



2023 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: September 2023

Information	Melton Borough Council Details
Local Authority Officer	David Martschenko
Department	Regulatory Services
Address	Parkside, Station Approach, Burton Street, Melton Mowbray LE13 1GH
Telephone	01664 504297
E-mail	dmartschenko@melton.gov.uk
Report Reference Number	MBC/ASR/23/V1
Date	September, 2023
Prepared by:	David Martschenko Senior Environmental Technical Officer
Checked by:	Pranali Parikh Director of Growth and Regeneration
Signature:	
Endorsed by:	Edd De Coverly Chief Executive Melton Borough Council
Signature:	
Endorsed by:	Mike Sandys Director of Public Health Leicestershire County Council
Signature:	

Executive Summary: Air Quality in Our Area

Air Quality in the Borough of Melton

Air pollution is associated with a number of adverse health impacts. It is recognised as a contributing factor in the onset of heart disease and cancer. Additionally, air pollution particularly affects the most vulnerable in society: children, the elderly, and those with existing heart and lung conditions. There is also often a strong correlation with equalities issues because areas with poor air quality are also often less affluent areas¹².

The mortality burden of air pollution within the UK is equivalent to 29,000 to 43,000 deaths at typical ages³, with a total estimated healthcare cost to the NHS and social care of £157 million in 2017⁴.

Current Air Quality Status

All regulated pollutant levels within the Borough of Melton remain compliant with the national air quality standards and objectives in 2022. Annual average NO₂ levels at all monitoring locations returned results within the national air quality objective level. It is Melton Borough Council's air quality strategy to use NO₂ as a primary indicator of the other regulated pollutants. As NO₂ levels are satisfactory, the remaining air quality objectives are considered compliant and no additional monitoring is required at this time.

Observations & Trends

Whilst air quality remains compliant in 2022, the findings show that very little has changed since 2021. Average NO₂ levels across all sixteen monitoring locations have decreased by a mere 2% since 2021. However, the small decrease in the annual average NO₂ levels comes despite an increase in urbanisation and population within the Borough. Moreover, ten out of fourteen 2022 monitoring locations with more than one year of data, returned results with annual average NO₂ concentrations lower than the preceding year.

Jct Leicester St / Wilton Rd is the Borough's monitoring location with the highest annual average NO₂ level in 2022 displacing Burton Street. In contrast, Land Off Lag Lane, Thorpe Arnold is the monitoring location with the lowest annual average NO₂ level in 2022.

¹ Public Health England. Air Quality: A Briefing for Directors of Public Health, 2017

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

³ Defra. Air quality appraisal: damage cost guidance, January 2023

⁴ Public Health England. Estimation of costs to the NHS and social care due to the health impacts of air pollution: summary report, May 2018

Long term trends continue to show a gradual reduction in average NO₂ levels. COVID in 2020 and the associated 'lockdowns' continue to have an impact on long term trends.

Whilst short-term COVID related restrictions are no longer artificially suppressing the results, it isn't clear whether long-term COVID derived societal changes, eg. working from home, have had a long-term impact on atmospheric pollution generation. Combined average NO₂ levels in 2021 were significantly lower than those in 2019 prior to the pandemic. More data is required until the influence of COVID is diminished, and the impact of post pandemic work/life trends are realised.

Air Quality Monitoring Strategy

In accordance with Local Air Quality Management requirements, every local authority is now required to publish its local Air Quality Strategy as a stand-alone document. Melton Borough Council's local Air Quality Strategy is in development and will be published in 2024.

In the meantime, the Council's monitoring strategy will continue to focus on the road network, with particular emphasis on the town of Melton Mowbray.

Monitoring has continued at the Sustainable Urban Extensions (SUEs). This data will enable us to quantify the air quality impact of the SUEs and to determine long term NO₂ trends as building work progresses.

Monitoring has continued at the Melton Mowbray Distributor Road (MMDR) tie-ins and strategic locations. This data will be invaluable in identifying pre-development baseline NO₂ levels against which long-term impacts can be determined.

We will continue to relocate the diffusion tubes at our best performing monitoring locations - those with the lowest NO₂ annual average levels, to identify sites with poor air quality.

Human Receptors & Pollution Sources

The Borough of Melton is a rural district in Leicestershire with an area of approximately 48,138 hectares. The population is estimated at circa 52,500 of which just over half live in the town of Melton Mowbray. Melton Mowbray is 18 miles from Nottingham, 15 miles from Leicester and approximately 20 miles from East Midlands Airport. There are more than 60 villages and 25 parish councils.

The source of air pollution of primary concern within the Borough of Melton is road vehicle traffic, i.e. the local transport sector source. This is a function of (a) the concentration of emissions and (b) the proximity of residential dwellings. Conventional vehicle engines emit airborne pollutants as a by-product of internal combustion. Nitrogen dioxide is a combustion gas and primary pollutant. This is particularly acute in the town of Melton Mowbray and especially on and around the ring road where homes front the highway.

Other pollution sector sources include local industrial, commercial, domestic and agricultural. There are several prominent industrial estates and industrial developments in the Borough, e.g., Leicester Road Industrial Estate, Asfordby Business Park, Saxby Road Industrial Estate and Old Dalby Business Park. These are mostly concentrated in and around Melton Mowbray. Within this industrialisation are eleven Local Authority Pollution Prevention & Control (LAPPC) permitted industrial processes and twenty-eight Environment Agency permits (waste, end of life vehicles, installations & radioactive). The most significant are Mars Pet Care, Samworth Brothers Saint Gobain. Industrial processes emit emissions to air as a by-product of production.

Primary domestic emissions are solid fuel appliances, burning in the open to a lesser extent, gas boilers. Mineral working and construction can also be a contribute significantly to poor air quality.

In addition to local sector sources, residents in the Borough are also subject to transboundary emissions from non-local sector sources of the same. This is referred to as 'background' air pollution.

Compliance, Complaints & Concerns

Of the eleven LAPPC permitted industrial processes within the Borough, there is one part 'A2' processes: metal casting at the Saint Gobain foundry at Asfordby. There is an ongoing dust complaint from the foundry which is being resolved by infrastructure improvements at the site. A further update will be provided in the 2024 ASR.

No permit related issues have been reported in relation to the eleven Part 'B' processes. Additionally, of the twenty-eight Environment Agency permits issued to businesses operating in the Borough, Melton Borough Council is unaware of any issues.

Tarmac at Brooksby quarry commenced gravel extraction and grading operations in October 2006. Tarmac also operates a quarry in the borough of Charnwood. As the Charnwood quarry is larger and includes blasting and granite crushing operations, Melton Borough Council works in liaison with our local authority neighbour - Charnwood Borough Council (CBC), which has taken the position of lead regulatory authority. 2022 compliance reporting did not identify any dust issues from quarrying sources.

A search of our records has identified the following nuisance complaints in 2022:

- One complaint relating to burning in the open.
- One complaint relating to general air quality.

Air Quality Challenges

The most significant pollutant to date has been nitrogen dioxide (NO₂); this is consistent with vehicular emissions from road traffic. The primary challenge for Melton Borough Council is in managing combustion pollutants amid increased

residential development and urban sprawl. The provision for thousands of additional homes in the Borough, particularly in the town of Melton Mowbray, will significantly increase local vehicular traffic with each additional combustion vehicle serving as a pollution generator.

Elements of Melton Mowbray's road infrastructure are already at capacity and experiences saturation at peak times. Increased vehicular traffic may off-set improvements in combustion engine efficiency, emission controls and electric/hybrid vehicle adoption, resulting in increased NO₂ levels and exceedances of the national air quality objective level at vulnerable road traffic junctions.

Local Plan Update

The Melton Borough Council Local Plan was formally adopted in October 2018, and now is expected to be reviewed and updated after almost five years in place.

The adopted Local Plan identified a need for additional housing in the Borough with Sustainable Urban Extensions (SUEs) proposed to the north of the town (1700 homes, with 1500 delivered before 2036) and the south of the town (2000 homes, with 1700 delivered before 2036). Approximately 65% of the Borough's growth will be delivered in and around Melton Mowbray, with the remaining 35% in the villages in the rural area, distributed according to a settlement hierarchy.

Following the adoption of the Plan, 1,377 dwellings have been built in the borough of Melton in the past four years, with a record high of 365 and 368 completions in 2021/22 and 2022/23 respectively. In the North SUE, 123 completions have been recorded since the adoption of the Local Plan and 883 dwellings have planning permission, including some under construction, whilst in the South SUE, 85 dwellings have been completed and there is planning permission for 436.

The Melton Mowbray Distributor Roads (MMDRs), north & east and south, are integral to the Local Plan and in managing the additional traffic burden generated by these sustainable neighbourhoods.

For more information about Melton's Local Plan, visit our website here:

<https://www.meltonplan.co.uk/>

For more information about the updated Melton Local Development Scheme, visit our website here: <https://www.meltonplan.co.uk/lds>

Actions to Improve Air Quality

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

The Environmental Improvement Plan⁵ sets out actions that will drive continued

⁵ Defra. Environmental Improvement Plan 2023, January 2023

improvements to air quality and to meet the new national interim and long-term PM2.5 targets. The National Air Quality Strategy, due to be published in 2023, will provide more information on local authorities' responsibilities to work towards these new targets and reduce PM2.5 in their areas. The Road to Zero⁶ details the approach to reduce exhaust emissions from road transport through a number of mechanisms; this is extremely important given that the majority of Air Quality Management Areas (AQMAs) are designated due to elevated concentrations heavily influenced by transport emissions.

Melton Mowbray suffers from considerable vehicular congestion, particularly on the ring road and arterial routes. For a significant number of vehicles, Melton Mowbray is not their final destination but transit Melton in order to reach onward destinations. Some of this traffic, particularly freight traffic, are diesel engine road vehicles (DERVs) and a primary source of particulate air pollution. Furthermore, Melton's SUEs are likely to add significantly to local traffic.

In previous annual status reports we have discussed our long-term aspiration to resource a new outer ring road in order to relieve vehicle congestion in the town centre. A reduction in vehicle congestion will reduce pollutant concentrations and improve air quality in this most impacted area. It is also possible that the greater efficiencies of free-flowing traffic, with minimal 'stop-starts', will reduce pollution generation overall.

