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2025 Air Quality Annual Status Report

June 2025



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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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Executive Summary: Air Quality in Our Area

Air Quality in Wyre

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})	<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 air within the borough of Wyre is generally good, owing to the large amounts of rural land and being bounded by the sea along parts of the western and northern boundaries. However, motor vehicles remain a significant source of air pollution within the borough, emitting pollutants of nitrogen oxides (NO_x), carbon monoxide (CO), carbon dioxide (CO₂) and fine particulate matter (PM₁₀ and PM_{2.5}). The areas of the borough which are primarily

affected by the emissions from motor vehicles are narrow built-up streets, which combined with high volumes of slow-moving traffic, creates the 'street canyon effect'.

Wyre Council have a legal obligation to periodically review and assess air quality within the borough. In order to fulfil this, the Council operates a monitoring network of 23 passive diffusion tube sites, located predominantly close to busy roads, in areas where the public are likely to be exposed to traffic emissions. Of the 23 monitoring sites, 18 are permanent and five are temporary. The purpose of the temporary monitoring sites is to allow the Council the opportunity to amend the network in relation to any possible pollution concerns (i.e. next to developments etc.) to identify any future hotspot areas.

As a result of the concentrations recorded by the monitoring network, exceedances of the NO₂ annual mean Air Quality Objective (40 µg/m³) have been identified in previous years, resulting in the declaration of the Chapel Street AQMA in August 2009. This AQMA encompasses Chapel Street, in Poulton-le-Fylde, and the junctions with Higher Green / Queens Square, and Breck Road / Vicarage Road / Ball Street.

During 2024, all monitoring sites reported an NO₂ annual mean concentration below 90% (36 µg/m³) of the Air Quality Objective of 40 µg/m³. The maximum NO₂ annual mean concentration at a site in 2024 was 21.1 µg/m³ (Site ID: 15.1, 15.2, 15.3), which is comparable to that reported in the previous reporting year of 21.1 µg/m³ at the same site. This site is outside of the Chapel Street AQMA, indicating that the concentrations outside of the AQMA continue to remain significantly below the 40 µg/m³ annual objective, and have not changed significantly between the previous reporting year. Inside the AQMA, the maximum NO₂ annual mean concentration in 2024 was 19.6 µg/m³ (Site ID: R1, R2, R3), which is a slight decrease from that recorded in 2023 (20.3 µg/m³). These decreases from 2023 to 2024 are part of a continued trend observed since 2021 of year-on-year reductions in NO₂ annual mean concentrations at both sites in the AQMA. The Chapel Street AQMA achieved 12 consecutive years of compliance with the Air Quality Objective in 2024 and, as a result, the Council are currently in the process of revoking the AQMA.

Actions to Improve Air Quality

Due to the continual compliance of the recorded concentrations over the past five years, and the subsequent decision of Wyre Council to proceed with the revocation of the AQMA, the actions in the Chapel Street AQAP have been replaced with several district-wide measures. These measures are as follows:

- **Improved Guidance for Planning Applications:** With the adopting of the Local Plan (2011 – 2031) in February 2019, Wyre Council intended to adopt one of the Planning Guidance Templates designed by the Lancashire Authorities in association with the Low Emissions Partnership, to increase both transparency and consistency in the consideration of air quality concerns within the planning process. The introduction of this had however been hampered by several issues, mainly the uncertainty around the changes to the Building Regulations, and the level to which local planning authorities should be imposing standards in respect to matters such as the introduction of electric vehicle charging infrastructure in both residential and non-residential developments. To prevent any further delays with the implementation of this measure, the Council decided to take a phased approach to the introduction of the intended guidance and started the production of a Planning Validation Checklist. This checklist ensures that planning applicants have a clear understanding of when their application should be supported by a detailed air quality assessment. The Local Validation Checklist was formally adopted by the Council in July 2023 to instruct planning applicants on the methodology to be employed, the standard of the required air quality assessment, and the mitigation to be expected. The Validation Checklist is accessible on [Wyre Council's Website](#).
- **Support Wyre Council's Partners to Address Air Quality:** Wyre Council are to continue to work with partners on work being undertaken in Lancashire to address air quality. This includes projects to equip schools with information about air quality as a means of raising awareness amongst their local community and encouraging sustainable forms of travel. This has included the promotion and use of their Safer Travel Model, which provides details to both schools and communities about the actions which can be taken to address local transport concerns, including parking away from school, setting up a walking bus, and reducing vehicle speeds. Further information on the initiative is available on the [Lancashire County Council Website](#). This work compliments the work of Wyre Council's Climate Change Team who in addition to ensuring the incorporation of carbon efficient policy and changes into all that Wyre Council does, also work to encourage communities to take advantage of available funding to enable themselves to become more carbon efficient. The team also actively promote educational schemes and events such as "Healthy Lifestyles" and "Active Travel" that each aim to reduce the use of private vehicles and thereby help to reduce NO₂ emissions.

- **Encouraging the Update of Electric Vehicles:** Wyre Council encourage electrical vehicle (EV) uptake through the installation of EV charging infrastructure in key locations in the district, and the provision of reliable information relating to EV usage. Several infrastructure improvement projects have been undertaken by the Council, such as the installation of 23 EV charging points in Wyre Council car parks. This adds to the number of EV charging points provided on the public highway by Lancashire County Council, which significantly increases the EV charging capacity across the district. Wyre Council have successfully completed the installation of all planned EV charging points. The 23 EV charging points installed adds to the four that were previously available for taxi companies to use. The Council has also made further progress with the transition of its transport fleet and machinery stock to cleaner and greener alternatives. In total, there are now five EVs in Wyre Council's fleet, and several battery powered mowers, blowers and hedge cutters that are used by the Grounds Maintenance Team. Furthermore, most of Wyre Council's fleet (including the bin lorry fleet) have been converted from diesel to hydrogenated vegetable oil (HVO) fuel, which produces less particulate (PM_{2.5} / PM₁₀) and NO_x emissions than diesel. The Council has also introduced a 'Climate Change Decision Wheel' which ensures that all future strategic decisions and purchases are made with full consideration to the potential environmental impact, thus ensuring that where a more environmentally friendly option is available, that this is selected unless justification can be provided for not doing so.

Conclusions and Priorities

In Wyre, the air quality is generally good owing to the large amount of rural land and coastal setting of the western and northern boundary. This is demonstrated by the NO₂ annual mean concentrations recorded by the diffusion tube monitoring network, indicating continued compliance with the NO₂ annual mean objective. The concentrations have shown a continual improvement across the borough, to the extent that the AQMA is able to be revoked. This highlights that the measures that Wyre Council have previously implemented to reduce NO₂ concentrations across the borough, particularly in the AQMA, have been effective. Once revoked, Wyre Council are to develop and publish an Air Quality Strategy (AQS) to replace the previous Air Quality Action Plan (AQAP). The AQS will build upon the actions outlined in the AQAP and will focus on strengthening and integrating Wyre Council's approach to tackling air quality concerns with other key

objectives and strategies (i.e. those relating to transport, planning, climate change and public health). The newly developed AQS will demonstrate Wyre Council's ongoing commitment to ensure that air quality remains good across the borough and will outline the Council's ability to respond quickly should the status of air quality with Wyre begin to deteriorate at any time.

Existing actions which will predominantly feature in the AQS relate to the promotion of cleaner, greener transport solutions (i.e. encouraging the uptake of electric vehicles). Wyre Council will also continue with the transition to cleaner and greener alternatives within its transport fleet and machinery stock and will continue to introduce procedures which ensure that air quality impacts are considered in decision making processes. The Air Quality Officer and Climate Change Team will also continue to work collaboratively to identify any co-benefits which can be embedded into existing policies and procedures. Wyre Council will also seek to acquire funding to contribute towards equipment and resources to educate and raise awareness of air quality concerns, particularly within schools and businesses, and will organise and promote initiatives such as walk to school and cycle to work days, by connecting in with the works of the Healthy Lives Team.

Wyre Council will continue to provide up-to-date and detailed advice on air quality, including to planning applications with the Planning Validation Checklist and guidance note, and will continue to keep the public informed of both the progress and status of air quality in Wyre via the Wyre Council Website and social media platforms. In addition, Wyre Council will continue operation of the monitoring network and use the flexibility of the temporary sites to help determine both the likely and actual impact of development on local air quality and inform future planning decisions.

Wyre Council's priorities for the current reporting year are as follows:

- 1. Revocation of the AQMA:** Due to continued compliance with the Air Quality Objective over the last 12 years, Wyre Council are in the process of revoking the Chapel Street AQMA. This was supported by Defra via the appraisal of the 2024 ASR with the continued decline in NO₂ concentrations within the Chapel Street AQMA providing "no justifiable reason for retaining the AQMA any longer".
- 2. Raise Public Awareness on Wood Burning Stoves:** Wyre Council are to offer advice on the use of lower smoke fuels in stoves / approved appliances in the district
- 3. Monitoring Options for PM_{2.5}:** Wyre Council are to explore the monitoring options available to establish PM_{2.5} monitoring within the borough.

How to get Involved

Wyre Council are keen to engage with the public on the issue of air quality and continue to encourage residents and businesses to ask any questions they may have in relation to local air quality within the district, through the air quality web enquiry form. This form also enables residents to express any concerns they may have in respects to the air quality in a particular area of the borough, which assists the Council in identifying new areas of concern within the district. Where a concern for an area is expressed either by a member of the public or because of new development, the Council will make use of its five temporary diffusion tube monitoring sites to investigate the air quality conditions in that location. The five temporary sites change location every 12 – 24 months, with any sites of continued concern becoming a permanent monitoring site.

Any concerns regarding air quality should be directed to the Environmental Protection Department on 01253 891000, or via email at pollution@wyre.gov.uk.

In addition to providing information to the public about what Wyre Council and its partners are doing to improve air quality, the public are encouraged to uptake a range of measures to supplement the work of the Council. Everyone has a responsibility to improve air quality, and everyone can make a positive contribution to improve air quality. Examples of everyday choices which have the potential to positively impact air quality include:

- Using public transport (i.e. buses / trains), instead of a private vehicle to make a journey;
- Walking or cycling whenever possible. This has a co-benefit of improving physical health;
- Car sharing wherever possible, especially when making the same trip as someone else;
- Turn your car engine off whenever at standstill, to prevent idling emissions;
- Avoid driving during peak hours, to reduce congestion;
- Use a low emission vehicle, such as an electric or hybrid car;
- Refrain from burning garden waste;
- Use electric heating powered by non-combustible forms of renewable energy;
- Using energy efficiency appliances within your home;
- Turning off lights when you leave a room;
- Recycling your waste; and
- Being as energy efficient as possible by insulating your home.

There are many other ways in which everyone can help to reduce air pollution to improve the air that we breathe. For example, the Council are undertaking the following actions to help residents improve air quality:

- Promotion of a free tree giveaway scheme to members of the public. A total of 468 native trees were given away to the public in 2024.
- Promotion of 'Great Big Green Week' (7th – 15th June 2025), which is the UK's largest community action to tackle climate change.
- Publication of an advice certificate with links to online Wyre Council resources for:
 - 'Green Your Home'
 - 'Heat Pumps'.
- [Green Homes advice leaflet](#).

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1 Local Air Quality Management

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

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

2 Actions to Improve Air Quality

2.1 Air Quality Management Areas

Air Quality Management Areas (AQMA) 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.

During 2024, Wyre Council had one AQMA declared for exceedances of the NO₂ annual mean objective. The Chapel Street AQMA, declared in August 2009, is described as:

“An area encompassing Chapel Street, in Poulton-le-Fylde, along with the junctions with Higher Green / Queens Square, and Breck Road / Vicarage Road / Ball Street”.

The extent of the AQMA is shown in Figure 2.1, with the details provided in Table 2.1.

