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: September, 2025

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Local Responsibilities and Commitment

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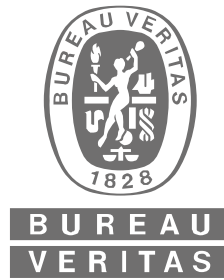- Kieron Smith, Environmental Protection Manager.

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Shropshire Council

2025 Annual Status Report

June 2025

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Executive Summary: Air Quality in Our Area

Air Quality in Shropshire

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.

The Shropshire Council Unitary Authority area is predominantly rural, consisting of both pastoral and arable agriculture, alongside pockets of industry surrounding larger county towns. There are localised areas of poor air quality at key highway junctions including

several significant heavy goods vehicle (HGV) transport routes, on the north/south A49 route, the cross-county M54 and A5 route to/from North Wales and Merseyside, and the A41 route to/from Chester and Birmingham. There are also several large quarries and other industrial sites that are permitted for emissions to air.

Currently Shropshire Council has two Air Quality Management Areas (AQMAs) declared; Bridgnorth AQMA and Shrewsbury No. 3 AQMA. Both AQMAs were declared for exceedances of the annual mean air quality objective of 40µg/m^3 for NO_2. Bridgnorth AQMA was declared in 2005 and the Shrewsbury No.3 AQMA declared in 2003 and amended in 2006.

Whilst the overall five-year trends within both Shrewsbury and Bridgnorth AQMA's indicate an overall reduction in levels, there was one site still exceeding 40µg/m^3 in 2024 and four monitoring locations within 10% of the NO_2 annual mean Air Quality Standard (AQS) objective after distance correction. The highest annual mean concentration within the Bridgnorth AQMA was 43.1µg/m^3 at monitoring location 83 – Downspout of 2 Pound Street. Concentrations of NO_2 have decreased over the last four years, however, the exceedance of the air quality objective currently remains at this position. This was the only exceedance within the Bridgnorth AQMA during 2024. It should be noted that a further monitoring location within the Bridgnorth AQMA, 71 – 6 Pound Street, recorded a concentration within 10% of the 40µg/m^3 air quality objective, following distance correction. This could similarly represent a location of continued exceedance. There were no exceedances of the AQS objective for NO_2 in the wider Bridgnorth area.

The highest concentration of NO_2 within the Shrewsbury AQMA was 39.4µg/m^3. This was recorded at monitoring position 458, located on the underneath of the railway bridge on Castle Foregate. The site of diffusion tube 458 is not considered a representative location of relevant exposure. As such, the concentration at the nearest receptor for this location was estimated using the distance correction via the Diffusion Tube Data Processing Tool (DTDPT). Following distance correction, the predicted concentration at the sensitive receptor was 29.6µg/m^3 which is not within 10% of the AQS objective. Following distance correction the highest concentration was at 438 - Station Hotel 4 Castle Foregate (facade). Following distance correction to the relevant exposure, the concentration at this location was 37.1µg/m^3.

At 233 – Tern Hill, Market Drayton the measured concentration was within 10% of the annual mean NO_2 objective. This location has exceeded the annual mean objective for the last four years, however the diffusion tube is situated at a road traffic junction and is not representative of relevant exposure. The concentration at the location of nearest exposure was 32.6µg/m^3 in 2024 and therefore not exceeding the air quality objective.

In 2023, Shropshire Council drafted new AQAPs for the Bridgnorth and Shrewsbury AQMAs. These plans were developed to address air pollution challenges in the specific AQMA.

The draft AQAPs were then put out for public consultation in 2024. This allowed local residents and other stakeholders to provide feedback and input on the proposed measures in the plans. After incorporating the feedback from the public consultation, Shropshire Council published the final versions of the Bridgnorth and Shrewsbury AQAPs in November 2024.

The publication of these finalized action plans represents an important step by the local authority in their efforts to improve air quality and protect public health in these areas. Developing effective AQAPs is a crucial component of air quality management at the local level. The main focuses of the AQAPs are gyratory in Shrewsbury town centre to allow better traffic flow through the area and the improving cycling and walking in Shropshire.

Actions to Improve Air Quality

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

The Environmental Improvement Plan[1] sets out actions that will drive continued improvements to air quality and to meet the new national interim and long-term targets for fine particulate matter ($PM_{2.5}$), the pollutant of most harmful to human health. The Air

[1] Defra. Environmental Improvement Plan 2023, January 2023

Quality Strategy[2] provides more information on local authorities' responsibilities to work towards these new targets and reduce fine particulate matter in their areas.

The Road to Zero[3] details the Government's approach to reduce exhaust emissions from road transport through a number of mechanisms, in balance with the needs of the local community. This is extremely important given that cars are the most popular mode of personal travel and the majority of Air Quality Management Areas (AQMAs) are designated due to elevated concentrations heavily influenced by transport emissions.

Shropshire Council continues to consider air pollution throughout a number of services and departments with air quality measures found in many of Shropshire's policies. In 2024, work began on Shrewsbury town centre's gyratory system to enhance traffic flow, with completion expected by August 2025. Funded by the Levelling Up Fund, this project aims to streamline road layouts and establish a one-way gyratory system at Castle Foregate. The gyratory system will encompass A5191 Castle Foregate, A5191 Castle Gates, A528 Cross Street, A528 Chester Road, and A458 Smithfield Road, all situated within the AQMA.

The proposed changes include converting Castle Foregate into a single-lane road, with the second lane designated as a cycle lane. This initiative is expected to boost cycling within Shrewsbury. Additionally, Chester Street, previously a one-way road heading north, is now proposed to be a two-way road. This change will shift traffic from Castle Foregate, reducing the volume of traffic from the two main roads entering Shrewsbury, A528 and A5191, to just A5191.

Shropshire Council has paused all work on the proposed Shrewsbury North West Relief Road (NWRR), for which planning consent was approved by committee on 24th February 2024, The council has politically decided to currently halt all work on this action and is seeking clarification around future funding options. The NWRR is now unlikely to be implemented.

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

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

Shropshire Council published the new Local Cycling Walking and Infrastructure Plans (LCWIP) for the county in 2023. Although mainly developed by the Highways and Transportation department, there is greater potential for air quality benefits through increased cycling and walking in the areas and specifically within the AQMAs. Improved and new signage, upgraded cycle paths, new road crossings and wider paths are all in progress in various parts of the Shropshire towns. This will help reduce the reliance on car travel with better connectivity between key places within Shrewsbury and Bridgnorth in particular.

Conclusions and Priorities

Monitoring data in Shropshire shows a continuing decreasing trend in concentrations of NO_2 in 2024. One monitoring location exceeded the AQS objective for NO_2 within the Bridgnorth AQMA in 2024, a reduction from two in 2023. There were five monitoring locations where the annual mean NO_2 concentration was within 10% of the AQS objective.

Shropshire Council published AQAPs for each of the Bridgnorth and Shrewsbury AQMAs in 2024 and continues to work towards better air quality in these areas in 2025 and beyond.

How to get Involved

To reduce air pollution and contribute to clean air everyone living, working and visiting the area can contribute. Every individual and business can promote clean air and help make a difference by considering the following actions:

Shropshire Council are promoting the following messages to the residents on ways they can reduce their personal emissions and help improve air quality in Shropshire.

Avoid driving into congested areas: It is good for your health and your wealth

By planning your journey to avoid congested areas you can make a positive difference. Parking on the edge of town is often cheaper than parking in town centres saving you money. Walking into town from edge of town carparks keeps you active and is good for your family's health. By not driving into congested, polluted areas you reduce your family's exposure to harmful air pollutants and stop your own vehicle emissions contributing to the

problem. An alternative to walking and cycling is to use a Park and Ride or a bus service to get you the final mile.

- To help plan your journey find Shropshire Council car parks:
    - https://www.shropshire.gov.uk/parking/find-my-nearest-car-park/
- For Park and Ride information in Shropshire:
    - https://www.shropshire.gov.uk/public-transport/park-and-ride/

Consider your commute

If you regularly drive to work you may be able to save money by adopting the steps above. Although, you could also reduce the amount of money you spend on fuel and parking by:

- Using the Park and Ride service;
- Cycling or walking to work. Cycling or walking into work once a week could reduce your emissions by 20%; and,
- Car share. Care sharing can be a very effective way of reducing the number of vehicles on the road as well as saving money. The further the journey the more you stand to save. The more you share, the more you save.

Doing the school run - not the school sit

Travelling to and from school at peak times contributes to congestion on our roads at a time of day when there are already an increased number of vehicles. Where a school is within walking or cycling distance, we would encourage this option to be utilised where possible. The benefits can include reduced fuel costs, improved fitness and health through regular exercise for the family, as well as the benefits to air quality in Shropshire.

Consider your fuel

With prices of electric vehicles continuing to fall in line with vehicles powered by other fuels and ranges ever increasing. Electric powered vehicles could be the way for you and your family or business to make a difference and reduce air pollution and individual carbon

footprint. Shropshire Council have partnered with Connected Kerb[4] to increase the number of Electric Vehicle (EV) charging stations in the area with 127 installed already.

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[4] https://newsroom.shropshire.gov.uk/2024/04/smart-charging-to-offer-big-savings-to-shropshires-electric-vehicle-drivers/

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1 Local Air Quality Management

This report provides an overview of air quality in Shropshire 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 Shropshire Council to improve air quality and any progress that has been made.

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

2 Actions to Improve Air Quality

2.1 Air Quality Management Areas

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

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

- NO_2 annual mean.

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
Shrewsbury No.3 AQMA	Declared 01/05/2003, Amended 01/03/2006	NO_2 Annual Mean	The area comprising Frankwell, part of Bridge Street and Smithfield Road Castle Gates and adjacent land, extending to encompass most of the Town Centre including High Street, Wyle Cop, English Bridge and Coleham Head gyratory	No	$86\mu g/m^3$	$37.3\mu g/m^3$ (distance corrected) ($39.4\mu g/m^3$ at monitoring location)	Not Compliant	Shrewsbury Air Quality Action Plan 2024.	[Web Link](#)
Bridgnorth Pound Street AQMA	Declared 1/4/2005	NO_2 Annual Mean	An area encompassing Pound Street and the junction of Whitburn Street and Salop Street.	No	$54.1\mu g/m^3$ (in 2010)	$43.1\mu g/m^3$	Not Compliant	Bridgnorth Air Quality Action Plan 2024	[Web Link](#)

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

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

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

Defra's appraisal of last year's ASR concluded the report was well structured and detailed and praised the maps and it satisfies the criteria of the report.

1. It is stated in Table 2.1 that the level of exceedance in the current year for the Shrewsbury AQMA in 39.7µg/m^3. However, this site has been distance corrected and the concentration at relevant exposure is 39.2µg/m^3, which should be stated as the level of exceedance for the current year.

This has been corrected in the 2025 ASR.

2. A screen capture of the relevant national bias adjustment factor spreadsheet has been included within the report to highlight the use of the correct factor. This is commended, and the Council are encouraged to continue to include this within future reports.

This has been included in this years report.

3. The Council should prioritise the finalised of both AQAPs in the upcoming reporting year, as both AQAPs are currently outdated. Defra recommends that AQAPs are updated every 5 years.

The AQAPs were both published in 2024.

4. Figures have been provided to highlight the locations of monitoring sites. The locations of monitoring sites are clear and the labels are easy to read. The figures also include the locations of the AQMAs. The Council should continue to include figures of this quality in future reports.

Similar figures have been included in this years ASR.

Shropshire Council 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. Ten measures are included within Table 2.2, with the type of measure and the progress Shropshire 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 2024 Action Plans for Bridgnorth and Shrewsbury respectively.

Shropshire Council expects the following measure to be completed over the course of the next reporting year:

- The construction of the Gyratory scheme is nearing completion in 2025
- Implemented the increased car parking charges which were approved at cabinet in December 2024
- School travel plans including surveys of students travel to school and promoting alternative methods to car travel
- Anti-Idling signage outside Shrewsbury Station
- Signage directing traffic round Bridgnorth Bypass

Shropshire Council's priorities for the coming year are the continued implementation of the LCWIP measures in both Shrewsbury and Bridgnorth.

In addition, Shropshire Council has undertaken the following projects in 2024:

- Introduced a subsidised ebike subscription scheme to Shrewsbury (120 bikes allocated).
- 10 telraam sensors installed around town centre to capture data on number of vehicles, cyclists and pedestrians.
- New parkway station to alleviate pressure on Shrewsbury station and reduce traffic in town - Together with a new 'open access' rail operator, Wrexham, Shropshire and Midlands Railway (WSMR) and its partner, rail development and delivery specialist, SLC, Shropshire Council is now investigating the feasibility and private-financing options for the Parkway.
- Shrewsbury park & ride to run more frequently from June 2025.
- Published Bus Service Improvement Plan (BSIP) for 2024.
- Additional on demand bus services added in Shrewsbury with electric bus

Shropshire Council Environmental Protection team worked to implement these measures in partnership with the following stakeholders within Shrewsbury Council during 2024:

- Highways ;
- Climate Change ;
- Passenger Transport t; and,
- Communications .

The principal challenges and barriers to implementation that Shropshire Council anticipates facing are the funding for several measures and the construction process and cost of the NWRR. Additionally identifying the extent of costs and funding for each measure has been difficult in the current economic climate.

Shropshire Council has paused all work on the proposed Shrewsbury North West Relief Road (NWRR), for which planning consent was approved by committee on 24th February 2024, following a meeting with one of the scheme's main funding bodies.   The meeting with the Minster is currently being planned. Although the intention is to cancel the scheme due to its unaffordability, a final decision would need to be considered through a meeting of Cabinet and Full Council. The expected benefit from the NWRR would be a loss, however, the gyratory works that will be completed in September 2025 are anticipated to be sufficient to bring NO2 levels below the legal limit.

Whilst the measures stated above and in Table 2.2 will help to contribute towards compliance, Shropshire Council anticipates that these measures will achieve compliance and enable the revocation of the AQMAs in Shrewsbury and Bridgnorth by 2027.

