



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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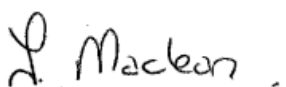
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Executive Summary: Air Quality in Our Area

Air Quality in Burnley

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. PM₁₀ refers to particles under 10 micrometres. Fine particulate matter or PM_{2.5} are particles under 2.5 micrometres.

The primary pollutants of concern in Burnley continue to be Nitrogen Dioxide (NO₂) and Particulate Matter (PM), as in previous years. These pollutants are predominantly released from synthetic sources such as motor vehicles with internal combustion engines, industrial activities, and the construction sector. Consequently, urban areas exhibit higher concentrations due to the greater presence of these human-made sources. Although particulate levels are not currently monitored in Burnley, NO₂ levels were measured in 2024 using Diffusion Tube monitoring at 29 different locations across the borough.

In 2024 there were no exceedances of the national air quality objective of 40µg/m³ across all monitoring locations. There was a decrease in NO₂ concentrations at 19 of the 28 locations measured compared with the previous reporting year. A new location was introduced in 2024 following the removal of another location, therefore there was no previous data available for this location. The overall average change across all sites displayed a decrease in concentrations, this is on trend with the year on year reduction over the past 4 years thus providing reassurance. While 2 locations provided stagnant results, 7 locations displayed an increase in concentrations which were minimal and were not significant enough to cause concern. It is also important to highlight average NO₂ concentrations in 2024 remain reduced below results monitored in 2020. This may indicate the effect mitigation measures have had on NO₂ concentrations, when Covid-19 lockdown restrictions in 2020 reduced anthropogenic NO₂ emissions displaying significant reductions in NO₂ concentrations nationally.

Sites subject to scrutiny

- Burnley Road, Padiham

The area of concern is the narrow-inclined bottleneck part of this road, which is surrounded by buildings on either side. This area underwent works with the £2m 'Padiham Public Realm Improvement Scheme' which comprised the removal of the traffic lights to improve traffic-flow

There are 6 locations studied in this vicinity and 2 of the 6 locations displayed a minor increase compared to 2023. However, an overall average decrease was displayed across all locations in comparison to the previous year. One location here indicated a slight exceedance of the 40µg/m³ air quality in 2019, with other locations being close to this level. The location DT57 (22 Burnley Road, Padiham) displayed an exceedance of the 40µg/m³ air quality objective in 2019 and remains to be highest of the 6 locations displaying 31.3µg/m³ for the current reporting year although this is an increase of 1.2µg/m³

compared to 2023 it remains to be lower than previous results prior to the completion of the works to improve traffic flow. Nevertheless, in comparison to 2020, all sites display a 10% average decrease. It is reassuring to see an overall reduction in NO₂ concentrations over a 5 year period in results across all sites in this area. This area will be monitored closely going forward, as it is a widely used throughfare and it will be important to closely follow concentrations following improvements to the highway.

- Cavalry Way/Gannow Junction

Monitoring has continued in this area following a previous targeted feasibility study on this junction featuring 4 on/off ramps onto the M65 motorway. The 2024 concentrations here did not exceed the national air quality objective. There are five locations within this vicinity which are studied and this year saw the removal of a location (DT56, Gannow Junction 16) due to repeated months in 2023 where the monitoring tube was missing. It should be noted that this location was displaying year on year decreases in measurements of concentration and was not a cause for concern.

An average 2% increase was observed across all sites between 2023-2024, and of these sites DT54 (Gannow Junction 13) displayed the highest concentration 30.8µg/m³, which remains below the national objective. This area will have minimal human exposure with only the presence of a footpath and is therefore of no immediate concern.

Air Quality Management Areas

Burnley did not have any AQMAs at the start of the 2024 monitoring year, therefore with the reductions noted in pollutants over the past twelve months, there were no AQMAs declared during the year.

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.

During 2024, the following initiatives have been implemented or are being proposed by Burnley Borough Council:

- Funding via Trees for Cities helped towards the planting of a native hedge at Fennyfold Recreation Ground, consisting of approximately 750 small trees to create a wildlife corridor and habitat for birds, bees, and insects. Additionally, 15 standard

trees will be planted in 2025 with the help of St John the Baptist RC Primary School to provide shade and educate children on tree species and planting techniques. Sites initially planted in 2023 have been supplemented with roughly 2000 additional trees to enhance overall tree numbers.



- The completion of the “Town 2 Turf” project saw improvements made to traffic flow to “future proof” the area against future developments. Improvements made to the along this route facilitates better access for pedestrians and cyclists.
- Introducing Burnley’s first Living Roof bus shelter, it comprises roofs planted with native wildflowers and sedum species, bringing more greenery into urban areas.



- In July 2019, a Climate Emergency declaration started Burnley Council’s journey to net zero. The declaration recognises the part the council has to play in tackling climate change and reducing its fossil fuel emissions. The Council’s Climate Change Strategy continues to address local air quality through one of its core themes, Vehicle Emissions. The aim is to reduce emissions across all service areas and the strategy facilitates this via annual progress updates and action plans.
- The provision of electric vehicle charge points in major housing developments now fall within Approved Document S of the Building Regs 2010. They therefore do not need to be secured via conditions an example of this in 2024 is the Rossendale Road development which consists of 111 dwellings all with EV chargers installed.

Conclusions and Priorities

The 2024 monitoring year found a decrease in concentration of NO₂ at 19 of the 28 locations with data from the previous year. There were increases in concentrations observed at 7 locations while 2 locations remained the same. Importantly there were no exceedances of the national NO₂ objectives identified within the borough of Burnley in 2024. The main observation was that the average NO₂ concentration across all locations remain slightly lower than the levels of the 2020 monitoring year, which was identified to be skewed somewhat by the COVID19 pandemic in comparison to the 2019 measurements.

The fluctuations in concentrations across the 28 locations this year were minimal, only to locations displayed a year on year increase over the past 2 years, albeit minimal. However, 12 locations displayed consecutive decreases over 3 years. There were 18 locations that returned lower concentrations to that of 2020. There was a 1.4% average decrease in total concentrations between 2023 and 2024, a further decrease from the 1% reduction for the during 2022 and 2023. Following a vast reduction in average concentrations in 2022 a general trend in minimal reduction can now be observed, this can be a representation of the concentrations stagnating. However, it provides assurances of the continuing downward trend of results over the 5-year period apart from the post-pandemic increase of 2021.

The 2024 results further ratify the hypothesis that significant reductions observed in 2022 may not have been an anomaly. Additional data will be needed in the coming years to determine whether this is a reliable indicator of the measures that have reduced NO₂ levels. These measures include changes in workplace culture, the adoption of hybrid remote working by employers, enhancements to the local road network, and public education. The increasing adoption of electric vehicles, both domestically and commercially, suggests that future studies will be crucial to assess any ongoing improvements in air quality.

During the 2024 year, locations considered of most concern will be monitored closely. The town is undergoing major change in the centre with the completion of the “Town 2 Turf” project; improving the highway network in the centre of town. While work is underway also on the Newtown Mill development which will see the former mill converted as part of an expansion of University of Central Lancashire's campus in the town. Existing tube locations in and around these areas will be monitored closely due to the effects caused by road traffic diversions and road closures. While new locations will only be incorporated into the monitoring regime until a stable representative sample is taken following the fluctuation in results in recent years. The Council are committed to prioritising air quality, with implementation of the Electric Vehicle Strategy and Climate Change Strategy introduced in

2022 it seeks to encompass the impact of air quality within their scope and reaffirm measures for improvement.

How to get Involved

Burnley BC continues to engage with key stakeholders in respect of improving air quality. The Burnley supplementary planning document on air quality entitled Air Quality Management: Protecting Health and Addressing Climate Change highlights the key requirements. This document provides full details of Burnley's vision for air quality management, and a framework for all new planning applications to engage with and influence the Council's air quality agenda.

A practical guide to open fires and wood burning stoves can be found on the council's website. Raising public awareness on the benefits and requirements for use of DEFRA 'exempt appliances' and 'authorised fuels' will assist in the reduction of NO₂ and PM levels in the borough, and the council will actively enforce this where there are complaints. The council will also be mindful of the recent Air Quality (Domestic Solid Fuels Standards) (England) Regulations 2020 and work with Lancashire County Council to enforce any breaches. Lancashire County Council is encouraging public engagement by implementing a cycling and walking strategy, with a Road Safety Team actively visiting schools, workplaces and the community to encourage safe and sustainable modes of travel and provide training guidance, resources and support for creating travel plans.

How can members of the public help to improve air quality?

- Organisations operating within the borough can adopt Travel Plans for their staff, students, etc.
- Use the expanding network of pathways any cycleways to walk and cycle short journeys rather than taking the car
- Use public transport wherever possible instead of private journeys.
- Lift share to work and for the school run.
- Turn off the car engine when stationary and/or use stop/start technology.
- Choose a low emission vehicle such as an electric or hybrid car.
- When filling the vehicle with fuel, to try and choose a colder time of day in order to avoid fuel evaporation and maximise efficiency (and get more fuel for your money!).
- Start a 'walking bus' for the journey to school.
- Use 'exempt appliances' for open fires and wood burning stoves and/or together with 'authorised fuels', particularly in smoke control areas.

- Dispose of household waste using the waste collection service, recycling centres, or compost garden waste instead of burning.
- Use the Energy Savings Trust website for advice on saving energy in the home and business whilst reducing emissions
- Get involved in National Clean Air Day using the information and interactive tools games and projects found on the National Clean Air Day website.
- Get involved in planting trees, whether that be in your garden, allotment or in a park. You can get involved with Trees for Burnley Volunteers and protect and preserve Burnley's Natural Heritage.