The outer ring road, otherwise known as the Melton Mowbray Distributor Road (MMDR) is to be delivered in accordance with the Melton Borough Council local plan. Two MMDRs are proposed - north & east and south. The MMDR schemes are being led by Leicestershire County Council (LCC) in partnership with Melton Borough Council.

There is a countywide campaign to "Choose How You Move" in Leicestershire. Choose How You Move is a partnership project between Leicester City Council and Leicestershire County Council, funded by the Department for Transport.

Their website is a one-stop shop for travel information in Leicester & Leicestershire. Residents of Melton Borough Council can use the journey planner to help them explore the different travel options that are available in Leicestershire to help residents choose sustainable trips across the county.

The link for this campaign is: <https://www.choosehowyoumove.co.uk/>

Conclusions and Priorities

All regulated pollutant levels within the Borough of Melton remain compliant with the national air quality standards and objectives in 2022. Melton Borough Council has not identified or declared any Air Quality Management Areas at this time. Despite an increase in urbanisation, annual average NO₂ levels in 2022 declined marginally.

⁶ DfT. The Road to Zero: Next steps towards cleaner road transport and delivering our Industrial Strategy, July 2018

Long term trends suggest that air quality in the Borough continues to improve overall. The role of COVID and the post pandemic work/life realities isn't clear. However, significant urban development within Melton Mowbray presents a challenge to maintaining air quality standards. The outer ring road is integral to the Melton Local Plan and in managing air quality in the future.

Local Engagement and How to get Involved

The general public can take simple measures to help improve air quality by:

- Prioritising alternative transport such as by foot, bicycle or public transport.
- Car sharing with colleagues or with other parents on the school run.
- Purchasing low-emission electric and / or hybrid vehicles with government funding and grants available.
- Improving the efficiency of your home through energy efficiency measure including double glazing, cavity wall and loft insulation and efficient light bulbs.
- Investing in alternative 'green' domestic heating technology like ground/air source heat pumps. A £5,000 Government grant is available to eligible properties. Information on the Boiler Upgrade Scheme (BUS) is available on the UK Government website here:
<https://www.gov.uk/guidance/check-if-you-may-be-eligible-for-the-boiler-upgrade-scheme-from-april-2022>
- Upgrading boilers to newest and most efficient gas condensing boilers with lowest NOx (and carbon) emissions.
- Renewable energy generation via microgeneration such as solar photovoltaics or wind turbine installation.

Further information can be found on Defra's Local Air Quality Management website:

<https://uk-air.defra.gov.uk/>

Local Responsibilities and Commitment

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

- David Martschenko: Senior Technical Officer - Environmental Health
- Jorge Alonso - Senior Planning Policy Officer - Development Control
- Sarah Legge - Planning Officer - Development Control
- Mark Felts - GIS Technician - Development Control

This ASR has been approved by:

- Elaine Bird: Head of Regulatory Services

If you have any comments on this ASR, please send them to David Martschenko at:

- Melton Borough Council, Parkside, Station Approach, Burton Street, Melton Mowbray, LE13 1GH

- 01664 504297
- dmartschenko@melton.gov.uk

Table of Contents

In fulfilment of Part IV of the Environment Act 1995 Local Air Quality Management, as amended by the Environment Act 2021	1
Executive Summary: Air Quality in Our Area.....	3
Air Quality in the Borough of Melton	3
Current Air Quality Status	3
Observations & Trends.....	3
Air Quality Monitoring Strategy	4
Human Receptors & Pollution Sources.....	4
Compliance, Complaints & Concerns	5
Air Quality Challenges	5
Local Plan Update	6
Actions to Improve Air Quality	6
Conclusions and Priorities	7
Local Engagement and How to get Involved	8
Local Responsibilities and Commitment.....	8
1. Local Air Quality Management	12
2. Actions to Improve Air Quality	12
2.1 Air Quality Management Areas.....	12
2.2 Progress and Impact of Measures to address Air Quality in the Borough of Melton.....	12
2.2.1 2023 Update for the North East Melton Mowbray Distributor Road (MMDR)	13
2.2.2 2023 Update for the South Melton Mowbray Distributor Road (MMDR) ...	13
Progress on Measures to Improve Air Quality.....	14
2.3 PM2.5 - Local Authority Approach to Reducing Emissions and/or Concentrations	15
3. Air Quality Monitoring Data and Comparison with Air Quality Objectives and National Compliance	15
3.1 2022 Diffusion Tube Relocations.....	16
3.2 Summary of Monitoring Undertaken	16
3.2.1 Automatic Monitoring Sites	16
3.2.2 Non-Automatic Monitoring Sites	16
3.3 Individual Pollutants	16
	10
LAQM Annual Status Report 2023	

3.3.1	Nitrogen Dioxide (NO ₂).....	17
3.3.2	Particulate Matter (PM ₁₀)	20
3.3.3	Particulate Matter (PM _{2.5})	20
3.3.4	Sulphur Dioxide (SO ₂)	20
Appendix A: Monitoring Results		21
Table A.1 - Details of Non-Automatic Monitoring Sites		21
Table A.2 - Annual Mean NO ₂ Monitoring Results: Non-Automatic Monitoring (µg/m ³)		22
Figure A.1 - Bias adjusted annual average NO ₂ levels at ALL monitoring locations		24
Figure A.2 - Bias adjusted annual average NO ₂ levels at URBAN CENTRE monitoring locations.....		25
Figure A.3 - Bias adjusted annual average NO ₂ levels at Suburban monitoring locations		26
Figure A.4 – Bias adjusted annual average NO ₂ levels at Rural monitoring locations		27
Figure A.5 - TOP 5 monitoring locations with the highest bias adjusted annual average NO ₂ levels		28
Appendix B: Full Monthly Diffusion Tube Results for 2022.....		29
Table B.1 - NO ₂ 2022 Diffusion Tube Results (µg/m ³)		29
Additional Air Quality Works Undertaken by Melton Borough Council During 2022 .		34
QA/QC of Diffusion Tube Monitoring		34
Diffusion Tube Annualisation		34
Diffusion Tube Bias Adjustment Factors		34
Table C.1 - Bias Adjustment Factor		35
NO ₂ Fall-off with Distance from the Road.....		35
Appendix D: Map(s) of Monitoring Locations and AQMAs		37
Figure D.1 - Map of Non-Automatic Monitoring Site - Melton Town Centre		37
Figure D.2 - Map of Non-Automatic Monitoring Site - Greater Melton		38
Figure D.3 - Map of Non-Automatic Monitoring Site - Rural Melton.....		39
Appendix E: Summary of Air Quality Objectives in England.....		40
Table E.1 - Air Quality Objectives in England.....		40
Glossary of Terms.....		41
References.....		42

1. Local Air Quality Management

This report provides an overview of air quality in the borough of Melton during 2022. 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 Melton Borough Council to improve air quality and any progress that has been made.

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

2. Actions to Improve Air Quality

2.1 Air Quality Management Areas

Air Quality Management Areas (AQMAs) are declared when there is an exceedance or likely exceedance of an air quality objective. After declaration, the authority should prepare an Air Quality Action Plan (AQAP) within 18 months. The AQAP should specify how air quality targets will be achieved and maintained and provide dates by which measures will be carried out.

Melton Borough Council currently does not have any declared AQMAs.

A local Air Quality Strategy is under development to prevent and reduce polluting activities. This will be presented in the 2024 ASR.

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 that there are no AQMAs; there are no exceedances of the annual mean objective for nitrogen dioxide (NO₂) or any other regulated pollutant and the conclusions reached by Melton Borough Council are acceptable for all sources and pollutants within the Borough.

Melton Borough Council has taken forward a number of direct measures during the current reporting year of 2023 in pursuit of improving local air quality. Details of all measures completed, in progress or planned are set out in Table 2.1, with the type of measure and the progress Melton Borough Council have made during the reporting

year of 2023 presented. Where there have been, or continue to be, barriers restricting the implementation of the measure, these are also presented within Table 2.1.

In previous annual status reports we have discussed our long-term aspiration to resource a new outer ring road in order to relieve vehicle congestion in the town centre. The outer ring road, otherwise known as the Melton Mowbray Distributor Road (MMDR) is to be delivered in accordance with the Melton Borough Council local plan. Two MMDRs are proposed - north & east and south.

2.2.1 2023 Update for the North East Melton Mowbray Distributor Road (MMDR)

The North East MMDR is a separate project to the south MMDR.

Leicestershire County Council have finalised the detailed design for the scheme. The demolition of Sysonby Farm is now complete; on-site ecological and archaeological works have been concluded. Leicestershire County Cabinet have decided to proceed with the development and having secured the £49.5 million contribution from the Department for Transport, works commenced on site in April 2023. The construction contractor is Galliford Try. Completion and project hand-over is scheduled for winter 2025.

Readers can find periodic updates on the North East MMDR on Leicestershire County Council's website, here: <https://www.leicestershire.gov.uk/roads-and-travel/road-projects/north-and-east-melton-mowbray-distributor-road-scheme>

2.2.2 2023 Update for the South Melton Mowbray Distributor Road (MMDR)

The south MMDR is a separate project to the North East MMDR.

Due to rising construction costs, the projected cost of the south MMDR has increased to the region of £60 million. Melton Borough Council is working with Leicestershire County Council, developers and landowners to determine if the project can continue with the £18.5 million Homes England (Housing Infrastructure) funding currently allocated to it. The viability of the project is in question and consequently planning permissions have not yet been sought.

If successful, construction of the South MMDR will follow the construction of the North East MMDR with both distributor roads aligning to form an outer ring road around Melton Mowbray. This proposition has the advantage of connecting the A606 and A607 arterial roads significantly reducing the need for all non-Melton Mowbray bound traffic from entering the town centre.

Progress on both the North East and South MMDRs will be reported in the 2024 ASR.

