



Nuneaton and Bedworth Borough Council

Annual Status Report 2024

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2024 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, 2024

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Executive Summary: Air Quality in Our Area

Air Quality in Nuneaton and Bedworth

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. In the UK, it is estimated that the reduction in healthy life expectancy caused by air pollution is equivalent to 29,000 to 43,000 deaths a year¹.

Air pollution particularly affects the most vulnerable in society, children, the elderly, and those with existing heart and lung conditions. Additionally, people living in less affluent areas are most exposed to dangerous levels of air pollution².

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})	<p>Particulate matter is everything in the air that is not a gas.</p> <p>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.</p> <p>PM₁₀ refers to particles under 10 micrometres. Fine particulate matter or PM_{2.5} are particles under 2.5 micrometres.</p>

¹ UK Health Security Agency. Chemical Hazards and Poisons Report, Issue 28, 2022.

² Defra. Air quality and social deprivation in the UK: an environmental inequalities analysis, 2006

The main sources of air pollution within Nuneaton and Bedworth are from road traffic, contributing to elevated concentrations of nitrogen dioxide (NO₂) and fine particulate matter (PM₁₀ and PM_{2.5}). Currently, there are two designated Air Quality Management Areas (AQMA) in the borough, both of which have been declared in relation to exceedances of the Air Quality Strategy (AQS) annual mean objective for NO₂ and both are adjacent to busy roads and interchanges within Nuneaton. The boundaries of the two AQMAs can be viewed online at [Local Authority Details - Defra, UK](#), details are provided in Table 2.1 and maps are presented in Figure D.1 to Figure D.5 (Appendix D).

Compared to 2022 levels, air pollutant concentrations decreased across Nuneaton and Bedworth at all monitoring locations in 2023. Air pollutant concentrations in Nuneaton and Bedworth are generally demonstrating a long-term reduction. Consistently low NO₂ concentrations in the Leicester Road Gyratory AQMA (AQMA 1) led to Defra recommending its revocation in 2018; this revocation is currently delayed by the local election process. The plan is to take the report to the September cabinet and for AQMA 1 to be revoked. The Midland Road / Corporation Street AQMA (AQMA 2) has achieved four consecutive years of compliance since 2020. Considering the first year of compliance was achieved in 2020 which was under the impact of COVID-19 lockdown and may not be representation of long term trends, the monitoring results will be reviewed in the 2025 ASR to decide whether to revoke the AQMA.

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.

The Environmental Improvement Plan³ sets out actions that will drive continued improvements to air quality and to meet the new national interim and long-term targets for fine particulate matter (PM_{2.5}), the pollutant of most harmful to human health. The Air Quality Strategy⁴ provides more information on local authorities' responsibilities to work towards these new targets and reduce fine particulate matter in their areas.

³ Defra. Environmental Improvement Plan 2023, January 2023

⁴ Defra. Air Quality Strategy – Framework for Local Authority Delivery, August 2023

The Road to Zero⁵ details the Government's approach to reduce exhaust emissions from road transport through a number of mechanisms, in balance with the needs of the local community. This is extremely important given that cars are the most popular mode of personal travel and the majority of Air Quality Management Areas (AQMAs) are designated due to elevated concentrations heavily influenced by transport emissions.

Nuneaton and Bedworth Borough Council has successfully progressed and implemented the following measures:

- Vehicle Policy relating to taxis and private hire vehicles came into effect in October 2023 - all taxis and private hire vehicles have to be Euro 4 or above. This will have a positive impact on air quality as the vehicle fleets will become less polluting;
- Warwickshire Energy Strategy was adopted in 2023;
- Warwickshire's Local Cycling and Walking Infrastructure Plan (LCWIP) was approved by Warwickshire County Council in February 2024;
- Warwickshire County Council approved a new EV (Electric Vehicle) Parking Policy. This policy allows the council to make on-street EV charging bays 'EV-Only';
- Nuneaton and Bedworth Borough Council (NBBC) Health and Wellbeing Officer Steering Group was established in 2023. Amongst other issues the group aims to raise awareness of air quality on the health and wellbeing of employees;
- Since August 2022, the Safe and Active team have completed 72 'Dr. Bike' safety checks and security marked 55 bikes within NBBC, all helping to encourage modal shift; and
- An Award Programme has been introduced in schools to decrease the number of car journeys, increase walking, cycling and scooting and educate on the benefits of active travel on health and the environment. For the academic year 23-24, fourteen primary schools across Nuneaton and Bedworth received 'Safe and Active Travel' awards training. Many of these schools have also promoted active travel throughout the year, with activities such as Bike to School week and Bikeability Cycle Training.

⁵ DfT. The Road to Zero: Next steps towards cleaner road transport and delivering our Industrial Strategy, July 2018

Nuneaton and Bedworth Air Quality Supplementary Planning Document⁶ was adopted in 2020, which sets the requirements and guidance for detailed assessments and/or low emission strategies as part of planning applications.

Revised Action Plan for Nuneaton and Bedworth was adopted in 2022. The action plan outlined the actions that have been developed to address the exceedance of the annual mean NO₂ objective along Midland Road in Nuneaton, and also more strategic issues to reduce emissions of both NO₂ and PM_{2.5} across the borough, to improve health in a more equitable way. The measures are presented under five broad topics:

- Support and Collaborate with Warwickshire County Council (WCC) on Traffic Management Measures Directly Impacting Midland Road;
- Promotion of Behaviour Change away from Single Occupancy Private Vehicle Use;
- Promotion of the Use of Alternatively Fuelled Vehicles;
- Developing Policies to Support Better Air Quality; and
- Controlling Domestic Emissions.

The Plan recognises that concentrations of NO₂ are reducing and therefore, to be proportionate, focusses on actions which can be implemented within the next few years, with costs that are proportionate to the level of exceedance.

The Action Plan was written in collaboration with a Steering Group which included WCC, Highways Authority, planning and climate change colleagues and the Consultant in Public Health, Warwickshire. The Transforming Nuneaton team were also consulted with.

Conclusions and Priorities

In 2023, measured concentrations were below relevant air quality objectives, although it is acknowledged that the health impacts of air pollution exposure can occur at concentrations below the objectives. Our priorities are to ensure that the air quality objectives continue to be met along Midland Road in Nuneaton, largely through traffic management measures as well as encouragement of alternatively fuelled vehicles (in particular electric cars and buses).

⁶ Nuneaton and Bedworth Borough Council. Supplementary Planning Document: Air Quality, 2020. Available at: <https://www.nuneatonandbedworth.gov.uk/downloads/download/106/supplementary-planning-documents>

Secondly, the Nuneaton and Bedworth Borough Council Air Quality Action Plan (AQAP) aims to reduce emissions more generally across the borough through collaborative working with other policy areas such as County transport, public health, planning and work underway to tackle the Climate Emergency declared in Nuneaton and Bedworth. We will ensure that air quality is considered within transport schemes, the Borough Plan and within other policy areas which are looking to reduce vehicle use, either by encouraging active travel, by reducing travel demand, encouraging freight onto different modes, or increasing the use of non-diesel and petrol vehicles. By taking this more strategic approach, air quality and the associated health outcomes should improve across the district.

Local Engagement and How to get Involved

The main source of air pollution within Nuneaton and Bedworth originates from road traffic emissions. Therefore, the best way for members of the public to help improve air quality within the borough is to adjust travel patterns to more sustainable methods of transport. There are online tools available to help you plan your journey, including WCC's car share database ([Carshare Warwickshire community - part of the Liftshare network](#)), How You Move website and Facebook page <https://www.facebook.com/ChooseMoveCW/>, local bus timetables ([Public transport – Warwickshire County Council](#)) and cycling information ([Cycling – Warwickshire County Council](#)). The following are suggested alternatives to private travel:

- Use public transport where available – this reduces the number of private vehicles in operation, thereby reducing pollutant concentrations through a reduction in the number of vehicles and reducing congestion;
- Walk or cycle if your journey allows – from choosing to walk or cycle for your journey, the number of vehicles is reduced and also there is the added benefit of keeping fit and healthy. In addition, many of the cycle routes are off-road meaning you are not in close proximity to emissions from road traffic sources;
- Car / lift sharing – where a number of individuals are making similar journeys, such as travelling to work or to school, car sharing reduces the number of vehicles on the road and therefore the amount of emissions being released. This can be promoted via travel plans through the workplace and within schools;
- Alternative fuel / more efficient vehicles – choosing a vehicle that meets the specific needs of the owner. Fully electric, hybrid fuel and more fuel-efficient cars are available and all have different benefits by reducing emissions; and

- Home working – choosing to work from home can help to alleviate congestion on the roads during peak times and therefore reduce the amount of emissions being released.

Local Responsibilities and Commitment

This ASR was prepared by the Environmental Protection Team of Nuneaton and Bedworth Borough Council with the support and agreement of the following officers and departments:

- WCC Transport Planner for Walking, Cycling and Wheeling
- WCC Project and Programme Management Team
- NBBC Licensing Officers
- WCC Strategy and Policy Team, Transport
- WCC Road Safety Education Officer
- WCC Transport Planning (Active Travel) Team
- NBBC Home Energy Efficiency Officers

This ASR has been signed off by a Director of Public Health for Warwickshire County Council – Dr Shade Agboola.

If you have any comments on this ASR please send them to Sara Warne at:

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1 Local Air Quality Management

This report provides an overview of air quality in Nuneaton and Bedworth during 2023. 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 Nuneaton and Bedworth 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.

A summary of AQMAs declared by Nuneaton and Bedworth Borough Council can be found in Table 2.1. The table presents a description of the two AQMAs that are currently designated within Nuneaton and Bedworth. Appendix D: Map(s) of Monitoring Locations and AQMAs provides maps of AQMAs and also the air quality monitoring locations in relation to the AQMAs. Both AQMAs are designated for exceedances of the annual mean NO₂ air quality objective.

There were no exceedances of the annual mean NO₂ objective recorded at any monitoring site in Nuneaton and Bedworth in 2023.

Annual mean NO₂ concentrations in 2023 were lower than those measured in 2022 at all monitoring locations (average reduction of 8.9%).

Exceedances of the annual mean NO₂ objective were measured prior to 2020 within the existing Midland Road / Corporation Street AQMA (AQMA 2). Measured concentrations for the last four years of monitoring have been below 90% of the annual mean NO₂ objective value of 40 µg/m³ (i.e. below 36 µg/m³). However, considering the first year of compliance was achieved in 2020 which was under the impact of COVID-19 lockdown, it is recommended that concentrations within AQMA 2 are reviewed in the 2025 ASR and a decision taken as to whether to revoke the AQMA.

NO₂ concentrations measured in the Leicester Road Gyratory AQMA (AQMA 1) have been below 90% of the annual mean NO₂ objective value of 40 µg/m³ (i.e. below 36 µg/m³) for more than 10 years; concentrations in 2023 (as well as from 2020 to 2022) were all below 75% of the annual mean objective. Revocation of AQMA 1 was recommended by Defra upon review of the 2018 ASR. The recommendation to revoke AQMA 1, was taken to NBBC's Overview and Scrutiny Panel in February 2024. The panel recommended

revocation. The local election process has delayed the next steps of revocation. The plan is to take the report to the September cabinet and for AQMA 1 to be revoked.

Table 2.1 – Declared Air Quality Management Areas

AQMA Name	Date of Declaration	Pollutants and Air Quality Objectives	One Line Description	Is air quality in the AQMA influenced by roads controlled by Highways England?	Level of Exceedance: Declaration	Level of Exceedance: Current Year	Number of Years Compliant with Air Quality Objective	Name and Date of AQAP Publication	Web Link to AQAP
AQMA 1 – Leicester Road Gyratory, Nuneaton	Declared 01/03/2007	NO ₂ Annual Mean	An area of Nuneaton centred on the Leicester Gyratory system and incorporating sections of the Leicester, Old Hinckley and Weddington Roads	NO	43 µg/m ³	23.8 µg/m ³	>10	Nuneaton and Bedworth Borough Council, Air Quality Action Plan 2022	Link to AQAP
AQMA 2 – Midland Road / Corporation Street, Nuneaton	Declared 01/10/2009	NO ₂ Annual Mean	Centred on Midland Road and Corporation Street but also includes parts of Central Avenue and Manor Court Road	NO	53 µg/m ³	31.6 µg/m ³	4	Nuneaton and Bedworth Borough Council, Air Quality Action Plan 2022	Link to AQAP

- Nuneaton and Bedworth Borough Council confirm the information on UK-Air regarding their AQMA(s) is up to date.
- Nuneaton and Bedworth Borough Council confirm that all current AQAPs have been submitted to Defra.

