

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: May, 2025

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Local Responsibilities and Commitment

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Rother District Council

Executive Summary: Air Quality in Our Area

Air Quality in Rother District

Breathing in polluted air affects our health and costs the NHS and our society billions of pounds each year. Air pollution is recognised as a contributing factor in the onset of heart disease and cancer and can cause a range of health impacts, including effects on lung function, exacerbation of asthma, increases in hospital admissions and mortality.

Air pollution particularly affects the most vulnerable in society, children, the elderly, and those with existing heart and lung conditions. Low-income communities are also disproportionately impacted by poor air quality, exacerbating health and social inequalities.

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

Table ES 1 - Description of Key Pollutants

Pollutant	Description
Nitrogen Dioxide (NO ₂)	Nitrogen dioxide is a gas which is generally emitted from high- temperature combustion processes such as road transport or energy generation.
Sulphur Dioxide (SO ₂)	Sulphur dioxide (SO ₂) is a corrosive gas which is predominantly produced from the combustion of coal or crude oil.
Particulate Matter (PM ₁₀ and PM _{2.5})	Particulate matter is everything in the air that is not a gas. Particles can come from natural sources such as pollen, as well as human made sources such as smoke from fires, emissions from industry and dust from tyres and brakes. PM ₁₀ refers to particles under 10 micrometres. Fine particulate matter or PM _{2.5} are particles under 2.5 micrometres.

Rother District Council (RDC) manages local air quality in close collaboration with East Sussex County Council (ESCC), which provided part of the monitoring until 2014, and with the Sussex Air Quality Partnership (Sussex Air). The partnership provides assistance to members and information to the public via its website with recent air quality data, news updates, educational resources, links and other services such as airAlert.

Nitrogen Dioxide (NO₂) concentrations have previously exceeded the annual mean Air Quality Strategy (AQS) objective in the district (the latest occasion being at A2100 Beauport Park and High Street Flimwell diffusion tube sites in 2016). However, in recent years concentrations at all monitoring locations were below the annual mean NO₂ objective.

 PM_{10} is monitored in Rother at De La Warr Road, Bexhill, and in recent years concentrations have been generally low (well below the annual mean AQS objective of $40 \ \mu g/m^3$), with no significant increasing or decreasing tendency, although there is some year-on-year variability.

PM_{2.5} monitoring commenced at the De Le Warr Road site from 5th December 2023, with the installation of a new Thermo 1405 DF FDMS monitor.

As in other suburban and rural areas of East Sussex, ozone (O₃) is of considerable concern. O₃ was monitored at Rye Harbour until 2021. The O₃ monitor was decommissioned during 2022 as Sussex Air has now switched to using data from the Met Office instead in their calculations of O₃ levels.

A large area of the countryside in the district is within the High Weald Area of Outstanding Natural Beauty. The impact of traffic-related air pollution on some of these areas has been assessed in past years. Current and future traffic flows are not expected to put the Pevensey Levels Special Area of Conservation (SAC) at risk from excessive nitrogen deposition.

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.

RDC is regularly informing the public of pollution events through the airAlert pollution warning service. This service is provided and maintained through the Sussex Air partnership.

RDC contributes to the Air Quality and Emissions Mitigation Guidance for Sussex. The guidance supports the principles of the Sussex Air Quality Partnership to improve air quality across Sussex, encourage emissions reductions and improve the environment and health of the population. Other actions being implemented to improve public health include

promoting active modes of transportation like walking, cycling and using public transport, as well as car clubs and car sharing.

Conclusions and Priorities

Annual mean NO_2 concentrations recorded at continuous monitors and diffusion tubes in RDC are within the annual mean AQS objective of 40 μ g/m³. The results also indicate that the 1-hour NO_2 AQS objective is unlikely to be exceeded at any location in the district.

There were also no exceedances of either the annual mean or daily mean PM₁₀ AQS objectives in 2024, or the annual mean PM_{2.5} AQS objective.

RDC is committed to taking action to improve air quality, in particular through involvement with the Sussex Air Quality Partnership. In 2024 the Council maintained contact with Sussex Air and other Local Authority Officers working in air quality. The Council also continued their work on a new Local Plan that will cover the period 2020-2040. In April 2024, a draft local plan was made available to the public. Additionally, RDC's climate strategy was published, which outlines aims and objectives to decarbonise RDC and in particular transport.

The main challenge in maintaining the generally good levels of air quality across the district is likely to be the careful management of planning applications and developments. Detailed and rigorous air quality assessments and mitigation cost calculations will continue to be needed, especially where multiple developments may occur close together.

How to get Involved

Everyone concerned about air quality in Rother and the rest of Sussex can find real-time information on pollution levels on the Sussex Air website sussex-air.net. People are encouraged to sign up for advance warnings with the airAlert service at airalert.info. Warnings are provided by text or voice message, email, or using an Android or iOS app. Additionally, members of the public should engage with Sustrans, who work with Sussex Air to go into local schools to undertake education programs about the importance of air quality. Sustrans have already worked with Westfield Primary School in Rother to educate and inform children in the district about air quality.

Drivers planning to replace their vehicles are encouraged to consider low and ultra-low emission vehicles, such as electric cars, plug-in hybrids and extended-range electric vehicles. The Energise Network provides members with access to more than 150 electric

vehicle charging points across the South East. These include most local authority charge points in Kent, Surrey and Sussex, plus a number of Southern Rail fast chargers. For more details, please visit https://www.zap-map.com/charge-points/public-charging-point-networks/energise-network/. The reduction in using cars to travel to work, continued home working and increasing walking and cycling post Covid-19 are encouraged.

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1 Local Air Quality Management

This report provides an overview of air quality in Rother District during 2024. It fulfils the requirements of Local Air Quality Management (LAQM) as set out in Part IV of the Environment Act (1995), as amended by the Environment Act (2021), and the relevant Policy and Technical Guidance documents.