Progress on Measures to Improve Air Quality

Measurement Number	Measure	Category	Classification	Year measure introduced	Estimated Actual Completion date	Organisations Involved	Funding Sources	Defra AQ Grant	Funding Status	Estimated Cost of Measure	Measure status	Reduction in Pollutant/Emission From Measure	Key Performance	Progress to date	Comments Barriers to Implementation
1	Melton Mowbray Distributor Road (By-Pass) North & East	Transport Planning and Infrastructure	Other	2016	2025	Melton Borough Council, Leicestershire County Council, Department for Transport, Galliford Try	Melton Borough Council, Leicestershire County Council, Department for Transport	NO	Fully funded	> £10 million	Implementation	Reduced NOx from vehicle emissions in town centre - See Environmental Impact Assessment	Reduced traffic volumes on Melton town arterial routes & improved local air quality	Funding fully secured & regulatory permissions obtained. Compulsory Purchase Order notices served. Completion of Secretary of State public enquiry. Demolition of Sysonby Farm complete. Ecological/archaeological works complete. Final detailed design complete. Construction commenced April 2023 with delivery winter 2025	Long implementation period.
2	Melton Mowbray Distributor Road (By-Pass) South	Transport Planning and Infrastructure	Other	2016	2028	Melton Borough Council, Leicestershire County Council, Homes England, private developers	Melton Borough Council, Leicestershire County Council, Homes England, private developers	NO	Partially Funded	> £10 million	Implementation	Reduced NOx from vehicle emissions in town centre - See Environmental Impact Assessment	Reduced traffic volumes on Melton town arterial routes & improved local air quality	Part funding from S106 agreements secured & Homes England. Project board commissioned prior to planning application submission. Concept design drawings underway. Delayed due to rising costs. Viability in question.	Funding. Rising costs. Regulatory approvals

2.3 PM2.5 - Local Authority Approach to Reducing Emissions and/or Concentrations

As detailed in Policy Guidance LAQM.PG22 (Chapter 8), local authorities are expected to work towards reducing emissions and/or concentrations of PM2.5 (particulate matter with an aerodynamic diameter of 2.5µm or less). There is clear evidence that PM2.5 has a significant impact on human health, including premature mortality, allergic reactions, and cardiovascular diseases.

Melton Borough Council is taking the following measures to address PM2.5. PM2.5 levels in the Borough of Melton are considered compliant with the national air quality objective based on indicative NO2 monitoring. Consequently PM2.5 are not considered an air quality issue in the Borough at this time.

Using DEFRA's 2022 background mapping, the estimated maximum background annual mean PM2.5 within the Borough of Melton was 9.18ugm-3. This is significantly below the annual average of 25 ugm-3 as per The Air Quality Standards Regulations 2010.

The Melton 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, are 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 to decline.

It isn't clear if the distributor road will reduce, in absolute terms, vehicular emissions of PM2.5 levels in the Borough. It is possible that the greater efficiencies of free-flowing traffic, with minimal 'stop-starts', will reduce overall PM2.5 generation.

Melton Borough Council is not currently proposing any measures to contribute to the PM2.5 national three-year average exposure indicator.

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

This section sets out the monitoring undertaken within 2022 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 2018 and 2022 to allow monitoring trends to be identified and discussed.

3.1 2022 Diffusion Tube Relocations

Based on the findings of the 2021 air quality dataset, the following tube relocations occurred in for the 2022 calendar year.

Diffusion tube DT9 - Main Street, Asfordby has been relocated to Jct. A607 / High St., Waltham On The Wolds. The junction is a popular route for local traffic to access surrounding villages. This is the first occasion of monitoring in Waltham and reaffirms our commitment to maintaining an air quality monitoring presence in rural Melton.

Monitoring has continued at the SUEs and MMDR tie-ins and strategic locations as follows. This work is necessary to obtain pre-MMDR development annual average NO₂ levels and to document long term NO₂ trends as SUE building work progresses.

Diffusion tube DT8 - Melton Spinney Road has been relocated to Land Off Lag Lane, Thorpe Arnold. It is monitoring the proposed approach of the NE MMDR as it skirts around Thorpe Arnold.

3.2 Summary of Monitoring Undertaken

3.2.1 Automatic Monitoring Sites

Melton Borough Council has no automatic monitoring sites.

3.2.2 Non-Automatic Monitoring Sites

Melton Borough Council undertook non- automatic (i.e. passive) monitoring of NO₂ at 16 sites during 2022. Table A.1 in Appendix A presents the details of the non-automatic sites.

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.

3.3 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.

3.3.1 Nitrogen Dioxide (NO₂)

Table A.2 in Appendix A compare the ratified and adjusted monitored NO₂ annual mean concentrations for the past five years with the air quality objective of 40µg/m³. Note that the concentration data presented represents the concentration at the location of the monitoring site, following the application of bias adjustment and annualisation, as required (i.e. the values are exclusive of any consideration to fall-off with distance adjustment).

For diffusion tubes, the full 2022 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.

Five time series charts have been generated to illustrate the annual measured NO₂ levels from 2018 to 2022 inclusive.

1. Bias adjusted annual average NO₂ levels at ALL monitoring locations currently in use.
2. Bias adjusted annual average NO₂ levels at URBAN CENTRE monitoring locations (town centre on or within the Melton ring road) currently in use.
3. Bias adjusted annual average NO₂ levels at SUB-URBAN monitoring locations (within the town envelope but outside the centre) currently in use.
4. Bias adjusted annual average NO₂ levels at RURAL monitoring locations (any location other than Melton Mowbray) currently in use.
5. TOP 5 monitoring locations currently in use with the highest bias adjusted annual average NO₂ levels.

These are presented in Appendix A with links to each chart in the respective commentary below. Please note that only active monitoring locations have been displayed in the time series charts. Data pertaining to legacy monitoring locations can be found in historic ASRs available from Melton Borough Council on request.

ALL monitoring locations

The ALL monitoring locations chart can be found at Figure A.1.

- All 2022 measured results at all monitoring locations fell below the annual average NO₂ air quality objective level of 40µg/m³.
- All 2022 measured results at all monitoring locations fell below an annual mean of 60µg/m³, the level which indicates an exceedance of the 1-hour mean objective.
- Ten out of fourteen 2022 monitoring locations with more than one year of data, returned results with annual average NO₂ concentrations lower than the preceding year. Four monitoring locations returned annual average NO₂ concentrations higher than the preceding year.

- The average of the 2022 sixteen annual average NO₂ levels is 21.5 µgm⁻³. This represents a small decrease of 2% over the average level of 22.0 µgm⁻³ in 2021.
- It should be noted that the 2022 dataset includes two rural monitoring locations of which one, DT8 - Land Off Lag Lane, Thorpe Arnold, is targeting the proposed MMDR. It was anticipated that this location would return a very low result. However, as DT8 was previously situated at a strategic location, this low result isn't thought to skew the results significantly.
- The modest decrease in the 2022 annual average NO₂ levels comes despite an increase in urbanisation and population within the Borough.
- DT13 - Jct Leicester St / Wilton Rd is the Borough's monitoring location with the highest annual average NO₂ level in 2022 displacing DT16 - Burton Street. In contrast, DT8 - Land Off Lag Lane, Thorpe Arnold is the monitoring location with the lowest annual average NO₂ level in 2022.
- The highest and lowest annual average NO₂ levels in 2022 were 28.3 µgm⁻³ and 8.1 µgm⁻³ respectively. This represents a negligible increase of 1% at the upper end over the equivalent worst performing monitoring location in 2021 of 28.0 µgm⁻³ for DT16 - Burton Street.
- DT10 - Norman Way (Court House) returned the greatest year-on-year net change in annual average NO₂ concentration of positive 1.3 µgm⁻³. In contrast DT4 - Jct Thorpe Rd / Normal Way saw an annual average NO₂ concentration decrease of 2.9 µgm⁻³ compared to 2021.

URBAN CENTRE monitoring locations

The URBAN CENTRE monitoring locations chart can be found at Figure A.2.

- As a location category, the urban centre subgroup has the highest NO₂ levels with a combined 2022 annual average of 24.9 µgm⁻³.
- The 2022 urban centre subgroup has experienced a small year-on-year decrease in annual average NO₂ levels of 2%.
- The monitoring location with the highest annual average NO₂ concentration, DT13 - Jct Leicester St / Wilton Rd at 28.3 µgm⁻³, is situated in the urban centre subgroup.
- There were no new diffusion tube placements in the urban centre subgroup.

SUB-URBAN monitoring locations

The SUB-URBAN monitoring locations chart can be found at Figure A.3.

- As a location category, the sub-urban subgroup has neither the highest nor lowest NO₂ levels with a combined 2022 annual average of 20.9 µgm⁻³.
- The 2022 sub-urban subgroup has experienced a small year-on-year decrease in annual average NO₂ levels of 3%.

- The sub-urban location with the highest annual average NO₂ concentration is DT15 - Nottingham Rd at 26.8 µgm⁻³.
- There were no new diffusion tube placements in the sub-urban subgroup.

Rural monitoring locations

The RURAL monitoring locations chart can be found at Figure A.4.

- As a location category, the rural subgroup has the lowest NO₂ levels with a combined 2022 annual average of 12 µgm⁻³.
- The 2022 rural subgroup has experienced a large year-on-year decrease in annual average NO₂ levels of 13%. However, this includes DT8 - Land Off Lag Lane, a strategic location. If DT8 was removed from the rural dataset, the subgroup experienced a large year-on-year increase in annual average NO₂ levels of 15%. The rural subgroup is small and changeable leading to significant variations in NO₂ levels. But it should be noted that absolute NO₂ levels remain very low.
- The sub-urban location with the highest annual average NO₂ concentration is DT9 - Jct A607 / High St, Waltham On The Wolds at 15.8 µgm⁻³.
- There were two new diffusion tube placements in the rural subgroup.

TOP 5 monitoring locations

The TOP 5 monitoring locations chart can be found at Figure A.5.

- Diffusion tubes DT13 - Jct Leicester St / Wilton Rd, DT15 - Nottingham Road, DT7 - Jct Nottingham Rd / Norman Way, DT14 - Sherrard Street, DT10 - Norman Way (Court House) were the Borough's top 5 worst performing monitoring locations in 2022.
- The composition of the top 5 subgroup has changed moderately from 2021 to 2022 with three of five monitoring locations: DT7 - Jct Nottingham Rd / Norman Way, DT14 - Sherrard Street, DT13 - Jct Leicester St / Wilton Rd, carrying over from the preceding year.
- All 2022 top 5 diffusion tube locations show long-term trend reductions in annual average NO₂ levels. All of these diffusion tubes have at least four years of data, pre-dating the COVID pandemic. This increases confidence in trend extrapolations from the dataset.
- COVID in 2020 and the associated 'lockdowns' continue to have an impact on long term trends. Whilst short-term COVID related restrictions are no longer artificially suppressing the results, it isn't clear whether long-term COVID derived societal changes, eg. working from home, have had a long-term impact on atmospheric pollution generation. Combined average NO₂ levels in 2021 were significantly lower than those in 2019 prior to the pandemic. More data is required until the influence of COVID is diminished and the impact of post pandemic work/life trends are realised.

