
# 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: April 2025

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|---|---|
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## Local Responsibilities and Commitment

The Chief Executive Officer has approved this ASR

This ASR has been signed off by a Director of Public Health

| Information | Melton Borough Council Details |
|---|---|
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| | |
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# Executive Summary: Air Quality in Our Area

## Air Quality in The Borough of Melton

Breathing in polluted air affects our health and costs the NHS and our society billions of pounds each year. Air pollution is recognised as a contributing factor in the onset of heart disease and cancer and can cause a range of health impacts, including effects on lung function, exacerbation of asthma, and 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. Poor air quality also disproportionately impacts low-income communities, exacerbating health and social inequalities.

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

**Table ES 1 - Description of Key Pollutants**

| Pollutant | Description |
|---|---|
| Nitrogen Dioxide ($NO_2$) | Nitrogen dioxide is a gas which is generally emitted from high-temperature combustion processes such as road transport or energy generation. |
| Sulphur Dioxide ($SO_2$) | Sulphur dioxide ($SO_2$) is a corrosive gas predominantly produced from coal or crude oil combustion. |
| 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. |

## Actions to Improve Air Quality

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

## Conclusions and Priorities

Melton Borough Council has established priorities in its Air Quality Strategy for

safeguarding and improving air quality and plans to collaborate with Leicestershire County Council, which operates the borough's highways. The council will maintain its fundamental focus areas but adjust its initiatives and priorities as time passes to focus on key air pollution issues.

**1 Reduction of Traffic Emissions**

The development of the Melton Mowbray Distributor Road MMDR North and East Section should divert heavy goods vehicles through traffic away from Melton Town Centre and improve air quality. This part of the section should be completed by late 2025.

Promoting Active and Sustainable Travel: The council supports active travel through walking and cycling initiatives and public transport use to reduce car dependency. The development plan includes the construction of new walking and cycling paths and system enhancements to improve public transportation accessibility and efficiency.

Traffic Management: The authorities implemented traffic calming methods and traffic flow improvements while creating car-sharing systems to reduce the number of vehicles on the roads.


Electric Buses like this, now operating around Melton Mowbray, have replaced the polluting diesel engines that emit particulate matter and nitrogen dioxide. If powered by renewable electricity these provide sustainable transport and lower carbon emissions as well as being quieter.

Supporting Low-Emission Vehicles: The council plans to boost electric vehicle utilisation by expanding borough-wide EV charging stations while motivating residents and businesses to switch to low-emission vehicles.

**2 Monitoring and Managing Air Quality**

Regular Air Quality Monitoring: Through continuous air quality monitoring the council detects pollution hotspots and evaluates environmental progress throughout the borough. A combination of diffusion tubes and various monitoring systems measures both nitrogen dioxide (NO2) levels and additional pollutants. Melton Borough Council has not yet designated any areas for Air Quality Management.

Data-Driven Decision Making: Monitoring initiatives produce air quality data that forms the essential basis for policy decisions to reduce emissions and support public health.

**3 Supporting Cleaner Industries**

Regulating Industrial Emissions: The council assists local businesses in following environmental pollution regulations designed to lower their operational emissions. This plan encourages advanced clean technology and methods in industrial and agricultural areas that generate major air pollution levels. Melton Borough maintained pollution levels in 2023 that met national air quality standards and goals.

Encouraging Sustainable Practices: Companies need to implement environmentally friendly strategies, such as utilising energy-efficient devices, waste reduction methods, and measures to manage chemical pollution.

**4 Public Engagement and Education**

Raising Awareness: Education programs about air quality emphasise its importance while teaching people how they can help by using their cars less, supporting local air quality projects, and stopping the use of solid fuels.

Community Involvement: Local residents participate in air quality enhancement programs through consultation sessions and workshops while expressing their views on environmental issues and potential solutions.

**5 Enhancing Green Spaces**

Urban Greening: The addition of structured planting alongside highways and into urban green spaces helps improve air quality by capturing pollutants. Environmental projects encompass tree planting efforts, park development activities and maintenance of green corridors to enhance biodiversity.

• Protection of Natural Environments: The preservation and enhancement of natural carbon-storing areas which clean the air should become our highest priority.

**Summary of Key Findings from ASR 2024**

**Exceedances and Trends**:

The absence of air quality management areas in Melton Borough did not result in any detected exceedances of air quality objectives across existing and new areas.

$NO_2$ concentration levels continue to drop from pre-pandemic measurements, and urban areas show a slightly higher average concentration of 28.5 µg/m³ compared to suburban areas, which have an average concentration of 11.1 µg/m³.

$NO_2$ levels reached a maximum annual average of 26.4 µg/m³, which remained under the 40 µg/m³ air quality standard.

**Monitoring Insights.**

No automatic monitoring was conducted; diffusion tube monitoring demonstrated good QA/QC practices.

All monitored sites recorded concentrations well below the objectives, requiring no adjustments or additional AQMAs.

PM2.5 and Future Compliance: Background PM2.5 levels were estimated at a maximum of 9.2 µg/m³, below the 2040 target of 10 µg/m³, as per new Environmental Targets.

Developments Affecting Air Quality: Planned infrastructure improvements, such as the North and South Distributor Roads and the Local Transport Plan, are expected to support sustained good air quality.

**Main Actions Moving Forward:** Air Quality Strategy:

The ongoing development of the Air Quality Strategy, set for adoption in early 2025, should address pollution prevention and reduction and integrate findings from ASRs and transport plans.

**Monitoring and Reporting.**

Expand monitoring efforts to capture potential hotspots and clarify whether $NO_2$ averages represent single-year or multi-year data.

Address formatting and reporting issues, including clearer map labels, superscripts, and subscripts in chemical formulas.

**Community Engagement and Policy Updates.**

Strengthen measures to address PM2.5 and maintain compliance with long-term environmental targets.

Evaluate the need to update and integrate the Local Transport Plan with the forthcoming Air Quality Strategy.

**Challenges.**

Maintaining low pollutant levels amidst new developments and infrastructure projects.

Ensuring continued compliance with national standards while responding to population growth and traffic changes.

**Immediate Priorities**.

Finalise and adopt the Air Quality Strategy.

Enhance monitoring and ensure clarity in data representation.

Collaborate with stakeholders on infrastructure projects to align with air quality objectives.

## How to Get Involved

Improving local air quality in Melton Mowbray involves community-wide efforts where residents can take simple but effective actions that cumulatively improve our air quality. Here are some measures the public can adopt:

1. **Indoor Air Quality**

   Indoor air quality in the home can be worse and more harmful to health than outdoor air quality, where the dilution factor is much higher. It can directly impact your health, and various ways to improve indoor air quality exist. The main sources of indoor air pollution in UK homes include cooking emissions such as nitrogen dioxide or particulate matter, tobacco smoke, household cleaning products including aerosols, antigens from pets, mould spores, and emissions from building materials or furnishings. Health issues linked to poor indoor air quality range from respiratory irritation and asthma to long-term impacts such as cardiovascular disease. You can reduce exposure by ensuring good ventilation, using extractor fans when cooking or bathing, avoiding smoking indoors, using low-VOC products, and promptly addressing damp or mould issues. Hoovers with filters can reduce particles in the air.

2. **Active Travel**

   Many people rely on the car as it is a very convenient form of transport. However, we all require some exercise to stay healthy and fit. Walking or cycling is a healthier alternative if you have time. You can get your exercise without the need for an unnecessary polluting car journey, especially for short trips. This not only reduces vehicle emissions but also promotes physical health.

3. **Car-sharing or Using Public Transport**: Sharing rides with others or using public transportation reduces the number of vehicles on the road, leading to lower emissions.

4. **Drive Cleaner  and Smarter**

   As the price of new electric vehicles becomes comparable to vehicles with the Internal Combustion Engine ICE Vehicles with Electric EV or Hybrids

   **Limit Idling**: Turning off the engine when stationary for more than a minute reduces unnecessary emissions.

**Eco-friendly Smoother Driving**: Driving smoothly, avoiding sudden stops and starts, maintaining a steady speed, and keeping tires properly inflated can improve fuel efficiency and reduce emissions.

**Vehicle Maintenance**: Regular vehicle servicing, including changing oil and checking exhaust systems, helps keep emissions low.

5. **A Healthier Commute and Avoiding Unnecessary Journeys**

   The daily commute to work is often the source of the most significant spikes in air pollution and frustrating and costly congestion. At these times, the commute can raise air pollution, causing asthma and lung irritation in children going to school.

