Appendix A

2025 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 2025

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Local Responsibilities and Commitment

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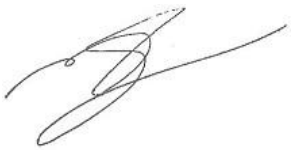
- BDC Active Travel Team
- Leicestershire County Council- Public Health and Environment and Transport

This ASR has been approved by:

- Environmental Health, Housing and Community Services Group Manager
- Strategic Director
- Portfolio Holder and BDC's Cabinet Executive

This ASR has been signed off by Mike Sandys, Director of Public Health.

Sign:  Date: 13/06/2025

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Executive Summary: Air Quality in Our Area

Air Quality in Blaby District

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, cancer and can cause a range of other 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 (NO_2) 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 main pollutants of concern in the Blaby District, as in most areas of the UK, are Nitrogen dioxide (NO_2) and Particulate Matter (PM). These pollutants are predominantly associated with road traffic emissions, but can also occur from other sources such as emissions to air from both domestic and industrial processes.

Blaby District Council currently uses three different types of monitoring to measure pollutants. These are: Air Quality Monitoring Stations, Diffusion Tubes and Zephyrs®. Maps illustrating the locations of all the sites in 2024 can be found in Appendix D: Figures D.1-D.14.

In 2024, the Council had five Air Quality Monitoring Stations (AQMS). All five Air Quality Monitoring Stations hosted an analyser known as Continuous Monitor (CM) which measured nitrogen dioxide levels, and two of the sites also had Particulate Matter CMs called Tapered Element Oscillating Microbalances (TEOM). The photograph on the right shows one of the Air Quality Monitoring Stations located in the Mill Hill area of Enderby.

The Council used Diffusion Tubes across 28 locations within the district throughout 2024. These are small tubes that are attached to fixed positions (e.g. a lamp post). They take Nitrogen dioxide samples over a one-month period, are collected and sent off to a laboratory for analysis. Diffusion Tubes are exchanged every month. They are widely used for indicative monitoring across the UK to highlight areas that may have air quality issues. The photograph to the left shows an example of a Diffusion Tube.

The Council has successfully applied and been awarded several Air Quality grants in recent years. Two grants have been used to help the Council purchase a network of Zephyrs®. A Zephyr® is a ‘low-cost’ indicative Air Quality Monitoring device that measures Nitrogen dioxide and Particulate Matter. Whilst they are not as accurate as the other measuring devices, they assist the Council with researching and highlighting areas that may require further investigation. The photograph to the right shows one of the Council’s Zephyrs® located at the Osiers Nature Reserve in Braunstone Town.

Previous years monitoring results highlighted areas of concern within the district, known as Air Quality Management Areas (AQMA's). These AQMA's were declared when levels of Nitrogen dioxide exceeded the Air Quality Objectives set by the Department for Environment, Food and Rural Affairs (Defra). The Air Quality Objectives require all Nitrogen dioxide levels to be below an annual average of 40µg/m^3. In 2024, there were five designated AQMA's in the Blaby District, the boundaries of these can be viewed in Appendix D: Figures D.1 to D.5.

- AQMA 1: A5460 Narborough Road South
- AQMA 2: M1 corridor in Enderby and Narborough
- AQMA 3: M1 corridor between Thorpe Astley and Leicester Forest East
- AQMA 4b: Enderby Road, Whetstone
- AQMA 6: Mill Hill, Enderby

Continuous monitoring of these AQMA's showed that four of them had five or more years compliance with the Air Quality Objectives. Under the advice given by Defra, the Council was able to revoke four of these AQMA's in November 2024. The areas that were revoked were:

- AQMA 1: A5460 Narborough Road South
- AQMA 2: M1 corridor in Enderby and Narborough
- AQMA 3: M1 corridor between Thorpe Astley and Leicester Forest East
- AQMA 4b: Enderby Road, Whetstone

In 2022, monitoring results indicated a new AQMA would need to be declared due to an exceedance of the Air Quality Objectives in a small area located within Braunstone Town. The area is at the junction of Lubbesthorpe Road and Narborough Road South and the exceedance recorded was 43µg/m^3 (distance corrected), which reduced to 35.7µg/m^3 (distance corrected) in 2023. Unfortunately, due to a delay with the Council's Annual Status Report in 2023, the new AQMA was not officially declared until November 2024 after conducting the required consultation period. The new AQMA boundary can be viewed in Appendix D: Figure D.6 and is named as follows:

- AQMA 7: Lubbesthorpe Road, Braunstone Town

AQMA 6 in Mill Hill, Enderby, is located in a high traffic area, with several industrial installations located in close proximity to the north-west of the site. Continuous monitoring of the area has shown levels remain high, and 2024 saw a small increase in Nitrogen

dioxide levels at some of these monitoring sites. The Council is in the process of writing a new Air Quality Action Plan, which will look to improve air quality in the whole of Blaby District, with particular focus on both of the Council's current AQMA's. This will include what actions can be taken to address the issues in each area and how the Council will measure these improvements.

Throughout 2024, in addition to Nitrogen dioxide monitoring, the Council has been focused on investigating levels of Particulate Matter throughout the district. Particulate Matter is made up of very fine particles that are considered to be the most harmful to human health. They are so small that they cannot be seen by the human eye.

The Council currently has two TEOM's (located at continuous monitor sites in Enderby), and a network of Zephyrs® that measure Particulate Matter particles sized 2.5µm and 10 µm ($PM_{2.5}$ and PM_{10}). The Air Quality Objectives for Particulate Matter are for annual average levels to be no greater than 20µg/m^3 and a future target of annual levels to be no greater than 10µg/m^3 by the year 2040. All sites in 2024 recorded average annual mean levels below the 2040 target. The highest annual average observed was 7.9µg/m^3 which was recorded at the Narborough Road South location. This is encouraging as it is below the future 2040 target of 10µg/m^3. Detailed results can be viewed in section 2.3 and tables A.7-A.8 of this report. Locations of all the Zephyr® sites can be viewed in Appendix D; Figures 13-14.

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 Council's two AQMA's were declared due to exceedances of Nitrogen dioxide, which are mainly due to elevated levels of road transportation. The Council has been continuously monitoring these areas with Air Quality Monitoring Stations, Diffusion tubes and Zephyrs®, and as previously stated is in the process of writing an Action Plan to address the Air Quality issues within the district.

The Council has been involved in many different projects during 2024 aimed at raising awareness, reducing emissions and improving air quality within the district:

- The Council continued to be partnered with the Big Community Switch throughout 2024, a scheme designed to help residents find and understand competitive tariffs with energy suppliers. This scheme helps promote uptake of greener forms of energy, focusing on 100% renewable energy helping householders cut their carbon emissions. The council will be continuing this into 2025: Blaby Switch and Save – Blaby District Council
- Blaby District Council has an incentive scheme to encourage the use of Ultra Low Emissions Vehicles (ULEV) and Electric Vehicles (EV) through the Hackney Carriage and Private Hire Licensing Policy for 2022- 2027. The Licensing Department offers a reduction in fees, 50% for EV's and 25% for ULEV's, for Operators who license a vehicle under any of these categories. In 2024, Blaby had two hybrid vehicles signed up to the scheme.
- The Council continues to take measures to reduce its own impact on air quality. In 2024, all Refuse Collection Vehicles used Hydrogenated Vegetable Oil (HVO) to power the vehicles, which is a much greener substitute to fossil fuels. The Council remains committed to reducing emissions further and has plans to transition the whole fleet to electric vehicles over time. The Council's first Electric Road Sweeper was purchased in 2024, using grant monies from the 'Let's Go Electric' project that was awarded to the Council in 2023 by Defra. The grant was for £573,701 which, in addition to the Road Sweeper, was used to convert one of the existing Refuse Vehicles to fully Electric. The Council took receipt of the finished vehicle in December 2024 ready for use in 2025. A vehicle naming competition was held for both the Road Sweeper and Refuse Vehicle in 2024 with local school children. The winning children each received a prize and were invited to take part in a tour of the Council's Depot to raise awareness of the initiative.
- In 2023, Councillors for Blaby District agreed to invest more than £1 million on solar panels and charging points at the Councils Depot site in Whetstone. There will be a total of 306 panels located on the office buildings, workshop and stores. The panels will offer a carbon reduction of approximately 25 tonnes of Carbon dioxide per year and will cut on-site energy usage by around 43%. The plans were approved and installation started in 2024. The Depot also has three EV slow charging stations and two other EV charging stations (including one mobile).
- In 2023, the Council was awarded a grant from Defra to investigate and communicate Air Quality levels to the public, specifically in regard to Particulate

Matter levels. The grant enabled the Council to add to its existing network of Zephyrs® that are installed in locations across the district. The Zephyrs® have been connected to a public portal, purchased by Public Health at Leicestershire County Council as part of their duty to local initiatives that reduce public health impacts of environmental risks. The portal is in the final stages of preparation for being public facing and is due to be launched in 2025. The portal will enable residents to view 'real-time' Air Quality' levels for both Nitrogen dioxide and Particulate Matter. This will enable residents to make informed decisions before going out and help those residents who may be more vulnerable than others in respect to their health needs.

- In 2024, Blaby District Council was approached by Narborough Parish Council regarding their concerns on air quality. The Leicester to Birmingham railway line runs through the old part of the village to the south and hosts a station and level crossing. This causes traffic to queue either side of the crossing mainly impacting the small village centre of Narborough. Blaby District Council undertook a project to investigate the Parish Councils' concerns. The project identified no exceedances for Nitrogen dioxide or Particulate Matter and the findings were shared publicly which was welcomed by the Parish. The report is available on Blaby District Council's website: Narborough Air Quality Review
- In March 2024, a representative from Blaby District Council attended the Northern Air Quality conference in Manchester. The conference hosted a range of speakers discussing topics around Nitrogen dioxide and Particulate Matter, sharing projects, ideas and information that could help improve air quality. One of the projects shared was called the Schools' Air Quality Monitoring for Health and Education project, known as SAMHE. It provided schools with a free Air Quality monitor that measures Particulate Matter, Carbon dioxide and Volatile Organic Compounds (VOCs) and provided information on how to get children involved as well as providing learning materials. Blaby District Council distributed this information out to several schools as a trial and Sharnford school signed up to scheme.
- Solar Together is a partnership between Leicestershire County Council and all local District and Borough Councils in the area. It is a group-buying scheme to enable Leicestershire households to get high-quality Solar Panels, Batteries and Electric Vehicle Chargers at competitive prices. The 2024 scheme launched in times of high cost-of-living pressures and, although it would save residents in the long run, many

households are struggling. Therefore, the number of households registering an interest was down on previous years but still encouraging. Blaby District Council had 496 households registering an interest, of which 99 went ahead. A total of 495 Solar Panels were installed resulting in an estimated Carbon dioxide reduction of 43,611 Kg in the first year.

- Greener Living Leicestershire is a collaboration between local authorities and the County Council in Leicestershire to help achieve net-zero goals. The main focus areas are energy efficiency, carbon reduction, climate adaption, sustainable transport and community engagement, all of which link to air quality. Flex-D is part of the scheme which will see 63 Electric Vehicle charging points installed across the county. This will see a charging hub at Enderby Leisure Centre comprising of twelve 7kW Electric Vehicle charging points, due to be installed in 2026 and potentially three other sites in the district as part of the Electric Vehicle rural car club scheme. The Greener Living Leicestershire scheme also includes various other schemes aimed at improving residents' homes, heating and insulation, such as the Home Upgrade Grant (HUG), ECO Flex, and the Home Energy Retrofit Offer (HERO).
- The Council has historically gained funds via financial contributions from developers, known as section 106 (s106) agreements. In 2016, the Council secured s106 funding regarding the future housing development off Cork Lane in the Glen Parva parish of the Blaby District. The Council was paid the s106 monies in December 2024 and this will be used towards the cost of Nitrogen dioxide monitoring in the area in Whetstone previously known as AQMA 4B: Enderby Road, Whetstone as agreed. The Council also secured s106 funds from the Castle Acres development (Fosse Park extension). This funding was used to purchase and maintain Blaby 5 AQMS, also known as CM6, together with 2 Zephyrs®.
- In 2024, the Council was responsible for monitoring 33 installations within the district that require an Environmental Permit to operate. These installations all require an Environmental Permit due to the risks they could pose to air quality and are subject to conditions and inspections to ensure ongoing compliance.
- Environmental Officers from the Council attend the bi-annual Croft Quarry Liaison Group. The group acts as a forum for discussion between the Quarry Operators, Leicestershire County Council, Blaby District Council and adjacent Parish Councils.

It ensures ongoing compliance of the quarry activities and enables any issues to be discussed and acted upon quickly.

- Blaby District Council takes an active role in the Air Quality and Health Partnership, which is led by Leicestershire County Council Public Health. This Partnership is made up of District, Borough, and Leicestershire County Council officers working together on implementing a shared Action Plan based on identified air quality issues. The Action Plan was developed as part of the Leicestershire Health Needs Assessment: Air Quality and Health 2024, which sets priorities for collaborative efforts to improve air quality and health throughout the County.
- Bikeability is a scheme run by Leicestershire County Council for local schools within the County. The scheme enables primary schools to access free cycle training through the national Bikeability programme, which is funded by the Department for Transport. The training teaches safe riding, encourages active travel and benefits children's health and well-being. In 2024, 20 state funded schools out of a possible 28 in the Blaby District area, signed up to the scheme.
- Choose How You Move is a partnership project which encourages active travel methods within Leicestershire. It's aims are to assist and encourage residents to improve health through fitness, save money and help the environment. The scheme provides information on how to travel around the district using a variety of different methods, such as cycle paths to make cycling safer and easier, public transport information and links and walking routes. It also has sections for schools and businesses in addition to residents.[...A smarter way to travel for Leicester and Leicestershire < Choose How You Move]
- In 2024, Blaby District Council published its Active Travel Strategy. The Active Travel Strategy's ambition is for the transport network to be characterised by high quality infrastructure plans to improve the options for day-to-day travel for both commuting and leisure. It aims to promote, encourage and build upon modes of transportation powered by physical activity such as walking, wheeling and cycling.
- Blaby District Council offers incentives to encourage active travel to its staff. This includes schemes such as the cycle salary sacrifice and a pool of electric bikes available for staff use.

Conclusions and Priorities

Whilst some areas remain of concern for air quality in the district, there were no exceedances of any of the Air Quality Objectives in 2024. Overall, the trends over the past 5 years show that, in most areas of the district, the air quality is improving. This is promising as the Blaby District has two motorways running through it, the M1 and M69, and a major junction connecting them. The districts two AQMA's (AQMA 6 Mill Hill, Enderby and AQMA 7 Lubbesthorpe Road, Braunstone Town) are close to this busy junction and many of the issues arise from commuters travelling through the district. The AQMA's will be the Councils focus in 2025 and will be the focus of the new Air Quality Action Plan 2025 – 2029 that is currently being drafted. It is due to be released in draft form, ready for consultation in the Summer of 2025 and a final version is expected to be released in late 2025/early 2026.

The Council will continue to monitor air pollutant levels across the whole district, with particular emphasis on the current and recently revoked AQMAs. The Council will continue to review current locations of Air Quality monitors and Diffusion Tubes and will reposition sites where the Air Quality levels are comfortably below the objectives. Additional mobile monitoring will be done to allow Blaby District Council to identify and investigate any new Air Quality issues that may arise.

The Council will continue to liaise with partners such as Leicestershire County Council (Public Health, and Environment and Transport) to help tackle the issues and ensure ongoing compliance with the Air Quality Objectives.

How to get Involved

Everyone can get involved in improving the Air Quality in the district. Both residents and businesses can look at the way they travel from place to place using sustainable travel options, such as walking or taking the bus, to reduce dependency on cars when possible. Residents and businesses can also look to make their homes and offices more efficient and less harmful to health. Below are some ways that people can get involved:

Travel

- Choose How You Move is a partnership between Leicestershire County and City Councils and is funded by the Department for Transport. It provides travel information and advice on ways to travel around the whole of Leicestershire,

alongside promoting events and highlighting schemes to help residents, schools and businesses. It hosts information on walking, cycling, public transport and cars. It encourages the use of car sharing and active travel through a reward scheme called 'BetterPoints'. This scheme enables residents to earn points and redeem them for rewards.[...A smarter way to travel for Leicester and Leicestershire < Choose How You Move] Using active travel methods where possible, not only reduces vehicle emissions but also helps to improve physical health and wellbeing.

- The Fox Connect is an on-demand bus service which connects the rural areas of south-west Leicestershire. The service uses low-emission vehicles and can be booked through an app or phoneline. It is better for the environment due to its low emissions and is only taking people from A to B instead of following a set route that continually runs regardless of the number of people using it: FoxConnect

Heating

- The past few years have seen the rising costs of living and many residents are looking at ways to lower heating costs. Heat Pumps, insulation and Solar Panels are all efficient ways of keeping a property warm, they are better for the environment and have lower ongoing costs. However, the initial installation costs can put many people off. Blaby District Council are partnered with the group Green Living Leicestershire and provide grants to help some residents with these costs: Energy Advice – Blaby District Council. There is also a scheme called Solar Together which helps residents get competitive prices for high quality solar panels: Solar Together – Blaby District Council.
- Smoke Control Areas (SCAs) control emissions of smoke from domestic and certain industrial chimneys, through the Clean Air Act 1993. The parishes that lie adjacent to the built-up area of Leicester are designated SCAs: Smoke Control Order – Blaby District Council. Residents must ensure when installing appliances that they are approved for use within a smoke control area: Exempt Appliances – Clean Air Act Data Entry System

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Tables

1 Local Air Quality Management

This report provides an overview of air quality in Blaby District during 2024. 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 Blaby District 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 F.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 Blaby District Council can be found in Table 2.1. The table presents a description of the six AQMA(s) that were designated within Blaby district during the reporting year of 2024. Appendix D provides maps of AQMAs and also the air quality monitoring locations in relation to the AQMAs. The air quality objectives pertinent to all of the AQMA designations in 2024 are as follows:

- NO_2 annual mean 40µg/m^3

Continuous monitoring has been in place for the duration of the declared AQMAs, and additional monitoring has allowed the Council to investigate potential new areas of concern. In 2022, this was the case for a small area within Braunstone Town, which is in close proximity to several major road networks. The area is at the junction of Lubbesthorpe Road and Narborough Road South and monitoring indicated an exceedance of the annual mean Air Quality Objective for NO_2 and the exceedance recorded was 43µg/m3 once distance corrected (see monitoring results in Appendix A). There was a delay with Defra approving the Councils ASR in 2023 due to a measurement error within the report. This was rectified but led to a delay with the AQMA formally being declared. The AQMA was declared in November 2024 after conducting the required consultation period. This AQMA is known as AQMA 7: Lubbesthorpe Road, Braunstone Town. The recorded Air Quality levels have been improving since the issues were identified, with levels of annual mean NO_2 in 2023 of 35.7µg/m^3 (distance corrected) and in 2024, 29.7µg/m^3 (distance corrected).

The Councils continuous monitoring also indicated that four out of the five previously declared AQMAs were now compliant with the Air Quality Objectives annual mean for

NO_2, and that they had been for five years or more. Defra advises that ‘where there have been no exceedances for the past five years, local authorities must proceed with plans to revoke the AQMA’. Therefore, in November 2024, after the required consultation period, the four compliant AQMAs were revoked as follows:

- AQMA 1: A5460 Narborough Road South- Declared 2001; Revoked 2024
- AQMA 2: M1 Corridor in Enderby and Narborough- Declared 2001; Revoked 2024
- AQMA 3: M1 corridor between Thorpe Astley and Kirby Muxloe- Declared 2001; Revoked 2024
- AQMA 4B: Enderby Road, Whetstone- Declared 2005; Revoked 2024

Air Quality continues to be monitored in these locations to ensure ongoing compliance.

AQMA 6 located in Mill Hill, Enderby has recorded no exceedances of the Air Quality objectives since 2022, but will continue as an AQMA in line with Defra guidelines until five consecutive years of compliance has been achieved. The Mill Hill site is situated on a ‘through road’ that links New Lubbesthorpe, industrial estates and Parishes to the west of Blaby District to the high-density road networks that link to both the M1 and M69.

A new AQAP is currently being drafted to address the Air Quality issues within the districts two AQMAs and to ensure the ongoing compliance with the Air Quality Objectives within the whole district.