3.3.2 Particulate Matter (PM10)

Melton Borough Council does not currently monitor for PM10.

3.3.3 Particulate Matter (PM2.5)

Melton Borough Council does not currently monitor for PM2.5.

3.3.4 Sulphur Dioxide (SO₂)

Melton Borough Council does not currently monitor for sulphur dioxide.

Appendix A: Monitoring Results

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

Site No	Site Name	Site Type	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Pollutant Monitored	In AQMA	Distance in meters to Relevant exposure	Distance to Kerb or nearest Road	Tube Collocated	Tube Height
DT1	Wilton Road	Urban Centre	475029	319164	NO2	NO	15	2	NO	3
DT2	Leicester Road	Roadside	474301	318366	NO2	NO	12	2.5	NO	3
DT3	Book Street	Roadside	475753	319167	NO2	NO	1	1	NO	3
DT4	Jct Thorpe Rd / Norman Way	Urban Centre	475763	319262	NO2	NO	0.15	1	NO	3
DT5	Nottingham Road - service station	Roadside	474704	320100	NO2	NO	7	1.7	NO	3
DT6	Kirby Lane - west	Suburban	474335	317516	NO2	NO	4	0.8	NO	3
DT7	Jct Nottingham Rd / Norman	Urban Centre	474991	319403	NO2	NO	12.5	1.3	NO	3
DT8	Land Off Lag Lane, Thorpe Arnold	Rural	477161	320014	NO2	NO	5	95	NO	3
DT9	Jct A607 / High St, Waltham On	Roadside	480220	325098	NO2	NO	0.15	1.5	NO	3
DT10	Norman Way - courthouse	Urban Centre	475183	319378	NO2	NO	1	1.5	NO	3
DT11	Jct Norman Way / Wilton Rd	Urban Centre	475021	319364	NO2	NO	4	3	NO	3
DT12	Jct Dalby Rd / Leicester Rd	Roadside	474879	318971	NO2	NO	18.5	2	NO	3
DT13	Jct Leicester St / Wilton Rd	Urban Centre	475046	319132	NO2	NO	1	0.5	NO	3
DT14	Sherrard Street	Urban Centre	475394	319128	NO2	NO	2	1.5	NO	3
DT15	Nottingham Road - crossroad	Roadside	474954	319437	NO2	NO	5	2	NO	3
DT16	Burton Street	Roadside	475342	318960	NO2	NO	2	0.3	NO	3

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

Diffusion Tube ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Site Type	Valid Data Capture for Monitoring Period (%)	Valid Data Capture 2022 %	2018	2019	2020	2021	2022
DT1	475029	319164	Urban Centre	100	100	26.6	24.2	20.2	22.7	22.6
DT2	474301	318366	Roadside	100	100	23.8	21.8	17.9	17.7	17.6
DT3	475753	319167	Roadside	100	100	24.6	26.4	19.6	22.5	20.9
DT4	475763	319262	Urban Centre	100	100	-	-	23.9	26.8	23.9
DT5	474704	320100	Roadside	100	100	-	-	-	24.9	24.3
DT6	474335	317516	Suburban	100	100	-	-	-	11.2	10.8
DT7	474991	319403	Urban Centre	100	100	-	28.9	24.6	27.6	26.6
DT8	477161	320014	Rural	100	100	-	-	-	-	8.1
DT9	480220	325098	Roadside	100	100	-	-	-	-	15.8
DT10	475183	319378	Urban Centre	100	100	29.4	29.7	23.4	24.6	25.9
DT11	475021	319364	Urban Centre	100	100	26.5	24.1	20.3	21.3	21.2
DT12	474879	318971	Roadside	100	100	24.7	22.7	19.6	20	20.1
DT13	475046	319132	Urban Centre	100	100	33	34.5	25.6	27.2	28.3
DT14	475394	319128	Urban Centre	100	100	31.2	32.5	24.2	27.3	26.1
DT15	474954	319437	Roadside	100	100	26.5	32.6	24.3	26.1	26.8
DT16	475342	318960	Roadside	100	100	27.8	29.1	22.2	28	25.5

- 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/m³.

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

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 - Bias adjusted annual average NO2 levels at ALL monitoring locations

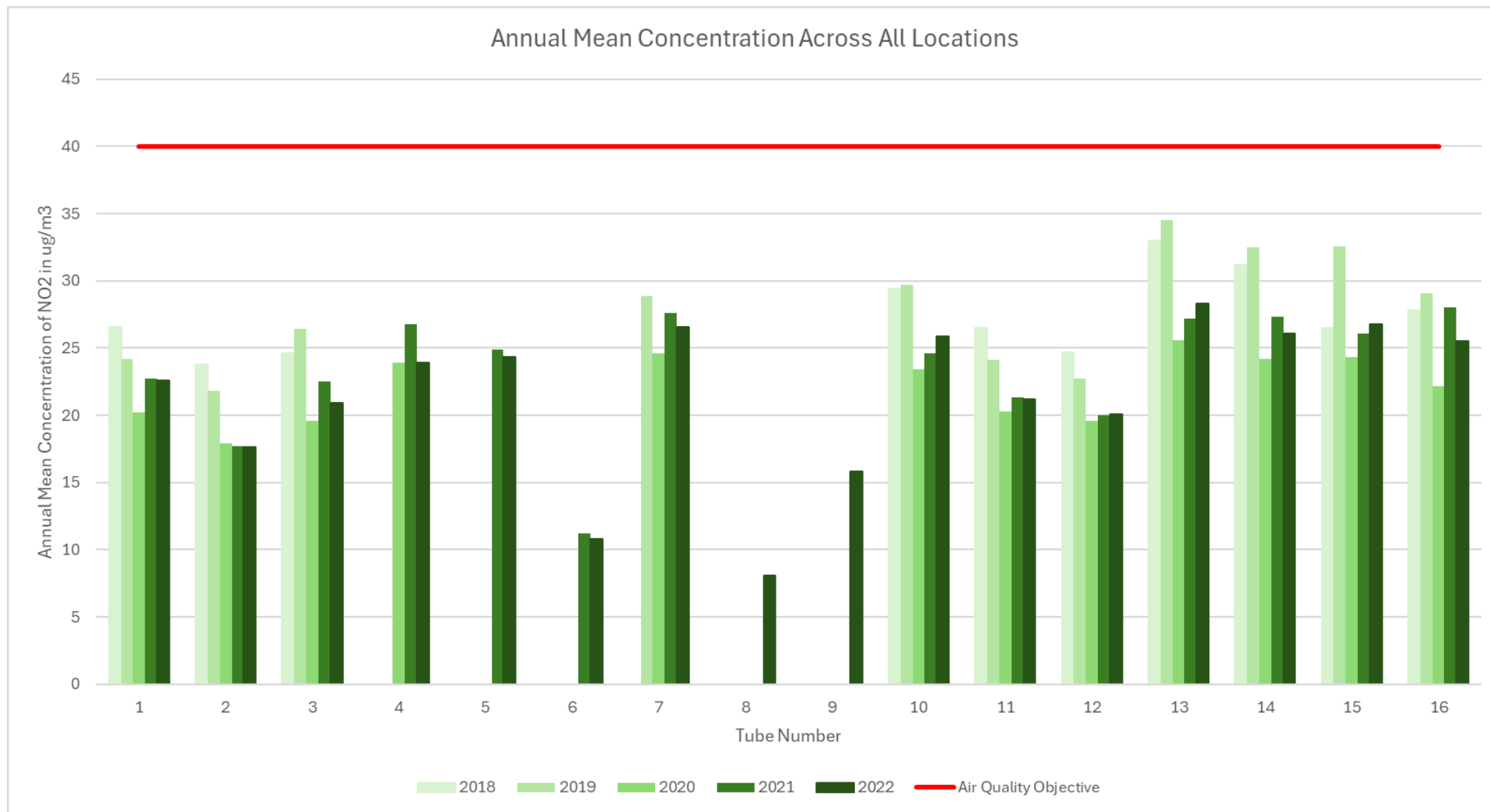


Figure A.2 - Bias adjusted annual average NO2 levels at URBAN CENTRE monitoring locations