   If possible, working from home or flexibly can significantly reduce peak air pollution and relieve economically damaging congestion, thus allowing those who have to travel to have much reduced journey times

6. **Reduce Home Energy Use**

   **Insulate Homes**: Proper insulation and energy-efficient windows can reduce the need for heating and cooling, thereby lowering home energy use and emissions.

   **Use Energy-Efficient Appliances**: Switching to energy-efficient appliances and light bulbs reduces electricity consumption, often leading to reduced emissions if the electricity comes from fossil fuels.

7. **Switch to Cleaner Energy Sources**

   Renewable Energy: To reduce reliance on fossil fuels, residents can switch to renewable energy providers or install solar panels on their homes.

   Try to Use Low-emission Heating: Low-emission heating systems, such as heat pumps or modern, efficient boilers, reduce the number of pollutants released into the air.

8. **Try to Limit the Use of Solid Fuels**

   With ever-increasing gas costs, the temptation to burn solid fuels is great. Unfortunately, they are also potentially very polluting. Try to burn cleaner fuels: If residents use a fireplace or stove, they should opt for cleaner fuels like seasoned wood or smokeless fuel to minimise smoke and particulate emissions.

**Avoid Bonfires**: Do not burn garden waste or household rubbish, as this can release harmful pollutants. Composting or using local waste collection services is a better option.

**Garden**

Plant native or flowering trees and shrubs in your garden, especially along the front garden or its boundary. Vegetation can help filter particulates and nitrogen dioxide and absorb CO2, clean the air, reduce localised heating, and help wildlife such as birds and pollinators.

By taking these steps, residents of the borough of Melton can collectively contribute to improving their local air quality, making the town healthier. Local Responsibilities and Commitment.

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## Figures



## Tables

# 1 Local Air Quality Management

This report provides an overview of air quality in Melton Borough Council 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 obligates all local authorities to regularly review and assess air quality in their areas and determine whether or not the air quality objectives will likely 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 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 Melton Borough Council to improve air quality and any progress made.

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

# 2 Actions to Improve Air Quality

## 2.1 Air Quality Management Areas

Air Quality Management Areas (AQMAs) are declared when there is an exceedance or likely exceedance of an air quality objective. After the 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.

Melton Borough Council currently **does not have any declared AQMAs**. A local Air Quality Strategy is in place to prevent and reduce polluting activities. The Local Air Quality Strategy is available at

## 2.2 Progress and Impact of Measures to Address Air Quality in the Borough of Melton

Defra's appraisal of last year's ASR concluded

**The Main Challenges were**:

Maintaining low pollutant levels amidst new developments and infrastructure projects.

Ensuring continued compliance with national standards while responding to population growth and traffic changes.

**Immediate Priorities**.

Finalise and adopt the Air Quality Strategy.

Enhance monitoring and ensure clarity in data representation.

Collaborate with stakeholders on infrastructure projects to align with air quality objectives.

Melton Borough Council has taken forward several direct measures during the current reporting year of 2024 to improve local air quality. Details of all measures completed, in progress or planned are set out in Table 2.1. Three measures are included within Table 2.1The type of measure and the progress Melton Borough Council has made during the reporting year 2024 are presented. Where there have been, or continue to be, barriers restricting the implementation of the measure, these are also presented within Table 2.1. More details on these measures can be found in their respective Action Plans, Melton Mowbray Air Quality Strategy.

Key completed measures are:

Melton Borough Council expects the following measures to be completed over the course of the next reporting year: the completion of the Melton Mowbray Distributor Road North and Eastern Section. Melton Borough Council's priorities for the coming year are Melton Borough Council worked to implement these measures in partnership with the following stakeholders during 2024:

- NHS
- Public Health
- Leicestershire County Council Highways Department

Completion of the current phase of the Melton Mowbray Distributor Road project is expected to be completed by early 2026. The planned southern extension of the MMDR is currently experiencing financial difficulties and lacks a definitive timeline. The infrastructure project supports LTP4 goals by reducing congestion and improving air quality in the town through traffic diversion from heavy goods vehicles, lowering vehicle emissions, while promoting sustainable economic growth.

Electric vehicle (EV) infrastructure development advances according to the LTP4 framework. The Melton Borough currently lacks LCC-funded chargers but will benefit from up to 80 chargers through the LEVI pilot project county-wide. Installations are expected in Melton at locations such as Rockingham Drive and Loddon Close by Summer 2025. The tender process is underway for full-scale installations, while additional local sites are being evaluated.

The Melton Local Cycling and Walking Infrastructure Plan (LCWIP) represents current development work while active travel measures undergo review. These initiatives focus on developing better walking and cycling options, while details about specific projects and their effects on air quality remain undefined.

The principal challenge and barrier to implementation that Melton Borough Council anticipates facing is securing the southern part of the MMDR through the planning process due to the rapid rise in project costs.

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## Table 2.1 – Progress on Measures to Improve Air Quality

| Measure No. | Measure Title | Category | Classification | Year Measure Introduced in AQAP | Estimated / Actual Completion Date | Organisations Involved | Funding Source | Funding Status | Estimated Cost of Measure | Measure Status | Reduction in Pollutant / Emission from Measure | Key Performance Indicator | Progress to Date | Comments / Barriers to Implementation |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | Melton Borough Council Transport Planning and Infrastructure (By-Pass) North Distributor Road | Transport Planning and Infrastructure | Other | 2016 | 2026 | Melton Borough Council, Leicestershire County Council, Department for Transport, Galliford Try | LCC Section 106 Homes England | NO | Funded | > £10 million | Implementation | Expected in Town Centre once Completed | See Environmental Impact Assessment | Project ongoing |
| 2 | Melton Borough Council Transport Planning and Infrastructure (By-Pass) South Distributor Road | Transport Planning and Infrastructure | Other | 2016 | 2030 | Melton Borough Council, Leicestershire County Council, Homes England, private developers | LCC Section 106 Homes England | NO | Partially Funded | > £10 million | Planning | Expected in Town Centre once Completed | See Environmental Impact Assessment | Pre-submission Local Plan Date |
| 3 | Air Quality Strategy | Policy Guidance and Development Control | Air Quality Planning and Policy Guidance | 2023 | 2025 | Melton Borough Council Leicestershire County Council NHS | MBC Funded | NO | Funded | < £10k | Completed | Expected to Safeguard and Improve Air Quality | Presented in Annual Status Report | Completed |

## 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) significantly impacts human health, including premature mortality, allergic reactions, and cardiovascular diseases.

The Air Quality Strategy focuses on the importance of PM2.5 and how the Authority will tackle it in partnership with key stakeholders such as Public Health and Leicestershire County Council as part of the Air Quality and Health Partnership.. It will also engage in the emerging Leicestershire Health Needs Assessment: Air Quality and Health 2024 and Local Transport Plan LPT4, expected in 2026. The HNA will provide an action plan which will which underpin a set of priorities for collaborative action in the Air Quality and Health Partnership, including improving the integration of air quality considerations in local planning decisions

Air Quality is being integrated into Local Planning Allocation. Environmental Health's advice on an additional employment allocation assessment has flagged up sites where PM 2.5 may become an issue, and a detailed briefing sheet using the latest information has been provided to local planning on this issue.

This is significantly below the annual average of 25 µgm-3 as per The Air Quality Standards Regulations 2010.

The Melton Mowbray distributor road is expected to reduce traffic volumes in Melton town centre, inner ring road and arterial access roads.  Much of this traffic is not thought to be local but passing through Melton to reach onward destinations.  Some of this traffic, particularly freight traffic, is diesel engine road vehicles (DERVS) and a primary source of particulate air pollution.  By moving this traffic outside the urban centre, air pollution is expected to become more homogenised and maximum PM2.5 concentrations are predicted in areas of high-density housing to decline.

The increased development in Melton Borough Council is placing upward pressure on vehicular PM2.5 emissions in the Borough. However, the combination of measures outlined in this report should counteract these pressures. The greater efficiencies of free-

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

flowing traffic do appear to have improved nitrogen dioxide levels, with minimal ‘stop-starts’, and this should correlate with a reduction of the overall PM2.5 generation.

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

This section sets out the monitoring undertaken within 2024 by Melton Borough 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 Non-Automatic Monitoring Sites

Melton Borough Council undertook non-automatic (i.e. passive) monitoring of $NO_2$ at 16 sites during 2014. Table A.1 in Appendix A presents the details of the non-automatic sites. Appendix D provides maps showing the location of the monitoring sites. Appendix C includes 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).