2.2 Progress and Impact of Measures to address Air Quality in Nuneaton and Bedworth Borough Council

Defra's appraisal of last year's ASR stated that conclusions reached were accepted for all sources and pollutants, and that the report overall was well structured, detailed and provided the information specified in the Guidance. It was concluded that: "*Overall, the report is well structured and provides a good amount of detail. The Council is commended for their hard work in improving air quality across the Borough.*" The following comments are raised in the appraisal:

- It has been noted that AQMA 1 has been compliant for 10 years. Following a strengthened approach in 2023, it is now recommended that this AQMA is revoked in the upcoming year. Monitoring should continue at site AQM to highlight the possible impacts of housing development(s) surrounding the AQMA. Where possible, details of the housing development(s) and any submitted air quality assessments could be included in future ASRs to support the decision to revoke.

Revocation of AQMA 1 was recommended by Defra upon review of the 2018 ASR. The recommendation to revoke AQMA 1, was taken to NBBC's Overview and Scrutiny Panel in February 2024. The panel recommended revocation. The local election process has delayed the next steps of revocation. The plan is to take the report to the September cabinet and for AQMA 1 to be revoked.

- Graphs highlighting the trends of monitored concentrations at diffusion tube sites have been provided. These are clear and well-formatted. It may be useful to include a line highlighting the annual mean objective for easy comparison.

The 2024 ASR presents graphs highlighting the trends of monitored concentrations at diffusion tube sites and a line of the annual mean objective has been included.

- Excellent figures have been provided demonstrating the locations of AQMAs and monitoring sites. Monitoring sites are easy to distinguish, and the labels are clear to read. The Council should continue to produce figures of the same standard in future ASRs.

The 2024 ASR continue to present figures of AQMA locations and monitoring sites of the same standard.

- The Council have addressed the comments from the previous ASR appraisal. This demonstrates good practice, and the Council should continue to address all future appraisal comments in future reports.

The 2024 ASR continue to address the comments from the previous ASR appraisal for better reporting.

- It should be confirmed within the report, underneath Table B.1, whether the diffusion tube data has been uploaded into the DTDES.

It has been stated in this report that the diffusion tube data has been uploaded into the DTDES.

Nuneaton and Bedworth Borough Council has taken forward a number of direct measures during the current reporting year of 2023 in pursuit of improving local air quality. Details of all measures completed, in progress or planned are set out in Table 2.2. Five measures are included within Table 2.2, with the type of measure and the progress Nuneaton and Bedworth Borough Council have made during the reporting year of 2023 presented. Where there have been, or continue to be, barriers restricting the implementation of the measure, these are also presented within Table 2.2.

More detail on these measures can be found in the [Nuneaton and Bedworth Air Quality Action Plan](#), which was updated in 2022. This Action Plan aims to improve air quality in Nuneaton and Bedworth Borough Council's AQMAs through the following means:

- Enhancing cycling infrastructure, along with creating new infrastructure to encourage sustainable travel;
- Reducing congestion;
- Promoting active travel and alternatively fuelled vehicles; and
- Ongoing implementation of the Air Quality Supplementary Planning Document (SPD), which was adopted in 2020, to ensure air quality is fully considered in the development control process.

Key completed measures are:

- Vehicle Policy relating to taxis and private hire vehicles came into effect in October 2023 - all taxis and private hire vehicles have to be Euro 4 or above. This will have a positive impact on air quality as the vehicle fleets will become less polluting;
- Warwickshire Energy Strategy was adopted in 2023;

- Warwickshire's Local Cycling and Walking Infrastructure Plan (LCWIP) was approved by Warwickshire County Council in February 2024;
- Warwickshire County Council approved a new EV (Electric Vehicle) Parking Policy. This policy allows the council to make on-street EV charging bays 'EV-Only';
- Nuneaton and Bedworth Borough Council (NBBC) Health and Wellbeing Officer Steering Group was established in 2023. Amongst other issues the group aims to raise awareness of air quality on the health and wellbeing of employees;
- Since August 2022, the Safe and Active team have completed 72 'Dr. Bike' safety checks and security marked 55 bikes within NBBC, all helping to encourage modal shift;
- An Award Programme has been introduced in schools to decrease the number of car journeys, increase walking, cycling and scooting and educate on the benefits of active travel on health and the environment. For the academic year 23-24, fourteen primary schools across Nuneaton and Bedworth received 'Safe and Active Travel' awards training. Many of these schools have also promoted active travel throughout the year, with activities such as Bike to School week and Bikeability Cycle Training; and
- NBBC have secured a grant of over 3 million pounds from the Government's Public Sector Decarbonisation Scheme to invest in the Pingles Leisure Centre in Nuneaton. The investment will see new commercial heat pumps installed to replace the existing gas boilers. This will not only help meet NBBC's Net Zero target but have a positive impact on local air quality by reducing emissions from the leisure centre.

Another significant development is the completion of the Bermuda Connection scheme, with the Bermuda Bridge opening in 2024. During 2023, the residential road where monitoring site NB47 is located was reduced to one lane for the entire calendar year and controlled by traffic lights. The scheme has opened an existing pedestrian bridge (Bermuda Bridge) to two-way traffic, aiming to reduce congestion and improve air quality in parts of the town centre while enhancing connectivity. Data from monitoring location NB47 will be used to determine the impact of additional traffic on residents living near the bridge, now that it is fully operational.

Nuneaton and Bedworth Borough Council expects the following measures to be completed over the course of the next reporting year:

- Support and collaborate with WCC on traffic management measures directly impacting Midland Road, particularly the continuation of the Ring Road upgrades;
- Promote behaviour change away from single occupancy private vehicle use;
- Promote the use of alternatively fuelled vehicles;
- Develop policies to support better air quality; and
- Control domestic emissions.

Nuneaton and Bedworth Borough Council's priorities for the coming year are that the air quality objectives continue to be met along Midland Road in Nuneaton, largely through traffic management measures as well as encouragement of alternatively fuelled vehicles (in particular electric cars and buses).

Nuneaton and Bedworth Borough Council worked to implement these measures in partnership with the following stakeholders during 2023:

- Warwickshire County Council;
- Warwickshire County Council Highway Authority;
- Consultant in Public Health, Warwickshire; and
- Transforming Nuneaton team.

The principal challenges and barriers to implementation that Nuneaton and Bedworth Borough Council is facing are issues concerning funding. Previously funded costly upgrades to the ring road as part of TNP, including works to improve traffic flow in AQMA2 have had funding reallocated. The road schemes were to be funded partly through the My Town government cash scheme – however, other regeneration projects within the TNP have now been prioritised. The road and cycling infrastructure schemes are being reviewed by WCC.

Nuneaton and Bedworth Borough Council anticipates that the measures stated above and in Table 2.2 will help maintain compliance in AQMA 2 – Midland Road / Corporation Street.

Table 2.2 – 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	Defra AQ Grant Funding	Funding Status	Estimated Cost of Measure	Measure Status	Reduction in Pollutant / Emission from Measure	Key Performance Indicator	Progress to Date	Comments / Barriers to Implementation
1	Promote Behaviour Change away from Single Occupancy Private Vehicle Use	Promoting Travel Alternatives	Encourage/ facilitate home working, active travel campaign & infrastructure, Personalised Travel Planning, Promotion of Cycling, Promotion of Walking, School Travel Plans, Workplace Travel Planning	Ongoing and 2021 onwards	Ongoing for the measure as a whole,	WCC and NBBC	WCC	Possible	Ongoing	>£10 million for all aspects of the measure	Ongoing projects	n/a – strategic measure which will also assist in achievement of air quality objective in AQMA	Monitoring strategy for LTP	<p>Ongoing work with schools and businesses, and travel plans through planning system.</p> <p>Warwickshire's Local Cycling and Walking Infrastructure Plan (LCWIP) was approved by the County Council in February 2024. This County wide plan aims to create a safe and attractive environment for walking, wheeling and cycling, so that these modes become the natural choices for shorter journeys and outdoor recreation.</p> <p>Planning permission was been granted for a segregated pedestrian and cyclist pathway along a section of Corporation Street which is located in AQMA 2. This was due to be constructed in 2023, however this scheme is now on hold as funding has been withdrawn.</p> <p>WCC is pausing work on the development of new cycle routes on the A47 Nuneaton between Eton College and the A5 to consider next steps and funding options. This is due to a combination of factors including concerns over the level of community support for initial proposals, which to unlock funding had been designed to meet Government infrastructure design guidance and therefore provided dedicated facilities for cyclists wherever feasible. Designs included utilising some of the existing carriageway to create space for the proposed cycling infrastructure. In addition, the Hinckley</p>	<p>A number of initiatives across the borough encourage walking and cycling, Not costed specifically as wider measures to reduce emissions.</p> <p>The TNP incorporates cycling infrastructure improvements, but reallocation of funds means that several planned schemes have been halted.</p>

Measure No.	Measure Title	Category	Classification	Year Measure Introduced in AQAP	Estimated / Actual Completion Date	Organisations Involved	Funding Source	Defra AQ Grant Funding	Funding Status	Estimated Cost of Measure	Measure Status	Reduction in Pollutant / Emission from Measure	Key Performance Indicator	Progress to Date	Comments / Barriers to Implementation
															<p>Road section is yet to secure all funding needed based on initial designs. To avoid potential abortive work, the Council also wants to clarify how the proposals will link with National Highways' emerging proposals for the A5 at Dodwells as well as potential additional housing development in the area. The pause provides an opportunity to reflect on work completed to date alongside the wider opportunities and constraints affecting the scheme, wider transport network and strategic growth requirements with the aim of presenting recommendations to elected members during 2024 for how local needs can best be met.</p> <p>The A444 Weddington Road cycle route has also been paused due to it's funding being reallocated to alternative priorities within the TNP. Work to review the scheme and the funding required to deliver it at a later date is underway.</p> <p>Information promoting active travel (walking, wheeling and cycling) can be found on WCC website. Including, active travel maps, cycle training and active travel schemes. WCC are currently piloting a School Streets traffic management scheme, which closes the school road to traffic at the start and end of the school day. The impact of these changes on active travel and air quality are being monitored and will be assessed to decide if the</p>

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															<p>change should be made permanent and possibly implemented at other schools across Warwickshire including Nuneaton and Bedworth.</p> <p>WCC run 'Cars and Kids Don't Mix' campaign which encourages walking to school. Officers continue to use the ethos of #JustOneJourney when talking to residents, businesses, and community groups across Warwickshire, to encourage residents to choose more active travel. The Active Travel team review and provide comments on Travel Plans that are submitted as conditions for planning approval. They also support those responsible for delivering travel plans, by offering advice, guidance and practical support – such as events, resources and access to digital tools.</p> <p>The Safe and Active team also both deliver and support events. In Nuneaton and Bedworth, they have delivered a number of events at Leisure centres and at the George Eliot Hospital. Since August 2022, they have completed 72 'Dr. Bike' safety checks and security marked 55 bikes within NBBC, all helping to encourage modal shift.</p> <p>An Award Programme has been introduced in schools to decrease the number of car journeys, increase walking, cycling and scooting and educate on the benefits of active travel on health and the environment. For the academic year 23-24,</p>

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														fourteen primary schools across Nuneaton and Bedworth received 'Safe and Active Travel' awards training. Many of these schools have also promoted active travel throughout the year, with activities such as Bike to School week and Bikeability Cycle Training.	
2	Promote the use of Alternatively Fuelled Vehicles	Promoting Low Emission Transport	Priority Parking for LEVs, procuring alternative refuelling infrastructure to promote Low Emission Vehicles, EV recharging, Gas fuel recharging, taxi emission incentives, taxi licensing conditions	Ongoing and 2021 onwards	Ongoing with aim to become carbon neutral by 2030	WCC and NBBC	DfT, Office for Low Emission Vehicles (OLEV), Energy Savings Trust (EST), WCC	Possible	Ongoing	£1-10 million	Ongoing – some EV charging points already completed	n/a – strategic measure which will also assist in achievement of air quality objective in AQMA	Proportion of alternatively fuelled vehicles in the fleet on Warwickshire's roads	<p>Electric Vehicle (EV) Charging points</p> <p>EV charging points increasing in NBBC as funding will allow.</p> <p>All new developments are required to have EV charging points in line with the Air Quality SPD.</p> <p>WCC have been awarded an allocation of Local Electric Vehicle (LEV1) funding from Central Government which will be used to rollout on and off-street charging infrastructure in the coming years. The total number of charge points and their locations are still to be determined, but WCC's focus is on providing widespread and evenly distributed coverage for the whole county.</p> <p>WCC recently adopted a new EV Parking Policy that will allow WCC to make parking spaces adjacent to EV charge points 'EV-charging only'. This will make it easier for drivers to access the charge points, and give future EV drivers confidence to swap their vehicles, lowering emissions. Changes will be made via the TRO process and will be open to consultation.</p> <p>WCC have also secured funding through the Towns Fund for EV charging</p>	EV charging infrastructure to be implemented over next few years in line with Carbon Reduction Strategy. High cost, but grants and private sector funding available and will be actively targeted.