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	Castle Foregate Gyratory	Traffic Management	Strategic Highways Improvements	2024	2025	Shropshire Council, WSP, Highways	Levelling Up Fund 2	Fully Funded	> £10m.	Planning	15.2µg/m^3 NO$_2$ Concentration reduction at worst case monitoring location	Review of monitoring location results after measure is implemented	Work commenced on the gyratory in 2024 and completion is expected in September 2025.	None
5	LCWIP.	Promoting Travel Alternatives	Promotion of Walking and Cycling	2024	N/A	Shropshire Council	Shropshire Council, Active Travel England, DfT	Different interventions funded independently.	£50k - £100k/	Planning	<0.5µg/m^3 Concentration reduction at worst case receptor location	Review of private vehicle movements on Castle Foregate and uptake of cyclists. Review of monitoring data too.	LCWIP Plan has been adopted in 2023, some cycling paths incorporated into the Castle Foregate Gyratory Scheme due to be completed September 2025	Subject to funding availability, Highway capacity.
11	Bypass Signage – directing traffic to the Bypass round	Public Information	Via other Mechanism	2025	2025	Infrastructure and Growth Shropshire Council	Shropshire Council	Awaiting Funding	£500k - £1m/	Planning	<1.2 – 2.4 µg/m^3 reduction in the AQMA based on a 5% or 10% reduction in the AADT travelling through the AQMA.	Review of the results of monitoring data to determine if a decrease in NO2 can be observed. This should be compared to the traffic flows within the AQMA to see if traffic has been rerouted.	Assessment of sign design and locations being taken forward to inform Community Infrastructure Levy funding application.	Further funding opportunities with S106 or Community Infrastructure Levy
2	Northwest Relief Road (NWRR)	Traffic Management	Strategic Highways Improvements	2024	2027	Shropshire Council, WSP, Highways	Government Capital Grant, Marches LEP, SC Match Funding	Partially Funded	> £10m.	Planning	4.95µg/m^3 NO$_2$ Concentration reduction at worst case receptor location	Review of monitoring location results after measure is implemented	Planning permission for the development of the North West Relief Road was granted in February 2024.	Potential barrier with funding and finalisation following change in political party both nationally and locally.
3	Increased Parking Charge	Alternatives to Private Vehicle Use	Other	2024	2024	Shropshire Council	Shropshire Council	N/A	<£10k	Planning	<0.5µg/m^3 Concentration reduction at worst case receptor location	Review of monitoring data and use of E-bikes, scooters and pedestrians compared to private vehicle movements	Charges were approved by Cabinet in Dec 2024	Charges have now been implemented.
4	Park and Ride	Alternatives to Private Vehicle Use	Bus based Park and Ride	TBC	TBC	Shropshire Council	TBC	TBC	£1 million - £10 million	Planning	0.5-1µg/m^3 Concentration reduction at worst case receptor location	Review of the number of private vehicles movements changes and uptake of bus movements on new park and ride	Frequency of park and ride buses increased in June 2025	Additional P&R at Bowbrook is subject to government funding.
6	Smithfield Re-development	Promoting Travel Alternatives	Promotion of Walking and Cycling	2028	N/A	Shropshire Council	TBC	TBC	> £10m.	Planning	To be measured through monitoring	Review of monitoring concentrations along Smithfield Road following roadworks and increases pedestrianisation	Outline planning consent approved April 2025	Finding developers to invest in scheme
7	Anti-Idling Signage outside of Station	Traffic Management	Anti-Idling Enforcement	2025	2025	Shropshire Council	Shropshire Council	TBC	<£10k	Planning	<0. µg/m^3 Concentration reduction at worst case receptor location	Review of compliance with vehicles anti-idling.	Signs to be installed as part of gyratory works	
8	School Travel Plans	Promoting Travel Alternatives	School Travel Plans	2024	2025	Shropshire Council	Active Travel England, DfT, Shropshire Council	Funded	£10k - £50k/	Planning	<0.5µg/m^3 reduction in the AQMA	Review of the adoption of School Travel plan and the associated reductions of traffic within the AQMA. Surveys to understand how students currently travel to school and the methods and routes they take.	Costs and finalised dates to be confirmed following further discussions with Oldbury Wells School and Sixth Form and Castlefield Primary School	
9	LCWIP – Cycle and Walking path on Whitburn Street	Transport Planning and Infrastructure	Cycle Network	TBC	TBC	Shropshire Council, Highways	Active Travel England, DfT, Shropshire Council	Partially Funded	£50k - £100k/	Planning	<0.5µg/m^3 reduction in the AQMA	Uptake of cycling and walking to High Street as well as a review of the traffic flows within the AQMA after adoption.	Initial planning states, one of the routes within the LCWIP that is highly prioritise is the cycle path on Whitburn Street	LCWIP prioritisation list being reviewed by new administration in terms of funding and strategic priorities
10	ANPR along Pound Street	Traffic Management	Strategic Highways Improvements	TBC	TBC	Shropshire Council, Highways	TBC	TBC	TBC	Planning	<0.5µg/m^3 reduction in the AQMA	Review of the traffic flows during peak times and the subsequent monitoring results within the AQMA.	Being assessed via Integrated Transport Package (ITP)	Further funding opportunities with S106 or Community Infrastructure Levy

2.3 PM$_{2.5}$ – Local Authority Approach to Reducing Emissions and/or Concentrations

As detailed in Policy Guidance LAQM.PG22 (Chapter 8) and the Air Quality Strategy[5], 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 data tool[6] compiled by Public Heath England (PHE) quantifies the mortality burden of PM$_{2.5}$ within England on a county and local authority scale. The latest Public Health Outcomes Framework Indicator number D01 - Fraction of mortality attributable to particulate air pollution (New Method) for Shropshire was noted to be 3.9% in 2023, down from 4.4% in 2022. This is the mortality lowest percentage in the West Midlands Area and below the average for England at 5.2% attributable to air pollution.

Measures within the AQAPs for Shrewsbury and Bridgnorth include measures to improve air quality which are relevant to PM$_{2.5}$. The measures to increase sustainable travel methods such as the LCWIP for each area of the county and Park and Rides. The measures for the AQAP are focussed on NO$_2$ as this is the pollutant for which the AQMA designations are declared, but many of the measures are not only specific to reducing NO$_2$. This includes the introduction of school travel plans and the measures within the LCWIP.

In addition, the expansion of the Automatic Urban and Rual Network (AURN) PM$_{2.5}$ network of monitoring now includes a PM$_{2.5}$ monitoring station in Shrewsbury Underdale in which monitors background PM$_{2.5}$ in the area along with PM$_{10}$. The expansion of the AURN network is due to the Environmental Targets (fine particulate matter) Regulations[7] published in 2023. These regulations set out the Annual Mean Concentration Target

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

[6] PHE. Public Health Outcomes Framework. Available at: https://fingertips.phe.org.uk/profile/public-health-outcomes-framework/data

[7] Defra. Environmental Targets (fine particulate matter) (England) Regulations 2023. 2023

(AMCT) for PM$_{2.5}$ which is 10.0μg/m^3 to be achieved by 2040 and the Population Exposure Reduction Target (PERT) for PM$_{2.5}$ exposure to be reduced by 35% compared to 2018 concentrations. Interim targets were set in in 2023 through the Environmental Improvement Plan to be achieved by 2028. The interim PM$_{2.5}$ target is 12.0μg/m^3.

Monitoring commenced in October 2024 and the results show no exceedance of the air quality targets for PM$_{2.5}$ in 2024. However, as there was less than 25% data capture these results were not annualised. The Defra background maps[8] show concentrations of PM$_{2.5}$ in Shrewsbury are not exceeding the current interim target[9] of 12μg/m^3 or the future 10μg/m^3 air quality objective which is effective from 2040. The highest predicted background concentration of PM$_{2.5}$ in the local authority area in 2024 was 7.0μg/m^3.

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[8] Defra Background Maps https://uk-air.defra.gov.uk/data/laqm-background-home

[9] https://www.gov.uk/government/publications/the-air-quality-strategy-for-england/air-quality-strategy-framework-for-local-authority-delivery#annex-a-tables-of-pollutants-and-limits

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

This section sets out the monitoring undertaken within 2024 by Shropshire 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

Shropshire Council did not undertake any automatic monitoring in 2024, however an AURN PM_{10} and $PM_{2.5}$ monitor was set up in October 2024. There is less than 25% data capture for 2024, the first full year of monitoring will be reported on in the 2026 ASR.

3.1.2 Non-Automatic Monitoring Sites

Shropshire Council undertook non-automatic (i.e. passive) monitoring of NO_2 at 62 sites including a duplicate site 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.

Shropshire Council reviewed the number and location of diffusion tubes in 2024 and commenced monitoring at one new position which is detailed in the tables below, showing the Council's commitment to improving air quality monitoring in the area. Monitoring location 1 – Discount Store (Opp Clock Tower) was decommissioned during 2024. An additional monitoring location was set up in Market Drayton (224 - Junior School, Alexandra Road) to help understand the air quality in this town.

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 in Appendix A compares the ratified and adjusted monitored NO_2 annual mean concentrations for the past five years with the air quality objective of 40µg/m^3. Note that the concentration data presented represents the concentration at the location of the monitoring site, following the application of bias adjustment and annualisation, as required (i.e. the values are exclusive of any consideration to fall-off with distance adjustment).

For diffusion tubes, the full 2024 dataset of monthly mean values is provided in Appendix B. Note that the concentration data presented in Table B.1 includes distance corrected values, only where relevant.

Whilst the overall five-year trends within both Shrewsbury and Bridgnorth AQMA's indicate an overall reduction in levels, there were one site still exceeding 40µg/m^3 in 2024 and five monitoring locations within 10% of the NO_2 annual mean Air Quality Standard (AQS) objective, this is however a reduction on concentrations in 2023 where there where two sites. The highest annual mean concentration within the Bridgnorth AQMA was 43.1µg/m^3 at monitoring location 83 – Downspout of 2 Pound Street, where concentrations of NO_2 have decreased over the last three years. However, the exceedance of the air quality objective currently remains at this position. This was the only exceedance within the Bridgnorth AQMA during 2024. It should be noted that a further monitoring location within the Bridgnorth AQMA was within 10% of the 40µg/m^3 air quality objective, 71 – 6 Pound Street, and was still within 10%, following distance correction. There were no exceedances of the AQS objective for NO_2 in the wider Bridgnorth area.

The highest concentration of NO_2 within the Shrewsbury AQMA was 39.4µg/m^3. This was recorded at monitoring position 458, located under the railway bridge on Castle Foregate. The site of diffusion tube 458 is not considered a representative location of relevant exposure. Following distance correction, the predicted concentration at the sensitive receptor was 29.6µg/m^3 which is not within 10% of the AQS objective.

Following distance correction the highest concentration was 438 - Station Hotel 4 Castle Foregate (façade) which measured 37.1µg/m^3 distance corrected to exposure which is within 10% of the AQS objective for NO$_2$.

Also within the AQMA above 10% of the NO$_2$ AQS objective was site 2 – The Albion in Shrewsbury which monitored 37.0µg/m^3 in 2024, this location is within the AQMA which is declared for the exceedances of the annual mean NO$_2$ objective.

A concentration within 10% of the annual NO$_2$ air quality objective was monitored outside the AQMA designations at 233 – Tern Hill, Market Drayton. This location has exceeded the annual mean objective for the last four years and measured 36.7µg/m^3 in 2024, however the diffusion is situated at a road traffic junction and is not representative of relevant exposure. The concentration at the location of nearest exposure was 29.9µg/m^3 in 2024 and therefore not exceeding the air quality objective.

Concentrations in Market Drayton, the newest tube added to the monitoring network, monitored 11µg/m^3 in 2024 and is therefore well below annual mean air quality objective for NO$_2$.

The trends in Bridgnorth, Shrewsbury and the wider local authority area are detailed in Figures A.1 – A.4.

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.

3.2.2 Particulate Matter (PM$_{10}$)

There is a new AURN monitoring location called Shrewsbury Underdale which commenced monitoring in October 2024. Monitoring shows concentrations of PM$_{10}$ are below the annual mean PM$_{10}$ air quality objective for the period monitored, however there was less than 25% data capture.

Table A.4 in Appendix A: Monitoring Results compares the ratified and adjusted monitored PM$_{10}$ annual mean concentrations for the past five years with the air quality objective of 40µg/m^3.

Table A.5 in Appendix A compares the ratified continuous monitored PM$_{10}$ daily mean concentrations for the past five years with the air quality objective of 50µg/m^3, not to be exceeded more than 35 times per year.

3.2.3 Particulate Matter (PM$_{2.5}$)

There is a new AURN monitoring location called Shrewsbury Underdale which commenced monitoring in October 2024. Monitoring shows concentrations of PM$_{2.5}$ are below the annual mean PM$_{2.5}$ air quality target for the period monitored, however there was less than 25% data capture.

Table A.6 in Appendix A presents the ratified and adjusted monitored PM$_{2.5}$ annual mean concentrations since monitoring began.

3.2.4 Sulphur Dioxide (SO$_2$)

Shropshire Council do not monitor SO$_2$ within the local authority area.

Appendix A: Monitoring Results

Table A.1 – Details of Automatic Monitoring Sites

Site ID	Site Name	Site Type	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Pollutants Monitored	In AQMA?	Which AQMA? [1]	Monitoring Technique	Distance to Relevant Exposure (m) [2]	Distance to kerb of nearest road (m) [1]	Inlet Height (m)
AURN	Shrewsbury Underdale	Urban Background	350998	313295	PM10, PM2.5	No	N/A	FIDAS	11.0	3.0	1.9

Notes:

(1) N/A if not applicable

(2) 0m if the monitoring site is at a location of exposure (e.g. installed on the façade of a residential property).