Figure 2.1 – Extent of Chapel Street AQMA



Wyre Council are currently in the process of revoking the Chapel Street AQMA, due to compliance with the Air Quality Objective for the last 12 consecutive years. However, as the AQMA was still effective during the monitoring period that this report relates to (2024), reference to the AQMA has still been included throughout. The Chapel Street AQMA will no longer be acknowledged in the next update of this report in 2026.

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
Chapel Street	August 2009	NO ₂ Annual Mean	An area encompassing Chapel Street, in Poulton-le-Fylde, along with the junctions with Higher Green / Queens Square, and Breck Road / Vicarage Road / Ball Street.	No	40.7 µg/m ³	19.6 µg/m ³	12 years	Chapel Street AQAP (2012)	Chapel Street AQAP (2012)

Wyre Council confirm the information on UK-Air regarding their AQMA is up to date.

Wyre Council confirm that all current AQAPs have been submitted to Defra.

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

Defra's appraisal of last year's ASR concluded that:

- 1. The Council has 18 permanent monitoring sites and 5 test sites. These test sites are periodically reviewed, and their purpose is to allow the Council to monitor new sources of pollution and identify new air quality hotspots in a given reporting year. This is commended and indicative of good practice.**
 - Wyre Council discontinued the site of least concern on the temporary monitoring network in 2024 (Site ID: 25) and replaced this with a new site at Pointer House, Lancaster Road, Preesall (Site 27), to monitor for any pollution concerns as a result of increased traffic due to a proposed local quarry. This demonstrates Wyre Council's proactive approach to identifying any potential future hotspots.
- 2. The Chapel Street AQMA has been compliant with the annual mean NO₂ Air Quality Objective (AQO) for eleven consecutive years. The Council have commenced the consultation process to enable its revocation. This is welcomed.**
 - Wyre Council are in the process of revoking the Chapel Street AQMA. The AQMA has however been referenced throughout this report, as it was still effective during the period which the monitoring data presented is related to.
- 3. On page 50, the bias adjustment factor is reported with the units "µg/m³". This is incorrect as the bias adjustment factor is dimensionless and hence should not be reported as having units. The Council are encouraged to amend this in future ASRs.**
 - This bias adjustment factor in this report is presented as a dimensionless value, with no units.
- 4. Extensive trend graphs have been provided for all monitoring data, which is commended.**
 - The trend graphs for the monitoring data in this report are split between geographical regions to display the changes in pollutant concentrations in each area across the borough. A trend graphs has also been included for the concentrations within the AQMA to provide evidence to support the decision to revoke the AQMA, based on the downward trend that has been observed in the NO₂ annual mean concentrations since 2021.

- 5. The Council have provided good mapping of all monitoring locations within the district. However, the Council are highly encouraged to update the background mapping and labels in Figure D.1 to improve readability.**
 - Maps have been split between geographical so that they are at a scale that is easier to identify the location of each monitoring site. An overview map is also provided to illustrate the geographical spread of the monitoring network across the whole of the borough.
- 6. The use of the Public Health Outcomes Framework to account for the health effects of PM_{2.5} is commended.**
 - In the absence of any PM_{2.5} monitoring data within the Borough, reference has again been made to the Public Health Outcomes Framework to demonstrate the health effects of PM_{2.5}.
- 7. There is a minor inconsistency between the data presented in Tables A.2 and B.1. For Site 11, Table A.2 states that the valid data capture for the monitoring period is 100%, whilst the valid data capture for 2023 is 75%. However, examining Table B.1 shows that monitoring at Site 11 started in January 2023 (the beginning of the reporting year). The Council have not stated that there were any changes to this location during the year and it is noted that Site 11 is a permanent monitoring site. Hence, the valid data capture for the monitoring period at Site 11 should be corrected to “75%”. The Council are encouraged to avoid this mistake in future.**
 - Data capture statistics have been checked in this report for any inconsistencies between each table. As all monitoring started at the start of the reporting year, the data capture for the monitoring period and the data capture for 2024 are the same – the data presented in this report has been checked for this.
- 8. The Council are highly encouraged to consider some of the comments made during the previous appraisal and make an effort to address these actions in future ASRs.**
 - The appraisal comments from the 2024 ASR have been addressed in this ASR.

Wyre 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. Nine measures are included within Table 2.2, with the type of measure and the progress Wyre Council have made during the reporting year of 2024 presented. Where there have been, or continue to be, barriers restricting the implementation of the measures, these are also presented within Table 2.2.

Key completed measures are:

- All Wyre Council vehicles, except two driven lawn mowers, have been converted to HVO (Hydrotreated Vegetable Oil) fuel, or replaced with EVs.
- Staff travel survey completed to understand Wyre Council staff's mode of transport to work.
- 'Cycle to Work' and 'Love to Ride' schemes promoted to encourage Wyre Council staff to use bicycles.
- Tree planting, resulting in 500 trees of native woodland planted in west end of Vicarage Park in early 2024. This is less than 100 m from Chapel Street AQMA (which is in the process of being revoked).
- Launch of the [Climate Change Strategy](#), which went online on 12th September 2024.
- All buses within Wyre were £1 per journey on Sundays in 2024, to encourage the use of public transport.

Wyre Council's priorities for the coming year are:

1. **Revocation of the AQMA:** Wyre Council are in the process of revoking the Chapel Street AQMA, due to continued compliance with the Air Quality Objective for which it was declared (NO₂ annual mean). This priority action is supported by Defra, who in the appraisal of the 2024 ASR stated that the "continued decline in NO₂ concentrations within the Chapel Street AQMA [provides] no justifiable reason for retaining the AQMA any longer".
2. **Raise Public Awareness of Wood Burning Stoves:** Wyre Council are to offer advice on the use of lower smoke fuels in stoves / approved appliances.
3. **Monitoring Options for PM_{2.5}:** Wyre Council are to explore the monitoring options available to establishing PM_{2.5} monitoring within the borough.

Wyre Council's progress against the goals of Lancashire County Council to improve air quality (outlined in bold) are as follows:

- **Enabling the Use of Sustainable Forms of Travel:**
 - Wyre Council have promoted the 'Cycle to Work' and 'Love to Ride' schemes to encourage staff to use bicycles to travel to work.
 - All buses within Wyre were £1 per journey on Sundays in 2024, to encourage the use of public transport.
- **Supporting the Transition to Electric Vehicles:**

- All suitable Wyre Council vehicles are now either HVO or EVs.
- **Creating Cleaner and Healthier Road Networks:**
 - Wyre Council have planted 232 m of new roadside hedgerow in 2024, together with 8001 trees.
- **Embedding Air Quality into Policy:**
 - Wyre Council published the [Planning Validation Checklist](#) in October 2024, which outlines significant air quality improvement requirements for all new developments.
- **Raising Awareness and Increasing Engagement:**
 - Wyre Council promoted a [free tree giveaway scheme](#) to members of the public in 2024, with a total of 468 trees distributed to residents in 2024.
 - Wyre Council published a [‘Green Your Home’ advice leaflet](#), which provides advice on home insulation, solar panels and batteries, EV charging and Clean Heating.

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	Revocation of Chapel Street AQMA	Policy Guidance and Development Control	Air Quality Planning and Policy Guidance	2024	2025	Wyre Council	-	Not Funded	< £10k	Ongoing	N/A	Concentrations remain compliant with Air Quality Objective following revocation	Development of Air Quality Strategy in replacement of the Chapel Street AQAP	-
2	Raise Public Awareness of Wood Burning Stoves	Public Information	Via the Internet	2024	2025	Wyre Council	-	Not Funded	< £10k	Ongoing	N/A	Number of complaints received relating to wood burning stoves	-	-
3	Explore Monitoring Options for PM _{2.5}	Other	Other	2024	2025	Wyre Council	-	Not Funded	£10k - £50k	Ongoing	N/A	Number of PM _{2.5} monitoring sites within the district	-	-
4	Adoption & Implementation of Improved Air Quality Planning Guidance to Planning Applicants	Policy Guidance and Development Control	Air Quality Planning and Policy Guidance	2017	2024	Wyre Council Environmental Health & Planning Departments. Templates compiled by Low Emissions Partnership.	Template compilation joint funded by Lancashire local authorities	Partially Funded	< £10k	Completed	N/A	Adoption and implementation of appropriate planning indicator.	Planning validation checklist launched 2024 to assist applicants with when a planning application is to be supported with an air quality assessment.	-
5	Provide Continued Support to Partners in respects to Air Quality Initiatives in particular the Installation of EV Charging Units for Taxis	Promoting Low Emission Transport	Procuring Alternative Refuelling Infrastructure to Promote Low Emission Vehicles, EV Recharging, Gas Fuel Recharging	2017	2023	Wyre Council Environmental Health & Engineering Departments. Lancashire County Council & other Lancashire local authorities.	Varies depending on the project	Partially Funded	TBC – various projects included	Completed	N/A	Increased use of EVs within the local taxi trade. Provision of EV charging points in locations with limited off-street parking.	4 EV charging points installed and operational in Wyre for use by the taxi trade.	-
6	Encouraging Use of Electrical Vehicles	Promoting Low Emission Transport	Public Vehicle Procurement – Prioritising Uptake of Low Emission Vehicles	2017	2023	Wyre Council Environmental Health & Engineering Departments.	Olev Grant (Defra)	Partially Funded	£100k - £500k	Completed	N/A	Increased accessibility to and use of EVs and infrastructure.	23 dual EV charging points installed and operational in Wyre Council car parks.	-
7	Increasing Awareness of Air Quality Issues through the Better Provision of Information	Public Information	Via the Internet	2017	2023	Wyre Council Environmental Health Department	-	Not Funded	-	Completed	N/A	Provision of information and positive feedback from the public.	Changes and additions made to Wyre Council's Air Quality webpage. New website launched.	-

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
8	Ensure Regard is had to Air Quality in the Consideration of any Large-Scale Development within Poulton	Policy Guidance and Development Control	Air Quality Planning and Policy Guidance	Ongoing	Ongoing	Wyre Council	-	-	-	Ongoing	Air quality considered in relation to numerous large-scale developments within and around Poulton Town Centre.	Air quality considered in all relevant cases.	Planning Validation Checklist launched in 2024 to ensure planning applications are supported with an air quality assessment when required,	Measures remain in place to ensure adequate consideration is given to air quality impacts resulting from proposed development. Mitigation measures encouraged in all cases, regardless of likely impact.
9	Production of Wyre Council Travel Plan and Introduction of Sustainable Travel Days as a means of Encouraging Alternative Modes of Transport to Work than by Car	Promoting Travel Alternatives	Workplace Travel Planning	2012 - 2013	Ongoing	Wyre Council	-	-	-	Ongoing	Unknown	Completion of Travel Plan. Undertaking of Sustainable Travel Days.	Wyre Council Travel Plan complete. Number of Sustainable Travel Days held to date. Survey completed on Wyre Council staff to understand change in travel behaviour.	Intention to continue to hold a minimum of two Sustainable Travel Days each year.

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.

Whilst the requirement to work towards reduce the impact of PM_{2.5} concentrations on public health is relatively new, many of the measures which were implemented as part of the Chapel Street AQAP to reduce NO₂ concentrations also have the potential to impact concentrations of PM_{2.5}. The co-benefits of the measures within the AQAP include:

- **Transport Planning:** Actions 1-3 of the Chapel Street AQAP involved the construction of Hardhorn Link Road (now named Wheatsheaf Way) to reduce the number of vehicles travelling through the AQMA, whilst also improving the flow of traffic through the town centre as a whole. Initial results of the link road appear positive as NO₂ concentrations have remained below the NO₂ annual mean air quality objective of 40 µg/m³, despite extensive development having taken place in and around Poulton Town Centre in recent years.
- **Walking / Cycling:** Action 6 of the Chapel Street AQAP involved Wyre Council identifying a number of priority pathways requiring improvement within and around Poulton Town Centre. The aim of the improvement works is to encourage travel to and from schools by walking and / or cycling. Wyre Council also continue to support the work of Lancashire County Council, by promoting the [‘Actively Moving Forward’](#) programme, designed to increase access to cycling and walking infrastructure within the county.
- **Workplace Travel Plans:** Action 7 of the Chapel Street AQAP involved Wyre Council promoting a message of sustainable travel amongst its staff and members, via the adoptions of a Workplace Travel Plan. Since the introduction of the plan, Wyre Council have held several ‘sustainable travel to work days’. Wyre Council have also recently introduced a hybrid working model for its staff, enabling a higher

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

proportion of home working which, in turn, results in a reduction in the number of vehicle journeys being made by Wyre Council staff and its members. A survey has been undertaken amongst staff to determine the extent to which this model has altered individual behaviour in relation to mode of travel and journey frequency. The results of this survey are due to be released in 2025 and will be provided in the next update of this report in 2026. These results are to be used to influence future policies and encourage further change in individual behaviour.