The LAQM process places an obligation on all local authorities to regularly review and assess air quality in their areas, and to determine whether or not the air quality objectives are likely to be achieved. Where an exceedance is considered likely the local authority must declare an Air Quality Management Area (AQMA) and prepare an Air Quality Action Plan (AQAP) setting out the measures it intends to put in place in order to achieve and maintain the objectives and the dates by which each measure will be carried out. This Annual Status Report (ASR) is an annual requirement showing the strategies employed by Rother District 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.

RDC currently does not have any declared AQMAs, because previous monitoring and modelling studies have not indicated any likelihood of the AQS objectives being exceeded.

Since RDC has no AQMAs, no formal AQAP has been implemented for the district. Work continues with Sussex Air to develop local policies and planning guidance.

Table 2.1 – Declared Air Quality Management Areas

	AQMA Name	Date of Declaration	Pollutants and Air Quality Objectives	One Line Description	Is air quality in the AQMA influenced by roads controlled by Highways England?	Level of Exceedance: Declaration	Level of Exceedance: Current Year	Number of Years Compliant with Air Quality Objective	Name and Date of AQAP Publication	Web Link to AQAP
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- **☒** Rother District Council confirm the information on UK-Air regarding their AQMA(s) is up to date.
- **☒** Rother District Council confirm that all current AQAPs have been submitted to Defra.

2.2 Progress and Impact of Measures to address Air Quality in Rother

Defra's appraisal of last year's ASR concluded the report is well structured, detailed, and provides the information specified in the Guidance. The following comments are designed to help inform future reports.

- Rother District Council does not have any AQMAs, therefore has not published an Air Quality Action Plan. Despite this, the Council has provided details on measures being undertaken to improve air quality further throughout the district which is welcomed.
- 2. Trends are clearly presented and discussed and a robust comparison with air quality objectives is provided.
- 3. The diffusion tube mapping is comprehensive and clearly demonstrates the monitoring network.
- 4. A local bias adjustment factor was calculated in line with LAQM TG(22), and the National bias adjustment factor was also presented. The choice of factor applied to diffusion tubes has been clearly explained which is welcomed.
- 5. Defra recommends that Directors of Public Health approve draft ASRs. Sign off is not a requirement, however collaboration and consultation with those who have responsibility for Public Health is expected to increase support for measures to improve air quality, with co-benefits for all. Please bear this in mind for the next annual reporting process. It is noted that Public Health colleagues are involved in LAQM for Rother and the production of this report however full sign-off by a Director of Public Health is recommended.
- 6. The Council has not yet published a local Air Quality Strategy, but confirms that it is under development. Progress with development of the Air Quality Strategy should be presented in future ASR.

RDC has taken forward a number of direct measures during the current reporting year of 2024 in pursuit of improving local air quality. Details of all measures completed, in progress or planned are set out in Table 2.2. Nine measures are included within Table 2.2, with the type of measure and the progress RDC have made during the reporting year of 2024 presented. Where there have been, or continue to be, barriers restricting the implementation of the measure, these are also presented within Table 2.2.

RDC's priorities for the coming year are:

- Continue PM_{2.5} monitoring to establish baseline concentrations. On the 5th December 2023, a new Thermo 1405 DF FDMS monitor was installed at the De La Warr site, which monitors PM_{2.5} at this site. This had several issues throughout its first year of installation and required a number of call outs, however this seems to have been fully resolved.
- Installation of EV charging points. RDC have secured DESNZ (Department of Energy Security and Net Zero) funding (On-street residential charging scheme/ORCS) to install 22 double-headed 7kW chargepoints, covering 44 bays over 6 car parks, which are to be installed during 2025.
- Continue to work with neighbouring regions as part of Sussex Air Quality Partnership to implement policies and working practices to improve air quality in the area as whole.
 This grouping has developed planning guidance, funded initiatives such as SusTrans.
- Continue to provide feedback on planning consultations aimed to improve air quality applying air quality cost calculations on major applications, as well as undertaking Environmental Permitting to prevent contamination to land and air.
- Taxi Licensing (Environmental Health) restrictions on vehicles that can be used a
 Rother Licensed taxis so that they must been less than 7 years old (introduced October
 2024). Changes to Rules for Taxi Licences Rother District Council
- Planting of Micro-woods alongside local Environmental Groups. This has been done in Bexhill, Battle, and Rye. The 3 locations were completed throughout the winter of 2024-25. <u>Micro wood planted to commemorate Coronation – Rother District Council</u>
- The provision of EVs/hybrid cars on employee lease scheme is a priority to RDC, however the implementation of this action is being hindered due to procurement issues regarding EV charging points. This is expected to be rolled out in 2025.

The principal challenges and barriers to implementation that RDC anticipates facing are:

- Balancing the government drive to build more housing with RDC's duty to limit the impact of air quality on its residents
- Funding is often timebound and is often only available for new and innovative projects meaning that existing projects struggle to find funding.

Table 2.2 – Progress on Measures to Improve Air Quality

Measure No.	Measure Title	Category	Classification	Year Measure Introduced in AQAP	Estimated / Actual Completion Date	Organisations Involved	Funding Source	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	Installation of EV charge points infrastructure across Rother	Infrastructure	Promoting Low Emission Transport	2024	Ongoing	Rother District Council, East Sussex County Council	Local Authority, County Council	Yes	-	Implementation	-	-	Ongoing, at procurement stage	-
2	Provision of EVs/hybrid cars on employee lease scheme	Fleet Management	Promoting Low Emission Transport	2025	Ongoing	Rother District Council	-	-	-	Implementation	-	-		Procurement issues, lack of charging points across the district
3	Air Quality and Emissions Mitigation Guidance for Sussex	Policy Guidance and Development Control	Policy Guidance and Development Control	2019	Complete	Sussex Air Quality Partnership	-	-	-	Completed	N/A	N/A	Completed - Guidance published	Under review by the partnership.
4	Planting of Microwoods	Corporate and Environment	Other	2024	Ongoing	Local Environmental Groups, Rother District Council	DEFRA Coronation Living Heritage Fund	-	-	Implementation	-	-	3 x micro woods have been planted and being monitored, consideration for more	a) -
5	Air Quality Strategic Plan 2010	Policy Guidance and Development Control	Regional Groups Co-ordinating programmes to develop Area wide Strategies to reduce emissions and improve air quality	2010	Ongoing	Sussex Air Quality Partnership	-	-	-	-	-	-	Plan published and currently implemented	b) Local Authority Funding is getting tight; c) Defra pulled allocated grants regarding recent successful grants applications; d) Defra have not provided a firm commitment to further

