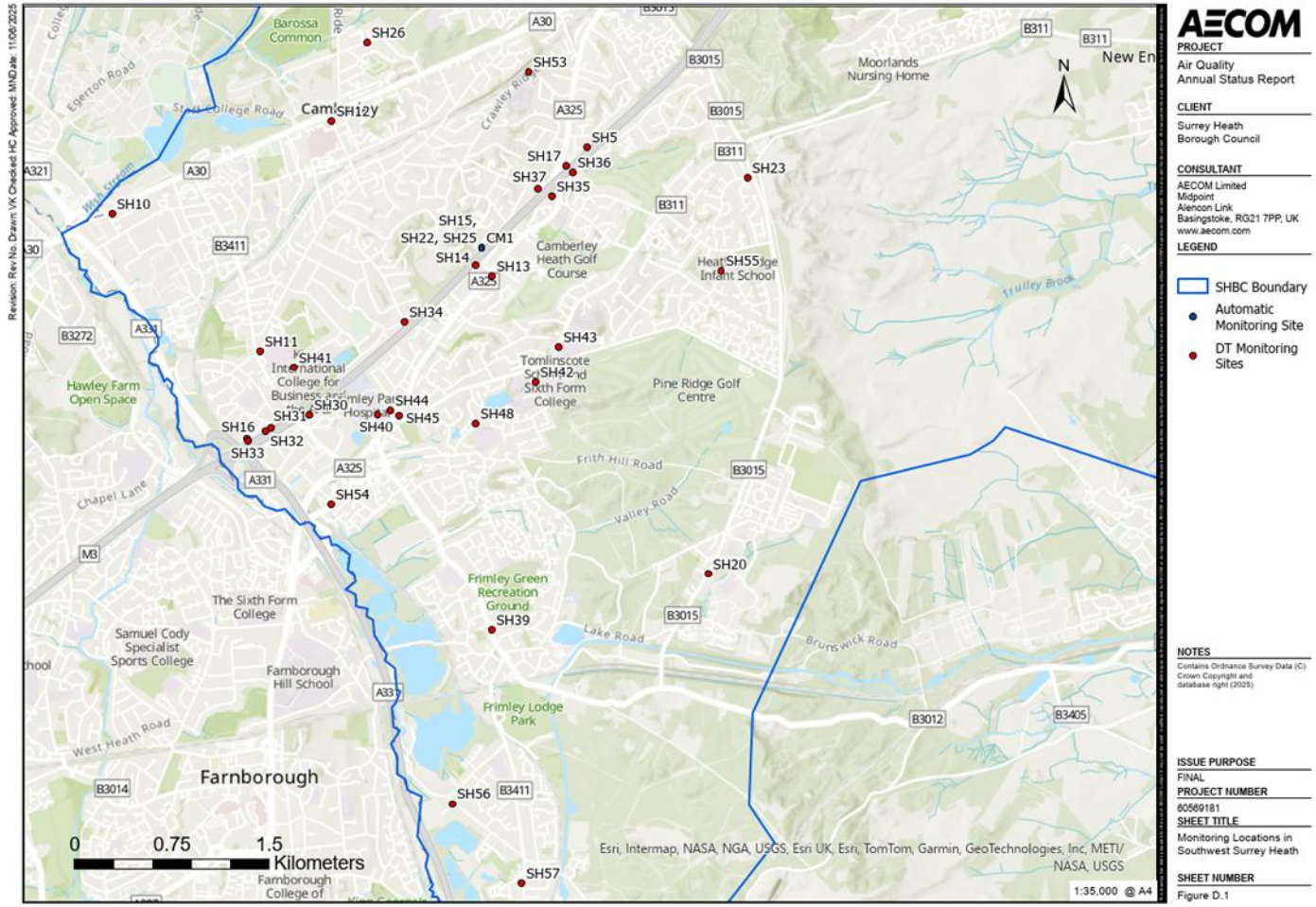