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: A5460 Narborough Road South*	Declared January 2001	NO_2 Annual Mean	Residential properties along a small section of Narborough Road South to the extent of Blaby District	NO	50 µg/m^3	19.2 µg/m^3	7 years	Air Quality Action Plan 2021-2025	air-quality-action-plan-2021-2025.pdf
AQMA 2: M1 corridor in Enderby and Narborough*	Declared January 2001	NO_2 Annual Mean	Residential properties adjacent to the M1, between around 1.5km and 3km south of Junction 21	YES	50 µg/m^3	18.9 µg/m^3	7 years	Air Quality Action Plan 2021-2025	air-quality-action-plan-2021-2025.pdf
AQMA 3: M1 corridor between Thorpe Astley and Kirby Muxloe*	Declared January 2001	NO_2 Annual Mean	Residential properties adjacent to the M1 and A47 between Thorpe Astley and Kirby Muxloe	YES	60 µg/m^3	30.0 µg/m^3	6 years	Air Quality Action Plan 2021-2025	air-quality-action-plan-2021-2025.pdf

AQMA Name	Date of Declaration	Pollutants and Air Quality Objectives	One Line Description	Is air quality in the AQMA influenced by roads controlled by Highways England?	Level of Exceedance: Declaration	Level of Exceedance: Current Year	Number of Years Compliant with Air Quality Objective	Name and Date of AQAP Publication	Web Link to AQAP
AQMA 4B: Enderby Road, Whetstone*	Declared October 2005	NO_2 Annual Mean	Residential properties along Enderby Road, Whetstone	NO	50 µg/m^3	17.5 µg/m^3	7 years	Air Quality Action Plan 2021-2025	air-quality-action-plan-2021-2025.pdf
AQMA 6: Mill Hill, Enderby	Declared October 2018	NO_2 Annual Mean	Residential properties along Hall Walk and Mill Hill, Enderby	NO	43 µg/m^3	35.3 µg/m^3	2 years	Air Quality Action Plan 2021-2025	air-quality-action-plan-2021-2025.pdf
AQMA 7: Lubbesthorpe Road, Braunstone Town	Declared November 2024	NO_2 Annual Mean	Residential properties surrounding the area	NO	43 µg/m^3	29.7 µg/m^3	2 years	N/a**	N/a**

☒ **Blaby District Council confirm the information on UK-Air regarding their AQMA(s) is up to date.**

☒ **Blaby District Council confirm that all current AQAPs have been submitted to Defra.**

*** AQMAs 1, 2, 3 and 4B were all revoked on 27th November 2024 due to compliance with the Air Quality Objectives.**

**** The AQAP for AQMA7 and an updated AQAP for AQMA6 is currently being developed and will be published in 2025/2026.**

2.2 Progress and Impact of Measures to address Air Quality in Blaby District Council

Defra's appraisal of last year's ASR concluded:

"The report is well structured, detailed, and provides the information specified in the Guidance. The following comments are designed to help inform future reports:

1. The details in Table 2.1 do not match the details in the AQMA portal. There are differences between the dates of declaration for all AQMAs as well as the AQMA descriptions.
2. There are inconsistencies between the site ID's reported at the bottom of Tables A.1/B.1 and Table C.1. These inconsistencies need to be corrected prior to publication of the ASR in 2024.
3. BDC have discussed the monitoring trends for each area of the district as well as each AQMA. This is appreciated. However, figures are not provided showing any of the trends in monitoring results at diffusion tube monitoring sites, these should be included in future ASRs. Additionally, the concentrations recorded, or changes could be quantified in this discussion.
4. BDC have included a clear statement of adherence to the Defra diffusion tube monitoring calendar. This should be continued.
5. BDC have included limited details on key measures they completed in 2023 as well as their priorities for the upcoming year of reporting.
6. Appendix D includes clear figures showing the location of all monitoring sites as well as AQMA boundaries and tables showing the monitoring concentration at each site. This is appreciated and should be continued in future ASRs."

In response to the comments made by Defra upon accepting the 2024 ASR, the following has been completed:

1: Table 2.1 now matches the dates, names and descriptions as stated on the LAQM portal. AQMA 6 is showing as amended on the portal due to a new shapefile being added as requested by LAQM. All AQMA's are included in table 2.1 as they were only revoked in November 2024. This information now matches the LAQM portal.

2: The inconsistencies between the site ID's reported at the bottom of Tables A.1/B.1 and Table C.1 were corrected prior to publication of the 2024 ASR.

3. Figures have been included in the discussion of monitoring trends in the AQMAs and across the district for the 2025 ASR submission.

4. This has been included in the 2025 ASR.

5. More detail has been provided in the 2025 ASR

6. This has been included in the 2025 ASR.

Blaby District Council's existing five-year AQAP was written in 2020 and published in 2021, in a time of great uncertainty when the UK and the rest of the world were still recovering from the impacts of Covid-19. The availability of funding and staffing issues meant that many of the actions on the AQAP were repetitive and hard to measure. However, since writing the report, the Council has worked hard to produce and achieve actions that have enabled the revocation of four of the AQMAs and improved the Air Quality in the district as a whole. This is supported by monitoring results in tables A.2 and A.3. These additional actions, which are detailed below, have seen big investments in the Councils time, effort and funding to improve Air Quality. The years following the 2021-2025 AQAP have also seen the Council successfully bid and receive Defra funded grants towards specific Air Quality projects, not mentioned in the AQAP. As already mentioned, the Council is currently writing the AQAP for 2026- 2030 and plans to release the draft version for consultation in Summer 2025. The Council will ensure that the measures are wide ranging and measurable and will engage with partners, residents, businesses and stakeholders to continue to improve air quality in the district.

AQAP 2021-2025 measures

Details of all measures completed for the 2021- 2025 AQAP, in progress or planned, are set out in Table 2.2. There are 26 measures included within Table 2.2, with the type of measure and the progress the Council have made during the reporting year of 2024 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 their respective Action Plans.

Measures 1-3: AQMA 1 A5460 Narborough Road South- In 2024, two Zephyrs® were located in close proximity to the AQMA to increase monitoring in the area and identify trends. The Zephyrs® provided additional resource to confirm the areas compliance with the Air Quality Objectives and this AQMA was revoked in November 2024. The site will continue to be monitored to ensure ongoing compliance.

Measures 4-6: AQMA 2 M1 Corridor in Enderby and Narborough- In 2024, continued monitoring confirmed the area remained compliant with the Air Quality Objectives and this AQMA was revoked in 2024. The continuous monitor (CM1) in close proximity to this site will be decommissioned in 2025 and the equipment used in other locations within the district to investigate and monitor Air Quality. The site will continue to be monitored to ensure ongoing compliance.

Measures 7-10: AQMA 3 M1 Corridor between Thorpe Astley and Leicester Forest East- In 2024, continued monitoring, along with additional data from a nearby Zephyr®, confirmed the areas was compliant with the Air Quality Objectives and that it had been for the required three years and was therefore revoked in November 2024. The site will continue to be monitored to ensure ongoing compliance.

Measures 11-14: AQMA 4B Enderby Road, Whetstone- In 2024, continued monitoring confirmed the area was compliant with the Air Quality Objectives and had been so for the required three years and was therefore revoked in November 2024. The Council did receive some objections to the revocations during the consultation period and reassured residents and the Parish Council that the area would continue to be monitored to ensure it remains compliant. The Council previously applied for section 106 monies in relation to a nearby development to be used within AQMA 4B for Air Quality monitoring. The funds were released to the Council in December 2024 and proposals are due to be submitted in Autumn 2025.

Measure 15-19: AQMA 6 Mill Hill Enderby- In 2024, monitoring indicated the area was compliant with the National Air Quality Objectives, but it did not have the required three years compliance to be able to revoke the AQMA. The area had revealed NO_2 levels had increased at some of the monitoring sites within the AQMA, which can be viewed in table A.2 and discussed in section 3.2 of this report. There is also a Zephyr® located within the AQMA to provide additional monitoring, and these results can be seen in appendix E. The Zephyr® recorded an annual mean of 31.9µg/m^3 for NO_2, which although is not

recognised as approved reference method for ASR purposes, it is close to the 31.5µg/m^3 recorded at the continuous monitor CM5.

The new AQAP being drafted will be focused on implementing measurable actions to improve the Air Quality within this AQMA and it is anticipated the area will be revoked in 2028 following five years of continuous compliance. The Council could look to revoke the AQMA after only three years compliance, but due to ongoing developments in the area, the team would prefer to have the maximum five years compliance before revocation.

Wider Measures

20- Promoting Travel Alternatives: The Health and Leisure Team at Blaby District Council are continuously working hard to promote active travel across the district. A new Active Travel Strategy was approved an published in 2024: Active Travel Strategy – Blaby District Council.

21- Behavioural change project with businesses in vicinity of AQMA: **Completed in previous years:** This involved Council Officers attending and delivering business breakfast sessions, hosted by Blaby District Council, to raise awareness on Air Quality and how businesses can make a positive difference through employee travel plans and incentives for green travel.

22- Behavioural change within schools: **Completed in previous years.** The Countdown to Clean Air project finished in 2023, this involved educational sessions, assemblies and fun activities for children and parents to take part in to encourage active travel to and from schools.

23- Develop a partnership to create a charging network across the district: Flex-D is a current project being run collaboratively with local authorities and Leicestershire County Council. The project will see 63 Electric Vehicle charging points installed across the county including a charging hub at Enderby Leisure Centre comprising of twelve 7kW Electric Vehicle charging points, due to be installed in 2025. The project also involved establishing a rural chargers project.

24- Engage with the taxi drivers to encourage the switch to electric vehicles: The Council approved The Hackney Carriage and Private Hire Licensing Policy for 2022 – 2027. The policy incentivises the use of Ultra Low Emission Vehicles (ULEV) and Electric Vehicles (EV). The Licensing Department offers reductions in the fees for Operators and Drivers who license a vehicle under any of these categories.

25- Improve air quality information on BDC website: The Website was updated in 2024 and is currently awaiting the addition of a 'live portal' which will enable residents and business to view local air quality in real time. This is part of the Particulates Matter project in conjunction with Public Health Leicestershire, of which more detail can be read in below in additional measures.

26- Use the Pan Regional Transport Model (PRTM) to build an Air quality model- Aborted, as reported in previous years ASR.

Additional measures not included in the AQAP 2021-2025

Fleet conversion- Blaby District Council converted it's Refuse Collection Vehicles from diesel fuel to Hydrogenated Vegetable Oil (HVO) in 2023. HVO is a greener form of diesel derived from waste oils and reduces carbon emissions by around 90% in comparison to fossil fuels. 2024 was the first full year of using the greener fuel and is estimated to have reduced the Councils carbon emissions by 80%. Compared to fossil fuels, HVO has lower levels of Nitrogen oxides and Particulate Matter, making it a better option for improving Air Quality.

Lets Go Electric- In 2023, the Council applied and was successfully granted an Air Quality grant for £573,701 towards the conversion of some of the fleet to Electric. This enabled the Council to explore and test different options to ensure the funding delivered the best options both financially and environmentally. In 2024, an all-electric Road Sweeper was purchased, and the remaining funds were used to convert one of the existing diesel Refuse Collection Vehicles to an Electric Refuse Collection Vehicle. The Road Sweeper is already active and is being used in both of the AQMAs and the Refuse Collection Vehicle will be ready for usage in 2025.

Solar Panels- Solar Together-The Council have been promoting ways for residents to access greener energy. This helps towards improving air quality, whilst saving money in the longer term. The scheme is known as Solar Together and is a partnership between Leicestershire County Council and all local District and Borough Councils in the area. In 2024, 99 households signed up to the scheme and a total of 495 Solar Panels were installed resulting in an estimated Carbon dioxide reduction of 43,611 Kg in the first year of usage.

PM project- In 2023, the Council applied for, and was awarded, a Defra Air Quality grant in regard to investigating PM levels and communicating these to the public. The grant enabled the Council to add to its existing network of Zephyrs® that are installed in locations across the district, which also enabled wider monitoring of NO_2 in addition to PM levels. A public portal was purchased by Public Health Leicestershire with the aim of having a county wide Air Quality hub that all districts could add their Zephyrs® to. The portal is in the final stages of production and is due to be launched in the summer of 2025. The portal will enable residents to view 'real-time' Air Quality' levels for both Nitrogen dioxide and Particulate Matter. This will enable them to make informed decisions before going out and help those residents who may be more vulnerable than others in respect to their health needs.

Blaby District Council's priorities for the coming year are:

- **To develop and implement a new Air Quality Action Plan 2025 - 2029 for Blaby District Council** - to ensure all plans are measurable and achievable within the specified timeframe. The new AQMA 7 Lubbesthorpe Road in Braunstone Town will be one of the priority areas for measures alongside AQMA 6 Mill Hill in Enderby.
- **To continue to investigate and monitor a wide range of areas throughout the district** - to ensure locations are regularly reviewed and repositioned when required.
- **To investigate and apply for any available funding sources that may become available-** to assist the Council in it's commitment to improving Air Quality.

Blaby District Council worked to implement these measures in partnership with the following stakeholders during 2024:

- The Air Quality and Health Partnership- including neighbouring authorities, Leicestershire County Council and Leicestershire Public Health.
- Leicestershire County Council Transport
- BDC Health and Leisure Team
- BDC Development Management
- BDC Communications Team
- NHS- Primary Care Network
- BDC Net Zero Programme Delivery Officer

The principal challenges and barriers to implementation that Blaby District Council anticipates facing, are the upcoming changes to the structure of Council. The Council intends to continue as normal but is not able to predict what the future structure and funding levels will look like once local government reform is implemented.

Table 2.2 – Progress on Measures to Improve Air Quality

Blaby District Council are in the process of writing a new AQAP following the declaration of AQMA 7. All measures to improve air quality are therefore being reviewed. The below measures are from the Blaby District Council Air Quality Action Plan 2021-2025.

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
7 – AQMA 3	Gather information from local sources and interrogate air quality monitoring data to inform actions and support bids for funding. To include reconsideration of source apportionment	Traffic Management	Other	2019	2030	BDC	BDC	Not funded	< £10k	Completed	N/A	Clearer picture of traffic flows and effects on air quality	Data gathered throughout the year using a variety of sources	AQMA 3 has now been revoked
16 - AQMA 6	Increased air quality monitoring	Traffic Management	UTC, Congestion management, traffic reduction	2020	2023	BDC	BDC/ Defra	Partially funded	£10k - 50k	Completed	N/A	Additional Monitors installed	Monitoring has been increased, and monitoring locations have been reviewed.	
22 - Wider measures	Behavioural change project with schools	Promoting Travel Alternatives	School Travel Plans	2020	2024	BDC	BDC/DEFRA	Funded	£10k - 50k	Completed	N/A	Completion of project	* Delivering Air Quality and Active Travel educational session and assemblies to schools. * Creation and delivery of engaging activities for schools – linking in initiatives such as Clean Air Day and Great Big Green Week to showcase the multitude of positive benefits. * Beat the Street Programme – which encouraged students to use alternative and more environmentally friendly methods of travel. Small games were held across the north of Blaby District which includes	

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
													Enderby and Glenfield. These games seen 11 primary schools take part as well as several community groups/businesses. A total of 33 boxes were installed, 3053 players took part, and 24,314 miles were covered on bike, scooter, or foot, which increased active travel over a four-week period between May and June 2022 and subsequently had the potential to improve air quality	
1 - AQMA 1 A5460 Narborough Road South	Gather information from local sources and interrogate air quality monitoring data to inform actions and support bids for funding	Traffic Management	Urban Traffic Control (UTC), Congestion management, traffic reduction	Summer 2021	September 2023	Blaby District Council (BDC), Leicestershire County Council (LCC), Leicester City Council	BDC and Defra Air Quality Grant	Partially Funded	< £10k	Completed	N/A	Clearer picture of traffic flows and effects on air quality	Data gathered throughout the year using a variety of sources	AQMA 1 has now been revoked
2 - AQMA 1 A5460 Narborough Road South	Integrate traffic management (for example, SCOOT) with air quality monitoring	Traffic Management	UTC, Congestion management, traffic reduction	Summer 2021	2025	LCC	To be identified	Not Funded	N/A	Aborted	N/A	Systems integrated	This work is dependent upon the outcome of Measure 1	AQMA 1 has now been revoked
3 - AQMA1 A5460 Narborough Road South	Improve driver information about air quality, for example, signs and active signs	Traffic Management	UTC, Congestion management, traffic reduction	Summer 2021	2025	LCC	To be identified	Not Funded	N/A	Completed	N/A	Signs installed	Current signs already active in Park and Ride locations such as Fosse Park and Narborough Road South	AQMA 1 has now been revoked
4 - AQMA 2 M1 corridor in Enderby and Narborough	Gather information from local sources and interrogate air quality monitoring	Traffic Management	UTC, Congestion management, traffic reduction	Summer 2021	September 2023	BDC	BDC	Not funded	< £10k	Completed	N/A	Clearer picture of traffic flows and effects on air quality	Data gathered throughout the year using a variety of sources	AQMA 2 has now been revoked

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
	data to inform actions and support bids for funding. To include reconsideration of source apportionment													
5 - AQMA 2 M1 corridor in Enderby and Narborough	Integrate traffic management (for example, SCOOT) with air quality monitoring	Traffic Management	UTC, Congestion management, traffic reduction	To be determined	To be determined	LCC	To be identified	Not funded	N/A	Aborted	N/A	Systems integrated	Presentation completed by LCC showing research and future considerations	AQMA 2 has now been revoked
6 - AQMA 2 M1 corridor in Enderby and Narborough	Improve driver information about air quality for example, signs and active signs	Traffic Management	UTC, Congestion management, traffic reduction	To be determined	To be determined	LCC	To be identified	Not funded	N/A	Completed	N/A	Signs installed	Current signs already active in Park and Ride locations such as Fosse Park and Narborough Road South	AQMA 2 has now been revoked
8 - AQMA 3 M1 corridor between Thorpe Astley and Leicester Forest East	Deliver Braunstone Crossroads junction improvement	Traffic Management	UTC, Congestion management, traffic reduction	To be determined	To be determined	LCC /Developers	LCC/S106 money	Funded	£500k - £1 million	Planning	N/A	Junction improved	Awaiting date for implementation when development commences	AQMA 3 has now been revoked
9 - AQMA 3 M1 corridor between Thorpe Astley and Leicester Forest East	Integrate traffic management (for example. SCOOT) with air quality monitoring	Traffic Management	UTC, Congestion management, traffic reduction	Summer 2021	2025	LCC	LCC	Not funded	N/A	Aborted	N/A	Systems integrated	Work was dependent upon the outcome of Measure 7	AQMA 3 has now been revoked
10 - AQMA 3 M1 corridor between Thorpe Astley and Leicester Forest East	Improve driver information about air quality for example, signs and active signs	Traffic Management	UTC, Congestion management, traffic reduction	To be determined	2025	LCC	LCC	Not funded	< £10k	Completion	N/A	Signs installed	Park and Ride signs have been amended to represent appropriate wording	AQMA 3 has now been revoked
11 - AQMA 4B Enderby Road, Whetstone	Gather information from local sources and interrogate air quality monitoring data to inform actions and	Traffic Management	UTC, Congestion management, traffic reduction	Summer 2021	September 2023	BDC	BDC	Not funded	< £10k	Completed	N/A	Clearer picture of traffic flows and effects on air quality	Data from 2022 and observations supports revocation of this AQMA	AQMA 4B has now been revoked

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
	support bids for funding													
12 - AQMA 4B Enderby Road, Whetstone	Integrate traffic management (for example, SCOOT) with air quality monitoring	Traffic Management	UTC, Congestion management, traffic reduction	To be determined	2025	LCC	LCC	Not funded	N/A	Aborted	N/A	Systems integrated	This work is dependent on the outcome of Measure 11	AQMA 4B has now been revoked
13 - AQMA 4B Enderby Road, Whetstone	Improve driver information about air quality for example, signs and active signs	Traffic Management	UTC, Congestion management, traffic reduction	To be determined	2025	LCC	LCC	Not funded	N/A	Completed	N/A	Signs installed	LCC considered appropriate wording on new signage and effect it will have on drivers	AQMA 4B has now been revoked
14 - AQMA 4B Enderby Road, Whetstone	Increased air quality monitoring on Enderby Road, Whetstone	Traffic Management	UTC, Congestion management, traffic reduction	To be determined	To be determined	BDC	Section 106 from Cork Lane housing development	Not funded	N/A	Planning	N/A	Additional Monitor (s) installed	Development now commenced in Cork Lane and funds have been released. Currently assessing best use of funds and location	AQMA 4B has now been revoked
15 - AQMA 6 Mill Hill, Enderby	Gather information from local sources and interrogate air quality monitoring data to inform actions and support bids for funding	Traffic Management	UTC, Congestion management, traffic reduction	Summer 2021	September 2021	BDC	BDC	Not funded	< £10k	Completed	N/A	Clearer picture of traffic flows and effects on air quality	Air Quality improvement officers undertook site observations and have compared this with monitored data, this information has been used to apply for further Air Quality grant funding	
17 - AQMA 6 Mill Hill, Enderby	Integrate traffic management (for example, SCOOT) with air quality monitoring	Traffic Management	UTC, Congestion management, traffic reduction	To be determined	To be determined	LCC	LCC	Not funded	£50k - £100k	Planning	N/A	Systems integrated	Ongoing implementation over coming years	
18 - AQMA 6 Mill Hill, Enderby	Improve driver information about air quality for example, signs and active signs	Traffic Management	UTC, Congestion management, traffic reduction	To be determined	2025	LCC	LCC	Not funded	< £10k	Implementation	N/A	Signs installed	LCC considering appropriate wording on new signs and affect it will have on drivers. Current signs already active in Park and	