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														<p>points. An additional 10 charging points are to be installed in Abbey Street in 2024.</p> <p>Resident engagement is encouraged through the dedicated EV web pages and suggests of locations for EV charging points are welcomed.</p> <p>WCC are also trialling cable protectors to enable home charging on terraced streets.</p> <p>EV Buses</p> <p>National Express Coventry are now operating 130 all electric buses on several routes, some of which are cross boundary into NBBC.</p> <p>National Express Coventry are procuring a further 20 all- electric buses to complete their fleet by 2025, some of which may be cross boundary into NBBC.</p> <p>Stagecoach Midlands and Transport for West Midlands (TfWM) are close to signing of a Grant Agreement and Delivery Programme for their electric buses and at-depot charging infrastructure, Several of these routes are cross boundary into NBBC.</p> <p>WCC are working with TfWM to incorporate several cross boundary services operated by WCC into the Coventry All-electric bus scheme. Many of which cross boundary into NBBC.</p> <p>Additional funding has also been secured through the Warwickshire Zero Emission Bus Regional Area 2 (ZEBRA 2) by Stagecoach Midlands and WCC. The</p>	

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														<p>scheme will introduce 27 all-electric buses on several routes within Nuneaton and be supported by charging infrastructure at the Nuneaton bus depot.</p> <p>Taxis Policy</p> <p>The Vehicle Policy relating to taxis was approved by committee in 2023 and came into effect in October 2023. NBBC no longer accepts vehicle licence applications for hackney carriage and private hire vehicles that are Euro 4 or less.</p>	
3	Control Domestic Emissions	Promoting Low Emission Plant	Regulations for fuel quality for stationary and mobile sources	2022	n/a	NBBC	NBBC	Possible		<£10K unless a significant project on solid fuel burning is progressed		n/a – strategic measure which will also assist in achievement of air quality objective in AQMA	Level of solid fuel burning	<p>2023 saw the completion of: 52 external wall insulations, 214 central heating system replacements, 59 loft insulations, 6 Cavity wall insulations, 2 solar panels and 1 air source heat pump, through home efficiency grants for Private Sector housing.</p> <p>As part of the Social Housing Decarbonisation Fund (SHDF) Wave 1, 212 properties benefited from external wall insulation in 2023. Additional funding has been secured as part of SHDF Wave 2.1. This will be used to improve the energy efficiency in an additional 150 local authority owned dwellings.</p>	Very difficult to quantify any change in the level of solid fuel burning without detailed survey work. Cost of measure already within existing budgets.
4	Develop Policies to Support Better Air Quality	Policy Guidance and Development Control	Air Quality Planning and Policy Guidance, Low emission strategy, other policy, regional groups	Ongoing and 2021 onwards	n/a – ongoing collaborative working	NBBC	Mainly from existing budgets at both Borough and County level. Planning system generates funding, which could be used for measures within this Action Plan.	Possible	Ongoing	<£10K unless significant projects are progressed	Ongoing, SPD already completed	n/a – strategic measure which will also assist in achievement of air quality objective in AQMA	n/a as no specific projects identified as yet	<p>Air Quality SPD adopted and being implemented. Working closely with Warwickshire Public Health, mainly through the Warwickshire and Coventry Air Quality Alliance .</p> <p>Discussions are ongoing with Development Control Officers, to develop Planning Policy for the allocation of</p>	Non statutory function will require additional resources to implement. No specific budget for this work as ongoing collaborative work.

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														damage costs money obtained through the planning process to projects to improve air quality..	
5	Support and Collaborate with Warwickshire County Council on Traffic Management Measures Directly Impacting Midland Road	Traffic Management	Strategic Highway Improvements	2021 onwards	The scheme will be phased with the first phase due to be completed 2024. The whole scheme is anticipated to be completed by the end of 2025	WCC and NBBC	Developer contributions, Transforming Nuneaton project	No	Funding secured by WCC	>£10 million (including existing programme)	In planning phase	Reductions large enough to achieve the annual mean NO2 at all relevant monitoring locations	Traffic flows on Midland Road, Nuneaton, and resulting nitrogen dioxide concentrations	<p>The Transforming Nuneaton Programme (TNP) which included significant highway improvement schemes that were predicted to have a positive impact on the Midland Road AQMA (AQMA2) has been subjected to significant funding reductions. This means that the regeneration programme has had to be scaled back.</p> <p>The Abbey green cycleway, has been paused until a full north-west corridor scheme can be found and funded - there are currently no timescales.</p> <p>Funds originally allocated for the Corporation Street works have been reallocated by NBBC's Cabinet, into other Towns Fund projects. As the scheme is no longer fully funded work has halted on this scheme.</p> <p>Prior to the scaling back of the TNP a preliminary assessment of the Midland Road and Corporation Street corridor was conducted in 2023. It was concluded that no additional traffic management measures were necessary outside of the proposed major TNP works. Due to reallocation of funds and delays to the implementation of the major schemes, interim measures will be reassessed.</p> <p>Towns fund money originally allocated for the Wheat Street part of the scheme has also been</p>	Upgrades to the Ring Road are high cost. Significant funding that had been secured has been reallocated in cost reduction measures. Some additional funding has been secured from s106 agreements.

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														<p>reallocated by NBBCs cabinet. However, the shortfall for this project has been plugged from s106 contributions. Design work is due to recommence and it is anticipated that works on site will commence early 2025.</p> <p>The Leicester Road gyratory part of the scheme (AQMA 1) is progressing, with design work and land negotiations both ongoing.</p>	

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 Strategy⁷, 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.

The 2018-based background pollutant maps published by Defra⁸, which predict concentrations across the UK on a 1 x 1km grid, show that predicted 2023 concentrations of PM_{2.5} within Nuneaton and Bedworth Borough Council are well below the annual mean air quality objective of 25 µg/m³, alongside the annual mean targets published in the Environment Act 2021, corresponding to an interim target of 12 µg/m³ to be achieved by the start of 2028⁹, and a long-term target of 10 µg/m³ to be achieved by the end of 2040. The highest concentration is predicted to be 11.2 µg/m³ (predicted for 2023 from base year 2018), located in Exhall close to the Coventry Road.

Background concentrations of PM_{2.5} are predicted to decrease into the future.

The Public Health Outcomes Framework tool¹⁰, compiled by Public Health England, has a number of public health indicators that are used for public health actions, to identify areas of health inequality and concern, and monitor the differences in health impacts across regions in the UK. This framework includes an indicator “D01- Fraction of Mortality Attributable to Particulate Air Pollution” which is calculated using background annual average PM_{2.5} concentrations, modelled at a 1km² resolution based on measured concentrations from the AURN. The fraction of mortality attributable to particulate air

⁷ Defra. Air Quality Strategy – Framework for Local Authority Delivery, August 2023

⁸ Defra. Background Mapping data for local authorities - 2018. Available: [UK-AIR Background Mapping](#)

⁹ Meaning that it will be assessed using measurements from 2027. The 2040 target will be assessed using measurements from 2040. National targets are assessed against concentrations expressed to the nearest whole number, for example a concentration of 10.4 µg/m³ would not exceed the 10 µg/m³ target.

¹⁰ Public Health England. Public Health Outcomes Framework tool, 2023. Available: [Public Health Outcome Framework - Data - OHID \(phe.org.uk\)](#)

pollution in Nuneaton and Bedworth in 2022 was 5.8%, which is in line with the England average of 5.8%. The 2022 data is presented as the 2023 dataset has not been made available at the time of writing.

Nuneaton and Bedworth Borough Council is working to reduce emissions of air pollution across the borough, with many of the measures designed to reduce emissions of NO₂ also reducing emissions of PM₁₀ and PM_{2.5}:

- NBBC will be reviewing and improving the information on our website and social media communication platforms, relating to PM_{2.5}. NBBC aim to raise awareness of the impacts that woodburning stoves and open fireplaces have on local levels of PM_{2.5} concentrations and indoor air pollution.
- NBBC will be utilising the findings of an NBBC officers MSc project that assessed the indoor levels of PM_{2.5} associated with the burning of solid fuel. This will support education to control domestic emissions of PM_{2.5}. The findings have been presented to the Air Quality Alliance for Coventry and Warwickshire, to help support the knowledge and help shape future planned Public Health projects in Warwickshire on internal PM_{2.5} from woodburning stoves.
- There has been significant house building in NBBC, changing the development boundary. NBBC will be reviewing the smoke control areas to make sure that they incorporate all relevant areas.
- Defra have selected a site in Bedworth to install a monitoring station for the National PM_{2.5} monitoring network.
- NBBC have secured a grant of over 3 million pounds from the Government's Public Sector Decarbonisation Scheme to invest in the Pingles Leisure Centre in Nuneaton. The investment will see new commercial heat pumps installed to replace the existing gas boilers. This will not only help meet NBBC's Net Zero target but have a positive impact on local air quality by reducing emissions from the leisure center.

The following pollutant emission reduction measures included within Nuneaton and Bedworth Borough Council's AQAP are also likely to reduce emissions of PM_{2.5}:

- Traffic management measures targeted at Midland Road;
- Behaviour change away from single occupancy private vehicle use;
- Promoting the use of alternatively fuelled vehicles;
- Developing planning policies to support better air quality; and
- Controlling domestic emissions.

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

This section sets out the monitoring undertaken within 2023 by Nuneaton and Bedworth Borough Council and how it compares with the relevant air quality objectives. In addition, monitoring results are presented for a five-year period between 2019 and 2023 to allow monitoring trends to be identified and discussed.

3.1 Summary of Monitoring Undertaken

3.1.1 Automatic Monitoring Sites

Nuneaton and Bedworth Borough Council does not undertake automatic (continuous) monitoring.

3.1.2 Non-Automatic Monitoring Sites

Nuneaton and Bedworth Borough Council undertook non- automatic (i.e. passive) monitoring of NO₂ at 39 sites during 2023. Table A.1 in Appendix A presents the details of the non-automatic sites.

Since 2021, the roadside monitor AQM has changed from a duplicate to a single monitoring site. One new monitoring site was installed in November 2022 (NB54), located on 139 The Longshoot to monitor the potential air quality impact of the strategic housing allocation to the north of Nuneaton. The installation of NB54 was a response to a concern raised by local residents and the appraisal comment of 2022 ASR stated “*the Council have highlighted that the revocation of AQMA 1 is to be delayed due to the construction of new housing developments. This demonstrates that the Council is committed to maintaining good air quality and ensuring that areas of concern are highlighted. The Council could consider additional monitoring around this area to further support the revocation of the AQMA and to gather information on the impacts of the new housing developments*”.

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.2 in Appendix A compare the 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). There is one monitoring site in 2023 requiring annualisation (where the annual mean data capture is below 75% and greater than 25%). The annualisation detail is provided in Appendix C.

For diffusion tubes, the full 2023 dataset of monthly mean values is provided in Appendix B. Note that the concentration data presented in Table B.1 includes distance corrected values, only where relevant.

In 2023, annual mean NO₂ concentrations experienced an average decrease of 2.1µg/m³ which is 8.9% reduction when compared with average 2022 annual mean concentrations. There were no recorded exceedances of the annual mean NO₂ objective, or concentrations within 10% of the objective, at any of the monitoring sites in Nuneaton and Bedworth in 2023. The highest annual mean NO₂ concentration in 2023 was recorded at roadside site NB29 within the Midland Road / Corporation Street AQMA (AQMA 2), which measures a concentration of 31.6µg/m³.

Within the Leicester Road Gyratory AQMA (AQMA 1), the highest concentration in 2023 was recorded at roadside site AQM, with a value of 23.8µg/m³. Concentrations have remained below the objective within AQMA 1 for more than 10 years. It has therefore been recommended that this AQMA is revoked. The recommendation to revoke AQMA 1, was taken to NBBC's Overview and Scrutiny Panel in February 2024. The panel recommended revocation. The local election process has delayed the next steps of revocation, the plan is to take the report to the next cabinet and for AQMA 1 to be revoked as soon as possible.

Within the Midland Road / Corporation Street AQMA (AQMA 2), there were no recorded exceedances of the annual mean NO₂ objective, or concentrations within 10% of the objective since 2020 and achieve compliance for consecutive four years. The highest concentration in 2023 within AQMA 2 was recorded at roadside site NB29, with a value of 31.6µg/m³. The concentrations within AQMA 2 on average decreased 2.8µg/m³ from 2022 to 2023. Considering the first year of compliance within AQMA 2 was achieved in 2020 which was under the impact of COVID-19 lockdown and exceedances were recorded at NB29 and NB30 in 2019, it is recommended that concentrations within AQMA 2 are reviewed in the 2025 ASR. If five consecutive years of compliance is achieved in 2024, the AQMA 2 will be revoked.

The impact of the Bermuda Connection scheme on local air quality can be observed through the monitoring results at site NB47. In 2023, the residential road where NB47 is located was reduced to one lane for the entire year and controlled by traffic lights to enable road works to progress. The annual mean NO₂ concentration decreased to 13.1 µg/m³ in 2023 due to the traffic control for road works. Continued monitoring at this location will be important to assess the long-term air quality impacts now that the bridge is fully operational.