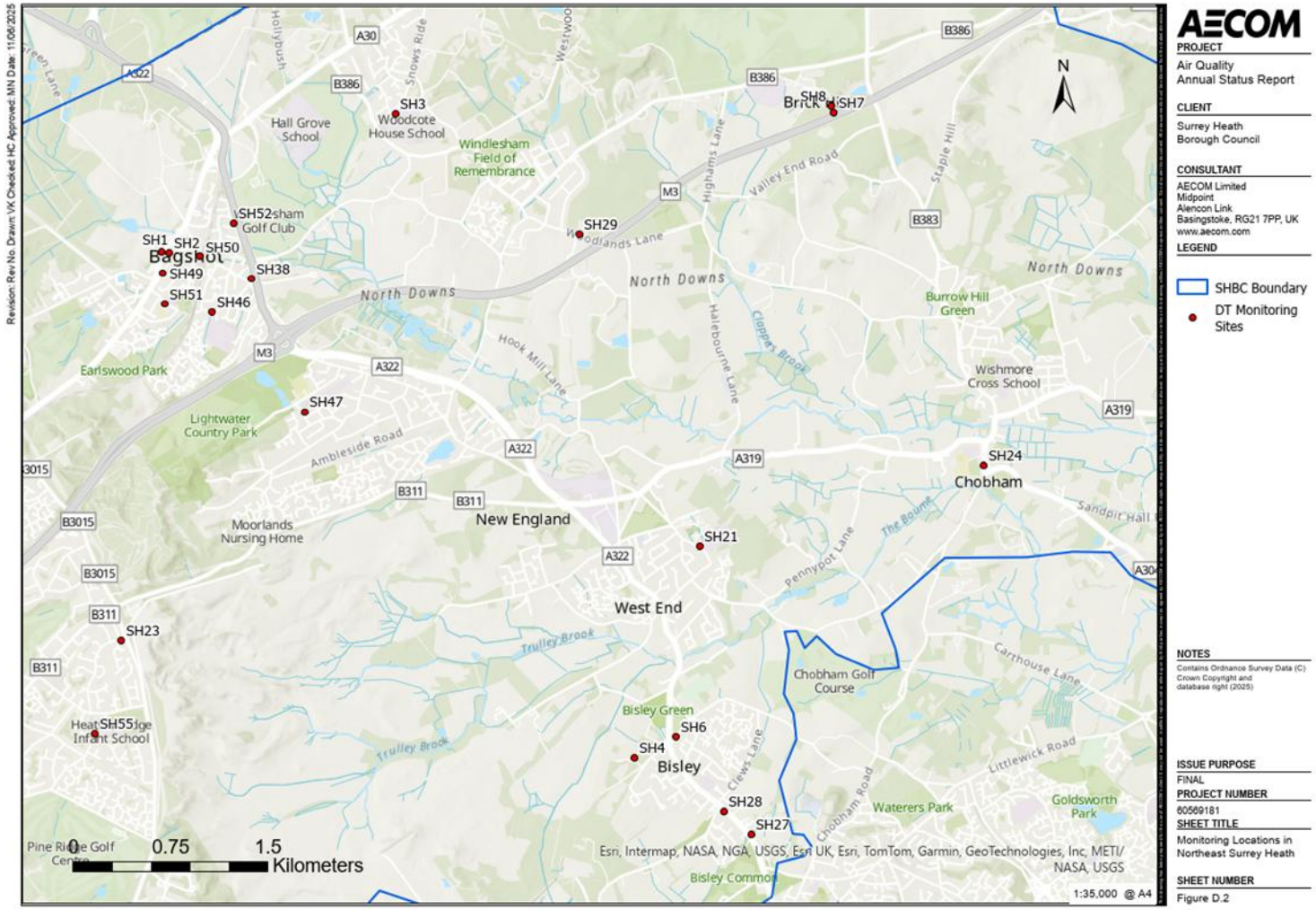