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

Diffusion Tube ID	Site Name	Site Type	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Pollutants Monitored	In AQMA? Which AQMA?	Distance to Relevant Exposure (m) [1]	Distance to kerb of nearest road (m) [2]	Tube Co-located with a Continuous Analyser?	Tube Height (m)
1	Discount Store (Opp Clock Tower)	Roadside	371951	292992	NO_2	No	0.1	1.5	No	2.5
2	The Albion (Tumbledown) Downspout	Roadside	349405	312972	NO_2	Shrewsbury No.3 AQMA	0.1	2.0	No	2.0
3	75 Scotland Street, lamp post	Roadside	339731	334685	NO_2	No	0.1	2.0	No	3.0
4	Parking Sign Nexus Apartments, Roushill, SY1 1PT	Kerbside	349077	312701	NO_2	Shrewsbury No.3 AQMA	0.1	0.5	No	2.0
9	Lamp post between Squirrel Court & Pound Street	Roadside	371351	293077	NO_2	Bridgnorth AQMA	0.1	1.4	No	2.5
20	Bryan & Knott Bridgnorth	Roadside	371580	293257	NO_2	No	0.0	3.8	No	2.0
27	Smithfield	Roadside	371397	293179	NO_2	No	0.1	3.3	No	2.0
28	50 Whitburn Street	Roadside	371321	293131	NO_2	Bridgnorth AQMA	0.2	1.7	No	2.0
29	Adj Rutters	Roadside	371297	293108	NO_2	Bridgnorth AQMA	1.0	3.3	No	2.0
58	8 Underhill Street	Roadside	371795	292947	NO_2	No	0.0	1.9	No	2.0
59	2A Underhill Street	Roadside	371799	293011	NO_2	No	0.0	1.6	No	2.0
62	2 Mill Street	Roadside	372031	292993	NO_2	No	0.0	1.0	No	2.0
65	49 Mill Street	Roadside	372026	293058	NO_2	No	0.0	2.1	No	2.0
71	6 Pound Street, (On Pelican Crossing)	Roadside	371346	293086	NO_2	Bridgnorth AQMA	0.3	1.1	No	2.0
72	Mini Roundabout - Listley Street (lamp column)	Roadside	371375	293066	NO_2	Bridgnorth AQMA	4.4	1.6	No	2.0
73	18 Pound Street (Downspout)	Roadside	371354	293089	NO_2	Bridgnorth AQMA	0.1	1.2	No	2.0
74	Lamp Column 48 - New Build	Roadside	371340	293125	NO_2	Bridgnorth AQMA	1.9	2.0	No	2.0

Diffusion Tube ID	Site Name	Site Type	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Pollutants Monitored	In AQMA? Which AQMA?	Distance to Relevant Exposure (m) [1]	Distance to kerb of nearest road (m) [2]	Tube Co-located with a Continuous Analyser?	Tube Height (m)
75	Lamp Column 9 - Steps of new build	Roadside	371345	293106	NO₂	Bridgnorth AQMA	1.1	3.0	No	2.0
76	Higgs/Stanton Ralph (Opp 45 Whitburn Street)	Roadside	371366	293146	NO₂	Bridgnorth AQMA	0.1	1.5	No	2.0
77	39/40 Whitburn Street Lamp Column	Roadside	371375	293161	NO₂	Bridgnorth AQMA	0.5	2.2	No	2.0
78	Pedestrian Crossing outside 42 Whitburn Street	Roadside	371360	293152	NO₂	Bridgnorth AQMA	0.2	1.7	No	2.0
79	Chill Salon Downspout between green and black door	Roadside	371346	293143	NO₂	Bridgnorth AQMA	0.1	1.5	No	2.0
80	48 Whitburn Street Downspout	Roadside	371334	293139	NO₂	Bridgnorth AQMA	0.1	1.8	No	2.0
81	Stretton House 3 Salop Street Downspout	Roadside	371288	293119	NO₂	No	0.1	1.2	No	2.0
82	Pedestrian Crossing outside 8 Salop Street	Roadside	371264	293120	NO₂	No	2.5	0.7	No	2.0
83	Downspout of 2 Pound Street Bridgnorth	Roadside	371341	293096	NO₂	Bridgnorth AQMA	0.0	0.5	No	2.0
223	Tern Hill Barn	Roadside	363640	332232	NO₂	No	2.2	1.3	No	2.0
224	Junior School, Alexandra Road	Roadside	366670	333880	NO₂	No	3.65	0.3	No	2.5
305	74 Castle Street	Roadside	328978	329879	NO₂	No	0.1	1.9	No	2.0
314	Downspout on 10 Upper Church Street (Bookbinders)	Roadside	328866	329269	NO₂	No	0.1	1.3	No	2.0
400	A49 Bayston Hill opp 3 Fishes	Roadside	348726	308959	NO₂	No	0.0	1.4	No	2.0
403	Smithfield Road Corner of Victoria Avenue	Roadside	348891	312721	NO₂	Shrewsbury No.3 AQMA	0.0	2.4	No	2.0

Diffusion Tube ID	Site Name	Site Type	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Pollutants Monitored	In AQMA? Which AQMA?	Distance to Relevant Exposure (m) [1]	Distance to kerb of nearest road (m) [2]	Tube Co-located with a Continuous Analyser?	Tube Height (m)
404	Town Walls, opp Murivance	Roadside	348889	312326	NO$_2$	No	0.4	1.8	No	2.0
407	Dogpole (Car Entrance)	Roadside	349330	312503	NO$_2$	Shrewsbury No.3 AQMA	0.2	2.1	No	2.0
413	Ravens Meadow, outside 23 Meadow Terrace	Roadside	349283	312851	NO$_2$	Shrewsbury No.3 AQMA	1.7	0.7	No	2.0
420	Outside 25 Castle Street	Roadside	349396	312742	NO$_2$	Shrewsbury No.3 AQMA	1.0	3.0	No	2.0
428A	Brittania Inn (Post office lamp post)	Roadside	349445	313090	NO$_2$	Shrewsbury No.3 AQMA	N/A	2.0	No	2.0
429	6a Severn Steps adj lamp post	Roadside	349237	312900	NO$_2$	Shrewsbury No.3 AQMA	0.1	1.5	No	2.0
436, 437	The Albert (duplicate)	Roadside	349283	312889	NO$_2$	Shrewsbury No.3 AQMA	14.0	2.8	No	2.0
438	Station Hotel 4 Castle Foregate (facade)	Roadside	349400	312954	NO$_2$	Shrewsbury No.3 AQMA	0.1	1.2	No	2.0
448	Dalton Drive (lamp post)	Roadside	345769	313223	NO$_2$	No	0.1	2.8	No	2.0
449	2 Vaughan's Cottages (downpipe)	Roadside	346796	313509	NO$_2$	No	5.5	0.2	No	2.0
457B	Ellesmere Road / Berwick Road (Traffic Signal)	Roadside	349243	313457	NO$_2$	No	0.1	1.4	No	2.0
457	Ellesmere Road / Berwick Road between Nos. 37/38	Roadside	349235	313441	NO$_2$	No	0.4	0.9	No	2.0
458	Under Railway Bridge Over Castle Foregate	Roadside	349426	313028	NO$_2$	Shrewsbury No.3 AQMA	>5.0	2.0	No	2.0
459	Post in car park outside railway station	Roadside	349424	312936	NO$_2$	Shrewsbury No.3 AQMA	N/A	18.0	No	2.0
461	Junction of Dogpole with High St/Wyle Cop	Roadside	349327	312389	NO$_2$	Shrewsbury No.3 AQMA	2.0	2.0	No	2.0
462	Welshpool Road	Roadside	345248	313412	NO$_2$	No	2.0	13.0	No	2.5

Diffusion Tube ID	Site Name	Site Type	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Pollutants Monitored	In AQMA? Which AQMA?	Distance to Relevant Exposure (m) [1]	Distance to kerb of nearest road (m) [2]	Tube Co-located with a Continuous Analyser?	Tube Height (m)
468	Downpipe on Front of Number 3 Witchurch Road	Roadside	350376	314599	NO_2	No	0.0	7.3	No	2.0
474	- Lamp Column, 2 Whiterock Cottages	Roadside	348647	308771	NO_2	No	0.9	1.7	No	2.0
476	Chester Street on street parking bay height sensor post	Roadside	349360	312962	NO_2	Shrewsbury No.3 AQMA	0.3	1.4	No	2.0
477	Bus opp Community Church, Chester St	Roadside	349299	313108	NO_2	Shrewsbury No.3 AQMA	1.0	2.1	No	2.0
480	lamp post by takeaway near Britaninia Inn	Roadside	349466	313151	NO_2	Shrewsbury No.3 AQMA	0.5	2.6	No	2.0
482	Royal Mail Lamp column by traffic lights	Roadside	349436	313064	NO_2	Shrewsbury No.3 AQMA	N/A	1.0	No	2.0
485	Frankwell Terrace	Roadside	348815	312854	NO_2	Shrewsbury No.3 AQMA	1.4	2.6	No	2.0
487	English Bridge by St Julian Friars (No Entry Sign)	Roadside	349529	312328	NO_2	Shrewsbury No.3 AQMA	7.7	3.0	No	2.0
488	Lamp post infront of Hobbit House Berwick Road Shrewsbury Corner of Ellesmere Rd and Berwick Rd	Roadside	349223	313449	NO_2	No	1.0	1.0	No	2.0
489	Bus stop outside 9 Berwick Road Shrewsbury	Roadside	349148	313444	NO_2	No	0.2	0.6	No	2.0
490	Lamp post outside 41 Berwick Road Shrewsbury	Roadside	348964	313466	NO_2	No	10.0	0.2	No	2.0
501	Corner of 25 Chester Street / Cross Street	Roadside	349349	313071	NO_2	Shrewsbury No.3 AQMA	1.8	1.6	No	2.0
502	Post outside Cambrian House	Roadside	349364	312998	NO_2	Shrewsbury No.3 AQMA	0.5	2.5	No	2.0

Diffusion Tube ID	Site Name	Site Type	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Pollutants Monitored	In AQMA? Which AQMA?	Distance to Relevant Exposure (m) [1]	Distance to kerb of nearest road (m) [2]	Tube Co-located with a Continuous Analyser?	Tube Height (m)
503	Downspout 68-69 Frankwell	Roadside	348611	312969	NO_2	No	0.1	0.7	No	2.0
504	Lamp Column 9-11 St Georges Court	Roadside	348669	312885	NO_2	Shrewsbury No.3 AQMA	1.0	2.4	No	2.0

Notes:

(1) 0m if the monitoring site is at a location of exposure (e.g. installed on the façade of a residential property).

(2) N/A if not applicable.

Table A.3 – Annual Mean 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 (%) [1]	Valid Data Capture 2024 (%) [2]	2020	2021	2022	2023	2024
1	371951	292992	Roadside	100.0	24.3	-	-	-	21.3	24.7
2	349405	312972	Roadside	75.0	75.0	-	-	-	-	37.1
3	339731	334685	Roadside	72.7	72.7	-	-	-	21.6	22.4
4	349077	312701	Kerbside	83.2	83.2	-	-	-	-	15.7
9	371351	293077	Roadside	75.1	75.1	-	-	-	27.8	30.7
20	371580	293257	Roadside	100.0	100.0	15.0	17.8	19.8	17.6	18.2
27	371397	293179	Roadside	92.2	92.2	19.7	23.6	15.8	15.9	13.9
28	371321	293131	Roadside	83.0	83.0	-	36.7	35.8	33.7	30.9
29	371297	293108	Roadside	84.3	84.3	21.6	23.9	23.3	22.5	21.5
58	371795	292947	Roadside	100.0	100.0	26.2	29.1	27.6	26.3	24.9
59	371799	293011	Roadside	100.0	100.0	23.4	24.0	24.5	22.9	21.0
62	372031	292993	Roadside	73.5	73.5	25.2	29.1	28.1	27.1	23.6
65	372026	293058	Roadside	92.2	92.2	24.6	28.3	25.5	24.6	24.6
71	371346	293086	Roadside	92.2	92.2	**40.8**	**43.2**	**41.5**	39.9	38.2
72	371375	293066	Roadside	92.2	92.2	22.4	23.8	22.6	19.4	20.1
73	371354	293089	Roadside	83.0	83.0	26.5	28.7	27.3	26.9	24.8
74	371340	293125	Roadside	100.0	100.0	22.7	25.2	24.4	21.1	22.2
75	371345	293106	Roadside	90.8	90.8	22.4	24.1	23.9	22.0	20.3
76	371366	293146	Roadside	100.0	100.0	28.4	28.8	29.5	28.0	27.4
77	371375	293161	Roadside	90.5	90.5	30.4	29.9	29.2	29.3	29.4
78	371360	293152	Roadside	92.7	92.7	32.2	35.9	32.9	31.9	28.4
79	371346	293143	Roadside	100.0	100.0	35.3	36.9	35.6	33.8	32.5
80	371334	293139	Roadside	100.0	100.0	37.2	**40.3**	37.5	36.6	33.7
81	371288	293119	Roadside	100.0	100.0	20.1	23.3	21.3	23.5	19.3
82	371264	293120	Roadside	92.2	92.2	17.0	20.4	19.1	17.4	20.8
83	371341	293096	Roadside	100.0	100.0	-	**49.4**	**47.8**	**44.5**	**43.1**
223	363640	332232	Roadside	100.0	100.0	**43.1**	**45.9**	**43.9**	**40.1**	36.7
224	366670	333880	Roadside	75.9	75.9	-	-	-	-	11.0
305	328978	329879	Roadside	100.0	100.0	19.9	20.0	21.6	21.0	19.7
314	328866	329269	Roadside	100.0	100.0	27.2	25.9	27.2	26.6	24.5
400	348726	308959	Roadside	100.0	100.0	22.5	22.3	21.3	21.9	19.7
403	348891	312721	Roadside	90.5	90.5	23.0	23.0	25.0	22.4	21.6
404	348889	312326	Roadside	90.5	90.5	12.0	12.0	11.8	11.0	10.6

Diffusion Tube ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Site Type	Valid Data Capture for Monitoring Period (%) [1]	Valid Data Capture 2024 (%) [2]	2020	2021	2022	2023	2024
407	349330	312503	Roadside	92.4	92.4	18.1	19.6	19.8	18.1	17.0
413	349283	312851	Roadside	100.0	100.0	21.2	22.7	23.1	23.1	21.2
420	349396	312742	Roadside	82.9	82.9	21.2	21.9	23.3	21.1	20.3
428A	349445	313090	Roadside	85.1	85.1	-	-	32.4	31.2	26.6
429	349237	312900	Roadside	100.0	100.0	21.8	22.7	24.1	23.4	23.1
436, 437	349283	312889	Roadside	100.0	100.0			28.7	26.6	25.6
438	349400	312954	Roadside	100.0	100.0	**40.2**	**43.9**	**43.4**	39.7	37.8
448	345769	313223	Roadside	100.0	100.0	7.2	7.0	7.1	6.0	5.8
449	346796	313509	Roadside	100.0	100.0	13.5	14.7	15.0	16.3	13.1
457B	349243	313457	Roadside	100.0	100.0	-	-	25.5	24.1	22.1
457	349235	313441	Roadside	100.0	100.0	-	-	28.3	26.4	24.2
458	349426	313028	Roadside	100.0	100.0	38.5	**42.2**	**42.6**	38.3	39.4
459	349424	312936	Roadside	100.0	100.0	26.6	29.2	29.8	27.3	27.0
461	349327	312389	Roadside	100.0	100.0	18.7	20.1	21.3	19.2	20.0
462	345248	313412	Roadside	100.0	100.0	-	-	-	13.7	14.1
468	350376	314599	Roadside	100.0	100.0	27.5	17.7	18.0	17.9	15.7
474	348647	308771	Roadside	100.0	100.0	36.3	35.2	33.0	31.5	30.4
476	349360	312962	Roadside	100.0	100.0	22.5	24.4	25.0	23.1	22.6
477	349299	313108	Roadside	100.0	100.0	23.1	23.9	24.8	22.0	21.8
480	349466	313151	Roadside	100.0	100.0	24.8	27.9	28.3	27.1	24.3
482	349436	313064	Roadside	65.9	65.9	32.3	32.9	31.7	30.2	26.2
485	348815	312854	Roadside	100.0	100.0	20.3	22.4	22.9	20.8	20.0
487	349529	312328	Roadside	100.0	100.0	17.5	17.5	17.9	15.7	15.2
488	349223	313449	Roadside	100.0	100.0	-	22.9	22.5	20.9	19.0
489	349148	313444	Roadside	100.0	100.0	-	18.6	18.4	17.0	15.8
490	348964	313466	Roadside	83.2	83.2	-	13.3	14.5	12.4	11.6
501	349349	313071	Roadside	90.5	90.5	24.6	27.8	28.5	25.1	24.1
502	349364	312998	Roadside	100.0	100.0	-	-	22.0	20.7	20.1
503	348611	312969	Roadside	100.0	100.0	-	26.1	23.6	22.6	21.9
504	348669	312885	Roadside	75.0	75.0	-	-	23.0	20.4	19.4

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

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

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

Notes:

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

Exceedances of the NO$_2$ annual mean objective of 40µg/m^3 are shown in **bold**.