Figure A.1 and Figure A.2 present the trend in measured annual mean NO₂ concentrations over the past five years (2019 to 2023) at monitoring sites within AQMA 1 and AQMA 2, respectively. Figure A.3 presents the trend in measured annual mean NO₂ concentrations over the same period at the remainder of the monitoring sites located within Nuneaton, while Figure A.4 presents the trend for monitoring sites within Bedworth.

No monitoring site measured an annual mean NO₂ concentration greater than 60µg/m³ in 2023, indicating that an exceedance of the 1-hour mean NO₂ objective was highly unlikely.

Appendix A: Monitoring Results

Table A.1 – 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)
AQM	AQ Monitor, Leicester Rd	Roadside	436844	292251	NO ₂	YES -AQMA 1	1.5	4.2	No	1.3
NB01	142 Norman Avenue	Urban Background	435969	291303	NO ₂	NO	N/A	N/A	No	1.8
NB02	5 Conifer Close	Urban Background	436427	287646	NO ₂	NO	N/A	N/A	No	2.1
NB04	Leisure Ctr 72 Coventry Rd	Roadside	435793	286545	NO ₂	NO	0.0	3.6	No	3.2
NB06	Tudor Ct Bowling Green Ln	Roadside	434313	285292	NO ₂	NO	11.0	0.9	No	2.9
NB07	115 Newtown Rd Bedworth	Roadside	435345	286992	NO ₂	NO	6.0	4.4	No	2.4
NB09	Church, Manor Ct Rd	Roadside	435634	292280	NO ₂	YES -AQMA 2	1.5	2.2	No	2.4
NB15	Bridge Grove, Leicester Rd	Roadside	436883	292302	NO ₂	YES -AQMA 1	8.0	1.4	No	2.3
NB17	Balti Hut, 41 Bond Gate	Roadside	436393	291987	NO ₂	NO	0.0	1.3	No	2.3
NB18	Wheat St, Nuneaton	Roadside	436525	291863	NO ₂	NO	23.0	4.0	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)
NB20	17 Old Hinckley Rd	Roadside	436604	292202	NO ₂	YES -AQMA 1	0.0	6.9	No	2.0
NB22	58 Old Hinckley Rd	Roadside	436810	292306	NO ₂	YES -AQMA 1	0.0	8.8	No	1.9
NB23	46 Leicester Rd Nuneaton	Roadside	436841	292280	NO ₂	YES -AQMA 1	0.0	4.5	No	2.1
NB24	Lodge, 31 Leicester Rd	Roadside	436812	292196	NO ₂	YES -AQMA 1	0.0	11.0	No	2.2
NB25	25 Central Avenue	Roadside	435814	292274	NO ₂	YES -AQMA 2	0.0	6.4	No	2.1
NB26	26 Central Avenue	Roadside	435759	292311	NO ₂	YES -AQMA 2	0.0	4.6	No	2.1
NB27	90 Corporation St	Roadside	435950	292113	NO ₂	YES -AQMA 2	0.0	4.8	No	2.4
NB28	138 Corporation St	Roadside	435893	292205	NO ₂	YES -AQMA 2	0.0	4.7	No	2.4
NB29	16 Midland Road	Roadside	435626	292343	NO ₂	YES -AQMA 2	0.0	4.0	No	2.1
NB30	52 Midland Road	Roadside	435554	292378	NO ₂	YES -AQMA 2	0.0	3.8	No	2.1
NB31	376 Longford Road	Roadside	435146	284563	NO ₂	NO	0.0	12.7	No	2.5
NB35	60 Watling St	Roadside	439268	293457	NO ₂	NO	0.0	11.7	No	1.9
NB36	78 Coventry Rd Exhall	Roadside	435217	285246	NO ₂	NO	0.0	2.3	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)
NB37	19 Croft Road Nuneaton	Roadside	435051	291594	NO ₂	NO	0.0	5.8	No	2.0
NB38	115 Highfield Rd	Roadside	437198	290732	NO ₂	NO	0.0	7.2	No	1.8
NB41	11 Newtown Rd (salon)	Roadside	435619	287042	NO ₂	NO	0.0	4.8	No	2.0
NB42	18 George Street Bedworth	Roadside	435655	287135	NO ₂	NO	0.0	8.3	No	1.8
NB43	43 Hanover Glebe	Roadside	436303	290796	NO ₂	NO	0.0	11.6	No	2.0
NB44	503 Heath End Rd	Roadside	434298	290930	NO ₂	NO	2.0	2.3	No	2.2
NB45	80 Heath End Rd	Roadside	435593	290728	NO ₂	NO	4.6	2.5	No	2.4
NB46	30 Bermuda Rd	Roadside	435135	290583	NO ₂	NO	0.0	9.2	No	2.0
NB47	10 The Bridleway	Roadside	435452	290087	NO ₂	NO	0.0	4.6	No	2.0
NB48	288 Heath End Rd	Roadside	435066	290689	NO ₂	NO	0.0	8.5	No	2.1
NB49	Co-op Coventry Rd	Roadside	435231	285236	NO ₂	NO	0.0	4.2	No	2.5
NB50	66 Coventry Rd Exhall	Roadside	435201	285198	NO ₂	NO	0.0	8.3	No	2.3
NB51	Abbey Green School	Roadside	435638	292357	NO ₂	YES -AQMA 2	0.0	5.0	No	2.2

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)
NB52	Bridge St, Mower Shop*	Roadside	436147	290868	NO ₂	NO	3.0	7.2	No	2.2
NB53	McDonnell Drive	Roadside	434846	284736	NO ₂	NO	39	16	No	2.1
NB54	139 The Long Shoot	Roadside	439049	292781	NO ₂	NO	0.0	17.0	No	2.1

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.2 – Annual Mean NO₂ Monitoring Results: Non-Automatic Monitoring (µg/m³)

Diffusion Tube ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Site Type	Valid Data Capture for Monitoring Period (%) ⁽¹⁾	Valid Data Capture 2023 (%) ⁽²⁾	2019	2020	2021	2022	2023
AQM	436844	292251	Roadside	100.0	100.0	30.2	24.5	25.8	25.8	23.8
NB01	435969	291303	Urban Background	82.7	82.7	19.3	14.6	15.5	15.0	14.6
NB02	436427	287646	Urban Background	100.0	100.0	18.9	14.3	14.7	14.0	12.4
NB04	435793	286545	Roadside	100.0	100.0	30.1	26.2	27.0	25.5	23.1
NB06	434313	285292	Roadside	92.3	92.3	31.0	25.1	26.4	26.5	24.1
NB07	435345	286992	Roadside	100.0	100.0	30.9	26.0	26.1	24.8	23.3
NB09	435634	292280	Roadside	92.6	92.6	29.9	22.8	23.8	24.7	21.0
NB15	436883	292302	Roadside	100.0	100.0	26.9	21.7	23.3	22.2	21.1
NB17	436393	291987	Roadside	75.0	75.0	28.4	21.5	24.9	25.3	22.7
NB18	436525	291863	Roadside	100.0	100.0	31.6	24.9	27.1	27.0	24.2
NB20	436604	292202	Roadside	100.0	100.0	26.8	21.3	23.0	22.0	20.6
NB22	436810	292306	Roadside	100.0	100.0	24.8	18.4	20.3	19.9	18.5
NB23	436841	292280	Roadside	92.3	92.3	31.0	24.4	25.9	26.2	23.7

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 2023 (%) ⁽²⁾	2019	2020	2021	2022	2023
NB24	436812	292196	Roadside	100.0	100.0	23.9	18.0	19.8	19.4	18.1
NB25	435814	292274	Roadside	92.3	92.3	30.5	24.0	25.2	25.9	23.5
NB26	435759	292311	Roadside	100.0	100.0	28.5	22.9	24.8	25.6	23.3
NB27	435950	292113	Roadside	90.7	90.7	36.0	-	-	31.5	28.5
NB28	435893	292205	Roadside	100.0	100.0	35.7	28.5	29.8	30.2	27.1
NB29	435626	292343	Roadside	100.0	100.0	41.0	33.7	35.2	34.5	31.6
NB30	435554	292378	Roadside	100.0	100.0	42.4	33.0	35.2	34.5	29.9
NB31	435146	284563	Roadside	100.0	100.0	29.1	23.5	25.3	23.7	21.0
NB35	439268	293457	Roadside	100.0	100.0	23.0	16.7	16.8	17.6	15.5
NB36	435217	285246	Roadside	100.0	100.0	33.4	26.6	28.1	27.3	24.3
NB37	435051	291594	Roadside	100.0	100.0	32.3	24.8	28.3	27.5	25.6
NB38	437198	290732	Roadside	100.0	100.0	27.4	22.2	23.1	22.7	21.3
NB41	435619	287042	Roadside	100.0	100.0	30.5	24.9	27.1	25.2	23.2
NB42	435655	287135	Roadside	92.3	92.3	26.7	20.5	21.6	19.5	18.4

Diffusion Tube ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Site Type	Valid Data Capture for Monitoring Period (%) ⁽¹⁾	Valid Data Capture 2023 (%) ⁽²⁾	2019	2020	2021	2022	2023
NB43	436303	290796	Roadside	100.0	100.0	25.0	18.6	20.5	20.1	17.8
NB44	434298	290930	Roadside	100.0	100.0	29.2	22.5	24.9	24.0	21.6
NB45	435593	290728	Roadside	100.0	100.0	32.6	26.6	26.4	27.2	25.0
NB46	435135	290583	Roadside	100.0	100.0	19.1	13.8	14.1	15.2	12.3
NB47	435452	290087	Roadside	100.0	100.0	18.0	14.4	14.9	15.0	13.1
NB48	435066	290689	Roadside	100.0	100.0	22.7	18.3	19.8	18.5	16.9
NB49	435231	285236	Roadside	100.0	100.0	29.1	23.7	25.0	24.2	22.5
NB50	435201	285198	Roadside	50.0	50.0	30.9	25.3	27.0	25.3	24.8
NB51	435638	292357	Roadside	100.0	100.0	27.4	19.7	20.9	21.2	20.9
NB52	436147	290868	Roadside	100.0	100.0	32.1	26.2	26.6	26.6	24.2
NB53	434846	284736	Roadside	100.0	100.0	-	-	23.2	23.6	21.5
NB54	439049	292781	Roadside	100.0	100.0	-	-	-	-	12.5

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 NO_2 annual mean objective of $40\mu\text{g}/\text{m}^3$ are shown in **bold**.

NO_2 annual means exceeding $60\mu\text{g}/\text{m}^3$, 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.1 – Trends in Annual Mean NO₂ Concentrations – Leicester Road Gyratory AQMA 1

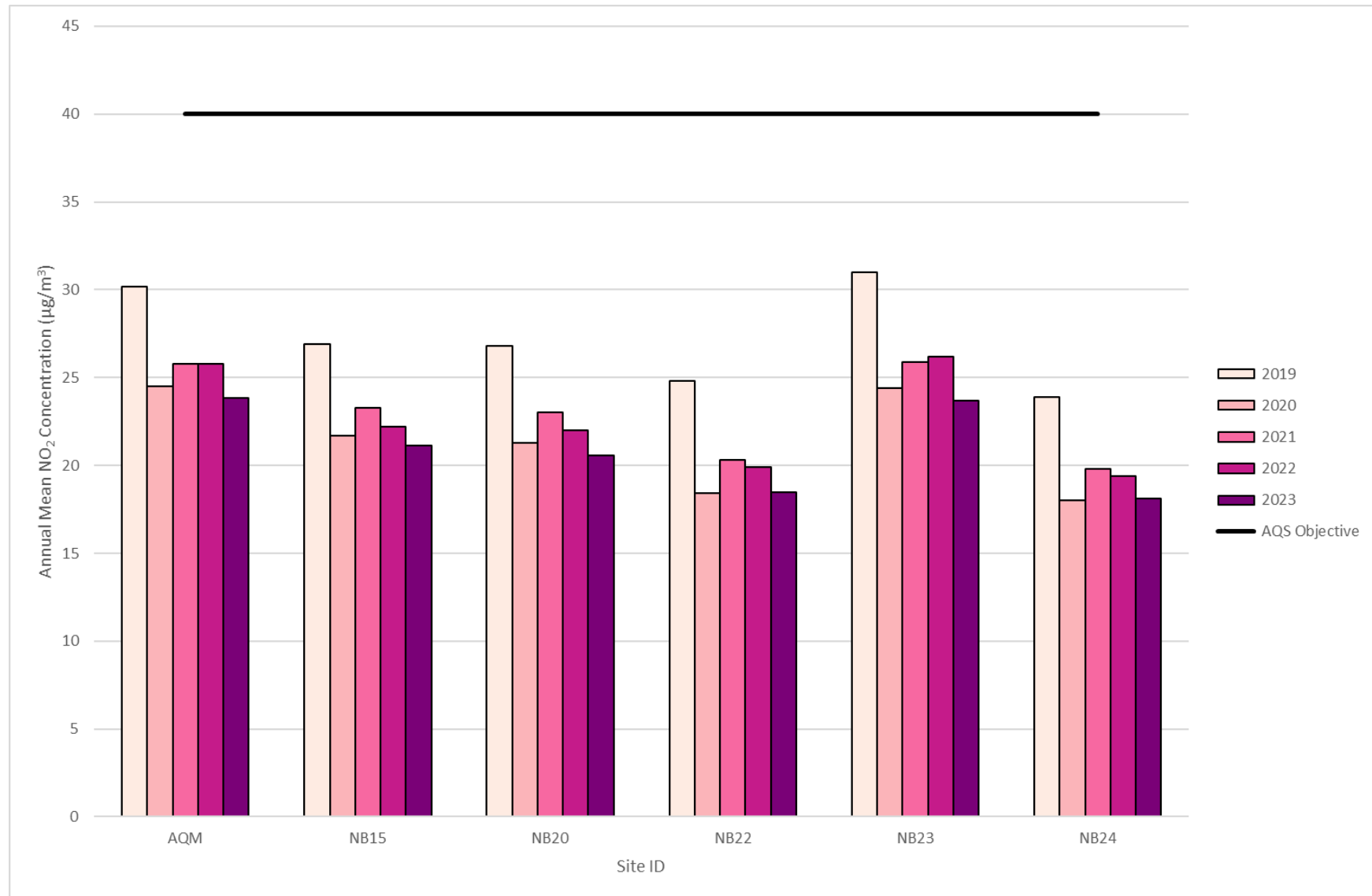


Figure A.2 – Trends in Annual Mean NO₂ Concentrations – Midland Road / Corporation Street AQMA 2