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
													Ride signs such as nearby Fosse Park	
19 - AQMA 6 Mill Hill, Enderby	Delivery of Enderby Relief Road	Traffic Management	Strategic highway improvements, Re-prioritising Road space away from cars, including Access management, Selective vehicle priority, bus priority, high vehicle occupancy lane	To be determined	2025	LCC /Developers	LCC /S106 money	Funded	> £10 million	Planning	N/A	Relief Road operational	Relevant planning application currently being processed	
20 - Wider measures	Secure investment through The LLEP and Transforming Cities funding to improve our walking and cycling routes. To develop key routes across the district. To work with colleagues in Leicester City, LCC and Sustrans on improvements to our cycle routes. Promotion of our walking and cycling routes to increase usage and a change in residents' behaviour. Implementation of a Walk and Ride Connectivity strategy	Promoting Travel Alternatives	Promotion of walking	2021 onwards	2025	BDC	BDC/DEFRA	Funded	Unknown	Implementation	N/A	Project completed	Liaison continued with work undertaken by the Health and Leisure Team , Leicester City Council and LCC	
21 - Wider measures	Behavioural change project with businesses in	Promoting Travel Alternatives	Workplace Travel Planning	Autumn 2020 onwards	2023	BDC	BDC/DEFRA	Funded	< £10k	Completed	N/A	Completion of project	Further project work being coordinated with LCC	

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
	vicinity of AQMA													
23 - Wider measures	Develop a partnership to create a charging network across the district (public and private car parks, petrol stations, on street)	Promoting Low Emission Transport	Procuring alternative Refuelling infrastructure to promote Low Emission Vehicles, EV recharging, Gas fuel recharging	September 2020	October 2022	BDC	BDC	Funded	£100k - £500k	Completion	N/A	Completion of project	EV Chargers have been installed at several Council own car parks.	
24 - Wider measures	Engage with the taxi drivers to encourage the switch to electric vehicles	Promoting Low Emission Transport	Taxi emission incentives	2021	2022	BDC	BDC	Funded	< £10k	Completion	N/A	Policies implemented	BDC approved The Hackney Carriage and Private Hire Licensing Policy for 2022 – 2027 to incentivise the use of Ultra Low Emission Vehicles (ULEV's) and Electric Vehicles (EV)	
25 - Wider measures	Improve air quality information on BDC website	Public Information	Via the Internet	Summer 2021	End of July 2021	BDC	BDC	Not funded	< £10k	Completion	N/A	Improved webpages	Web page made easier to access information and reports. All the latest information and reports are now made available through BDC's website	
26 - Wider measures	Use the Pan Regional Transport Model (PRTM) to build an Air Quality model to be able to assess proposed physical mitigation measures and provide the evidence to bid for funding	Traffic Management	UTC, Congestion management, traffic reduction	2021	To be determined	LCC	LCC	Not funded	N/A	Aborted	N/A	Clearer picture of traffic flows and effects on air quality	The main focus of the modelling was to be AQMA 6. However, monitoring has indicated that the situation may be simpler than originally envisaged and therefore this measure is no longer required	

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.

Blaby District Council is taking the following measures to address $PM_{2.5}$:

To better identify areas of concern for $PM_{2.5}$, BDC uses two continuous monitoring stations and fifteen Zephyr® low cost monitoring devices to monitor concentrations of Particulate Matter in the district. Thirteen of the Zephyrs® were located in fixed locations in 2024, which can be seen in Appendix D Figures 13 and 14. The remaining two Zephyrs® are mobile and regularly moved around the district to investigate different locations. The Council recognises the low-cost monitoring devices are not approved reference methods, however they provide indicative results and can identify potential areas for further monitoring using approved reference methods. Table 2.3 below shows the monitoring results for 2024.

Planning applicants are required to submit a Construction Management Plan (CMP), including controls for dust emissions where relevant. These CMPs are reviewed by the Environmental Services Team to ensure mitigation methods are sufficient. Dust suppression techniques are also closely monitored through Environmental Permit Regulation Inspections. Processes with the potential to create

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

Particulate Matter such as Mobile Crushers, Concrete Suppliers and Timber Manufacturers are regularly inspected and appropriate action is taken for any breaches of conditions.

In 2024, there were 29 reports of domestic bonfires and 16 reports of commercial bonfires which were investigated by the Environmental Health Team. Additionally, four commercial smoking flue reports and 11 domestic smoking flues were investigated during 2024.

2.3.1 Table 2.3 Annual Zephyr $PM_{2.5}$ Monitoring Results ($\mu g/m^3$)

The following results are indicative only and no significant conclusions should be drawn from the data.

Site ID	Site Name	Site Type	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Pollutants Monitored	In AQMA? Which AQMA?	Valid Data capture for monitoring period (%)	Valid Data Capture for 2024 (%)	2022	2023	2024
945	Narborough Rd S'th, Braunstone	Suburban	466102	301332	$PM_{2.5}$	No	97.8	97.8	9.2	8.3	7.8
951	Leisure Centre, Enderby	Roadside	453942	298941	$PM_{2.5}$	No	99.2	99.2	7.5	6.6	6.4
966	Playing Fields, Stoney Stanton	Rural	448856	294497	$PM_{2.5}$	No	100.0	74.6		7.4	9.4
967	Pumping Station, Huncote	Roadside	451513	297318	$PM_{2.5}$	No	99.7	99.7		6.2	6.1
970	Croft Quarry 1, Croft	Industrial	451509	296215	$PM_{2.5}$	No	98.7	82.2		7.0	7.1
1020	Croft Recreational Ground, Croft	Industrial	451760	295783	$PM_{2.5}$	No	100.0	29.8		3.4	4.4
1020	Sharnford School, Sharnford	Other	448098	292190	$PM_{2.5}$	No	100.0	68.6			5.2
1045	Croft Quarry 2, Croft	Industrial	451435	296019	$PM_{2.5}$	No	99.6	64.5			7.2
1046	Alyssum Way, Narborough	Roadside	452881	298059	$PM_{2.5}$	No	99.7	99.7	7.7	8.2	5.7
1049	Osiers Nature Reserve, Braunstone	Other	455543	300718	$PM_{2.5}$	No	99.4	94.8			4.1
1283	Stelle Way, Glenfield	Other	454709	306981	$PM_{2.5}$	No	98.9	94.5			5.9
1324	Brierfield Rd, Cosby	Roadside	454809	294565	$PM_{2.5}$	No	99.5	99.5		6.1	6.1
1432	Hinckley Rd, Leicester Forest East	Roadside	452555	303013	$PM_{2.5}$	No	97.8	97.8		6.1	2.6

Site ID	Site Name	Site Type	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Pollutants Monitored	In AQMA? Which AQMA?	Valid Data capture for monitoring period (%)	Valid Data Capture for 2024 (%)	2022	2023	2024
1484	Mill Hill, Enderby	Roadside	453509	299687	$PM_{2.5}$	Yes- AQMA 6	99.5	99.5		5.6	5.6

Notes:

The Zephyr® at site 1020 was moved part way through the year and therefore there are two results for this Zephyr®.

No results have been annualised.

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

This section sets out the monitoring undertaken during 2024 by the Council and how it compares with the relevant Air Quality Objectives. In addition, monitoring results are presented for a five-year period between 2020 and 2024 to allow monitoring trends to be identified and discussed.

3.1 Summary of Monitoring Undertaken

3.1.1 Automatic Monitoring Sites

The Council undertook automatic (continuous) monitoring at five sites during 2024. Table A.1 in Appendix A shows the details of the Automatic Monitoring Sites. NB. Local authorities do not have to report annually on the following pollutants: 1,3 butadiene, benzene, carbon monoxide and lead, unless local circumstances indicate there is a problem.

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

3.1.2 Non-Automatic Monitoring Sites

The Council undertook Non-Automatic (i.e. passive) Monitoring of NO_2 at 28 sites during 2024. Table A.2 in Appendix A presents the details of the Non-Automatic Monitoring Sites.

The majority of Non-Automatic Monitoring Sites were kept the same from the previous year. The only exception being an additional Diffusion Tube placed on Coventry Road in Narborough. This was introduced after concerns were raised by the Parish Council about the air quality due to a nearby train barrier which often resulted in queuing traffic. After monitoring for 7 months, the annualised and bias-corrected result for this diffusion tube was 16.3 µg/m³. This therefore indicates there is not an NO_2 problem in this location, however monitoring will continue in 2025 to ensure compliance.

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, annualised (where the annual mean data capture is below 75% and greater than 25%), and distance corrected. 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 40µg/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 2024 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.

Across the District

Overall, between 2024 and 2023 there was an increase in the annual mean concentrations of NO_2 at four of the five Automatic Monitoring Sites. Positively, however, there was a significant decrease at CM6 and the increases at CM1, CM4 and CM7 were small and do not show a trend towards concentrations increasing over the past five years. CM5 saw the largest increase from 19.1 µg/m^3 in 2023 to 31.5 µg/m^3 in 2024. This site is already within AQMA6 and therefore the Council will be looking at ways to decrease this as the new Air Quality Action Plan is drawn up over the next year.

Overall, between 2024 and 2023 there has been a decrease in annual mean NO_2 concentrations for Non-Automatic Monitoring Sites. Twenty three Diffusion Tubes saw a decrease in NO_2 concentrations, one site had the same reading between 2024 and 2023, and three sites saw an increase to the NO_2 concentrations. However, it is worth noting the

majority of these increases were marginal and do not show a trend towards NO_2 concentrations increasing over the past five years. When comparing the 2024 results to 2022, almost all Diffusion Tubes show a decrease in concentrations. The only exception to this is DT54, where the NO_2 concentrations have increased in 2024 since both 2022 and 2023. However, this is due to the Diffusion Tube being moved closer to the roadside and away from the closest receptor, due to access issues at the start of 2024.

Despite increases at certain locations in the district, no exceedances of the NO_2 annual mean concentration were recorded in 2024. This is an improvement on previous years, as exceedances were recorded at DT118 and DT4 prior to distance correction in 2023 and 2022. The sections below give detailed analysis on the NO_2 concentration changes within AQMAs:

AQMA 1 – A5460 Narborough Road South (now revoked)

The closest Diffusion Tube, DT1, to AQMA1 recorded an NO_2 annual mean concentration of 18.8 $\mu g/m^3$. This Diffusion Tube has consistently showed values well below the annual mean objective and after several years of compliance, this AQMA has now been revoked.

AQMA 2 – M1 Corridor in Enderby and Narborough (now revoked)

DT48, within AQMA 2, has been consistently, significantly below the NO_2 annual mean concentration objective and this continued in 2024. An annual figure of 18.5 $\mu g/m^3$ was recorded for 2024, which supported the AQMA's revocation in November 2024.

AQMA 3 – M1 Corridor between Thorpe Astley and Kirby Muxloe (now revoked)

CM4 saw an increase from 18.9 $\mu g/m^3$ to 24.9 $\mu g/m^3$ NO_2 concentrations in 2024 compared to 2023. However, this is still a decrease compared to the 2021 concentration of 26.9 $\mu g/m^3$. All values for the past five years have been below the NO_2 annual mean concentration objective.

DT16 and DT57 both saw decreases between 2023 and 2024. These were 24.4 $\mu g/m^3$ to 21.9 $\mu g/m^3$ and 25.9 $\mu g/m^3$ to 22.50 $\mu g/m^3$, respectively. DT54 did increase to 29.3 $\mu g/m^3$ from 23.6 $\mu g/m^3$, however this Diffusion Tube was required to be moved closer to the roadside due to access issues, which would explain the increase.

All values continue to remain below the NO_2 annual mean concentration objective, and have done for the past five years and therefore this AQMA was also revoked in November 2024.

AQMA 4B – Enderby Road, Whetstone (now revoked)

DT20 has recorded consistently low concentrations for NO_2 for the past five years, with 2024 being recorded as 17.1 µg/m$^{3.}$ This supports the revocation in November 2024.

AQMA 6 – Mill Hill, Enderby

Mill Hill in Enderby remains the area with the highest concentration of monitoring in the district. CM5 did see a significant increase in NO_2 concentrations in comparison to 2023, with the annual mean increasing from 19.1 µg/m^3 to 31.5 µg/m^3.

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 200µg/m^3 (not to be exceeded more than 18 times per year). CM5 saw an increase in the NO_2 hourly mean concentrations as the 200µg/m^3 was exceeded twice 2024, the first exceedance of this hourly mean concentration for the past five years. This is likely due to the nearby Lubbesthorpe Development increasing traffic levels, and the nearby motorways as Mill Hill is often used as an access route.

All Diffusion Tubes in the AQMA, DT4, DT41, DT115, DT117, DT118 and DT119, saw a decrease in results compared to 2023. However, many of these results remain close to the NO_2 annual mean average. The highest results recorded in 2024 was DT4 with 35.3 µg/m^3. The data for DT118 is positive, as the recorded concentration in 2022 was 43.0 µg/m^3, 40.3 µg/m^3 in 2023 yet this reduced to 32.8 µg/m^3 in 2024.

Mill Hill in Enderby will be an area of focus in the Blaby District Council AQAP.

Figure A.2 below shows the monitoring trends in AQMA 6.

AQMA 7 – Lubbesthorpe Road, Braunstone Town

This is the newest AQMA in Blaby District. An exceedance was recorded at CM6 in 2022 of 47.8 µg/m^3, (43.0 µg/m^3 once the value had been distanced corrected). However, since the initial exceedance, the AQMA has been compliant with the NO_2 annual mean objectives. CM6 recorded 40.2 µg/m^3 in 2023, however once distanced corrected this became 35.7 µg/m^3. In 2024 CM6 recorded 29.7 µg/m^3 and therefore did not require distance correction last year.

DT89 had a marginal decrease from 22.2 µg/m^3 to 22.0 µg/m^3 from 2023 to 2024, as well as DT122 which decreased from 17.9 µg/m^3 to 17.6 µg/m^3. The remaining Diffusion Tube

in the AQMA, DT121, saw a more significant decrease from 18.3 µg/m^3 to 16.1 µg/m^3 from 2023 to 2024.

Overall, the results within AQMA7 have now been compliant with the NO_2 annual mean Objective in both 2023 and 2024. It is therefore promising that this AQMA may be revoked following another year of compliance in 2025. Close monitoring will still continue though, as the road is close to motorway access and is also close to Leicester City access roads.

Figure A.3 below shows the monitoring trends in AQMA 7.

Summary

Overall, most of the district saw decreases in NO_2 concentrations and all monitoring in 2024 showed compliance with the NO_2 annual mean objectives. The area in the district which remains most concerning for air quality is AQMA6 at Mill Hill in Enderby, and it will be the main focus along with AQMA7 Lubbesthorpe Road for the Councils new AQAP.

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. There was a slight increase in 2024 to 13.6 µg/m^3 from 13 µg/m^3 the year previously. The results since 2021 suggests a trend of PM_{10} increasing over time. However, the results are still significantly below the annual mean Objective of 40µg/m^3 and the 24-hourly mean objective of 50µg/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. Only one exceedance of 50µg/m^3 was recorded for the monitoring year 2024.

3.2.3 Particulate Matter ($PM_{2.5}$)

Table A.8 in Appendix A presents the ratified and adjusted monitored $PM_{2.5}$ annual mean concentrations for the past five years.

CM5 shows a decrease in $PM_{2.5}$ concentrations from 9.1 µg/m^3 to 7.5 µg/m^3 in 2024.

PM_{10} data from CM1 data has been used to get an estimate for $PM_{2.5}$. Using the national conversion factor, an annual mean estimation of 7.6 µg/m^3 was calculated for 2024. This is

a slight increase from 7.1 µg/m^3 in 2023. However, it is worth noting that both of these are estimations.

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) (2)	Distance to kerb of nearest road (m) (1)	Inlet Height (m)
CM1	Blaby 1 (Packhorse Drive, Enderby)	Roadside	454482	298573	NO_2, PM_{10}	No		Chemiluminescent; Gravimetric (TEOM)	12.6	0.7	3.0
CM4	Blaby 4 (Hinckley Road, LFE)	Roadside	453492	303315	NO_2	No	Previously within now revoked AQMA 3	Chemiluminescent	22.0	3.6	1.5
CM5	Blaby 2 (Mill Hill, Enderby)	Roadside	453594	299549	NO_2, $PM_{2.5}$	Yes	AQMA 6: Mill Hill, Enderby	Chemiluminescent; Gravimetric (TEOM)	4.0	1.0	1.5
CM6	Blaby 5 (Lubbesthorpe Road, Braunstone Town)	Roadside	455722	300782	NO_2	Yes	AQMA 7: Lubbesthorpe Road, Braunstone Town	Chemiluminescent	5.8	2.7	1.5
CM7	Blaby 3 (Stamford Street, Glenfield)	Roadside	453934	305999	NO_2	No		Chemiluminescent	5.0	2.4	1.5

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)
1	Opposite 23 Kingsway, Braunstone Town	Suburban	455975	301134	NO_2	No	11.0	1.5	No	2.2
4	Hall Walk, Enderby (near CM5)	Roadside	453605	299564	NO_2	Yes, AQMA 6	2.9	1.3	No	1.9
16	The Cottage, Ratby Lane, LFE	Roadside	453235	304246	NO_2	No	15.0	5.4	No	1.8
20	159 Enderby Road, Whetstone	Roadside	455819	297955	NO_2	No	0.0	4.8	No	1.8
31	5 Hinckley Road, Sapcote	Roadside	448877	293447	NO_2	No	0.0	1.2	No	1.8
41	9 Mill Hill, Enderby	Roadside	453467	299735	NO_2	Yes, AQMA 6	0.0	3.8	No	1.7
48	98 Leicester Road, Enderby	Roadside	454516	298138	NO_2	No	0.0	8.7	No	1.8
54	71 Hinckley Road, LFE	Roadside	453579	303381	NO_2	No	24.6	3.2	No	1.9
57	6 Ratby Lane, LFE	Roadside	454091	303599	NO_2	No	12.1	2.4	No	1.7
65	11 Stamford Street, Glenfield	Roadside	453890	306039	NO_2	No	0.0	2.0	No	2.0

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)
69	Railway Bridge, Station Road, Elmesthorpe	Roadside	447035	295874	NO_2	No	51.2	1.2	No	1.9
73	1 New Road, Stoney Stanton	Roadside	449033	294721	NO_2	No	6.7	2.4	No	1.9
74	3 Broughton Road, Stoney Stanton	Roadside	449112	294707	NO_2	No	3.3	2.7	No	1.8
78	Hinckley Road, M69 Junction, Sapcote	Roadside	446182	293774	NO_2	No	95.0	1.4	No	1.8
84	8 Station Road, Glenfield	Roadside	453915	306128	NO_2	No	6.6	1.2	No	2.0
89	CM6, Lubbesthorpe Road, Braunstone Town	Suburban	455732	300762	NO_2	Yes, AQMA 7	6.1	2.2	Yes	1.6
96	1 Broughton Road, Stoney Stanton	Roadside	449085	294702	NO_2	No	0.0	1.6	No	1.7
100	Windsor Avenue, Glen Parva	Roadside	458292	298314	NO_2	No	5.5	1.2	No	1.9
110	LP 83, Desford Road, Enderby	Kerbside	452957	300106	NO_2	No	484.0	0.3	No	1.8
112	LP78, Mill Hill, Enderby	Kerbside	453126	300011	NO_2	No	218.7	0.8	No	2.0

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)
114	LP 71, Mill Hill, Enderby	Roadside	453323	299851	NO_2	No	38.4	1.6	No	1.7
115	20 Mill Hill, Enderby	Roadside	453435	299743	NO_2	Yes, AQMA 6	0.0	2.5	No	2.0
117	LP by walkway, Mill Hill, Enderby	Roadside	453495	299696	NO_2	Yes, AQMA 6	10.8	1.7	No	2.1
118	LP 57, Hall Walk, Enderby	Roadside	453673	299481	NO_2	Yes, AQMA 6	22.3	1.1	No	1.9
119	LP 62, Mill Hill, Enderby	Roadside	453571	299634	NO_2	Yes, AQMA 6	20.7	1.6	No	1.9
121	16 Lubbesthorpe Road, Braunstone Town	Suburban	455702	300762	NO_2	Yes, AQMA 7	0.0	16.6	No	1.6
122	20 Lubbesthorpe Road, Braunstone Town	Suburban	455681	300776	NO_2	Yes, AQMA 7	8.8	1.6	No	1.8
123	1 Coventry Road, Narborough	Roadside	454028	297427	NO_2	No	7.9	2.8	No	2.0