- **School Travel Plans:** Action 8 of the Chapel Street AQAP involved Wyre Council working with three primary schools and two secondary schools, located within and around Poulton Town Centre to encourage sustainable travel. All three primary schools participated in the 'Living Streets Walk to School' programme, which rewarded children with badges if they walked or cycled to school at least once per week. The two secondary schools participated in an educational theatre workshop, which encouraged pupils to become 'sustainable travel champions'. During 2024, all schools were invited to get involved with the 'Great Big Green Weeks', which ran from 8th – 16th June 2024 and the 'Cycle to School' week, which ran from 17th – 23rd September 2024. Wyre Council continues to support Lancashire County Council in the promotion of school travel plans and hopes to undertake further engagement with schools on the issue of air quality in the near future.
- **Anti-Idling Enforcement:** Action 11 of the Chapel Street AQAP involved Wyre Council monitoring the idling of taxis within the area of the Chapel Street AQMA. This was introduced following reports that the street was being frequently used by taxis as an unofficial taxi rank, due to its close proximity to a number of popular late night entertainment venues within Poulton Town Centre. Action involved Wyre Council working with Lancashire County Council to introduce a reduced 'tolerance agreement', whereby taxis are only permitted to park up in a designated area of Chapel Street, away from any residential properties. Compliance with this agreement is monitored by CCTV and has recently been supported by the provision of EV charging points which are dedicated specifically for taxi use only. This is intended to encourage local taxi companies to switch to cleaner, greener vehicles.

Whilst the above measures were originally introduced through the AQAP which was developed following the designation of the Chapel Street AQMA, the measures remain applicable as they are to be incorporated into the Air Quality Strategy, which is to replace the Chapel Street AQAP following the revocation of the AQMA.

PM_{2.5} Background Concentrations:

Wyre Council do not currently undertake routine monitoring of PM_{2.5}. However, a review of available data sources such as the Defra national background maps², suggests that the annual average PM_{2.5} concentration at 299 locations (1km x 1km grid square resolution) across Wyre is 5.1 µg/m³, whilst the maximum and minimum concentration at a given location is 8.1 µg/m³ and 4.2 µg/m³, respectively. Therefore, in the absence of any automatic monitoring of PM_{2.5}, the concentrations from the Defra background maps indicate that the PM_{2.5} concentration across the borough is low. However, Wyre Council will continue to implement measures to further reduce the concentration of PM_{2.5}, due to the impact that exposure to such pollutant (even at low levels) has on public health.

Impact of PM_{2.5} on Public Health:

According to the Public Health Outcomes Framework³ developed by Public Health England, the fraction of adult mortality attributable to PM_{2.5} in Wyre is 4.4%, which is slightly lower than both the regional (Lancashire) and national (England) averages of 4.6% and 5.2%, respectively. Whilst such values indicate that PM_{2.5} is not as significant an issue as in other areas of the country, it still highlights that PM_{2.5} poses a risk to public health. Therefore, Wyre Council will continue to work with Lancashire County Council and neighbouring authorities to implement measures that further reduce the impact of PM_{2.5}. Wyre Council's proposals for addressing PM_{2.5} concentrations over the coming year include:

- **Working Closely with Partners (Lancashire County Council):** Wyre Council are to work closely with partners such as Lancashire County Council to establish the adequacy of PM_{2.5} monitoring provision within Lancashire, and to assist with identifying any potential 'hotspot' areas of elevated PM_{2.5} concentrations within the district. Wyre Council will also work to identify any suitable air quality initiatives capable of reducing PM_{2.5} emissions / concentrations in sensitive locations (i.e. within close proximity to schools). Wyre Council are also currently involved in discussions with Lancashire County Council and neighbouring Lancashire authorities on how to better equip local schools with information about air quality, including the possibility of providing them with their own

² Defra. Air Quality Background Maps – Background Mapping Data for Local Authorities – 2021. November 2024

³ Public Health England – Public Health Outcomes Framework. April 2023.

monitoring equipment to raise awareness within their local communities. In 2024, EV charging points were promoted amongst schools via a newsletter sent from Wyre Council to schools within the district.

- **Adoption of a Low Emissions and Planning Guidance Document:** In 2023, Wyre Council formally launched the Planning Validation Checklist, which provides guidance to planning applicants on when their application should be supported by a detailed air quality assessment. The Planning Validation Checklist was launched on Wyre Council's website in October 2024. This will help reduce emissions of PM_{2.5} in planning applications submitted throughout 2025, through the mitigation measures that the checklist requires to be implemented, as a result of the scale of development.
- **Provision of Electric Vehicle Charging Infrastructure:** Wyre Council have been and continue to actively encourage the transition to electric vehicles, whether it be via regular community with the public, changes to its own transport fleet, or the provision of EV charging infrastructure within the district. The installation of all planned EV charging points is now complete. However, Wyre Council are to continue to look for available funding opportunities to further expand the provision of EV charging infrastructure to those households without any off-street parking. This includes exploring innovative solutions such as the footway cable tray and lamp post charge point that is currently being piloted by Lancashire County Council.
- **Replacement of Diesel Council Fleet to HVO:** Wyre Council have ensured that all vehicles in its fleet are either HVO or EVs, in replacement of diesel. The replacement of diesel with HVO has recently been demonstrated in a Swedish study to lower PM_{2.5} emissions by as much as 49% (Lakanen et al., 2021).

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

This section sets out the monitoring undertaken within 2024 by Wyre 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

Wyre Council do not currently undertake any automatic monitoring within the borough. The nearest automatic monitoring sites are located in Blackpool and Preston, which are part of the [Automatic Urban and Rural Network](#) (AURN).

3.1.2 Non-Automatic Monitoring Sites

Wyre Council undertook non-automatic (i.e. passive) monitoring of NO₂ at eighteen permanent sites during 2024. Of the 18 sites, nine were triplicate sites. Wyre Council also deployed five temporary single diffusion tube sites during 2024, resulting in a total of 41 diffusion tubes being deployed across the borough each month during 2024.

Relative to the previous reporting year (2023), there was no change to the permanent monitoring network in 2024. There was however one change to the temporary monitoring network in 2024, which is designed to monitor new sources of pollution and areas of potential development and therefore assist in the identification of new air quality hotspots. The site of least concern on the temporary monitoring network (Site 25) was replaced by a new site at Pointer House, Lancaster Road, Preesall (Site 27) in January 2024, to monitor for any pollution concerns as a result of increased traffic due to a proposed local quarry.

Table A.1 in Appendix A presents the details of the non-automatic sites. Maps showing the location of the monitoring sites are provided in Appendix D. Further details on Quality Assurance / Quality Control (QA / QC) for the diffusion tubes, including bias adjustments and any other adjustments applied (e.g. annualisation and/or distance correction), are included in Appendix C.

3.2 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)

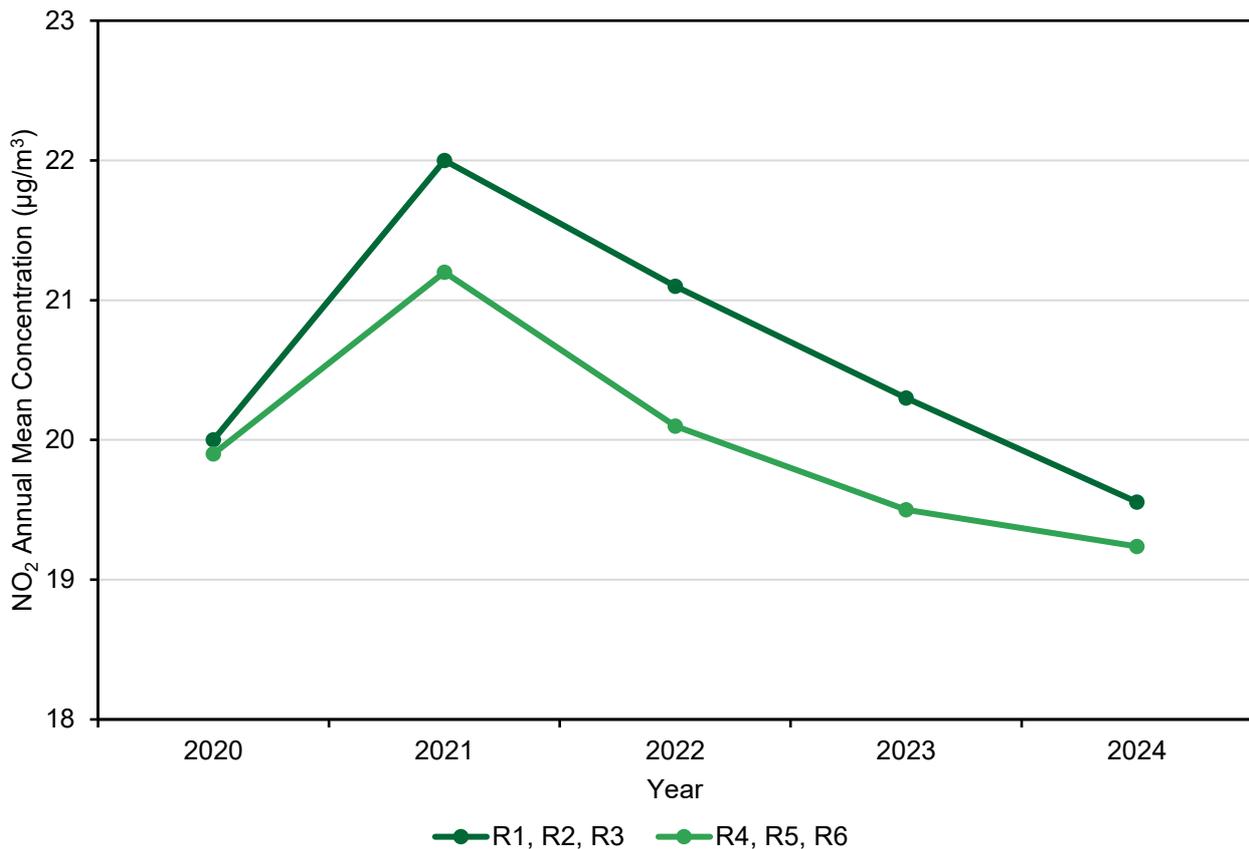
Table A.2 in Appendix A compares the adjusted monitored NO₂ annual mean concentrations for the past five years with the air quality objective of 40 µg/m³. Note that the concentration data presented represents the concentration at the location of the monitoring site, following the application of bias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

For diffusion tubes, the 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.

The 2024 monitoring results for NO₂ are split between sites that are inside the Chapel Street AQMA and sites that are outside of the Chapel Street AQMA below. This is because, although Wyre Council are in the process of revoking the AQMA, it was still effective during the period for which the monitoring data of this report is related to (2024).

