



2025 Air Quality Annual Status Report (ASR)

In fulfilment of Part IV of the Environment Act 1995
Local Air Quality Management, as amended by the
Environment Act 2021

Date: June 2025

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Local Responsibilities and Commitment

This ASR was prepared the Community & Environmental Services Team of Watford Borough Council on behalf of Three Rivers District Council with the support and agreement from Hertfordshire County Council.

This ASR has not been signed off by a Director of Public Health. As one of 10 Hertfordshire District Councils it is not possible to get sign off from Hertfordshire's Director of Public Health. However, a representative from Watford Borough Council regularly attends the Herts and Beds Air Quality Forum along with colleagues from Hertfordshire's Public Health team. This enables collaboration and consultation between both teams.

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Executive Summary: Air Quality in Our Area

Air Quality in Three Rivers District Council

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.

Three Rivers is a sub-urban district of 88.8 square kilometres located in south-west Hertfordshire. It borders Watford and Hertsmere Boroughs to the east, Buckinghamshire Council (Chiltern and South Bucks Areas) to the west, St Albans City & District and Dacorum Borough to the north, and the London Boroughs of Hillingdon and Harrow are to the south. The latest estimated population of Three Rivers is 93,800 (Source: Office for National Statistics - Census 2021).

The key road links through the district are the M1 and M25 motorways, which are likely significant sources of local air pollutant emissions. There are no significant pollutant sources within the district apart from road traffic emissions.

From 1st May 2019, Three Rivers District Council delegated certain Environmental Health functions to Watford Borough Council (WBC) including local air quality management.

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

Table ES 1 - Description of Key Pollutants

Pollutant	Description
Nitrogen Dioxide (NO ₂)	Nitrogen dioxide is a gas which is generally emitted from high-temperature combustion processes such as road transport or energy generation.
Sulphur Dioxide (SO ₂)	Sulphur dioxide (SO ₂) is a corrosive gas which is predominantly produced from the combustion of coal or crude oil.
Particulate Matter (PM ₁₀ and PM _{2.5})	<p>Particulate matter is everything in the air that is not a gas.</p> <p>Particles can come from natural sources such as pollen, as well as human made sources such as smoke from fires, emissions from industry and dust from tyres and brakes.</p> <p>PM₁₀ refers to particles under 10 micrometres. Fine particulate matter or PM_{2.5} are particles under 2.5 micrometres.</p>

The main pollutants of concern in the district are NO₂, PM₁₀ and PM_{2.5}. These are mainly associated with road traffic. NO₂ is formed during the combustion process when Nitrogen in the air bonds with Oxygen. Road vehicles emit particulate matter from their exhaust and from non-exhaust sources such as brake, tyre and road surface wear and the resuspension of road dust.

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 local policies and strategies outlined below demonstrate the actions that Three Rivers Council in conjunction with other agencies are doing to improve air quality in their area.

Local Plan

Three Rivers District Council is preparing a new Local Plan that will set out how the Council plan for future growth and development in Three Rivers. This plan will form the blueprint for how the Council will sustainably develop the district until 2041, including managing needs for housing, jobs and supporting infrastructure – for example, shops, community facilities, transport, open spaces, schools and healthcare.

The council is aiming to identify potentially suitable and newly available sites for all types of housing and commercial development within Three Rivers. The call for sites period ran for four weeks at the beginning of 2025.

Three Rivers District Council have conducted several consultations to help develop the Local Plan, ensuring that it is robust and justified. More details can be seen on the [Evidence Base page](#). Further evidence needs to be completed prior to the Regulation 19 publication in November 2025. This includes but is not limited to a Green Belt Review, Whole Plan Viability Assessment, Sustainability Appraisal, and a Transport Assessment.

Climate Emergency & Sustainability Strategy 2023-2027

The original strategy was written in 2021 in response to the council's declaration of a "climate emergency", and this updated version has been produced to reflect changes at an international, national, and local level, to policy, technology, and experience.

Since declaring a "climate emergency" in 2019, the Council has worked to reduce its own emissions, whilst encouraging and enabling others to reduce their emissions, improve sustainability and resilience to the effects of climate change, to enable the Council to achieve net-zero carbon for its own emissions by 2030, and support the district in reaching net-zero carbon by 2045.

This strategy focuses on what the Council and its partners are doing and plan to do within the parameters of the current legal, financial, regulatory, and technological frameworks, under which we must operate to deliver substantial carbon emission reductions.

The Climate Emergency and Sustainability Strategy 2023-2027 is the detailed work behind the Council's Corporate Framework where one of the Council's four overarching objectives is to strive towards net-zero and be climate resilient.

The strategy is supported by an Action Plan which details quantifiable, short-, medium- and long-term actions needed to meet our aims including improving Air Quality by reducing emissions. The plan is updated continuously and reviewed bi-annually by the Climate Change, Leisure, and Community Committee. The Council's progress addressing the climate emergency and improvement in air quality can be followed on the website [Climate Strategy and Actions | Three Rivers District Council](#)

Conclusions and Priorities

The latest monitoring data shows a general trend of decreasing concentrations of NO₂. This is in line with the national trend until 2023. However, at the time of writing this information had not been updated on the [Defra website](#) to include 2024 data. Defra recently reported that “between 2007 and 2019 inclusive, the annual mean NO₂ concentration at roadside sites reduced by an average of 1.8 µg/m³ each year. This reduction was observed at most long-running monitoring sites across the UK, which could be a consequence of the large reduction in road transport emissions of NO₂ over the same period as newer vehicles subject to stricter emissions standards enter the transport fleet”.

In 2024, NO₂ concentrations did not exceed the annual mean objective at any of the Council’s diffusion tube sites. Also, concentrations did not exceed 36 µg/m³ so a fall off with distance calculation was not required. There is a general trend of reduction over the last 5 years.

A study carried out on behalf of Defra and the Devolved Administrations identified that where road traffic is the primary source of emissions, exceedances of the NO₂ 1 hour mean are unlikely to occur where the annual mean is below 60µg/m³. It can therefore be determined that there were no exceedances of the 1-hour objective (Defra, 2022)

There are no new major sources of emissions in the district. The annual mean concentration of NO₂ monitored in Chorleywood NO₂ AQMA have been comfortably below the 10% margin for error at all locations for a minimum of 3 years. Consequently, Three Rivers District Council will revoke this AQMA in 2025.

Chorleywood PM₁₀ AQMA was declared in 2001 and since this time there has been a significant reduction in PM₁₀ emissions particularly from road traffic. Evidence of this can be seen on the Defra website [Particulate matter \(PM10/PM2.5\) - GOV.UK](#). Many Local Authorities had declared AQMAs for PM₁₀ at stage 3 of the 1st round of review and assessment. In a subsequent Stage 4 assessment, all AQMAs were remodelled using new emission factors published by Defra and a large percentage of the AQMAs were revoked at this time. Three Rivers District Council undertook all 4 stages of the review and assessment concluding in stage 4 that the Chorleywood PM₁₀ AQMA should be revoked. Please see reference to this in section 10.3 on page 30 of the Updating and Screening Assessment for 2004.

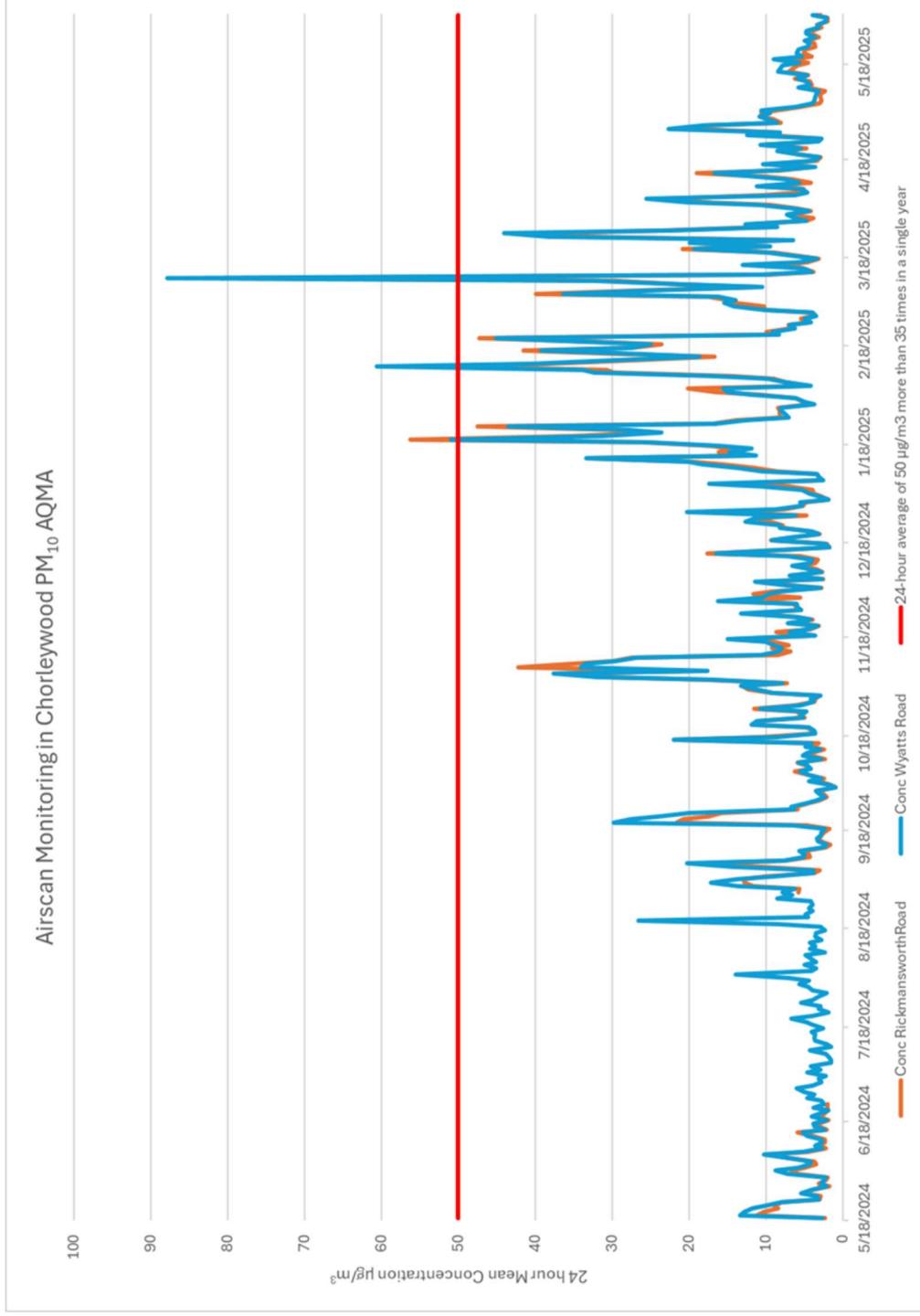
[05 Updating and Screening Assessment \(USA\) January 2004 full.pdf](#)

However as there hasn't been a monitoring station in the AQMA and a significant amount of time has passed since the modelling was undertaken it has been difficult to provide current evidence to justify its revocation. Two Airscan Units (low-cost sensors provided by Iknai, funded by Hertfordshire County Council) were deployed in May 2024 in the PM₁₀ AQMA. One on Wyatts Road and the other on Rickmansworth Road. These instruments are usually not considered suitable for measuring PM₁₀ annual mean or the number of exceedances as they are not accurate enough to meet the expanded uncertainty requirements of equivalent instruments. However, based on the evidence outlined above Defra has given the council permission to use sensors in this case as it is likely that even when considering the margin of error, the monitoring results would be able to indicate compliance or not. Monitoring results from both sensors available at the time of writing can be seen in the chart on the next page.