NO$_2$ annual means exceeding 60µg/m^3, indicating a potential exceedance of the NO$_2$ 1-hour mean objective are shown in **<u>bold and underlined</u>**.

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 within Shrewsbury AQMA (part 1)

Figure A.2 – Trends in Annual Mean NO$_2$ Concentrations within Shrewsbury AQMA (part 2)
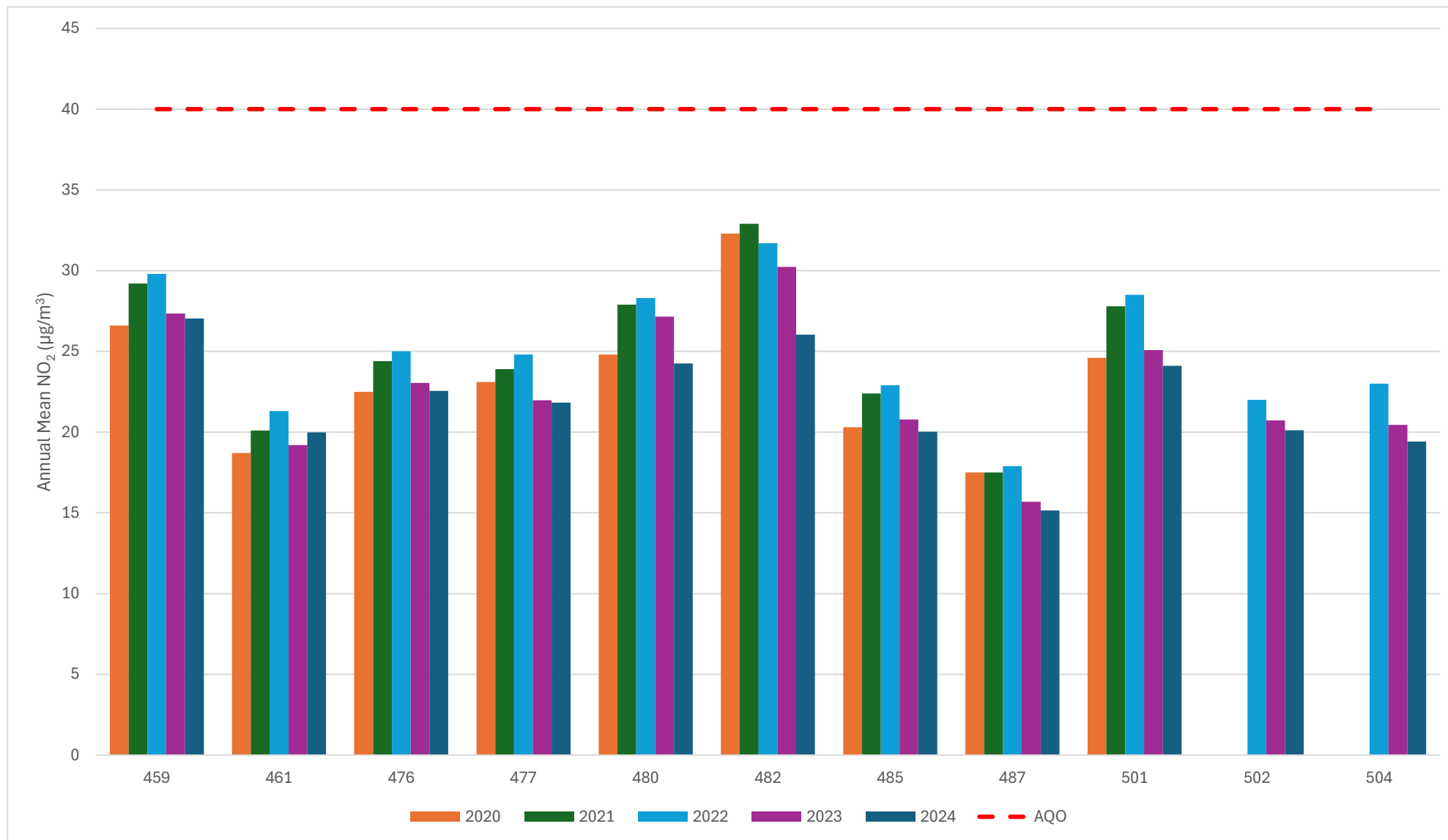
Figure A.3 – Trends in Annual Mean NO₂ Concentrations within Bridgnorth AQMA
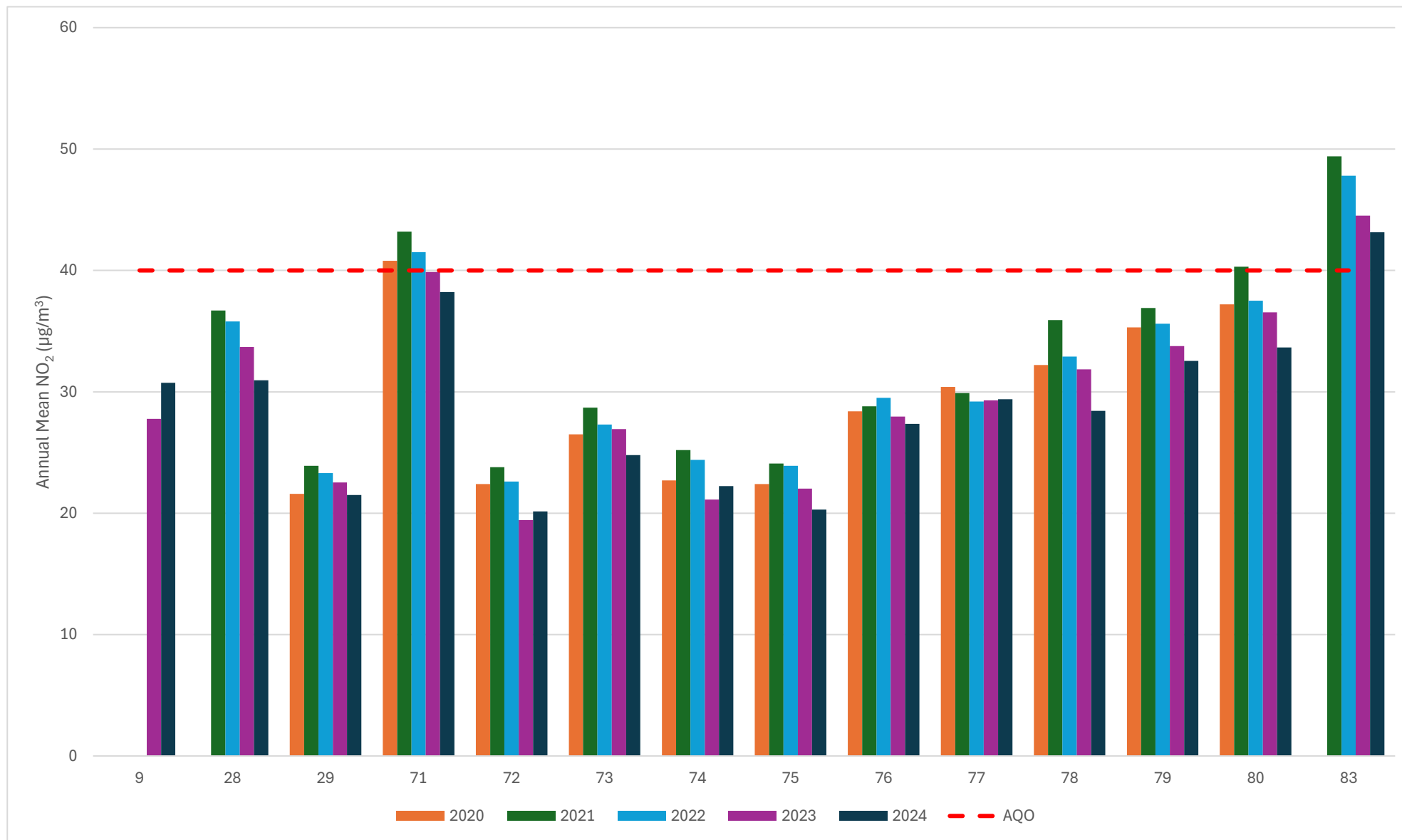
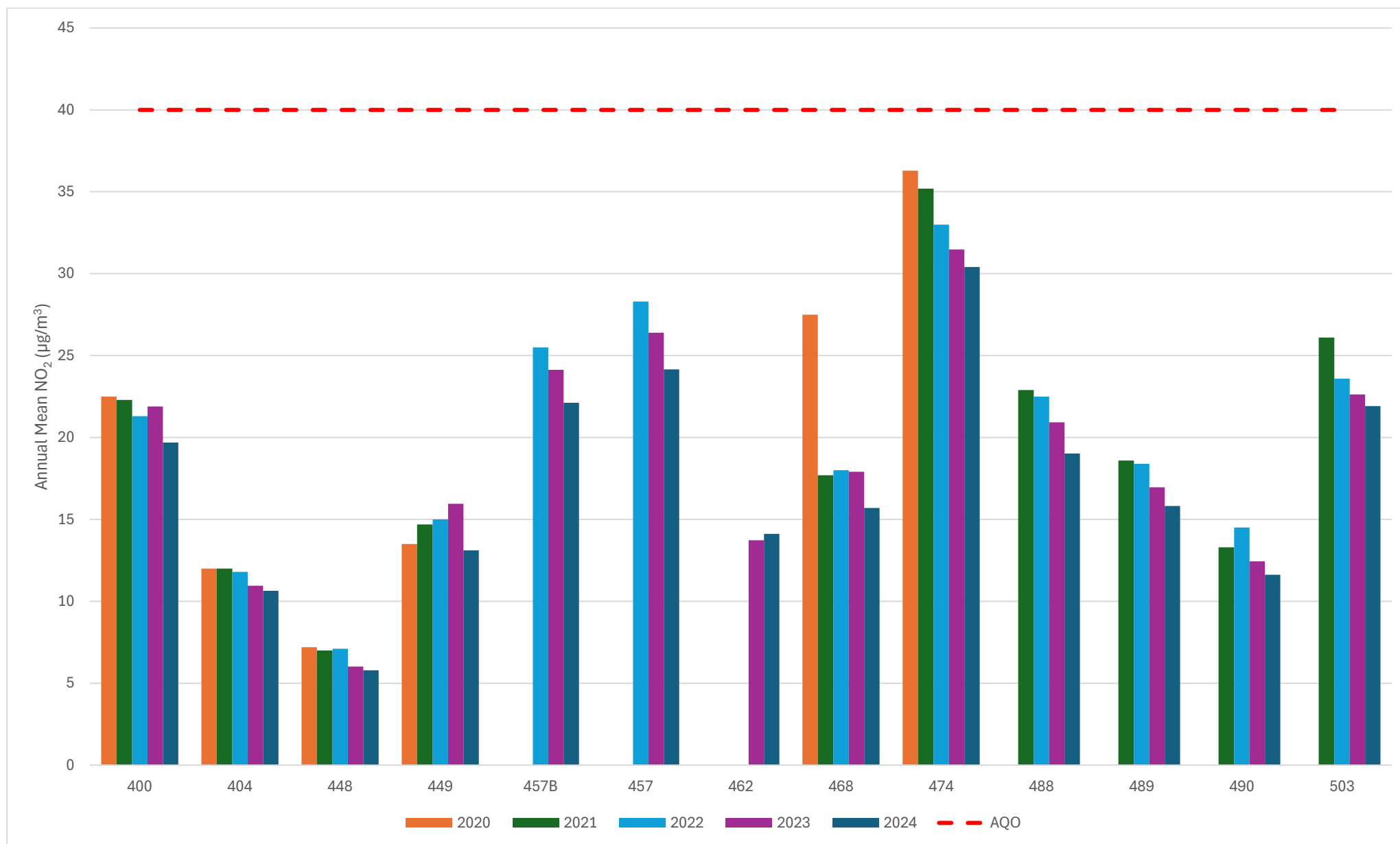**Figure A.4 – Trends in Annual Mean NO₂ Concentrations outside the AQMAs (part 1)**
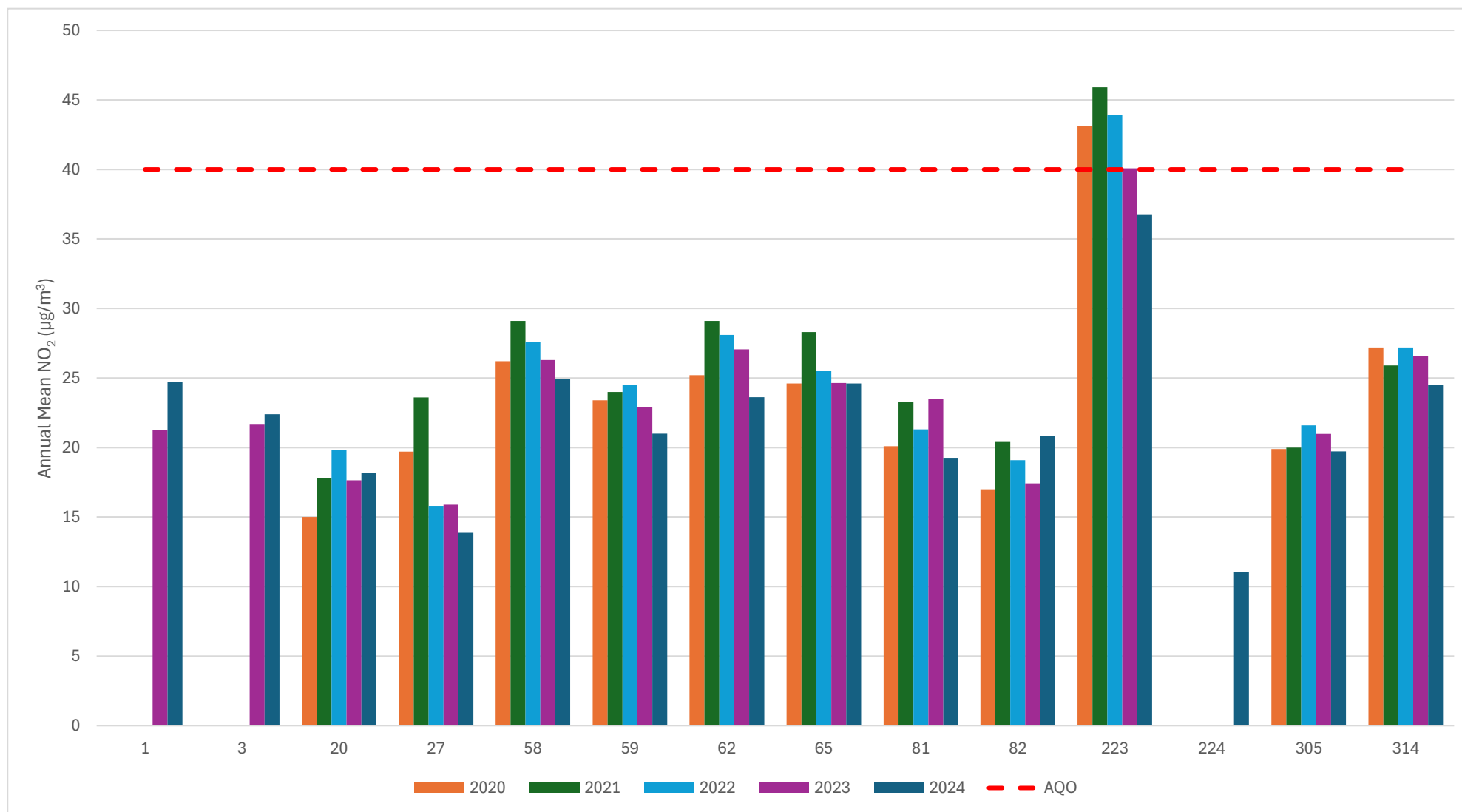
Figure A.5 – Trends in Annual Mean NO₂ Concentrations outside the AQMAs (part 2)