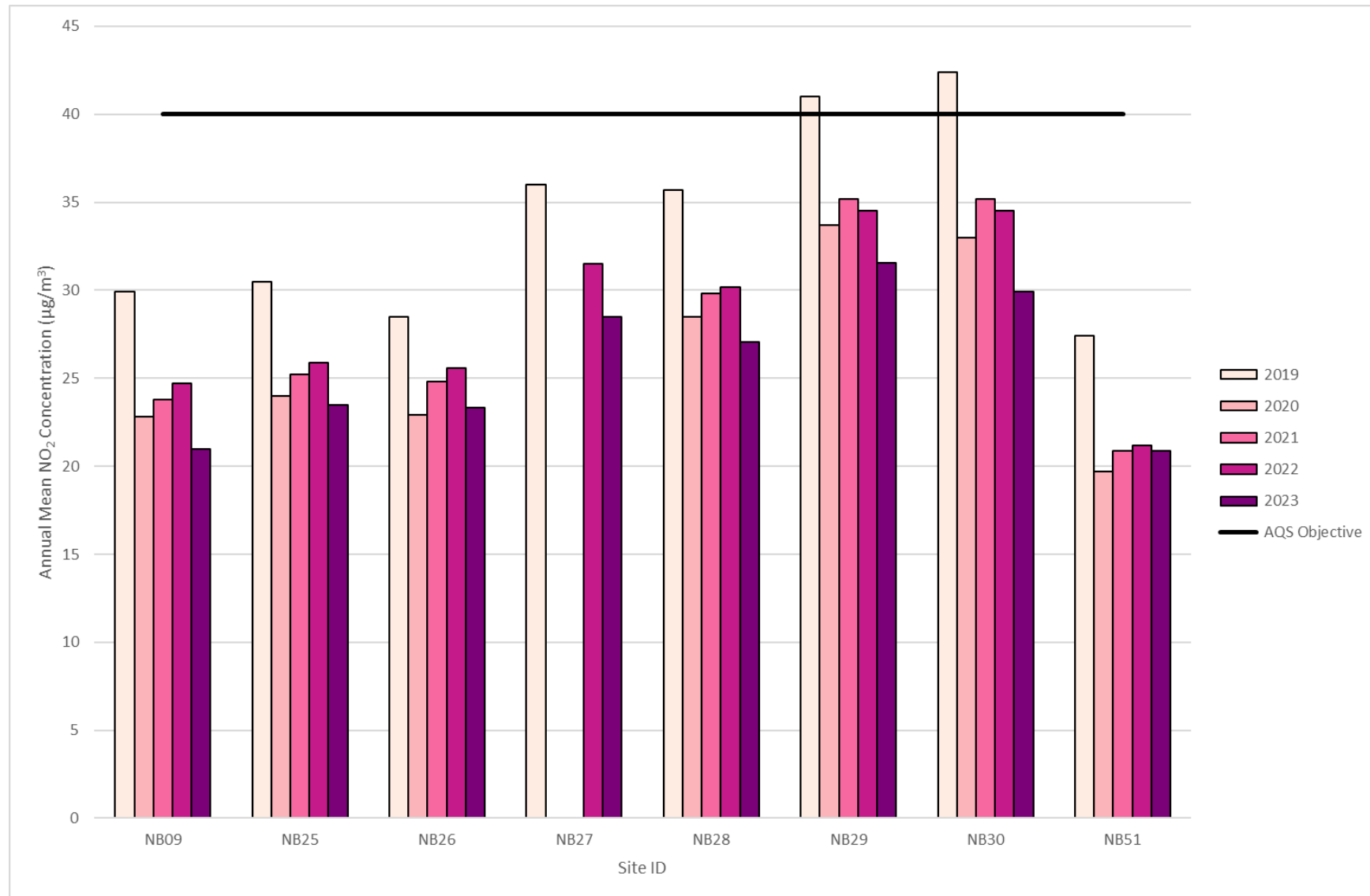


Figure A.3 – Trends in Annual Mean NO₂ Concentrations – Outside of AQMAs: Nuneaton

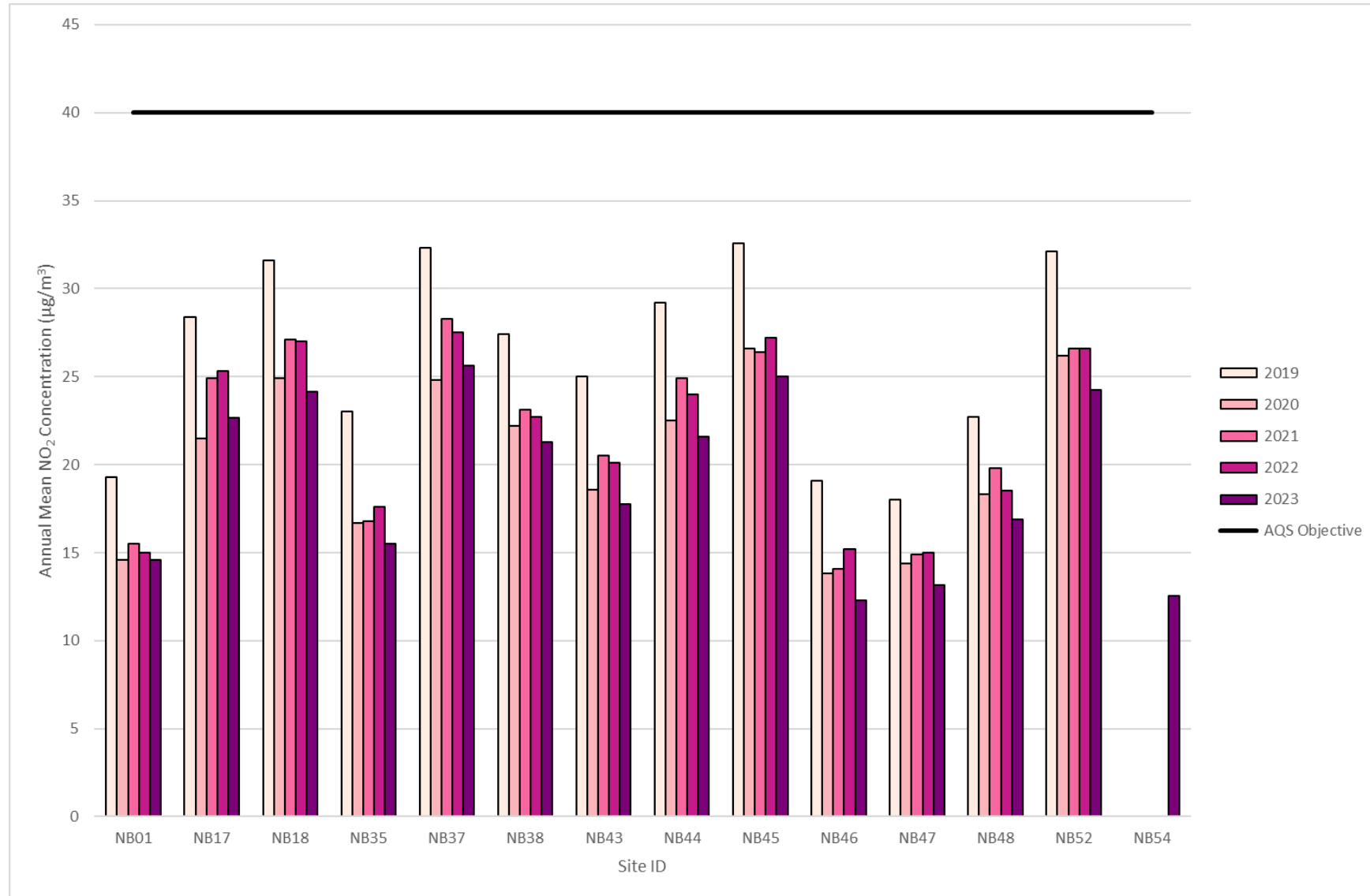
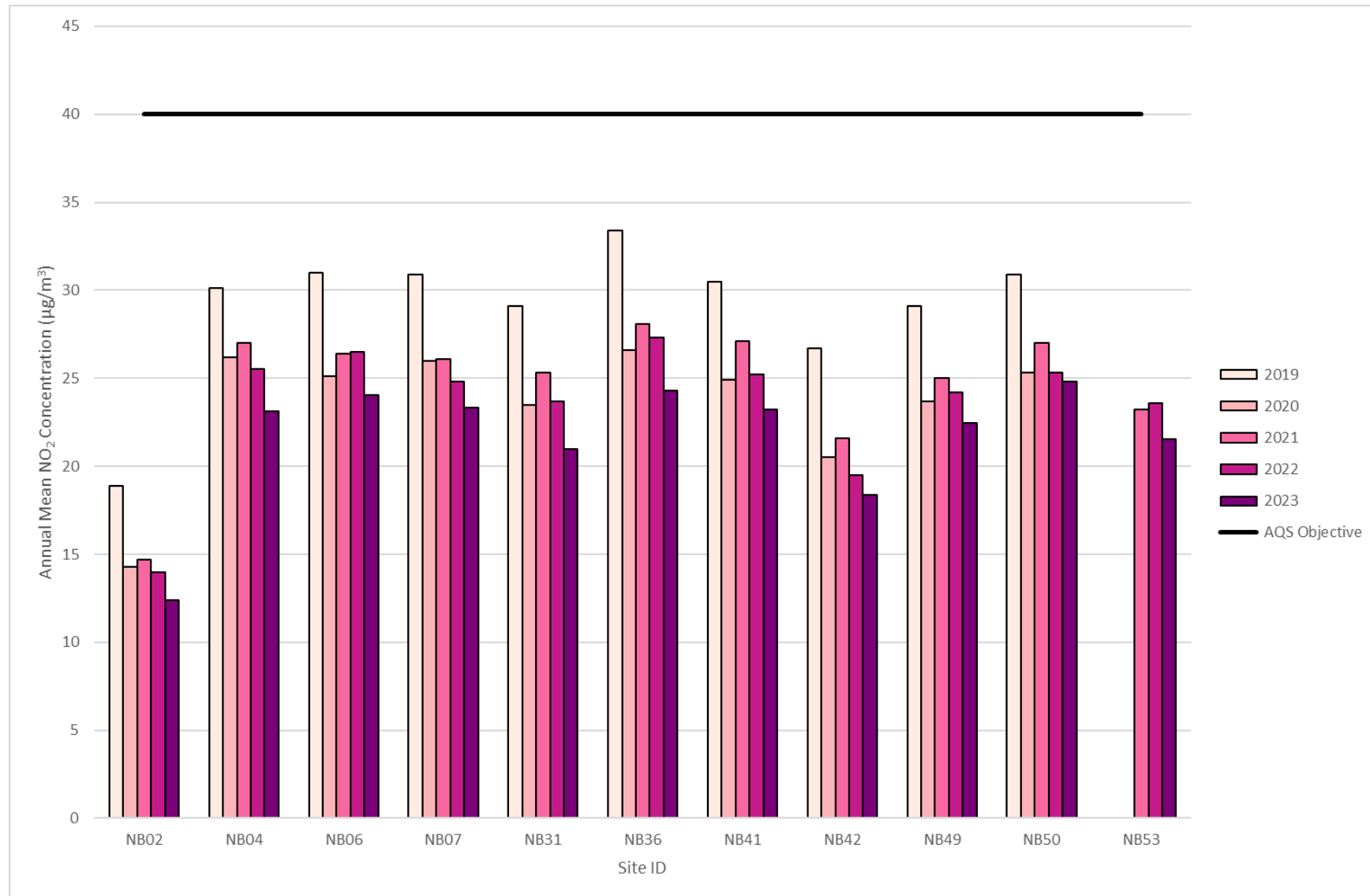