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
														grants
														ahead;
														LA staffing resources also tight in order to undertake air quality work
6	Sussex Air website / Air Alert	Public Information	Website	2014	Ongoing	Sussex Air Quality Partnership	-	-	-	Implementation	N/A	921 registered subscribers to AirAlert	The website is online and reporting on monitored pollution levels. The alert service is running and the number of subscribers increasing every year	Under review by the partnership.
7	Council Policy for Homeworking	Promoting Travel Alternatives	Encourage homework/facilitate alternative travel	2014	Ongoing	Rother District Council	-	-	-	Implementation	-	-	Ongoing	-
8	Active Rother	Promoting Travel Alternatives	Encourage alternative travel	2014	Ongoing	Rother District Council	-	-	-	Implementation	-	-	Ongoing	-
9	Rothers Cycling and Walking Strategy	Promoting Travel Alternatives	Encourage alternative travel	2014	Ongoing	Rother District Council	-	-	-	Implementation	-	-	Ongoing	-

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 Strategy¹, local authorities are expected to work towards reducing emissions and/or concentrations of fine particulate matter (PM_{2.5})). There is clear evidence that PM_{2.5} (particulate matter smaller 2.5 micrometres) has a significant impact on human health, including premature mortality, allergic reactions, and cardiovascular diseases.

The Public Health Outcomes Framework (see https://fingertips.phe.org.uk/profile/public-health-outcomes-framework) includes an indicator relating to the impact of particulate pollution on human health. Indicator D01 – Fraction of mortality attributable to particulate air pollution (new method) provides an estimation of the mortality burden associated with long-term exposure to PM_{2.5} as a percentage of the annual deaths from all causes in those aged 30+. The D01 indicator value for Rother is 4.6% in 2023. This is below the national English average (5.2%).

RDC is taking the following measures to address PM_{2.5}:

- Took part in a joint bid from Sussex Authorities to Defra to secure funding for a new PM_{2.5} analyser for Rother/Wealden and walk in cabinet. The bid was successful and a combined PM₁₀/_{2.5} analyser has been purchased. This was installed in December 2023.
- Continued engagement with Transport for the South East, which aims to decarbonise the transport sector;
- Continuing to support the Energise Network of electric vehicle charging points, together with the Sussex Air Quality Partnership;
- Discussions are being held with Public Health and other Local Authorities as part of Sussex Air to re-write planning conditions with a view to improving air quality through the planning process; and
- Publishing information discouraging the burning of garden waste and encouraging sustainable alternatives such as composting and recycling.

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

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

This section sets out the monitoring undertaken within 2024 by RDC and how it compares with the relevant air quality objectives. In addition, monitoring results are presented for a five-year period between 2020 and 2024 to allow monitoring trends to be identified and discussed.

3.1 Summary of Monitoring Undertaken

3.1.1 Automatic Monitoring Sites

RDC undertook automatic (continuous) monitoring at one site during 2024: De La Warr Road, Bexhill (RY2, monitoring nitrogen dioxide (NO₂), particulate matter with an aerodynamic diameter of 10µm or less (PM₁₀), and particulate matter with an aerodynamic diameter of 2.5µm or less (PM_{2.5})). This station is part of the Sussex Air Quality Monitoring Network (SAQMN). Regional monitoring results are available at www.sussex-air.net.

Data capture for 2024 was generally good. At De La Warr Road, Bexhill, data capture of 93.5% for NO₂, 91.0% for PM₁₀ and 84.1% for PM_{2.5} was achieved.

RDC previously had a continuous monitor at Rye Harbour (RY1, monitoring O₃). However, the O₃ monitor was decommissioned during 2022 as Sussex Air has now switched to using data from the Met Office instead in their calculations of O₃ levels.

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

3.1.2 Non-Automatic Monitoring Sites

RDC undertook non- automatic (i.e. passive) monitoring of NO₂ at 22 diffusion tubes across 20 sites during 2024. There is one triplicate site co-located with the automatic monitor at De La Warr Road. Table A.2 in Appendix A presents the details of the non-automatic sites.

There have been no changes in monitoring strategy in 2024. However, it should be noted that a review was undertaken with three diffusion tube sites removed in 2025 due to consecutive years of compliance.

Maps showing the location of the monitoring sites are provided in Appendix D. Further details on Quality Assurance/Quality Control (QA/QC) for the diffusion tubes, including bias adjustments and any other adjustments applied (e.g. annualisation and/or distance correction), are included in Appendix C.

3.2 Individual Pollutants

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

3.2.1 Nitrogen Dioxide (NO₂)

Table A.3 and Table A.4 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 2024 dataset of monthly mean values is provided in Appendix B: Full Monthly Diffusion Tube Results for 2024. Note that the concentration data presented in Table B.1 do not include distance corrected values, as all bias-adjusted concentrations were below 36 μ g/m³ in 2023. Defra's Diffusion Tube Data Processing Tool v5.4 (April 2025) has been used to process all diffusion tube results.

The results indicate that the annual mean NO_2 concentrations at the De La Warr Road, Bexhill automatic monitoring site were 11.1 μ g/m³ in 2024, and concentrations here have been well within the AQS objective (40 μ g/m³) in all years between 2010 and 2024. Figure A.1 shows that the trend in annual mean NO_2 concentrations at De La Warr Road show an overall decrease across 2010 to 2024, with a notable decrease in concentrations between 2019 and 2020.