Table A.4 – Annual Mean PM$_{10}$ Monitoring Results (µg/m^3)

Site ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Site Type	Valid Data Capture for Monitoring Period (%) [1]	Valid Data Capture 2024 (%) [2]	2020	2021	2022	2023	2024
AURN	350998	313295	Urban Background	97.3	21.9	-	-	-	-	10.1

☒ **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/m^3.

Exceedances of the PM$_{10}$ annual mean objective of 40µg/m^3 are shown in **bold**.

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

(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.5 – 24-Hour Mean PM$_{10}$ Monitoring Results, Number of PM$_{10}$ 24-Hour Means > 50µg/m^3

Site ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Site Type	Valid Data Capture for Monitoring Period (%) [1]	Valid Data Capture 2024 (%) [2]	2020	2021	2022	2023	2024
AURN	350998	313295	Urban Background	97.3	21.9	-	-	-	-	0 (20)

Notes:

Results are presented as the number of 24-hour periods where daily mean concentrations greater than 50µg/m^3 have been recorded.

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

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

(1) Data capture for the monitoring period, in cases where monitoring was only carried out for part of the year.

(2) Data capture for the full calendar year (e.g. if monitoring was carried out for 6 months, the maximum data capture for the full calendar year is 50%).

Table A.6 – Annual Mean PM₂.₅ Monitoring Results (µg/m³)

Site ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Site Type	Valid Data Capture for Monitoring Period (%) [1]	Valid Data Capture 2024 (%) [2]	2020	2021	2022	2023	2024
AURN	350998	313295	Urban Background	97.3	21.9	-	-	-	-	6.7

☒ **Annualisation has been conducted where data capture is <75% and >25% in line with LAQM.TG22. N/A data validation is less than 25%**

Notes:

The annual mean concentrations are presented as µg/m³.

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: Annualised and Bias Adjusted (0.84)	Annual Mean: Distance Corrected to Nearest Exposure	Comment
1	371951	292992	32.4	28.9	27.0										29.4	24.7	-	
2	349405	312972		43.9	43.1		49.0	40.4	42.6	40.3	52.9	41.2	44.5		44.2	37.1	37.0	
3	339731	334685	30.6	31.5	26.1	20.8	25.6	21.3	23.5		25.4	32.3			26.4	22.4	-	
4	349077	312701		23.4	19.7	16.1	15.8	14.8	15.9	14.9	21.0	21.1	24.2		18.7	15.7	-	
9	371351	293077	43.0	35.3	34.7				33.6	31.8	36.2	37.8	40.8	36.1	36.6	30.7	-	
20	371580	293257	18.6	31.7	24.7	18.1	20.0	14.5	17.3	17.3	20.7	24.2	28.7	23.6	21.6	18.2	-	
27	371397	293179	26.3	23.4	18.0	13.2	13.3	9.9	12.7	11.7	14.4	20.4		18.3	16.5	13.9	-	
28	371321	293131	37.4	44.3	40.1		24.3	32.3	28.3		42.2	39.3	43.4	36.8	36.8	30.9	-	
29	371297	293108	33.9		30.9	21.2	24.0		19.8	17.6	24.3	29.0	30.9	24.6	25.6	21.5	-	
58	371795	292947	29.9	35.4	32.6	29.6	32.0	25.6	27.7	21.9	29.5	28.6	33.2	29.7	29.7	24.9	-	
59	371799	293011	27.9	32.8	27.4	21.3	22.1	19.1	21.0	26.5	19.2	25.9	29.7	26.8	25.0	21.0	-	
62	372031	292993	32.9	33.0	30.0	28.0			25.7	23.5	31.7	31.0	36.3		30.2	23.6	-	
65	372026	293058	30.9	30.8	27.4	31.6	30.9	26.2		24.9	30.7	29.3	31.2	28.3	29.3	24.6	-	
71	371346	293086	50.4	53.1	45.9	45.3	44.9	41.6	43.5	39.4	45.9	44.6		46.0	45.5	38.2	36.6	
72	371375	293066	26.4	27.2	23.5	19.9	23.6	18.4		18.4	25.4	26.0	28.2	26.7	24.0	20.1	-	
73	371354	293089	32.8	32.6	27.7	28.3			25.3	20.8	33.9	29.3	30.9	33.7	29.5	24.8	-	
74	371340	293125	32.9	29.0	29.4	24.8	23.0	19.3	22.1	19.6	30.2	28.7	33.2	25.7	26.5	22.2	-	
75	371345	293106	28.4	28.3	27.0	15.6	24.0	19.6	20.7	19.3	26.9		30.2	25.7	24.2	20.3	-	
76	371366	293146	25.6	35.4	36.4	38.0	29.6	26.4	37.5	24.8	26.4	33.7	45.9	31.2	32.6	27.4	-	
77	371375	293161	46.7	35.8	29.6	42.8	36.3	31.9	29.2	28.0	34.0	32.6	37.9		35.0	29.4	-	
78	371360	293152	41.8	40.4	33.1	22.1	37.5	37.2	19.5	29.0		34.0	39.0	38.8	33.9	28.4	-	
79	371346	293143	43.0	42.1	36.8	29.8	47.1	38.9	35.6	33.4	44.5	36.9	38.0	38.7	38.7	32.5	-	
80	371334	293139	44.1	43.1	38.5	39.9	38.4	38.9	34.1	32.4	48.4	35.4	47.4	40.4	40.1	33.7	-	
81	371288	293119	23.0	23.5	20.4	22.4	23.0	20.4	20.2	16.4	31.9	21.8	27.7	24.6	22.9	19.3	-	
82	371264	293120	26.8	24.0	23.2	34.6	21.7	19.3	34.5	15.4	27.0	21.7		24.5	24.8	20.8	-	
83	371341	293096	54.5	57.4	53.2	49.4	50.2	41.9	48.0	41.2	51.5	57.8	59.4	52.1	51.4	**43.1**	-	
223	363640	332232	44.4	47.3	47.9	42.7	45.1	36.3	43.1	38.5	48.2	42.4	50.6	38.2	43.7	36.7	29.9	

DT ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual Mean: Raw Data	Annual Mean: Annualised and Bias Adjusted (0.84)	Annual Mean: Distance Corrected to Nearest Exposure	Comment
224	366670	333880			13.5	11.9	11.1	8.8		8.5	13.3	13.8	20.1	17.3	13.1	11.0	-	
305	328978	329879	28.3	27.6	22.8	19.1	20.4	18.4	19.6	17.8	22.6	26.4	31.8	27.2	23.5	19.7	-	
314	328866	329269	36.3	36.1	28.6	27.3	26.1	22.6	24.9	23.4	30.3	26.8	36.8	30.9	29.2	24.5	-	
403	348891	312721	40.1	26.8	26.3	21.8	22.3	21.8	22.0	21.9	24.6		31.2	24.5	25.8	21.6	-	
404	348889	312326	15.9	15.5	12.9	9.9	10.0	6.9	9.5		13.7	14.6	17.2	13.2	12.7	10.6	-	
407	349330	312503	24.3	23.8	21.9	18.0	20.5	15.0	16.5	14.6	23.1	23.5		21.8	20.3	17.0	-	
413	349283	312851	27.6	29.6	26.9	22.1	22.9	19.1	19.9	21.6	27.7	29.9	29.3	26.7	25.3	21.2	-	
420	349396	312742	27.2	25.9	24.8	22.3	23.2	18.2	19.3			27.0	29.8	24.0	24.2	20.3	-	
428A	349445	313090		36.9	40.1	32.3	34.1		23.5	23.5	31.1	34.4	32.7	28.0	31.7	26.6	-	
429	349237	312900	31.4	33.7	31.0	24.3	25.8	19.4	20.5	22.4	27.6	32.4	30.6	31.2	27.5	23.1	-	
436	349283	312889	30.3	34.9	34.0	29.8	29.4	23.8	25.9	25.6	31.6	35.1	34.9	28.8	-	-	-	
437	349283	312889	31.2	28.0	35.1	28.8	31.2	24.3	26.3	26.5	36.1	32.1	35.6	31.1	30.4	25.6	-	
438	349400	312954	35.3	48.2	47.3	50.3	49.7	41.6	47.0	41.3	45.6	41.9	46.9	44.6	45.0	37.8	37.3	
448	345769	313223	8.9	11.1	7.2	5.0	5.0	3.3	4.4	3.9	6.4	9.5	10.9	7.1	6.9	5.8	-	
449	346796	313509	17.8	20.1	17.0	12.1	15.5	10.9	11.8	11.7	18.4	18.6	18.0	15.3	15.6	13.1	-	
457B	349243	313457	28.4	27.6	25.4	23.0	26.8	21.2	26.1	24.7	27.2	29.3	31.7	24.5	26.3	22.1	-	
457	349235	313441	32.0	18.9	26.7	28.4	30.3	29.5	27.7	27.2	33.0	30.9	34.5	26.0	28.8	24.2	-	
458	349426	313028	42.7	56.1	54.1	52.5	53.7	41.8	41.3	35.1	48.6	46.8	48.5	40.8	46.8	39.4	29.6	
459	349424	312936	38.7	35.5	37.2	31.7	30.8	24.0	23.7	25.0	30.3	35.4	38.6	35.5	32.2	27.0	-	
461	349327	312389	23.5	25.1	25.4	22.5	23.2	18.3	20.7	18.1	28.0	26.3	30.4	24.0	23.8	20.0	-	
462	345248	313412	18.1	19.8	17.3	11.6	14.8	12.4	13.8	12.1	15.7	27.0	23.1	15.9	16.8	14.1	-	
468	350376	314599	20.3	25.2	21.2	16.2	18.2	10.3	13.7	12.7	18.5	27.3	23.6	17.1	18.7	15.7	-	
474	348647	308771	37.0	43.1	39.0	33.5	32.7	27.6	35.0	36.2	40.2	41.3	35.7	33.0	36.2	30.4	-	
476	349360	312962	29.6	30.0	28.7	24.8	23.6	21.4	22.4	25.4	27.5	32.0	31.8	25.0	26.8	22.6	-	
477	349299	313108	27.0	29.7	26.4	22.8	22.6	23.2	25.2	25.9	25.6	29.3	30.4	23.7	26.0	21.8	-	
480	349466	313151	29.9	20.5	34.7	27.6	25.7	21.2	30.4	26.7	32.9	38.6	32.8	25.5	28.9	24.3	-	
482	349436	313064	38.6	37.9	42.8	34.6	33.0				30.1	34.3	42.7		36.7	26.2	-	
485	348815	312854	29.3	25.3	24.4	22.3	25.4	19.8	11.2	18.4	29.7	26.1	30.1	24.1	23.8	20.0	-	
487	349529	312328	24.0	21.0	18.3	15.0	17.0	12.6	14.1	11.4	22.6	20.3	23.2	16.9	18.0	15.2	-	
488	349223	313449	25.8	26.8	25.7	19.6	21.3	15.5	20.6	18.6	22.6	27.4	24.1	23.7	22.6	19.0	-	
489	349148	313444	21.6	22.4	19.2	13.7	18.7	13.9	14.7	16.0	17.9	24.8	25.4	17.6	18.8	15.8	-	

DT ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual Mean: Raw Data	Annual Mean: Annualised and Bias Adjusted (0.84)	Annual Mean: Distance Corrected to Nearest Exposure	Comment
490	348964	313466	17.4			11.3	14.4	10.0	9.9	10.0	14.3	17.7	20.4	13.0	13.8	11.6	-	
501	349349	313071	29.5	31.6	33.6	26.4	29.1	19.3	25.1		33.8	32.8	30.3	24.1	28.7	24.1	-	
502	349364	312998	26.0	24.7	29.2	19.4	24.8	14.9	17.7	20.3	29.4	31.4	27.7	21.8	23.9	20.1	-	
503	348611	312969	23.9	23.1	28.7	24.7	37.0	19.9	22.7	19.0	30.3	28.6	31.1	24.2	26.1	21.9	-	
504	348669	312885		28.1	22.8			21.3	20.1	17.3	25.1	26.5	21.7	25.2	23.1	19.4	-	

☒ **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.**

☒ **Shropshire 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 Shropshire Council During 2024

The council are currently considering an outline planning application for 1500 dwellings and a mixed use local centre on Land at Tasley on the outskirts of Bridgnorth. (plan ref: 25/01722/OUT)

Additional Air Quality Works Undertaken by Shropshire Council During 2024

Public consultation on the AQAP drafts for Bridgnorth and Shrewsbury was undertaken in 2024 and the final AQAP published in November.