Useful websites for information on alternative travel and clean air may be found below:

[Active travel - Lancashire County Council](#)

<https://www.boostbusinesslancashire.co.uk/support/access-fund-connecting-east-lancashire/>

[What is Connecting East Lancashire? | Blackburn with Darwen Connect \(bwdconnect.org.uk\)](#)

<https://www.cyclestreets.net/>

<https://brightkidz.co.uk>

[Shared Wheels Lancashire Liftshare community - part of the Liftshare network](#)

[Burnley | Beat the Street](#)

[Smoke Control Areas \(SCA\) - Defra, UK](#)

[Volunteering in Parks - burnley.gov.uk](#)

[Our Journey to Net Zero - burnley.gov.uk.](#)

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1 Local Air Quality Management

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

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

2 Actions to Improve Air Quality

2.1 Air Quality Management Areas

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

Burnley Borough Council currently does not have any declared AQMAs. A local Air Quality Strategy is under development to prevent and reduce polluting activities.

Table 2.1 – Declared Air Quality Management Areas

AQMA Name	Date of Declaration	Pollutants and Air Quality Objectives	One Line Description	Is air quality in the AQMA influenced by roads controlled by Highways England?	Level of Exceedance: Declaration	Level of Exceedance: Current Year	Number of Years Compliant with Air Quality Objective	Name and Date of AQAP Publication	Web Link to AQAP
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Burnley Borough Council do not currently have any declared Air Quality Management Areas.

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

Defra's appraisal of last year's ASR concluded that the submitted ASR was acceptable for all sources and pollutants were expected to be below the national objective limit values. In addition, the appraisal identified the following points:

1. *In this ASR, BBC have included the comments from last year's appraisal and responded to them where required. This is encouraging to see and BBC should continue this in future reports.*
2. *The subscripts for pollutants (PM_{10} , NO_2 , $PM_{2.5}$) and superscript for $\mu g/m^3$ are missing throughout the report, these should be formatted correctly prior to submission.*
 - **This has been taken into account for this report.**
3. *BBC have clearly presented the trends for all monitoring sites, including additional figures showing sites in the two areas of concern.*
4. *On page 31 the text requires some clarification as all 29 sites had data over the full five-year period therefore the statement that "all 29 locations can be analysed over a 3-year period" is unnecessary and may confuse the reader.*
 - **This has been taken into account for this report.**
5. *In Table A.4, the Valid Data Capture for Monitoring Period (%) and Valid Data Capture 2023 (%) should match for all sites as no sites were added or decommissioned during 2023. Currently, DT26 has two different data capture rates.*
 - **This has been taken into account for this report.**
6. *BBC have included a screenshot of the national diffusion tube bias adjustment factor sheet for the correct lab and methodology. This is welcomed.*
7. *There are some differences between Table 2.2 in the ASR and in the excel template, including measure 13 missing from the excel template. There should be consistency throughout all tables within the ASR and with the excel template.*
 - **This has been taken into account for this report.**
8. *BBC have provided clear maps showing diffusion tube monitoring locations, including a map showing the whole borough.*

Burnley Borough 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. All measures are included within Table 2.2, with the type of measure and the progress Burnley Borough 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.

Key completed measures are:

- Town 2 Turf Project. Completed in 2024, the project involved enhancements to the town centre's road network to improve traffic flow and prepare for future developments. The project also included upgrades to facilitate pedestrian and cyclist access along this popular route to promote active travel. As part of this project 18 Lime trees were planted along with shrubs and plants, across 4 beds/planters.
- Tree Planting Initiatives. Further enhancements were made to greenspaces within the borough, through tree planting initiatives 750 small trees were planted to form a hedge and wildlife corridor via funding from Trees for Cities. A further 50 trees were planted via the Urban Tree Challenge Fund. These trees were planted across 10 sites with 10 trees on each and with of help of local volunteers and Trees for Burnley who are a local conservation group. The 50 trees planted in 2024 were planted at the following sites:
 - **Owen Street Playground**
 - **Tay Street Playground**
 - **Disraeli St Park**
 - **Padiham Greenway**
 - **Burnley wood Park**
- Smoke Control Area review. An initial review of the smoke control area has commenced to determine whether the Council need to include the full borough into the scope of the Smoke Control Area.
- The Council continues to lead by example through:
 - Introducing Burnley's first Living Roof bus shelter, it comprises roofs planted with native wildflowers and sedum species, bringing more greenery into urban areas.

- Greenspaces have continued to expand electrification scheme of their equipment.
- Trialling alternative eco-fuel for waste collection fleet
- Encouraging take up of the cycle to work scheme within employees.
- Facilitating hybrid working, through provision of equipment to assist with working from home.

Burnley Borough Council has set the following priorities and expects the following measures to be completed over the course of the next reporting year:

- Promote importance of air quality within the borough by undertaking educational programmes with local schools and regularly engaging with the public via social media.
- Burnley and Pendle Local Cycling and Walking Infrastructure Plan (LCWIP). Feasibility studies to be undertaken on routes on to ensure they are ready for future funding opportunities.
- Environmental Permitting. Continue with the environmental permitting regime and ensure all reviews and inspections are up to date.
- Carbon Literacy Gold accreditation. The Council aims to achieve the Gold Carbon Literate Organisation status in the upcoming year to continue its commitment to tackling climate change and embedding sustainability across all areas of the council.

Burnley Borough Council is a district council while Lancashire County Council (LCC) has an important role to play in taking action to reduce the health impacts of air pollution. Responsible for transport planning, network management, highway maintenance, public health and procuring local vehicle fleets, there are a number of ways LCC can support local and county wide efforts to improve air quality. In summary, the following activities are underway or in development:

1. Encouraging the use of sustainable forms of travel

Lancashire's cycling and walking strategy, [Actively Moving Forward](#), sets out an ambitious plan for increasing the number of people walking and cycling in the county by 2028. By improving and increasing access to cycling and walking infrastructure, alongside training and promotional activities, it aims to significantly increase the amount of cycling and walking people do across the county. Information on the County Council's ongoing activities in this area can be found on the [Active Travel in Lancashire website](#).

As part of Lancashire's cycling and walking strategy, there are seven supplementary documents: [Local Cycling and Walking Infrastructure Plans \(LCWIPs\)](#). These are:

- Lancaster
- Central Lancashire
- West Lancashire
- Fylde Coast
- Ribble Valley
- Burnley and Pendle
- Rossendale and Hyndburn

As part of the LCWIP process, extensive public and stakeholder engagement was carried out. The LCWIPs were signed off by LCC cabinet in May 2024. They include a network plan for cycling and walking infrastructure and an aspirational list of schemes for delivery over short, medium, and long-term timeframes. They will be used to support future infrastructure decisions and to access new funding schemes as they become available.

Bus services across Lancashire operate in a deregulated market, meaning the County Council doesn't control the bus network, franchise routes or control fares. Buses in Lancashire are the most popular and well used form of public transport in the county so it's vital we ensure everyone can maintain connections with their friends and family, reach essential services, and access opportunities for education and employment.

As part of our Bus Service Improvement Plan, the county council will continue to work more closely with bus operators, alongside local communities, to create a network that people want and will use. The council has published a ten-year [Enhanced Partnership Plan and Scheme](#) alongside its [Bus Service Improvement Plan](#) which together will deliver measures to restore confidence and grow patronage across Lancashire.

2. Supporting the transition to electric vehicles

Lancashire County Council has already installed [150 fast and rapid chargepoints](#) around Lancashire, either on LCC car parks or kerbside on our highways. These can typically allow vehicles to charge in less than an hour and are operated on our behalf by BP Pulse. The types of chargepoints installed will depend on the specific location, power supply and demand.

The [Lancashire and Blackburn with Darwen EV Infrastructure Strategy](#) was approved in July 2023 and sets out our plan to provide more EV charge points across the county. It considers the future demand for charging infrastructure and identifies broad locations for

different types of charging need, whilst it is modelled data it helps us to understand the size and type of public infrastructure that will be required.

This strategy supports LCC's application to the government's Local Electric Vehicle Infrastructure (LEVI) capital fund. The aim of the funding is predominately to deliver local, low power, on-street charging infrastructure, primarily benefiting residents who do not have access to off-street parking at home. An indicative £10.1m has been allocated to Lancashire, subject to the submission and approval of a full business case and application in the 2024/25 funding round. This will help us to scale up the deployment of local chargepoints and deliver our strategy aims. We will be working closely with district councils and other partners to ensure there is county-wide provision which is suitable for the needs of the local area.

In addition to preparing an application to the LEVI capital fund, LCC is one of 16 councils to secure funding from the LEVI extended pilot fund. This is to trial solutions that will help people who do not have access to off-street parking, including testing charging points integrated into street lighting columns and pavement cable channels. The cable channels provide a low cost and practical solution to support residents without off street parking charge at home.

The county council's Parking Services Team fleet vehicles are now fully electric, with charging infrastructure installed at the offices and depots where the vehicles are based and regularly visit. LCC's Fleet Services team is committed to switching to electric commercial vehicles, where possible, as set out in the LCC [Highways Decarbonisation Strategy](#).

3. Creating cleaner, healthier road networks

Work to develop the next Local Transport Plan (LTP4) for Lancashire, Blackpool and Blackburn with Darwen is underway. The Public Health team has submitted an evidence base to inform the process, highlighting transport-related health challenges affecting the population of Lancashire and making recommendations about how local transport planning policy can contribute to addressing these. The local [Highways and Transport Masterplans](#) will be refreshed to align with the priorities of LTP4. This will provide an opportunity to identify longer-term network solutions that address issues in AQMAs and have a positive impact on air quality generally.

LCC's [Highways and Transport Strategy](#) published in early 2023 provides a helpful explanation of the county council's transport priorities and actions in support of public health improvements.

4. Embedding air quality into policy

LCC, as part of its highways input into planning applications, actively encourages measures that aim to promote sustainable forms of travel. Working under the direction of the National Planning Policy Framework, the county council seeks measures that facilitate cycling and walking, increase the use of public transport and provide access to electric vehicle charge points. LCC also seeks funding from developers, through Section 106 contributions, to support existing bus services or to provide new bus services suitable to serve development sites once they are built.

5. Raising awareness and increasing engagement

Lancashire Insight provides information on the sources and health impacts of air pollution across the county. Webpages include a [Summary of Emissions Data](#) and [Monitoring of Air Quality and Health Impacts](#).