All diffusion tube sites achieved the AQS objective in 2024, with the highest concentration of 24.1 μ g/m³ monitored at DT3 (A2100 Beauport Park). Data capture for all tubes in 2024 was equal or greater than 75%, thus annualisation was not required. Figure A.2 shows NO₂ concentrations at most diffusion tube locations remained fairly constant between 2023 and 2024. DT34 showed a large increase in concentrations in 2024, increasing from 11.8 μ g/m³ in 2023 to 23.1 μ g/m³ in 2024. This has occurred due to the monitoring location being moved from Mount Street onto the High Street and is now situated at a location that sees more traffic congestion. Concentrations at this site remain low and below the AQS objective, nevertheless trends will be closely monitored here.

Table A.5 in Appendix A compares the ratified continuous monitored NO₂ hourly mean concentrations for the past five years with the air quality objective of 200μg/m³, not to be exceeded more than 18 times per year.

The De La Warr Road, Bexhill automatic monitoring site did not exceed the 200 µg/m³ AQS objective in any year in the 2020 to 2024 period.

Diffusion tubes cannot provide hourly measurements of NO₂; however, the Defra Technical Guidance states that where annual mean NO₂ concentrations measured by diffusion tubes exceed 60 μ g/m³ there is a likelihood that the 1-hour AQS objective may be exceeded. All of the annual mean NO₂ concentrations at diffusion tube monitoring locations between 2020 and 2024 inclusive, were well below 60 μ g/m³ and thus the 1-hour AQS objective is very unlikely to have been exceeded at any location in the district.

3.2.2 Particulate Matter (PM₁₀)

PM₁₀ concentrations are monitored in the district at the monitoring site De La Warr Road, Bexhill. Table A.6 in Appendix A: Monitoring Results compares the ratified and adjusted monitored PM₁₀ annual mean concentrations for the past five years with the AQS objective of 40 µg/m³. The results indicate that annual mean PM₁₀ concentrations were well below the AQS objective between 2020 and 2024. Figure A.3 shows some evidence of considerable year to year variability.

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

3.2.3 Particulate Matter (PM_{2.5})

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

A new PM_{2.5} analyser was installed, monitoring data available from mid-December 2023. As a result, no long-term trends in monitored PM_{2.5} concentrations can be identified. The results indicate that annual mean PM_{2.5} concentrations are well below the AQS objective of 20 μ g/m³.

In previous years, PM_{2.5} concentrations were estimated from PM₁₀ concentrations measured at the De La Warr Road site as per the methodology outlined in LAQM.TG(22). This method has not been applied to 2023 and 2024 data, due to the installation of a PM_{2.5} analyser in 2023. However, the estimated annual mean PM_{2.5} concentrations during the 2019 and 2022 period were in the range of 14 μ g/m³ to 19 μ g/m³, indicating compliance with the AQS objective.

Appendix A: Monitoring Results

Table A.1 – Details of Automatic Monitoring Sites

Site ID	Site Name	Site Type	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Pollutants Monitored	In AQMA?	Which AQMA?	Monitoring Technique	Distance to Relevant Exposure (m) ⁽²⁾	Distance to kerb of nearest road (m)	Inlet Height (m)
RY2	De La Warr Road	Kerbside	575595	108054	NO ₂ , PM ₁₀ , PM _{2.5}	N	NA	Chemiluminiscence, TEOM	N (2m)	1m	2.0

Notes:

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

Table A.2 - Details of Non-Automatic Monitoring Sites

Diffusion Tube ID	Site Name	Site Type	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Pollutants Monitored	In AQMA? Which AQMA?	Distance to Relevant Exposure (m) ⁽¹⁾	Distance to kerb of nearest road (m)	Tube Co- located with a Continuous Analyser?	Tube Height (m)
DT3	Beauport Park	Kerbside	578727	113439	NO ₂	NO	12.0	1.0	No	1.8
DT5	B2089 West of Rye	Kerbside	591196	120213	NO ₂	NO	50.0	1.0	No	2.2
DT8	A259 New Winchelsea Rd Rye	Kerbside	591652	119148	NO ₂	NO	10.0	1.0	No	1.8

DT10	Catsfield Church	Kerbside	572742	113521	NO ₂	NO	15.0	1.0	No	2.1
DT12	London Rd Flimwell	Kerbside	571431	131224	NO ₂	NO	5.0	1.0	No	2.0
DT13	Wellington Gardens Battle	Urban Background	574357	116222	NO ₂	NO	30.0	N/A	No	2.1
DT14	A2100 Virgins Lane Battle	Kerbside	574509	116846	NO ₂	NO	10.0	1.0	No	2.2
DT17	North Salts Rye	Urban Background	592339	120975	NO ₂	NO	15.0	1.0	No	2.1
DT19	Cinque Port St Rye	Urban Background	592121	120543	NO ₂	NO	8.0	N/A	No	2.1
DT21	South Under Cliff Rye	Kerbside	592011	120148	NO ₂	NO	2.0	1.0	No	2.3
DT22	Sackville Road Bex	Kerbside	573985	107409	NO ₂	NO	2.0	1.0	No	2.1
DT25	King Offa Way Bex	Kerbside	573871	108033	NO ₂	NO	20.0	1.0	No	2.1
DT27, DT28, DT29	Bexhill Tri Site	Kerbside	575595	108060	NO ₂	NO	15.0	1.0	Yes	2.0
DT30	Bowling Green Rye	Kerbside	592248	120525	NO ₂	NO	0.0	1.0	No	2.0
DT31	128 Barnhorn Rd Bex	Kerbside	570366	107817	NO ₂	NO	10.0	1.0	No	2.0
DT32	Claverham North Trade Rd, Battle	Kerbside	573508	115907	NO ₂	NO	25.0	1.0	No	2.4
DT33	145 Ninfield Road, Sidley	Kerbside	573601	109437	NO ₂	NO	7.0	0.5	No	1.9
DT34	Mount Street, Battle	Kerbside	574736	116123	NO ₂	NO	11.0	0.5	No	2.3

DT35	Station Road, Hurst Green	Roadside	573349	127206	NO ₂	NO	16.0	1.5	No	2.4
DT36	Doleham Lane	Rural	582843	116582	NO ₂	NO	404.0	0.3	No	2.0

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

Table A.3 – Annual Mean NO₂ Monitoring Results: Automatic Monitoring (μg/m³)

Site ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Site Type	Valid Data Capture for Monitoring Period (%)	Valid Data Capture 2024 (%)	2020	2021	2022	2023	2024
RY2	575595	108054	Kerbside	93.5	93.5	14.9	14.0	14.7	12.8	11.1

- ☐ Annualisation has been conducted where data capture is <75% and >25% in line with LAQM.TG22
- ⊠ Reported concentrations are those at the location of the monitoring site (annualised, as required), i.e. prior to any fall-off with distance correction
- ☑ Where exceedances of the NO₂ annual mean objective occur at locations not representative of relevant exposure, the fall-off with distance concentration has been calculated and reported concentration provided in brackets for 2024

The annual mean concentrations are presented as µg/m³.