## 3.2 Individual Pollutants

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

### 3.2.1 Nitrogen Dioxide ($NO_2$)

**Error! Reference source not found.** and Table A.2 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.

**Error! Reference source not found.** Appendix A compares the ratified continuously 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.

**Exceedances of Air Quality Objectives for $NO_2$**

The **annual mean air quality objective for $NO_2$ is 40 µg/m³**, and there are **no exceedances** recorded in the data provided. The highest measured concentration is **28.3 µg/m³** at site MMDT13, which is well below the threshold.

The **1-hour mean objective** (200 µg/m³ not to be exceeded more than 18 times a year) is not explicitly measured here, but the highest annual mean value suggests it is unlikely that this objective was exceeded.

**Impact on AQMA Declarations**

Based on the data, there is **no need to declare new AQMAS.**

**Notable Trends in Pollutant Concentrations Over Time**

A **general decline in $NO_2$ levels** is observed across most sites from earlier years (24.9 µg/m³ at MMDT5 in 2020 to 20.1 µg/m³ in 2024). This trend is consistent with national reductions in $NO_2$ due to improvements in vehicle emissions and local air quality management efforts.

Suburban and roadside sites (e.g., MMDT6, MMDT8) show particularly low and decreasing levels over time, indicating limited traffic or emissions impacts.

Urban centre sites (e.g., MMDT7, MMDT13, MMDT14) show relatively higher concentrations but still demonstrate gradual reductions year-on-year.

**Consolidated Summary of $NO_2$ Trends in Melton Borough Council (2016–2024)**

**General Trends in $NO_2$ Levels**

- **Consistent Decline:**
  $NO_2$ levels have steadily decreased across all site types over the past decade, with urban and roadside areas showing the most significant reductions.
  The 2020 COVID-19 lockdown accelerated this decline, with levels remaining below pre-2020 figures even after slight post-pandemic increases.

- **Compliance with Standards:**
  All monitoring sites consistently met the UK annual mean target of 40 µg/m³, with the highest concentrations (28 µg/m³ in 2020) providing a comfortable margin of compliance.
- **Impact of Policies and Events:**
  National vehicle emission standards, cleaner technologies, traffic management measures (e.g., the Melton Mowbray Distributor Road), and temporary changes from the pandemic contributed to reduced emissions.

**Site-Specific Observations**

- **Urban Sites:**
  $NO_2$ concentrations were the highest, influenced by population density and traffic. Levels dropped from ~30 µg/m³ in 2016 to 18–22 µg/m³ in 2024, showing consistent improvement.
- **Roadside Sites:**
  Moderate levels declined significantly, with examples like MMDT3 decreasing from 26.4 µg/m³ in 2019 to 17.0 µg/m³ in 2024.
- **Suburban Sites:**
  These areas consistently recorded low $NO_2$ levels (8–12 µg/m³ in 2024), reflecting fewer emissions sources.
- **Rural Sites:**
  The lowest levels across all site types, consistently below 15 µg/m³ and showing minimal variation.

**Influencing Factors**

1. **Technological Advancements:**
   Cleaner vehicle technologies, such as electric and hybrid cars, have contributed significantly to the reductions.
2. **Behavioural Shifts:**
   Changes in commuting patterns, particularly post-pandemic, and increased adoption of active travel have positively impacted air quality.
3. **Local and National Initiatives:**
   Policies promoting green infrastructure and sustainable transport have further supported the trend.

**Future Implications**

**Infrastructure Changes:**

The completion of the Melton Mowbray Distributor Road should improve traffic flow, reducing congestion-related emissions.

- **Urban and Roadside Challenges:**
  These areas remain the primary contributors to $NO_2$ levels. We need to continue focusing on traffic reduction, active travel promotion, and vehicle technology advancements.
- **Sustaining Improvements:**
  Suburban and rural areas illustrate the benefits of low-density development and green planning. Replicating these principles in urban designs could enhance broader air quality gains.

Melton Borough has seen a positive trajectory in $NO_2$ reductions, aligning with national trends and reflecting effective air quality management. Urban and roadside sites require ongoing attention, but all areas currently meet UK standards, ensuring a healthier environment for residents. Completing major projects like the MMDR, adopting sustainable practices, and monitoring will be crucial for maintaining and enhancing air quality in the future.

**General Trends in $NO_2$ Levels (2020–2024)**

1. **Consistent Decline**:
   $NO_2$ concentrations across all monitoring sites have shown a steady decline:
   - From ~28 µg/m³ in 2020 to ~24 µg/m³ by 2024.
   - Suburban and rural sites remain consistently low (<15 µg/m³).
2. **Impact of COVID-19 Lockdowns**:
   The 2020 pandemic lockdowns significantly reduced traffic, resulting in temporary but marked reductions in $NO_2$ levels. Post-lockdown data show slight increases but remain below pre-2020 figures due to continued emissions technology and traffic management improvements.
3. **Policy and Technology Effects**:
   Cleaner vehicle technologies, stricter emissions standards, and infrastructure projects like the Melton Mowbray Distributor Road have contributed to sustained reductions.

**General Trends in $NO_2$ Levels (2016–2024)**

1. **Long-Term Reductions**:
   $NO_2$ levels have consistently declined over the past decade:
   - Urban areas: ~30 µg/m³ in 2016 to 18–22 µg/m³ in 2024.

- Roadside areas: ~26.4 µg/m³ in 2019 to ~17 µg/m³ in 2024.
- Suburban and rural areas: Minimal variation, remaining low (<12 µg/m³ in suburban sites and <10 µg/m³ in rural areas).

2. **Compliance with Standards**:
   All sites have consistently met the UK annual mean target of 40 µg/m³, with a comfortable compliance margin.
3. **Influencing Factors**:
   - **Technological Advancements**: The adoption of hybrid and electric vehicles has supported long-term reductions.
   - **Pandemic Effects**: Temporary declines during COVID-19 lockdowns contributed to accelerating pre-existing downward trends.

**Site-Specific Observations**

1. **Urban Sites**:
   - Highest levels due to traffic and population density.
   - Significant declines: ~30 µg/m³ in 2016 to 18–22 µg/m³ in 2024.
2. **Roadside Sites**:
   - Moderate levels with marked improvements: ~26 µg/m³ in 2019 to 17 µg/m³ in 2024.
3. **Suburban and Rural Sites**:
   - Consistently low levels, reflecting limited emission sources.
   - Suburban sites: 8–12 µg/m³ in 2024.
   - Rural sites: <10 µg/m³, with minimal variation.

**Future Implications (2024–2026)**

1. **Urban and Roadside Areas**:
   - These sites remain the focus for further improvements due to higher baseline concentrations.
   - Continued traffic reduction strategies, active travel promotion, and adoption of zero-emission vehicles are key.
2. **Sustaining Improvements in Suburban and Rural Areas**:
   - Emphasise low-density planning and green infrastructure to replicate successes seen in these areas.
3. **Enhanced Monitoring and Analysis**:
   - Regular updates using LAQM.TG22 guidance for both annual and 1-hour mean concentrations will ensure compliance and target high-risk areas.

Melton Borough has demonstrated consistent and sustained reductions in $NO_2$ levels from 2016 to 2024, with all sites comfortably meeting UK air quality objectives. The impacts of the pandemic, infrastructure improvements, and technological advancements have collectively supported this positive trend. While suburban and rural areas showcase low emissions, urban and roadside locations warrant continued focus. Strategic planning, proactive policies, and further monitoring will be crucial to maintaining and enhancing air quality gains into 2026 and beyond.

### 3.2.2 Particulate Matter ($PM_{10}$)

There is no monitoring of $PM_{10}$ in the borough of Melton

### 3.2.3 Particulate Matter ($PM_{2.5}$)

There is no monitoring of $PM_{2.5}$ in the borough of Melton

### 3.2.4 Sulphur Dioxide ($SO_2$)

There is no monitoring of sulphur dioxide in the borough of Melton.