Both sensors are monitoring similar concentrations at the same time this is why at some points it is difficult to differentiate between the 2 lines on the chart. During the summer of 2024 only data from the Wyatts Road sensor was available. The chart indicates that the AQMA is comfortably compliant with the 24-hour mean objective having exceeded 50µg/m³ 3 times during the year.

The Council will revoke both the Chorleywood NO₂ AQMA and Chorleywood PM₁₀ AQMA in 2025. This will mean that Three Rivers District Council will no longer have any AQMAs, and an Air Quality Action Plan is not required. Delivering the Climate Emergency & Sustainability Strategy 2023-2027 will enable Three Rivers Council to continue improving Air Quality across the district and not just focus on the areas near the M25 motorway.

Figure 1 - Airscan Monitoring Results in Corleywood PM₁₀ AQMA



How to get Involved

Climate Emergency & Sustainability Strategy 2023-2027 outlines how residents and businesses can help contribute to a sustainable, net-zero district by 2045. Also giving excellent information on how active and sustainable travel can reduce congestion and improve air quality.

Travel and Air Quality

Increase use of public transport and active travel.

Turn vehicle engines off when not in use to reduce pollution from idling.

Businesses to review active travel plans to encourage use of public and active transport, increase cycling facilities and electric vehicle infrastructure.

Install electric charging points on private property.

Local initiatives - EV charging points

Three Rivers District Council have installed EV charging points in car parks to enable businesses and residents to transition to Electric Vehicles (EVs). The Council received funding from the Office for Zero Emission Vehicles' On-street Residential ChargePoint Scheme to install Electric Vehicle charge points in council-owned car parks across the district. More information on EV charging in Three Rivers can be found on the website [Electric vehicles and charging points | Three Rivers District Council](#).

Walking, Wheeling and Cycling

Three Rivers District Council promotes cycling, wheeling and walking, to encourage better travel and reduce emissions - better for you, the people around you and for your local environment.

The following information and links outline what provisions are available to make walking and cycling easier for everyone.

Want to ride but don't know where to begin? British Cycling have some great advice in the articles below.

Get Started - Cycling basics - [Get into cycling](#)

Essential kit to carry - [Essential kit to carry on the bike](#)

You can also find more information on the Green Our Herts Facebook page.

A map of cycle routes in the Three Rivers area and across the rest of Hertfordshire can be found here. [Walking and cycling routes | Hertfordshire County Council](#)

Beryl Bike hire scheme

The bikes and e-bikes are available to hire 24/7 at Beryl Bays across Watford and Croxley Green all year round. The bikes can be booked through a user-friendly smartphone app. Rides are charged per-minute, daily, or through a variety of economical prepaid riding passes. The e-bikes can be used across Three Rivers; but will need to be returned once used in Croxley Green, Bushey or Watford. Users will still be charged the minute when they dismount if the e-bike is not returned. [Beryl, A bike & scooter sharing scheme in UK towns and cities](#)

Government Cycling Schemes

Many employers now offer affordable access to cycling through the Government's Cycle to Work Scheme which allows you to purchase a new bicycle and equipment paid for on a monthly basis. Speak to your employers' Human Resources department to see if it is something they offer.

Useful information to support walking can be found at:

[Home | Living Streets](#) - a wide range of information from this major walking campaign group.

[Get your Walk Score](#) - find out how 'walkable' your area is - and get advice if you're looking to move!

Travel by Bus

For information on bus services, visit the Intalink Partnership at [Intalink - Providing the latest bus travel information in Hertfordshire](#). The Intalink Journey planner provides maps and timetables and even allows you to track the location of your bus.

Other Journey Planners are also available including the Travel line Journey Planner (providing routes and times for all travel in Great Britain) Transport for London (TFL) Journey Planner (for travel in and around London). You can find live bus times by using the Travel Line SMS service.

Intalink tickets allow unlimited travel across Hertfordshire using a range of bus service operators, so you don't need to buy separate tickets for each route - ticket offers can be found here: [Purchase tickets - Intalink](#)

Free Air Pollution Alerts

Three Rivers District Council has signed up to a notification service called 'Herts & Beds Air Pollution Alert System'. The system is provided by Ricardo Energy and Environment. The service provides a text or email alert straight to your mobile when levels of air pollution in your area increase to a moderate level or above.

This service sits alongside a website that provides 'at-a-glance' air quality information for Hertfordshire and Bedfordshire. [Local Authority Data - Air Quality monitoring service](#)
Coloured markers on a map pinpoint exact areas and give an immediate pollution concentration.

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1 Local Air Quality Management

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

The LAQM process 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 Three Rivers District Council to improve air quality and any progress that has been made. The statutory air quality objectives applicable to LAQM in England are presented in Table E.1 in Appendix E.

2 Actions to Improve Air Quality

2.1 Air Quality Management Areas

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

A summary of AQMAs declared by Three Rivers District Council can be found in Table 2.1. The table presents a description of the 2 AQMAs that are currently designated within Three Rivers District Council. Appendix D: Map(s) of Monitoring Locations and AQMAs provides maps of AQMAs and the air quality monitoring locations in relation to the AQMAs. The air quality objectives pertinent to the current AQMA designations are as follows:

- NO₂ annual mean.
- PM₁₀ 24-hour mean.

In 2025 Three Rivers Council will revoke Chorleywood NO₂ AQMA and Chorleywood PM₁₀ AQMA.

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
Chorleywood NO ₂ AQMA	Declared 01/04/2001	NO ₂ Annual Mean	Along the M25 south of Junction 18 to just north of where the motorway crosses the River Chess	YES	>40	No exceedances	3	Three Rivers District Council Air Quality Action Plan, July 2013	Local Authority Data - Air Quality monitoring service
Chorleywood PM ₁₀ AQMA	Declared 01/04/2001	PM ₁₀ 24 Hour Mean	A slightly narrower area from just north of Junction 18, along the M25 to just north of where the motorway crosses the River Chess	YES	>50, exceeded more than 35 times in a year	No exceedances	Previous annual reports suggest compliance since at least 2004.	Three Rivers District Council Air Quality Action Plan, July 2013	Local Authority Data - Air Quality monitoring service

Three Rivers District Council confirm the information on UK-Air regarding their AQMA(s) is up to date

Three Rivers District Council confirm that all current AQAPs have been submitted to Defra.

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

Defra's appraisal of last year's ASR concluded that the report is well structured, detailed, and provides the information specified in the Guidance. The following is a list of Defra's comments designed to help inform future reports and how the council has addressed these.

1. This ASR has not been signed off by a Director of Public Health. As one of 10 Hertfordshire District Councils it is not possible to get sign off from Hertfordshire's Director of Public Health. However, a representative from Watford Borough Council on behalf of Three Rivers District Council regularly attends the Herts and Beds Air Quality Forum along with colleagues from Hertfordshire's Public Health team. This enables collaboration and consultation between both teams.
2. In 2025 Three Rivers District Council will revoke both AQMAs. Consequently, an AQAP is not required. LAQM Policy Guidance states that "*Following a revocation, from 2023 (where this would result in that local authority no longer having any AQMA) the local authority should put in place a local air quality strategy (paragraph 2.15) to ensure air quality remains a high profile issue and to ensure it is able to respond quickly should there be any deterioration in condition.* Paragraph 2.15 states "*These strategies will not have a set format, and authorities will be able to draw on content within their ASRs and local transport plans to produce them.*" the Climate Emergency & Sustainability Strategy 2023-2027 fulfils this requirement.
3. It has not been possible to add labels for the diffusion tubes in Figure D.1 in a way to help improve readability. The labels were not readable at this scale. The map is included to give a guide to the distribution of diffusion tubes across the district.

Three Rivers District Council has taken forward several 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. 7 measures are included within Table 2.2, with the type of measure and the progress Three Rivers District Council have made during the reporting year of 2024 presented. Where there have been, or continue to be, barriers restricting the implementation of the measure, these are also presented within Table 2.2.

More detail on these measures can be found in the Three Rivers District Council Air Quality Action Plan, July 2013 and The Climate Emergency and Sustainability Strategy 2023-2027. Key completed measures are:

- Instillation of 2 x indicative PM_{2.5} AQ multi-pollutant sensors.
- Three Rivers District Council received funding from the Office for Zero Emission Vehicles (OZEV) to install Electric Vehicle charge points in council-owned car parks across the district. More information on Electric vehicles and charging points in general as well as the car park chargers project can be seen on the council's website. [Electric vehicles and charging points | Three Rivers District Council](#)
- In 2023 Hertfordshire County Council in partnership with Three Rivers District Council carried out a public consultation on the Local Cycling and Walking Infrastructure Plan (LCWIP). Taking into consideration the feedback given at consultation both Councils investigated concerns raised as well as other suggestions and proposed alternative routes. At the General Public Services, Community Safety and Infrastructure Committee meeting on 15 October 2024, amendments were made to the plans. The amended LCWIP document is expected to be presented in 2025 for adoption.
- The Beryl Bike scheme was introduced in Watford in 2020. It was later expanded into Croxley Green in October 2024, giving residents the opportunity to pick up one of 15 e-bikes from new bays to travel across the district and beyond. The expansion was funded by the district council through its Community Infrastructure Levy. In November alone, 466 journeys within, to and from Croxley Green were made, that's an average of 17 trips a day.
- Improvement of bus network. The Intalink Partnership represents the operators and Local Authorities in Hertfordshire to develop better coordinated bus and rail services. Intalink is currently producing a Plan to improve Bus Services. For more information, visit the [Intalink Bus Service Improvement Plan page](#). Public bus services in Hertfordshire are provided by commercial firms, with some subsidised by Hertfordshire County or Three Rivers District Council, which contributes to five key routes around the district.
- **Doorstep Shopper Service** set up by Communities 1st, a voluntary and community organisation. They have 6 fully accessible minibuses that pick-up people who find travelling on public transport difficult and take them to the shops. In a press release

from Three Rivers Council Amber Dalton, Assistant Manager at Communities 1st, explained the service, which Three Rivers District Council helps fund, provides a more sociable, low-cost alternative to taxis/private hire journeys and is a more convenient service for those who struggle with public transport. [Hertsmere, Three Rivers and Welwyn Hatfield Shopper Buses | Communities 1st](#)

- Air Pollution Alert System – Residents and those who work in Three Rivers can sign up to receive free text messages or emails when levels of air pollution are rising in their area (moderate, high or very high). The alerts give advice to prepare for when pollution levels are increasing. This is particularly important for people who are vulnerable to changes in pollutant concentrations.