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 2024 (%) (2)	2020	2021	2022	2023	2024
CM1	454482	298573	Roadside	100.0	66.1	16	24.3	21.8	16.1	17.5
CM4	453492	303315	Roadside	100.0	83.3	23.3	26.9	23.3	18.9	24.9
CM5	453594	299549	Roadside	100.0	89.7	22.9	18.9	24.9	19.1	31.5
CM6	455722	300782	Roadside	100.0	80.3	21	19.8	**47.8 (43)**	**40.2 (35.7)**	29.7
CM7	453934	305999	Roadside	100.0	75.4	21.1	20.2	19.1	19.1	20.4

☒ **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 2024.**

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 2024 (%) (2)	2020	2021	2022	2023	2024
1	455975	301134	Suburban	100.0	81.1	20.5	20.0	24.7	18.8	18.8
4	453605	299564	Roadside	100.0	100.0	29.4	29.3	**40.3**	35.6	35.3
16	453235	304246	Roadside	100.0	100.0	22.2	21.8	28.1	24.4	21.9
20	455819	297955	Roadside	100.0	100.0	15.8	17.2	21.7	19.8	17.1
31	448877	293447	Roadside	100.0	83.0	11.5	11.6	16.2	14.8	12.6
41	453467	299735	Roadside	100.0	92.5	20.2	21.0	27.8	24.5	22.7
48	454516	298138	Roadside	100.0	92.5	18.2	18.3	23.8	20.7	18.5
54	453579	303381	Roadside	100.0	83.0	22.1	20.7	22.6	23.6	29.3
57	454091	303599	Roadside	100.0	100.0	22.0	24.0	28.3	25.9	22.0
65	453890	306039	Roadside	100.0	100.0	26.0	25.6	30.9	25.6	25.1
69	447035	295874	Roadside	100.0	83.0	12.9	14.5	15.3	13.8	14.0

Diffusion Tube ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Site Type	Valid Data Capture for Monitoring Period (%) (1)	Valid Data Capture 2024 (%) (2)	2020	2021	2022	2023	2024
73	449033	294721	Roadside	100.0	92.5	25.1	24.0	29.7	22.0	23.4
74	449112	294707	Roadside	100.0	92.5	20.4	21.1	22.8	23.3	21.0
78	446182	293774	Roadside	100.0	100.0	17.4	18.0	18.2	18.9	16.2
84	453915	306128	Roadside	100.0	100.0	20.7	22.0	27.7	24.0	22.3
89	455732	300762	Suburban	100.0	90.6		19.9	25.7	22.2	22.0
96	449085	294702	Roadside	100.0	67.9		25.0	29.8	28.0	27.4
100	458292	298314	Roadside	100.0	100.0		10.7	12.8	12.5	10.3
110	452957	300106	Kerbside	100.0	100.0			24.2	22.9	17.9
112	453126	300011	Kerbside	100.0	92.5			36.8	34.1	31.2
114	453323	299851	Roadside	100.0	92.5			33.4	28.9	28.2
115	453435	299743	Roadside	100.0	92.5			33.5	28.6	27.3
117	453495	299696	Roadside	100.0	100.0			34.6	27.9	26.9

Diffusion Tube ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Site Type	Valid Data Capture for Monitoring Period (%) (1)	Valid Data Capture 2024 (%) (2)	2020	2021	2022	2023	2024
118	453673	299481	Roadside	100.0	92.5			**43.0**	**40.3**	32.8
119	453571	299634	Roadside	100.0	92.5			33.0	27.2	25.6
121	455702	300762	Suburban	100.0	100.0				18.3	15.7
122	455681	300776	Suburban	100.0	92.5				17.9	17.6
123	454028	297427	Roadside	100.0	49.1					15.9

☒ **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**.

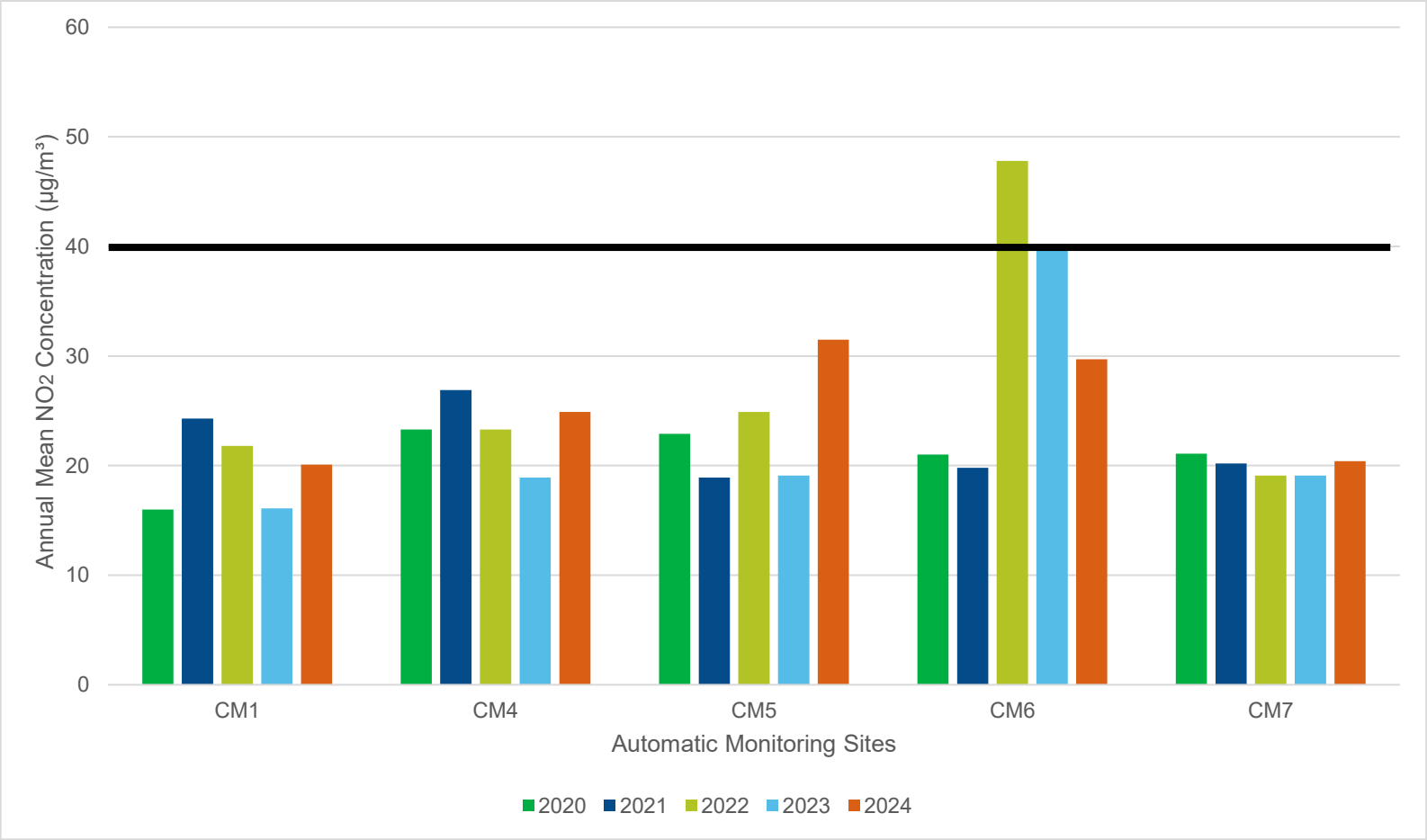
Means for diffusion tubes have been corrected for bias. All means have been "annualised" as per LAQM.TG22 if valid data capture for the full calendar year is less than 75%. See Appendix C for details.

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.1 – Trends in Annual Mean NO_2 Concentrations at Automatic Monitoring Sites

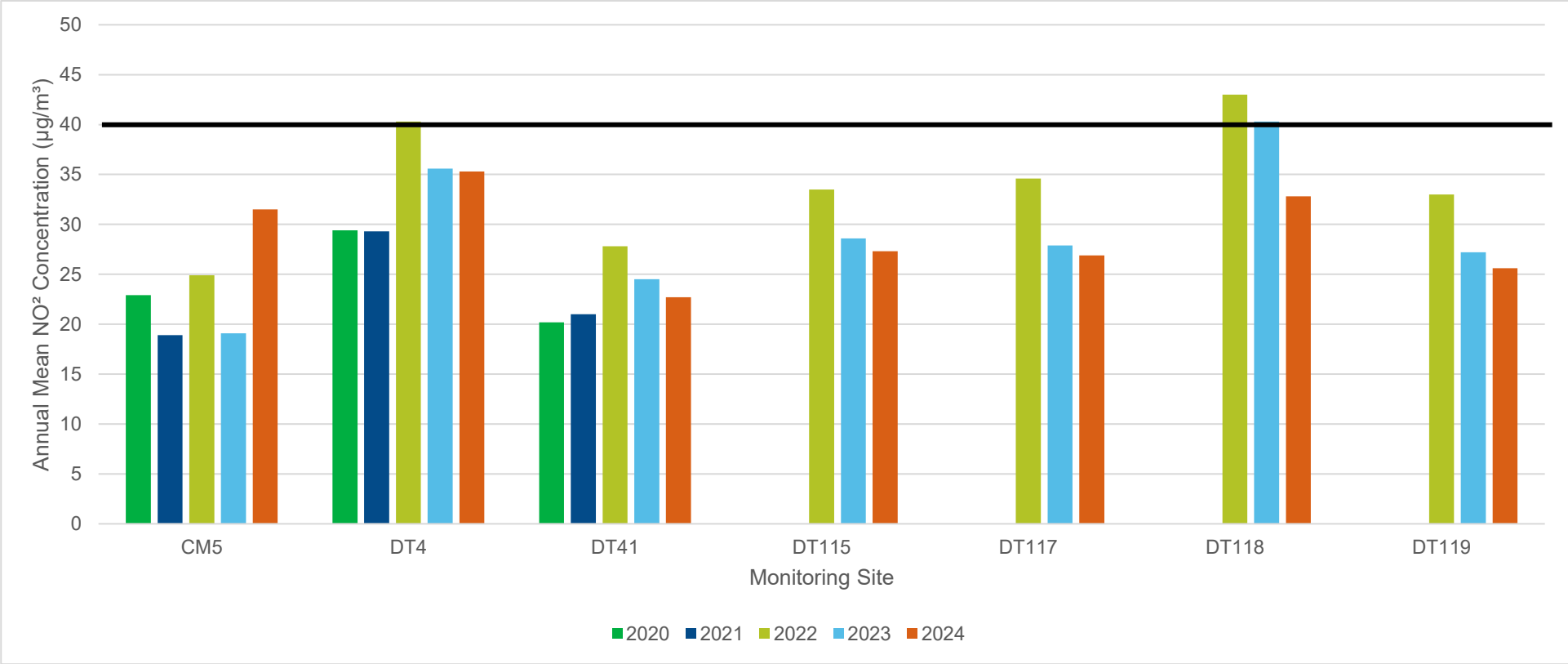


Notes:

Concentrations are not distance corrected.

The black line represents the annual mean objective for NO_2.

Figure A.2 - Trends in Annual Mean NO_2 Concentrations at AQMA 6: Mill Hill, Enderby

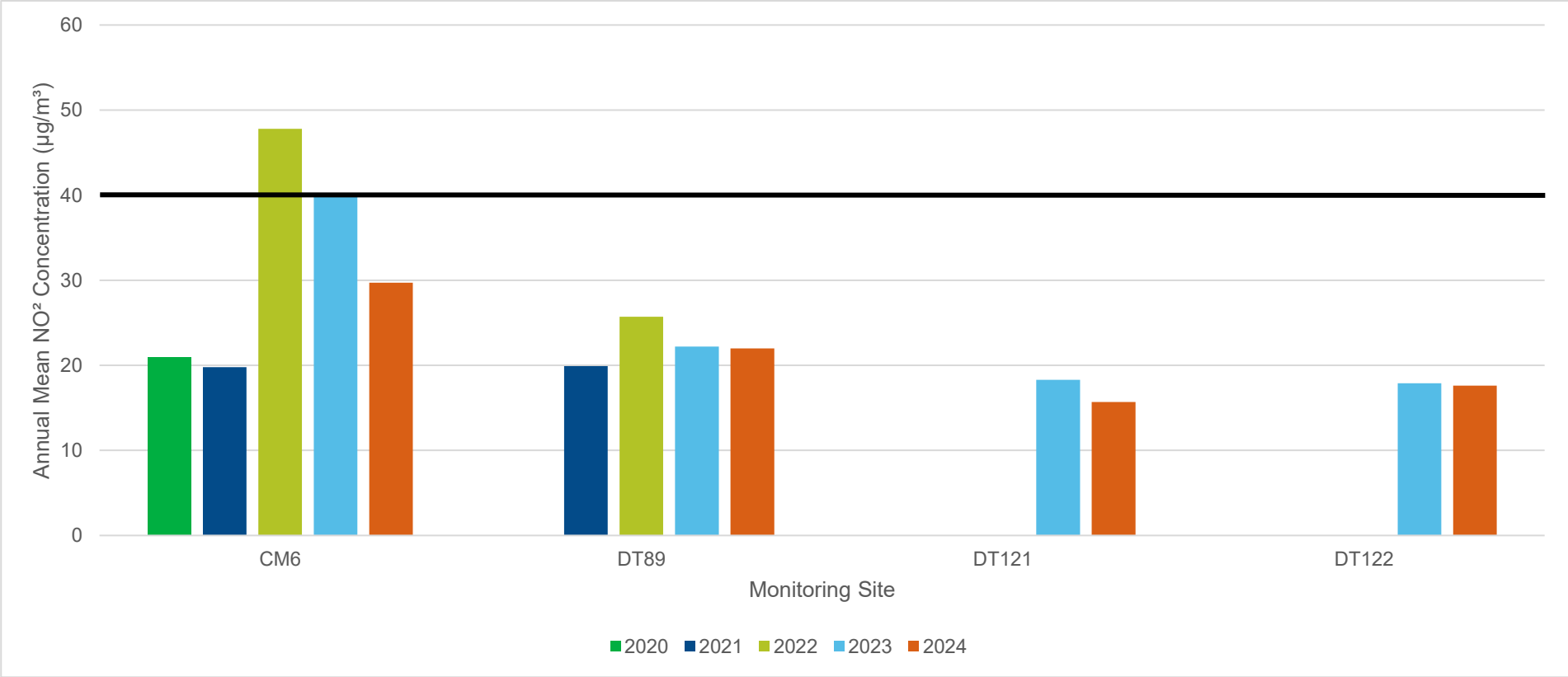


Notes:

Concentrations are not distance corrected.

The black line represents the annual mean objective for NO_2.

Figure A.3 – Trends in Annual Mean NO_2 Concentrations at AQMA 7: Lubbesthorpe Road, Braunstone Town



Notes:

Concentrations are not distance corrected.

The black line represents the annual mean objective for NO_2.

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 2024 (%) (2)	2020	2021	2022	2023	2024
CM1	454482	298573	Roadside	100.0	66.1	0	0	0	0 (90.4)	0 (78)
CM4	453492	303315	Roadside	100.0	83.3	0	0	0	0	2 (165)
CM5	453594	299549	Roadside	100.0	89.7	0	0	0	0	0
CM6	455722	300782	Roadside	100.0	80.3	0	0	0	0	0 (96)
CM7	453934	305999	Roadside	100.0	75.4	0	0	0	0	0 (88)

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 2024 (%) (2)	2020	2021	2022	2023	2024
CM1	454482	298573	Roadside	100.0	95.0	11.5	10.8	11.7	13	13.6

☒ **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.4 – Trends in Annual Mean PM_{10} Concentrations

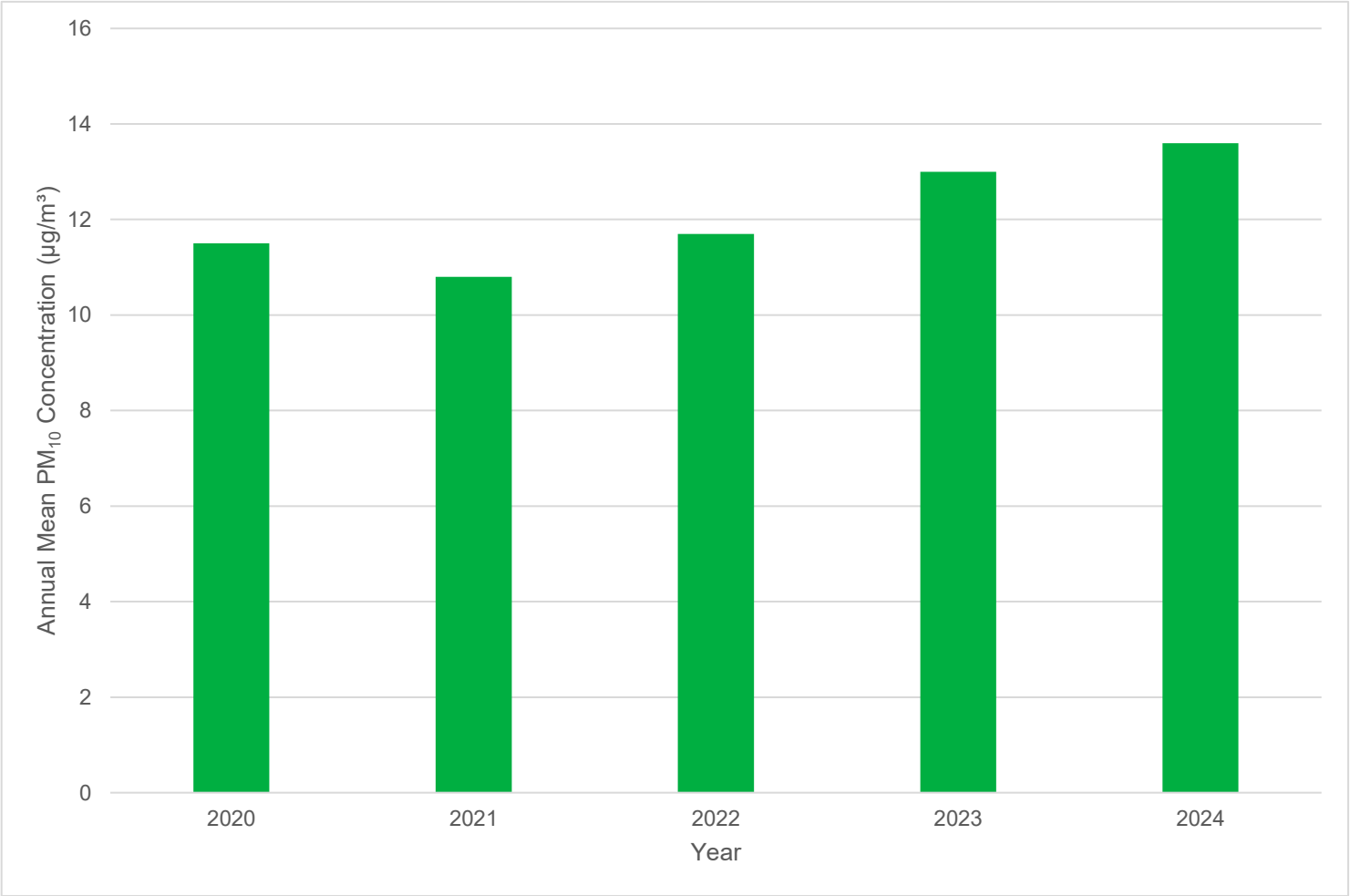


Table A.7 – 24-Hour Mean PM_{10} Monitoring Results, Number of PM_{10} 24-Hour Means > 50µg/m^3

Site ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Site Type	Valid Data Capture for Monitoring Period (%) (1)	Valid Data Capture 2024 (%) (2)	2020	2021	2022	2023	2024
CM1	454482	298573	Roadside	100.0	95.0	0	0	0	0 (14.5)	1

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 $PM_{2.5}$ Monitoring Results (µg/m^3)

Site ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Site Type	Valid Data Capture for Monitoring Period (%) (1)	Valid Data Capture 2024 (%) (2)	2020	2021	2022	2023	2024
CM1	454482	298573	Roadside	100.0	95.0	8.1	7.6	8.2	7.1	7.6
CM5	453594	299549	Roadside	100.0	94.4	8.4	8.4	5.2	9.1	7.5