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

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

Concentrations are those at the location of monitoring and not those following any fall-off with distance adjustment.

- (1) Data capture for the monitoring period, in cases where monitoring was only carried out for part of the year.
- (2) Data capture for the full calendar year (e.g. if monitoring was carried out for 6 months, the maximum data capture for the full calendar year is 50%).

Table A.4 – Annual Mean 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 2024 (%) ⁽²⁾	2020	2021	2022	2023	2024
DT3	578727	113439	Kerbside	100.0	100.0	27.3	25.1	26.4	23.6	24.1
DT5	591196	120213	Kerbside	93.0	93.0	20.7	18.6	18.8	17.4	16.7
DT8	591652	119148	Kerbside	90.3	90.3	16.4	15.5	16.7	13.6	14.2
DT10	572742	113521	Kerbside	100.0	100.0	9.0	9.1	9.1	8.1	8.5
DT12	571431	131224	Kerbside	100.0	100.0	23.0	24.4	23.2	19.8	14.2
DT13	574357	116222	Urban Background	100.0	100.0	8.9	8.9	8.4	7.6	7.3
DT14	574509	116846	Kerbside	91.6	91.6	20.0	21.7	18.9	13.2	13.1
DT17	592339	120975	Urban Background	100.0	100.0	11.0	10.3	10.3	8.7	9.0
DT19	592121	120543	Urban Background	84.6	84.6	17.5	16.5	16.5	14.2	14.6
DT21	592011	120148	Kerbside	90.6	90.6	26.0	26.0	25.8	22.3	22.0
DT22	573985	107409	Kerbside	100.0	100.0	21.2	22.7	21.2	19.4	17.9
DT25	573871	108033	Kerbside	100.0	100.0	22.7	23.5	23.3	21.7	20.0
DT27, DT28, DT29	575595	108060	Kerbside	100.0	100.0	15.3	16.1	16.5	14.7	13.5
DT30	592248	120525	Kerbside	75.0	75.0	16.9	17.3	17.0	15.4	14.9
DT31	570366	107817	Kerbside	100.0	100.0	17.6	18.5	19.1	17.0	16.6
DT32	573508	115907	Kerbside	100.0	100.0	-	-	17.1	15.3	13.9
DT33	573601	109437	Kerbside	100.0	100.0	-	_	18.1	16.3	16.0
DT34	574736	116123	Kerbside	100.0	100.0	-	-	13.3	11.8	23.1
DT35	573349	127206	Roadside	100.0	100.0	-	-	17.9	15.4	14.6
DT36	582843	116582	Rural	100.0	100.0	-	-	9.0	6.3	6.1

 $[\]square$ 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

The annual mean concentrations are presented as µg/m³.

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

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

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

Concentrations are those at the location of monitoring and not those following any fall-off with distance adjustment.

- (1) Data capture for the monitoring period, in cases where monitoring was only carried out for part of the year.
- (2) Data capture for the full calendar year (e.g. if monitoring was carried out for 6 months, the maximum data capture for the full calendar year is 50%).

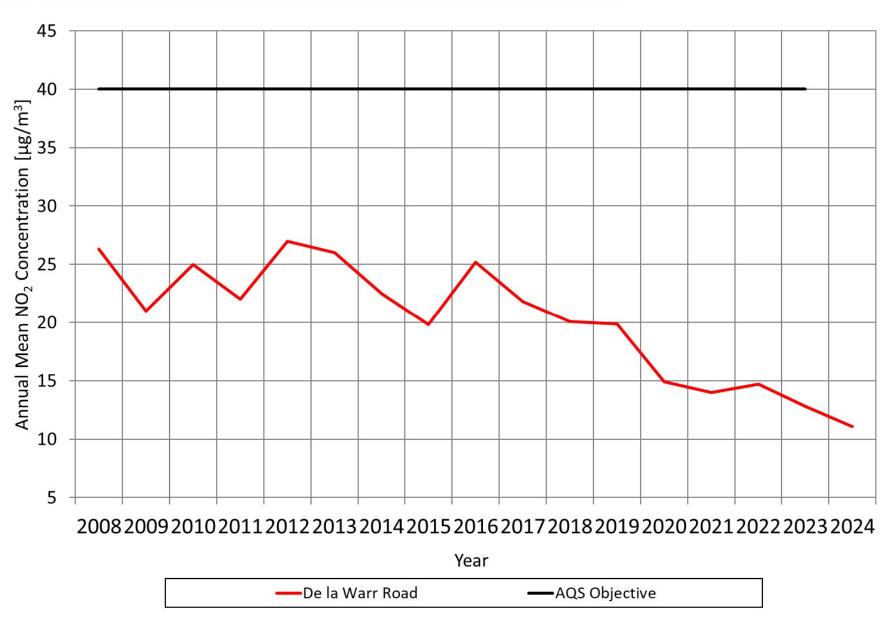


Figure A.1 – Trends in Annual Mean NO₂ Concentrations at Continuous Monitoring Site

Figure A.2 – Trends in Annual Mean NO₂ Concentrations at Diffusion Tube Sites



Table A.5 – 1-Hour Mean NO₂ Monitoring Results, Number of 1-Hour Means > 200µg/m³

Site ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Site Type	Valid Data Capture for Monitoring Period (%)	Valid Data Capture 2024 (%) ⁽²⁾	2020	2021	2022	2023	2024
RY2	575595	108054	Kerbside	93.5	93.5	0	0	0	0	0

Results are presented as the number of 1-hour periods where concentrations greater than 200µg/m³ have been recorded.