Figure A.4 – Trends in Annual Mean NO₂ Concentrations – Outside of AQMAs: Bedworth



Appendix B: Full Monthly Diffusion Tube Results for 2023

Table B.1 – NO₂ 2023 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 (0.81)	Annual Mean: Distance Corrected to Nearest Exposure	Comment
AQM	436844	292251	36.2	36.3	31.0	27.8	23.9	25.5	27.4	25.0	30.7	28.1	30.6	30.3	29.4	23.8	-	
NB01	435969	291303	23.5	22.1	19.3	16.0	12.6	11.8			16.4	19.1	23.0	16.7	18.0	14.6	-	
NB02	436427	287646	23.2	21.9	16.2	12.6	10.1	8.1	9.1	11.1	15.5	17.2	22.7	16.0	15.3	12.4	-	
NB04	435793	286545	34.9	32.5	30.9	28.3	25.4	24.1	21.9	23.2	30.9	30.7	33.9	26.0	28.6	23.1	-	
NB06	434313	285292	36.2	35.9	29.8	27.9		25.0	28.1	24.5	30.6	29.9	30.1	28.8	29.7	24.1	-	
NB07	435345	286992	36.4	38.6	30.4	26.6	24.0	26.1	21.6	22.3	28.8	28.9	33.6	28.1	28.8	23.3	-	
NB09	435634	292280	34.2		29.5	26.5	23.3	21.2	18.5	21.1	25.9	28.2	31.4	25.5	25.9	21.0	-	
NB15	436883	292302	36.7	35.8	30.1	24.9	20.4	19.4	17.3	19.0	24.5	25.5	29.7	29.7	26.1	21.1	-	
NB17	436393	291987	33.0	34.9	30.5	31.2	30.8	30.2	15.8	19.2		26.4			28.0	22.7	-	
NB18	436525	291863	38.8	40.4	31.4	28.0	24.2	21.8	24.8	23.9	30.1	32.3	33.1	29.4	29.8	24.2	-	
NB20	436604	292202	29.2	30.9	29.3	26.5	23.1	24.7	19.4	21.1	24.7	25.9	28.8	21.4	25.4	20.6	-	
NB22	436810	292306	29.0	30.1	23.5	19.3	17.1	18.8	17.8	18.5	25.3	26.1	26.8	21.6	22.8	18.5	-	
NB23	436841	292280	38.0	38.5	29.8	25.6	22.1	24.5	28.0	25.1	28.0	29.0	33.1		29.2	23.7	-	
NB24	436812	292196	29.7	29.2	23.4	19.4	20.2	18.8	16.2	17.0	22.4	23.0	28.5	20.9	22.4	18.1	-	
NB25	435814	292274	40.4	34.7	27.4	26.0	22.8	22.0	26.3	25.0	30.7	30.3	33.7		29.0	23.5	-	
NB26	435759	292311	35.7	36.1	31.2	32.0	30.8	27.4	19.7	23.8	25.8	30.3	30.6	22.4	28.8	23.3	-	
NB27	435950	292113	43.6	41.2	34.1	35.7	35.8	31.7	32.0	30.8	35.1	36.0		31.2	35.2	28.5	-	
NB28	435893	292205	41.0	39.7	35.3	33.7	29.7	27.2	30.0	27.0	34.6	36.3	36.9	29.4	33.4	27.1	-	

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 (0.81)	Annual Mean: Distance Corrected to Nearest Exposure	Comment
NB29	435626	292343	48.0	46.8	37.8	38.5	34.3	34.3	37.6	35.0	40.2	40.5	41.1	33.9	39.0	31.6	-	
NB30	435554	292378	46.0	45.6	26.6	37.8	31.4	30.8	35.2	33.6	40.4	40.2	40.7	35.0	36.9	29.9	-	
NB31	435146	284563	30.9	31.5	27.1	28.2	30.0	21.6	17.8	21.7	25.4	26.5	30.0	19.9	25.9	21.0	-	
NB35	439268	293457	24.7	23.4	20.8	19.5	16.4	15.5	11.8	15.6	19.2	21.9	24.0	16.4	19.1	15.5	-	
NB36	435217	285246	39.8	39.7	31.7	30.0	23.5	22.7	22.2	23.9	33.4	34.8	31.6	27.0	30.0	24.3	-	
NB37	435051	291594	37.5	40.3	31.7	31.7	30.5	27.0	26.5	26.7	31.9	32.4	35.1	28.5	31.6	25.6	-	
NB38	437198	290732	33.7	33.8	27.1	24.4	22.1	20.6	21.0	22.0	27.4	27.2	30.9	25.0	26.3	21.3	-	
NB41	435619	287042	34.8	38.0	26.9	29.7	30.2	28.3	18.7	23.9	28.2	30.0	32.1	23.0	28.6	23.2	-	
NB42	435655	287135		30.3	23.7	21.9	17.3	17.9	17.3	19.0	23.8	26.2	28.3	24.0	22.7	18.4	-	
NB43	436303	290796	30.0	28.2	24.7	22.5	17.7	17.3	14.3	17.4	20.7	22.9	26.9	20.5	21.9	17.8	-	
NB44	434298	290930	31.7	34.3	28.1	29.2	24.6	26.5	16.2	20.2	25.7	29.2	31.8	22.0	26.6	21.6	-	
NB45	435593	290728	39.9	38.4	32.3	29.3	24.7	25.9	24.1	22.8	32.1	35.2	35.3	30.3	30.9	25.0	-	
NB46	435135	290583	20.6	18.8	16.5	14.8	13.3	12.6	8.5	11.3	13.9	17.6	20.0	14.0	15.2	12.3	-	
NB47	435452	290087	24.5	23.2	20.2	18.5	13.7	11.5	9.5	10.5	14.7	17.3	17.2	13.8	16.2	13.1	-	
NB48	435066	290689	26.4	26.0	21.5	19.6	17.2	17.8	15.6	16.9	19.7	24.4	25.4	19.4	20.8	16.9	-	
NB49	435231	285236	34.8	34.3	29.3	27.1	23.9	23.1	22.1	24.0	28.5	30.3	30.9	24.7	27.7	22.5	-	
NB50	435201	285198							25.9	25.0	30.9	34.5	36.5	28.2	30.2	24.8	-	
NB51	435638	292357	32.6	30.9	29.0	27.9	22.4	22.8	17.4	20.9	25.0	26.5	30.0	23.6	25.7	20.9	-	
NB52	436147	290868	36.4	35.5	33.8	30.4	27.5	26.9	23.1	23.2	31.4	34.1	31.3	25.6	29.9	24.2	-	
NB53	434846	284736	32.2	33.9	30.0	28.3	24.0	20.7	18.9	21.1	26.1	29.8	29.0	25.2	26.6	21.5	-	
NB54	439049	292781	21.3	21.3	16.0	13.6	11.6	11.0	10.1	12.3	14.6	16.9	21.7	15.0	15.5	12.5	-	

- 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.
- Local bias adjustment factor used.
- National bias adjustment factor used.
- Where applicable, data has been distance corrected for relevant exposure in the final column.
- Nuneaton and Bedworth Borough Council confirm that all 2023 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 Nuneaton and Bedworth Borough Council During 2023

The following planning applications within the Nuneaton and Bedworth Borough Council area were received in 2023 and identified to have the potential to impact on air quality in the district. Table C.1 details a list of planning applications which were commented on by the Environmental Health Department in terms of air quality.

Table C.1 – Planning Applications with Air Quality Conditions in 2023

Date consultation received by Environmental Protection	Location	Details	Planning application number
13/01/2023	Part of Judkins, site 39a003 - Tuttle Hill, Nuneaton	Full planning application for the temporary use of site for open storage (Use Class B8) and associated development, for a period of up to 5 years, or until such time as the residential development for which it is allocated commences.	39352
14/03/2023	5 Bridge Street, Nuneaton, Warwickshire (Debenhams)	AQ report for mixed use residential and commercial. Refurbishment and part change of use Class E to Class C3 of existing building, with part demolition to create internal courtyard, part rooftop extension and erection of 3 storey associated building on adjacent loading area, with commercial retail Class E at ground floor and 63 No. apartments, open space, amenity and landscaping	39256
15/03/2023	"Site 98C003-Land off Lancing Road", Findon Close, Bulkington, Bedworth, Warwickshire	Outline application for residential development of up to 230 dwellings with access off Nuneaton Road and Bramcote Close (with all other matters reserved) Damage Costs calculation submitted	39005

06/04/2023	Watling Street	Erection of 34 dwellings and associated infrastructure	39512
09/05/2023	Bowling Green Lane, Bedworth	Outline planning application for the demolition of all existing structures on site, the development of up to 60,000 sq. m of commercial/industrial floorspace (Use Classes B2/B8/E(g)(ii and iii)) including ancillary office space (Use Class E(g)(i)) together with internal access roads, service yards, parking, landscaping, drainage and associated works with all matters reserved (appearance, landscaping, layout and scale) except for access to Bowling Green Lane and the widening of the carriageway of School Lane and associated works.	39611
09/05/2023	Bowling Green Lane, Bedworth	Outline planning application for the development of up to 93 dwellings (Use Class C3) and up to 70 bed care home (Use Class C2) including parking, open space, drainage and associated works with all matters reserved except for access (on to Bowling Green Lane)	39592
27/06/2023	Top Farm, Higham Lane, Nuneaton	Construction of a two storey secondary school building and sports hall, Multi Use Games Area, outdoor sports and recreation areas, parking, and associated infrastructure (within site identified for secondary school use by approved Outline Planning Application 035279)	39665
14/07/2023	Woodlands Road, Bedworth	Hybrid planning application for (i) full planning application for the demolition of the existing Woodlands Farmhouse and agricultural buildings and (ii) outline planning application for the erection of upto 150 residential dwellings (Use Class C3), and associated infrastructure, public open space and landscaping with all matters reserved except for access.	39720
13/12/2023	Coventry Road, Nuneaton	Outline planning application for up to 23,000m ³ of flexible Class E(g)(iii), B2 and B8	39979

		<p>floorspace including associated engineering and ground modelling works, landscaping, sustainable drainage system and associated works.</p>	
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Additional Air Quality Works Undertaken by Nuneaton and Bedworth Borough Council During 2023

Nuneaton and Bedworth Borough Council has not completed any additional works within the reporting year of 2023.

QA/QC of Diffusion Tube Monitoring

Diffusion tubes throughout 2023 were supplied and analysed by Gradko International using the 20% triethanolamine (TEA) in water preparation method. Gradko International is a UKAS accredited laboratory and participates in the AIR-PT Scheme (a continuation of the Workplace Analysis Scheme for Proficiency (WASP)) for NO₂ diffusion tube analysis and the Annual Field Inter-Comparison Exercise. Strict performance criteria are required to be met by participating laboratories, ensuring reported NO₂ data are of a high standard.

In the latest AIR-PT laboratory summary performance report, between September 2021 and October 2023, Gradko International scored 100% in all nine rounds reported (AR046, AR049, AR050, AR052, AR053, AR055, AR056, AR058 and AR059). The percentage score reflects the results deemed to be satisfactory based upon a z-score of $\leq \pm 2$. Gradko International also follows the procedures set out in the Harmonisation Practical Guidance.

The precision of the current 21 local authority co-location studies in 2023 detailed within the national bias adjustment factor spreadsheet (version 03/24) was rated as 'good' (tubes are considered to have "good" precision where the coefficient of variation of duplicate or triplicate diffusion tubes for eight or more periods during the year is less than 20%).

Further information on the precision summary results can be found on the LAQM website.

All diffusion tube changeovers occurred within two days of the dates of the 2023 Diffusion Tube Monitoring Calendar.

All results in Table A.2 have been bias adjusted using the national adjustment factor; further details are described below.

Diffusion Tube Annualisation

As per LAQM.TG(22), annualisation is required for any site which has a data capture of less than 75%, but greater than 25%. Annualisation was therefore required to be completed for three diffusion tube monitoring sites. The four closest continuous monitoring background locations which were selected to annualise the data were:

- Birmingham Ladywood
- Coventry Allesley
- Leamington Spa
- West Bromwich Kenrick Park

These sites have a data capture of >85% and therefore could be used for annualisation.

Table C.2 presents the annualisation summary and is taken directly from the Diffusion Tube Data Processing Tool.