The principal challenges and barriers to implementation that Burnley Borough Council anticipates facing are:

- Supply chain issues in the automotive industry may affect procurement of council vehicles and promoting uptake of electric vehicles.
- Burnley Borough Council is a two-tier Borough Council with County Council; however, we continue to work together to improve air quality within Burnley.
- Constraints on staff time can potentially prohibit educational air quality projects and proactive enforcement.
- The energy crisis and fuel poverty as a result has made enforcement on dark smoke difficult, however the Council continues to educate and undertake reactive enforcement work.

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	"Town 2 Turf" scheme - improvements to highway network route between the town centre and Turf Moor.	Traffic Management	Strategic highway improvements, Re-prioritising road space away from cars, including Access management, Selective vehicle priority, bus priority, high vehicle occupancy lane	2023	2024	Burnley Borough Council, Lancashire County Council, Burnley Football Club	Levelling Up Fund	NO	Funded	£1 million - £10 million	Implementation	Variable	Improve and provide a safer route for cyclists and pedestrians.	Works are now complete, roundabout has been removed and traffic lights have been installed, pedestrianised area expanded to support active travel.
2	Initiate review of Smoke Control Area	Promoting Low Emission Plant	Shift to installations using low emission fuels for stationary and mobile sources	2024	2024	Burnley Borough Council	Defra New Burdens Funding	YES	Funded	< £10k	Planning	Reduction in particulate matter (PM) from wood burning stoves	Net reduction in PM Levels	Report has been submitted to the committee and agreement was reached to consolidate the areas and include the full Borough within the scope of a single smoke control area.
3	Tree Planting Initiatives	Other	Other	2023	2024	Burnley Borough Council	Trees for Cities, Urban Tree Challenge Fund, National Lottery	NO	Funded	£10k - 50k	Implementation	Natural reduction in atmospheric Nox	Various locations throughout have had trees planted and other locations have been earmarked.	750 small trees have been planted as per the Trees for Cities initiative. Further 15 more standard Trees have been designated locations. 2000 trees have been planted in total since 2023. 50 large trees have been planted as part of the Urban Tree Challenge initiative across five parks.
4	Introduction of Burnley and Pendle Local Cycling and Walking Infrastructure Plan	Transport Planning and Infrastructure	Other	2024	2024	Burnley Borough Council, Pendle Borough Council, Lancashire County Council	-	NO	Not Funded	£10k - 50k	Completed	Reduction in road traffic pollutants	Identify and propose areas/schemes to improve sustainable travel	LCWIP has identified strategic routes across the borough linking in with routes in adjoining boroughs. The final LCWIP has now been published. The next step is to publish the results of the prioritised

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
														list which will help inform future investment programmes. A series of feasibility studies are being undertaken on high scoring routes with a view to having shovel-ready sections (up to concept design level) for each route in readiness for future funding opportunities.
5	Increasing/Upgrading Council's EV fleet	Promoting Low Emission Transport	Company Vehicle Procurement - Prioritising uptake of low emission vehicles	2018	2024	Burnley Borough Council	Local Authority	NO	Not Funded	£50k - £100k	Completed	Reduce Council fleet emissions	Replacing the Council's fleet of diesel vehicles to electric.	4 electric cars have been replaced for newer models providing more battery capacity and an additional van has been added to the fleet. There are now 5 electric cars, 7 electric vans, 1 ATV, 3 e-bikes, 1 hybrid car.
6	Promotional walking and cycling strategies via Beat the Street, a real-life walking, cycling and wheeling game.	Promoting Travel Alternatives	Promotion of walking	2021	2024	Together an Active Future, Burnley Borough Council, NHS Primary Care Networks, Canal and River Trust	National Lottery	NO	Funded	£100k - £500k	Implementation	Promote cycling and walking strategies	Uptake of participants.	Annual event which has occurred over the past three years, it encourages people to walk or cycle to acquire points to earn trees to plant.
7	Trialling Hydrotreated Vegetable Oil (HVO) as an alternative fuel for waste collection vehicles	Vehicle Fleet Efficiency	Vehicle Retrofitting programmes	2024	2024	Burnley Borough Council, Urbaser	Burnley Council, Urbaser	NO	Not Funded	£50k - £100k	Planning	Reduction in vehicle emissions from waste collection and cleansing fleet	Viability dependant on trial	The current contractor Urbaser has agreed to trial all the current fleet, providing the council meets the additional cost. HVO will result in around an 27% percent reduction in NOx emissions at source while also practically eliminating sulphur dioxide and aromatics.

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	Improvement to EV infrastructure to promote low emission vehicles/Implementation of Electric Vehicle strategy	Promoting Low Emission Transport	Procuring alternative Refuelling infrastructure to promote Low Emission Vehicles, EV recharging, Gas fuel recharging	2023	2024	Burnley Borough Council, Local Authority Transport Dept.	Government (On Street Residential Chargepoint Grant Scheme) (OLEV Grant) Lancashire County Council	NO	Partially Funded	£100k - £500k	Implementation	Reduced vehicle emissions and increase in EV charge points across the town.	Net reduction in NOx Levels and public accessibility to additional EV charge points.	As of April 2024, Burnley has 50 publicly available chargers (all speeds), an increase of 47.1% (from 34 chargers) since April 2023. Of these publicly available chargers, 18 are rapid chargers (Over 43KW), an increase of 63.3% (from 11 rapid chargers) since April 2023.
9	Ongoing implementation of Air Quality SPD	Policy Guidance and Development Control	Air Quality Planning and Policy Guidance	2020	2024	Local Authority Planning Department, Local Authority Environmental Health, Local Authority Transport Dept.	N/A	NO	Not Funded	< £10k	Implementation	Variable	NA (new policy affects all new qualifying development)	EV charging will now fall within Approved Document S of the Building Regs 2010. An example of this is 111 dwelling development on Rossendale Road where each property will have an EV charger installed. All major applications that have been determined have included EV charge points. Whilst Planning services encourage EV points on all minor developments.
10	Electrification of Greenspaces equipment	Promoting Low Emission Plant	Emission control equipment for small and medium sized stationary combustion sources / replacement of combustion sources	2021	2024	Burnley Borough Council	Burnley Borough Council	NO	Not Funded	£10k - 50k	Implementation	Reduced emissions from Council machinery and equipment	Replacement of Diesel equipment to electric powered equipment.	A fully costed plan for the replacement of parks equipment has been prepared. In 2024, Scott Park transitioned all its equipment to electric. The park is now being used to review the electric equipment before starting the

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
														replacement program. Elsewhere in Green Spaces electric and hybrid equipment is in use.
11	LAPPC permit inspections and review	Environmental Permits	Introduction/increase of environment charges through permit systems and economic instruments	2023	2024	Burnley Borough Council	Burnley Borough Council	NO	Not Funded	£10k - 50k	Completed	Monitoring and control of emissions from permitted processes	Completion of permits and inspections.	All permits are up to date, given competing statutory priorities for limited staff resource.
12	Commenting upon planning applications to ensure conditions are applied to mitigate relevant air quality issues.	Policy Guidance and Development Control	Air Quality Planning and Policy Guidance	2015	2024	Burnley Borough Council	Burnley Borough Council	NO	Not Funded	< £10k	Implementation	Reduce emissions from construction process, development and associated traffic.	Comments made on each application to ensure conditions are applied in relation to air quality impact.	Ongoing as part of work schedule.
13	Addressing complaints of burning/emissions from businesses and the public.	Other	Other	2015	2024	Burnley Borough Council	Burnley Borough Council	NO	Not Funded	< £10k	Implementation	Reduce emissions to air via burning of waste.	Control and prevent unnecessary burning of material and emissions to air/	Ongoing as part of work schedule.
14	Facilitate hybrid home-working	Promoting Travel Alternatives	Encourage / Facilitate home-working	2020	2023	Burnley Council	Local Authority	NO	Not Funded	£50k - £100k	Implementation	Reduce commuting of council employees, thus reduced local emissions	Net reduction in NOx Levels	Implemented

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.

Although it is difficult to monitor the impact of individual pollutants, studies carried out by Public Health England's Public Health Outcomes Framework provide the strongest evidence on the population health impacts of particulate air pollution. This Framework estimates 'the fraction of annual all cause adult mortality attributable to particulate air pollution (PM_{2.5})'. The data provided from the last recorded period (2023) shows that, the overall mortality rate from particulate air pollution in Burnley (4.8%) is slightly higher than the regional Lancashire-12 average (4.6%). However, this is a reduction from the previous year (5.0%) and it remains lower than the national average (5.2%), air pollution remains a significant public health issue for the County (2023).

Similarly, the mean value of 'Fine Particulate Matter' (2023) in Burnley is 6.3µg/m³ which is within the lower half of the authorities in the North West region, with the statistical figure for the North West being 6.6µg/m³ and England being 7.0µg/m³. Whilst, it is encouraging to see comparatively lower levels, reductions of fine particulate matter should remain a priority.

The nearest suitable measurement site for PM_{2.5} is located in Preston. Data from which returned that in 2024, the hourly-monitored, annual mean was 6.87µg/m³. In comparison to 2023, this has remained the same which may indicate stagnation and the value remains below the annual mean objective value of 10µg/m³. Although no threshold has been identified below which no damage to health is observed, further work is necessary to ensure levels are kept to a minimum.

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

Burnley Borough Council is taking the following measures to address PM_{2.5}:

- Addressing PM_{2.5} through air quality assessments for new developments where appropriate.
- Educational initiatives publicising health impacts of PM either through social media channels or schools.
- Sources of PM_{2.5} from groundworks and other activities on constructions sites, are controlled by conditioning planning permissions via Dust Management Plans and Construction Management Plans.
- Enforcing the Clean Air Act 1993 through Smoke Control Areas and regulating the use of exempt solid fuel appliances/authorised fuels whilst having regards to the new legislation over the sale of solid fuels.
- Reviewing the Smoke Control Areas to ensure they are up to date and it encapsulates the more recent properties following the many developments in recent years.
- Enforcing compliance of PM emissions through both indirect, and directly comparable monitoring data where required under the Industrial Emissions Directive/Environmental Permitting (England and Wales) Regulations 2016.
- Having input in the planning process to ensure that regard is given to air quality assessments to consider PM where appropriate; the associated impact of PM through adoption of specific conditions such as Travel Plans for Major Developments and Electric Vehicle Charging Points for both domestic and commercial sectors. Where certain developments are presented, such as for new housing, the council actively ensures that charging points are mandatory.
- Working with Lancashire County Council to improve traffic flows at major junctions and along busy highways to reduce idling and unnecessary stopping.
- Encouraging the public to use the council's recycling facilities rather than incinerating garden/residential waste. The latest waste calendar leaflet was updated in 2023 to discourage burning of garden waste and providing alternative means of disposal.
- Working with public transport providers to ensure key routes are serviced and available to residents.