Exceedances of the NO₂ 1-hour mean objective (200µg/m³ not to be exceeded more than 18 times/year) are shown in **bold**.

If the period of valid data is less than 85%, the 99.8th percentile of 1-hour means is provided in brackets.

- (1) Data capture for the monitoring period, in cases where monitoring was only carried out for part of the year.
- (2) Data capture for the full calendar year (e.g. if monitoring was carried out for 6 months, the maximum data capture for the full calendar year is 50%).

Table A.6 – Annual Mean PM₁₀ Monitoring Results (μg/m³)

Site ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Site Type	Valid Data Capture for Monitoring Period (%)	Valid Data Capture 2024 (%) ⁽²⁾	2020	2021	2022	2023	2024
RY2	575595	108054	Kerbside	91.9	91.0	20.1	27.1	22.3	20.2	16.1

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

Notes:

The annual mean concentrations are presented as µg/m³.

Exceedances of the PM₁₀ annual mean objective of 40µg/m³ are shown in **bold**.

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

- (1) Data capture for the monitoring period, in cases where monitoring was only carried out for part of the year.
- (2) Data capture for the full calendar year (e.g. if monitoring was carried out for 6 months, the maximum data capture for the full calendar year is 50%).

Figure A.3 – Trends in Annual Mean PM₁₀ Concentrations

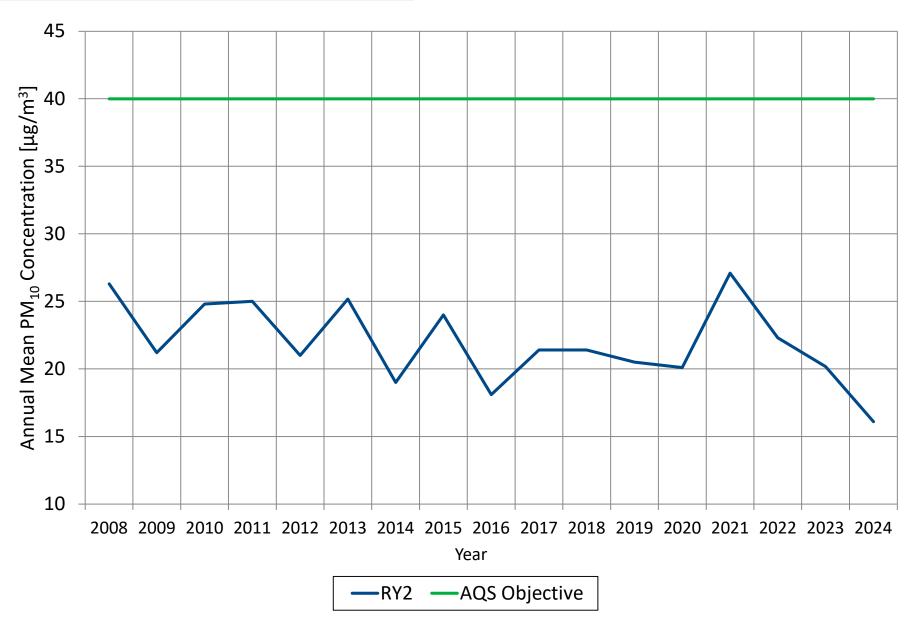


Table A.7 – 24-Hour Mean PM₁₀ Monitoring Results, Number of PM₁₀ 24-Hour Means > 50μg/m³

Site ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Site Type	Valid Data Capture for Monitoring Period (%)	Valid Data Capture 2024 (%) ⁽²⁾	2020	2021	2022	2023	2024
RY2	575595	108054	Kerbside	91.9	91.0	2	6	0	0	0

Results are presented as the number of 24-hour periods where daily mean concentrations greater than 50µg/m³ have been recorded.

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

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

- (1) Data capture for the monitoring period, in cases where monitoring was only carried out for part of the year.
- (2) Data capture for the full calendar year (e.g. if monitoring was carried out for 6 months, the maximum data capture for the full calendar year is 50%).

Table A.8 – Annual Mean PM_{2.5} Monitoring Results (μg/m³)

Site ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Site Type	Valid Data Capture for Monitoring Period (%)	Valid Data Capture 2024 (%) ⁽²⁾	2020	2021	2022	2023	2024
RY2	575595	108054	Kerbside	84.1	84.1	ı	ı	-	ı	9.0

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

Notes:

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

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

- (1) Data capture for the monitoring period, in cases where monitoring was only carried out for part of the year.
- (2) Data capture for the full calendar year (e.g. if monitoring was carried out for 6 months, the maximum data capture for the full calendar year is 50%).

Appendix B: Full Monthly Diffusion Tube Results for 2024

Table B.1 - NO₂ 2024 Diffusion Tube Results (µg/m³)