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 (3)	LTP, Walking, Cycling Strategy	Promoting Travel Alternatives	Intensive active travel campaign & infrastructure	2015	2020	TRDC/HCC	TRDC/HCC	Funded	£100k - £500k	Completed	NO2/PM10/PM2.5	Decrease in private car use	Ongoing	See information on LCWIP and its progress above.
2 (4)	Improvement of bus network	Transport Planning and Infrastructure	Bus route improvements	2015	2027	TRDC/HCC	TRDC/HCC	Funded	£100k - £500k	Ongoing	NO2/PM10/PM2.5	Increased bus use	Ongoing	The Intalink Partnership represents the operators and Local Authorities in Hertfordshire to develop better coordinated bus and rail services. Intalink is currently producing a Plan to improve Bus Services. See information above
3 (6)	Additional cycle routes	Transport Planning and Infrastructure	Cycle network	2015	2025	TRDC/HCC	TRDC/HCC	Funded	£50k - £100k	Ongoing	NO2/PM10/PM2.5	Increase cycling	Ongoing	See details on LCWIP above
4	AirTEXT	Public Information	Via other mechanisms	2015	2018	TRDC	TRDC	Funded	< £10k	Completed	Exposure of most vulnerable	Hits on Hertfordshire Air Quality Forecast website	Operational	TRDC has signed up to the Herts & Beds Pollution Alert System. See details above

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
5	Installation of 2 x indicative multi pollutant sensors.	Other	Other	May 2023	Ongoing	TRDC	HCC	Funded	£10k - 50k	Completed	Inform future projects if required	PM2.5 AQ Data	Equipment installed	Monitoring data can be viewed and downloaded on the providers website. Please note that different pollutants are represented by similar colours. Care is needed when reading the graphs. AirScan
6	OZEV initiative	Promoting Low Emission Transport	Procuring alternative Refuelling infrastructure to promote Low Emission Vehicles, EV recharging, Gas fuel recharging	2015	2025	TRDC/OLEV	OLEV	Funded	£10k - 50k	Completed	NO2/PM10/PM2.5	Increased electric vehicle ownership	Ongoing	The Council is investigating using capital funding to encourage electric driving in the district. The Council's Transport & Parking Projects team is procuring electric vehicle charging points for public car parks to encourage drivers of electric vehicles to visit local shops. These rapid chargepoints will also be available to residents who do not have a charge point home.
7	Provide additional routes via green ways	Transport Planning and Infrastructure	Other	2015	2025	TRDC/HCC	TRDC/HCC	Funded	£50k - £100k	Completed	Reduce exposure	Use of greenways	Ongoing	See Three Rivers Local Cycling and Walking Infrastructure Plan Hertfordshire County Council

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.

Three Rivers District Council is taking the following measures to address PM_{2.5}:

An Officer of the Council attends the Hertfordshire and Bedfordshire Air Quality Forum.

The Council will ensure compliance with the Environmental Permitting Regulations to help reduce PM_{2.5} concentrations.

It is anticipated that:

- Measures to reduce emissions of NO_x by encouraging a move away from internal combustion engine vehicles to ultra-low emission vehicles (ULEV) will reduce PM_{2.5} emissions from exhausts.
- Measures to reduce road travel altogether will reduce PM_{2.5} emissions from brake and tyre wear and dust re-suspension.

The Public Health Outcomes Framework has been set up by Government to get a better understanding of trends in public health to enable them to fulfil their vision of improving the nation's health and to improve the health of the poorest fastest. Included within the framework is an indicator for PM_{2.5}. Indicator D.01 can be found in Section D known as Health Protection.

The objective of section D is to protect the population's health from major incidents and other threats, whilst reducing health inequalities. The figures below show the latest data available on the Office for Health Improvement & Disparities Website Public Health Outcomes Framework. The fraction of mortality attributable to particulate air pollution is

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

slightly higher in Three Rivers than the national average for England it does follow a similar trend.

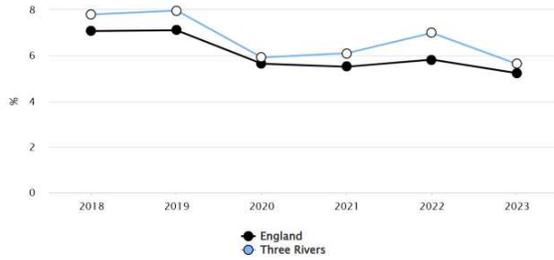
Figure 2 - Public Health Outcome Framework Indicator

[D01 - Air pollution: estimated fraction of mortality attributable to particulate air pollution](#)

Proportion - %

[Show confidence intervals](#) [Show 99.8% CI values](#)

[More options](#)



Recent trend: Could not be calculated

Period	Count	Value	Three Rivers		East of England	England
			95% Lower CI	95% Upper CI		
2018	-	7.8%	-	-	7.6%	7.1%
2019	-	8.0%	-	-	7.6%	7.1%
2020	-	5.9%	-	-	5.8%	5.6%
2021	-	6.1%	-	-	5.5%	5.5%
2022	-	7.0%	-	-	6.2%	5.8%
2023	-	5.6%	-	-	5.4%	5.2%

Source: Department for Environment, Food and Rural Affairs

[Indicator Definitions and Supporting Information](#)

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

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

3.1 Summary of Monitoring Undertaken

3.1.1 Automatic Monitoring Sites

Defra have approved several different monitoring technologies to be equivalent to the reference method for monitoring Particulate Matter for the purpose of establishing compliance with the objectives. As mentioned in the Executive Summary and AQMA section Three Rivers District Council were given permission to use sensors to carry out indicative monitoring to confirm conclusions in previous reports that the AQMA should be revoked. As these instruments are not on the list of accepted equipment found on page 123 of [LAQM TG:22](#) the results have not been reported here.

3.1.2 Non-Automatic Monitoring Sites

Three Rivers District Council undertook non- automatic (i.e. passive) monitoring of NO₂ at 25 sites during 2024. Table A.2 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.

3.2 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.4 in Appendix A compares 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. Note that the concentration data presented in Table B.1 includes distance corrected values, only where relevant.

Figure A.1 also in Appendix A presents trends in NO₂ annual mean concentrations at diffusion tube sites TR15 to TR40 Between the years 2020 to 2024. In 2024, there were no exceedances of the annual mean objective monitored at any location in Three Rivers. Over the last 5 years there has been a general trend of reduction experienced at diffusion tube sites TR15 and TR16. The same can be seen over the last 3 years at sites TR17 to TR40. A reduction in NO₂ concentration was monitored at all locations in 2024 when compared to the previous year. On average concentrations reduced by 3.1 µg/m³. The largest reduction (6.7 µg/m³) was noted at TR34 (Denham Way 2) and the smallest reduction (0.3 µg/m³) at TR19 (Old Soles Bridge Lane.)

Figure A.2 presents trends in NO₂ annual mean concentrations in the Chorleywood NO₂ AQMA between the years 2020 to 2024. In 2024, there were no exceedances of the annual mean objective.

Paragraph 3.61 of the LAQM technical guidance states that *“The revocation of an AQMA should be considered following three consecutive years of compliance with the relevant objective as evidenced through monitoring. Where NO₂ monitoring is completed using diffusion tubes, to account for the inherent uncertainty associated with the monitoring method, it is recommended that revocation of an AQMA should be considered following three consecutive years of annual mean NO₂ concentrations being lower than 36µg/m³ (i.e. not within 10% of the annual mean NO₂ objective due to uncertainties and yearly variations).”* NO₂ concentrations monitored in the AQMA have remained comfortably below 30 µg/m³ for the last 3 years. Consequently, in 2025 Three Rivers revoke the Chorleywood NO₂ AQMA.

A study carried out on behalf of Defra and the Devolved Administrations identified that where road traffic is the primary source of emissions, exceedances of the NO₂ 1 hour mean are unlikely to occur where the annual mean is below 60µg/m³. It can therefore be determined that there were no exceedances of the 1-hour objective (Defra, 2022)

Appendix A: Monitoring Results

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)	Distance to Kerb of Nearest Road (m)	Tube Co-located with a Continuous Analyser	Height (m)
TR15	Glen View	Other	506430	198590	NO2	No	97.0	17.0	N	
TR16	The Retreat	Other	508100	201800	NO2	No	8.0	1.0	N	
TR17	Bridge Road	Kerbside	508177	200550	NO2	No	3.0	2.0	N	
TR18	Glenthorn	Other	508517	199701	NO2	No	22.0	3.0	N	
TR19	Old Soles Bridge Lane	Rural	504165	197033	NO2	Yes - Chorleywood AQMA	28.0	0.0	N	
TR20	Beverly Cottages	Kerbside	503785	196504	NO2	No	4.0	3.0	N	
TR21	North Lodge	Roadside	503133	196806	NO2	No	20.0	0.0	N	
TR22	Wyatt's Road	Kerbside	504177	196752	NO2	Yes - Chorleywood AQMA	20.0	0.0	N	
TR23	Wyatt's Close	Kerbside	504182	196435	NO2	Yes - Chorleywood AQMA	23.0	0.0	N	
TR24	Sunrise	Roadside	504127	196288	NO2	Yes - Chorleywood AQMA	31.0	0.0	N	