Table C.2 – Annualisation Summary (concentrations presented in $\mu\text{g}/\text{m}^3$)

Site ID	Annualisation Factor - Birmingham Ladywood	Annualisation Factor Coventry Allesley	Annualisation Factor Leamington Spa	Annualisation Factor West Bromwich Kenrick Park	Average Annualisation Factor	Raw Data Annual Mean	Annualised Annual Mean
NB50	0.9977	1.0365	1.0353	0.9909	1.0151	30.2	30.6

Diffusion Tube Bias Adjustment Factors

The diffusion tube data presented within the 2024 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.

Nuneaton and Bedworth Borough Council have applied a national bias adjustment factor of 0.81 to the 2023 monitoring data. A summary of bias adjustment factors used by Nuneaton and Bedworth Borough Council over the past five years is presented in Table C.3. A screenshot of the National Bias Adjustment Factor Spreadsheet (v03/24) is also presented below.

Table C.3 – Bias Adjustment Factor

Monitoring Year	Local or National	If National, Version of National Spreadsheet	Adjustment Factor
2023	National	03/24	0.81
2022	National	03/23	0.83
2021	National	03/22	0.84
2020	National	06/21	0.81
2019	National	06/20	0.91

National Diffusion Tube Bias Adjustment Factor Spreadsheet						Spreadsheet Version Number: 03/24					
Follow the steps below in the correct order to show the results of relevant co-location studies Data only apply to tubes exposed monthly and are not suitable for correcting individual short-term monitoring periods Whenever presenting adjusted data, you should state the adjustment factor used and the version of the spreadsheet This spreadsheet will be updated every few months: the factors may therefore be subject to change. This should not discourage their immediate use.											This spreadsheet will be updated at the end of June 2024 LAQM Helpdesk Website
The LAQM Helpdesk is operated on behalf of Defra and the Devolved Administrations by Bureau Veritas, in conjunction with contract partners AECOM and the National Physical Laboratory.						Spreadsheet maintained by the National Physical Laboratory. Original compiled by Air Quality Consultants Ltd.					
Step 1:		Step 2:		Step 3:		Step 4:					
Select the Laboratory that Analyses Your Tubes from the Drop-Down List		Select a Preparation Method from the Drop-Down List		Select a Year from the Drop-Down List		Where there is only one study for a chosen combination, you should use the adjustment factor shown with caution. Where there is more than one study, use the overall factor 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 ³ . If uncertain what to do then contact the Local Air Quality Management Helpdesk at LAQMHelpdesk@bureauveritas.com or 0800 0327953					
Analysed By ¹	Method ² <small>Non-de years co-locations, change (All) from the year-value</small>	Year ² <small>To do de year co-locations, change (All)</small>	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 ¹	Bias Adjustment Factor (A) (Cm/Dm)	
Gradko	20% TEA in water	2023	R	Monmouthshire County Council	11	33	26	26.5%	G	0.79	
Gradko	20% TEA in water	2023	R	Blackburn With Darwen Bc	12	23	16	43.8%	G	0.70	
Gradko	20% TEA in water	2023	R	Lancaster City Council	10	35	27	28.6%	G	0.78	
Gradko	20% TEA in water	2023	R	Eastleigh Borough Council	12	33	26	26.4%	G	0.79	
Gradko	20% TEA in water	2023	R	Eastleigh Borough Council	12	22	19	12.5%	G	0.89	
Gradko	20% TEA in water	2023	R	Plymouth City Council	12	35	26	38.3%	S	0.72	
Gradko	20% TEA in water	2023	R	Plymouth City Council	10	39	31	24.2%	S	0.80	
Gradko	20% TEA in water	2023	UC	Belfast City Council	10	26	19	38.3%	G	0.72	
Gradko	20% TEA in water	2023	R	Cheshire West And Chester	12	35	32	10.0%	G	0.91	
Gradko	20% TEA in water	2023	R	Cheshire West And Chester	10	32	28	14.6%	G	0.87	
Gradko	20% TEA in water	2023	R	Dudley Mbc	12	27	23	17.1%	G	0.85	
Gradko	20% TEA in water	2023	UB	Dudley Mbc	12	19	13	45.4%	G	0.69	
Gradko	20% TEA in water	2023	R	Dudley Mbc	12	40	37	7.7%	G	0.93	
Gradko	20% TEA in water	2023	R	Gateshead Council	12	23	20	17.7%	G	0.85	
Gradko	20% TEA in water	2023	R	Gateshead Council	11	23	18	26.3%	G	0.79	
Gradko	20% TEA in water	2023	R	Gateshead Council	12	27	22	20.7%	G	0.83	
Gradko	20% TEA in water	2023	R	Gateshead Council	12	29	23	25.3%	G	0.79	
Gradko	20% TEA in water	2023	R	Gateshead Council	12	30	33	-7.8%	G	1.08	
Gradko	20% TEA in water	2023	KS	Magylebone Road Intercomparison	11	45	38	20.3%	G	0.83	
Gradko	20% TEA in water	2023	B	South Holland District Council	10	8	7	12.4%	G	0.89	
Gradko	20% TEA in water	2023	R	Worcestershire	12	12	11	17.4%	G	0.85	
Gradko	20% TEA in water	2023	R	Aids And North Down Borough Council	12	33	21	80.2%	G	0.62	
Gradko	20% TEA in water	2023	R	Lisburn & Castlereagh City Council	11	24	20	22.1%	G	0.82	
Overall Factor² (23 studies)								Use		0.81	

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 Nuneaton and Bedworth required distance correction during 2023.

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

Figure D.1 – Map of Non-Automatic Monitoring Site – Leicester Road Gyratory AQMA (AQMA 1)

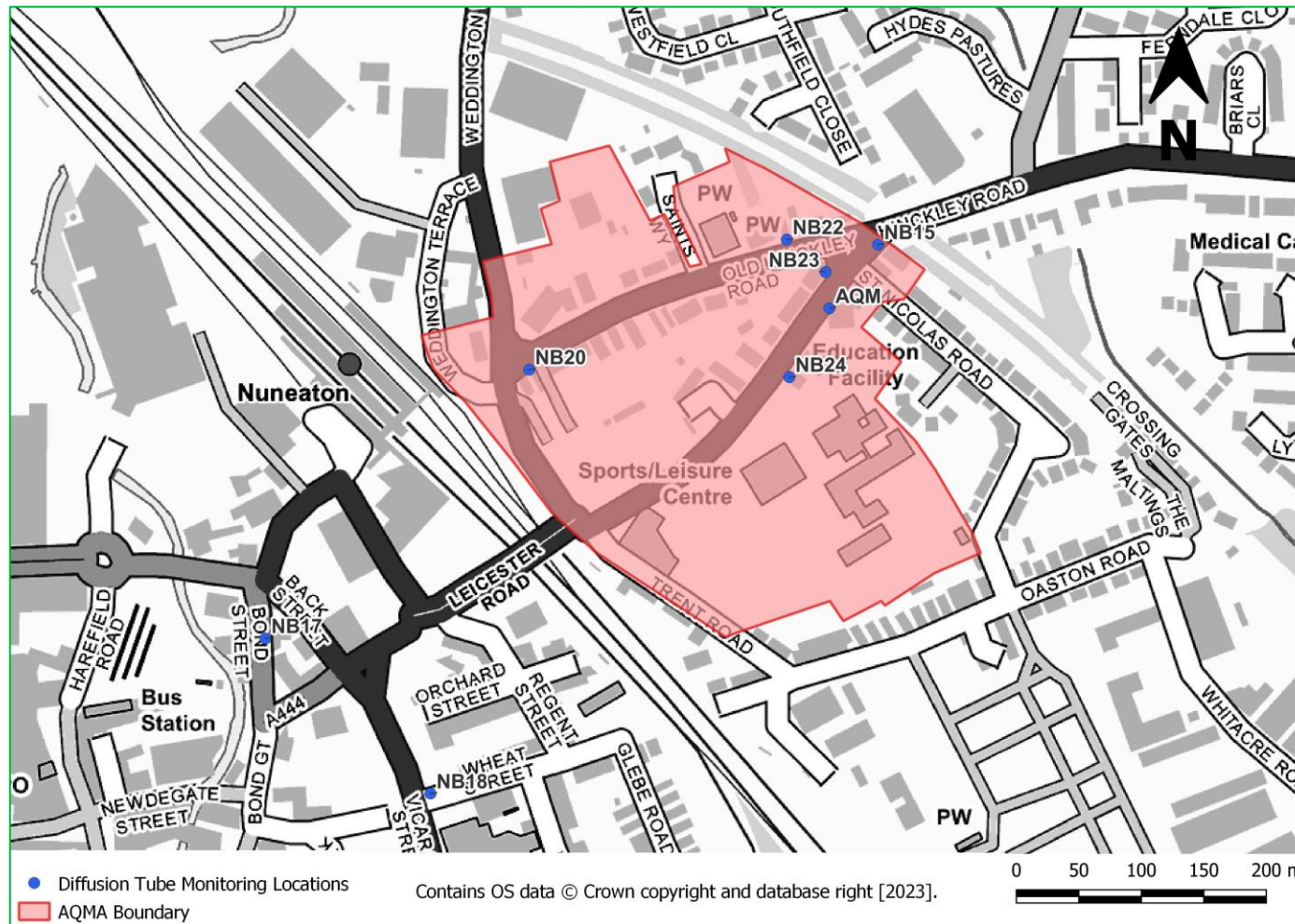


Figure D.2 – Map of Non-Automatic Monitoring Site – Midland Road / Corporation Street AQMA (AQMA 2)