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

This section sets out the monitoring undertaken within 2024 by Burnley Borough 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

Burnley Borough Council does not undertake automatic (continuous) monitoring.

3.1.2 Non-Automatic Monitoring Sites

Burnley Borough Council undertook non- automatic (i.e. passive) monitoring of NO₂ at 29 sites during 2024. Table A.2 in Appendix A presents the details of the non-automatic sites.

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

3.2 Individual Pollutants

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

3.2.1 Nitrogen Dioxide (NO₂)

Table A.3 and Table A.4 in Appendix A compare the ratified and adjusted monitored NO₂ annual mean concentrations for the past five years with the air quality objective of 40µg/m³. Note that the concentration data presented represents the concentration at the location of the monitoring site, following the application of bias adjustment and

annualisation, as required (i.e. the values are exclusive of any consideration to fall-off with distance adjustment).

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

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

There were no exceedances of the 40µg/m³ national air quality objective at any of the monitored locations during 2024, therefore there is no need to declare an Air Quality Management Area. Burnley Borough Council does not undertake hourly NO₂ monitoring therefore as explained in TG(16), exceedances of the NO₂ 1-hour mean are unlikely to occur where the annual mean is below 60µg/m³, hence this should not be a cause for concern within the borough.

There were no exceedances of 36µg/m³, therefore no fall off with distance calculations were required to be input into the calculation tool.

Erroneous data was removed from reporting at DT3 (21 Croasdale Avenue) from May 2024 and DT59 (Rear of 13 Mill Street, Padiham) from December 2024 reported values as outliers.

There was the removal of the tube at the location, DT56 (Gannow Junction 16) due to the continuous disappearance of the tube in 2023. It should be noted that this location was displaying year on year decreases in measurements of concentration and was not a cause for concern. Therefore, a new tube location was added to the monitoring scheme, DT61 (Valley Gardens), a small residential estate off Accrington Road. A main thoroughfare used to enter and exit Burnley with several commercial business parks within its vicinity used daily by commuters and commercial vehicles.

There were twenty-eight locations in which 5-yearly bias-adjusted, annualised data was available; of which all remained below the air quality objective of 40µg/m³ throughout the 5 years. Across these locations there is a general reduction in comparison to the 2020 monitoring results, with the decrease averaging at 0.6µg/m³. The location with the greatest proportionate improvement was DT44 (174 Briercliffe Road), a reduction of 5.0µg/m³ was identified between the values from 2020 and 2024.

Of the 28 locations analysed over a 3-year period, 9 out of the 28 locations display an increase in monitoring results compared to 2022. The results display a general decrease in values across all locations in 2022 and 2024, this reduction is at a cumulative average of $0.5\mu\text{g}/\text{m}^3$. Thus, continuing the trend from the 5 yearly data and indicating a general improvement in air quality since 2021.

The annual mean concentrations in comparison with the 2023 results display a general decrease. There was a cumulative average decrease in value of $0.8\mu\text{g}/\text{m}^3$ across all locations, however the nine locations with increases; displayed an average increase of $1.5\mu\text{g}/\text{m}^3$ from their 2023 result. Although the average decrease between 2023 and 2024 is minimal, this indicates a trend in improvement when compared with the results from the 2021 dataset. Following the average increase in 2021, the results for 2024 have decreased further below the levels of the Covid-19 pandemic year 2020, thus continuing a general trend in reduction across 5 years.

Sites subject to scrutiny

- **Burnley Road, Padiham**

This road is characterised by a steep incline with buildings overlooking either side of the main road, creating a canyon effect, it is 6.2m wide at its narrowest as well as a junction within approximately 100 and 120m to the monitoring locations. The bottleneck effect this creates results in idling traffic likely to affect the monitoring results. The area was subject to scrutiny following a slight exceedance of the $40\mu\text{g}/\text{m}^3$ air quality objective at two locations in 2019, with other locations being close to this level. Therefore, an additional tube was placed on a Rainwater Pipe directly adjacent to the receptor in order to further assess the air quality at this specific location.

The locations DT57 (22 Burnley Road, Padiham) displayed an exceedance of the $40\mu\text{g}/\text{m}^3$ air quality objective in 2019, this location provided the highest bias-adjusted value of the sites with a concentration of $43.0\mu\text{g}/\text{m}^3$ monitored. As displayed in Figure A.1.1 in Appendix A, in 2020 the value significantly reduced to $35.7\mu\text{g}/\text{m}^3$, a similar reduction was also displayed for the surrounding locations. However, this area contradicted the general increase in results in 2021 as there was a further reduction in 2021 at DT57 with results displaying $30.2\mu\text{g}/\text{m}^3$. In 2022, there was a further decrease in results at this location which displayed $28.8\mu\text{g}/\text{m}^3$, however in 2023 and 2024 results displayed continual annual increases of $30.1\mu\text{g}/\text{m}^3$ and $31.3\mu\text{g}/\text{m}^3$ respectively. This was the highest recorded value of 2024 in all the Borough.

This area was subject to the 'Padiham Public Realm Improvement Scheme'; completed in late 2021 it provided for the removal of the traffic lights to improve traffic-flow. There was a cumulative average increase of $0.7 \mu\text{g}/\text{m}^3$ between 2022 and 2023, however this year displayed an average decrease of $0.5\mu\text{g}/\text{m}^3$ against 2023. Increases were only displayed across 2 of the 6 sites as displayed by Figure A.1.3 in Appendix A. Although this isn't a substantial increase, results for the following year will be continued to be analysed closely.



Burnley Road, Padiham monitoring locations and 4-yearly bias-adjusted, annualised NO₂ results ($\mu\text{g}/\text{m}^3$)

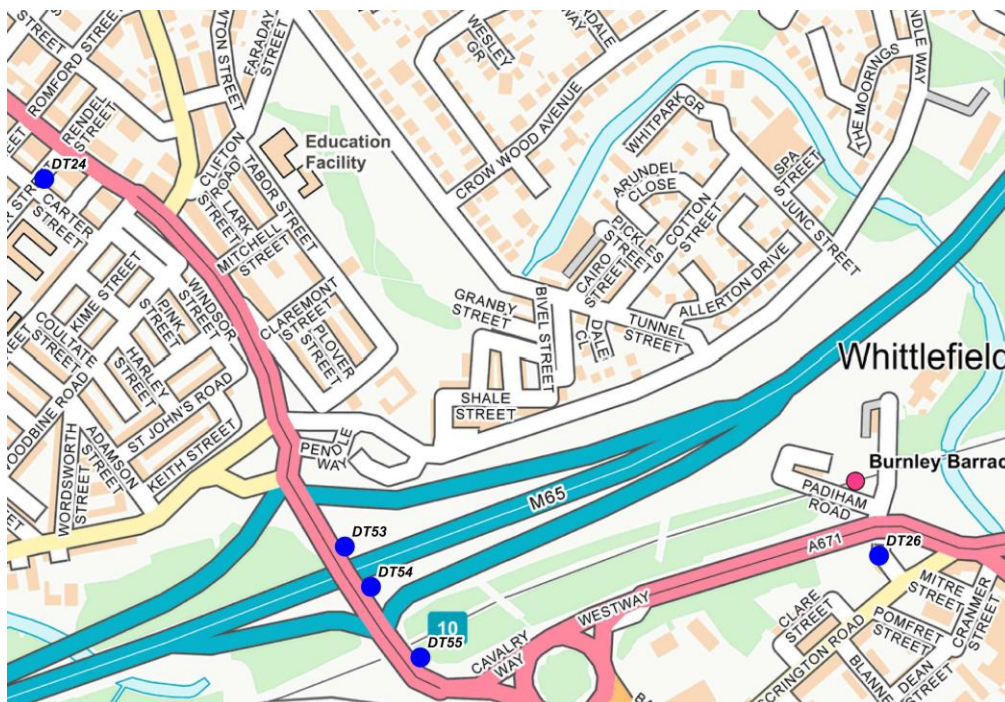
Site Name	Diffusion Tube ID	2021	2022	2023	2024
12 Mill Street, Padiham	DT50	16.9	15.4	15.3	13.9
Gawthorpe Street, Padiham	DT51	23.9	19.2	20.1	18.8
22 Burnley Rd Padiham	DT57	30.2	28.8	30.1	31.3
25-27 Burnley Rd Padiham (LP)	DT58	32.8	30.2	30.1	30.9
Rear of 13 Mill Street, Padiham	DT59	19.8	18.9	17.7	17.1
25-27b Burnley Rd Padiham (RWP)	DT60	30.6	27.1	30.5	28.4

- Cavalry Way/Gannow Junction

This stretch of highway/motorway junction has been identified for further observation following scrutiny in previous years. As a result, a targeted feasibility study was undertaken in this area and monitoring has continued since. The results obtained for the 2024 study did not indicate any current cause for concern as there was no exceedance in the national air quality objective. Figure A.1.4 in Appendix A, presents the six locations

over the past 4 years Figure A.1.4 in Appendix A, presents the five locations over the past 4 years, the highest bias adjusted result was obtained from DT54 (Gannow Junction 13) $30.8\mu\text{g}/\text{m}^3$. In 2023 DT55 (Gannow Junction 15) recorded the highest concentration in all the Borough with $29.1\mu\text{g}/\text{m}^3$, this location has now reduced to $28.0\mu\text{g}/\text{m}^3$ in 2024.