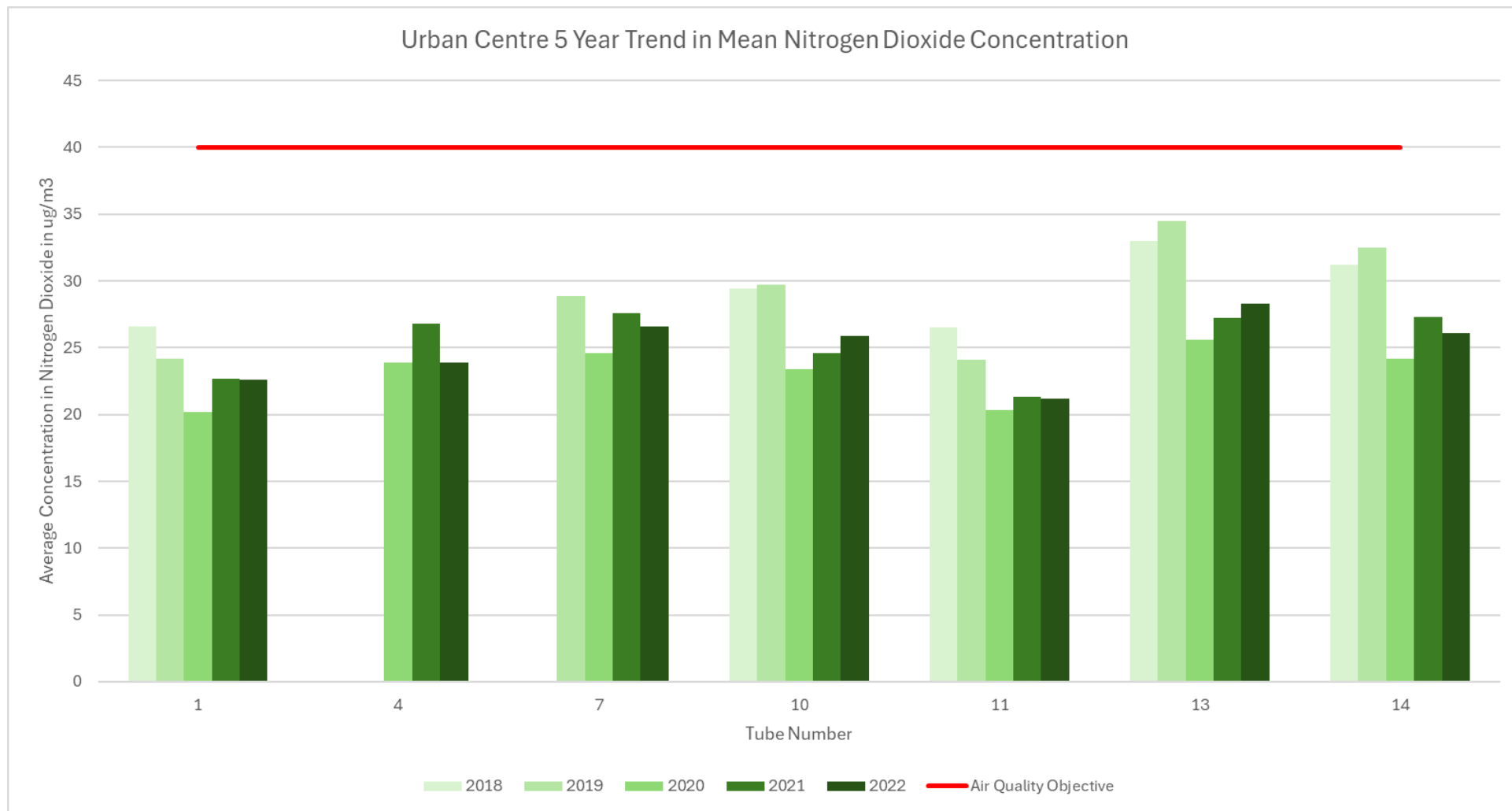


Figure A.3 - Bias adjusted annual average NO2 levels at Suburban monitoring locations

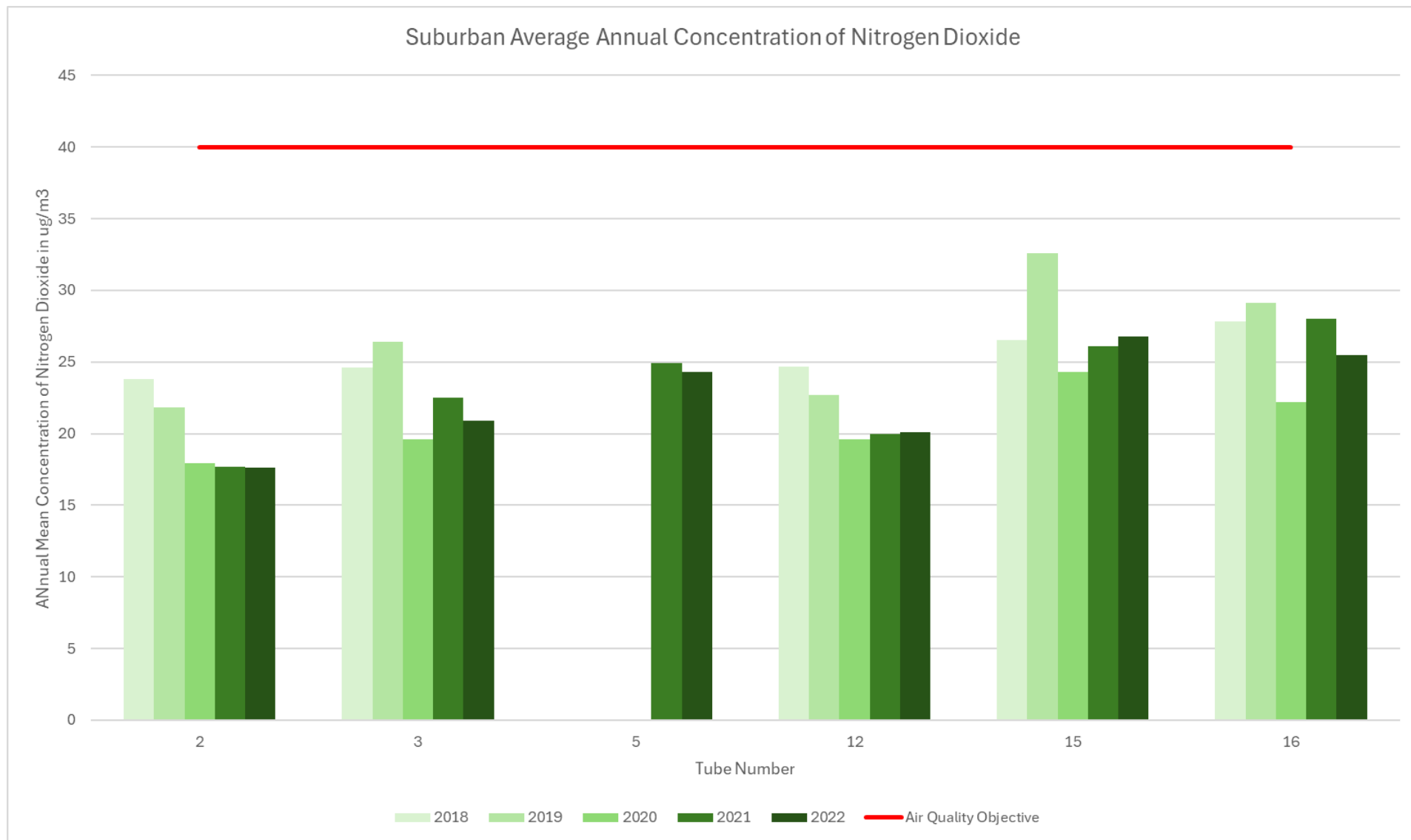


Figure A.4 – Bias adjusted annual average NO2 levels at Rural monitoring locations

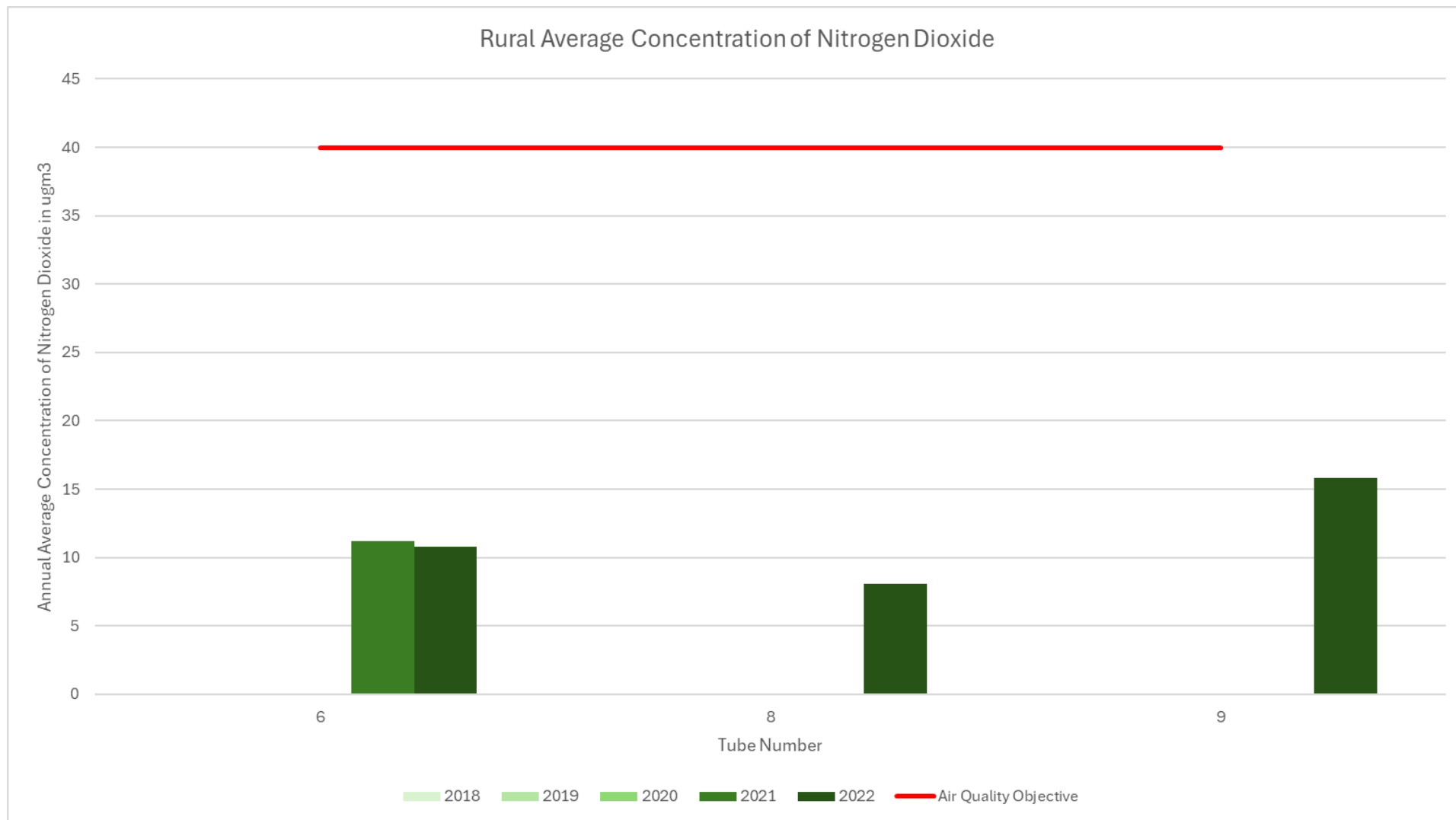


Figure A.5 - TOP 5 monitoring locations with the highest bias adjusted annual average NO2 levels



Appendix B: Full Monthly Diffusion Tube Results for 2022

Table B.1 - NO₂ 2022 Diffusion Tube Results (µg/m³)

ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec	Annual Mean Raw Data	Annual Mean Adjusted	Annual Mean Distance Corrected	Comment
DT1	475029	319164	31.5	27.8	43.5	33.4	24	29.5	24.2	27.5	28.3	25.6	29.3	31.5	29.7	22.6	-	NA
DT2	474301	318366	36.2	25.7	28.5	22.5	18.4	20.3	17.4	19.9	23.3	20.4	22.9	22.6	23.2	17.6	-	NA
DT3	475753	319167	42.4	29.9	27.1	26.5	25.1	27.9	25	22.4	26.9	21.6	24.3	30.6	27.5	20.9	-	NA
DT4	475763	319262	45.1	34.3	18.9	31.5	27.3	35	32.7	28.4	32.1	30.2	32.8	29.2	31.5	23.9	-	NA
DT5	474704	320100	45.4	32	36.7	31.1	27.2	29.9	26.6	28.7	27.1	30	35	33.3	31.9	24.3	-	NA
DT6	474335	317516	29.2	17.8	15.1	10.3	9.2	9.5	10.1	9.6	13.4	12.5	13.9	20.7	14.3	10.8	-	NA
DT7	474991	319403	47.2	35.9	43.8	33.8	26.2	32	28.2	31.7	34	32.5	32.9	41.6	35	26.6	-	NA
DT8	477161	320014	23.4	14.9	12	7.6	7.3	7.1	7.8	5.7	8.1	9.6	10.8	14	10.7	8.1	-	NA
DT9	480220	325098	34.7	23.1	22.8	18.5	16.1	17.7	18	15.9	17.6	17.3	22	26.2	20.8	15.8	-	NA
DT10	475183	319378	53.8	41.5	36.3	29.6	27.4	30.1	32.8	26.4	30	28.7	33.6	38.1	34	25.9	-	NA
DT11	475021	319364	43.8	31.8	27	25.4	22.9	25.3	23.3	21.4	24.3	26.6	25.5	37.5	27.9	21.2	-	NA
DT12	474879	318971	34.2	30.8	37.7	22.4	21.5	23.5	19.4	19.7	19.6	28.3	29.1	31.7	26.5	20.1	-	NA
DT13	475046	319132	50.6	38.2	40.9	36.3	34.6	33.3	29.9	31.8	34.5	34.7	38	43.3	37.2	28.3	-	NA
DT14	475394	319128	49.1	37.8	45.9	28.5	29.3	32.2	27.5	29.3	24.5	32.8	36.1	39	34.3	26.1	-	NA
DT15	474954	319437	43.4	37.6	39.8	30.4	29.7	32.1	33	28.5	33	33.2	39	43.3	35.3	26.8	-	NA
DT16	475342	318960	47.9	36.4	46.3	32.6	23.8	27	23.3	29.7	32.1	29.2	38.4	35.7	33.5	25.5	-	NA

All erroneous data has been removed from the NO₂ diffusion tube dataset presented in Table B.1. Annualisation has been conducted where data capture is <75% and >25% in line with LAQM.TG22. Local bias adjustment factor used.

National bias adjustment factor used.

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

Melton Borough Council confirms that all 2022 diffusion tube data has been uploaded to the Diffusion Tube Data Entry System.

Notes:

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

NO₂ annual means exceeding 60µg/m³, indicating a potential exceedance of the NO₂ 1-hour mean objective are shown in bold and underlined. See Appendix C for details on bias adjustment and annualisation.

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

New or Changed Sources Identified Within the Borough of Melton During 2022

Melton Borough Council has identified the following new sources relating to air quality within the reporting year of 2022:

- The Sustainable Urban Extensions
- The Melton Mowbray Distributor Roads - North & East and South

Support mapping is provided below.