Inside the Chapel Street AQMA:

During 2024, no site within the Chapel Street AQMA reported an NO₂ annual mean concentration within 10% of the annual mean objective of 40 µg/m³ (i.e. above 36 µg/m³). The NO₂ annual mean concentration at the two sites within the AQMA was 19.6 µg/m³ (Site ID: R1, R2, R3) and 19.2 µg/m³ (Site ID: R4, R5, R6), which is a slight decrease from the 20.3 µg/m³ and 19.5 µg/m³ recorded at each site, respectively, in the previous year (2023). The decrease from 2023 to 2024 is part of a continued trend observed since 2021, with annual mean concentrations showing a year-on-year reduction in NO₂ at both sites in the Chapel Street AQMA since 2021 (as shown in Figure 3.1). Due to the continued compliance of concentrations in the AQMA with the NO₂ annual mean objective, Wyre Council are currently in the process of revoking the Chapel Street AQMA. The diffusion tube monitoring within the area which the AQMA encompassed will however continue to ensure that the NO₂ annual mean concentrations continue to remain low and below the air quality objective once the AQMA designation is revoked.

Figure 3.1 – NO₂ Concentrations in the Chapel Street AQMA**Outside the Chapel Street AQMA:**

During 2024, no site outside of the Chapel Street AQMA reported an NO₂ annual mean concentration within 10% of the annual mean objective of 40 µg/m³ (i.e. above 36 µg/m³). The maximum NO₂ annual mean concentration was 21.1 µg/m³ (Site ID: 15.1, 15.2, 15.3), which is comparable maximum NO₂ annual mean of 21.1 µg/m³ recorded at the same site in 2023. Therefore, it is evident that there has not been a significant change in the NO₂ concentration at sites outside of the Chapel Street AQMA in 2024. This is further reiterated when comparing the change in concentration at all 20 sites outside of the AQMA that were present in the diffusion tube network in both 2023 and 2024. For example, the NO₂ annual mean concentration increased at 11 sites and decreased at 9 sites in 2024, in comparison to the previous reporting year. However, the maximum increase and decrease in the reported NO₂ concentration was 1.2 µg/m³ (Site ID: K) and -1.1 µg/m³ (Site ID: 23), respectively, indicating minimal overall change in the pollutant concentration. Therefore, from the most recent monitoring data, it is evident that the NO₂ annual mean concentration outside of the Chapel Street AQMA has remained relatively stable and significantly below the air quality objective. This indicates that there are no new pollution hotspot areas identified outside of the AQMA across the borough during 2024.

Appendix A: Monitoring Results

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

Diffusion Tube ID	Site Name	Site Type	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Pollutants Monitored	In AQMA? Which AQMA?	Distance to Relevant Exposure (m) ⁽¹⁾	Distance to kerb of nearest road (m) ⁽²⁾	Tube Co-located with a Continuous Analyser?	Tube Height (m)
K	22 Poulton Road, Fleetwood	Roadside	333399	447781	NO ₂	No	0.0	7.0	No	2.0
L	153 Victoria Road, East Thornton, Cleveleys	Roadside	333717	442185	NO ₂	No	0.0	4.0	No	2.0
N	43/44 High Street, Garstang	Roadside	349239	445342	NO ₂	No	0.0	2.0	No	2.4
R.1, R.2, R.3	11/13 Chapel Street, Poulton	Roadside	334912	439393	NO ₂	Chapel Street AQMA	0.0	2.0	No	2.3
R.4, R.5, R.6	Chapel Street, Poulton	Roadside	334881	439472	NO ₂	Chapel Street AQMA	0.0	2.0	No	2.4
S	36 Tithebarn Street, Poulton	Roadside	334725	439556	NO ₂	No	0.0	7.0	No	2.0
T.1, T.2, T.3	133 Breck Road, Poulton	Roadside	335247	440095	NO ₂	No	0.0	5.0	No	2.0
U.1, U.2, U.3	Wyre Council Breck Road, Poulton	Urban Background	334982	439867	NO ₂	No	N/A	N/A	No	2.0
3	5 Bridge Row, St Michaels	Roadside	346144	441156	NO ₂	No	0.0	12.0	No	2.0
7	168 Breck Road, Poulton	Suburban	335498	440467	NO ₂	No	0.0	12.0	No	2.0
8.1, 8.2, 8.3	66 Hardhorn Road, Poulton	Suburban	334791	438991	NO ₂	No	0.0	12.0	No	2.0
9	1A Hardhorn Road, Poulton	Roadside	334834	439317	NO ₂	No	0.0	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)
11	3 Briarwood Court, Thornton, Cleveleys	Suburban	333965	441347	NO ₂	No	0.0	11.0	No	2.2
12.1, 12.2, 12.3	2 Park Hill Road, Garstang	Roadside	349134	445224	NO ₂	No	0.0	2.0	No	2.5
13.1, 13.2, 13.3	10 Croston Road, Garstang	Roadside	349223	445456	NO ₂	No	0.0	2.0	No	2.0
14.1, 14.2, 14.3	Lloyds Pharmacy, Breck Road, Poulton	Roadside	334868	439525	NO ₂	No	0.0	2.0	No	2.0
15.1, 15.2, 15.3	63 Trunnah Road, Thornton, Cleveleys	Roadside	333874	443054	NO ₂	No	0.0	1.0	No	2.0
16	24 Rose Fold, Thornton, Cleveleys	Suburban	333429	443981	NO ₂	No	0.0	10.0	No	2.0
22	Toll Bar Farm, Garstang Road, Claughton, PR3 0PH	Suburban	350296	441965	NO ₂	No	0.0	3.8	No	2.0
23	11 Poulton Road, Carleton, FY6 7NH	Suburban	333983	440130	NO ₂	No	0.0	3.7	No	1.8
24	96 Croston Road, Garstang, PR3 1HR	Roadside	348812	446069	NO ₂	No	0.0	8.6	No	1.8
26	Mulberry House, Leckonby Street, Great Eccleston, PR3 0ZD.	Roadside	342667	440171	NO ₂	No	0.0	0.7	No	2.2
27	Corner of Lancaster Road, Head Dyke Lane, Preesall, FY6 0HN	Rural	337777	447211	NO ₂	No	0.0	6.0	No	2.3

Notes:

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

(2) N/A if not applicable.

Table A.2 – Annual Mean NO₂ Non-Automatic Monitoring Results (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
K	333399	447781	Roadside	83.0	83.0	9.7	10.3	10.4	9.0	10.2
L	333717	442185	Roadside	90.6	90.6	14.8	16.7	15.6	14.9	15.8
N	349239	445342	Roadside	100.0	100.0	15.4	16.8	16.0	16.1	17.0
R.1, R.2, R.3	334912	439393	Roadside	100.0	100.0	20.0	22.0	21.1	20.3	19.6
R.4, R.5, R.6	334881	439472	Roadside	100.0	100.0	19.9	21.2	20.1	19.5	19.2
S	334725	439556	Roadside	66.0	66.0	13.1	14.2	14.3	13.7	12.9
T.1, T.2, T.3	335247	440095	Roadside	100.0	100.0	18.1	19.1	17.2	16.2	16.0
U.1, U.2, U.3	334982	439867	Urban Background	75.0	75.0	6.4	6.7	6.5	6.1	5.9
3	346144	441156	Roadside	90.6	90.6	18.2	20.7	19.7	18.4	18.9
7	335498	440467	Suburban	100.0	100.0	10.5	11.6	11.1	10.5	11.4
8.1, 8.2, 8.3	334791	438991	Suburban	100.0	100.0	12.4	13.4	12.8	12.2	12.1
9	334834	439317	Roadside	100.0	100.0	13.6	14.5	17.0	15.1	14.5
11	333965	441347	Suburban	100.0	100.0	14.1	13.8	12.6	12.6	12.6
12.1, 12.2, 12.3	349134	445224	Roadside	100.0	100.0	16.3	17.6	17.9	16.9	17.0
13.1, 13.2, 13.3	349223	445456	Roadside	100.0	100.0	16.3	17.5	16.7	16.2	16.7
14.1, 14.2, 14.3	334868	439525	Roadside	100.0	100.0	19.7	20.5	20.2	18.0	18.1

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
15.1, 15.2, 15.3	333874	443054	Roadside	100.0	100.0	22.9	23.3	23.5	21.1	21.1
16	333429	443981	Suburban	90.6	90.6	11.0	11.8	11.2	10.7	11.1
22	350296	441965	Suburban	100.0	100.0	20.4	22.1	21.1	20.8	20.2
23	333983	440130	Suburban	100.0	100.0	14.9	16.6	16.7	16.7	15.6
24	348812	446069	Roadside	100.0	100.0	13.0	14.7	14.0	12.7	13.8
26	342667	440171	Roadside	100.0	100.0	12.6	13.9	13.2	12.0	12.0
27	337777	447211	Rural	90.6	90.6	-	-	-	-	5.8

☒ 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 $\mu\text{g}/\text{m}^3$.

Exceedances of the NO₂ annual mean objective of $40\mu\text{g}/\text{m}^3$ are shown in **bold**.

NO₂ annual means exceeding $60\mu\text{g}/\text{m}^3$, 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 – Annual Mean NO₂ Concentrations (Chapel Street AQMA)

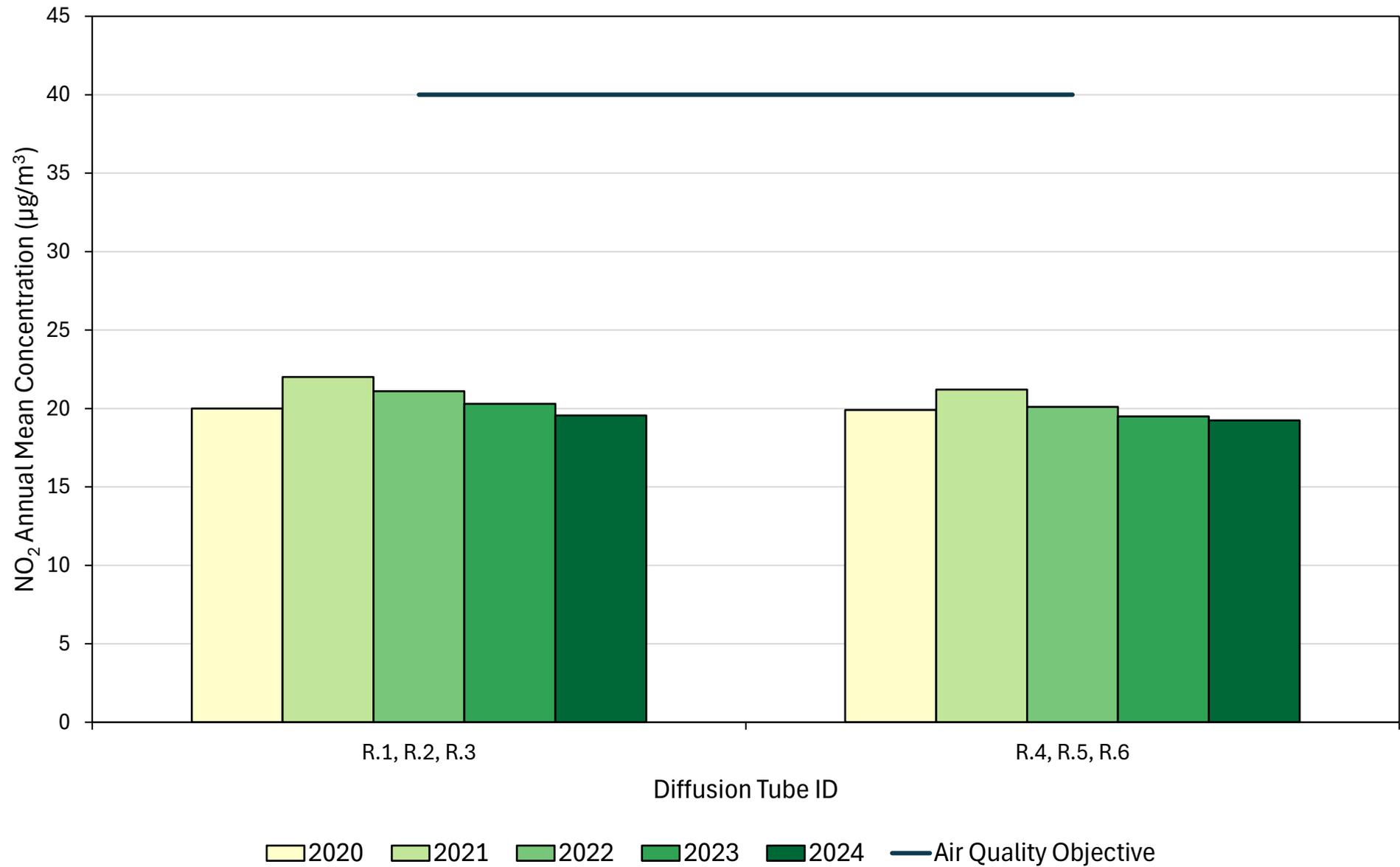


Figure A.2 – Annual Mean NO₂ Concentrations (Poulton)