QA/QC of Diffusion Tube Monitoring

Gradko International Ltd supply and analyse Shropshire Council's diffusion tubes. The tubes were prepared using the 20% TEA in water preparation method. During 2024, Shropshire Council's diffusion tube monitoring was carried out in accordance with the 2024 Diffusion Tube Monitoring Calendar for the whole calendar year.

Gradko International Ltd, a UKAS accredited laboratory, participate in the AIR-PT scheme for NO_2 diffusion tube analysis and Annual Field Intercomparison Exercise. These provide strict criteria relating to performance that participating laboratories must meet, thereby ensuring that the reported NO_2 concentrations are of a high calibre. In the first four rounds of results during 2024, running form January – October (AIR-PT AR062, AR063, AR064, AR065 and AR066), Gradko International Ltd were awarded a score of 100% – the percentage score is an indication of the results deemed satisfactory based upon the z-score of < ±2. At the time of writing this report, the AIR-PT results for October - December 2024 were not available. For all observations during 2024, the precision of NO_2 diffusion tubes supplied by Gradko International Ltd was classified as 'good'. The precision is an indication of the laboratory's performance and consistency in the preparation, analysis and handling of the diffusion tubes (full details of the precision results are available here).

Diffusion Tube Annualisation

Annualisation was undertaken where data capture was more than 25% and less than 75% in the year. Annualisation was undertaken for site 1 where data was only collected for the first three months of the year. Annualisation was undertaken using data from the closest three representative background AURN sites in Aston Hill, Leominster and Telford Hollinswood where data capture for NO$_2$ was greater than 85%. The annualisation process is detailed in Table C.1 below.

Table C.1 – Annualisation Summary (concentrations presented in µg/m³)

Site ID	Annualisation Factor Aston Hill	Annualisation Factor Leominster	Annualisation Factor Telford Hollinswood	Average Annualisation Factor	Raw Data Annual Mean	Annualised Annual Mean
1	0.9578	0.7582	0.7893	0.8247	29.4	24.6
3	0.9954	1.10128	1.0231	1.0104	26.4	26.6
62	0.9594	0.9022	0.9309	0.9308	30.2	28.1
482	0.8467	0.8327	0.8673	0.8489	36.7	31.2

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$_x$/NO$_2$ continuous analysers. Alternatively, the national database of diffusion tube co-location surveys provides bias factors for the relevant laboratory and preparation method.

Shropshire Council have applied a national bias adjustment factor of 0.84 to the 2024 monitoring data. A summary of bias adjustment factors used by Shropshire Council over the past five years is presented in Table C.2.

Table C.2 – Bias Adjustment Factor

Monitoring Year	Local or National	If National, Version of National Spreadsheet	Adjustment Factor
2024	National	06/25	0.84
2023	National	03/24	0.81
2022	National	06/23	0.84

Monitoring Year	Local or National	If National, Version of National Spreadsheet	Adjustment Factor
2021	National	03/22	0.84
2020	National	06/21	0.81

Figure C.1 – National Bias Adjustment Spreadsheet

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.

Table C.3 – Non-Automatic NO₂ Fall off With Distance Calculations (concentrations presented in µg/m³)

Site ID	Distance (m): Monitoring Site to Kerb	Distance (m): Receptor to Kerb	Monitored Concentration (Annualised and Bias Adjusted	Background Concentration	Concentration Predicted at Receptor	Comments
2	2.0	2.1	37.1	6.8	37.0	
71	1.1	1.4	38.2	4.5	36.6	
223	1.3	3.5	36.7	4.2	29.9	
438	1.2	1.3	37.8	6.8	37.3	
458	2.0	7.0	39.4	6.2	29.6	

QA/QC of Automatic Monitoring

Monitoring undertaken at Shrewsbury Underdale is part of the AURN network and QA/QC duties are therefore the responsibility of the AURN contract. Shropshire Council do not undertake QA/QC for the FIDAS at this monitoring location.

Annualisation was not undertaken for the PM_{10} and $PM_{2.5}$ monitoring in 2024 as there was less than 25% data capture. Monitoring commenced in October 2024.

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

Figure D.1 – Map of All Monitoring Sites
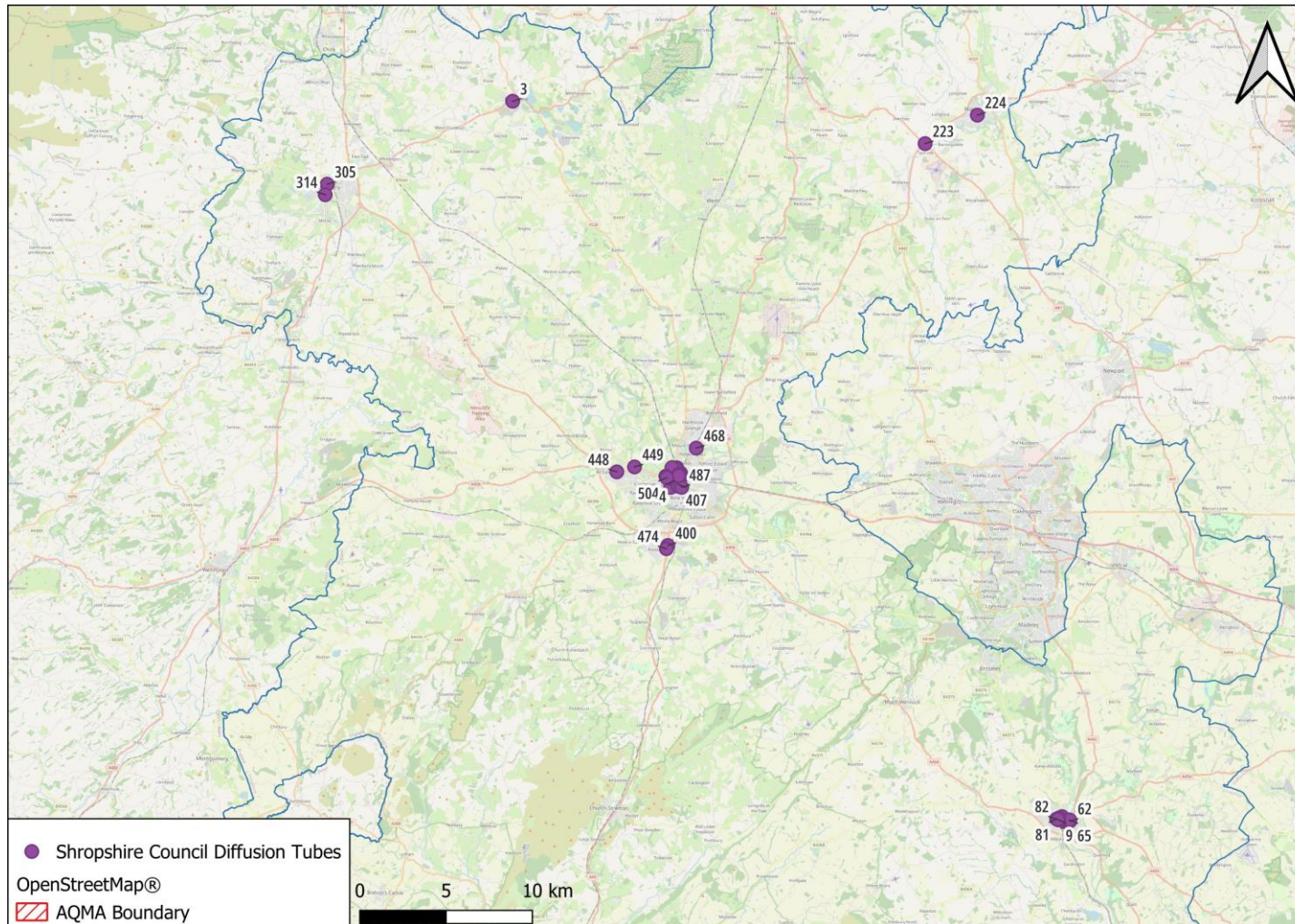
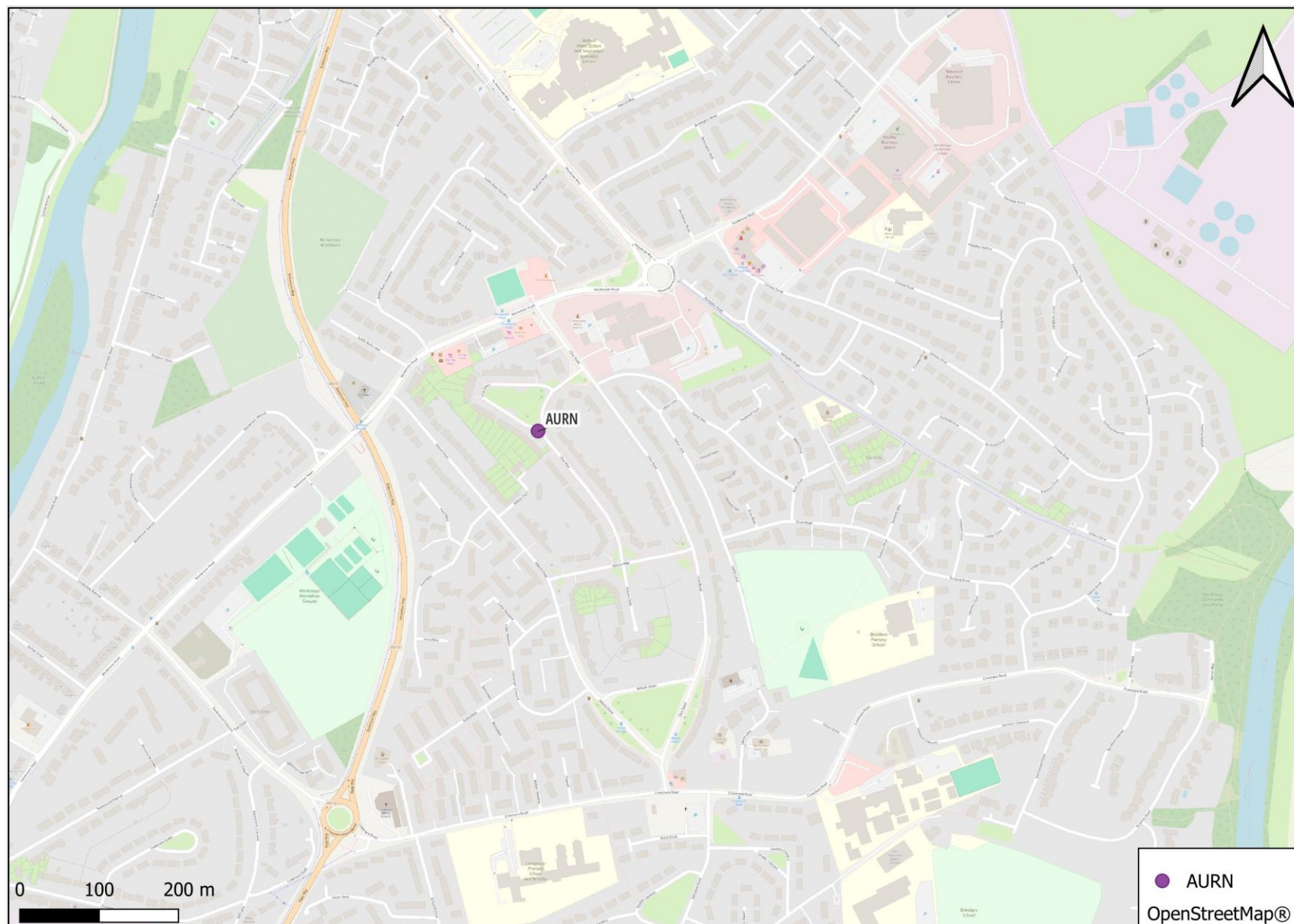**Figure D.2 – Map of Automatic Monitoring Site – Shrewsbury**

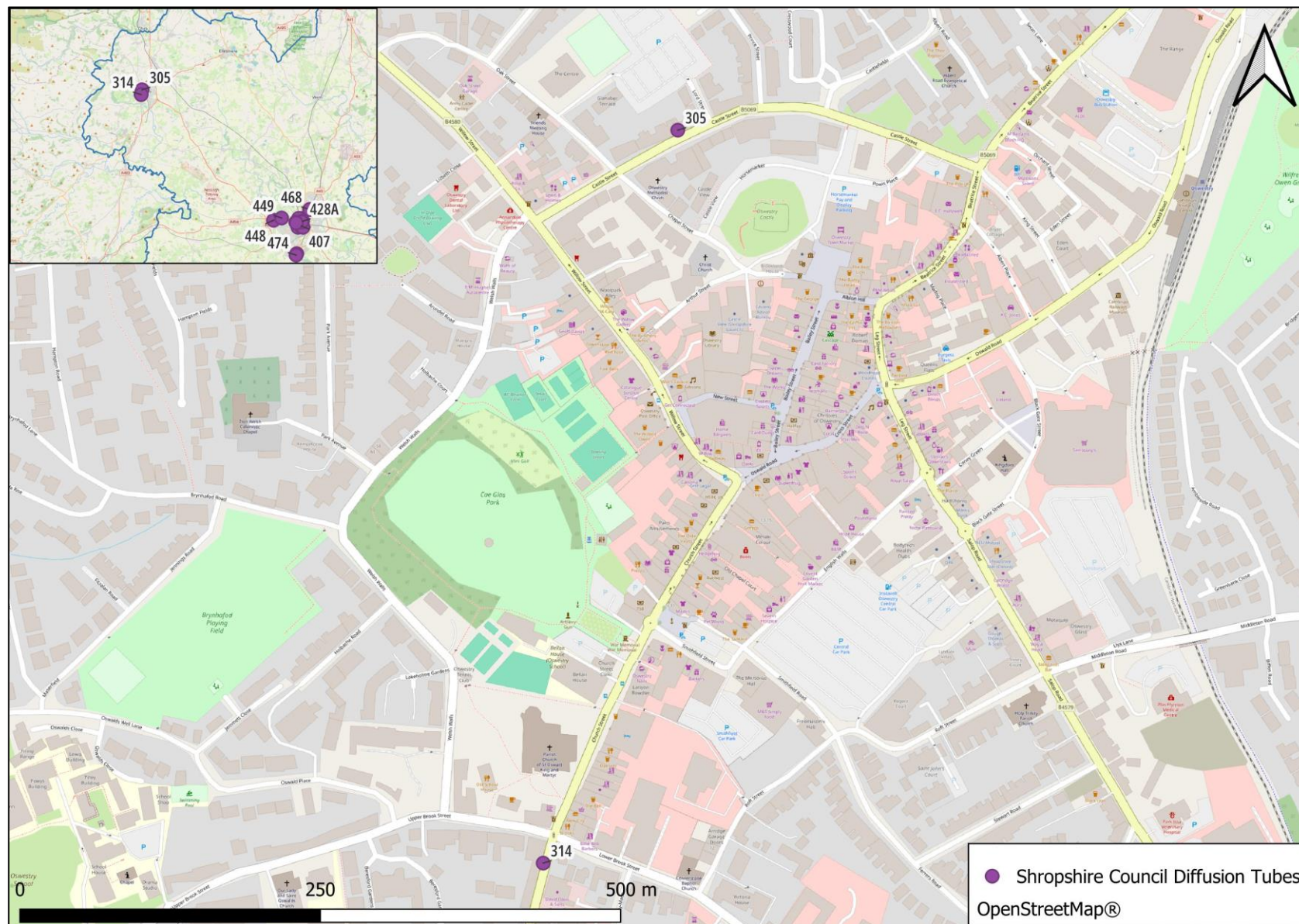**Figure D.3 – Map of Non-Automatic Monitoring Site – Oswestry**