# Appendix A: Monitoring Results

## Table A.1 – Details of Non-Automatic Monitoring Sites

| Diffusion Tube ID | Site Name | Site Type | X OS Grid Ref (Easting) | Y OS Grid Ref (Northing) | Pollutants Monitored | In AQMA? Which AQMA? | Distance to Relevant Exposure (m) (1) | Distance to kerb of nearest road (m) (2) | Tube Co-located with a Continuous Analyser? | Tube Height (m) |
|---|---|---|---|---|---|---|---|---|---|---|
| MMDT1 | Wilton Road | Urban Centre | 475029 | 319164 | NO2 | No | 15.0 | 2.0 | MMDT1 | 2.5m |
| MMDT2 | Leicester Road (B&Q) | Roadside | 474301 | 318366 | NO2 | No | 12.0 | 2.5 | MMDT2 | 2.5m |
| MMDT3 | Brook Street | Roadside | 475753 | 319167 | NO2 | No | 1.0 | 1.0 | MMDT3 | 2.5m |
| MMDT4 | Jct Thorpe Road / Norman Way | Urban Centre | 475763 | 319262 | NO2 | No | 0.2 | 1.0 | MMDT4 | 2.5m |
| MMDT5 | Nottingham Road (Tesco PS) | Roadside | 474704 | 320100 | NO2 | No | 7.0 | 1.7 | MMDT5 | 2.5m |
| MMDT6 | Otter Road | Suburban | 474022 | 318299 | NO2 | No | 4.0 | 1.5 | MMDT6 | 2.5m |
| MMDT7 | Jct Nottingham Rd / Norman Way | Urban Centre | 474991 | 319403 | NO2 | No | 12.5 | 1.3 | MMDT7 | 2.5m |
| MMDT8 | Discovery Drive | Roadside | 475192 | 321173 | NO2 | No | 5.0 | 1.0 | MMDT8 | 2.5m |
| MMDT9 | Nottingham Road Nether Broughton | Roadside | 469587 | 325495 | NO2 | No | 1.0 | 3.5 | MMDT9 | 2.5m |
| MMDT10 | Norman Way 2 (Court House) | Urban Centre | 475183 | 319378 | NO2 | No | 1.0 | 1.5 | MMDT10 | 2.5m |
| MMDT11 | Jct Norman Way / Wilton Road | Urban Centre | 475021 | 319364 | NO2 | No | 4.0 | 3.0 | MMDT11 | 2.5m |
| MMDT12 | Jct Dalby Way / Wilton Road | Roadside | 474879 | 318971 | NO2 | No | 18.5 | 2.0 | MMDT12 | 2.5m |
| MMDT13 | Jct Leicester Street / Wilton Rd | Urban Centre | 475046 | 319132 | NO2 | No | 1.0 | 0.5 | MMDT13 | 2.5m |
| MMDT14 | Sherrard Street | Urban Centre | 475394 | 319128 | NO2 | No | 2.0 | 1.5 | MMDT14 | 2.5m |
| MMDT15 | Nottingham Road | Roadside | 474954 | 319437 | NO2 | No | 5.0 | 2.0 | MMDT15 | 2.5m |
| MMDT16 | Burton Street | Roadside | 475342 | 318960 | NO2 | No | 2.0 | 0.3 | MMDT16 | 2.5m |

**Notes:**
(1) 0m if the monitoring site is at a location of exposure (e.g. installed on the façade of a residential property).
(2) N/A if not applicable.

## Table A.2 – Annual Mean $NO_2$ 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 |
|---|---|---|---|---|---|---|---|---|---|---|
| MMDT1 | 475029 | 319164 | Urban Centre | 100 | 83.8 | 20.2 | 22.7 | 22.6 | 19.6 | 19.4 |
| MMDT2 | 474301 | 318366 | Roadside | 100 | 83.8 | 17.9 | 17.7 | 17.6 | 16.3 | 14.8 |
| MMDT3 | 475753 | 319167 | Roadside | 100 | 83.8 | 19.6 | 22.5 | 20.9 | 17.0 | 17.0 |
| MMDT4 | 475763 | 319262 | Urban Centre | 100 | 83.8 | 23.9 | 26.8 | 23.9 | 21.9 | 20.2 |
| MMDT5 | 474704 | 320100 | Roadside | 100 | 83.8 | - | 24.9 | 24.3 | 22.2 | 20.1 |
| MMDT6 | 474022 | 318299 | Suburban | 100 | 83.8 | - | - | - | - | 11.2 |
| MMDT7 | 474991 | 319403 | Urban Centre | 100 | 83.8 | 24.6 | 27.6 | 26.6 | 24.4 | 21.2 |
| MMDT8 | 475192 | 321173 | Roadside | 100 | 83.8 | - | - | - | 9.3 | 7.2 |
| MMDT9 | 469587 | 325495 | Roadside | 100 | 83.8 | - | - | - | - | 12.2 |
| MMDT10 | 475183 | 319378 | Urban Centre | 100 | 76.3 | 23.4 | 24.6 | 25.9 | 22.7 | 18.9 |
| MMDT11 | 475021 | 319364 | Urban Centre | 100 | 83.8 | 20.3 | 21.3 | 21.2 | 18.5 | 17.9 |
| MMDT12 | 474879 | 318971 | Roadside | 100 | 76.3 | 19.6 | 20.0 | 20.1 | 18.1 | 16.0 |
| MMDT13 | 475046 | 319132 | Urban Centre | 100 | 83.8 | 25.6 | 27.2 | 28.3 | 26.4 | 21.9 |
| MMDT14 | 475394 | 319128 | Urban Centre | 100 | 83.8 | 24.2 | 27.3 | 26.1 | 22.4 | 19.0 |
| MMDT15 | 474954 | 319437 | Roadside | 100 | 83.8 | 24.3 | 26.1 | 26.8 | 23.4 | 22.8 |
| MMDT16 | 475342 | 318960 | Roadside | 100 | 83.8 | 22.2 | 28.0 | 25.5 | 21.3 | 19.5 |

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

☒ **Diffusion tube data has been bias adjusted.**

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

**Notes:**
The annual mean concentrations are presented as 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**

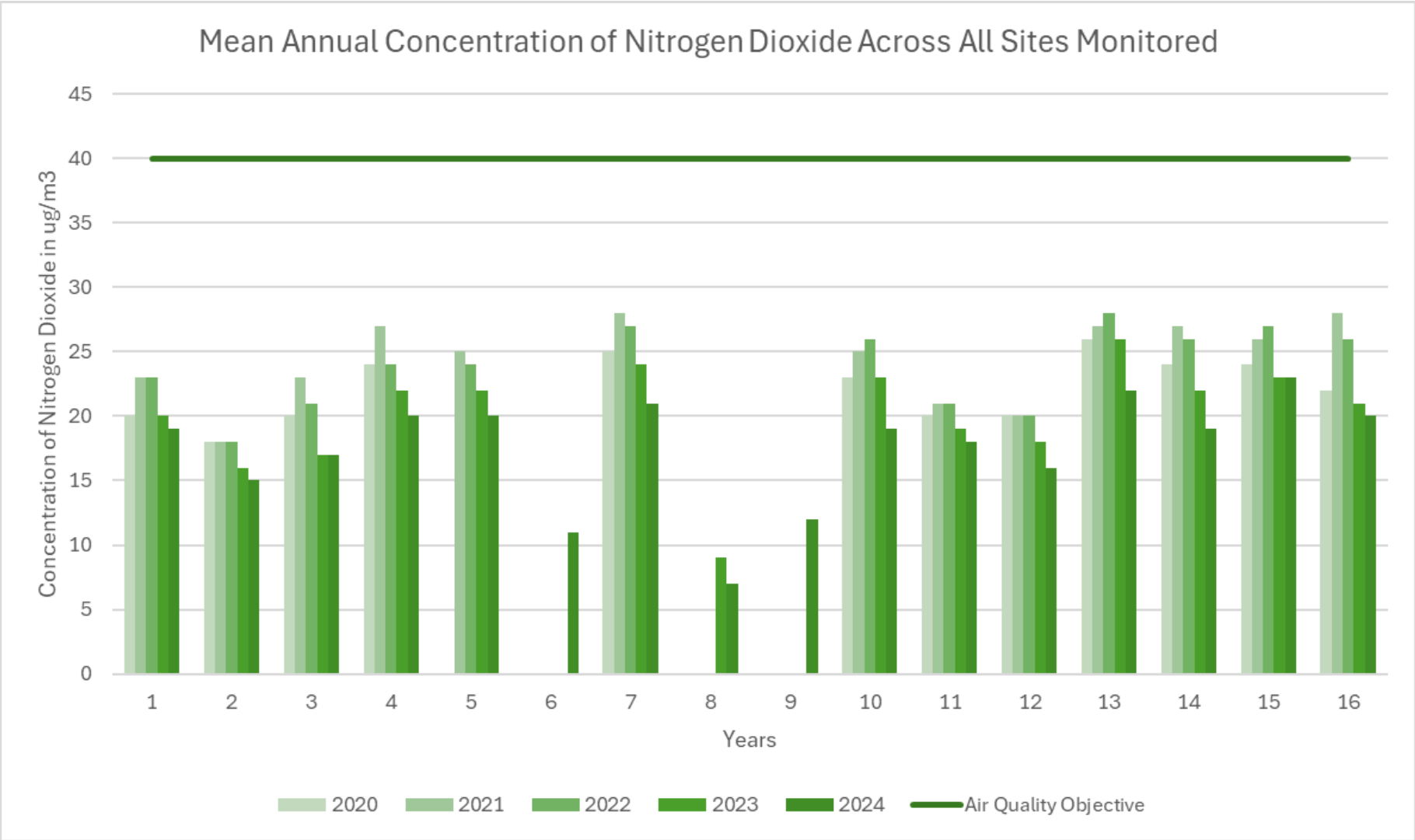


*Figure A.1 presents $NO_2$ annual mean concentrations for sites DT1 to DT16 between years 2020 to 2024. There are no exceedances of the annual mean objective in 2024 and there is a general trend of reduction experienced across the sites.*