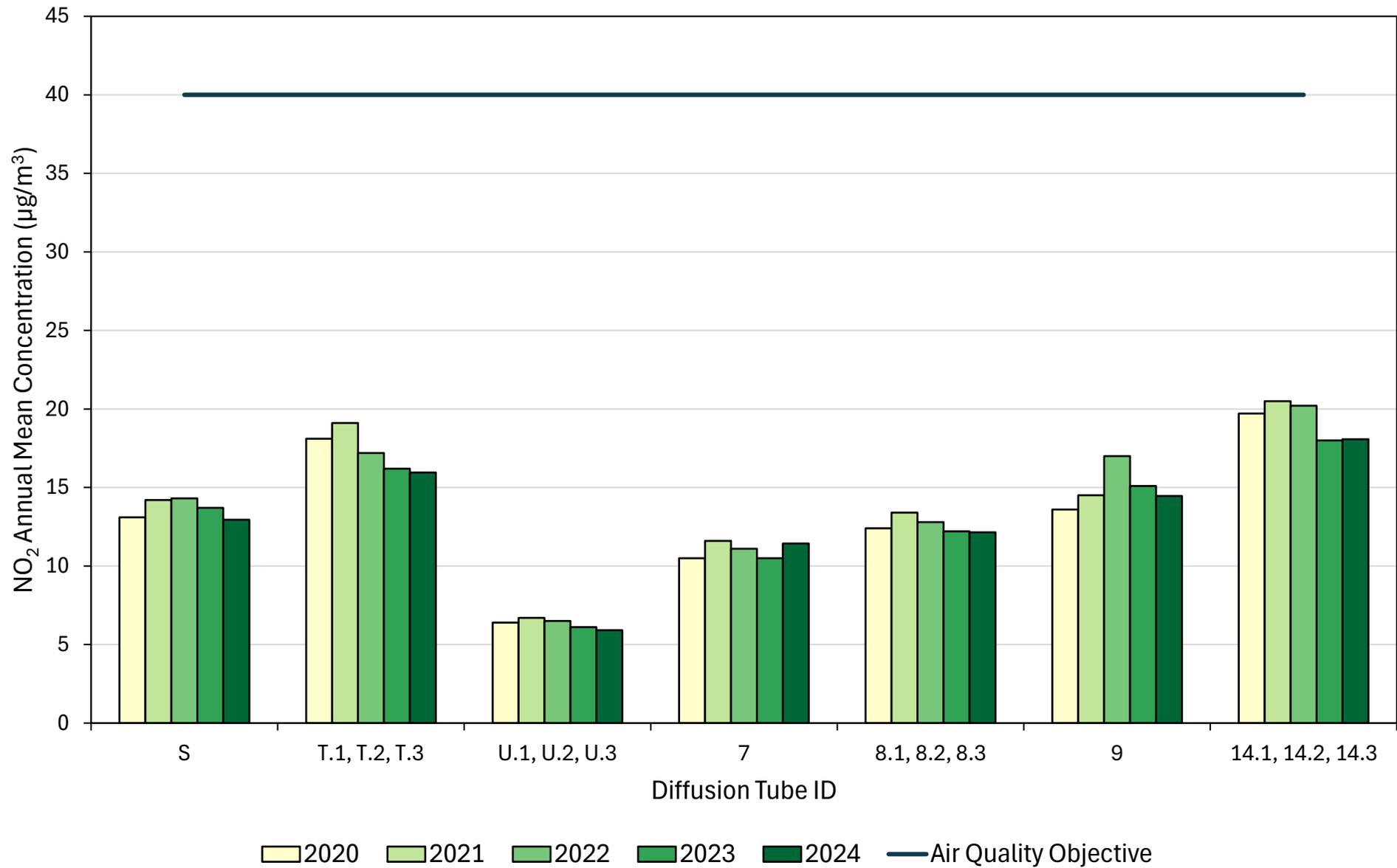


Figure A.3 – Annual Mean NO₂ Concentrations (Thornton / Carleton)

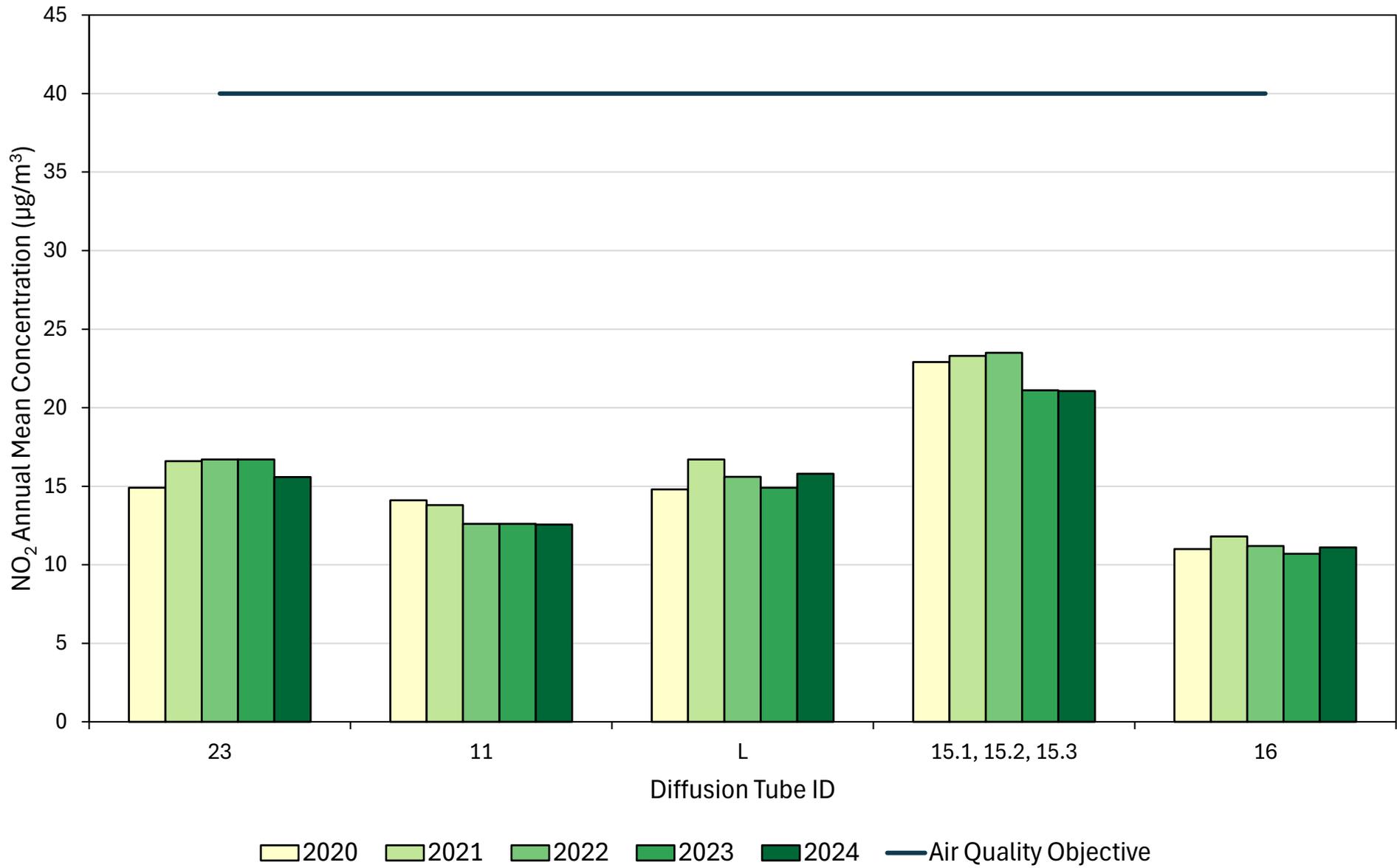


Figure A.4 – Annual Mean NO₂ Concentrations (Fleetwood / Presall)

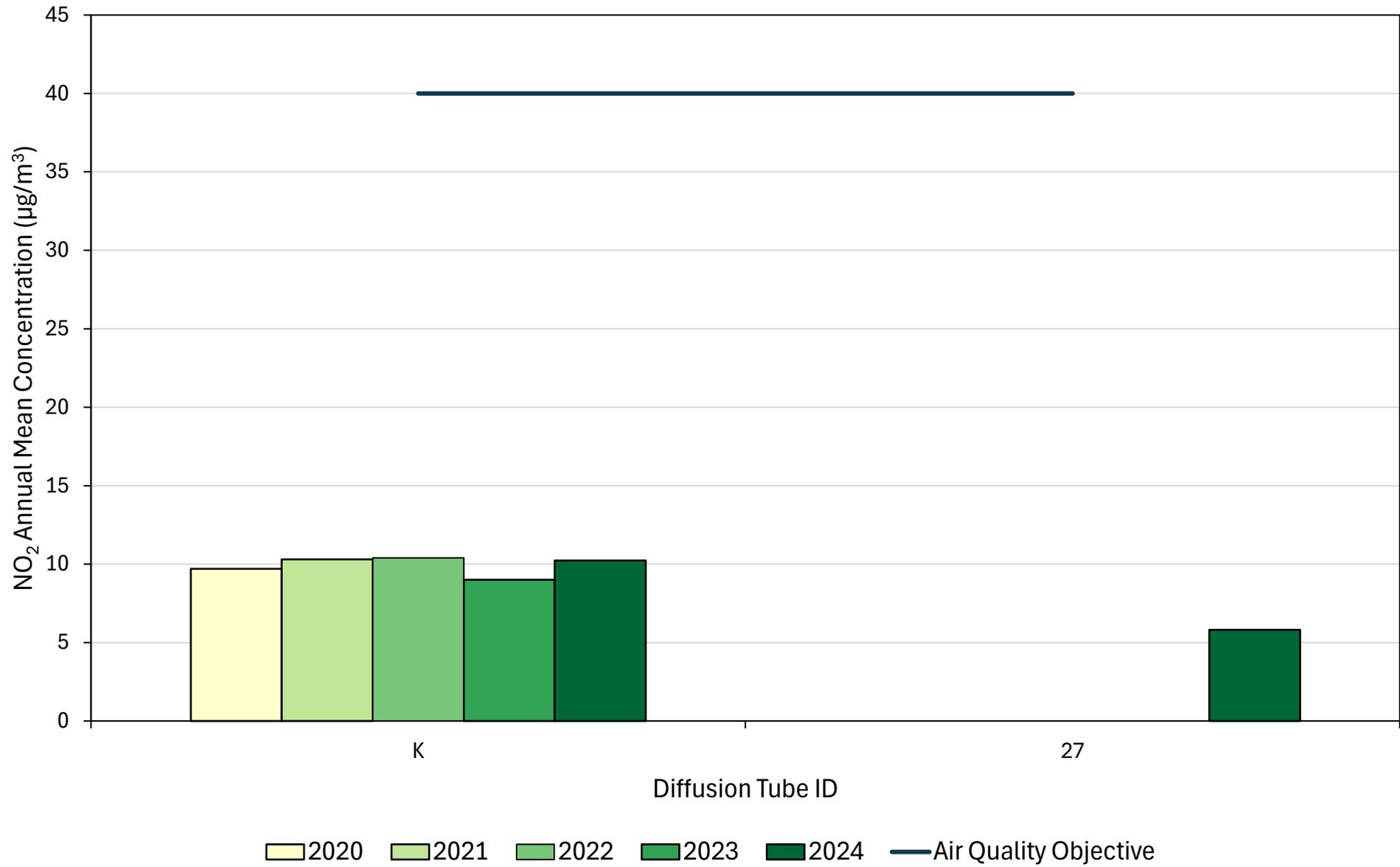


Figure A.5 – Annual Mean NO₂ Concentrations (St Michaels / Claughton / Great Eccleston)