Figure D.4 – Map of Non-Automatic Monitoring Site – Tern Hill

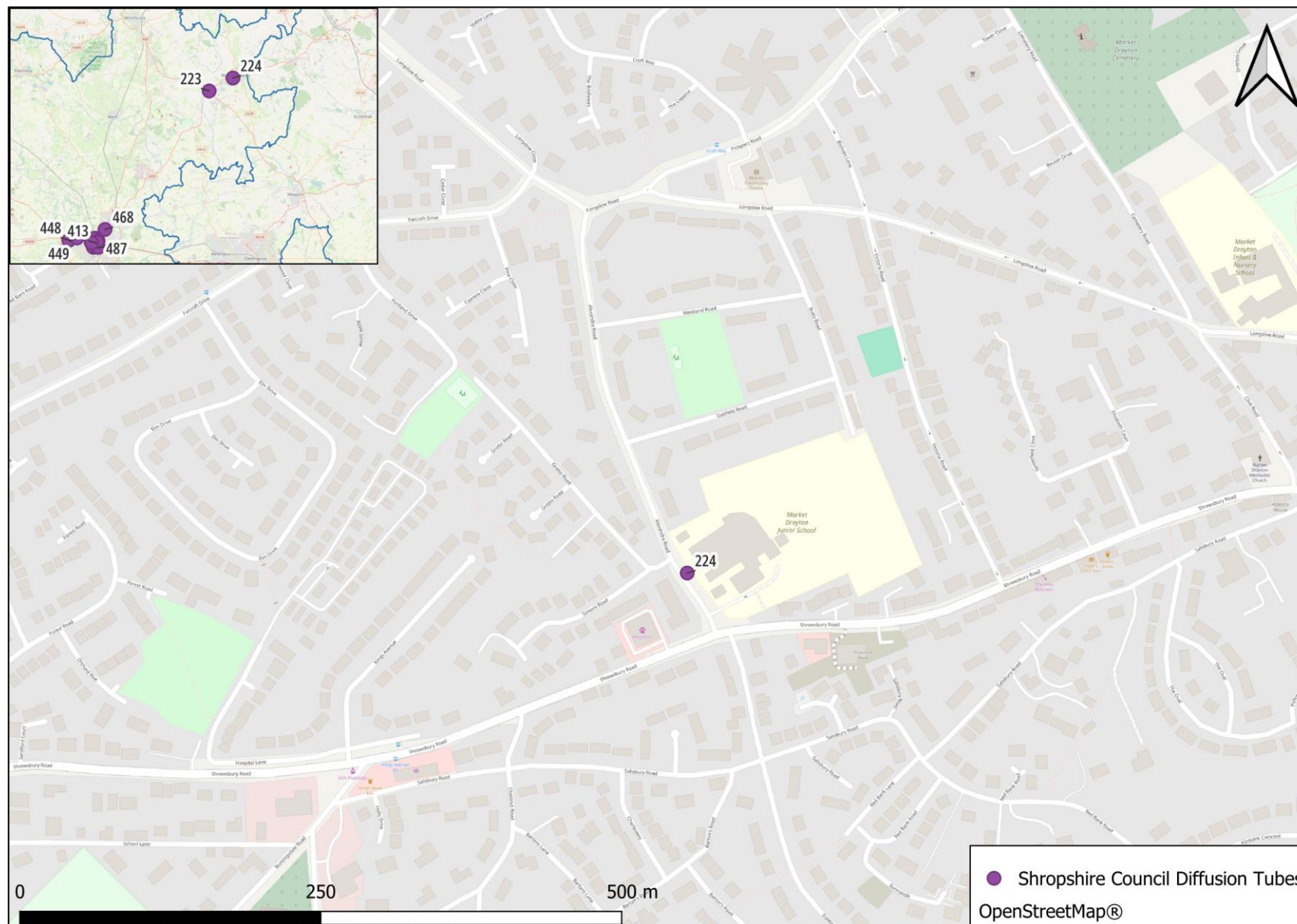**Figure D.5 – Map of Non-Automatic Monitoring Site – Market Drayton**

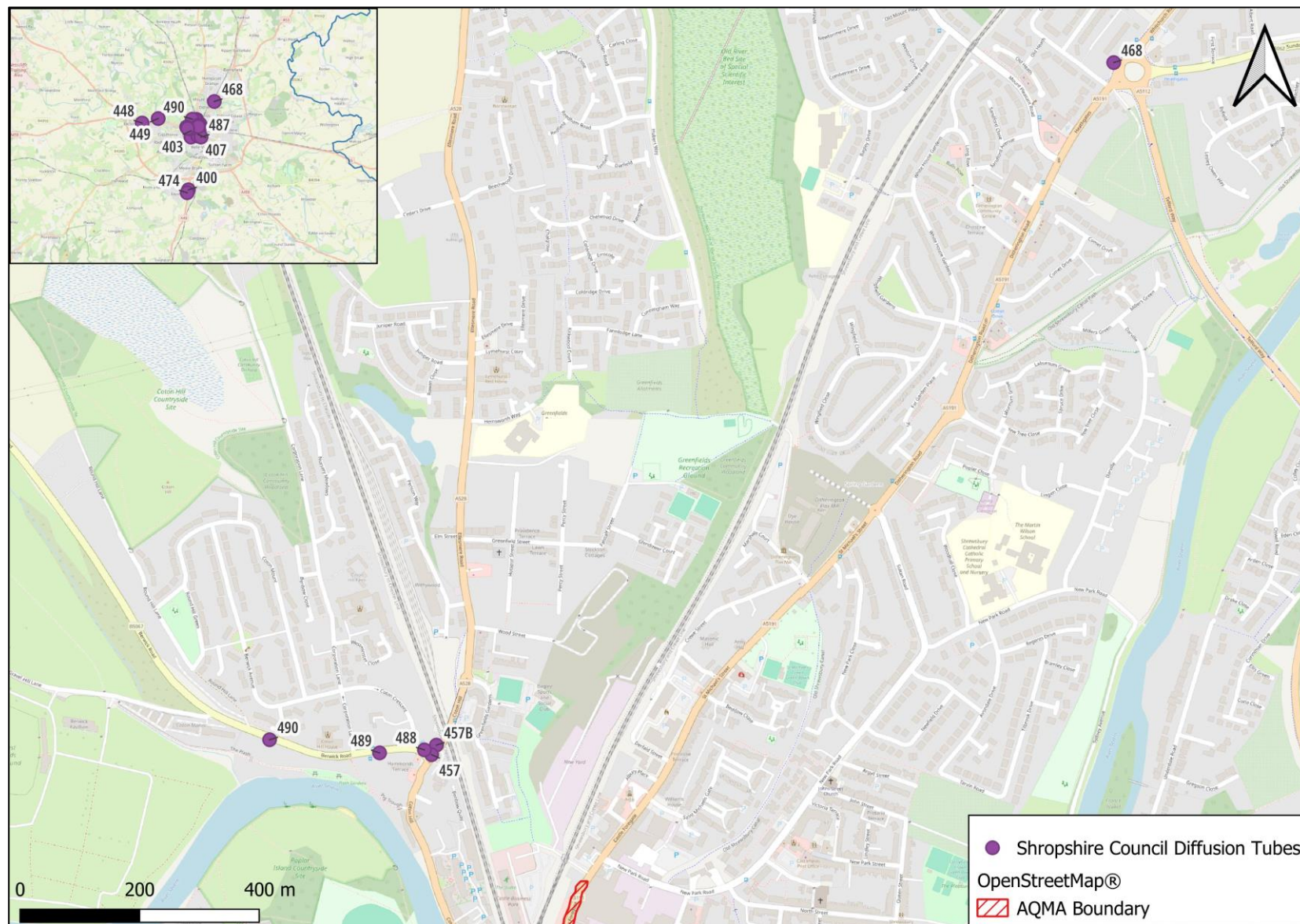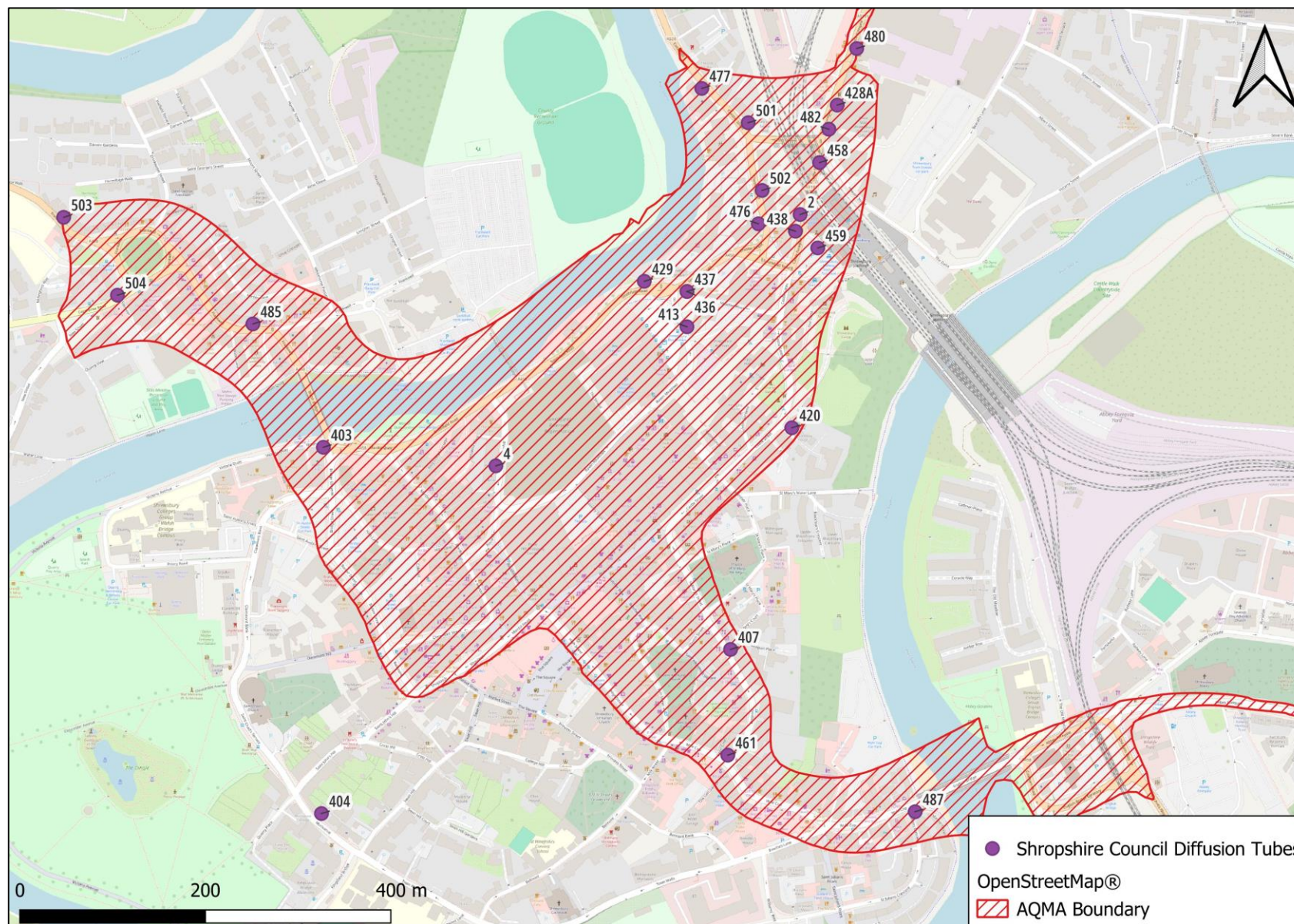**Figure D.6 – Map of Non-Automatic Monitoring Site – Shrewsbury (North)**

Figure D.7 – Map of Non-Automatic Monitoring Site – Shrewsbury AQMA

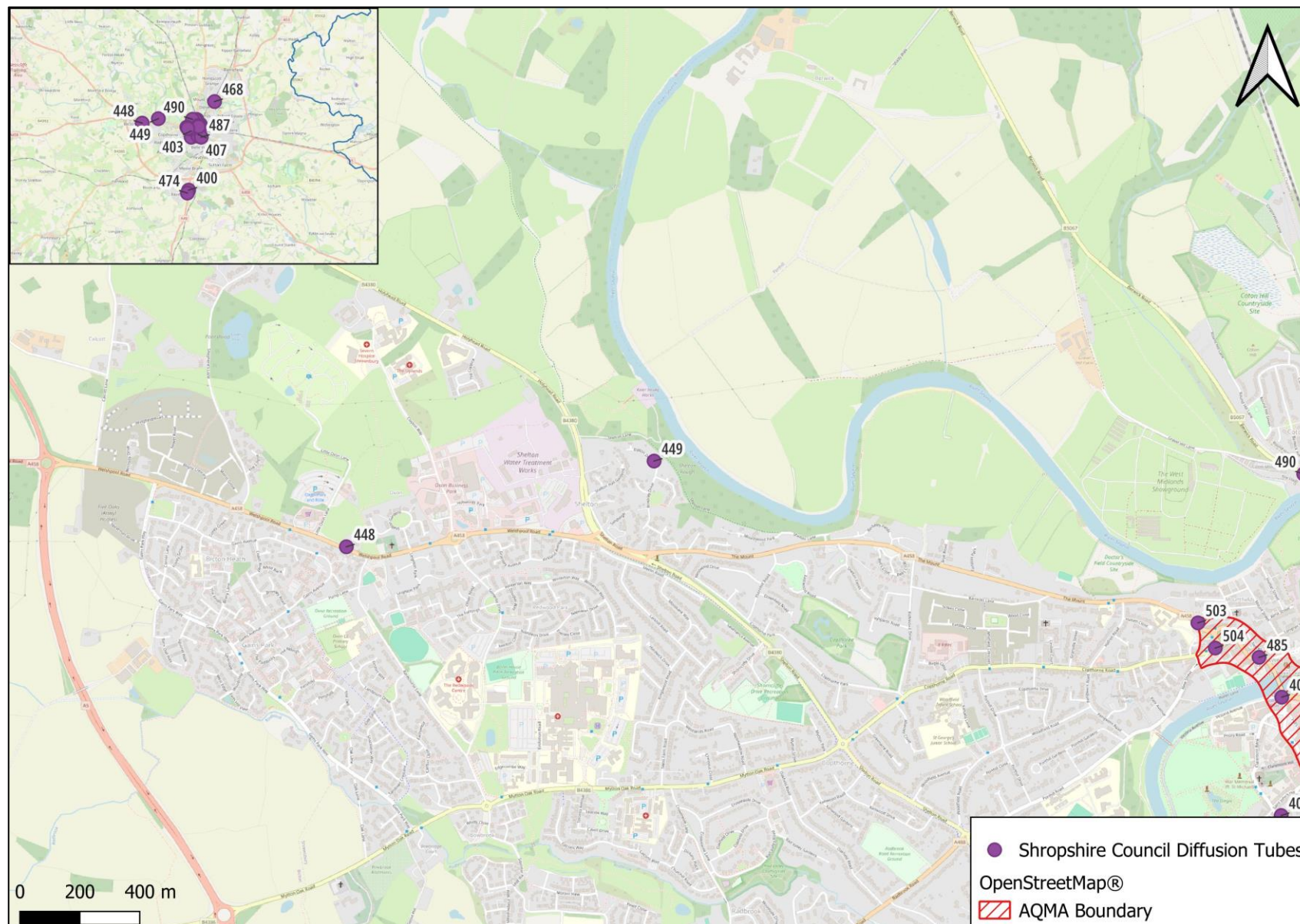**Figure D.8 – Map of Non-Automatic Monitoring Site – Shrewsbury (West)**