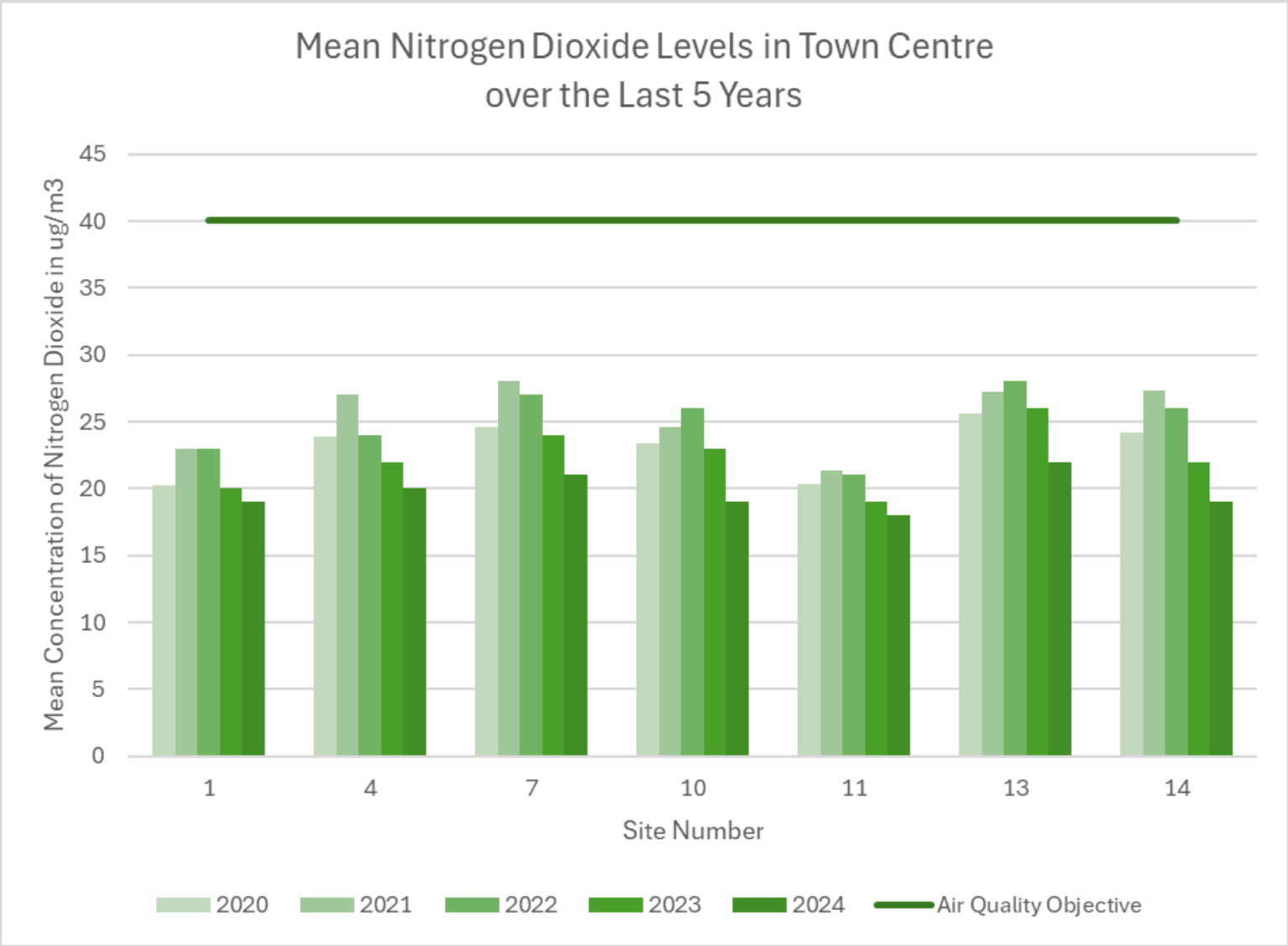


*Fig 2 Mean Nitrogen Dioxide Levels in Melton Town Centre. There are no exceedances of the annual mean objective in 2024 and there is a general trend of reduction experienced across the sites.*

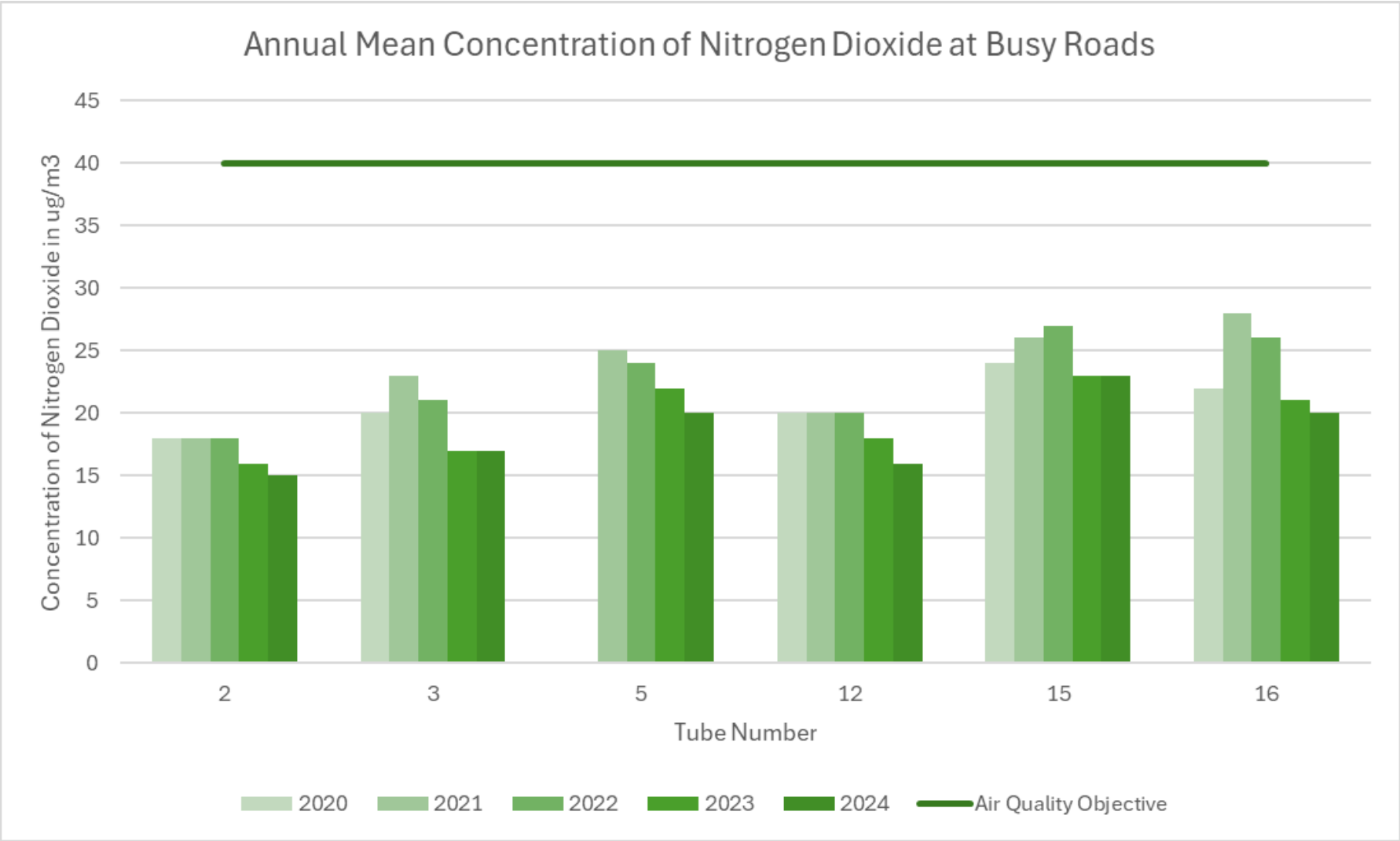


*Fig 3 presents NO2 annual mean concentrations for busy roads sites between years 2020 to 2024. There are no exceedances of the annual mean objective in 2024 and there is a general trend of reduction experienced across the sites*