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)	Distance to Kerb of Nearest Road (m)	Tube Co-located with a Continuous Analyser	Height (m)
TR25	Chestnut Ave	Kerbside	504125	195961	NO2	Yes - Chorleywood AQMA	12.0	0.0	N	
TR26	Exchange Mansion	Kerbside	505720	194679	NO2	No	5.0	2.0	N	
TR27	Uxbridge Road 1	Roadside	505482	194331	NO2	No	17.0	0.0	N	
TR28	Uxbridge Rd 2	Kerbside	505415	194278	NO2	No	4.0	1.0	N	
TR29	Uxbridge Rd 3	Kerbside	505274	194258	NO2	No	25.0	2.0	N	
TR30	Swannells Walk	Other	503741	194795	NO2	No	8.0	27.0	N	
TR31	Tara	Kerbside	503897	193483	NO2	No	17.0	2.0	N	
TR32	Denham Way 1	Kerbside	503388	192966	NO2	No	22.0	0.0	N	
TR33	Crosslands	Roadside	503311	192771	NO2	No	25.0	0.0	N	
TR34	Denham Way 2	Roadside	503287	192556	NO2	No	23.0	1.0	N	
TR35	Denham Way 3	Kerbside	503162	192221	NO2	No	16.0	1.0	N	
TR36	St Mary's CT	Kerbside	506184	194131	NO2	No	7.0	3.0	N	
TR37	Church St	Kerbside	506337	193876	NO2	No	3.0	3.0	N	

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)	Distance to Kerb of Nearest Road (m)	Tube Co-located with a Continuous Analyser	Height (m)
TR39	Prince Of Wales	Kerbside	510808	194633	NO2	No	9.0	2.0	N	
TR40	Hampermill Lane	Roadside	507846	192411	NO2	No	32.0	3.0	N	

Notes:

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

Table A.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 (%)	NO ₂ Annual Mean Concentration (µg/m ³)				
						2020	2021	2022	2023	2024
TR15	506430	198590	Other	84.9	84.9	16.5	16.3	16.9	14.2	12.3
TR16	508100	201800	Other	100.0	100.0	17.5	18.9	18.3	15.9	13.2
TR17	508177	200550	Kerbside	100.0	100.0			25.5	23.8	20.6
TR18	508517	199701	Other	100.0	100.0			16.2	15.5	13.0
TR19	504165	197033	Rural	84.9	84.9			12.9	10.0	9.7
TR20	503785	196504	Kerbside	100.0	100.0			25.9	23.5	20.4
TR21	503133	196806	Roadside	92.5	92.5			22.4	21.7	17.0
TR22	504177	196752	Kerbside	100.0	100.0			13.9	13.1	11.5
TR23	504182	196435	Kerbside	100.0	100.0			16.9	14.8	12.9
TR24	504127	196288	Roadside	100.0	100.0			26.3	22.5	19.5
TR25	504125	195961	Kerbside	100.0	100.0			24.3	21.0	18.1

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 (%)	NO2 Annual Mean Concentration (µg/m3)				
						2020	2021	2022	2023	2024
TR26	505720	194679	Kerbside	75.0	75.0			17.2	15.6	14.7
TR27	505482	194331	Roadside	92.5	92.5			23.1	25.1	19.9
TR28	505415	194278	Kerbside	92.5	92.5			27.1	26.6	21.9
TR29	505274	194258	Kerbside	92.5	92.5			21.9	20.6	17.5
TR30	503741	194795	Other	100.0	100.0			24.9	24.2	19.8
TR31	503897	193483	Kerbside	83.0	83.0			18.4	18.5	15.7
TR32	503388	192966	Kerbside	92.5	92.5			22.5	21.3	16.4
TR33	503311	192771	Roadside	100.0	100.0			22.2	21.4	18.0
TR34	503287	192556	Roadside	100.0	100.0			24.2	20.4	14.4
TR35	503162	192221	Kerbside	100.0	100.0			18.3	17.9	17.4
TR36	506184	194131	Kerbside	100.0	100.0			17.8	16.5	12.7
TR37	506337	193876	Kerbside	100.0	100.0			18.2	16.6	14.3
TR39	510808	194633	Kerbside	100.0	100.0			24.5	23.3	16.6

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 (%)	NO2 Annual Mean Concentration (µg/m3)				
						2020	2021	2022	2023	2024
TR40	507846	192411	Roadside	100.0	100.0			22.4	20.7	19.0

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**.

NO₂ annual means exceeding 60µg/m³, indicating a potential exceedance of the NO₂ 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 Concentration

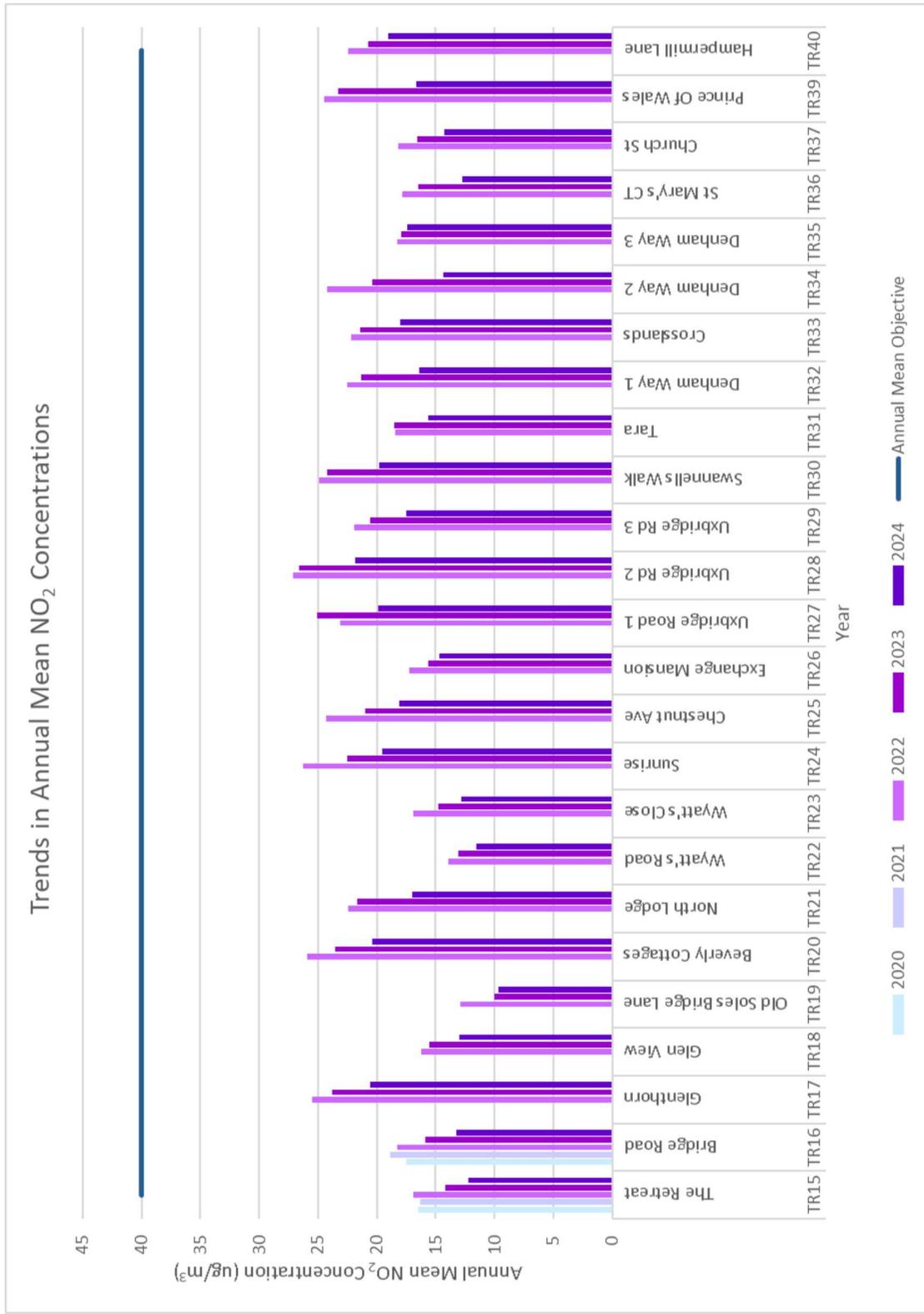
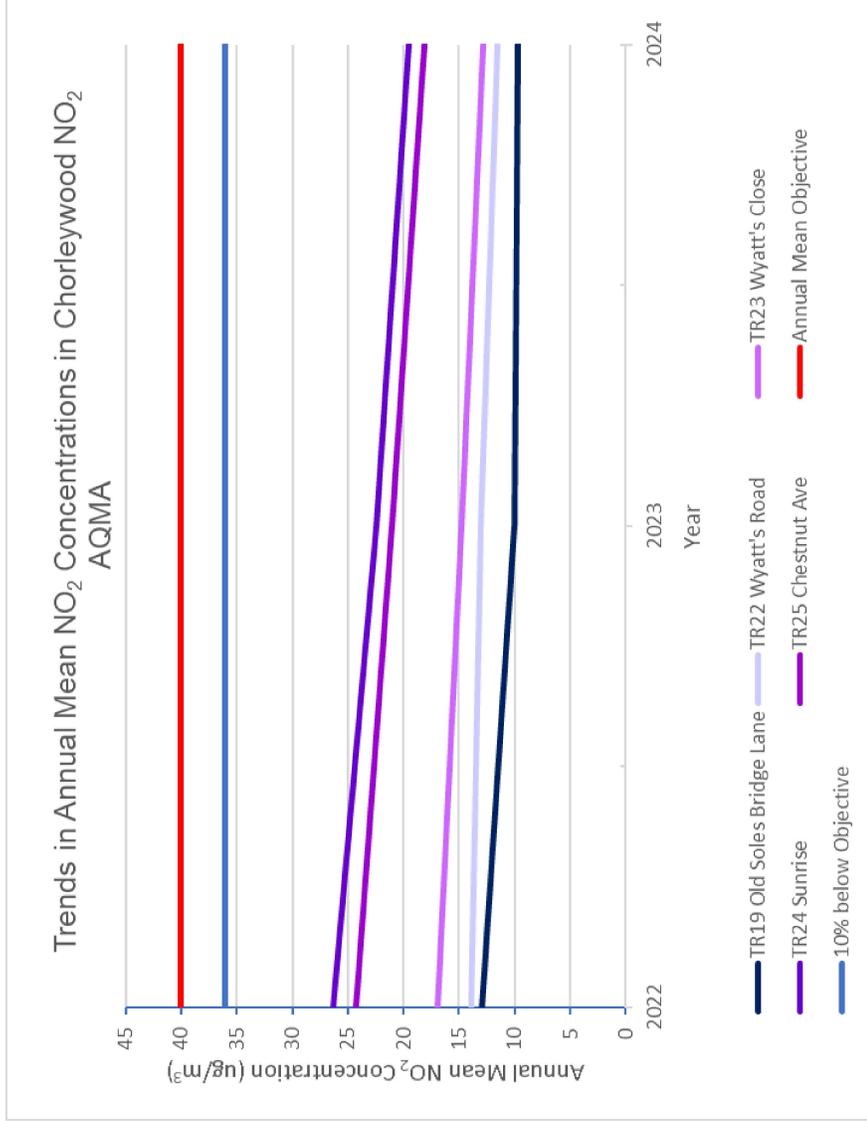