This location falls within the vicinity of a motorway junction, any public exposure will arise from the use of the adjacent footway and is likely to be a maximum of 5 minutes. As explained in TG(16) explains that exceedances of the NO_2 1-hour mean are unlikely to occur where the annual mean is below $60\mu\text{g}/\text{m}^3$. Therefore in this context, this site is of no particular concern.



Cavalry Way/Gannow Junction monitoring locations and 4-yearly bias-adjusted, annualised NO_2 results ($\mu\text{g}/\text{m}^3$)

Site name	Diffusion Tube ID	2021	2022	2023	2024
Alder St	DT24	18.6	15.8	16.4	15.9
7 Wilfield St	DT26	22.7	19.4	20.2	19.3
Gannow Junction 12	DT53	30.8	27.2	28.3	29.1
Gannow Junction 13	DT54	34.6	30.6	26.9	30.8
Gannow Junction 15	DT55	30.5	28.8	29.1	28.0

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)
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Burnley does not currently have any Automatic Monitoring Sites.

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)
DT3	21 Croasdale Ave (restricted access - garden)	Suburban	385986	434772	NO ₂	No	5.0	29.0	No	2.0
DT6a	Westgate/Queens Lancs Way a	Urban Centre	383678	432624	NO ₂	No	5.0	5.0	No	2.5
DT10	Casterton Ave	Roadside	384676	435106	NO ₂	No	7.0	1.0	No	3.0
DT18	532 Accrington Rd	Roadside	381497	432168	NO ₂	No	0.0	5.0	No	3.0
DT20a	6 Rossendale Road a	Roadside	381472	432136	NO ₂	No	0.0	8.0	No	2.9
DT24	Alder St	Suburban	382279	433058	NO ₂	No	0.0	3.0	No	2.5
DT26	7 Wilfield St	Urban Background	383107	432684	NO ₂	No	0.0	24.0	No	2.5
DT27	2 Liverpool Rd	Roadside	381415	432315	NO ₂	No	1.0	3.0	No	2.5
DT30	Dryden St/Victoria Rd (restricted access garden)	Suburban	380063	433322	NO ₂	No	0.0	6.0	No	2.0
DT31	7/11 Briercliffe Rd/Duke Bar	Kerbside	384558	433911	NO ₂	No	5.0	2.5	No	2.5
DT32	63 Todmorden Rd	Roadside	384772	432245	NO ₂	No	0.0	3.0	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)
DT42	Elizabeth Street	Urban Background	384058	432343	NO ₂	No	0.0	2.5	No	3.0
DT43	4 Brownhill Ave	Suburban	385223	432573	NO ₂	No	0.0	4.0	No	2.5
DT44	174 Briercliffe Rd	Roadside	385422	434809	NO ₂	No	0.0	7.0	No	2.5
DT45	Saxtfield St	Suburban	386336	435017	NO ₂	No	0.0	2.5	No	2.5
DT46	21 Daneshouse Road	Suburban	384290	433609	NO ₂	No	0.0	2.0	No	2.5
DT48	14 Kent St	Roadside	383776	433219	NO ₂	No	0.0	10.0	No	2.5
DT49	6 Lowerhouse Crescent	Suburban	381208	432867	NO ₂	No	11.0	1.5	No	2.5
DT50	12 Mill Street, Padiham	Suburban	379325	433970	NO ₂	No	0.0	1.5	No	3.0
DT51	Gawthorpe Street, Padiham	Suburban	379296	434039	NO ₂	No	1.5	1.0	No	2.5
DT52	Accrington Rd / Rosegrove Unity	Urban Background	381416	432105	NO ₂	No	6.0	19.0	No	2.5
DT53	Gannow Junction 12	Roadside	382577	432693	NO ₂	No	5.0	1.6	No	2.5
DT54	Gannow Junction 13	Roadside	382603	432653	NO ₂	No	5.7	5.1	No	2.5
DT55	Gannow Junction 15	Kerbside	382652	432583	NO ₂	No	2.2	5.5	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)
DT57	22 Burnley Rd Padiham	Roadside	379395	433967	NO ₂	No	0.0	1.7	No	2.5
DT58	25-27 Burnley Rd Padiham (LP)	Roadside	379393	433986	NO ₂	No	0.2	1.8	No	2.5
DT59	Rear of 13 Mill Street, Padiham	Suburban	379338	433999	NO ₂	No	0.0	9.6	No	2.5
DT60	25-27b Burnley Rd Padiham (RWP)	Kerbside	379397	433982	NO ₂	No	0.2	1.8	No	2.5
DT61	Valley Gardens	Roadside	380838	431929	NO ₂	No	7.8	2.0	No	2.5

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: Automatic Monitoring (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
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Burnley Council does not currently undertake any Automatic Monitoring.

Table A.4 – Annual Mean NO₂ Monitoring Results: Non-Automatic Monitoring (µg/m³)

Diffusion Tube ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Site Type	Valid Data Capture for Monitoring Period (%) ⁽¹⁾	Valid Data Capture 2024 (%) ⁽²⁾	2020	2021	2022	2023	2024
DT3	385986	434772	Suburban	90.6	90.6	10.7	9.4	9.1	8.4	8.8
DT6a	383678	432624	Urban Centre	100.0	100.0	25.5	27.7	26.2	25.6	24.1
DT10	384676	435106	Roadside	92.2	92.2	25.1	27.9	25.1	26.0	25.8
DT18	381497	432168	Roadside	81.4	81.4	17.1	24.6	23.7	23.2	21.6
DT20a	381472	432136	Roadside	92.5	92.5	20.8	31.3	27.8	28.9	27.8
DT24	382279	433058	Suburban	100.0	100.0	18.8	18.6	15.8	16.4	15.9
DT26	383107	432684	Urban Background	100.0	100.0	21.0	22.7	19.4	20.2	19.3
DT27	381415	432315	Roadside	100.0	100.0	23.4	25.1	21.8	21.7	21.0
DT30	380063	433322	Suburban	100.0	100.0	13.2	13.7	13.6	11.9	11.9
DT31	384558	433911	Kerbside	100.0	100.0	26.4	29.0	28.4	28.3	26.8
DT32	384772	432245	Roadside	90.3	90.3	19.6	26.9	24.6	23.7	22.7
DT42	384058	432343	Urban Background	100.0	100.0	15.3	16.9	15.4	15.0	15.0

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
DT43	385223	432573	Suburban	100.0	100.0	12.8	13.4	12.1	11.2	10.7
DT44	385422	434809	Roadside	100.0	100.0	26.2	22.8	21.9	22.1	21.2
DT45	386336	435017	Suburban	75.0	75.0	15.0	13.7	14.2	13.4	14.2
DT46	384290	433609	Suburban	100.0	100.0	22.5	26.3	23.6	24.7	23.8
DT48	383776	433219	Roadside	100.0	100.0	17.1	20.1	19.1	18.1	17.7
DT49	381208	432867	Suburban	100.0	100.0	13.6	14.4	13.3	10.4	12.9
DT50	379325	433970	Suburban	75.0	75.0	16.6	16.9	15.4	15.3	13.9
DT51	379296	434039	Suburban	100.0	100.0	23.0	23.9	19.2	20.1	18.8
DT52	381416	432105	Urban Background	83.3	83.3	16.8	22.7	20.3	19.9	19.6
DT53	382577	432693	Roadside	100.0	100.0	27.0	30.8	27.2	28.3	29.1
DT54	382603	432653	Roadside	100.0	100.0	33.5	34.6	30.6	26.9	30.8
DT55	382652	432583	Kerbside	100.0	100.0	27.4	30.5	28.8	29.1	28.0
DT57	379395	433967	Roadside	90.0	90.0	35.7	30.2	28.8	30.1	31.3

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
DT58	379393	433986	Roadside	83.6	83.6	32.3	32.8	30.2	30.1	30.9
DT59	379338	433999	Suburban	90.3	90.3	19.7	19.8	18.9	17.7	17.1
DT60	379397	433982	Kerbside	100.0	100.0	28.5	30.6	27.1	30.5	28.4
DT61	380838	431929	Roadside	100.0	100.0					15.8

☒ 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**.