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

Notes:

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

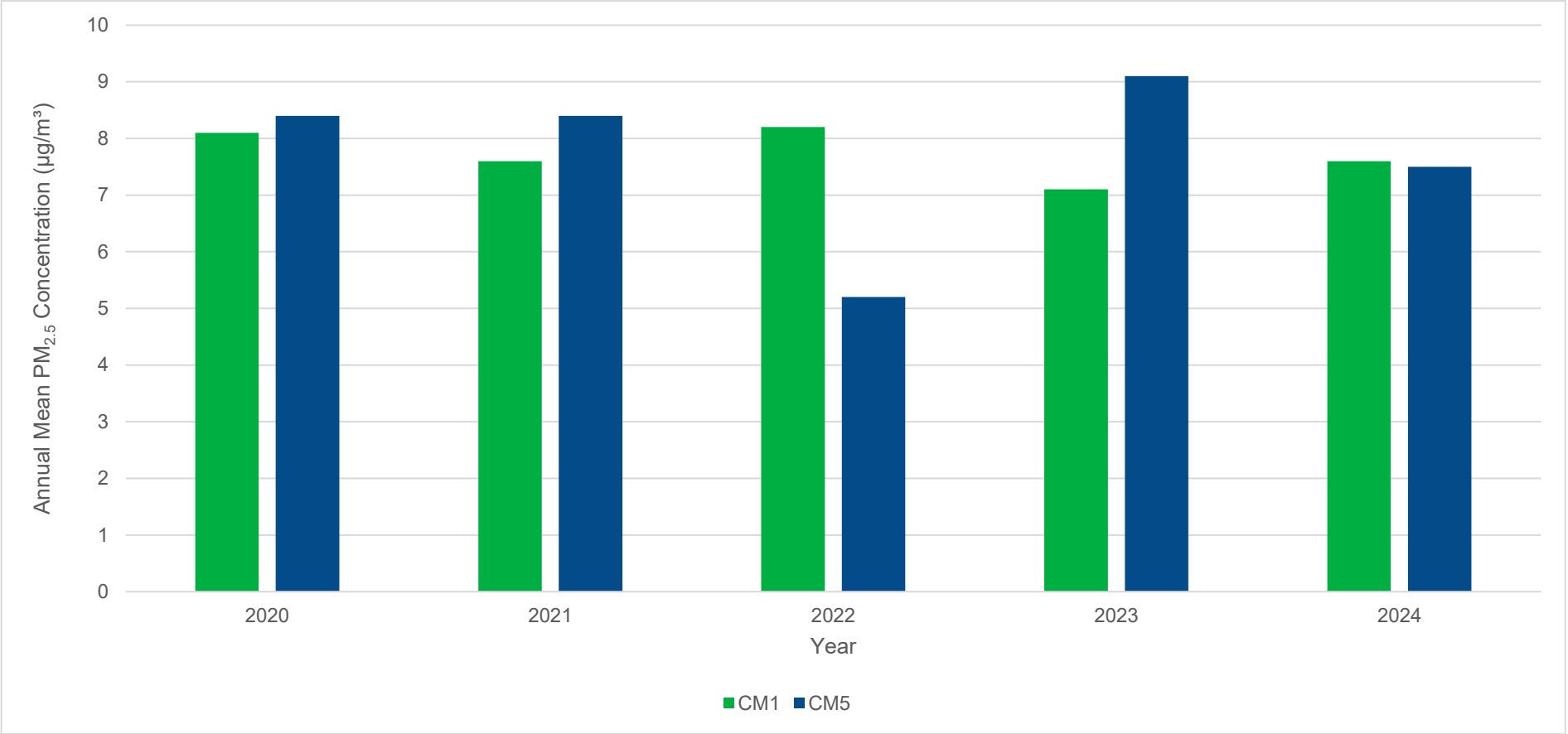
All means have been "annualised" as per LAQM.TG22 if valid data capture for the full calendar year is less than 75%. See Appendix C for details.

(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%).

CM1 data has been estimated using PM_{10} data and the national conversion factor.

Figure A.5 – Trends in Annual Mean $PM_{2.5}$ Concentrations



Notes:

CM1 data is estimated using PM_{10} data and the national conversion factor.

Appendix B: Full Monthly Diffusion Tube Results for 2024

Table B.1 – NO_2 2024 Diffusion Tube Results (µg/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	Annual Mean: Distance Corrected to Nearest Exposure	Comment
1	455975	301134	29.2	28.4	27.8	21.2	23.1	18.1	16.5	16.2	25.0		35.0		24.1	18.8	-	
4	453605	299564	38.8	52.2	45.9	44.0	48.1	47.9	41.4	37.2	47.4	48.3	52.3	40.3	45.3	35.3	-	
16	453235	304246	30.5	35.1	26.9	27.3	25.3	34.5	27.3	27.5	24.1	30.5	34.2	13.3	28.0	21.9	-	
20	455819	297955	30.6	25.2	19.8	24.0	22.5	21.8	11.9	17.7	24.6	24.3	20.9	19.7	21.9	17.1	-	
31	448877	293447	13.2		14.4	14.9	16.9	14.7		13.5	16.3	21.2	28.8	7.9	16.2	12.6	-	
41	453467	299735	31.0	31.7	33.7	28.8	32.8	26.0	21.4	16.2		35.4	39.9	22.8	29.1	22.7	-	
48	454516	298138	12.6	30.4	25.1	21.5	24.2	26.1	21.9	24.6		26.0	29.3	18.6	23.7	18.5	-	
54	453579	303381	50.4	41.7		32.3	35.9	36.3	31.6	31.2	31.3	38.1	46.5		37.5	29.3	-	
57	454091	303599	34.5	28.3	32.3	27.6	16.9	28.8	24.0	20.2	29.2	27.7	39.8	28.6	28.2	22.0	-	
65	453890	306039	21.1	41.2	36.5	25.8	29.9	29.6	28.3	31.7	36.1	37.5	38.4	29.3	32.1	25.1	-	
69	447035	295874	19.5	23.2	18.8	15.2	19.7	16.5	14.9	15.4			27.3	8.9	17.9	14.0	-	
73	449033	294721	34.6	33.1	26.2	28.4	27.1	31.8	26.0	30.0		28.2	38.9	25.8	30.0	23.4	-	
74	449112	294707	28.9	25.5	22.4	25.6	27.1	25.8	21.9	24.0		28.1	38.8	28.7	27.0	21.0	-	
78	446182	293774	25.5	26.0	26.2	17.4	20.2	15.9	16.3	16.5	19.6	21.9	26.8	17.0	20.8	16.2	-	
84	453915	306128	34.4	32.9	27.1	28.5	23.8	28.6	23.5	25.4	28.1	32.1	27.9	30.3	28.6	22.3	-	
89	455732	300762	33.1	38.4	28.8	24.0	25.0	23.1	20.6		24.6	29.6	34.7	27.8	28.2	22.0	-	
96	449085	294702			31.5	32.7	33.3	34.9		33.8		37.7	38.1	28.0	33.8	27.4	-	

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	Annual Mean: Distance Corrected to Nearest Exposure	Comment
100	458292	298314	11.3	13.0	13.2	13.7	12.2	9.4	6.8	9.3	16.2	15.5	21.3	16.3	13.2	10.3	-	
110	452957	300106	10.5	23.8	27.9	22.8	23.7	20.0	23.7	18.1	24.2	30.6	30.5	20.1	23.0	17.9	-	
112	453126	300011	47.2	47.3	41.2	40.3	37.5	36.4	34.7	36.3		45.0	42.9	30.6	39.9	31.2	-	
114	453323	299851	43.1	36.8	40.8	41.6	32.7	38.0	27.6	29.9		37.6	41.7	28.0	36.2	28.2	-	
115	453435	299743	36.9	41.5	37.0	31.9	35.3	35.8	31.2	30.2		37.7	39.0	28.0	35.0	27.3	-	
117	453495	299696	29.1	44.8	39.4	36.1	31.4	32.9	27.7	28.1	36.6	32.1	42.2	33.1	34.5	26.9	-	
118	453673	299481	34.3	47.6	55.2	50.5	49.7	38.4	24.8	31.5		41.6	50.7	38.5	42.1	32.8	-	
119	453571	299634	38.8	36.6	33.9	23.5	35.7	33.7	25.6	27.7		37.7	42.5	25.4	32.8	25.6	-	
121	455702	300762	23.9	24.7	22.6	17.1	18.4	16.0	16.6	17.5	16.5	23.1	24.7	20.6	20.1	15.7	-	
122	455681	300776	29.9	30.1	25.2	19.6	21.2	18.2	17.3	16.3		26.6	24.0	20.1	22.6	17.6	-	
123	454028	297427						18.7	22.3	25.0	30.9		13.0	7.0	19.5	15.9	-	

☒ **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.**

☒ **Blaby District Council confirm that all 2024 diffusion tube data has been uploaded to the Diffusion Tube Data Entry System.**

Notes:

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

NO_2 annual means exceeding 60µg/m^3, indicating a potential exceedance of the NO_2 1-hour mean Objective are shown in **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 Blaby District Council During 2024

Blaby District Council had one new Environmental Permit added to its register in 2024. Permitted processes require a permit to operate and require regular inspections to ensure adherence to permit conditions.

New Significant planning applications received during 2024 and an update on planning proposals mentioned in the 2024 ASR

- **Blaby Golf Range** – A planning application was received in 2024 proposing up to 200 new dwellings. This application is currently pending a decision, and this is expected in 2025.
- **Land east of Willoughby Road, Countesthorpe –** A planning application was received in 2024 proposing up to 185 new dwellings. The application is also currently pending a decision, with this expected in 2025.
- **Lubbesthorpe Development** – This is a sustainable urban extension to the west of the M1 consisting of a proposed 4,250 in total in addition to associated facilities. Phase One is nearing completion, and the remaining phases are expected to be completed in the 2030s.
- **Extension to Croft Quarry** - Original permission to extend the quarry and other operations on the wider quarry site was granted by Leicestershire County Council in 2022. An application to vary the timetable for the operation of the actual quarry was made in September 2024 to Leicestershire County Council. This application is currently pending a decision.
- **Land north of A47 Hinckley Road, Kirby Muxloe** – This is a proposal for 885 dwellings and a primary school. The outline application was granted in 2023 however S106 agreements are ongoing. It is unknown when development will commence.
- **Enderby Hub** – This is a proposed commercial development consisting of warehouse buildings. The original outline application was refused. A subsequent

application was submitted and approved by Blaby District Council. The original refusal was appealed, and the Planning Inspectorate overturned the refusal, and permission was granted for the original application also. An S106 agreement has been approved with the developer towards the monitoring of Air Quality in AQMA 6, due to the close proximity of the site.

- **Hinckley National Rail Freight Interchange Development** – The Secretary of State refused development consent for this application in March 2025.

Additional Air Quality Works Undertaken by Blaby District Council During 2024

Blaby District Council has not completed any additional works within the reporting year of 2024.

QA/QC of Diffusion Tube Monitoring

Diffusion Tube monitoring has been completed in adherence with the 2024 Diffusion Tube Monitoring Calendar.

The Blaby District Council supplier used for Diffusion Tubes within 2024 was SOCOTEC Didcot and the method used was 50% TEA in acetone. SOCOTEC Didcot participates in the AIR Proficiency Testing (PT) Scheme for Diffusion Tubes, operated by LGC Standards and supported by the Health and Safety Executive (HSE).

SOCOTEC has demonstrated satisfactory performance in the AIR PT scheme by consistently submitting 100% satisfactory results each quarter and therefore complies with Defra guidance.

All Diffusion Tube names were reviewed in 2024, and some were altered to ensure an accurate description of all Diffusion Tubes. The distances for all Diffusion Tubes to relevant exposure, to the kerb of nearest road were also reviewed and checked for accuracy in addition to the co-ordinates.

Diffusion Tube Annualisation

Annualisation was required at two of the Blaby District Council Diffusion Tube sites, DT 96 and DT 123.

This annualisation was completed using the Diffusion Tube Data Processing Tool v.5.3. The four background sites used to calculate the annualisation were:

- Coventry Allesley
- Coventry Binley Road
- Leicester A594 Roadside
- Leicester University

All four sites are part of the Automatic Urban and Rural Network (AURN). These sites were chosen as they each had above the 85% data capture requirement and are within 50 miles of the Blaby District Council monitoring sites.

Coventry Allesley and Leicester University are both Urban Background sites. However, Coventry Binley Road and Leicester A594 are both Urban Traffic sites. Whilst it would be preferable to use only background sites, there are very few AURN stations within a 50 mile radius. The two Diffusion Tubes and the Automatic Monitoring Site that required annualisation were all Roadside sites and therefore the annualisation still complies with LAQM.TG22.

Table C.1 – Annualisation Summary (concentrations presented in µg/m^3)

Site ID	Annualisation Factor Coventry Allesley	Annualisation Factor Coventry Binley Road	Annualisation Factor Leicester A594 Roadside	Annualisation Factor Leicester University	Average Annualisation Factor	Raw Data Annual Mean	Annualised Annual Mean
96	1.0517	1.0259	1.0193	1.0623	1.0398	33.8	35.1
123	1.1048	1.0417	1.0532	0.9950	1.0487	19.5	20.4

Diffusion Tube Bias Adjustment Factors

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

Blaby District Council have applied a national bias adjustment factor of 0.78 to the 2024 monitoring data. A summary of bias adjustment factors used by Blaby District Council over the past five years is presented in Table C.2.

The national bias adjustment factor was taken from the Diffusion Tube Bias Adjustment Factors Spreadsheet released by Defra in April 2025. The factor from SOCOTEC Didcot for 50% TEA in acetone was applied. A total of 33 studies were used to calculate the bias adjustment factor.

Table C.2 – Bias Adjustment Factor

Monitoring Year	Local or National	If National, Version of National Spreadsheet	Adjustment Factor
2024	National	04/25	0.78
2023	National	03/24	0.77
2022	National	03/23	0.76
2021	National	03/22	0.77
2020	National	09/21	0.77

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 Diffusion Tube NO_2 monitoring locations within Blaby District required distance correcting during 2024.

QA/QC of Automatic Monitoring

Data management and Local Site Operator (LSO) duties are completed by Blaby District Council officers for the Automatic Monitoring Sites. Automatic Monitoring Sites are calibrated approximately every 4 weeks and stations are serviced every six months by the service and maintenance provider.

Following calibrations, automatic monitoring data is scaled based on site calibrations using a linear two-point regression. Data is then manually ratified and validated, with any erroneous data removed. The same officer responsible for the calibration of the site is also responsible for the ratification of the data allowing for more accurate screening of outliers.

PM_{10} and $PM_{2.5}$ Monitoring Adjustment

The PM_{10} data has had the correction factor of 1.3 applied to it. This is done to account for the difference to the reference method. Ideally, the data would have had the Volatile Correction Model applied. However, due to a lack of TEOM FDMS instruments within a 200km radius, Blaby District Council were advised to revert back to the historic recommendation of applying the 1.3 correction factor by the LAQM Helpdesk.

Whilst the best available method has been used to correct the data, it should be noted that no significant conclusions should be drawn from the PM_{10} data.

No correction factors were required for the CM2 $PM_{2.5}$ data.

The CM1 PM_{10} data was used to estimate $PM_{2.5}$. This was done using the 2024 national conversion factor released by Defra in 2024. The calculation used is below.

13.6 (PM_{10} measurement) – 6.0 (2024 National Roadside factor) = 7.6 (estimated $PM_{2.5}$ value)

Automatic Monitoring Annualisation

The only Automatic Monitoring site that required annualisation for 2024 monitoring year was CM1 for NO_2. The data capture was 66.1% due to equipment issues. The annualisation was completed using the Automatic Data Processing Tool. The same four background sites used to annualise the Diffusion Tubes were also used to annualise CM1 data.

Details of the annualisation can be found in Table C.3 below.

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

Background Site	Annual Data Capture	Annual Mean (A_m)	CM1	
			Period Mean (P_m)	Ratio (A_m/P_m)
Coventry Allesley	100.0	12.3	14.2	0.865
Coventry Binley Road	99.5	21.4	24.3	0.878
Leicester A594 Roadside	99.7	26.1	30.3	0.861
Leicester University	95.3	16.8	19.1	0.881
Average (R_a)			**0.871**	
Raw Data Annual Mean (M)			**20.1**	
Annualised Annual Mean (M x R_a)			**17.5**	

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 NO_2 fall-off with distance calculator available on the LAQM Support website. Where appropriate, automatic annual mean NO_2 concentrations corrected for distance are presented in Table A.3.

No automatic NO_2 monitoring locations within Blaby District Council required distance correction during 2024.

Appendix D: Maps of Monitoring Locations and AQMAs

An assessment of 2024 results in the context of past data has been carried out for the following areas:

AQMA 1 - A5460 Narborough Road South (revoked Nov 2024)- NO_2

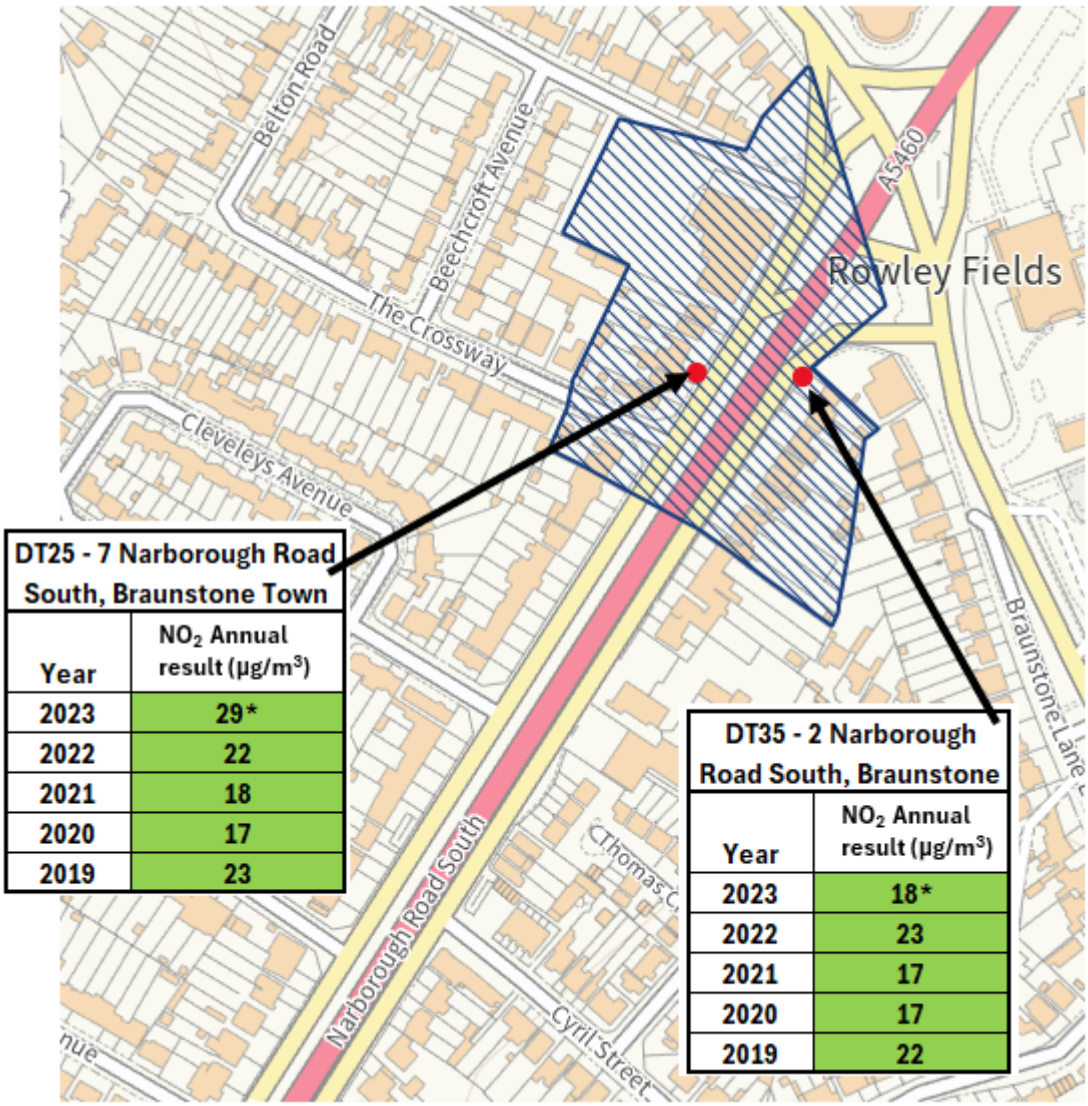
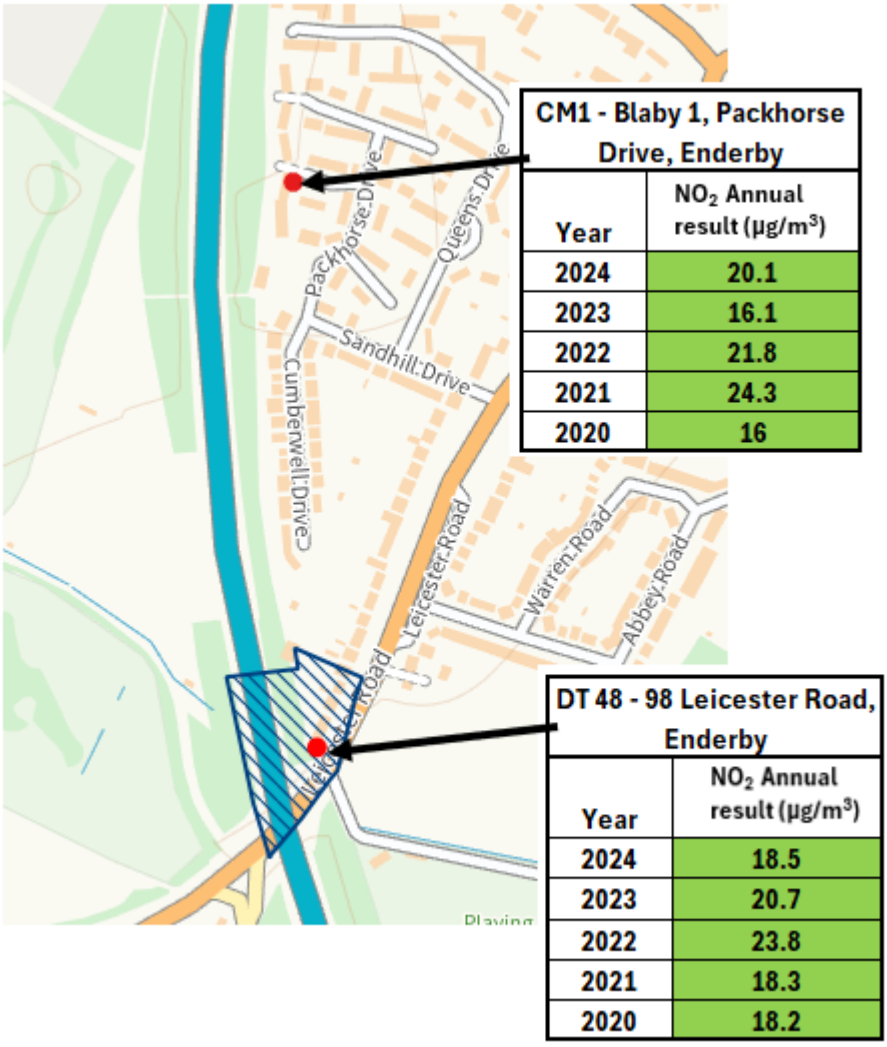