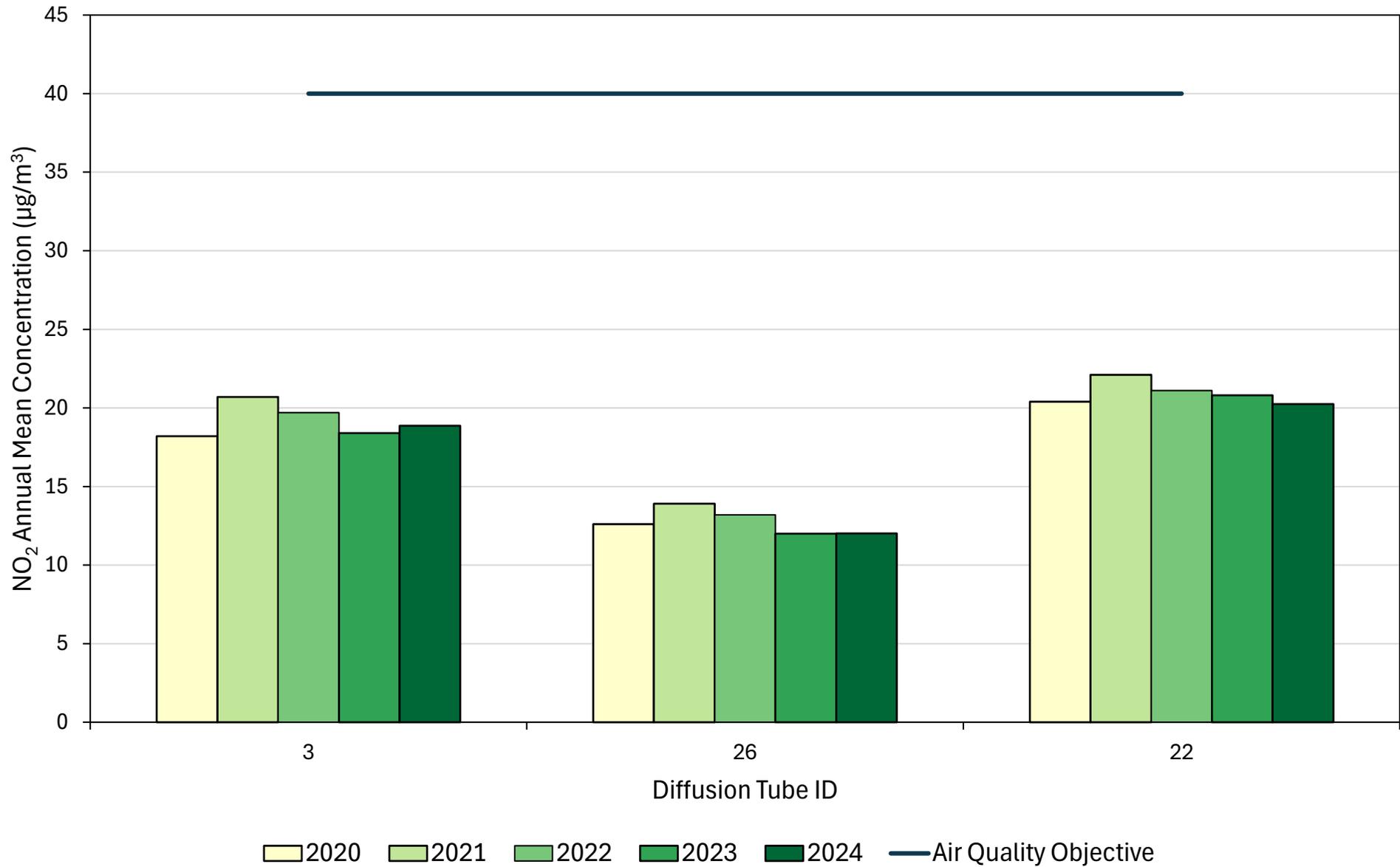
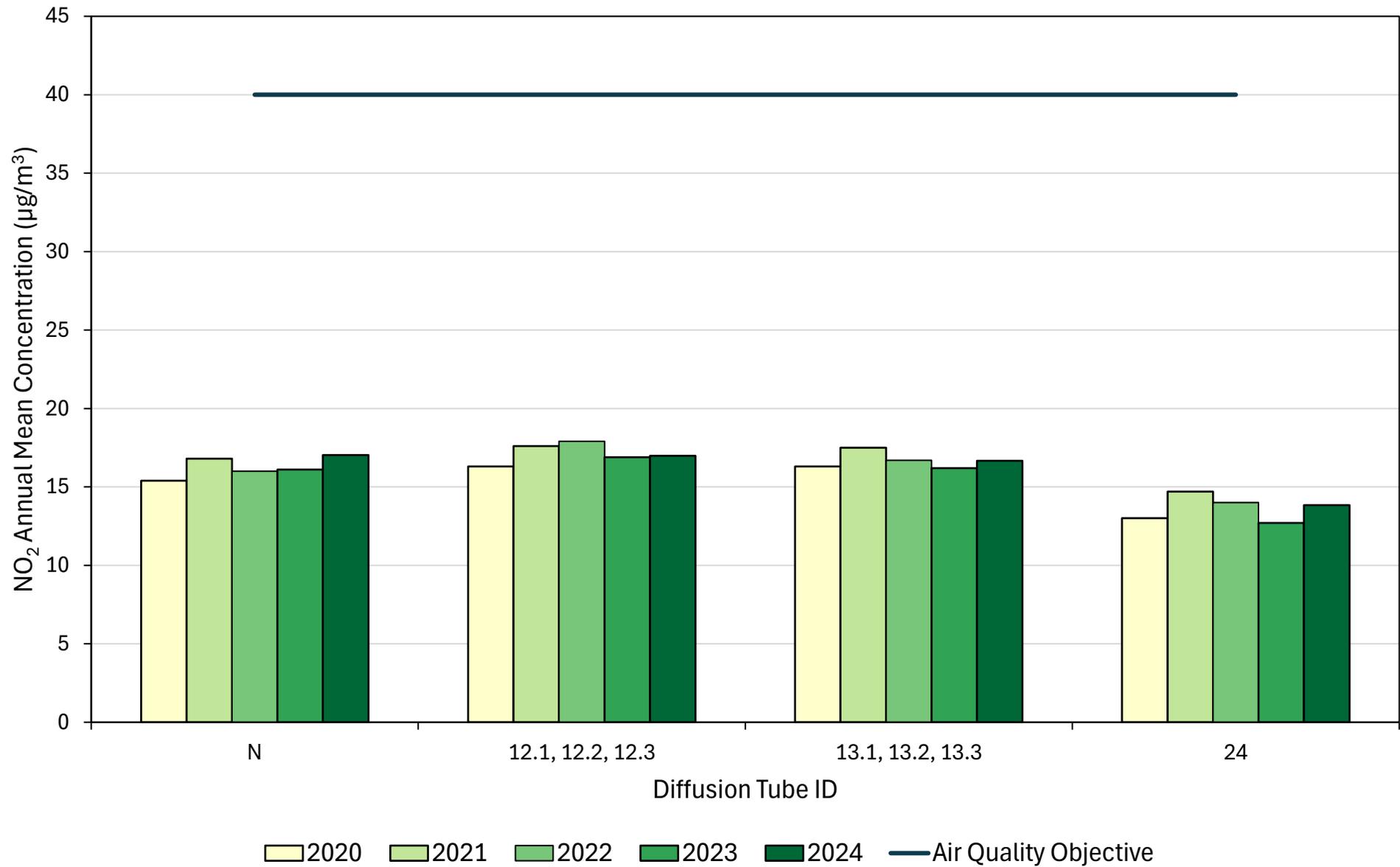


Figure A.6 – Annual Mean NO₂ Concentrations (Garstang)



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 (0.88)	Annual Mean: Distance Corrected to Nearest Exposure	Comment
K	333399	447781	11.9	15.4	12.1	10.8	6.4	6.0	-	-	10.4	15.9	17.0	10.4	11.6	10.2		Tube missing in July / August
L	333717	442185	22.1	20.3	14.2	19.0	12.3	15.4	16.8	-	15.0	20.1	21.4	20.8	17.9	15.8		Tube missing in August
N	349239	445342	24.5	22.1	17.7	19.6	13.7	16.9	18.4	15.5	17.8	20.1	24.7	21.3	19.4	17.0		
R.1	334912	439393	25.7	24.7	21.2	25.8	16.8	13.1	18.3	14.6	24.2	23.9	28.0	23.9	-	-		Triplicate Site with R.1, R.2 and R.3 - Annual data provided for R.3 only
R.2	334912	439393	27.0	23.6	21.2	25.0	16.8	14.7	20.0	16.2	23.7	24.5	30.7	22.5	-	-		Triplicate Site with R.1, R.2 and R.3 - Annual data provided for R.3 only
R.3	334912	439393	26.7	26.9	25.4	27.0	-	15.3	18.9	14.6	24.0	23.2	32.0	23.1	22.2	19.6		Triplicate Site with R.1, R.2 and R.3 - Annual data provided for R.3 only
R.4	334881	439472	27.7	25.0	-	21.9	16.9	20.7	21.8	14.5	20.6	23.2	26.1	23.2	-	-		Triplicate Site with R.4, R.5 and R.6 - Annual data provided for R.6 only
R.5	334881	439472	27.0	22.5	21.7	-	16.1	19.8	21.1	13.5	21.5	23.7	29.4	20.0	-	-		Triplicate Site with R.4, R.5 and R.6 - Annual data provided for R.6 only
R.6	334881	439472	-	-	21.1	25.3	16.2	20.2	19.8	15.5	22.2	20.9	27.4	24.4	21.9	19.2		Triplicate Site with R.4, R.5 and R.6 - Annual data provided for R.6 only
S	334725	439556	15.9	-	15.7	-	11.7	10.6	13.0	10.2	-	-	20.8	16.0	14.2	12.9		Tube missing in February / April / September / October
T.1	335247	440095	23.2	21.0	17.5	20.6	13.0	17.7	18.0	15.0	17.7	16.7	15.8	19.1	-	-		Triplicate Site with T.1, T.2 and T.3 - Annual data provided for T.3 only
T.2	335247	440095	21.8	20.9	16.5	18.7	13.0	16.7	17.8	15.3	16.7	19.2	22.5	20.0	-	-		Triplicate Site with T.1, T.2 and T.3 - Annual data provided for T.3 only
T.3	335247	440095	22.2	21.2	-	21.6	8.6	16.2	18.7	13.5	17.6	20.1	21.7	20.1	18.1	16.0		Triplicate Site with T.1, T.2 and T.3 - Annual data provided for T.3 only
U.1	334982	439867	-	-	7.5	6.1	3.7	3.3	4.6	3.8	7.1	8.9	11.8	9.5	-	-		Triplicate Site with U.1, U.2 and U.3 - Annual data provided for U.3 only
U.2	334982	439867	-	-	7.0	6.1	3.8	3.2	5.0	3.9	7.2	8.9	12.9	10.0	-	-		Triplicate Site with U.1, U.2 and U.3 - Annual data provided for U.3 only
U.3	334982	439867	-	-	8.0	5.8	-	3.3	5.0	3.8	7.5	8.4	12.5	9.2	6.7	5.9		Triplicate Site with U.1, U.2 and U.3 - Annual data provided for U.3 only
3	346144	441156	22.3	20.0	21.9	24.4	-	15.1	19.9	16.0	24.9	26.5	23.6	21.2	21.4	18.9		Tube missing in May
7	335498	440467	17.4	14.6	14.9	12.7	12.6	8.5	11.2	7.8	12.7	14.9	15.7	12.9	13.0	11.4		
8.1	334791	438991	17.4	18.5	14.3	14.3	9.0	8.5	10.5	7.7	13.8	16.6	17.9	17.9	-	-		Triplicate Site with 8.1, 8.2 and 8.3 - Annual data provided for 8.3 only
8.2	334791	438991	15.8	18.8	-	12.6	8.5	8.3	10.9	8.6	12.3	15.3	19.2	16.9	-	-		Triplicate Site with 8.1, 8.2 and 8.3 - Annual data provided for 8.3 only
8.3	334791	438991	18.8	17.7	14.0	13.9	10.6	7.8	10.3	8.9	14.6	15.4	20.1	16.9	13.8	12.1		Triplicate Site with 8.1, 8.2 and 8.3 - Annual data provided for 8.3 only
9	334834	439317	20.1	23.4	13.4	16.7	11.4	9.1	12.5	10.5	16.8	20.6	23.3	19.3	16.4	14.5		
11	333965	441347	14.7	16.4	12.4	14.8	9.3	12.0	13.2	11.1	14.0	18.0	20.8	14.6	14.3	12.6		