Figure A. 2 - Trends in Annual Mean NO₂ Concentration in Chorleywood NO₂ AQMA



Appendix B: Full Monthly Diffusion Tube Results for 2024

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

Diffusion Tube ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	NO ₂ Mean Concentrations (µg/m ³)												Simple Annual Mean (µg/m ³)			Comment
			Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Raw Data	Bias Adjusted (0.78)	Distance Corrected to Nearest Exposure	
TR15	506430	198590	15.0	21.1	22.6		12.8	11.4	14.4	12.7	20.7	20.5	6.0	15.7	12.3	-		
TR16	508100	201800	21.6	21.8	19.9	18.1	16.5	14.4	15.7	15.5	15.8	24.6	6.5	16.9	13.2	-		
TR17	508177	200550	27.7	27.9	30.2	24.1	23.4	25.8	22.5	25.9	27.7	32.4	20.1	26.4	20.6	-		
TR18	508517	199701	20.0	18.5	21.6	13.7	13.6	14.4	14.8	13.1	17.5	21.4	16.7	16.6	13.0	-		
TR19	504165	197033	13.7	17.1			10.0	9.9	8.7	9.3	15.8	16.9	14.9	12.4	9.7	-		
TR20	503785	196504	26.5	34.2	29.7	18.7	22.1	23.6	23.5	25.0	26.7	32.7	27.7	26.1	20.4	-		
TR21	503133	196806		27.2	29.5	25.0	21.0	18.3	17.4	20.2	16.9	26.7	16.1	21.8	17.0	-		
TR22	504177	196752	18.5	19.3	20.6	10.8	11.6	9.0	10.6	13.0	18.0	19.2	14.8	14.8	11.5	-		
TR23	504182	196435	19.1	19.0	22.7	14.1	13.0	10.5	13.4	14.8	23.5	14.8	17.5	16.5	12.9	-		
TR24	504127	196288	31.1	29.4	36.0	16.2	21.6	19.9	21.7	21.7	29.0	31.6	17.8	25.1	19.5	-		
TR25	504125	195961	25.0	25.1	23.9	23.6	24.2	21.3	18.3	25.0	23.7	29.3	18.9	23.2	18.1	-		
TR26	505720	194679	20.6		22.0	15.7	15.0	14.1		14.7	22.8	25.6	18.6	18.8	14.7	-		
TR27	505482	194331	25.8	34.1	27.9		24.9	22.3	19.6	24.4	30.1	27.3	24.2	25.5	19.9	-		
TR28	505415	194278	18.2	28.3	38.1		26.3	24.7	24.5	23.8	33.9	33.3	31.2	28.0	21.9	-		
TR29	505274	194258	25.7	28.1	26.5		20.9	18.5	15.7	20.8	26.0	28.0	17.0	22.4	17.5	-		
TR30	503741	194795	27.3	27.3	24.2	25.2	27.1	28.4	22.2	23.9	18.6	32.8	25.8	25.4	19.8	-		

Diffusion Tube ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	NO ₂ Mean Concentrations (µg/m ³)												Simple Annual Mean (µg/m ³)			Comment
			Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Raw Data	Bias Adjusted (0.78)	Distance Corrected to Nearest Exposure	
TR31	503897	193483	24.2	24.4	22.6	17.1	18.9	17.1	18.0	17.7	19.0	21.8			20.1	15.7	-	
TR32	503388	192966	23.9	27.0	24.5	19.0	16.7	18.4	21.7	17.9	21.9	18.4			21.0	16.4	-	
TR33	503311	192771	24.0	31.0	30.0	17.5	20.9	17.8	19.8	19.5	19.9	26.0	26.9	24.3	23.1	18.0	-	
TR34	503287	192556	21.1	21.7	21.8	15.1	14.5	13.1	15.4	17.1	14.9	22.0	23.6	20.7	18.4	14.4	-	
TR35	503162	192221	25.3	30.2	22.9	21.4	24.4	19.9	21.4	20.9	17.8	25.8	28.1	9.4	22.3	17.4	-	
TR36	506184	194131	20.7	14.4	17.3	7.3	16.7	15.5	17.7	16.1	18.1	20.1	24.4	7.0	16.3	12.7	-	
TR37	506337	193876	20.6	21.2	21.4	10.2	16.7	15.8	14.9	14.5	16.5	20.8	24.2	22.9	18.3	14.3	-	
TR39	510808	194633	23.8	22.4	24.5	18.0	18.7	19.5	21.2	16.6	17.3	26.0	25.0	22.6	21.3	16.6	-	
TR40	507846	192411	21.6	28.1	29.8	23.5	22.9	20.9	22.4	20.7	19.0	28.2	30.2	25.7	24.4	19.0	-	

- 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.
- Three Rivers District Council confirm that all 2024 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 Three Rivers District Council During 2024

Three Rivers District Council has not identified any new sources relating to air quality within the reporting year of 2024.

Additional Air Quality Works Undertaken by Three Rivers District Council During 2024

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

QA/QC of Diffusion Tube Monitoring

The Diffusion tubes used to monitor NO₂ were supplied by SOCOTEC (Didcot laboratory) in 2024. The method of preparation used was 50% TEA (triethanolamine) in acetone.

SOCOTEC are UKAS accredited. Diffusion Tubes were analysed in accordance with SOCOTEC's standard operating procedure ANU/SOP/1015. This method meets the guidelines set out in DEFRA's 'Diffusion Tubes for Ambient NO₂ Monitoring: Practical Guidance.'

SOCOTEC participate in the AIR PT intercomparison scheme for comparing spiked Nitrogen Dioxide diffusion tubes. SOCOTEC currently holds the highest rank of a Satisfactory laboratory. In all 4 rounds in 2024 100% of results submitted were determined to be satisfactory.

SOCOTEC were considered to have good diffusion tube precision in 2024.

Diffusion Tube Annualisation

All diffusion tube monitoring locations within Three Rivers District recorded data capture of at least 75% therefore it was not required to annualise any monitoring data.

Diffusion Tube Bias Adjustment Factors

The diffusion tube data presented within the 2025 ASR have been corrected for bias using an adjustment factor. Bias represents the overall tendency of the diffusion tubes to under or over-read relative to the reference chemiluminescence analyser. LAQM.TG22 provides guidance with regard to the application of a bias adjustment factor to correct diffusion tube monitoring. Triplicate co-location studies can be used to determine a local bias factor based on the comparison of diffusion tube results with data taken from NO_x/NO₂ continuous analysers. Alternatively, the national database of diffusion tube co-location surveys provides bias factors for the relevant laboratory and preparation method.

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

Table C.2 – Bias Adjustment Factor

National Diffusion Tube Bias Adjustment Factor Spreadsheet						Spreadsheet Version Number: 04/25				
Follow the steps below in the correct order to show the results of relevant co-location studies						This spreadsheet will be updated at the end of June 2025				
Data only apply to tubes exposed monthly and are not suitable for correcting individual short-term monitoring periods						LAQM Helpdesk Website				
Whenever presenting adjusted data, you should state the adjustment factor used and the version of the spreadsheet						Spreadsheet maintained by the National Physical Laboratory. Original compiled by Air Quality Consultants Ltd.				
This spreadsheet will be updated every few months: the factors may therefore be subject to change. This should not discourage their immediate use.										
The LAQM Helpdesk is operated on behalf of Defra and the Devolved Administrations by Bureau Veritas, in conjunction with contract partners AECOM and the National Physical Laboratory.										
Step 1:		Step 2:	Step 3:	Step 4:						
Select the Laboratory that Analyses Your Tubes from the Drop-Down List		Select a Preparation Method from the Drop-Down List	Select a Year from the Drop-Down List	Where there is only one study for a chosen combination, you should use the adjustment factor shown with caution. Where there is more than one study, use the overall factor: shown in blue at the foot of the final column.						
If a laboratory is not shown, we have no data for this laboratory.		If a preparation method is not shown, we have no data for this method at this laboratory.	If a year is not shown, we have no data?	If you have your own co-location study then see footnote 1. If uncertain what to do then contact the Local Air Quality Management Helpdesk at LAQMHelpdesk@bureauveritas.com or 0800 0327953						
Analysed By	Method	Year	Site Type	Local Authority	Length of Study (months)	Diffusion Tube Mean Conc. (Dm) (µg/m ³)	Automatic Monitor Mean Conc. (Cm) (µg/m ³)	Bias (B)	Tube Precision	Bias Adjustment Factor (A) (Cm/Dm)
SOCOTEC Didcot	50% TEA in acetone	2024	R	Slough Borough Council	11	23	17	34.0%	G	0.75
SOCOTEC Didcot	50% TEA in acetone	2024	R	Slough Borough Council	10	31	23	33.4%	G	0.75
SOCOTEC Didcot	50% TEA in acetone	2024	R	Slough Borough Council	11	30	23	33.7%	G	0.75
SOCOTEC Didcot	50% TEA in acetone	2024	R	Thanet District Council	10	19	15	24.3%	G	0.80
SOCOTEC Didcot	50% TEA in acetone	2024	UB	Wirral Council	9	14	12	19.9%	G	0.83
SOCOTEC Didcot	50% TEA in acetone	2024	R	Derry City And Strabane District Council	11	28	32	-11.8%	G	1.13
SOCOTEC Didcot	50% TEA in acetone	2024	UB	Derry City And Strabane District Council	11	11	7	58.1%	G	0.63
SOCOTEC Didcot	50% TEA in Acetone	2024	R	Horsham District Council	11	22	17	31.1%	G	0.76
SOCOTEC Didcot	50% TEA in Acetone	2024	R	Leeds City Council	10	36	28	32.5%	G	0.75
SOCOTEC Didcot	50% TEA in Acetone	2024	KS	Leeds City Council	11	29	20	42.7%	G	0.70
SOCOTEC Didcot	50% TEA in Acetone	2024	R	Leeds City Council	11	24	18	36.4%	G	0.73
SOCOTEC Didcot	50% TEA in Acetone	2024	UC	Leeds City Council	10	25	19	31.2%	G	0.76
SOCOTEC Didcot	50% TEA in Acetone	2024	R	Huntingdonshire District Council	10	28	23	21.1%	G	0.83
SOCOTEC Didcot	50% TEA in Acetone	2024	R	North East Lincolnshire Council	11	39	21	84.1%	G	0.54
SOCOTEC Didcot	50% TEA in Acetone	2024	UB	North East Lincolnshire Council	10	12	10	20.0%	G	0.83
SOCOTEC Didcot	50% TEA in Acetone	2024	R	North East Lincolnshire Council	11	21	18	15.7%	G	0.86
SOCOTEC Didcot	50% TEA in acetone	2024		Overall Factor* (33 studies)					Use	0.78

Monitoring Year	Local or National	If National, Version of National Spreadsheet	Adjustment Factor
2024	National	04/25 (33)	0.78
2023	National	03/24	0.77
2022	National	03/23	0.76
2021	National	03/22	0.78
2020	National	03/21	0.77

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 Three Rivers District required distance correction during 2024.