Figure D.1: The map shows the locations and results of the Diffusion Tubes in AQMA1, Narborough Road South. The AQMA boundary is represented by the blue grid lines. Results have been rounded to the nearest whole number. 40µg/m^3 is the National Air Quality Objective for this pollutant. Numbers with a * represent a figure that has been annualised and/or distance corrected.

AQMA 2 - M1 corridor in Enderby and Narborough (revoked Nov 2024)- NO_2



CM1 - Blaby 1, Packhorse Drive, Enderby	
Year	NO_2 Annual result (µg/m³)
2024	20.1
2023	16.1
2022	21.8
2021	24.3
2020	16

DT 48 - 98 Leicester Road, Enderby	
Year	NO_2 Annual result (µg/m³)
2024	18.5
2023	20.7
2022	23.8
2021	18.3
2020	18.2

Figure D.2: The map shows the locations and results of the Diffusion Tube and CM1 in AQMA 2, M1 corridor in Enderby and Narborough. The AQMA boundary is represented by the blue grid lines. 40µg/m^3 is the National Air Quality Objective for this pollutant. ©Crown Copyright. All rights reserved.

AQMA 3 – M1 corridor between Thorpe Astley and Leicester Forest East (revoked Nov 2024)- NO_2

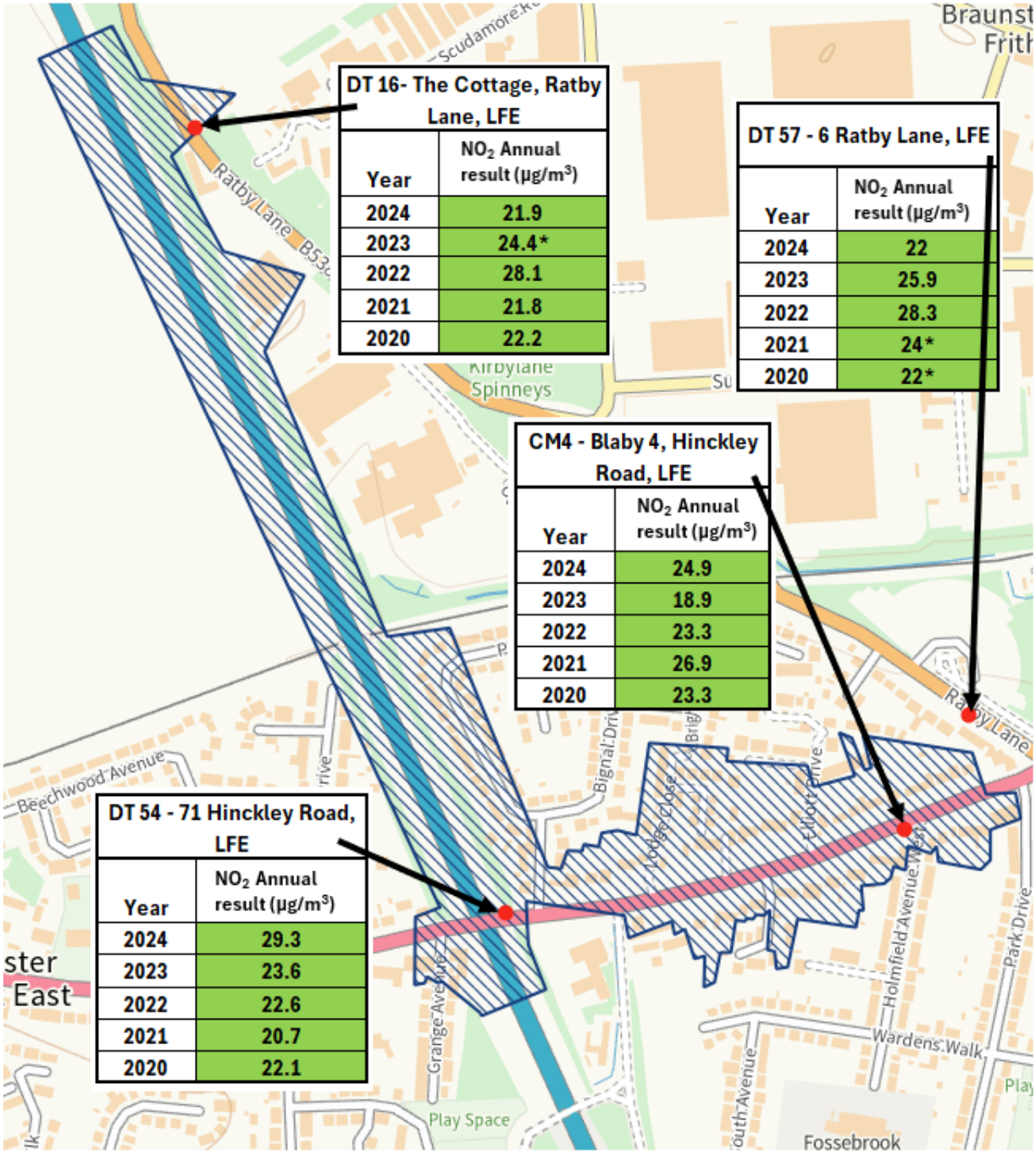


Figure D.3: The map shows the locations and results of the Diffusion Tubes and CM4 in AQMA3, M1 corridor between Thorpe Astley and Leicester Forest East. The AQMA boundary is represented by the blue grid lines. 40µg/m^3 is the National Air Quality Objective for this pollutant. Numbers with a * represent a figure that has been annualised and/or distance corrected. ©Crown Copyright. All rights reserved.

AQMA 4B – Enderby Road, Whetstone (revoked Nov 2024)- NO_2

Figure D.4: The map shows the locations and results of the Diffusion Tube in AQMA 4B, Enderby Road, Whetstone. The AQMA boundary is represented by the blue grid lines. 40µg/m^3 is the National Air Quality Objective for this pollutant. ©Crown Copyright. All rights reserved.

AQMA 6 – Mill Hill, Enderby

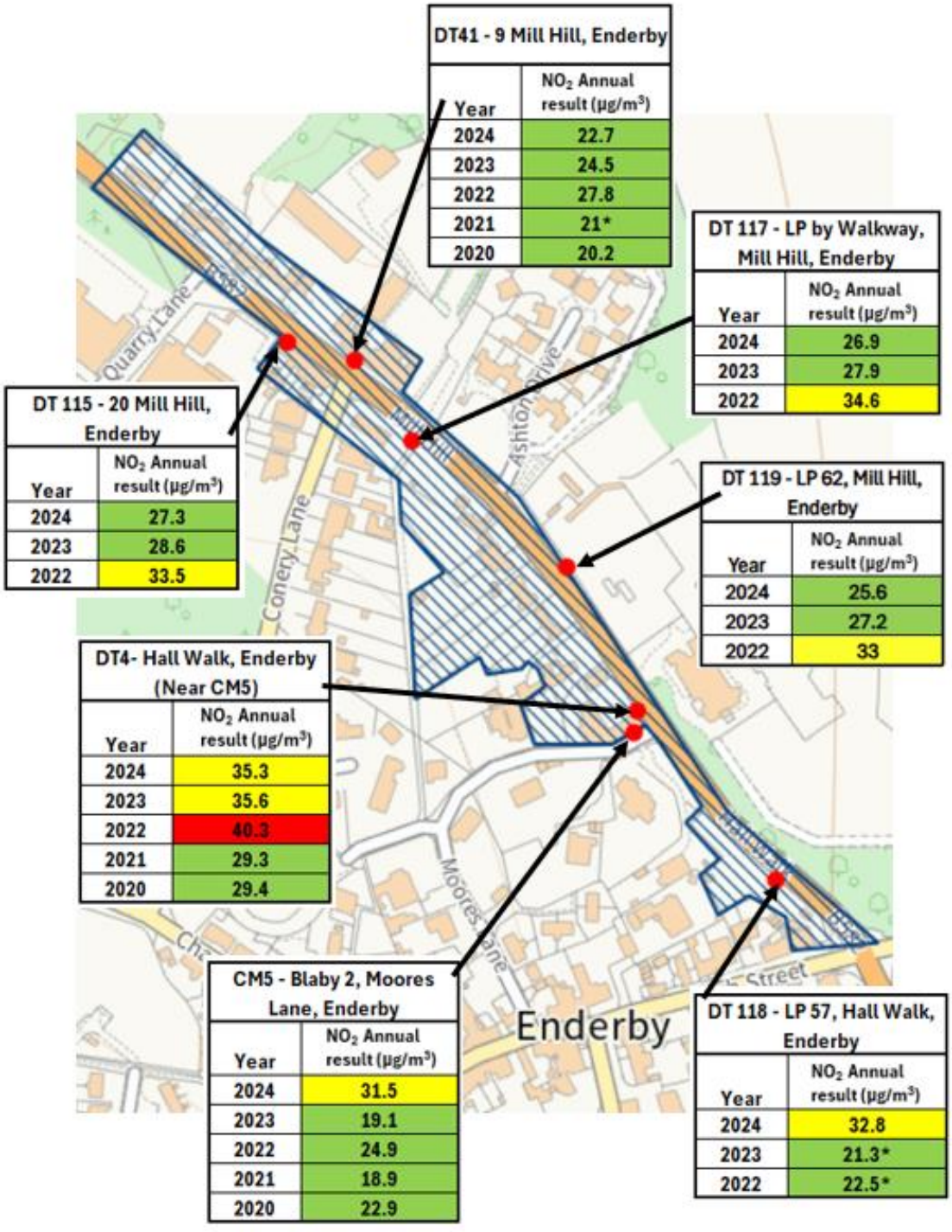


Figure D.5a

The map shows the locations and results of the Diffusion Tubes and CM5 in AQMA 6, Mill Hill, Enderby. The AQMA boundary is represented by the blue grid lines. 40µg/m3 is the National Air Quality Objective for this pollutant. Numbers with a * represent a figure that has been annualised and/or distance corrected. ©Crown Copyright. All rights reserved.

Outside of AQMA 6- Enderby

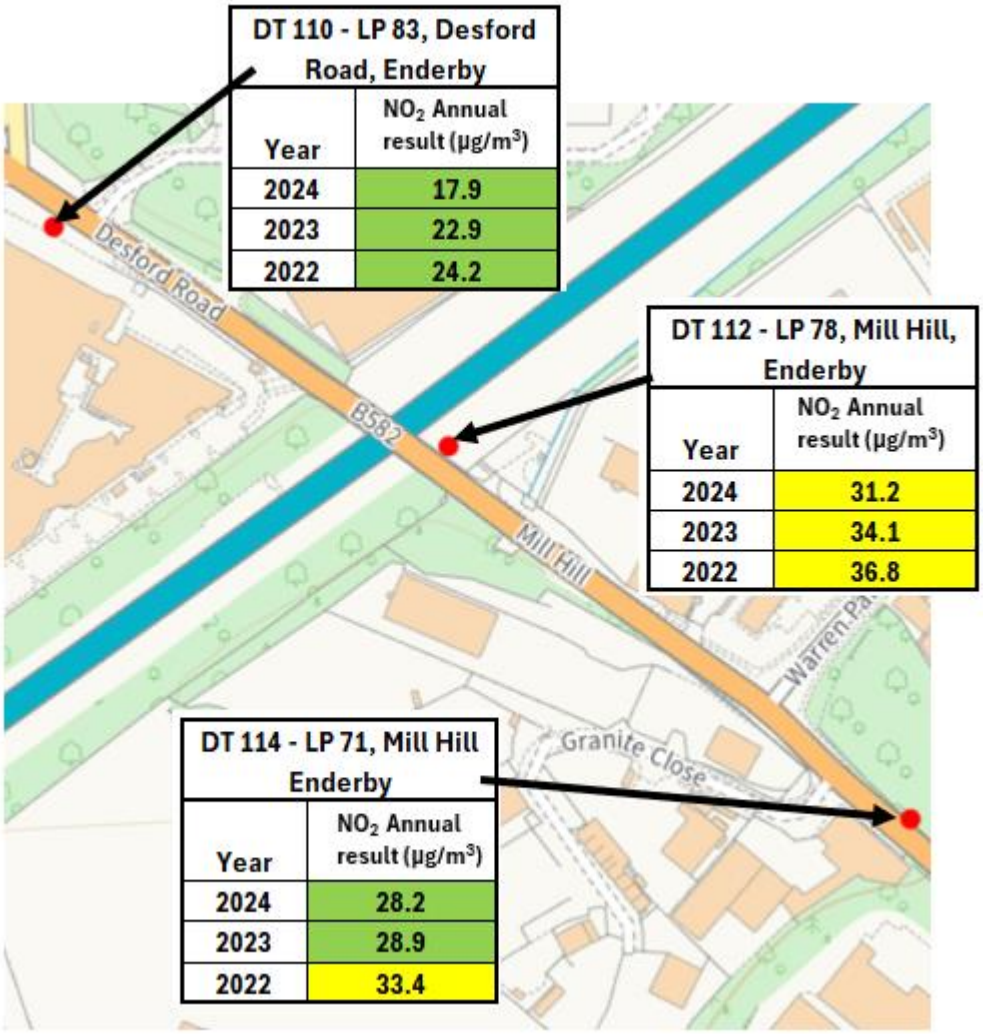


Figure D.5b

The map shows the locations and results of the Diffusion Tubes outside of AQMA 6, Mill Hill, Enderby. The AQMA boundary is represented by the blue grid lines. 40µg/m^3 is the National Air Quality Objective for this pollutant. ©Crown Copyright. All rights reserved.

AQMA 7 – Lubbesthorpe Road, Braunstone Town

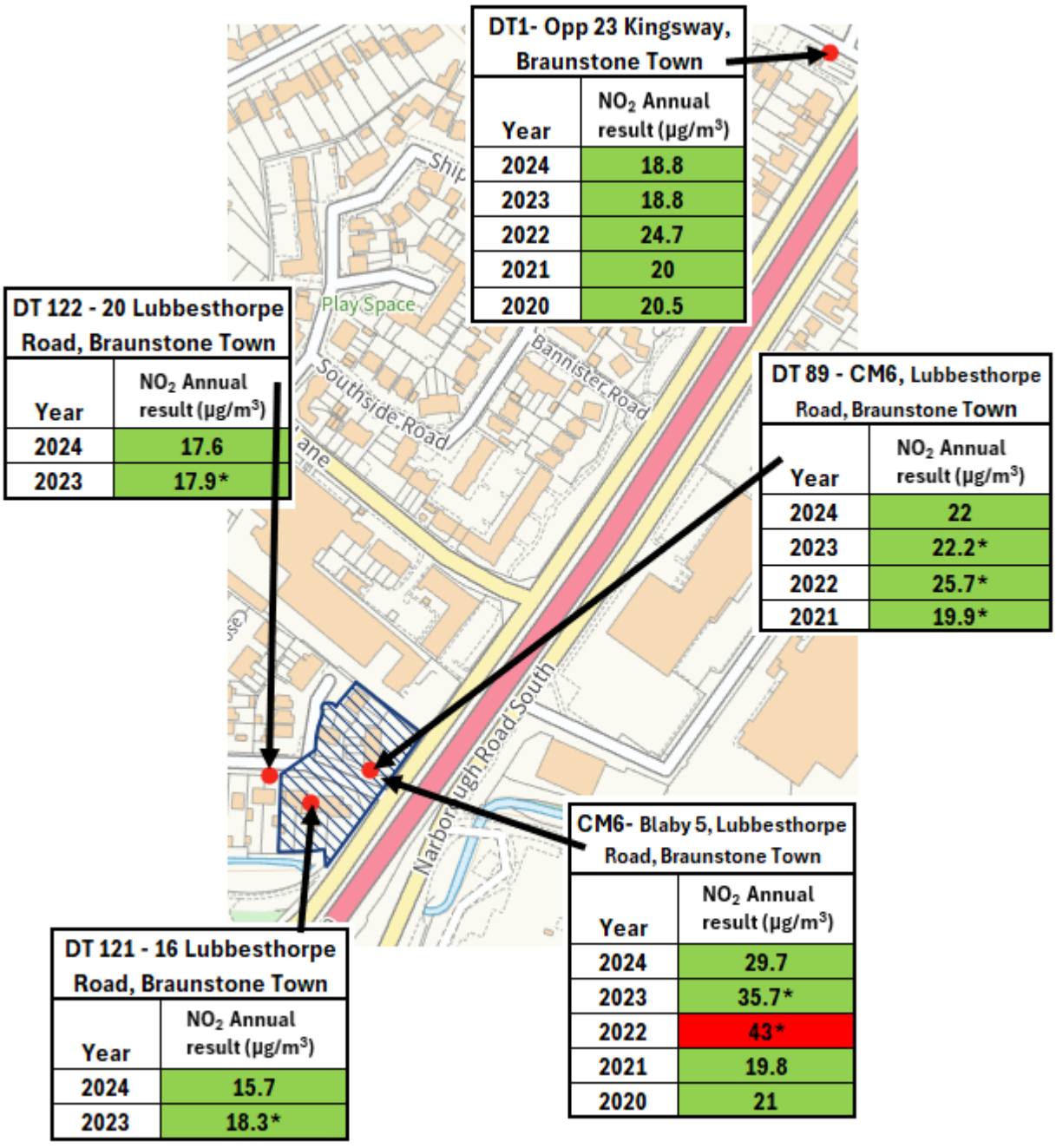


Figure D.6

The map shows the locations and results of the Diffusion Tubes and CM6 in AQMA 7, Lubbesthorpe Road, Braunstone Town. The AQMA boundary is represented by the blue grid lines. 40µg/m^3 is the National Air Quality Objective for this pollutant. Numbers with a * represent a figure that has been annualised and/or distance corrected. ©Crown Copyright. All rights reserved.