DT ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual Mean: Raw Data	Annual Mean: Annualis ed and Bias Adjusted 0.84	Annual Mean: Distance Corrected to Nearest Exposure
DT3	578727	113439	28.9	29.8	31.1	26.7	28.3	29.7	30.7	29.7	27.5	27.7	28.8	26.0	28.7	24.1	
DT5	591196	120213	21.3	19.3	24.5		22.7	18.1	22.0	23.1	14.9	19.8	18.2	14.4	19.8	16.7	
DT8	591652	119148	19.0	14.9	16.8	18.8		15.3	16.1	16.9	16.6	18.5	17.3	15.3	16.9	14.2	
DT10	572742	113521	12.1	9.0	10.7	7.9	9.0	17.9	8.6	8.1	8.3	9.3	11.3	8.7	10.1	8.5	
DT12	571431	131224	26.1	18.8	21.7	19.4	14.9	14.0	14.0	13.1	14.1	16.5	15.9	14.0	16.9	14.2	
DT13	574357	116222	12.5	9.4	10.3	6.8	8.4	5.9	7.1	6.8	7.2	8.9	11.1	9.6	8.7	7.3	
DT14	574509	116846	18.6	15.4		11.7	15.0	14.0	14.6	9.9	17.3	18.3	21.5	15.3	15.6	13.1	
DT17	592339	120975	14.7	12.4	12.4	8.9	11.3	7.3	9.1	9.6	8.9	11.1	13.1	10.2	10.7	9.0	
DT19	592121	120543	20.9	17.6			15.8	14.2	16.4	17.8	16.7	16.9	19.9	17.6	17.4	14.6	
DT21	592011	120148	28.3	26.4	30.2	24.7	27.7	24.2	25.6		22.8	27.1	27.5	23.0	26.1	22.0	
DT22	573985	107409	26.0	21.4	23.5	20.7	21.0	17.5	19.9	21.6	20.8	18.0	24.1	21.3	21.3	17.9	
DT25	573871	108033	26.9	26.1	25.0	23.9	23.5	21.6	22.4	21.5	20.7	23.1	28.2	22.6	23.8	20.0	
DT27	575595	108060	21.3	15.6	6.1	15.6	15.8	12.5	14.0	14.3	17.5	17.3	21.3	17.7	-	-	Triplicat e Site with DT27, DT28 and DT29 - Annual data provided for DT29 only
DT28	575595	108060	21.9	16.2	16.7	15.3	16.3	12.4	13.8	13.9	15.9	17.2	17.3	14.3	-	-	Triplicat e Site with DT27, DT28 and DT29 - Annual data provided

DT ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Jan	Feb	Mar	Apr	Мау	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual Mean: Raw Data	Annual Mean: Annualis ed and Bias Adjusted 0.84	Annual Mean: Distance Corrected to Nearest Exposure Annual Comment
																	for DT29 only
DT29	575595	108060	21.6	16.4	17.4	15.5	16.9	11.5	13.3	14.4	14.7	16.0	21.0	19.2	16.1	13.5	Triplicat e Site with DT27, DT28 and DT29 - Annual data provided for DT29 only
DT30	592248	120525	23.2	19.2		15.4			14.7	15.3	15.8	16.7	21.2	18.1	17.7	14.9	
DT31	570366	107817	23.4	21.8	23.6	19.7	20.4	16.2	17.7	17.1	17.2	22.5	19.2	18.8	19.8	16.6	
DT32	573508	115907	22.1	17.8	18.9	15.6	15.9	13.5	14.1	12.9	15.1	17.5	18.1	17.0	16.6	13.9	
DT33	573601	109437	22.2	19.2	22.7	18.2	21.9	16.1	17.7	16.9	16.7	20.7	18.6	17.3	19.0	16.0	
DT34	574736	116123	31.6	23.2	27.1	25.7	25.6	23.9	22.6	23.0	32.5	34.3	32.5	28.2	27.5	23.1	
DT35	573349	127206	21.8	17.2	20.0	16.3	14.5	14.5	16.1	16.7	15.7	19.4	20.4	16.7	17.4	14.6	
DT36	582843	116582	10.3	6.7	9.2	7.0	7.7	5.1	6.3	6.4	6.1	7.3	8.5	6.5	7.3	6.1	

- ☑ 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
- $oxed{oxed}$ National bias adjustment factor used
- **⋈** Where applicable, data has been distance corrected for relevant exposure in the final column
- **⊠** RDC confirm that all 2024 diffusion tube data has been uploaded to the Diffusion Tube Data Entry System

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 RDC During 2024

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

Additional Air Quality Works Undertaken by RDC During 2024

RDC has not completed any additional works within the reporting year of 2024.

QA/QC of Diffusion Tube Monitoring

Gradko International is the laboratory used in 2024 for the supply and analysis of diffusion tubes, with a 20% triethanolamine (TEA) in water preparation.

AIR is an independent analytical proficiency-testing (PT) scheme, operated by LGC Standards and supported by the Health and Safety Laboratory (HSL). AIR PT is a new scheme, started in April 2014, which combines two long running PT schemes: LGC Standards STACKS PT scheme and HSL Workplace Analysis Scheme for Proficiency (WASP) PT scheme.

Defra and the Devolved Administrations advise that diffusion tubes used for Local Air Quality Management should be obtained from laboratories that have demonstrated satisfactory performance in the AIR PT scheme.

The percentage of results submitted by Gradko International Ltd that were subsequently determined to be satisfactory was 100% for AIR-PT Rounds 62 to Round 66 (covering periods from January 2024 to October 2024).

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

Diffusion Tube Annualisation

All diffusion tube monitoring locations recorded data capture of equal to or greater than 75% therefore it was not required to annualise any monitoring data.

Diffusion Tube Bias Adjustment Factors

The diffusion tube data presented within the 2024 ASR have been corrected for bias using an adjustment factor. Bias represents the overall tendency of the diffusion tubes to under or over-read relative to the reference chemiluminescence analyser. LAQM.TG22 provides guidance with regard to the application of a bias adjustment factor to correct diffusion tube monitoring. Triplicate co-location studies can be used to determine a local bias factor based on the comparison of diffusion tube results with data taken from NO_x/NO₂ continuous analysers. Alternatively, the national database of diffusion tube co-location surveys provides bias factors for the relevant laboratory and preparation method.

RDC have applied a national bias adjustment factor of 0.84 to the 2024 monitoring data. A summary of bias adjustment factors used by RDC over the past five years is presented in Table C.1.

RDC has a co-location of triplicate diffusion tubes alongside the automatic continuous analyser at De La Warr Road, Bexhill. The local bias adjustment factor using these locations was calculated to be 0.69 as detailed in Table C.2.