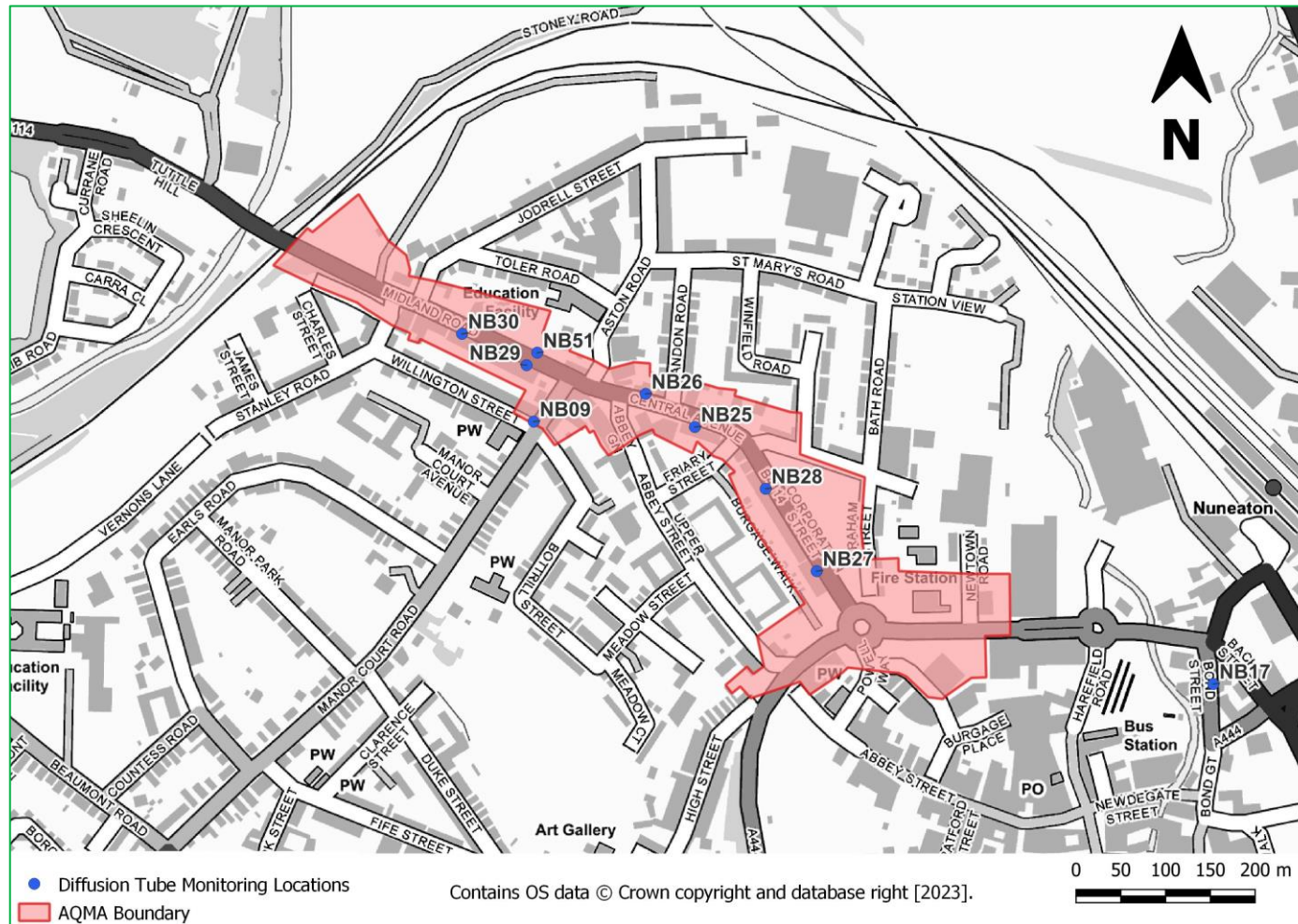


Figure D.3 – Map of Non-Automatic Monitoring Site – South Nuneaton

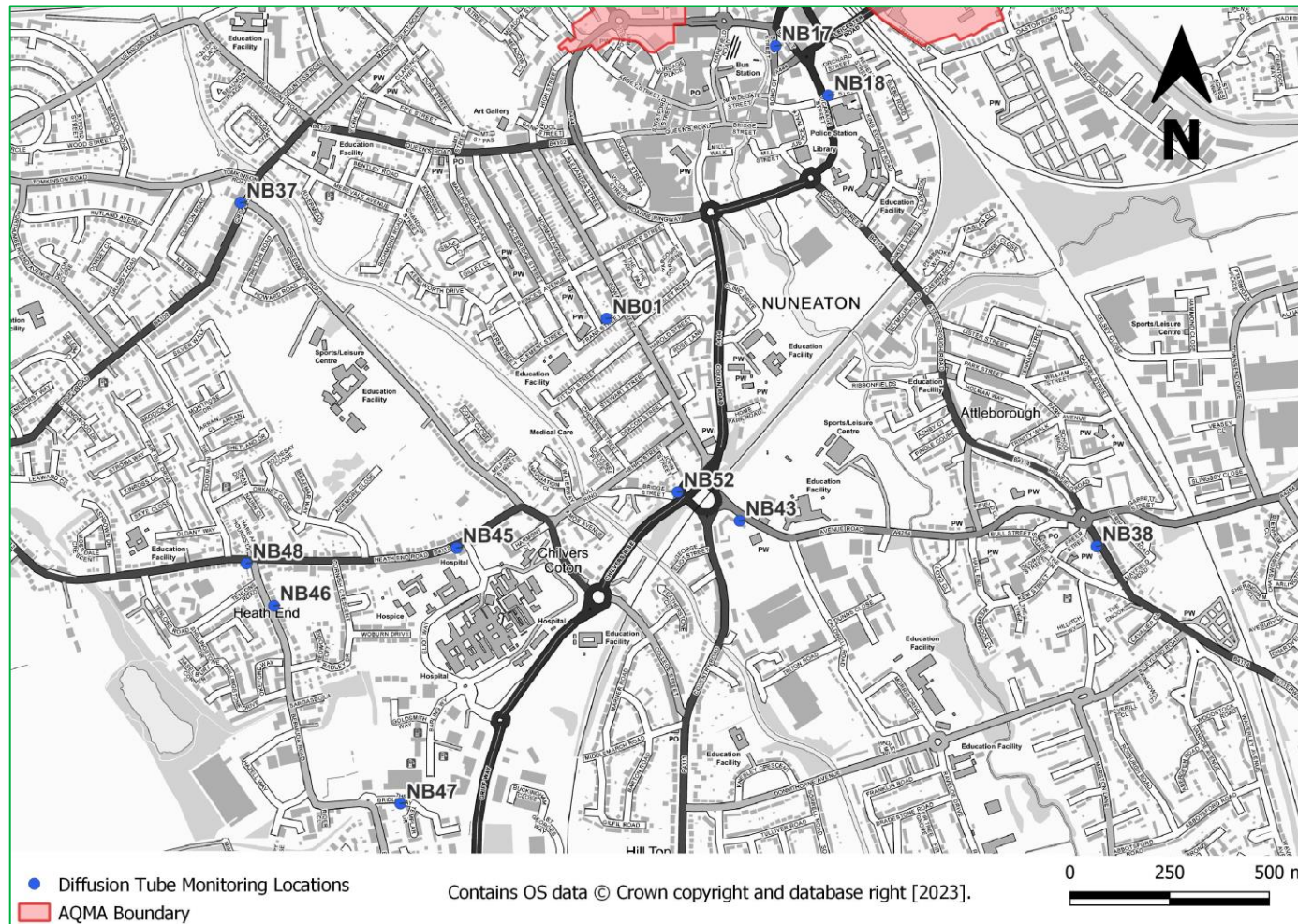


Figure D.4 – Map of Non-Automatic Monitoring Site – North Nuneaton

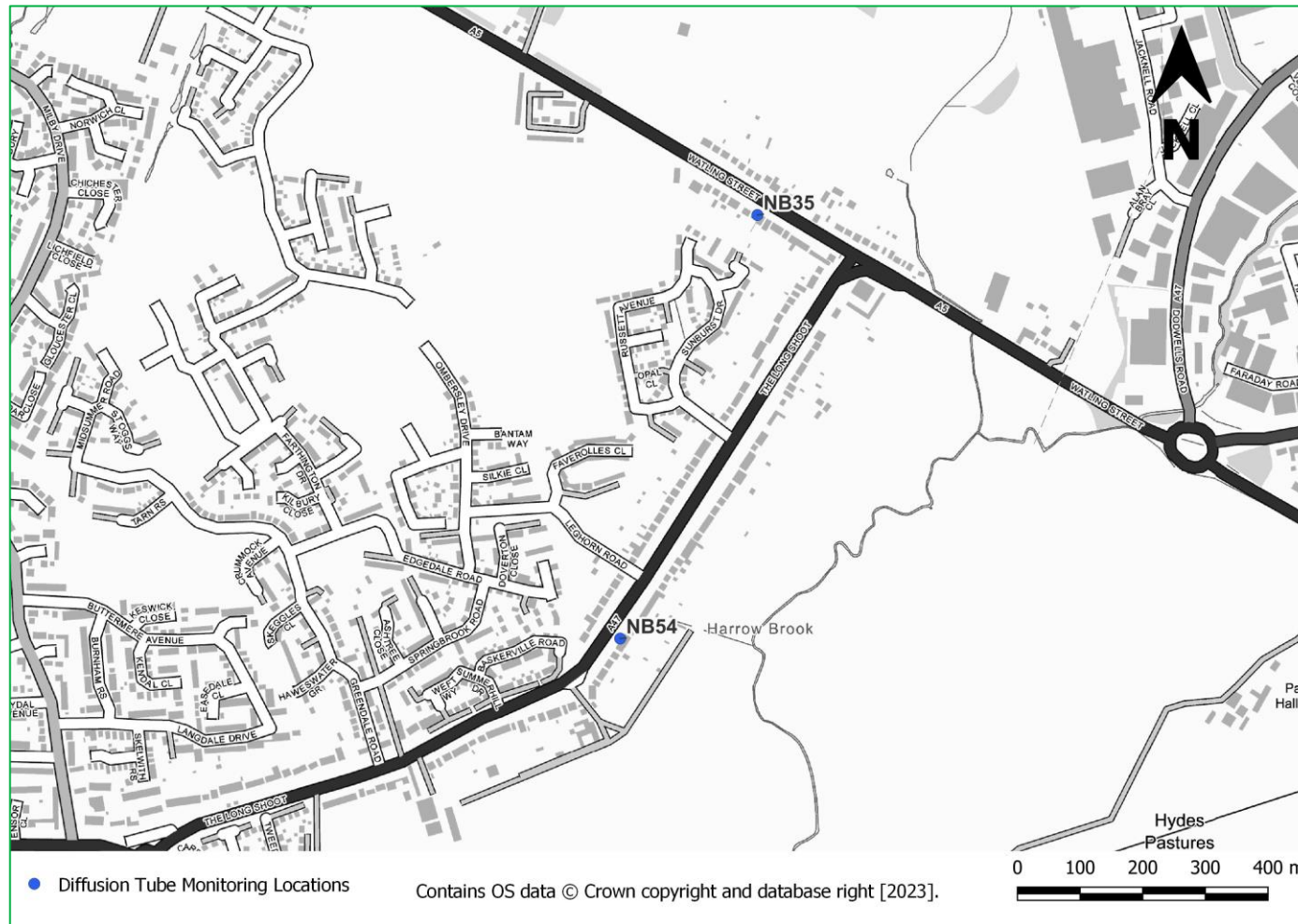
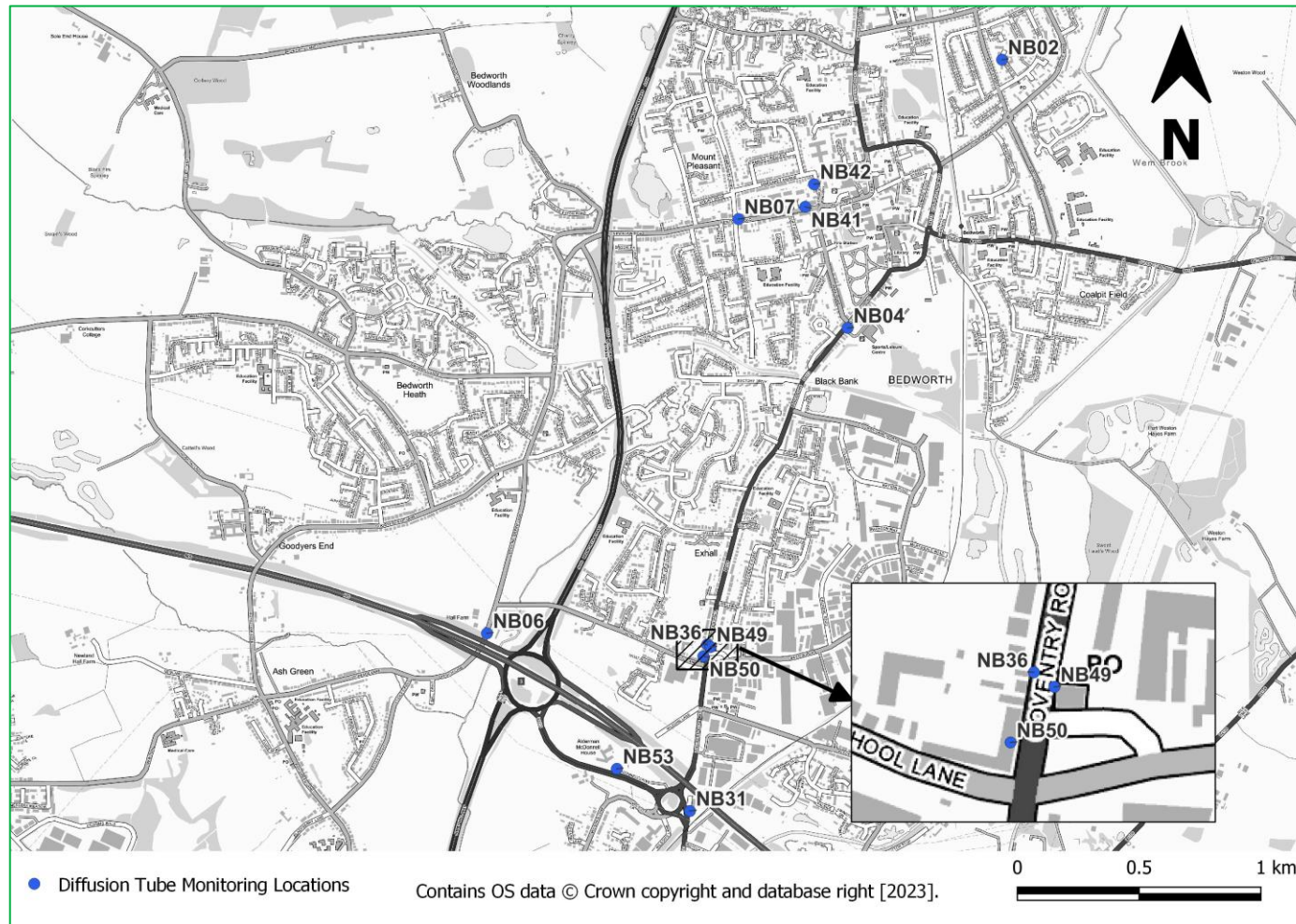


Figure D.5 – Map of Non-Automatic Monitoring Site – Bedworth



Appendix E: Summary of Air Quality Objectives in England

Table E.1 – Air Quality Objectives in England¹¹

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

¹¹ 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
AQS	Air Quality Strategy
ASR	Annual Status Report
Defra	Department for Environment, Food and Rural Affairs
DfT	Department for Transport
DMRB	Design Manual for Roads and Bridges – Air quality screening tool produced by National Highways
EST	Energy Savings Trust
EU	European Union
EV	Electric Vehicle
FDMS	Filter Dynamics Measurement System
LAQM	Local Air Quality Management
LEV	Low Emission Vehicle
LTP	Local Transport Plan
NBBC	Nuneaton and Bedworth Borough Council
NO ₂	Nitrogen Dioxide
NO _x	Nitrogen Oxides
OLEV	Office for Low Emission Vehicles
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
SO ₂	Sulphur Dioxide
SPD	Supplementary Planning Document
TNP	Transforming Nuneaton Programme

Abbreviation	Description
WCC	Warwickshire County Council

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