# Appendix B: Full Monthly Diffusion Tube Results for 2024

## Table B.1 – $NO_2$ 2024 Diffusion Tube Results ($\mu g/m^3$)

| DT ID | X OS Grid Ref (Easting) | Y OS Grid Ref (Northing) | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Annual Mean: Raw Data | Annual Mean: Annualised and Bias Adjusted <(0.78)> | Annual Mean: Distance Corrected to Nearest Exposure | Comment |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 475029 | 319164 | 23.7 | 28.7 | 18.9 | 31.3 | 26.2 | 23.1 | 21.8 | 20.9 | 31.1 | 27.7 | 28.8 | 18.3 | 24.3 | 19.4 | - | |
| 2 | 474301 | 318366 | 22.7 | 22.0 | 15.9 | 20.5 | 19.0 | 17.9 | 17.9 | 17.7 | 11.5 | 22.0 | 26.1 | 15.1 | 18.5 | 14.8 | - | |
| 3 | 475753 | 319167 | 29.3 | 24.0 | 17.1 | 21.5 | 21.7 | 23.3 | 24.8 | 22.6 | 4.9 | 23.2 | 28.9 | 18.5 | 21.2 | 17.0 | - | |
| 4 | 475763 | 319262 | 30.5 | 26.4 | 23.2 | 29.2 | 25.3 | 25.8 | 25.9 | 22.3 | 24.9 | 24.6 | 30.7 | 18.8 | 25.2 | 20.2 | - | |
| 5 | 474704 | 320100 | 26.3 | 31.6 | 24.5 | 31.4 | 21.6 | 24.8 | 23.7 | 25.8 | 17.9 | 31.0 | 26.3 | 27.8 | 25.2 | 20.1 | - | |
| 6 | 474022 | 318299 | 15.2 | 19.2 | 12.0 | 14.8 | 12.5 | 11.5 | 12.1 | 11.2 | 13.6 | 17.8 | 20.7 | 16.3 | 14.0 | 11.2 | - | |
| 7 | 474991 | 319403 | 34.2 | 34.4 | 27.4 | 33.0 | 26.8 | 25.5 | 22.9 | 27.2 | 29.5 | 32.7 | 35.2 | 6.9 | 26.5 | 21.2 | - | |
| 8 | 475192 | 321173 | 13.1 | 14.1 | 9.6 | 10.5 | 9.9 | 8.6 | 6.4 | 6.4 | 6.5 | 12.9 | 16.0 | 4.6 | 9.0 | 7.2 | - | |
| 9 | 469587 | 325495 | 16.8 | 19.4 | 16.0 | 17.6 | 16.5 | 13.5 | 14.2 | 13.7 | 9.7 | 20.4 | 18.1 | 14.3 | 15.3 | 12.2 | - | |
| 10 | 475183 | 319378 | 33.6 | 30.8 | | 22.9 | 20.6 | 24.2 | 22.0 | 19.7 | 14.6 | 27.1 | 30.3 | 27.1 | 23.6 | 18.9 | - | |
| 11 | 475021 | 319364 | 29.6 | 29.3 | 17.8 | 24.4 | 20.3 | 20.9 | 20.5 | 20.2 | 15.7 | 20.2 | 30.4 | 31.2 | 22.3 | 17.9 | - | |
| 12 | 474879 | 318971 | 28.8 | 29.5 | 19.5 | 25.2 | 17.2 | 16.4 | 22.5 | 17.8 | 16.9 | 24.7 | | 19.4 | 20.0 | 16.0 | - | |
| 13 | 475046 | 319132 | 29.4 | 35.2 | 29.0 | 32.8 | 17.5 | 24.3 | 26.8 | 25.3 | 27.1 | 31.6 | 36.5 | 29.3 | 27.4 | 21.9 | - | |
| 14 | 475394 | 319128 | 37.1 | 36.4 | 26.1 | 28.6 | 24.8 | 24.4 | 24.2 | 23.9 | 10.9 | 20.6 | 33.0 | 20.1 | 23.7 | 19.0 | - | |
| 15 | 474954 | 319437 | 30.6 | 32.0 | 28.3 | 28.8 | 25.9 | 32.0 | 28.5 | 27.0 | 18.5 | 35.0 | 36.6 | 25.6 | 28.5 | 22.8 | - | |
| 16 | 475342 | 318960 | 27.1 | 31.0 | 20.8 | 33.6 | 23.1 | 21.4 | 21.0 | 19.2 | 27.0 | 31.5 | 32.4 | 18.5 | 24.4 | 19.5 | - | |

☒ **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.**
☒ **Melton Borough 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 Melton Borough Council During 2024

In accordance with TM22 statutory guidance, Melton Borough Council has reviewed and adjusted the locations of its diffusion tubes in response to identified changes in pollutant sources and development patterns. Two significant changes have been made:

1. **Otter Way, Melton Mowbray (Tube 6)**

   Tube 6 was relocated to Otter Way, a site within the Leicester Road development corridor that has experienced significant housing and industrial growth. This new location was selected to monitor potential nitrogen dioxide ($NO_2$) levels from increased vehicular and industrial activity associated with these developments. The tube was previously located at Freeby Close, where monitoring indicated consistently low $NO_2$ levels and no measurable impact from surrounding sources. The relocation aligns with the requirement to prioritise monitoring in areas with new or intensified sources of pollution.

2. **Nottingham Road, Nether Broughton (Tube 9)**

   Tube 9 was placed on Nottingham Road to measure through-traffic emissions and assess the impact of significant industrial development at Old Dalby. This site is expected to experience elevated pollutant levels due to its proximity to both traffic and industrial operations. The tube was removed from Keel Drive, Bottesford, where historical data confirmed very low $NO_2$ levels and minimal through traffic. The decision ensures that resources are focused on locations with higher potential for exceedances of air quality objectives.

These changes ensure monitoring efforts remain targeted and effective, reflecting the principles of adaptive monitoring and evidence-based decision-making as outlined in TM22.

## Additional Air Quality Works Undertaken by Melton Borough Council During 2024

The Authority produced and adopted the Air Quality Strategy. The Air Quality Strategy provides a broader, long-term framework that ensures that today's decisions contribute to sustained air quality improvements and align with future targets like reducing PM2.5 levels by 2040. This strategic approach is intended to prevent the creation of costly and persistent public health challenges related to air quality. The strategy prioritises integrating air quality considerations into broader planning and policy development, promoting sustainable infrastructure and community resilience, and preparing for future environmental and public health goals.

## QA/QC of Diffusion Tube Monitoring

The laboratory that supplies and analyses the tubes is SOCOTEC - Didcot.

SOCOTEC uses a 50:50% acetone:triethanolamine) preparation method as per the DEFRA harmonised methods.

Samples have been analysed in accordance with SOCOTEC's standard operating procedure ANU/SOP/1015. This method meets DEFRA's 'Diffusion Tubes for Ambient NO2 Monitoring: Practical Guidance' guidelines.

SOCOTEC - Didcot holds an accredited laboratory analysis for diffusion tubes and is Certified as 'satisfactory' by UKAS.

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

## Diffusion Tube Annualisation

All diffusion tube monitoring locations within Melton Borough Council recorded data capture of 75%; therefore, annualisation of monitoring data was not required. In addition, any sites with data capture below 25% do not require annualisation.