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 (0.88)	Annual Mean: Distance Corrected to Nearest Exposure	Comment
12.1	349134	445224	27.1	21.1	16.2	21.0	14.0	15.8	17.3	14.7	16.5	19.4	24.8	23.4	-	-		Triplicate Site with 12.1, 12.2 and 12.3 - Annual data provided for 12.3 only
12.2	349134	445224	24.4	23.1	17.0	19.6	14.2	16.8	17.3	13.3	19.4	20.3	25.2	22.5	-	-		Triplicate Site with 12.1, 12.2 and 12.3 - Annual data provided for 12.3 only
12.3	349134	445224	23.4	21.2	16.4	19.9	13.1	15.3	18.8	13.9	18.5	21.8	24.8	23.0	19.3	17.0		Triplicate Site with 12.1, 12.2 and 12.3 - Annual data provided for 12.3 only
13.1	349223	445456	25.6	20.3	16.4	19.5	14.2	15.9	17.7	14.4	18.4	20.7	24.5	22.4	-	-		Triplicate Site with 13.1, 13.2 and 13.3 - Annual data provided for 13.3 only
13.2	349223	445456	27.1	18.8	15.3	18.7	14.0	14.9	18.3	14.1	19.2	19.3	24.5	20.8	-	-		Triplicate Site with 13.1, 13.2 and 13.3 - Annual data provided for 13.3 only
13.3	349223	445456	26.0	20.9	16.0	16.6	14.4	16.7	17.6	12.4	18.3	20.8	26.1	20.8	18.9	16.7		Triplicate Site with 13.1, 13.2 and 13.3 - Annual data provided for 13.3 only
14.1	334868	439525	23.1	23.1	21.7	20.4	12.6	15.4	19.0	15.4	18.7	22.0	25.3	22.0	-	-		Triplicate Site with 14.1, 14.2 and 14.3 - Annual data provided for 14.3 only
14.2	334868	439525	24.9	25.4	24.1	19.8	13.9	16.2	18.1	15.3	18.6	23.0	26.3	24.3	-	-		Triplicate Site with 14.1, 14.2 and 14.3 - Annual data provided for 14.3 only
14.3	334868	439525	27.0	27.3	18.6	24.5	15.4	16.8	18.1	16.0	16.7	24.3	26.2	19.9	20.5	18.1		Triplicate Site with 14.1, 14.2 and 14.3 - Annual data provided for 14.3 only
15.1	333874	443054	33.0	29.8	21.4	26.1	18.6	20.9	22.5	12.1	20.5	14.5	42.0	22.9	-	-		Triplicate Site with 15.1, 15.2 and 15.3 - Annual data provided for 15.3 only
15.2	333874	443054	33.9	29.5	22.1	28.0	17.3	21.1	22.5	16.6	19.3	17.4	31.2	24.8	-	-		Triplicate Site with 15.1, 15.2 and 15.3 - Annual data provided for 15.3 only
15.3	333874	443054	31.5	28.5	24.9	21.4	18.7	21.0	22.5	18.3	23.2	26.9	28.6	28.2	23.9	21.1		Triplicate Site with 15.1, 15.2 and 15.3 - Annual data provided for 15.3 only
16	333429	443981	17.1	15.2	11.2	11.3	9.1	10.7	12.7	8.4	12.0	14.0	17.1	-	12.6	11.1		Tube Missing in December
22	350296	441965	29.0	25.7	25.3	26.2	17.9	16.1	19.8	16.6	25.0	25.3	28.4	20.8	23.0	20.2		
23	333983	440130	23.0	21.0	15.2	20.0	12.6	15.2	16.4	13.9	15.0	19.8	23.1	17.3	17.7	15.6		
24	348812	446069	21.8	18.0	13.0	15.8	10.3	13.7	14.2	12.2	13.9	15.7	21.8	18.3	15.7	13.8		
26	342667	440171	17.3	15.9	12.4	14.2	9.3	12.2	13.0	10.5	10.9	14.9	17.4	15.8	13.7	12.0		
27	337777	447211	7.4	-	5.4	6.2	4.6	4.5	6.4	5.0	6.2	10.1	9.6	7.2	6.6	5.8		

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.

Wyre 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 Wyre During 2024

Wyre Council has not identified any new or changed sources relating to air quality during the 2024 reporting year.

Additional Air Quality Works Undertaken by Wyre Council During 2024

Wyre Council has not completed any additional works relating to air quality during the 2024 reporting year.

QA/QC of Diffusion Tube Monitoring

During the 2024 monitoring year, diffusion tubes were supplied and analysed by Gradko International, using the 50% TEA in Acetone preparation method. Gradko International are a UKAS accredited laboratory and participate in the AIR-PT scheme for NO₂ diffusion tube analysis and Annual Field Intercomparison Exercise. These provide strict criteria relating to performance that participating laboratories must meet, ensuring that the reported NO₂ concentrations are of high calibre. For all AIR-PT rounds for diffusion tubes analysed during 2024, Gradko International received a score of 100% - the percentage score reflects the results deemed satisfactory based upon the z-score of ± 2 .

Additionally, the precision of NO₂ diffusion tubes (50% TEA in Acetone) supplied by Gradko International was classified as 'good' for all 11 observations in 2024. This reflects the laboratory's performance and consistency in preparing and analysing the diffusion tubes, as well as the subsequent handling of the tubes in the field. Tubes are considered to have 'good' precision where the coefficient of variation of duplicate or triplicate diffusion tubes for eight or more monitoring periods during the year is less than 20%. Further information on the precision results of the laboratory is available on the [LAQM Website](#).

The LAQM diffusion tube precision calculator sheet has also been used for the nine triplicate sites within the diffusion tube network. This assesses how similar the results are

that are recorded by each single diffusion tube at each of these sites. During 2024, the precision was deemed to be 'good' at eight of the nine sites, indicating a high level of confidence in the results at these triplicate sites. The one site where the triplicate diffusion tube results were deemed to be of 'poor' precision was at Site ID 15.1, 15.2, 15.3 which was mainly due to differences in the results reported in August, October and November.

During 2024, the diffusion tube monitoring was completed in adherence with the Defra monitoring calendar, with all changeovers completed on the specified date.

Diffusion Tube Annualisation

For any site where data capture is below 75%, annualisation is to be performed. This is because Section 7.196 of TG(22) states that:

"If data capture is below 75% for the year, then it is necessary to annualise the data... [as] the concentration varies throughout the year, and the instrument may have been operational for a period of above or below average concentrations".

Therefore, as the minimum data capture across all sites in the diffusion tube network was 66%, annualisation was required. This was however only for one site (Site ID: S). The annualisation calculation was performed using the automatic monitoring data from two nearby Urban Background monitoring sites, which are part of the Automatic Urban and Rural Network (Preston and Blackpool Marton). This is in accordance with the methodology outlined in Box 7.9 of TG(22):

"Identify two to four nearby, long-term, continuous monitoring sites, ideally those forming part of the national network. The data capture from each of these sites should be at least 85%. These sites should be background (Urban Background, Suburban or Rural) sites to avoid any very local effects that may occur at Urban Centre, Roadside or Kerbside sites, and should, wherever possible lie within a radius of about 50 miles".

The Preston and Blackpool Marton AURN sites are an approximate distance of 14 miles and 3 miles, respectively, from the site that required annualisation. Each of the sites also had sufficient data capture (above 85%) to be used for annualisation. The annualisation factor of each site and the average factor is provided in Table C.1.

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

Site ID	Annualisation Factor Preston	Annualisation Factor Blackpool Marton	Average Annualisation Factor	Raw Data Annual Mean	Annualised Annual Mean
S	1.0342	1.0322	1.0332	14.2	14.7

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.

Wyre Council have applied a national bias adjustment factor of 0.88 to the 2024 monitoring data (as shown in Figure C.1). A summary of bias adjustment factors used by Wyre Council over the past five years is presented in Table C.2.

Figure C.1 – National Bias Adjustment Factor Spreadsheet (04/25)

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 ² 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 ² .		If you have your own co-location study then see footnote ⁴ . If uncertain what to do then contact the Local Air Quality Management Helpdesk at LAQMHelpdesk@bureauveritas.com or 0800 0327953					
Analysed By ¹	Method	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 ⁵	Bias Adjustment Factor (A) (Cm/Dm)	
Gradko	50% TEA in Acetone	2024	UB	City Of London Corporation	10	26	21	26.8%	G	0.79	
Gradko	50% TEA in Acetone	2024	R	City Of London Corporation	12	34	30	12.1%	G	0.89	
Gradko	50% TEA in Acetone	2024	UB	Falkirk Council	11	13	13	-1.6%	G	1.02	
Gradko	50% TEA in acetone	2024	SU	Redcar And Cleveland Borough Council	12	12	9	35.4%	G	0.74	
Gradko	50% TEA in acetone	2024	KS	Marylebone Road Intercomparison	11	43	36	20.8%	G	0.83	
Gradko	50% TEA in acetone	2024	R	Sandwell Mbc	12	30	25	24.2%	G	0.81	
Gradko	50% TEA in acetone	2024	UB	Sandwell Mbc	12	19	17	8.0%	G	0.93	
Gradko	50% TEA in acetone	2024	R	Sandwell Mbc	12	20	20	-2.6%	S	1.03	
Gradko	50% TEA in Acetone	2024	R	London Borough Of Merton	12	27	22	25.7%	G	0.80	
Gradko	50% TEA in acetone	2024	UB	London Borough Of Wandsworth	10	19	14	31.7%	G	0.76	
Gradko	50% TEA in acetone	2024	R	London Borough Of Richmond Upon Thames	12	18	19	-9.1%	G	1.10	
Gradko	50% TEA in acetone	2024	B	London Borough Of Richmond Upon Thames	12	13	13	5.0%	G	0.95	
Gradko	50% TEA in acetone	2024		Overall Factor ⁶ (12 studies)					Use	0.88	

Table C.2 – Bias Adjustment Factor

Monitoring Year	Local or National	If National, Version of National Spreadsheet	Adjustment Factor
2024	National	04/25	0.88
2023	National	03/23	0.83
2022	National	03/22	0.82
2021	National	03/21	0.83
2020	National	03/20	0.82

Notes:

A single local bias adjustment factor has been used to bias adjust the 2024 diffusion tube results.

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.

During 2024, no diffusion tube site within Wyre required distance correcting.