Figure C.1 - Southern Sustainable Urban Extension

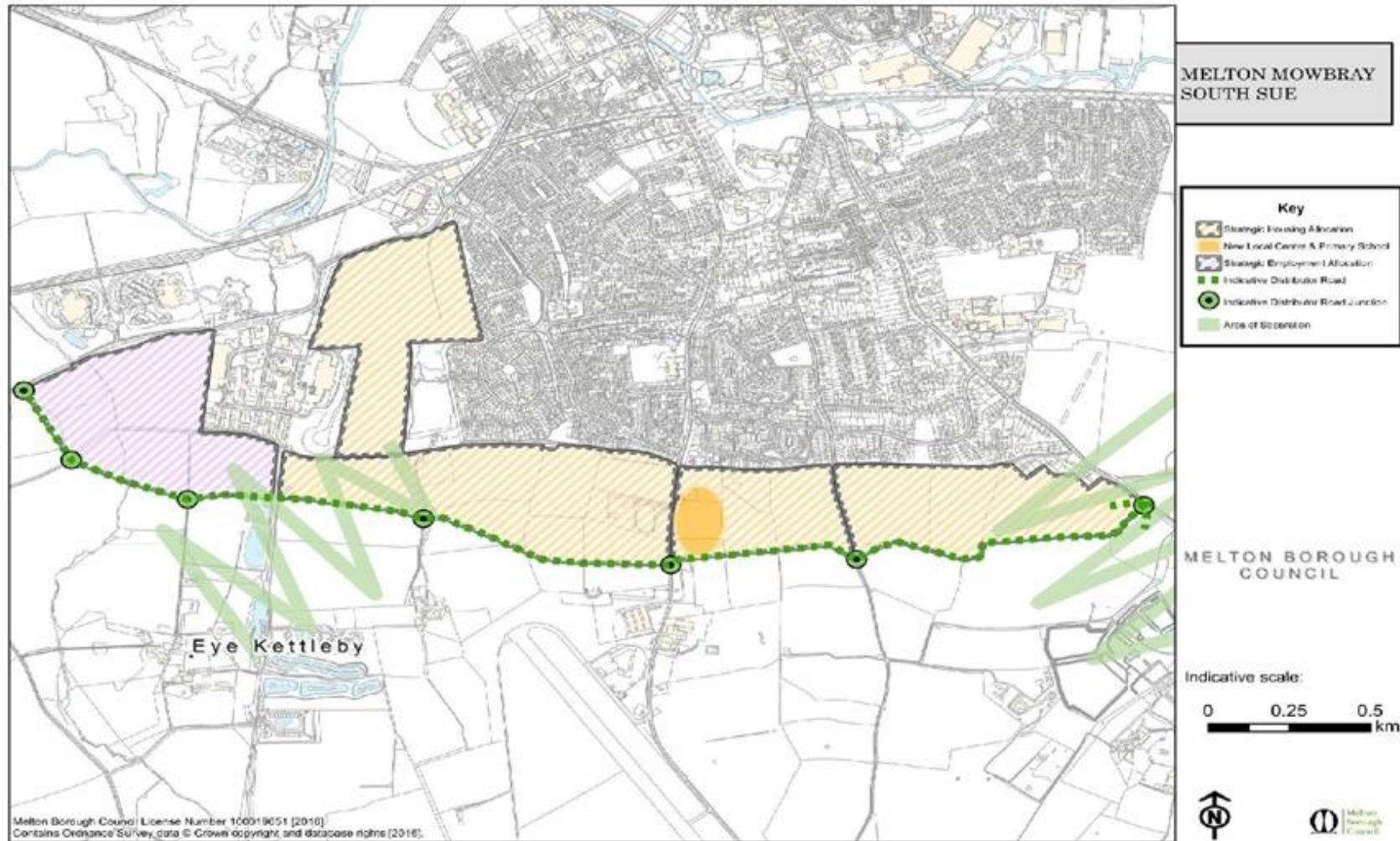


Figure C.2 - Northern Sustainable Urban Extension

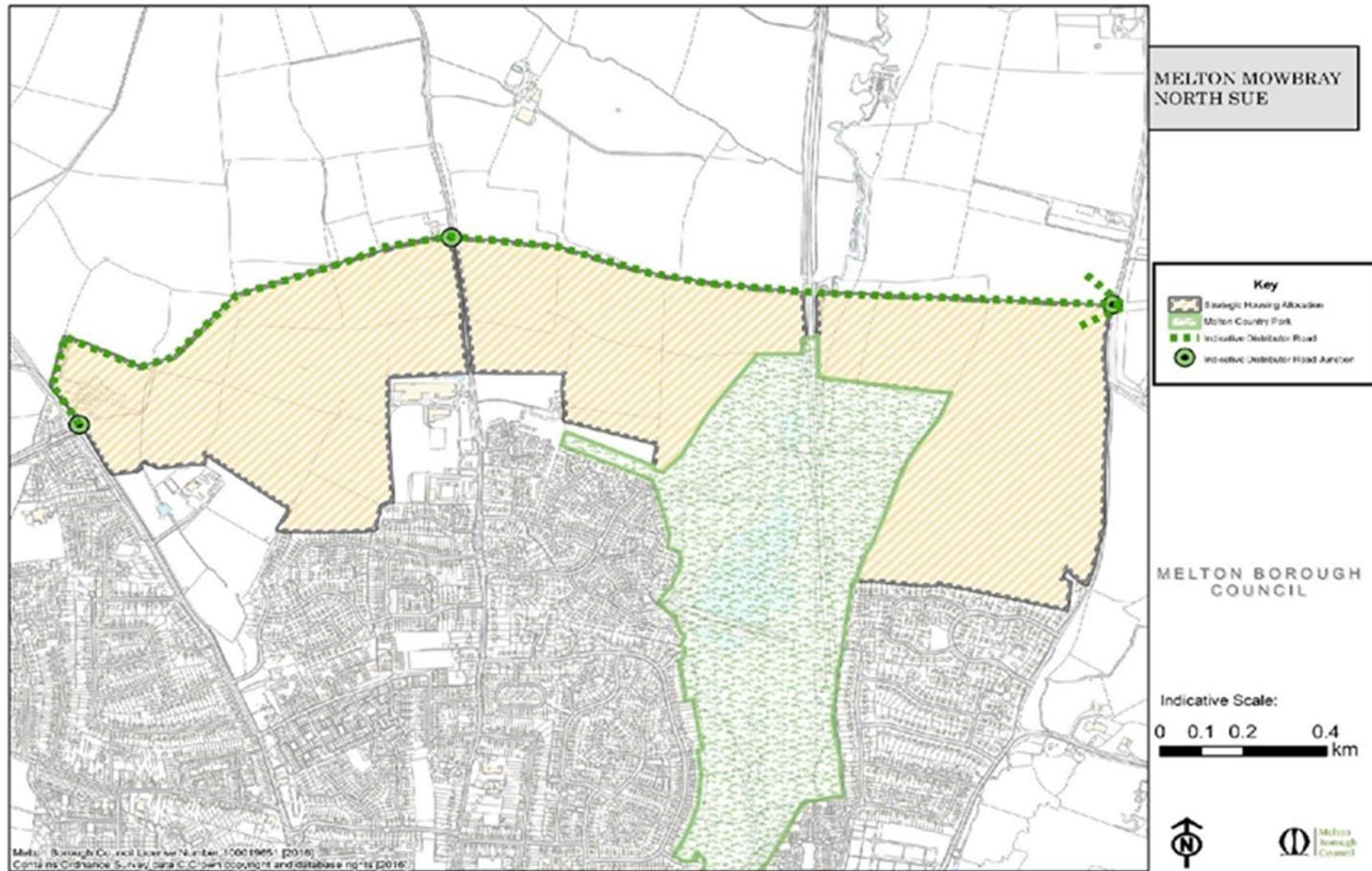
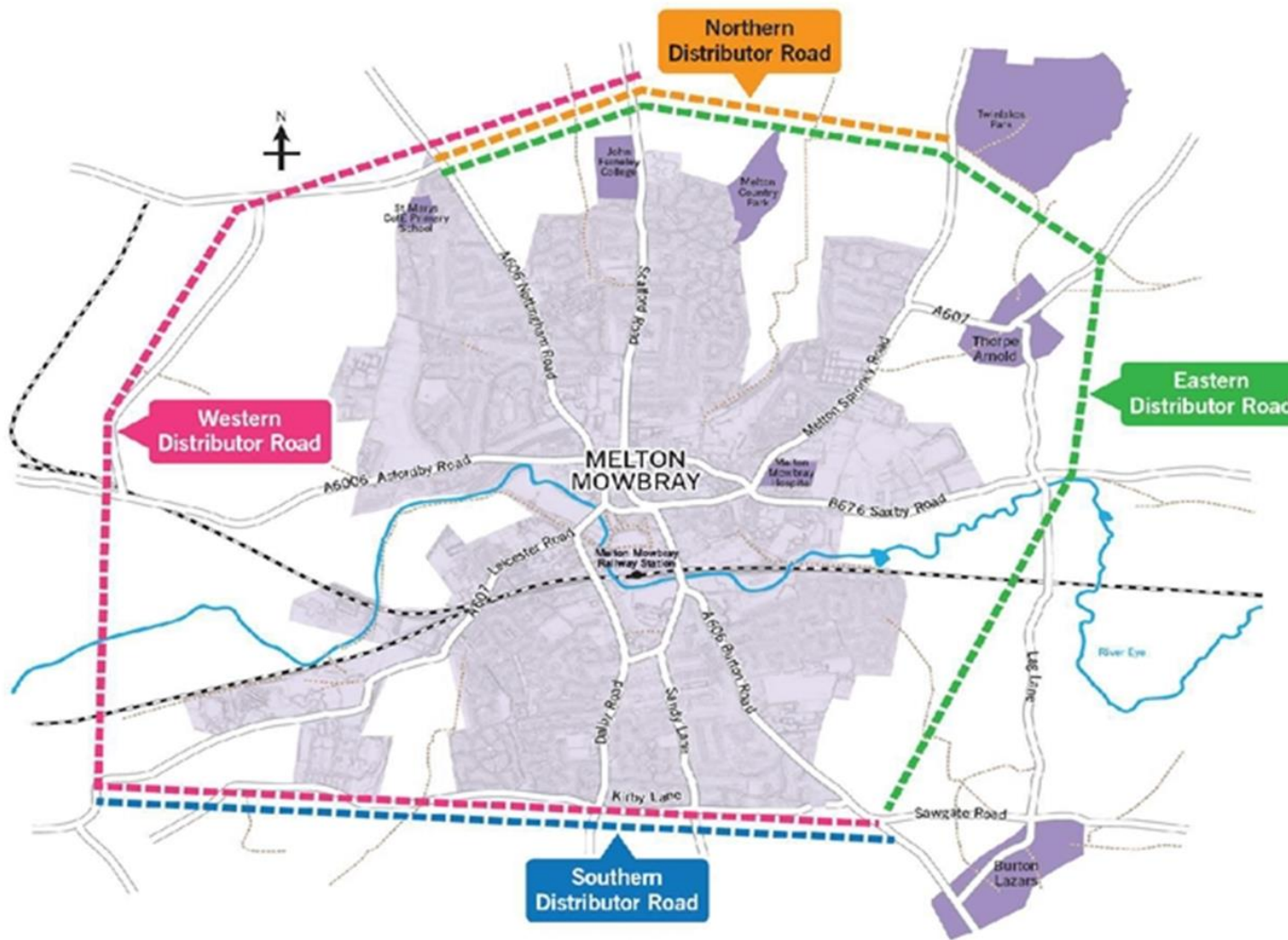


Figure C.3 - Melton Mowbray Distributor Roads



Additional Air Quality Works Undertaken by Melton Borough Council During 2022

Melton Borough Council has not completed any additional works within the reporting year of 2022.

QA/QC of Diffusion Tube Monitoring

- The laboratory supplying and analysing 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 accredited laboratory analysis for diffusion tubes and is certified as 'satisfactory' UKAS.
- Monitoring has been completed in adherence with the 2022 Diffusion Tube Monitoring Calendar

Diffusion Tube Annualisation

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

Diffusion Tube Bias Adjustment Factors

The diffusion tube data presented within the 2023 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/NO₂ 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 has applied a national bias adjustment factor of 0.76 to the 2022 monitoring data. The bias adjustment factor was derived from 26 studies as presented in the national spreadsheet version 06/23 in Figure C.5 below. There has not been a co-location study.

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
2022	National	06/23	0.76
2021	National	06/22	0.78
2020	National	06/21	0.76
2019	National	06/20	0.75
2018	National	06/19	0.76

NO2 Fall-off with Distance from the Road

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

No diffusion tube NO₂ monitoring locations within the Borough of Melton required distance correction during 2022.

Figure C.4 - National diffusion tube bias adjustment factor spreadsheet

Diffusion Tube Bias Adjustment Factors 06/23 Issue of the Spreadsheet							
Laboratory	Method	Year	Previous Number of Studies	New (06/23) Update			
				No. Studies Added	Total No. of Studies	Factor	Change in Factor
Aberdeen Scientific Services	20% TEA in water	2022	7	0	7	0.75	-0.01
Edinburgh Scientific Services	50% TEA in acetone	2022	1	0	1	0.81	0.00
Glasgow Scientific Services	20% TEA in water	2022	6	0	6	1.05	0.00
Gradko	20% TEA in water	2022	27	6	33	0.84	0.01
Gradko	50% TEA in acetone	2022	14	1	15	0.82	0.00
Lambeth Scientific Services	50% TEA in acetone	2022	3	7	10	0.86	-0.09
Milton Keynes Council	20% TEA in water	2022	1	0	1	0.78	0.00
SOCOTEC Didcot	20% TEA in water	2022	5	6	11	0.76	0.00
SOCOTEC Didcot	50% TEA in acetone	2022	26	1	27	0.76	0.00
SOCOTEC Glasgow	20% TEA in water	2022	1	0	1	0.74	0.00
SOCOTEC Glasgow	50% TEA in acetone	2022	1	0	1	0.76	0.00
Somerset County Council	20% TEA in water	2022	6	8	14	0.85	0.03
Staffordshire Scientific Services	20% TEA in water	2022	12	1	13	0.86	-0.01
Tayside Scientific Services	20% TEA in water	2022	1	0	1	0.75	0.00
Number of Studies Included			111	30	141		