## Diffusion Tube Bias Adjustment Factors

# National Diffusion Tube Bias Adjustment Factor Spreadsheet

Spreadsheet Version Number: 04/25

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

This spreadsheet will be updated at the end of June 2025

LAQM Helpdesk Website

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

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

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

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

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

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

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

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

**Step 4:**

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

If you have your own co-location study then see footnote[4]. If uncertain what to do then contact the Local Air Quality Management Helpdesk at LAQMHelpdesk@bureauveritas.com or 0800 0327953

| Analysed By[1] | Method (To undo your selection, choose (All) from the pop-up list) | Year[2] (To undo your selection, choose (All)) | Site Type | Local Authority | Length of Study (months) | Diffusion Tube Mean Conc. (Dm) (µg/m³) | Automatic Monitor Mean Conc. (Cm) (µg/m³) | Bias (B) | Tube Precision[6] | Bias Adjustment Factor (A) (Cm/Dm) |
|---|---|---|---|---|---|---|---|---|---|---|
| Milton Keynes Council | 20% TEA in water | 2024 | | Overall Factor[3] (1 study) | | | | Use | | 0.75 |
| SOCOTEC Didcot | 20% TEA in water | 2024 | | Overall Factor[3] (1 study) | | | | Use | | 0.75 |
| SOCOTEC Didcot | 50% TEA in acetone | 2024 | | Overall Factor[3] (33 studies) | | | | Use | | 0.78 |
| SOCOTEC Glasgow | 20% TEA in water | 2024 | | Overall Factor[3] (1 study) | | | | Use | | 0.77 |
| SOCOTEC Glasgow | 50% TEA in acetone | 2024 | | Overall Factor[3] (1 study) | | | | Use | | 0.79 |
| Somerset County Council | 20% TEA in water | 2024 | | Overall Factor[3] (4 studies) | | | | Use | | 0.81 |
| Staffordshire County Council | 20% TEA in water | 2024 | | Overall Factor[3] (16 studies) | | | | Use | | 0.82 |
| Tayside Scientific Services | 20% TEA in water | 2024 | | Overall Factor[3] (1 study) | | | | Use | | 0.76 |

[1] For Casella Stanger/Bureau Veritas (NOT Bureau Veritas Labs) use Gradko 50% TEA in Acetone.
From 2024 use Staffordshire County Council instead of Staffordshire Scientific Services
For Staffordshire CC SS/Staffordshire County Analyst use Staffordshire Scientific Services.
For Casella Seal/GMSS/Casella CRE/Bureau Veritas Labs/Eurofins/ use Environmental Scientific Groups.
From 2011 for Environmental Scientific Groups use ESG Glasgow.

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.

Melton Borough Council have applied a National bias adjustment factor of 0.78 to the 2024 monitoring data. A summary of bias adjustment factors used by Melton Borough Council over the past five years is presented in Table C.1.

### Table C.1 – Bias Adjustment Factor

| Monitoring Year | Local or National | If National, Version of National Spreadsheet | Adjustment Factor |
|---|---|---|---|
| **2024** | National | 06/25 | 0.78 |
| **2023** | National | 06/24 | 0.80 |
| **2022** | National | 06/23 | 0.76 |
| **2021** | National | 06/22 | 0.78 |
| **2020** | National | 06/21 | 0.76 |

### Table C.2 – Local Bias Adjustment Calculation

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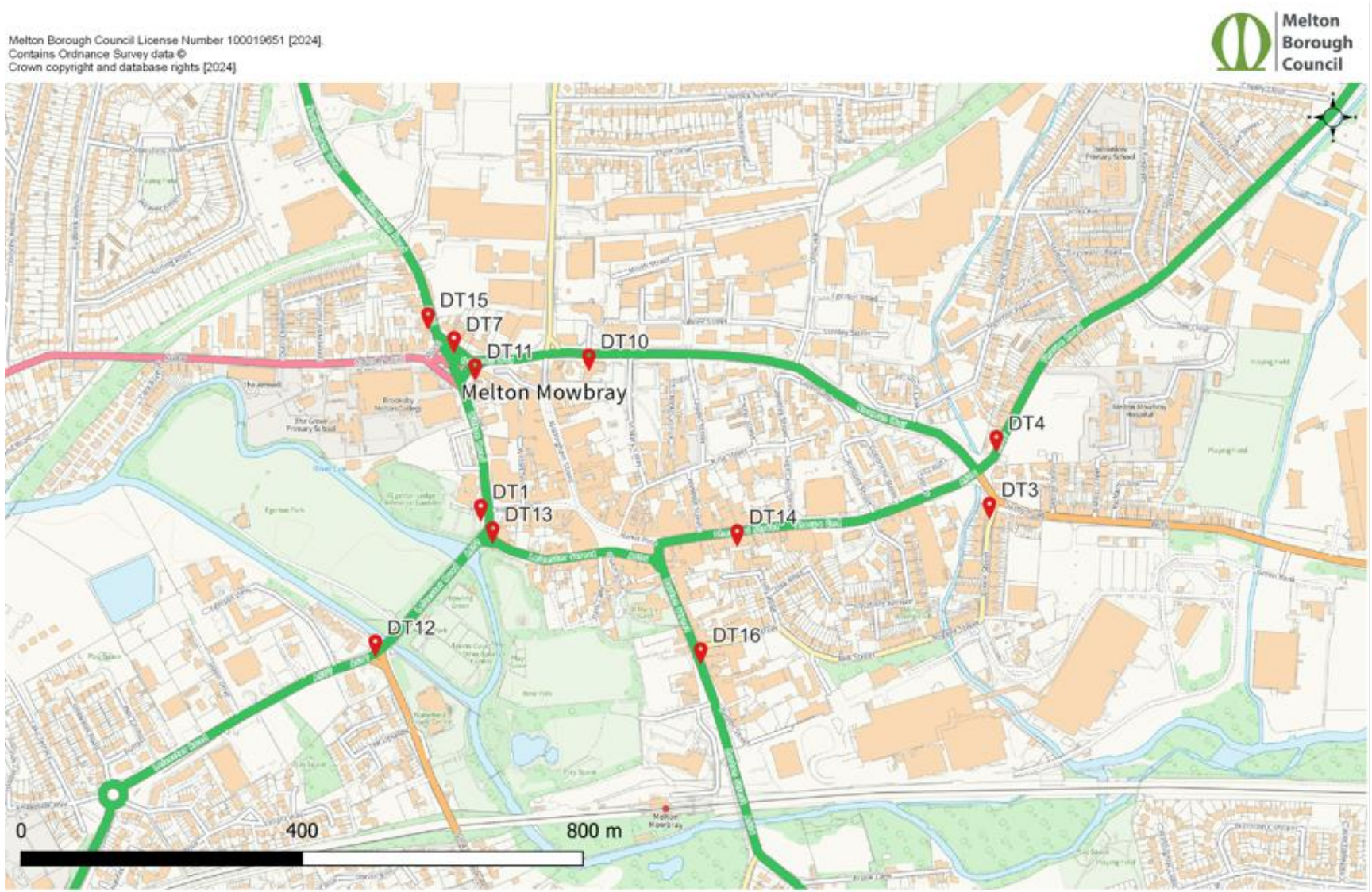
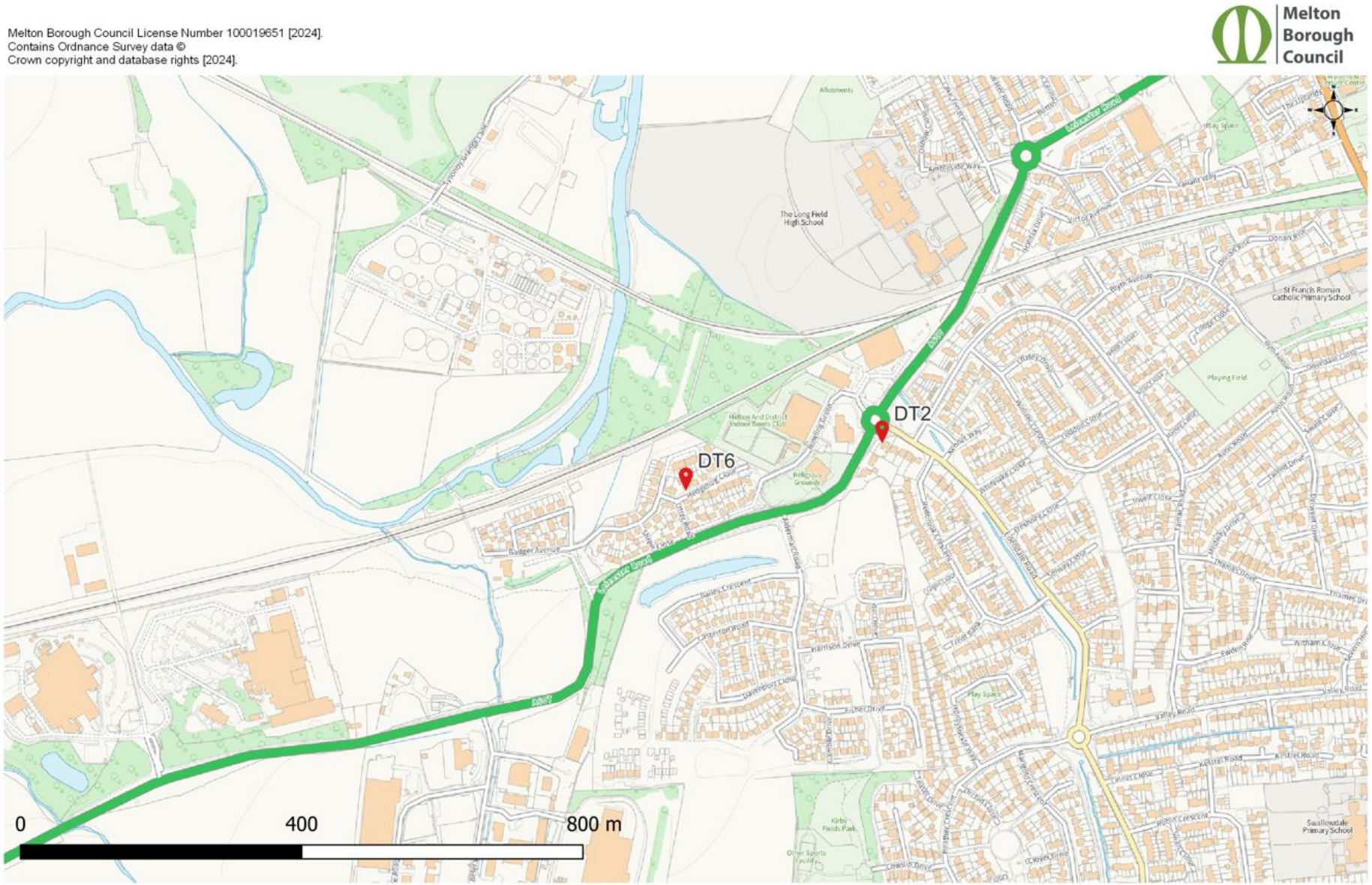
### $NO_2$ Fall-off with Distance from the Road