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

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

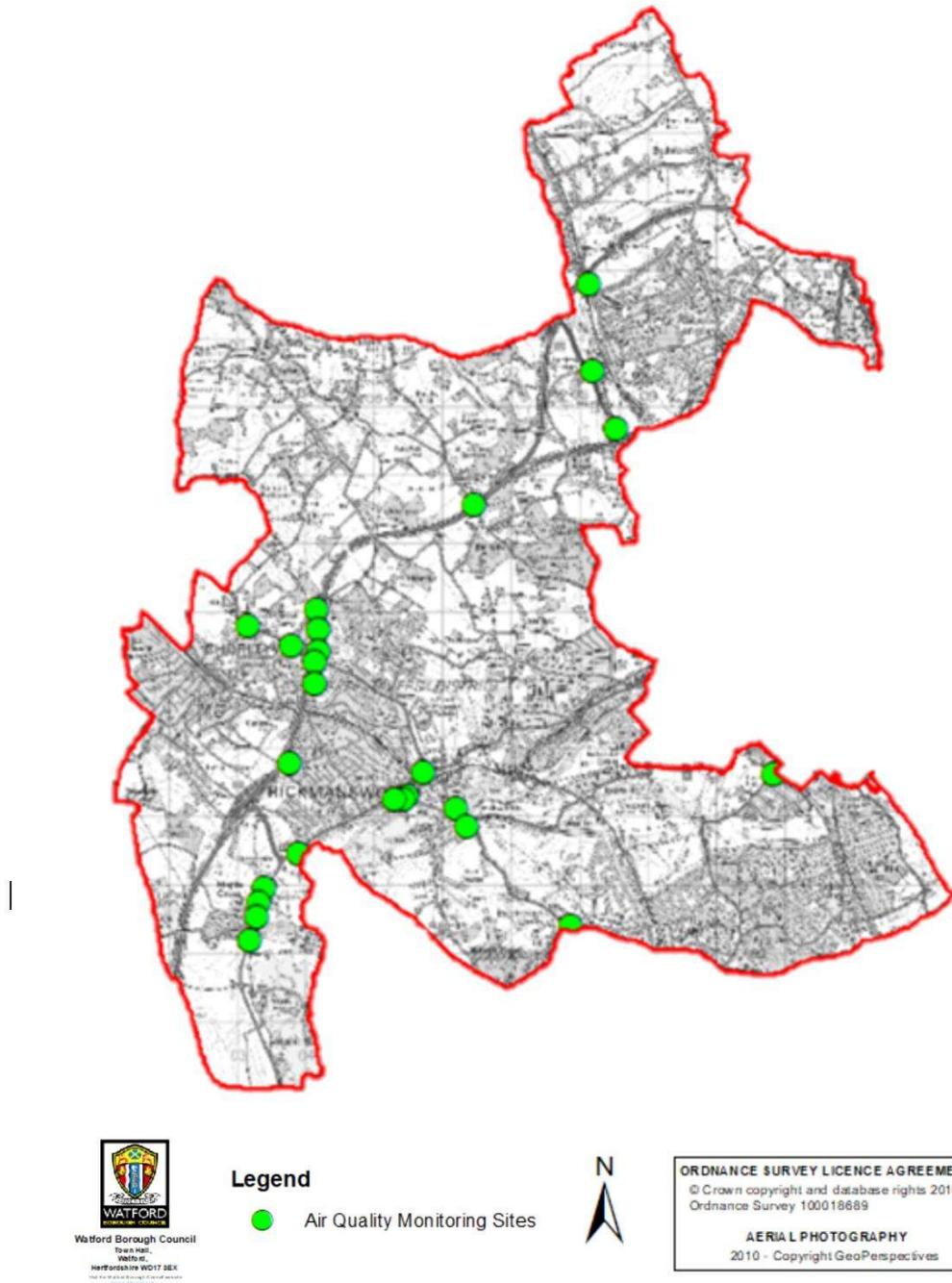
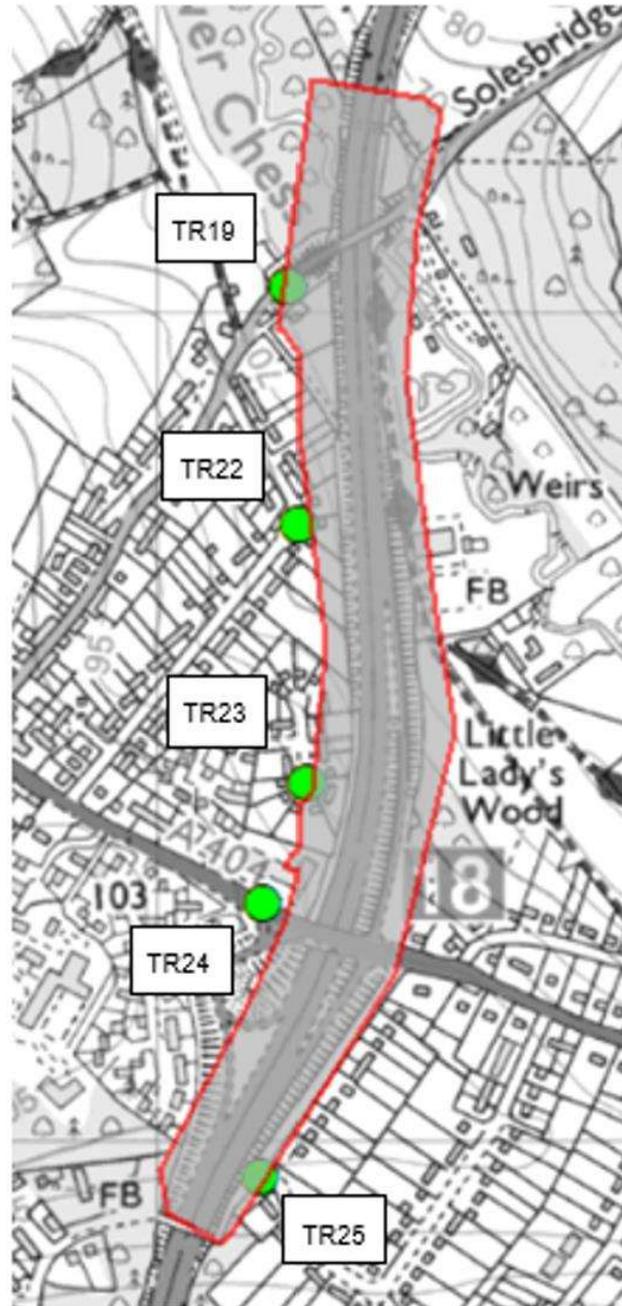


Figure D. 2 - Map showing Non-Automatic Monitoring Sites in and around the Chorleywood NO2 AQMA



Legend
● Air Quality Monitoring Sites
■ AQMA_2019



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Figure D. 3 - TR15 Glen View