Figure D.10 – Map of Monitoring Sites Northeast



Appendix E: Summary of Air Quality Objectives in England

Table E.1 – Air Quality Objectives in England[2]

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

[2] The units are in microgrammes of pollutant per cubic metre of air (µg/m^3).

Appendix F: QA/QC of Automatic Air Quality Monitoring

Air quality measurements from the automatic instruments are validated and ratified by Air Quality Data Management (AQDM) http://www.aqdm.co.uk to the standards described in the Local Air Quality Management – Technical Guidance LAQM (TG22) The following measures have been taken as part of the QA/QC of SHBC's automatic AQ monitoring

Validation

This process operates on data during the data collection stage. All data are continually screened algorithmically and manually for anomalies. There are several techniques designed to discover spurious and unusual measurements within a very large dataset. These anomalies may be due to equipment failure, human error, power failures, interference or other disturbances. Automatic screening can only safely identify spurious results that need further manual investigation.

Raw data from the gaseous instruments (e.g. NOx) are scaled into concentrations using the latest values derived from the manual and automatic calibrations. These instruments are not absolute and suffer drifts. Both the zero baseline (background) and the sensitivity may change over time. Regular calibrations with certified gas standards are used to measure the zero and sensitivity. However, these are only valid for the moment of the calibration since the instrument will continue to drift. Raw measurements from particulate instruments (e.g. PM_{10} and $PM_{2.5}$) generally do not require scaling into concentrations. The original raw data are always preserved intact while the processed data are dynamically scaled and edited.

Ratification

This is the process that finalises the data to produce the measurements suitable for reporting. All available information is critically assessed so that the best data scaling is applied and all anomalies are appropriately edited. Generally, this operates at three, six- or twelve-month intervals. However, unexpected faults can be identified during the instrument routine services or independent audits which are often at 6-monthly intervals. In practice, therefore, the data can only be fully ratified in 12-month or annual periods. The data processing performed during the three and six monthly cycles helps build a reliable dataset that is finalised at the end of the year.

There is a diverse range of additional information that can be essential to the correct understanding and editing of data anomalies. These may include

- the correct scaling of data
- ignoring calibrations that were poor e.g. a spent zero scrubber
- closely tracking rapid drifts or eliminating the data
- comparing the measurements with other pollutants and nearby sites
- corrections due to span cylinder drift
- corrections due to flow drifts for the particulate instruments
- corrections for ozone instrument sensitivity drifts
- eliminating measurements for NO2 conversion inefficiencies
- eliminating periods where calibration gas is in the ambient dataset
- identifying periods where instruments are warming up after a power cut
- identification of anomalies due to mains power spikes
- correcting problems with the date and time stamp
- observations made during the sites visits and services

The identification of data anomalies, the proper understanding of the effects and the application of appropriate corrections requires expertise gained over many years of operational experience. Instruments and infrastructure can fail in numerous ways that significantly and visually affect the quality of the measurements. There are rarely simple faults that can be discovered by computer algorithms or can be understood without previous experience.

Other PM corrections will be applied as published by Defra https://uk-air.defra.gov.uk/networks/monitoring-methods?view=mcerts-scheme depending on the measurement technique.

All concentrations and statistics reported as “Ratified by AQDM” are ready for the ASR under the LAQM regime. Small negative PM concentrations are valid. Clients and contractors should be careful if the statistics are recalculated from the ratified concentrations using other tools. Further information about air quality data management, expert data ratification and
examples of bad practices are given on the Air Quality Data Management (AQDM) website http://www.aqdm.co.uk.

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'
AQG	Air Quality Guidance
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
BAM	Beta Attenuation Monitor
Defra	Department for Environment, Food and Rural Affairs
EV	Electric Vehicle
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
SHBC	Surrey Heath Borough Council
SO_2	Sulphur Dioxide
WHO	World Health Organisation

References

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- Defra, LAQM, Local bias adjustment factor spreadsheet, https://laqm.defra.gov.uk/bias-adjustment-factors/local-bias.html accessed May 2026