No diffusion tube $NO_2$ monitoring locations within Melton Borough Council required distance correction during 2024.

## Figure D.1 – Map of Non-Automatic Monitoring Site






Melton Annual Status Report ASR


Melton Annual Status Report ASR

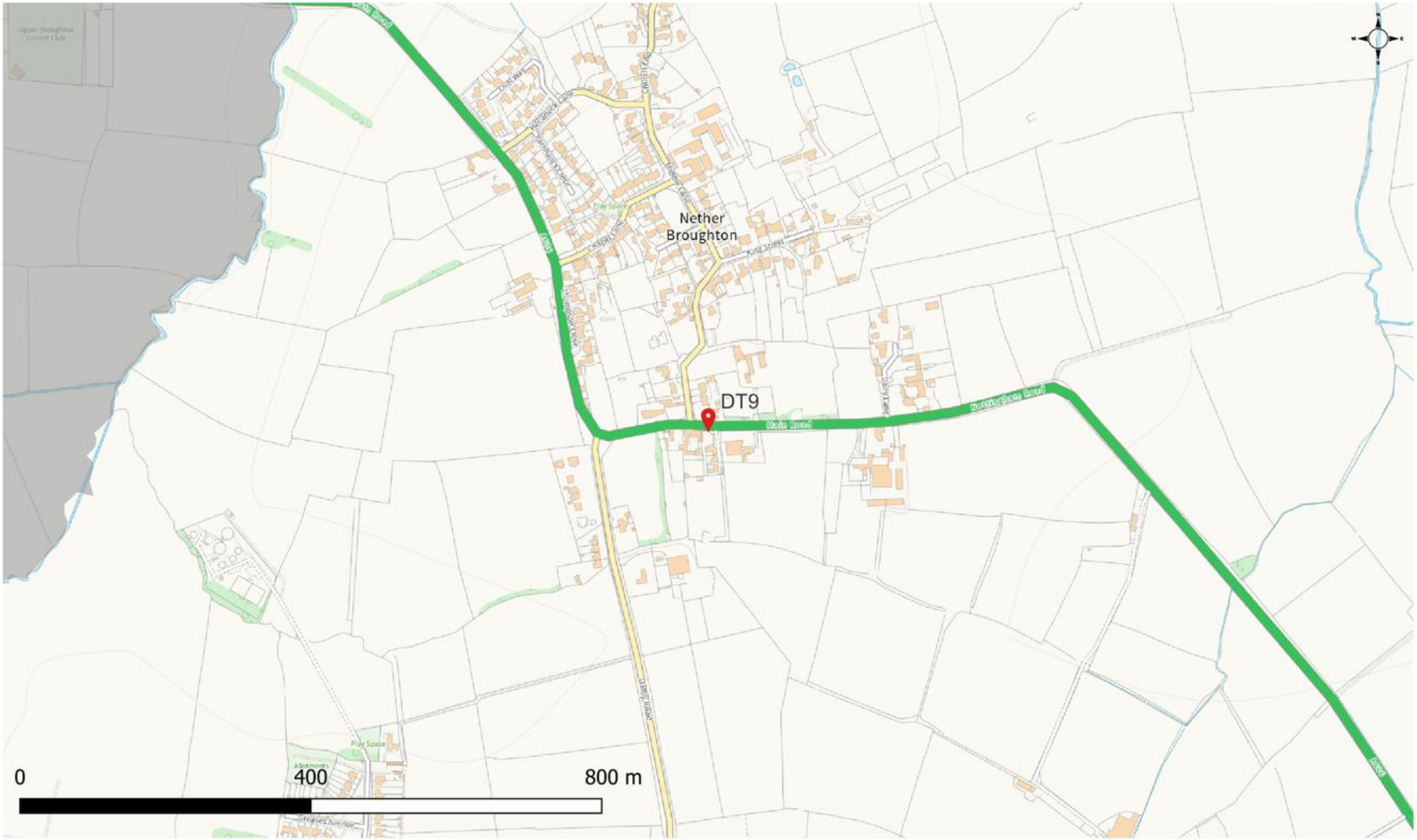
MMDT5

Nottingham Road (Tesco PS)

X: 474704

Y: 320100


Melton Borough Council License Number 100019651 [2024].
Contains Ordnance Survey data ©
Crown copyright and database rights [2024].
Melton Borough Council
MMDT8
Tube 8
0
90
180 m
Melton Annual Status Report ASR
MMDT8
Discovery Drive
X: 475192
Y: 321173




Melton Annual Status Report ASR

# Appendix E: Summary of Air Quality Objectives in England

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

| Pollutant | Air Quality Objective: Concentration | Air Quality Objective: Measured as |
|---|---|---|
| Nitrogen Dioxide ($NO_2$) | 200µg/$m^3$ not to be exceeded more than 18 times a year | 1-hour mean |
| Nitrogen Dioxide ($NO_2$) | 40µg/$m^3$ | Annual mean |
| Particulate Matter ($PM_{10}$) | 50µg/$m^3$, not to be exceeded more than 35 times a year | 24-hour mean |
| Particulate Matter ($PM_{10}$) | 40µg/$m^3$ | Annual mean |
| Sulphur Dioxide ($SO_2$) | 350µg/$m^3$, not to be exceeded more than 24 times a year | 1-hour mean |
| Sulphur Dioxide ($SO_2$) | 125µg/$m^3$, not to be exceeded more than 3 times a year | 24-hour mean |
| Sulphur Dioxide ($SO_2$) | 266µg/$m^3$, not to be exceeded more than 35 times a year | 15-minute mean |

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

# Glossary of Terms

| Abbreviation | Description |
|---|---|
| AQAP | Air Quality Action Plan - A detailed description of measures, outcomes, achievement dates and implementation methods, showing how the local authority intends to achieve air quality limit values' |
| AQMA | Air Quality Management Area – An area where air pollutant concentrations exceed / are likely to exceed the relevant air quality objectives. AQMAs are declared for specific pollutants and objectives |
| ASR | Annual Status Report |
| Defra | Department for Environment, Food and Rural Affairs |
| DMRB | Design Manual for Roads and Bridges – Air quality screening tool produced by National Highways |
| LAQM | Local Air Quality Management |
| $NO_2$ | Nitrogen Dioxide |
| $NO_x$ | Nitrogen Oxides |
| $PM_{10}$ | Airborne particulate matter with an aerodynamic diameter of 10µm or less |
| $PM_{2.5}$ | Airborne particulate matter with an aerodynamic diameter of 2.5µm or less |
| QA/QC | Quality Assurance and Quality Control |
| $SO_2$ | Sulphur Dioxide |

# References


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