Appendix D: Maps of Monitoring Locations and AQMAs

Figure D.1 – Map of Monitoring Sites (Wyre Boundary)

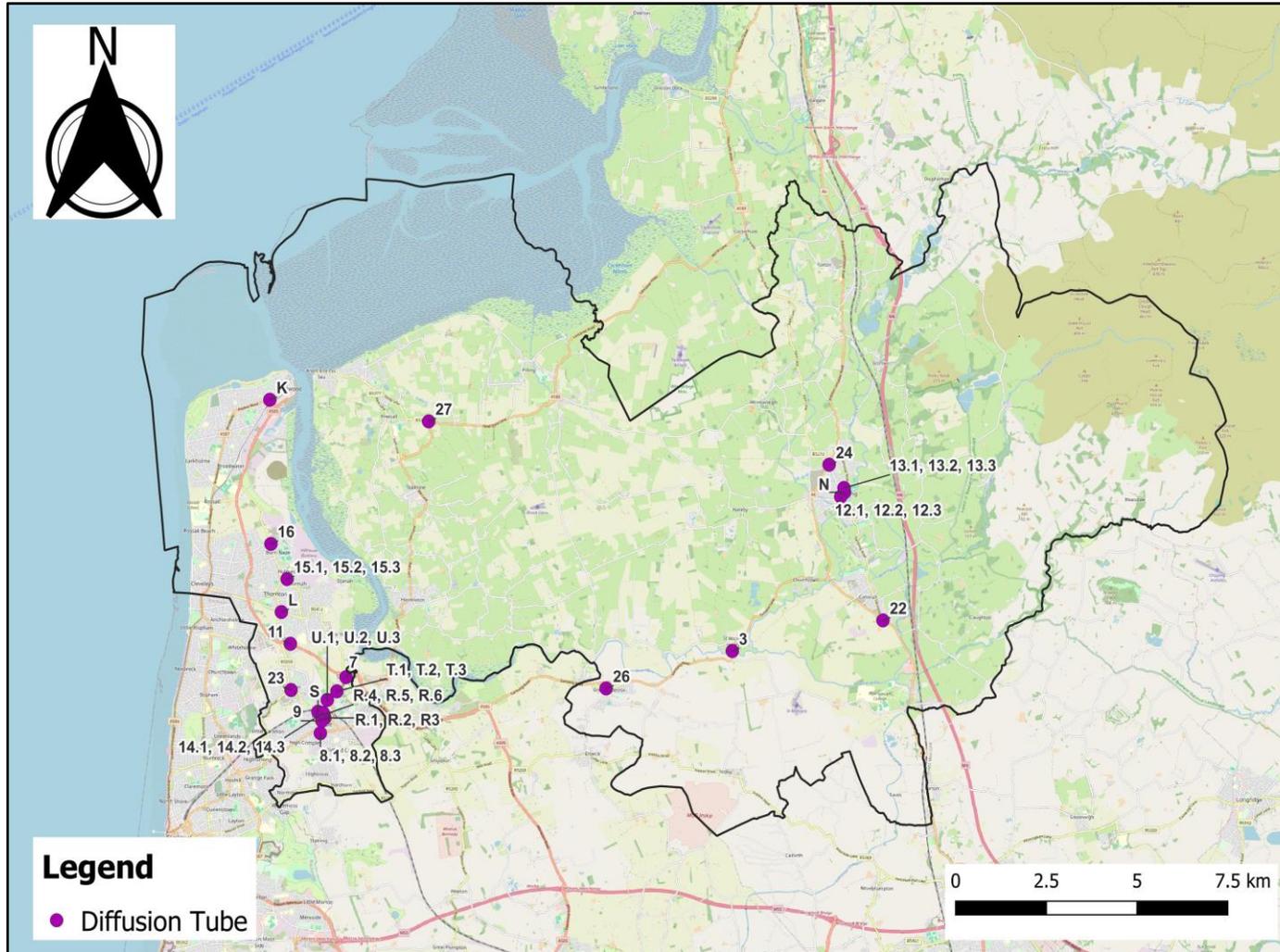


Figure D.2 – Map of Monitoring Sites (Poulton)

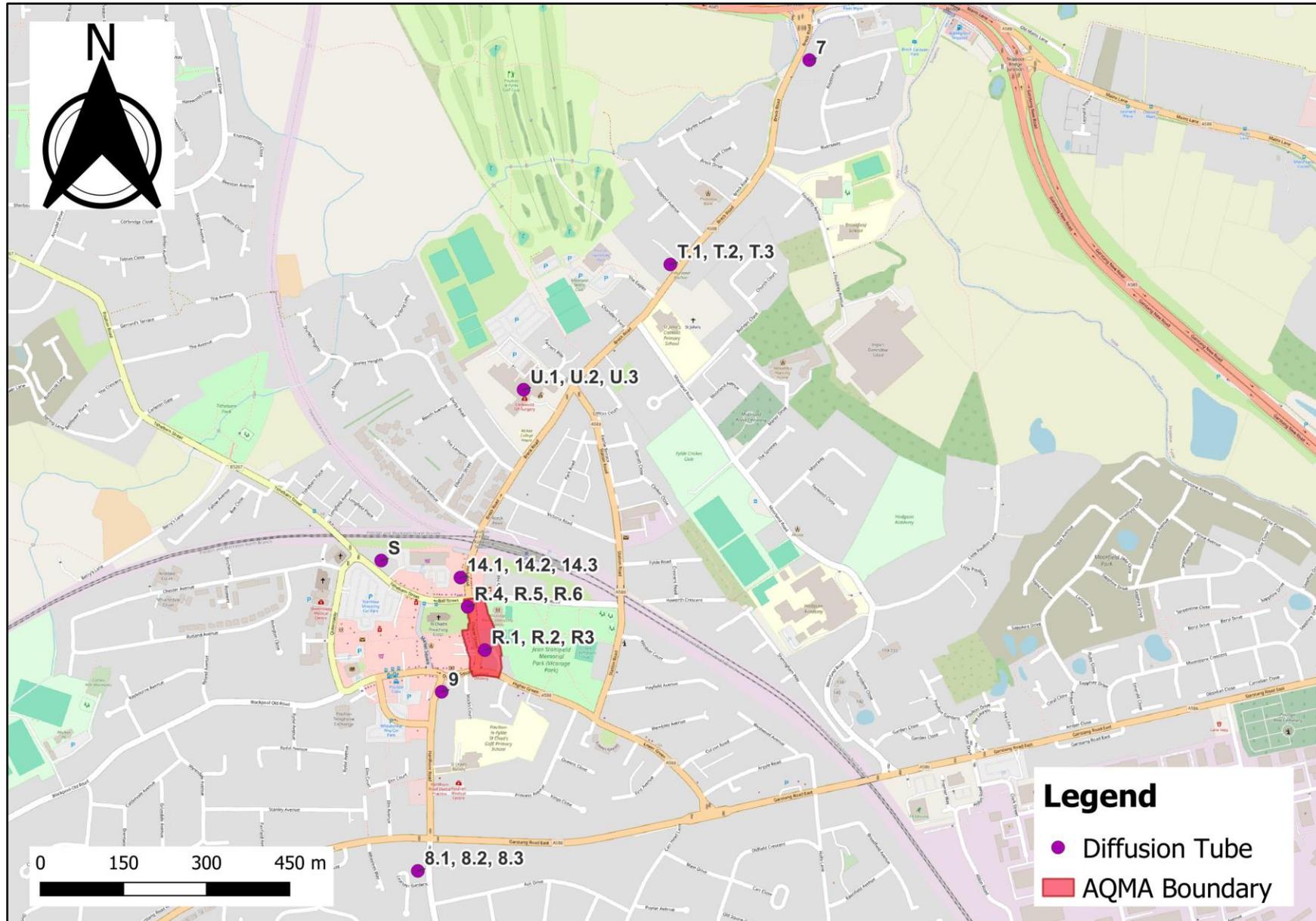


Figure D.3 – Map of Monitoring Sites (Thornton / Carleton)

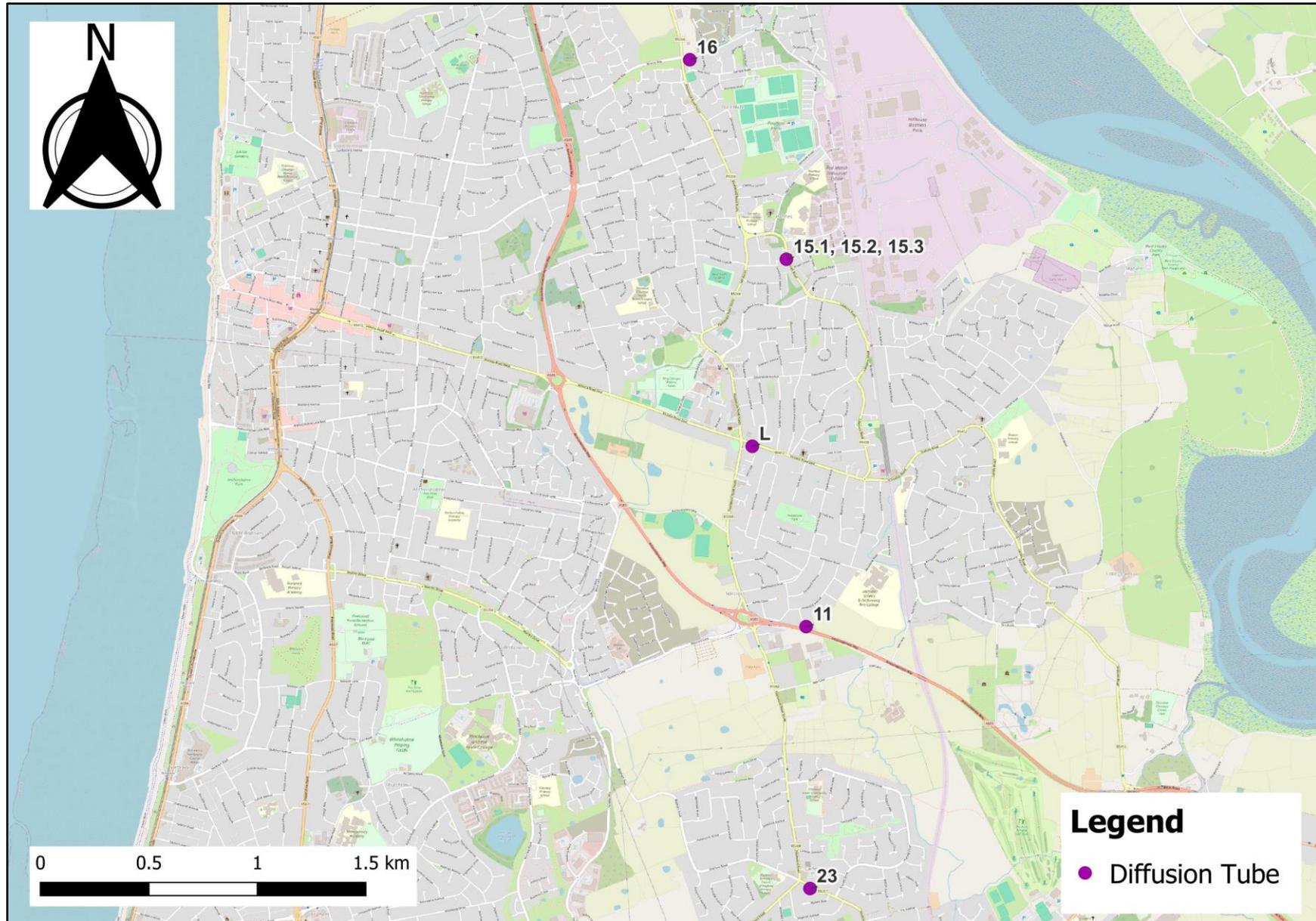


Figure D.4 – Map of Monitoring Sites (Fleetwood / Presall)



Figure D.5 – Map of Monitoring Sites (St Michaels / Claughton / Great Eccleston)



Figure D.6 – Map of Monitoring Sites (Garstang)



Appendix E: Summary of Air Quality Objectives in England

Table E.1 – Air Quality Objectives in England⁴

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

⁴ 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

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- Wyre Council – Climate Change Strategy (2024 – 2035). 2024.
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