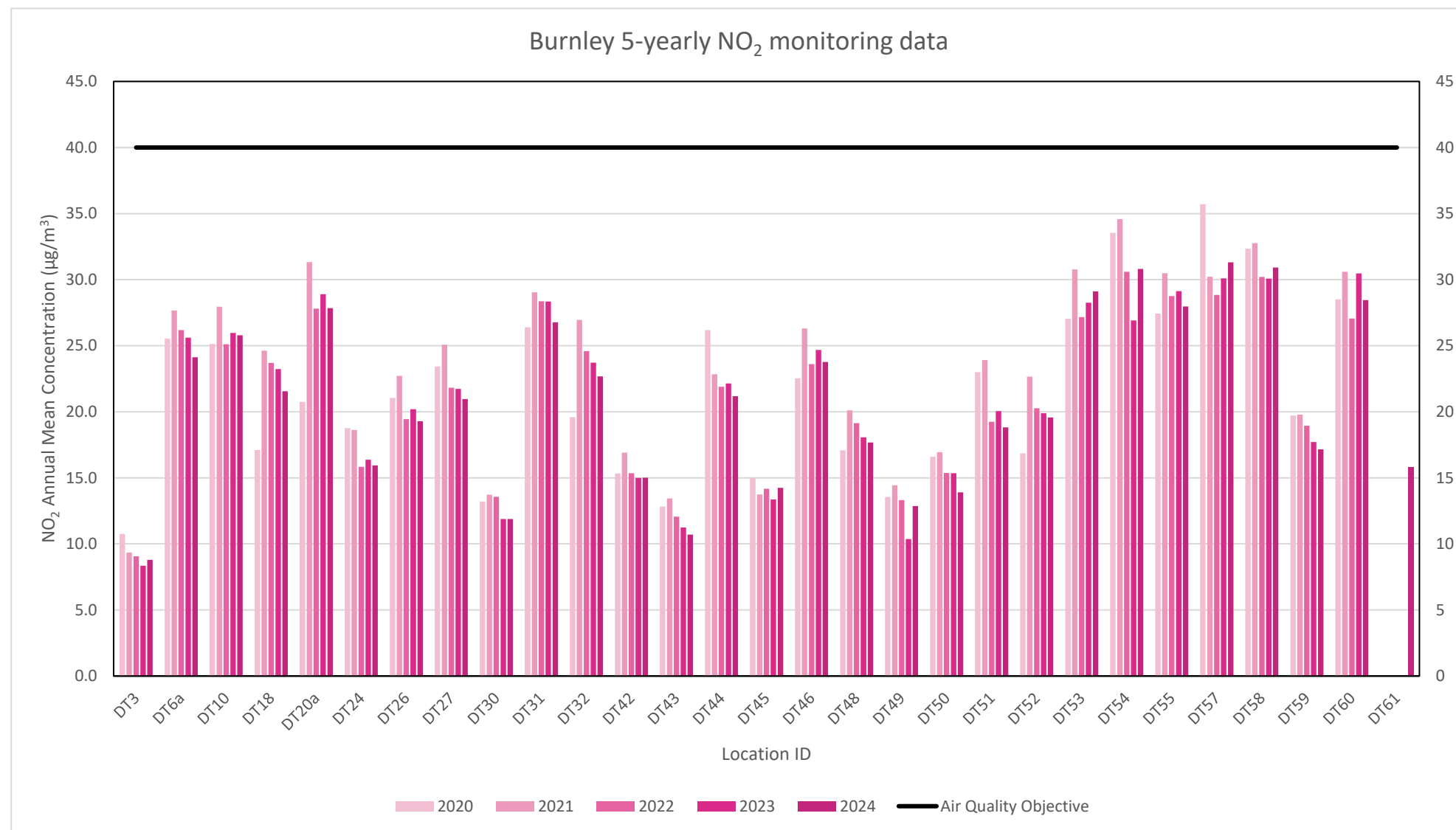
NO₂ annual means exceeding 60 $\mu\text{g}/\text{m}^3$, indicating a potential exceedance of the NO₂ 1-hour mean objective are shown in **bold and underlined**.

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 – Trends in Annual Mean NO₂ ConcentrationsFigure A.1.1. 5-yearly bias-adjusted and annualised NO₂ annual mean concentration data across 29 locations

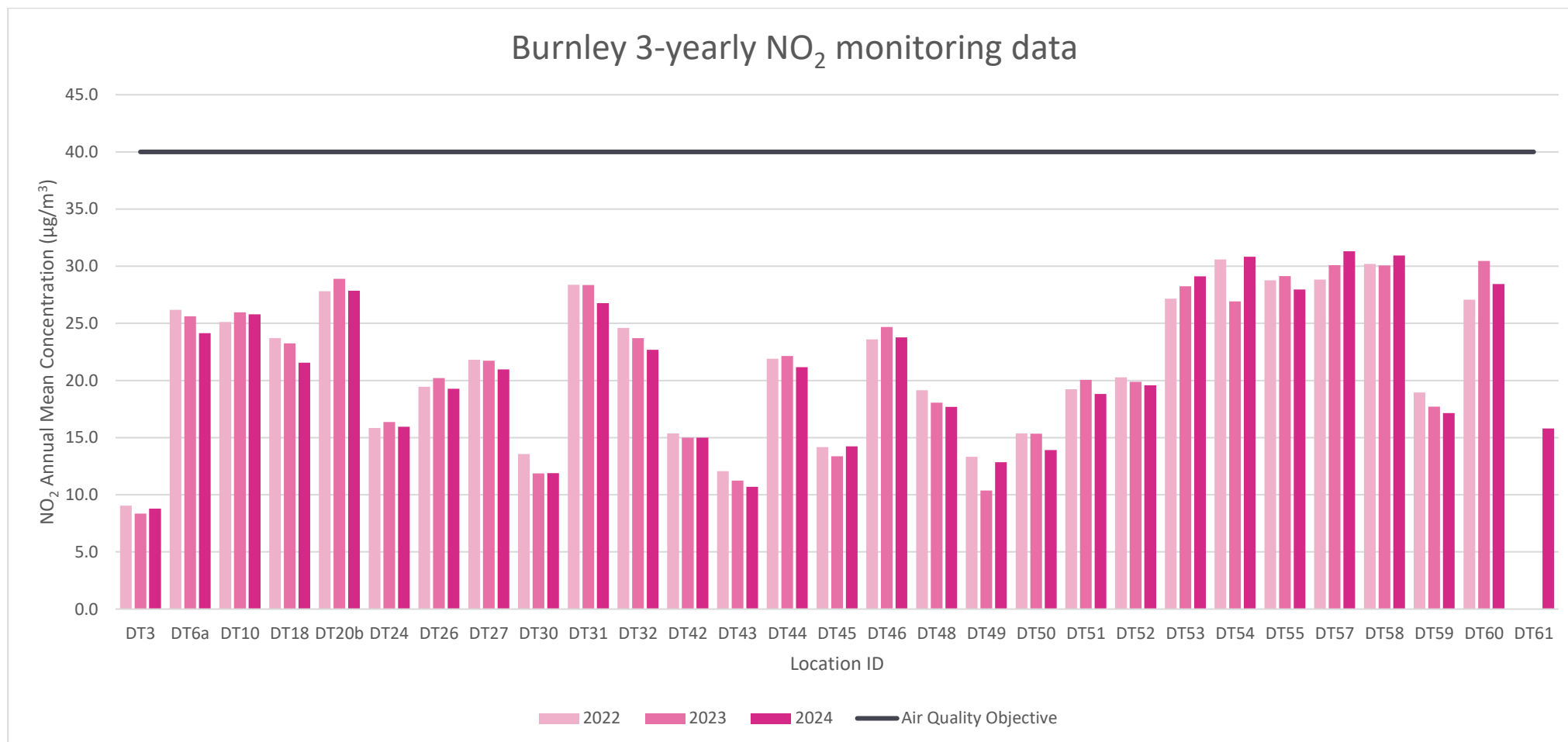


Figure A.1.2. 3-yearly bias-adjusted and annualised NO₂ annual mean concentration data across 29 locations

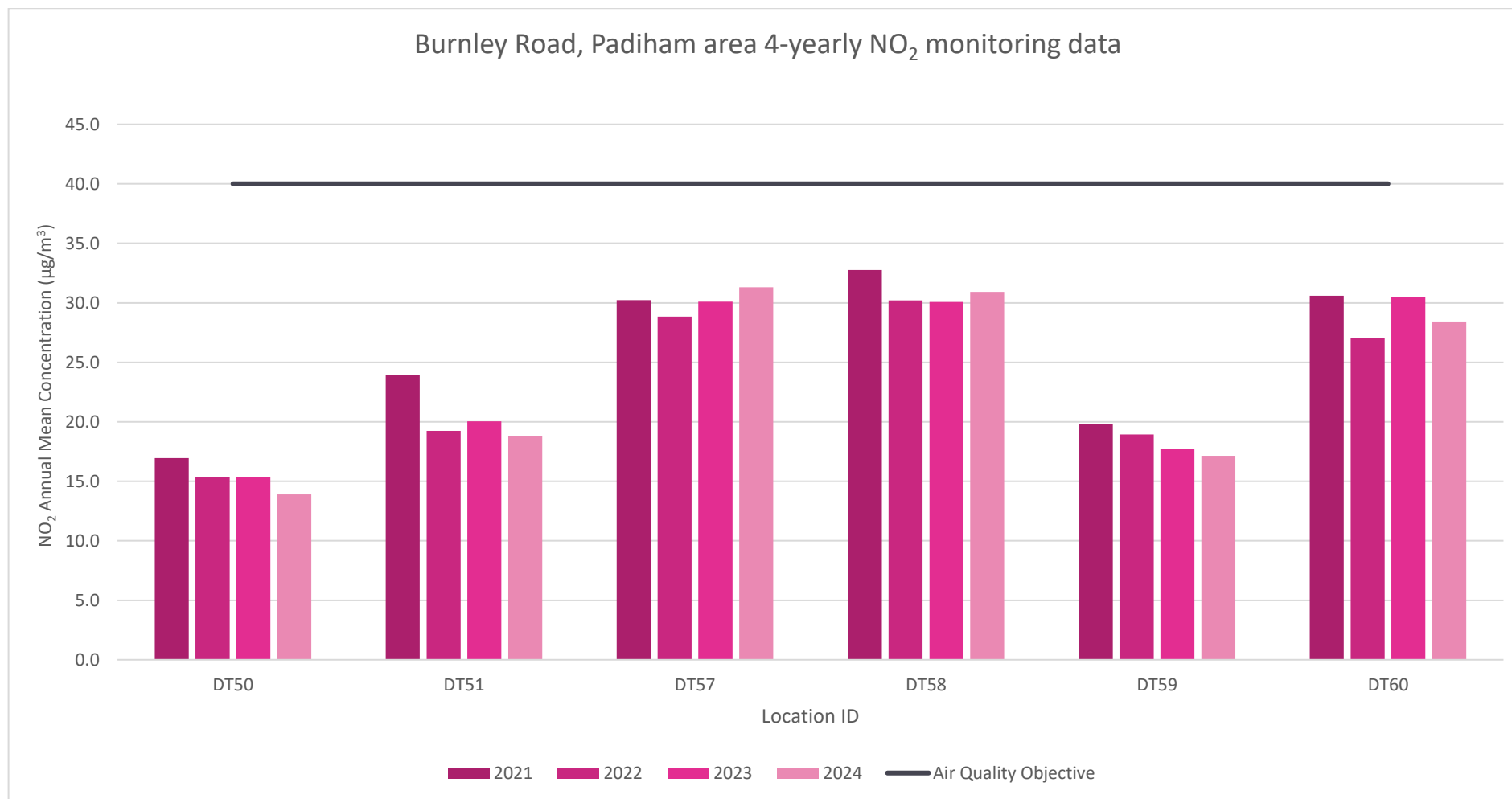


Figure A.1.3. 4-yearly bias-adjusted and annualised NO₂ annual mean concentration across 6 locations around Burnley Road, Padiham