Stoney Stanton Village

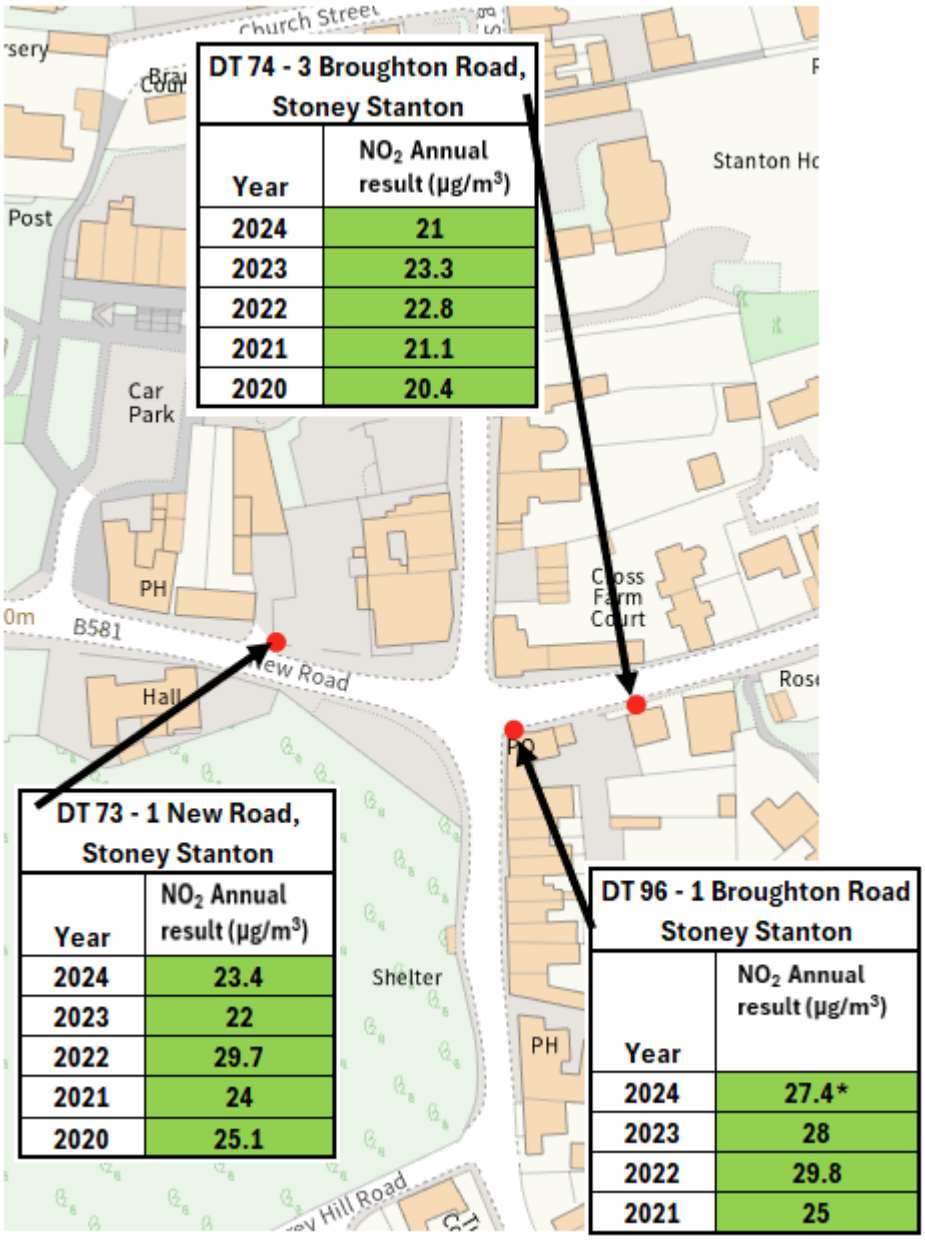
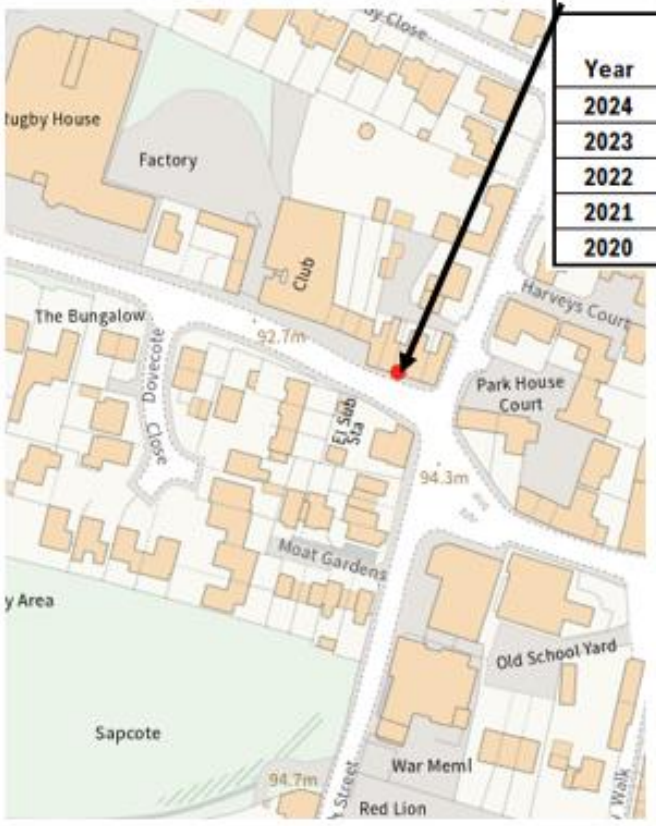


Figure D.7

The map shows the locations and results of the Diffusion Tubes in the village of Stoney Stanton. 40µg/m^3 is the National Air Quality Objective for this pollutant. Numbers with a * represent a figure that has been annualised and/or distance corrected. ©Crown Copyright. All rights reserved.

Sapcote Village and Aston Firs



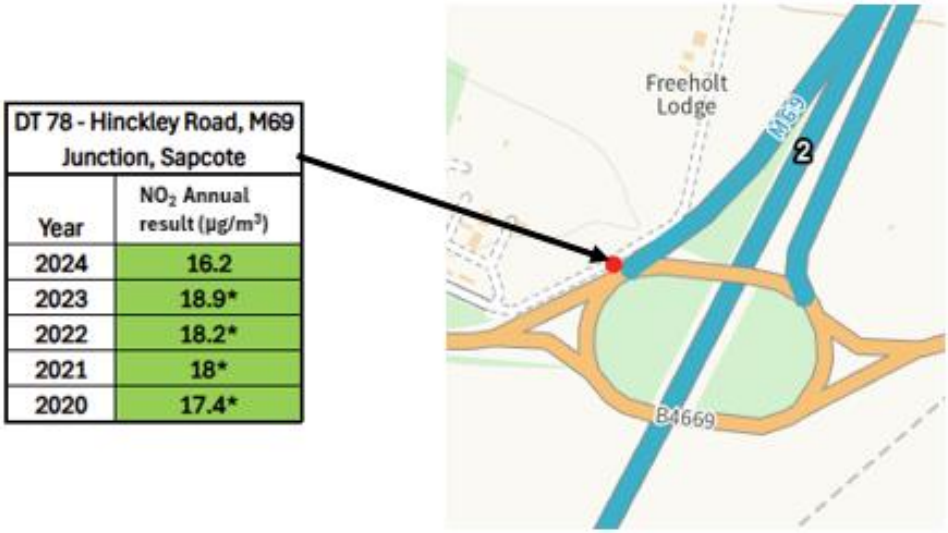
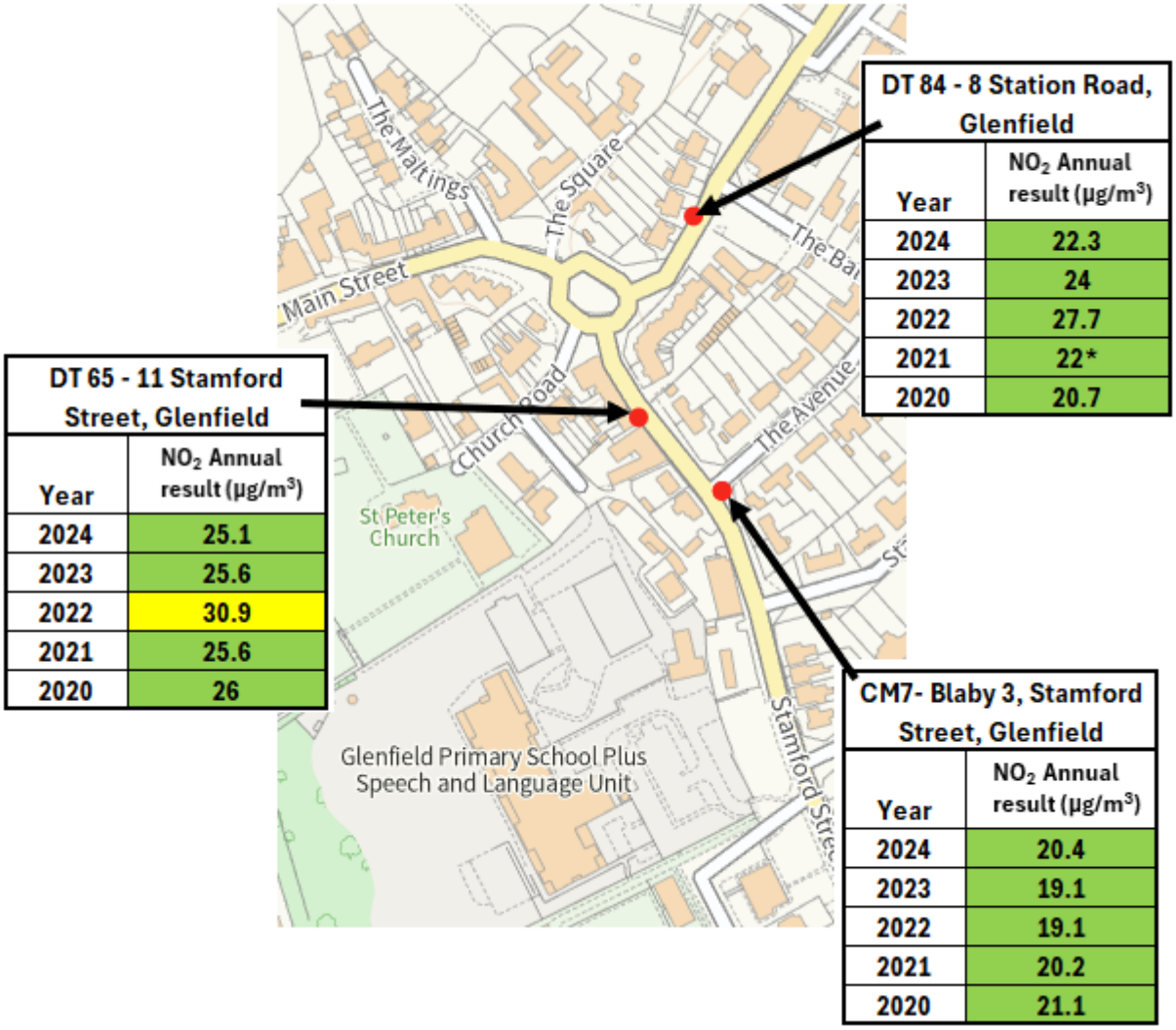


Figure D.8

The maps show the locations and results of the Diffusion Tubes in the village of Sapcote, including Aston Firs. 40µg/m^3 is the National Air Quality Objective for this pollutant.

Numbers with a * represent a figure that has been annualised and/or distance corrected. ©Crown Copyright. All rights reserved.

Glenfield Village



DT 84 - 8 Station Road, Glenfield

Year	NO_2 Annual result (µg/m³)
2024	22.3
2023	24
2022	27.7
2021	22*
2020	20.7

DT 65 - 11 Stamford Street, Glenfield

Year	NO_2 Annual result (µg/m³)
2024	25.1
2023	25.6
2022	30.9
2021	25.6
2020	26

CM7- Blaby 3, Stamford Street, Glenfield

Year	NO_2 Annual result (µg/m³)
2024	20.4
2023	19.1
2022	19.1
2021	20.2
2020	21.1

Figure D.9

The maps show the locations and results of the Diffusion Tubes in the village of Glenfield. 40µg/m^3 is the National Air Quality Objective for this pollutant. Numbers with a * represent a figure that has been annualised and/or distance corrected. ©Crown Copyright. All rights reserved.

Elmesthorpe Village

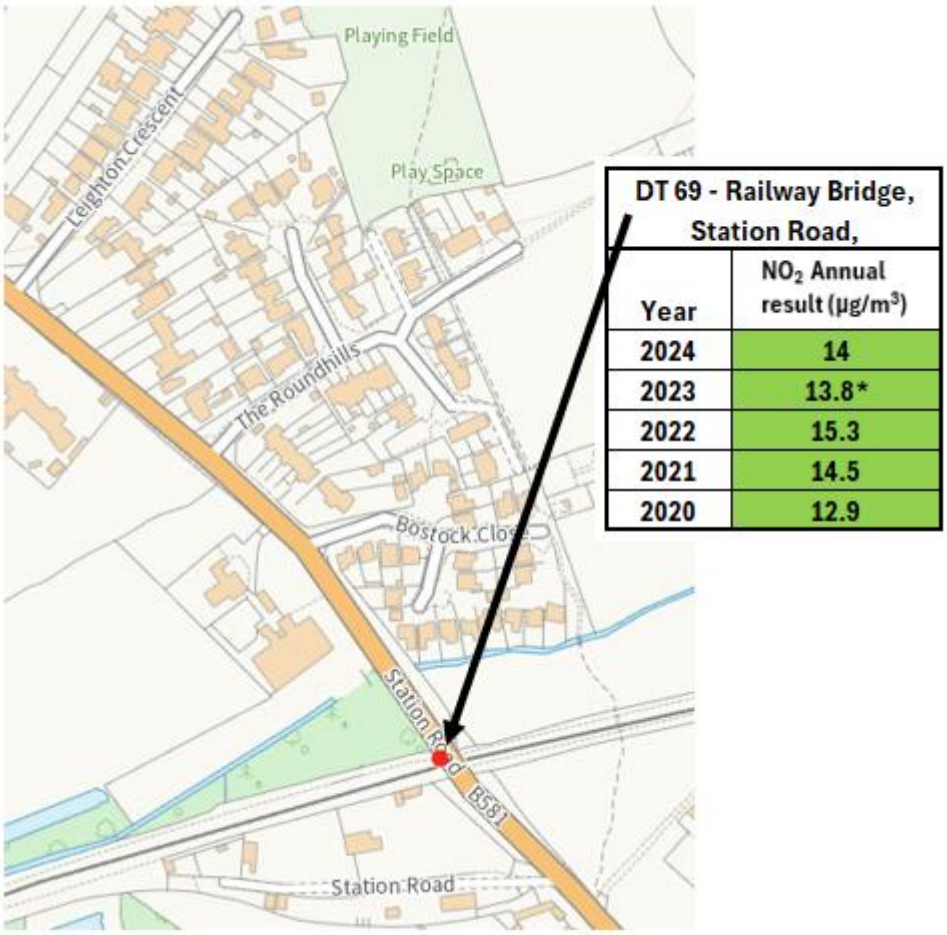
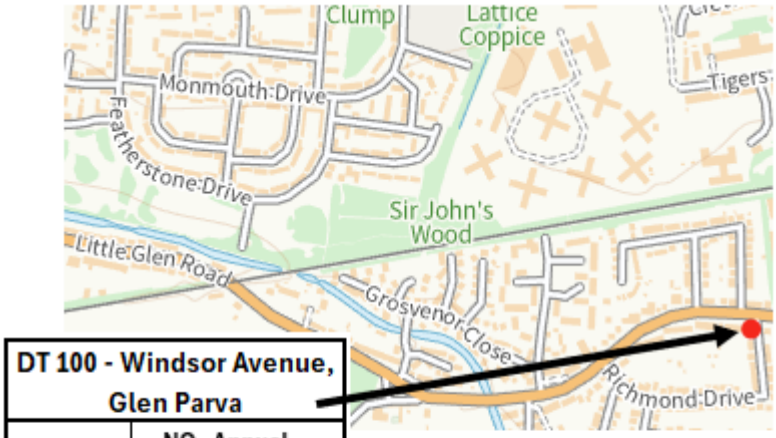


Figure D.10

The maps show the locations and results of the Diffusion Tube in the village of Elmesthorpe. 40µg/m^3 is the National Air Quality Objective for this pollutant. Numbers with a * represent a figure that has been annualised and/or distance corrected. ©Crown Copyright. All rights reserved.

Glen Parva



DT 100 - Windsor Avenue, Glen Parva	
Year	NO_2 Annual result (µg/m^3)
2024	10.3
2023	12.5
2022	12.8
2021	10.7*

Figure D.11

The maps show the locations and results of the Diffusion Tube in the village of Glen Parva. 40µg/m^3 is the National Air Quality Objective for this pollutant. Numbers with a * represent a figure that has been annualised and/or distance corrected. ©Crown Copyright. All rights reserved.

Narborough Village

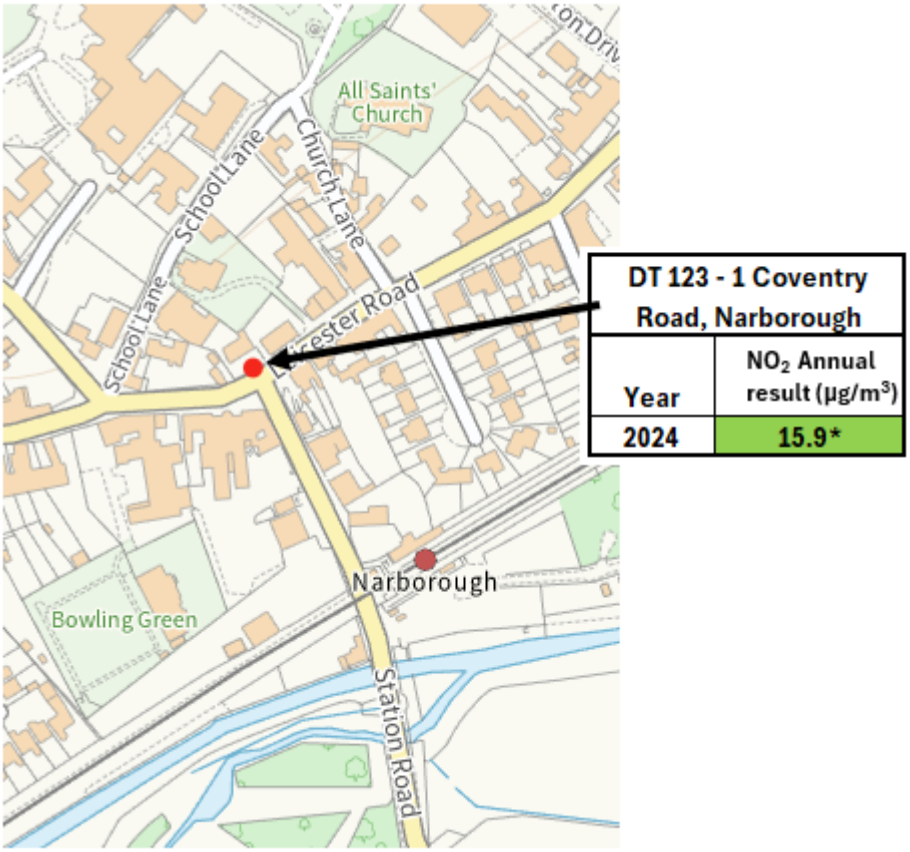


Figure D.12

The maps show the locations and results of the Diffusion Tube in the village of Narborough. 40µg/m^3 is the National Air Quality Objective for this pollutant. Numbers with a * represent a figure that has been annualised and/or distance corrected. ©Crown Copyright. All rights reserved.