Figure D. 4 - TR16 The Retreat



Figure D. 5 - TR17 Bridge Road



Figure D. 6 - TR18 Glenthorn



Figure D. 7 - TR19 Old Solesbridge



Figure D. 8 - TR20 Brewery Cottage

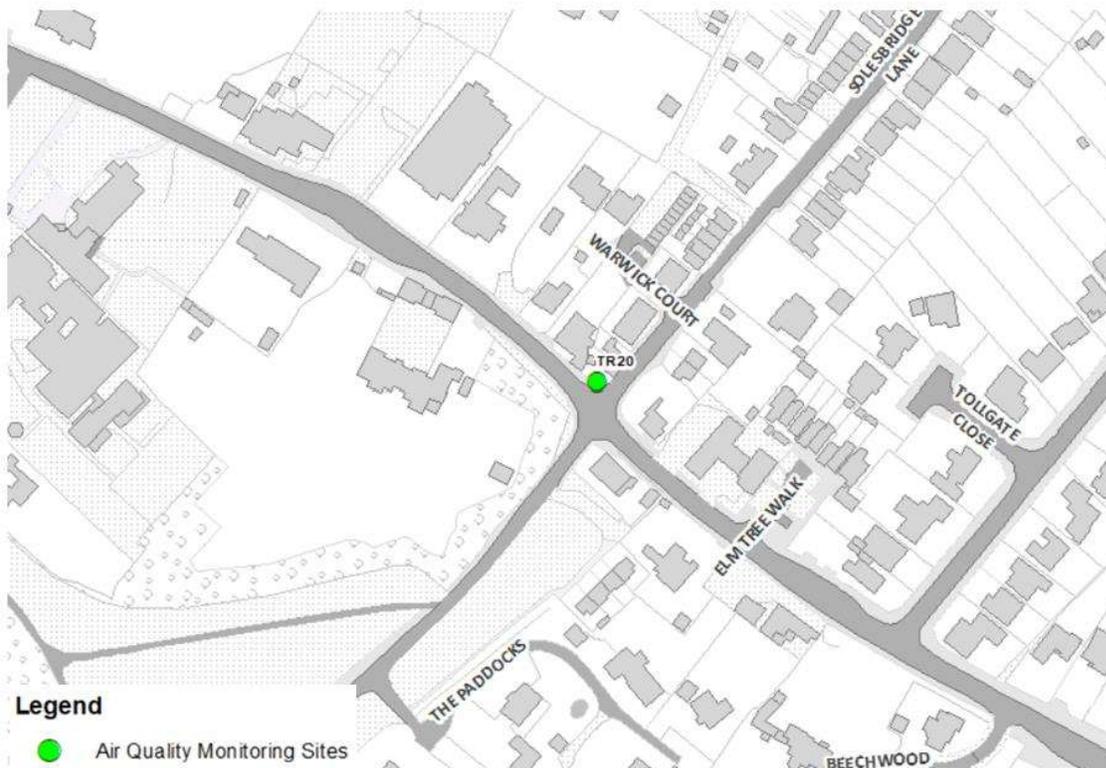


Figure D. 9 - TR21 North Lodge

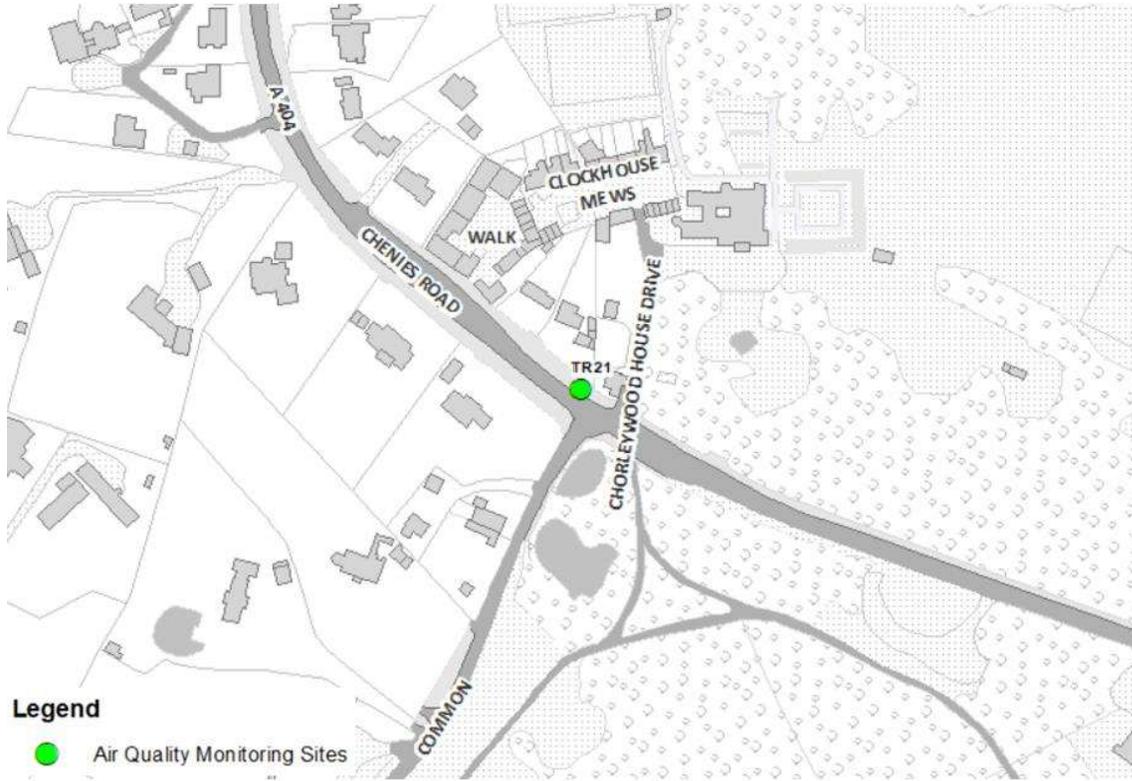


Figure D. 10 - TR22 Wyatt's Road



Figure D. 11 - TR23 Wyatt's Close & TR24 Sunrise



Figure D. 12 - TR25 Chestnut Avenue



Figure D. 13 - TR26 Exchange Mansion

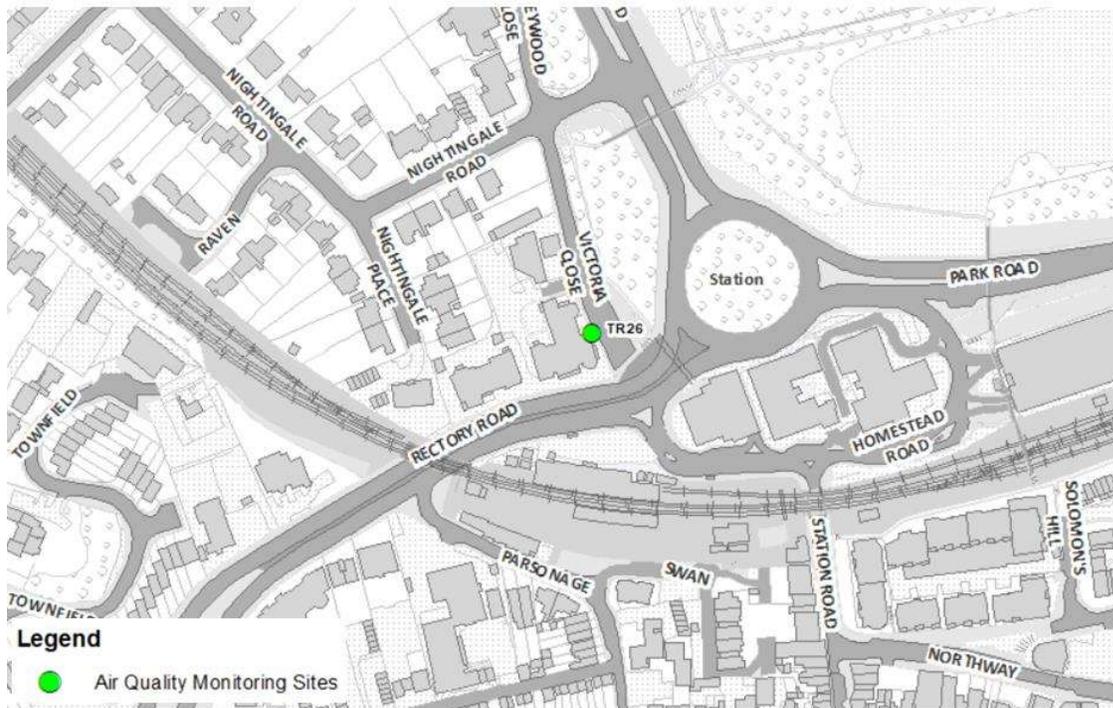


Figure D. 14 - TR27 Uxbridge Road 1, TR28 Uxbridge Road 2 & TR29 Uxbridge Road 3



Figure D. 15 - TR30 Swannells Walk



Figure D. 16 - TR31 Tara



Figure D. 17 - TR32 Denham Way 1

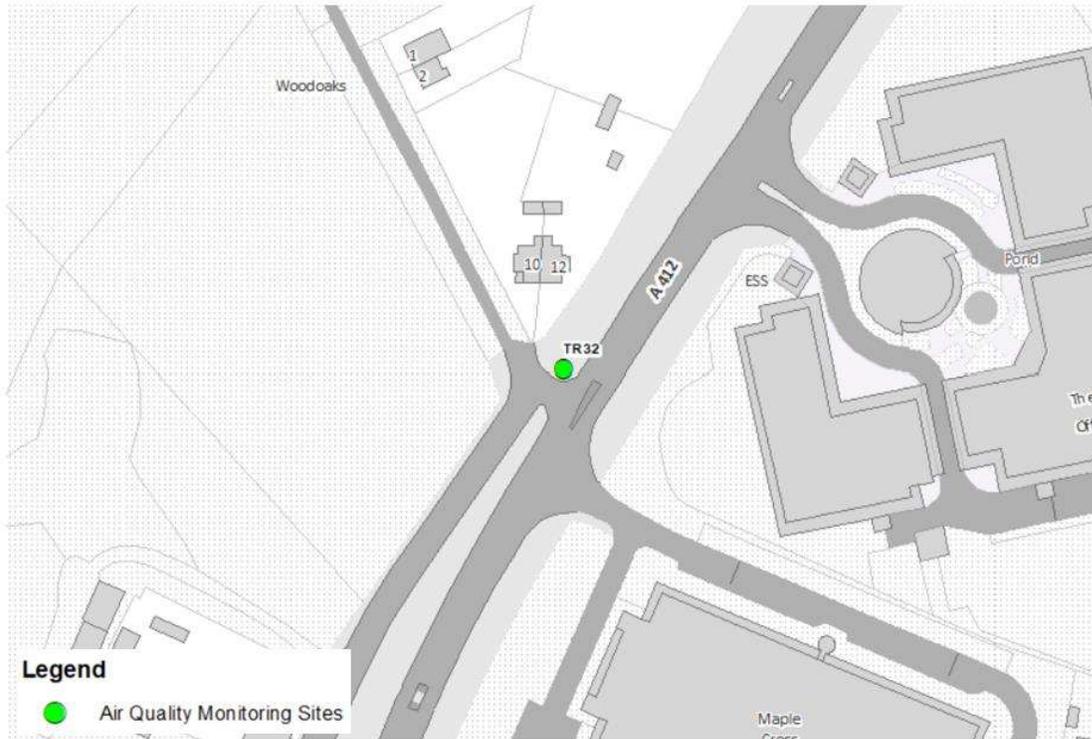


Figure D. 18 - TR33 Crosslands



Figure D. 19 - TR34 Denham Way 2



Figure D. 20 - TR35 Denham Way 3



Figure D. 21 - TR36 St Mary's Court

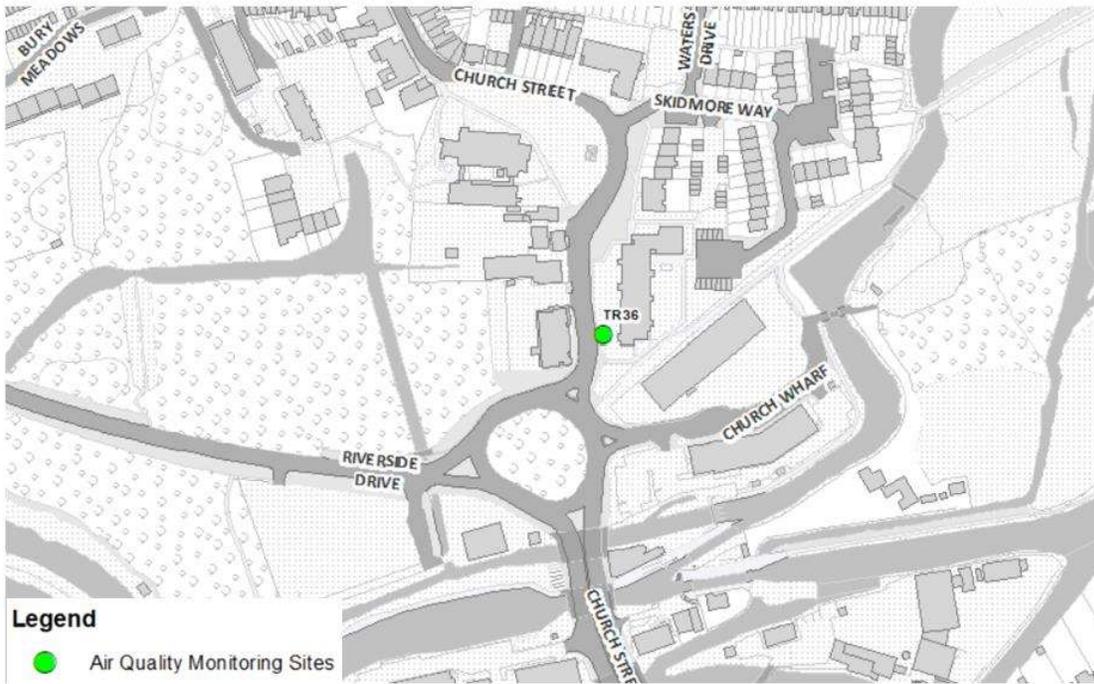


Figure D. 22 - TR37 Church Street

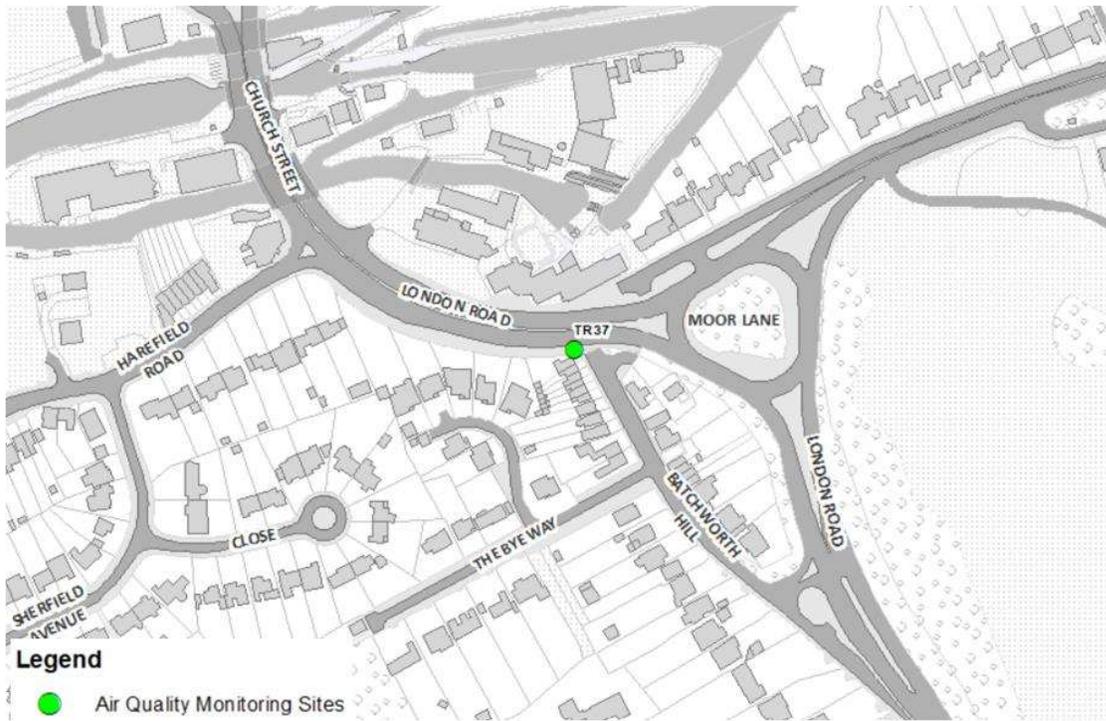


Figure D. 23 - TR39 Hampermill Lane



Figure D. 24 - TR40 Prince of Wales PH

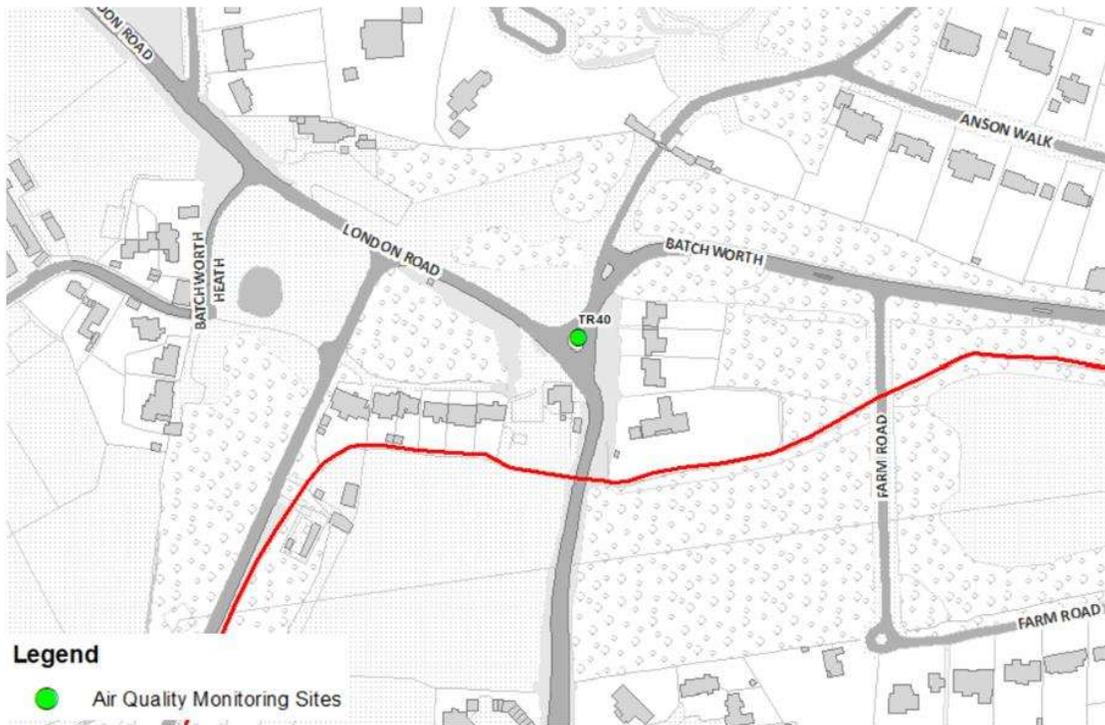
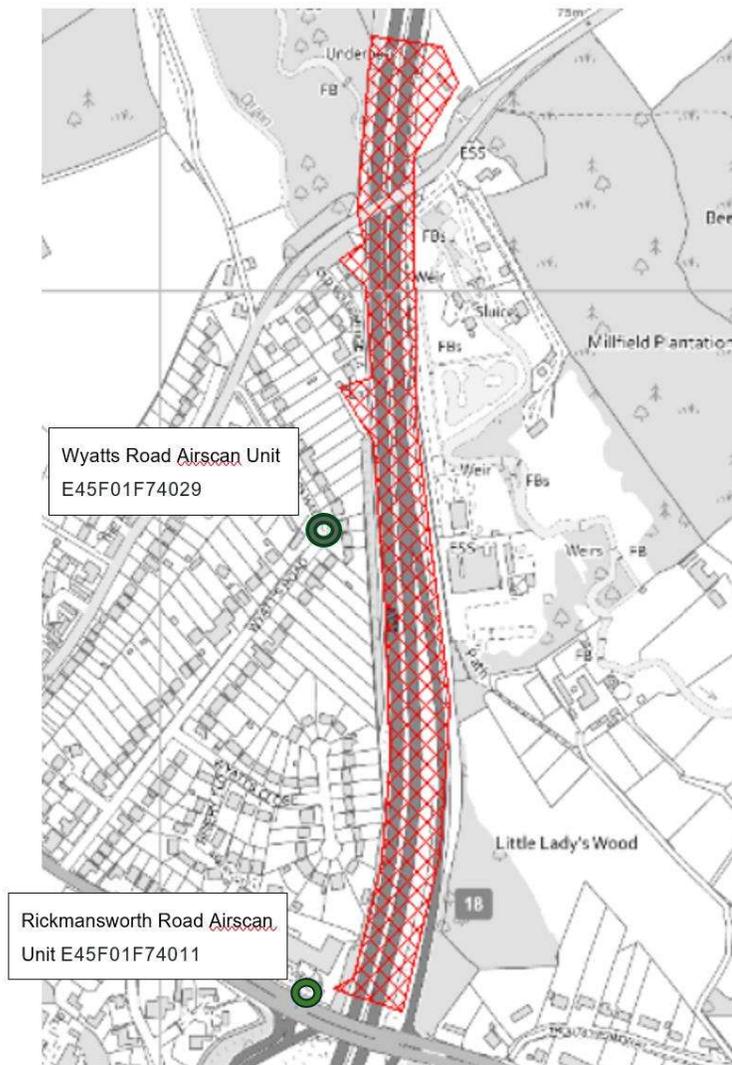


Figure D. 25 - Map showing the Chorleywood PM10 AQMA



Legend
 AQMA_2019



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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/m ³ not to be exceeded more than 18 times a year	1-hour mean
Nitrogen Dioxide (NO ₂)	40µg/m ³	Annual mean
Particulate Matter (PM ₁₀)	50µg/m ³ , not to be exceeded more than 35 times a year	24-hour mean
Particulate Matter (PM ₁₀)	40µg/m ³	Annual mean
Sulphur Dioxide (SO ₂)	350µg/m ³ , not to be exceeded more than 24 times a year	1-hour mean
Sulphur Dioxide (SO ₂)	125µg/m ³ , not to be exceeded more than 3 times a year	24-hour mean
Sulphur Dioxide (SO ₂)	266µg/m ³ , not to be exceeded more than 35 times a year	15-minute mean

² The units are in microgrammes of pollutant per cubic metre of air (µg/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
LAQM	Local Air Quality Management
NO ₂	Nitrogen Dioxide
NO _x	Nitrogen Oxides
PM ₁₀	Airborne particulate matter with an aerodynamic diameter of 10µm or less
PM _{2.5}	Airborne particulate matter with an aerodynamic diameter of 2.5µm or less
QA/QC	Quality Assurance and Quality Control
SO ₂	Sulphur Dioxide

References

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