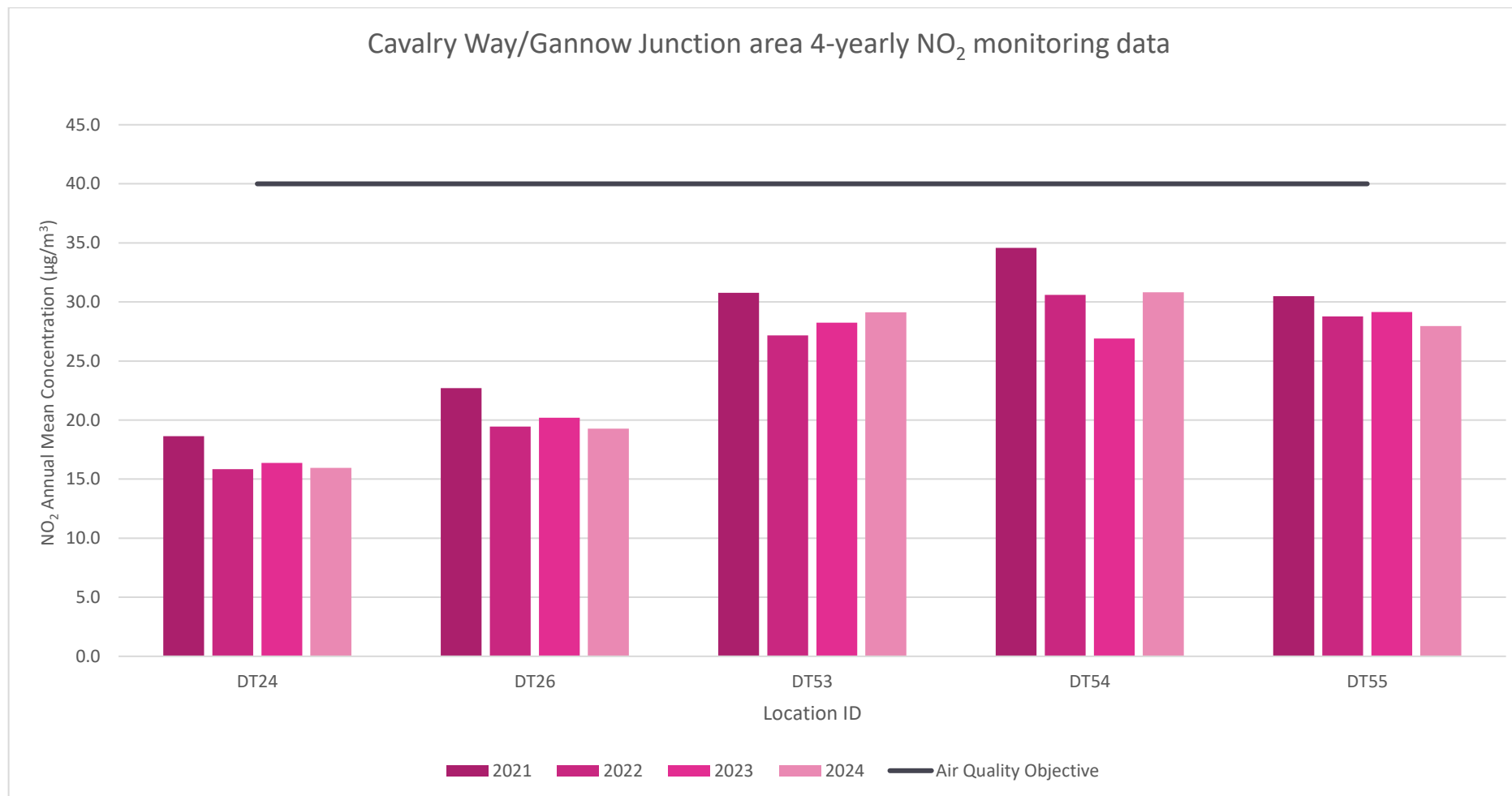


Figure A.1.4. 4-yearly bias-adjusted and annualised NO₂ annual mean concentration across 6 locations within the vicinity of Cavalry Way/Gannow Junction

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

Site ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Site Type	Valid Data Capture for Monitoring Period (%) ⁽¹⁾	Valid Data Capture 2024 (%) ⁽²⁾	2020	2021	2022	2023	2024
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Burnley Council does not monitor for hourly-NO₂

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

Site ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Site Type	Valid Data Capture for Monitoring Period (%) ⁽¹⁾	Valid Data Capture 2024 (%) ⁽²⁾	2020	2021	2022	2023	2024
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Burnley does not monitor for PM₁₀

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

Site ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Site Type	Valid Data Capture for Monitoring Period (%) ⁽¹⁾	Valid Data Capture 2024 (%) ⁽²⁾	2020	2021	2022	2023	2024
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Burnley does not monitor for PM₁₀

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

Site ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Site Type	Valid Data Capture for Monitoring Period (%) ⁽¹⁾	Valid Data Capture 2024 (%) ⁽²⁾	2020	2021	2022	2023	2024
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Burnley does not monitor for PM_{2.5}

Table A.9 – SO₂ 2024 Monitoring Results, Number of Relevant Instances

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⁾	Number of 15-minute Means > 266µg/m ³	Number of 1-hour Means > 350µg/m ³	Number of 24-hour Means > 125µg/m ³
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Burnley does not monitor for SO₂

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
DT3	385986	434772	14.6	14.1	9.3	8.2		7.3	6.7	7.8	7.4	10.5	15.6	13.8	10.5	8.8	-	
DT6a	383678	432624	32.6	35.1	28.5	29.2	28.9	26.8	25.5	22.9	29.9	27.8	32.6	25.0	28.7	24.1	-	
DT10	384676	435106	34.1	37.8	29.3	29.8	24.7	28.2		30.2	26.7	30.5	31.3	35.1	30.7	25.8	-	
DT18	381497	432168	29.0		26.5	23.9	21.5	23.7	22.3		23.8	24.9	30.0	31.1	25.7	21.6	-	
DT20a	381472	432136		36.5	31.0	29.2	33.0	32.2	32.5	28.8	33.7	33.4	40.1	34.4	33.2	27.8	-	
DT24	382279	433058	23.9	28.1	19.8	15.1	16.0	11.5	12.1	11.8	16.4	20.7	28.4	24.1	19.0	15.9	-	
DT26	383107	432684	27.2	29.2	20.9	18.3	22.1	21.9	19.9	20.1	21.6	22.0	24.5	27.7	23.0	19.3	-	
DT27	381415	432315	30.1	34.1	25.1	21.6	21.6	19.4	21.6	21.3	23.0	28.5	26.1	27.3	25.0	21.0	-	
DT30	380063	433322	19.5	20.6	14.4	11.1	10.5	8.7	10.0	10.2	10.7	15.4	21.0	17.8	14.2	11.9	-	
DT31	384558	433911	38.7	41.9	31.3	32.8	32.5	31.7	25.8	29.9	36.6	29.9	15.4	36.3	31.9	26.8	-	
DT32	384772	432245	30.1	31.2	23.9	23.0	24.9	28.7	25.8	23.7	25.6	28.3	31.9		27.0	22.7	-	
DT42	384058	432343	22.0	24.5	16.8	14.6	15.8	13.1	13.0	13.0	16.3	19.2	24.3	21.8	17.9	15.0	-	
DT43	385223	432573	16.0	17.3	11.7	9.0	10.0	9.6	9.8	10.3	9.9	14.2	16.8	18.2	12.7	10.7	-	
DT44	385422	434809	28.2	32.0	25.2	24.1	23.8	18.3	18.5	21.9	23.7	26.3	34.3	26.2	25.2	21.2	-	
DT45	386336	435017	19.7	21.0	16.2	13.9		14.6	13.9	14.3		18.3	20.8		16.9	14.2	-	
DT46	384290	433609	30.8	34.8	25.6	25.4	26.3	27.7	25.9	23.0	28.0	26.3	33.4	32.4	28.3	23.8	-	
DT48	383776	433219	26.3	29.0	20.2	16.8	17.3	14.7	16.5	18.1	14.9	23.1	29.3	26.5	21.1	17.7	-	
DT49	381208	432867	19.7	23.9	16.1	11.0	11.0	9.2	10.8	11.1	11.8	18.4	21.8	18.9	15.3	12.9	-	

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
DT50	379325	433970	22.7	24.2	16.7	14.2	13.9	13.6	12.4	13.7		17.7			16.6	13.9	-	
DT51	379296	434039	24.8	28.1	22.7	19.6	20.9	18.1	18.7	18.4	17.0	23.6	31.2	26.0	22.4	18.8	-	
DT52	381416	432105		28.0	19.2	19.5	19.7	21.4	20.6		22.8	25.0	30.0	26.8	23.3	19.6	-	
DT53	382577	432693	39.8	42.9	32.3	30.2	31.0	30.9	30.7	29.9	33.4	33.4	42.1	39.5	34.7	29.1	-	
DT54	382603	432653	43.6	43.8	34.8	33.0	34.8	35.0	32.6	31.8	31.3	34.4	44.2	40.9	36.7	30.8	-	
DT55	382652	432583	35.9	39.9	29.7	29.0	32.1	33.6	30.1	28.9	30.7	31.7	41.1	36.7	33.3	28.0	-	
DT57	379395	433967	43.3	44.4	31.4	39.4	32.5	41.0	35.3	35.6	29.6		38.8	38.6	37.3	31.3	-	
DT58	379393	433986	38.5	43.8	37.6	37.4	39.2	29.9	28.7			35.9	38.6	38.6	36.8	30.9	-	
DT59	379338	433999	21.7	28.2	21.8	19.5	17.8	15.6	16.8	17.7	16.8	24.1	24.7		20.4	17.1	-	
DT60	379397	433982	35.4	40.4	31.4	34.7	35.9	29.1	30.1	25.2	35.4	33.3	39.1	36.3	33.9	28.4	-	
DT61	380838	431929	23.0	23.7	18.1	18.4	16.7	15.8	15.0	15.4	17.4	19.4	21.7	20.5	18.8	15.8	-	

- ☒ 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
- ☒ Burnley Borough 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 Burnley Borough Council During 2024

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

Additional Air Quality Works Undertaken by Burnley Borough Council During 2024

Burnley Borough Council has not completed any additional works within the reporting year of 2024.