Zephyr® Location Maps- Particulate Matter results

Figure D.13 a

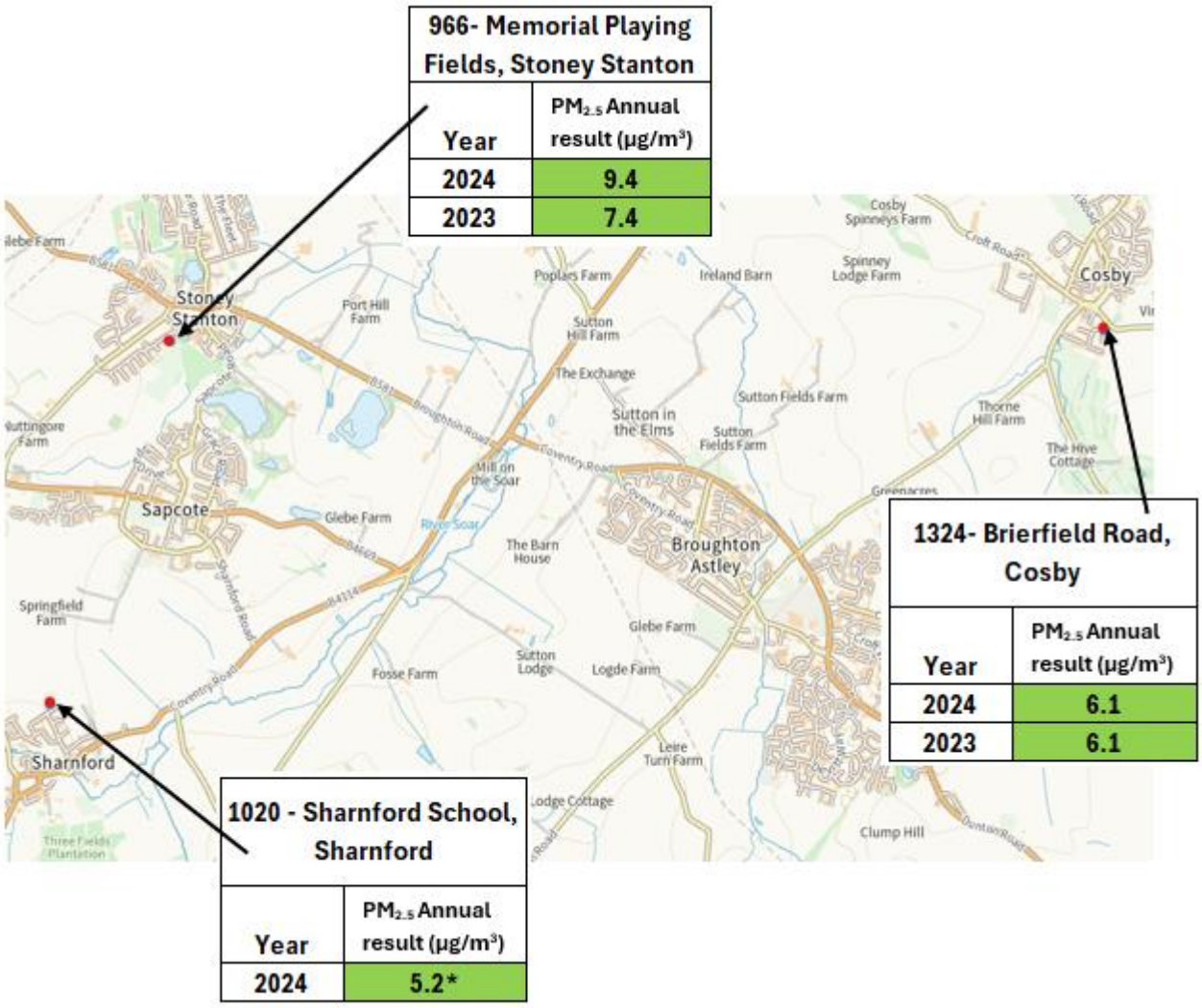
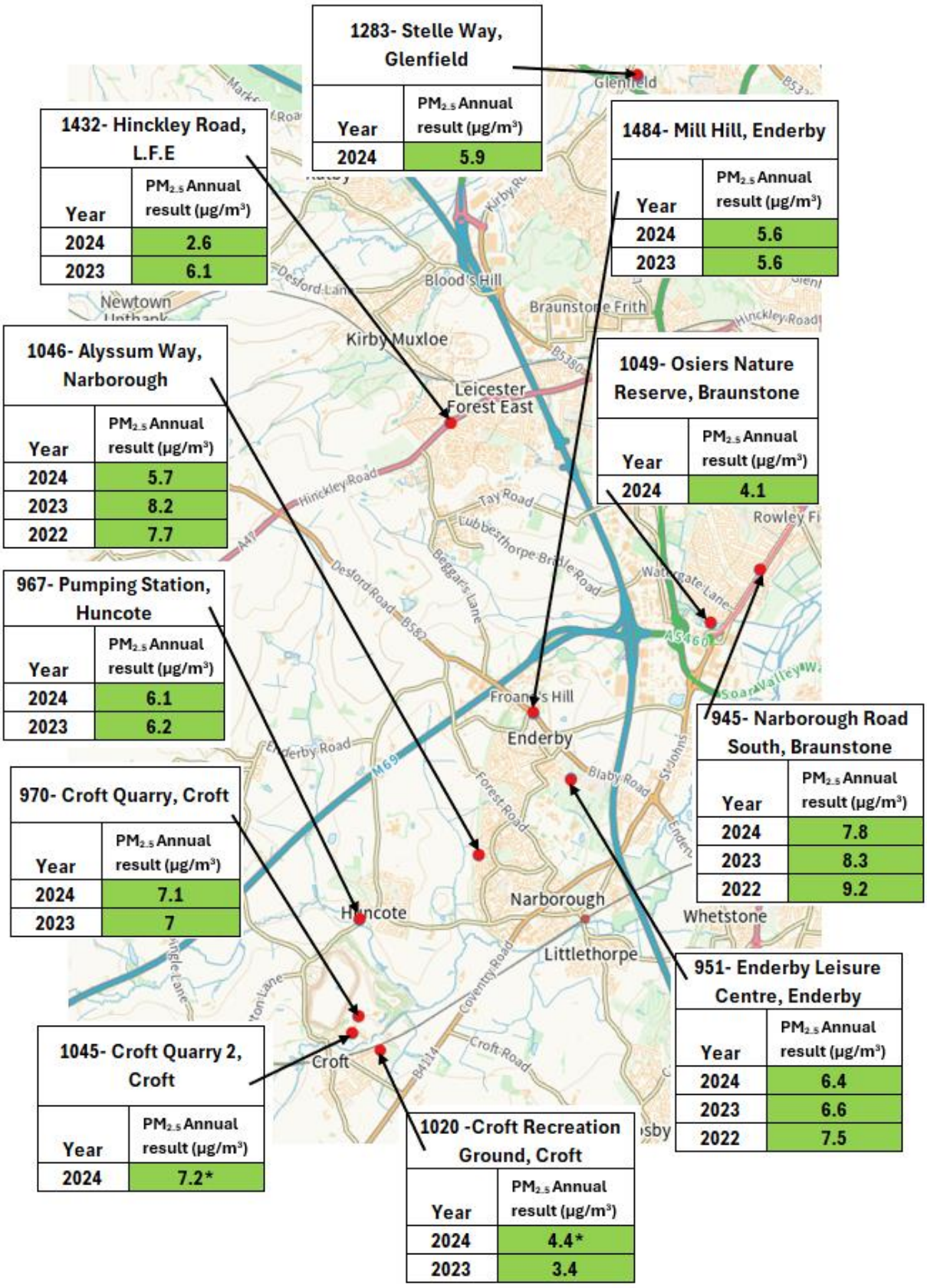


Figure D.13 a & b: The maps show the locations and results of the Zephyr® monitors in the Blaby District. 20µg/m^3 is the National Air Quality Objective for Particulate Matter. ©Crown Copyright. All rights reserved.

Figure D.13b


1283- Stelle Way, Glenfield
Year | PM2.5 Annual result (µg/m³)
2024 | 5.9
1432- Hinckley Road, L.F.E
Year | PM2.5 Annual result (µg/m³)
2024 | 2.6
2023 | 6.1
1484- Mill Hill, Enderby
Year | PM2.5 Annual result (µg/m³)
2024 | 5.6
2023 | 5.6
1046- Alyssum Way, Narborough
Year | PM2.5 Annual result (µg/m³)
2024 | 5.7
2023 | 8.2
2022 | 7.7
1049- Osiers Nature Reserve, Braunstone
Year | PM2.5 Annual result (µg/m³)
2024 | 4.1
967- Pumping Station, Huncote
Year | PM2.5 Annual result (µg/m³)
2024 | 6.1
2023 | 6.2
945- Narborough Road South, Braunstone
Year | PM2.5 Annual result (µg/m³)
2024 | 7.8
2023 | 8.3
2022 | 9.2
970- Croft Quarry, Croft
Year | PM2.5 Annual result (µg/m³)
2024 | 7.1
2023 | 7
951- Enderby Leisure Centre, Enderby
Year | PM2.5 Annual result (µg/m³)
2024 | 6.4
2023 | 6.6
2022 | 7.5
1045- Croft Quarry 2, Croft
Year | PM2.5 Annual result (µg/m³)
2024 | 7.2*
1020 -Croft Recreation Ground, Croft
Year | PM2.5 Annual result (µg/m³)
2024 | 4.4*
2023 | 3.4
Glenfield
Kirby Muxloe
Leicester Forest East
Braunstone Frith
Blood's Hill
Newtown Unthank
Hinckley Road
Tay Road
Rowley Fields
Froane's Hill
Enderby
Narborough
Whetstone
Littlethorpe
Huncote
Croft
Desford Road
Enderby Road
Blaby Road
Forest Road
Coventry Road
Croft Road
Beggars Lane
Watergate Lane
M69
A5460
B582
B4114

Zephyr® Location Maps- Nitrogen Dioxide

Figure D.14a

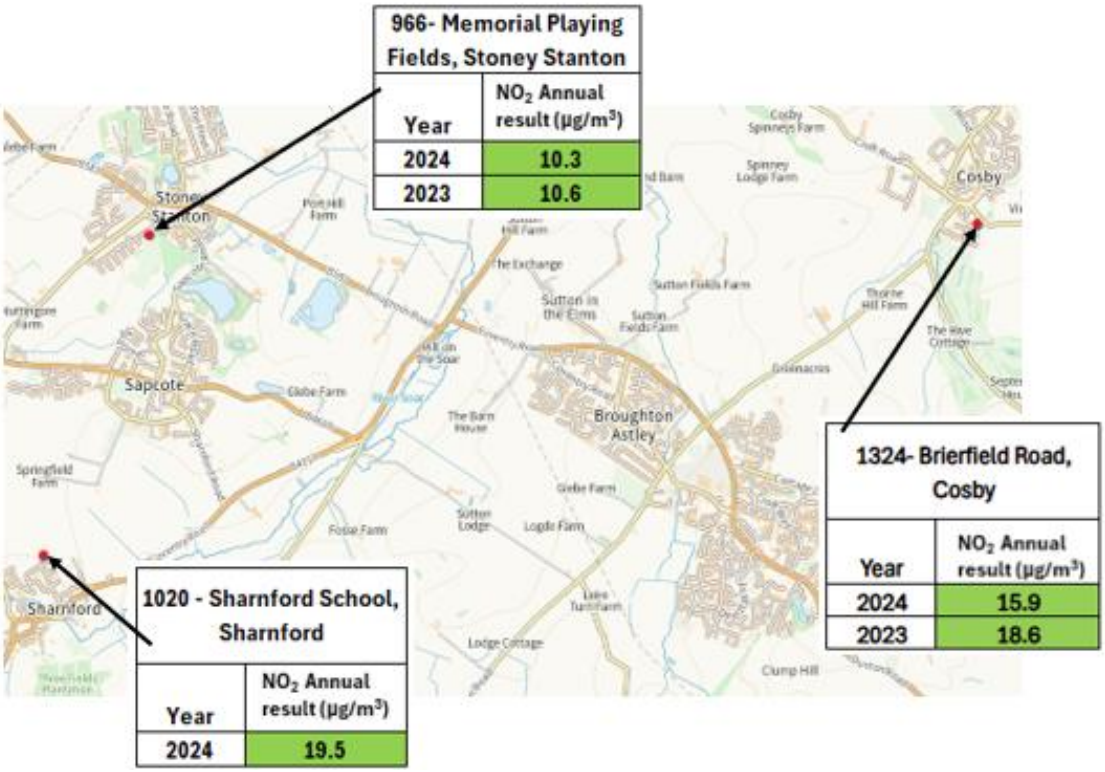
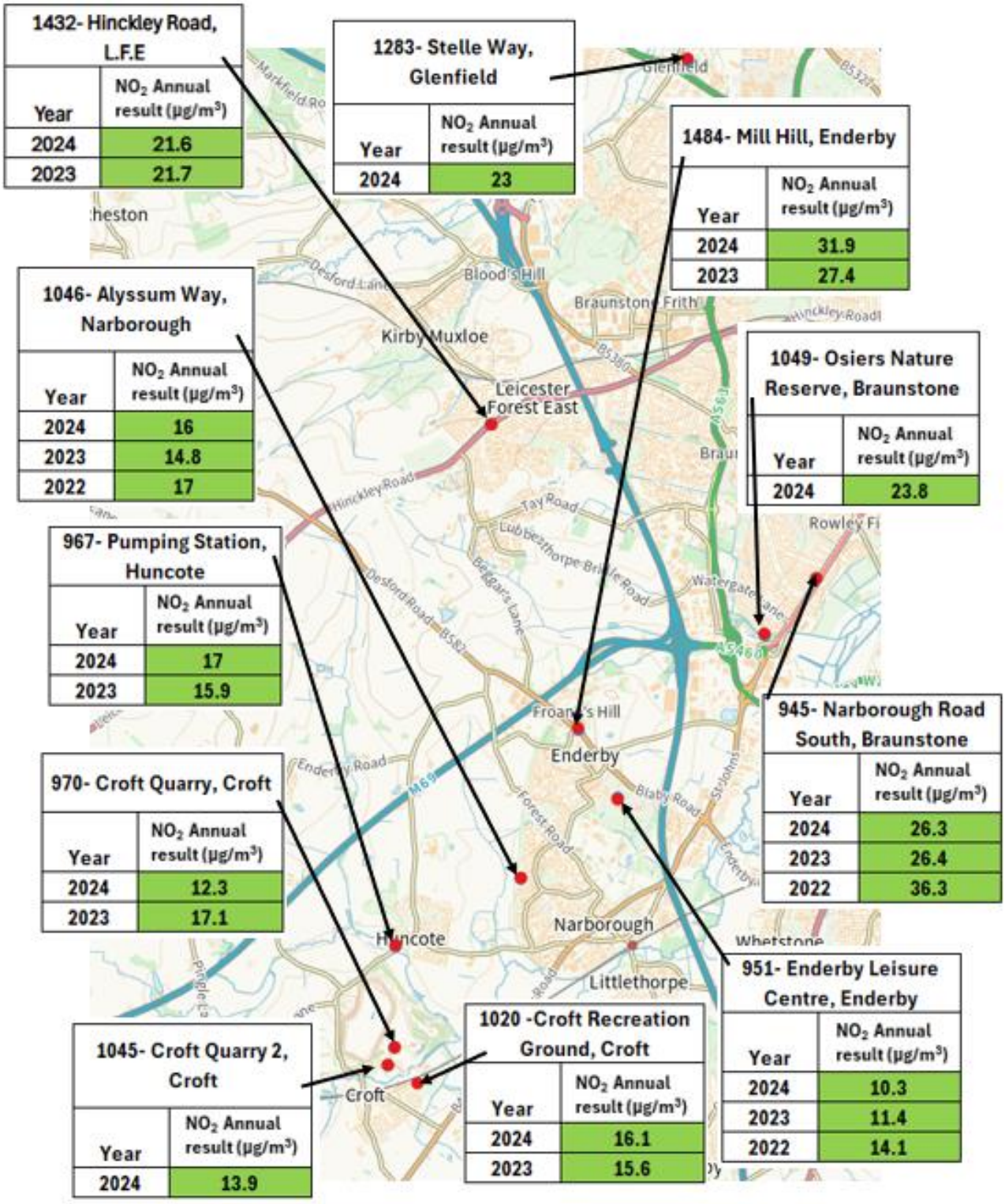


Figure D.14 a & b: The maps show the locations and results of the Zephyr® monitors in the Blaby District. 40µg/m^3 is the National Air Quality Objective for Nitrogen dioxide.

Figure D.14b


1432- Hinckley Road, L.F.E
Year | NO2 Annual result (µg/m3)
2024 | 21.6
2023 | 21.7
1283- Stelle Way, Glenfield
Year | NO2 Annual result (µg/m3)
2024 | 23
1484- Mill Hill, Enderby
Year | NO2 Annual result (µg/m3)
2024 | 31.9
2023 | 27.4
1046- Alyssum Way, Narborough
Year | NO2 Annual result (µg/m3)
2024 | 16
2023 | 14.8
2022 | 17
1049- Osiers Nature Reserve, Braunstone
Year | NO2 Annual result (µg/m3)
2024 | 23.8
967- Pumping Station, Huncote
Year | NO2 Annual result (µg/m3)
2024 | 17
2023 | 15.9
945- Narborough Road South, Braunstone
Year | NO2 Annual result (µg/m3)
2024 | 26.3
2023 | 26.4
2022 | 36.3
970- Croft Quarry, Croft
Year | NO2 Annual result (µg/m3)
2024 | 12.3
2023 | 17.1
951- Enderby Leisure Centre, Enderby
Year | NO2 Annual result (µg/m3)
2024 | 10.3
2023 | 11.4
2022 | 14.1
1045- Croft Quarry 2, Croft
Year | NO2 Annual result (µg/m3)
2024 | 13.9
1020 -Croft Recreation Ground, Croft
Year | NO2 Annual result (µg/m3)
2024 | 16.1
2023 | 15.6
Kirby Muxloe
Leicester Forest East
Braunstone Frith
Blood's Hill
Enderby
Narborough
Huncote
Croft
Littlethorpe
Whetstone
Hinckley Road
Desford Road
Enderby Road
Forest Road
Blaby Road
Tay Road
Lubbesthorpe Bridle Road
Watergate Lane
M69

Appendix E: Zephyr® Annual Mean NO_2 Concentrations

Table E.1 – Zephyr® Annual Mean NO_2 Concentrations

Site ID	Site Name	Site Type	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Pollutants Monitored	In AQMA? Which AQMA?	Valid Data capture for monitoring period (%)	Valid Data Capture for 2024 (%)	2022	2023	2024
945	Narborough Rd South, Braunstone	Suburban	466102	301332	NO_2	No	89.1	89.1	36.3	26.4	26.3
951	Leisure Centre, Enderby	Roadside	453942	298941	NO_2	No	99.2	99.2	14.1	11.4	10.3
966	Playing Fields, Stoney Stanton	Rural	448856	294497	NO_2	No	100.0	74.6		10.6	10.3
967	Pumping Station, Huncote	Roadside	451513	297318	NO_2	No	99.7	99.7		15.9	17.0
970	Croft Quarry 1, Croft	Industrial	451509	296215	NO_2	No	98.7	82.2		17.1	12.3
1020	Croft Recreational Ground, Croft	Industrial	451760	295783	NO_2	No	100.0	29.8		15.6	16.1
1020	Sharnford School, Sharnford	Other	448098	292190	NO_2	No	100.0	68.6			19.5
1045	Croft Quarry 2, Croft	Industrial	451435	296019	NO_2	No	75.5	48.9			13.9
1046	Alyssum Way, Narborough	Roadside	452881	298059	NO_2	No	97.8	97.8	17.0	14.8	16.0
1049	Osiers Nature Reserve, Braunstone	Other	455543	300718	NO_2	No	81.9	78.1			23.8
1283	Stelle Way, Glenfield	Other	454709	306981	NO_2	No	98.9	94.5			23.0
1324	Brierfield Rd, Cosby	Roadside	454809	294565	NO_2	No	99.7	99.7		18.6	15.9
1432	Hinckley Rd, Leicester Forest East	Roadside	452555	303013	NO_2	No	98.6	98.6		21.7	21.6
1484	Mill Hill, Enderby	Roadside	453509	299687	NO_2	Yes-AQMA 6	99.5	99.5		27.4	31.9

Notes:

The Zephyr® at site 1020 was moved part way through the year and therefore there are two results for this Zephyr®.

No results have been annualised.

Appendix F: Summary of Air Quality Objectives in England

Table F.1 – Air Quality Objectives in England

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

Glossary of Terms

Abbreviation	Description
AQAP	Air Quality Action Plan - A detailed description of measures, outcomes, achievement dates and implementation methods, showing how the local authority intends to achieve air quality limit values
AQMA	Air Quality Management Area – An area where air pollutant concentrations exceed / are likely to exceed the relevant Air Quality Objectives. AQMAs are declared for specific pollutants and objectives
ASR	Annual Status Report
BDC	Blaby District Council
Defra	Department for Environment, Food and Rural Affairs
DMRB	Design Manual for Roads and Bridges – Air quality screening tool produced by National Highways
LAQM	Local Air Quality Management
LCC	Leicestershire County Council
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
SO_2	Sulphur dioxide
S106	Section 106 Agreement – a planning obligation entered into to mitigate the impacts of a development proposal.
AQO	Air Quality Objective

References

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