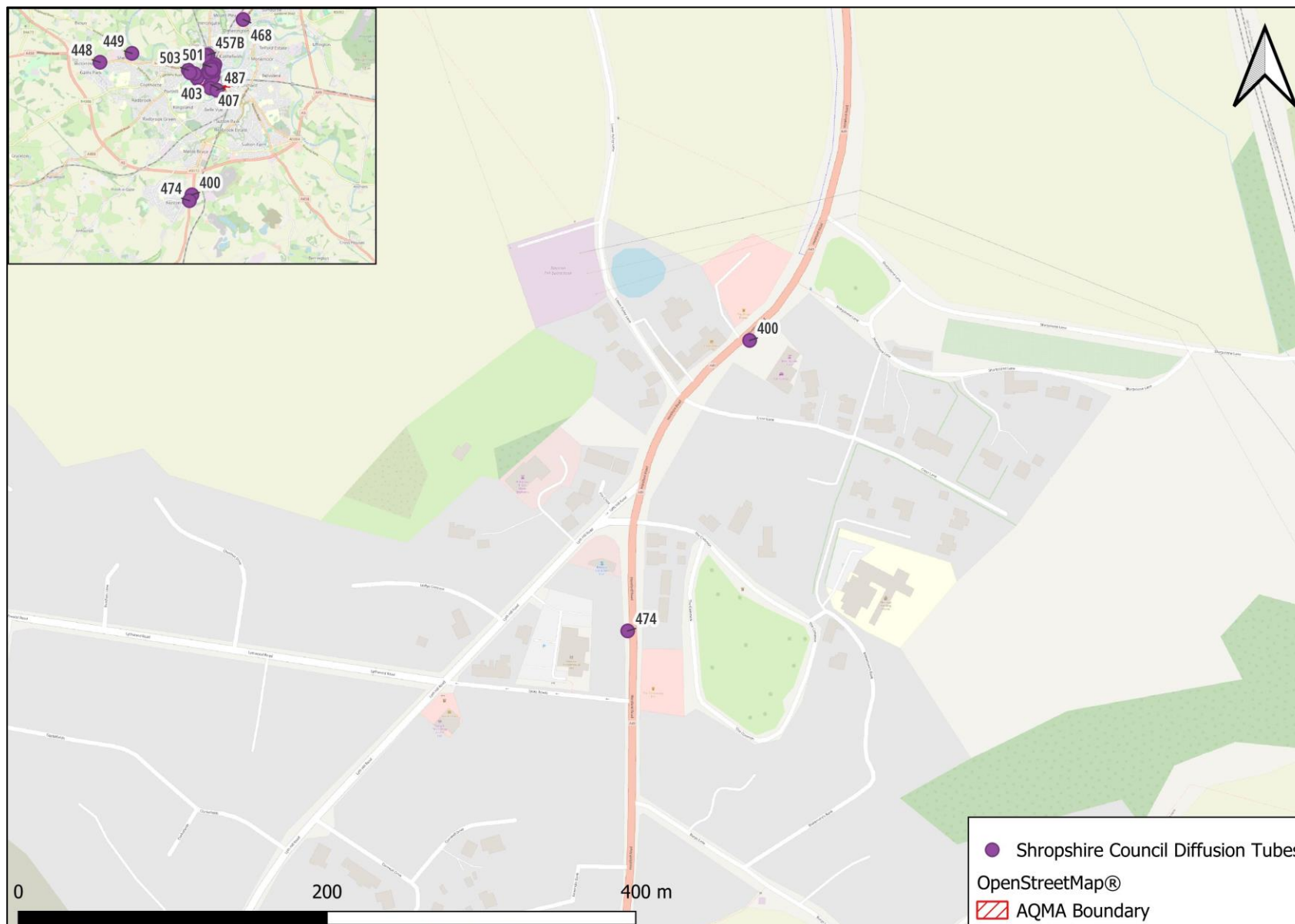**Figure D.9 – Map of Non-Automatic Monitoring Site – Shrewsbury (South)**

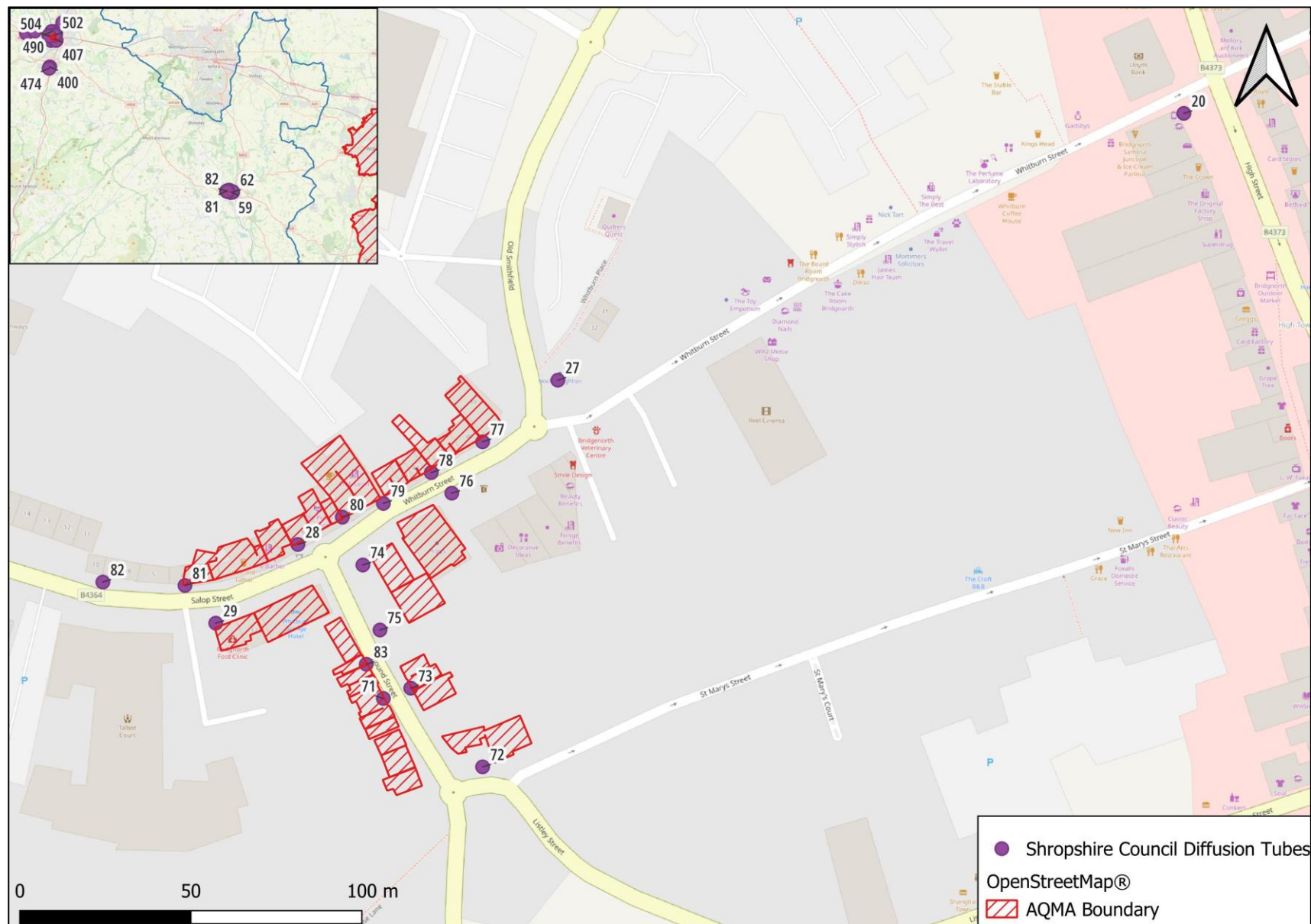**Figure D.10 – Map of Non-Automatic Monitoring Site – Bridgnorth AQMA**

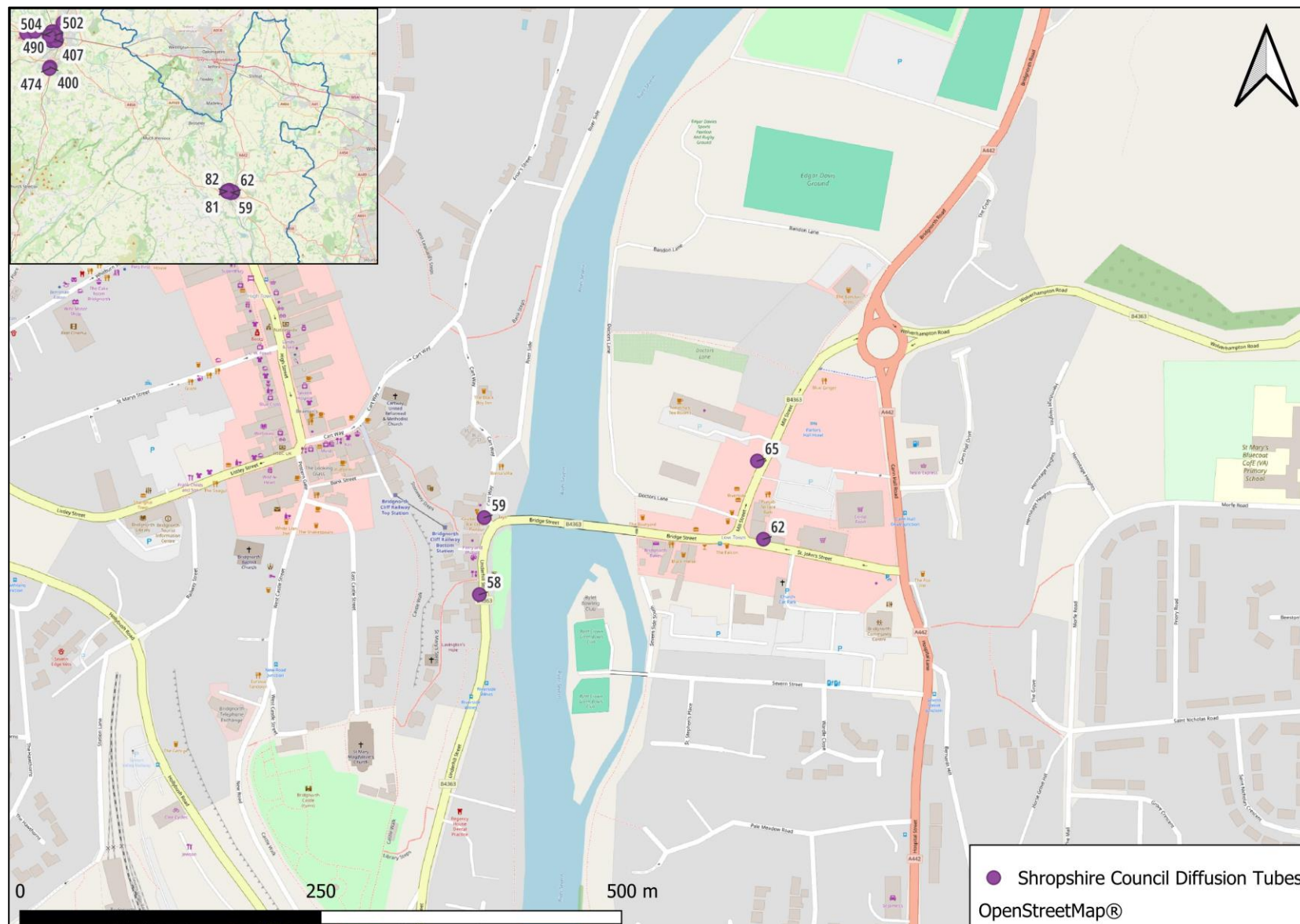**Figure D.11 – Map of Non-Automatic Monitoring Site – Bridgnorth Bridge Street**

Figure D.12 – Map of Non-Automatic Monitoring Site – Ellesmere

Appendix E: Summary of Air Quality Objectives in England

Table E.1 – Air Quality Objectives in England[10]

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

[10] The units are in microgrammes of pollutant per cubic metre of air ($\mu g/m^3$).

Glossary of Terms

Abbreviation	Description
AMCT	Annual Mean Concentration Target
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
AURN	Automatic Urban Rural Network
BSIP	Bus Service Improvement Plan
Defra	Department for Environment, Food and Rural Affairs
DMRB	Design Manual for Roads and Bridges – Air quality screening tool produced by National Highways
DTDPT	Diffusion Tube Data Processing Tool
EV	Electric Vehicle
LAQM	Local Air Quality Management
LCWIP	Local Cycling Walking Improvement Plan
NO_2	Nitrogen Dioxide
NO_x	Nitrogen Oxides
NWRR	North West Relief Road
PERT	Population Exposure Reduction Target
PHE	Public Health England
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
WSMR	Wrexham, Shropshire and Midlands Railway

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