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

Figure D.1 - Map of Non-Automatic Monitoring Site - Melton Town Centre

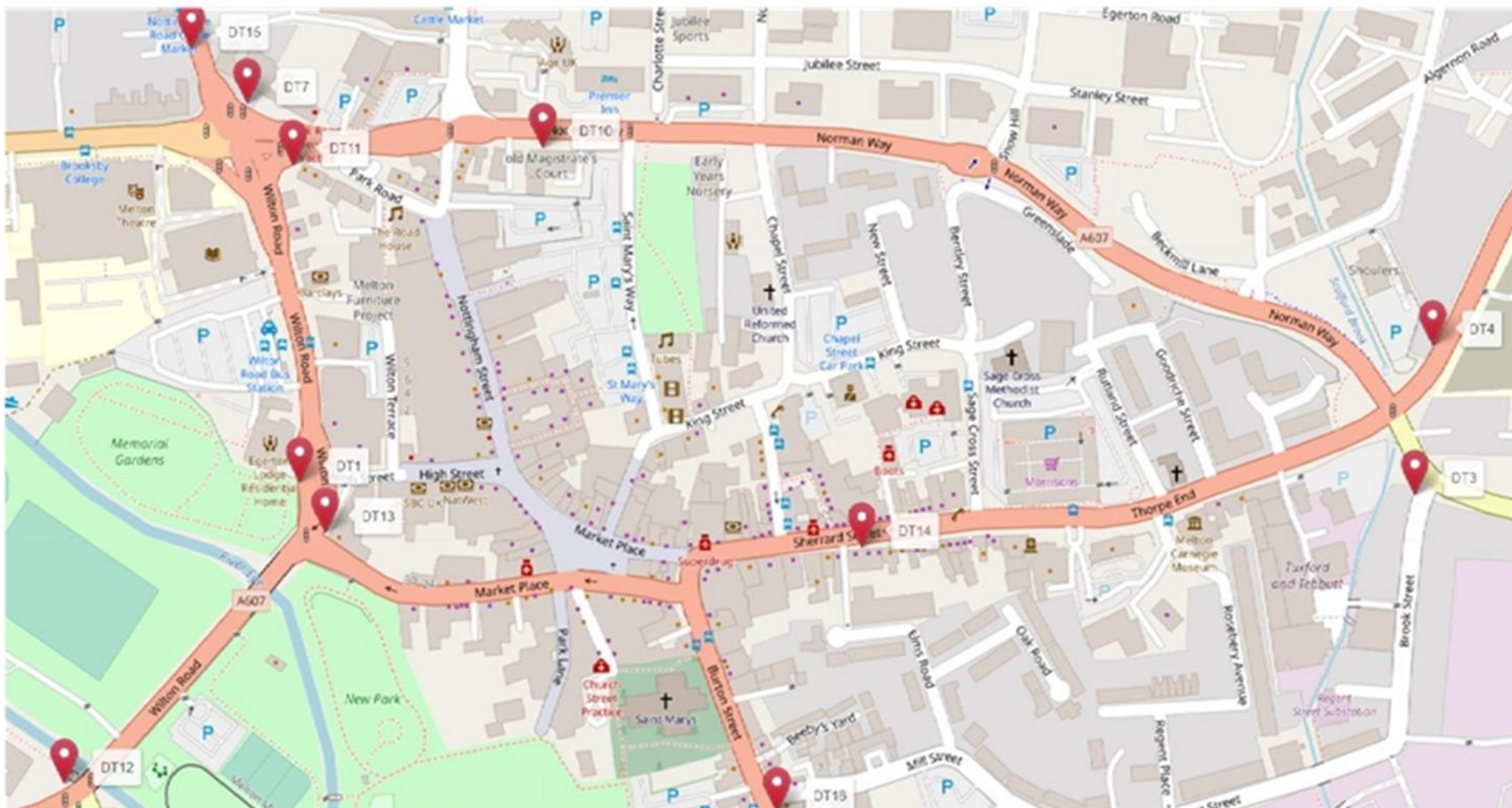


Figure D.2 - Map of Non-Automatic Monitoring Site - Greater Melton

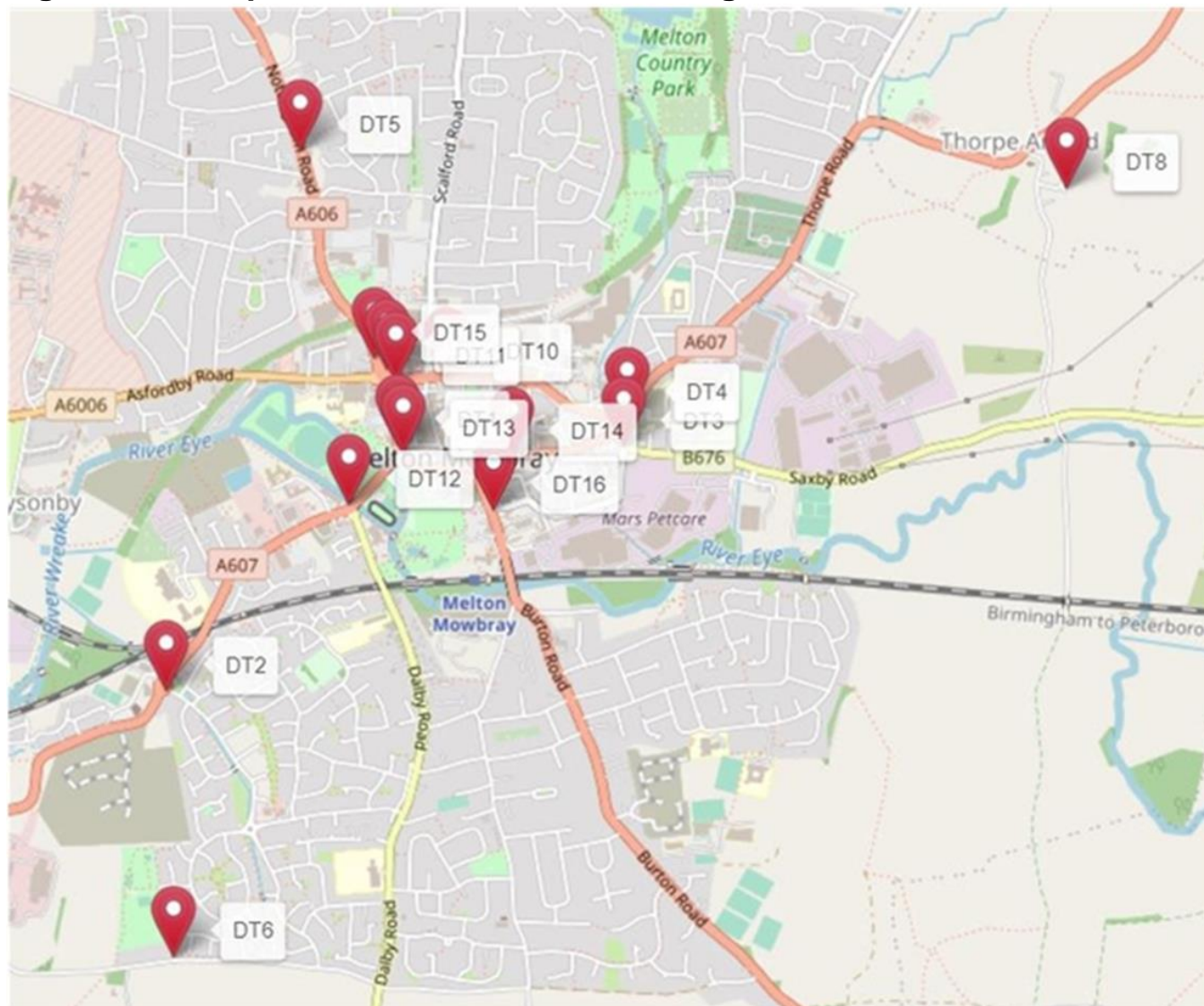
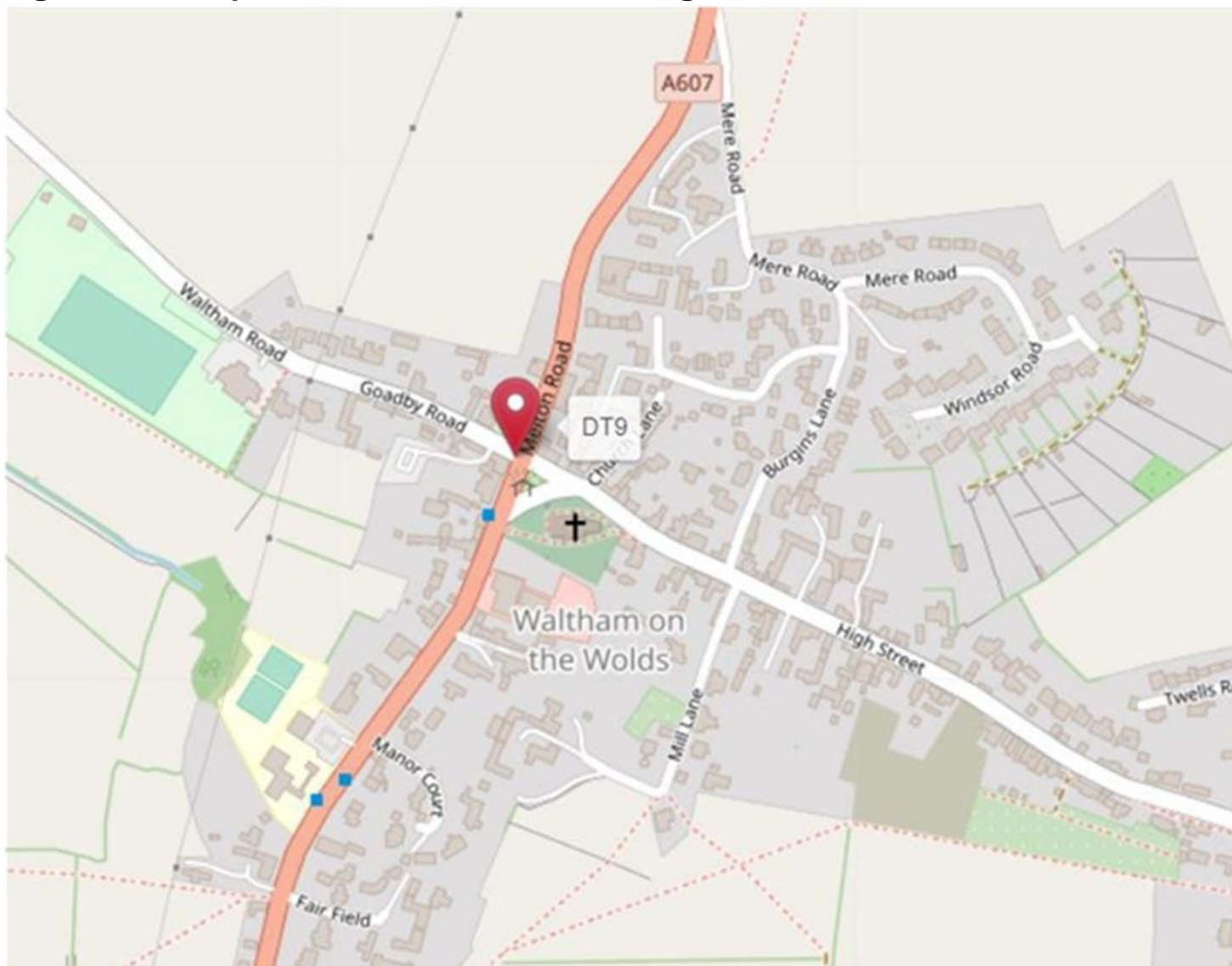


Figure D.3 - Map of Non-Automatic Monitoring Site - Rural Melton



Appendix E: Summary of Air Quality Objectives in England

Table E.1 - Air Quality Objectives in England⁷

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

⁷ The units are in microgrammes of pollutant per cubic metre of air (µg/m³).

Glossary of Terms

Abbreviation	Description
AQAP	Air Quality Action Plan - A detailed description of measures, outcomes, achievement dates and implementation methods, showing how the local authority intends to achieve air quality limit values'
AQMA	Air Quality Management Area - An area where air pollutant concentrations exceed / are likely to exceed the relevant air quality objectives. AQMAs are declared for specific pollutants and objectives
ASR	Annual Status Report
Defra	Department for Environment, Food and Rural Affairs
DMRB	Design Manual for Roads and Bridges - Air quality screening tool produced by National Highways
EU	European Union
FDMS	Filter Dynamics Measurement System
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.
1. Melton Borough Council - Melton (post examination) Local Plan Information / Contact: <https://www.meltonplan.co.uk/>
 2. Melton Borough Council - Updated Melton Local Development Scheme: <https://www.meltonplan.co.uk/lds>
 3. Leicestershire County Council - North and East Melton Mowbray Distributor Road scheme. <https://www.leicestershire.gov.uk/roads-and-travel/road-maintenance/north-and-east-melton-mowbray-distributor-road-scheme/updates>
 4. DEFRA - General air quality information: <https://uk-air.defra.gov.uk/>
 5. DEFRA LAQM - Bias Adjustment Factors: <https://laqm.defra.gov.uk/air-quality/air-quality-assessment/national-bias/>
 6. DEFRA LAQM - NO2 Background Data: <https://uk-air.defra.gov.uk/data/laqm-background-home>
 7. UK Government - Boiler upgrade scheme: <https://www.gov.uk/guidance/check-if-you-may-be-eligible-for-the-boiler-upgrade-scheme-from-april-2022>