In 2024, it was possible to derive a local bias adjustment factor as well as the national bias adjustment factor obtained from the national database (0.84, 27 studies, version 04/25). The choice of bias adjustment factor is dependent on multiple factors as outlined by LAQM.TG22. However, on this occasion the national factor was chosen due to being more conservative; the national factor is higher than the local derived factor for Rother. When applied to the monitoring data, the national factor would give results which are slightly higher, thus showing worst-case results. The co-location sites are kerbside, meaning they are susceptible to very local impacts on air quality such as changes in traffic on the specific road they are located on according to LAQM.TG22. This means that they may not be representative of the district as a whole.

Table C.1 - Bias Adjustment Factor

Monitoring Year	Local or National	If National, Version of National Spreadsheet	Adjustment Factor
2024	National	04/25	0.84
2023	National	03/24	0.81
2022	National	03/23	0.83
2021	National	03/22	0.84

2020 Local	03/21	0.88
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Table C.2 – Local Bias Adjustment Calculation

	Local Bias Adjustment Input 1	Local Bias Adjustment Input 2	Local Bias Adjustment Input 3	Local Bias Adjustment Input 4	Local Bias Adjustment Input 5
Periods used to calculate bias	9				
Bias Factor A	0.7 (0.63 - 0.78)				
Bias Factor B	44% (28% - 59%)				
Diffusion Tube Mean (μg/m³)	16.4				
Mean CV (Precision)	4.4%				
Automatic Mean (µg/m³)	11.4				
Data Capture	91%				
Adjusted Tube Mean (µg/m³)	12 (10 - 13)				

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 RDC required distance correction during 2024 due to the low concentrations monitored.

QA/QC of Automatic Monitoring

As previously described in Section 2.1, monitoring stations within Rother are part of the SAQMN and, therefore, measurements made at these sites are traceable to national standards and operational procedures defined for the regional network. Matts Monitors Ltd undertakes the equipment's maintenance and calibration.

Calibration of the continuous monitor is done on a monthly basis, typically in the same week diffusion tubes are changed over. The calibration is undertaken by a local site operator (LSO) from Matts Monitors Ltd.

PM₁₀ and PM_{2.5} Monitoring Adjustment

The type of PM₁₀ and PM_{2.5} monitors utilised within RDC do not require the application of a correction factor.

Automatic Monitoring Annualisation

Automatic monitoring for NO₂, PM₁₀ and PM_{2.5} at De La Warr Road within RDC recorded a data capture rate of greater than 75% therefore it was not required to annualise any monitoring data.

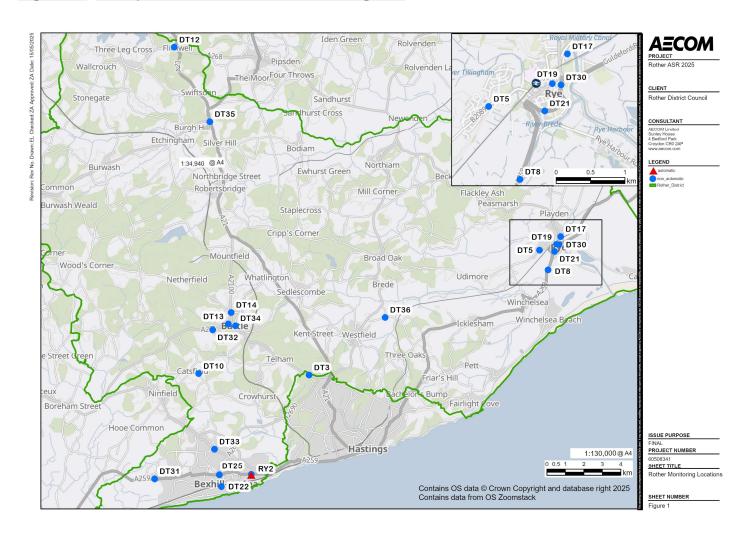
NO₂ Fall-off with Distance from the Road

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 NO₂ fall-off with distance calculator available on the LAQM Support website. Where appropriate, automatic annual mean NO₂ concentrations corrected for distance are presented in Table A.3.

The data from De La Warr Road did not require distance correction during 2024, as concentrations were below 36 µg/m³.

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

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



Appendix E: Summary of Air Quality Objectives in England

Table E.1 – Air Quality Objectives in England²

Pollutant	Air Quality Objective: Concentration	Air Quality Objective: Measured as
Nitrogen Dioxide (NO ₂)	200μg/m³ not to be exceeded more than 18 times a year	1-hour mean
Nitrogen Dioxide (NO ₂)	40μg/m³	Annual mean
Particulate Matter (PM ₁₀)	50μg/m³, not to be exceeded more than 35 times a year	24-hour mean
Particulate Matter (PM ₁₀)	40μg/m³	Annual mean
Sulphur Dioxide (SO ₂)	350μg/m³, not to be exceeded more than 24 times a year	1-hour mean
Sulphur Dioxide (SO ₂)	125μg/m³, not to be exceeded more than 3 times a year	24-hour mean
Sulphur Dioxide (SO ₂)	266μg/m³, not to be exceeded more than 35 times a year	15-minute mean

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² The units are in microgrammes of pollutant per cubic metre of air (µg/m³).

Glossary of Terms

Abbreviation	Description
AQAP	Air Quality Action Plan - A detailed description of measures, outcomes, achievement dates and implementation methods, showing how the local authority intends to achieve air quality limit values'
AQMA	Air Quality Management Area – An area where air pollutant concentrations exceed / are likely to exceed the relevant air quality objectives. AQMAs are declared for specific pollutants and objectives
AQS	Air Quality Strategy
ASR	Annual Status Report
AURN	Automatic Urban and Rural Network
Defra	Department for Environment, Food and Rural Affairs
DESNZ	Department of Energy Security and Net Zero
DMRB	Design Manual for Roads and Bridges – Air quality screening tool produced by National Highways
DT	Diffusion Tube
ESCC	East Sussex County Council
EV	Electric Vehicle
FDMS	Filter Dynamics Measurement System
LAQM	Local Air Quality Management
NO ₂	Nitrogen Dioxide
NOx	Nitrogen Oxides
O ₃	Ozone
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
RDC	Rother District Council
SAC	Special Area of Conservation
SAQMN	Sussex Air Quality Monitoring Network
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.