QA/QC of Diffusion Tube Monitoring

The supplier used for diffusion tubes within 2024 was Gradko and the method of preparation for passive diffusion tubes (Palmer Tubes) used was 20% TEA in water to standard BS EN 13528 Parts 1-3: 2002/3. Monitoring was completed in adherence with the 2024 Diffusion Tube Monitoring Calendar.

Diffusion Tube Annualisation

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

Diffusion Tube Bias Adjustment Factors

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

continuous analysers. Alternatively, the national database of diffusion tube co-location surveys provides bias factors for the relevant laboratory and preparation method.

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

Burnley Borough Council does not undertake co-location studies to determine local bias adjust factors therefore the national bias adjustment factor version 04/25 of the Diffusion Tube Bias Adjustment Factors Spreadsheet was completed appropriately using Gradko (our supplier), with the preparation method of 20% TEA in water. The figure of 0.84 was derived from a total of 27 studies.

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						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.				
This spreadsheet will be updated every few months: the factors may therefore be subject to change. This should not discourage their immediate use.						Spreadsheet maintained by the National Physical Laboratory. Original compiled by Air Quality Consultants Ltd.				
Step 1:		Step 2:		Step 3:		Step 4:				
Select the Laboratory that Analyses Your Tubes from the Drop-Down List		Select a Preparation Method from the Drop-Down List		Select a Year from the Drop-Down List		Where there is only one study for a chosen combination, you should use the adjustment factor shown with caution. Where there is more than one study, use the overall factor shown in blue at the foot of the final column.				
If a laboratory is not shown, we have no data for this laboratory.		If a preparation method is not shown, we have no data for this method at this laboratory.		If a year is not shown, we have no data.		If you have your own co-location study then see footnote ¹ . If uncertain what to do then contact the Local Air Quality Management Helpdesk at LAQMhelpdesk@bureauveritas.com or 0800 0327953				
Analysed By	Method	Year	Site Type	Local Authority	Length of Study (months)	Diffusion Tube Mean Conc. (Dm) (µg/m ³)	Automatic Monitor Mean Conc. (Cm) (µg/m ³)	Bias (B)	Tube Precision	Bias Adjustment Factor (A) (Cm/Dm)
	Tea, 20% TEA in water, choice 100 from the drop-down list	Tea, 20% TEA in water, choice 100 from the drop-down list								
Gradko	20% TEA in water	2024	UV	Belfast City Council	10	24	20	19.9%	G	0.83
Gradko	20% TEA in water	2024	R	Belfast City Council	12	43	34	28.8%	G	0.78
Gradko	20% TEA in water	2024	R	Belfast City Council	12	24	21	13.9%	G	0.88
Gradko	20% TEA in water	2024	R	Belfast City Council	12	34	27	25.5%	G	0.80
Gradko	20% TEA in water	2024	R	Blackburn With Darwen Bo	12	22	17	32.9%	G	0.75
Gradko	20% TEA in water	2024	R	Bath & North East Somerset	12	25	20	22.6%	G	0.82
Gradko	20% TEA in water	2024	R	Cambridge City Council	12	19	15	28.5%	G	0.78
Gradko	20% TEA in water	2024	UB	Plymouth City Council	12	16	14	13.8%	G	0.88
Gradko	20% TEA in water	2024	R	Plymouth City Council	12	31	23	33.4%	S	0.75
Gradko	20% TEA in water	2024	R	Monmouthshire County Council	12	29	24	19.4%	G	0.84
Gradko	20% TEA in water	2024	KS	Maylebone Road Intercomparison	11	41	36	16.1%	G	0.86
Gradko	20% TEA in water	2024	R	Lisburn & Castlereagh City Council	12	24	19	27.8%	G	0.78
Gradko	20% TEA in water	2024	R	Airds And North Down Borough Council	11	28	20	44.5%	G	0.69
Gradko	20% TEA in water	2024	R	Eastleigh Borough Council	12	29	24	20.3%	G	0.83
Gradko	20% TEA in water	2024	UB	Eastleigh Borough Council	12	19	17	12.4%	G	0.89
Gradko	20% TEA in water	2024	R	Eastleigh Borough Council	12	19	17	12.0%	G	0.89
Gradko	20% TEA in water	2024	R	Gateshead Council	12	20	18	13.9%	G	0.88
Gradko	20% TEA in water	2024	R	Gateshead Council	11	20	17	19.7%	G	0.84
Gradko	20% TEA in water	2024	R	Gateshead Council	12	24	20	21.7%	G	0.82
Gradko	20% TEA in water	2024	R	Gateshead Council	12	27	23	19.0%	G	0.84
Gradko	20% TEA in water	2024	R	Gateshead Council	12	28	30	-6.0%	G	1.06
Gradko	20% TEA in water	2024	R	Brighton & Hove City Council	11	34	27	26.3%	G	0.79
Gradko	20% TEA in water	2024	R	Liverpool City Council	12	34	25	35.7%	G	0.74
Gradko	20% TEA in water	2024	KS	Liverpool City Council	10	52	47	10.2%	G	0.91
Gradko	20% TEA in water	2024	R	Nottingham City Council	10	29	26	12.2%	G	0.89
Gradko	20% TEA in water	2024	R	Wycharon District Council	10	29	26	14.7%	G	0.87
Gradko	20% TEA in water	2024	R	Worcestershire	12	12	12	-3.4%	G	1.04
Overall Factor ² (27 studies)									Use	0.84

Screenshot of National Diffusion Tube Bias Adjustment Factor Spreadsheet 04/25

Table C.1 – Bias Adjustment Factor

Monitoring Year	Local or National	If National, Version of National Spreadsheet	Adjustment Factor
2024	National	04/25	0.84
2023	National	03/24	0.81
2022	National	03/23	0.83
2021	National	03/22	0.84
2020	National	03/21	0.81

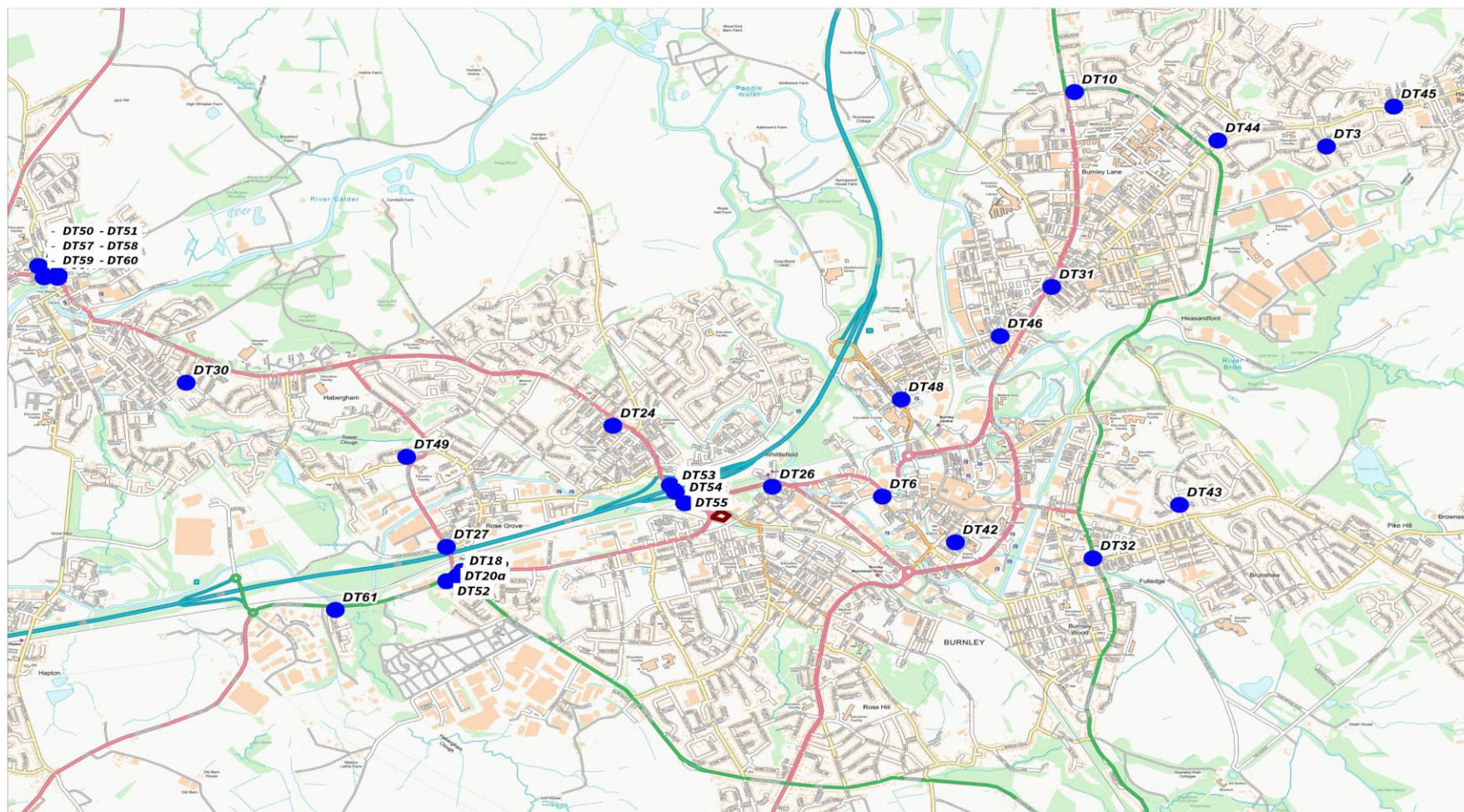
NO₂ Fall-off with Distance from the Road

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

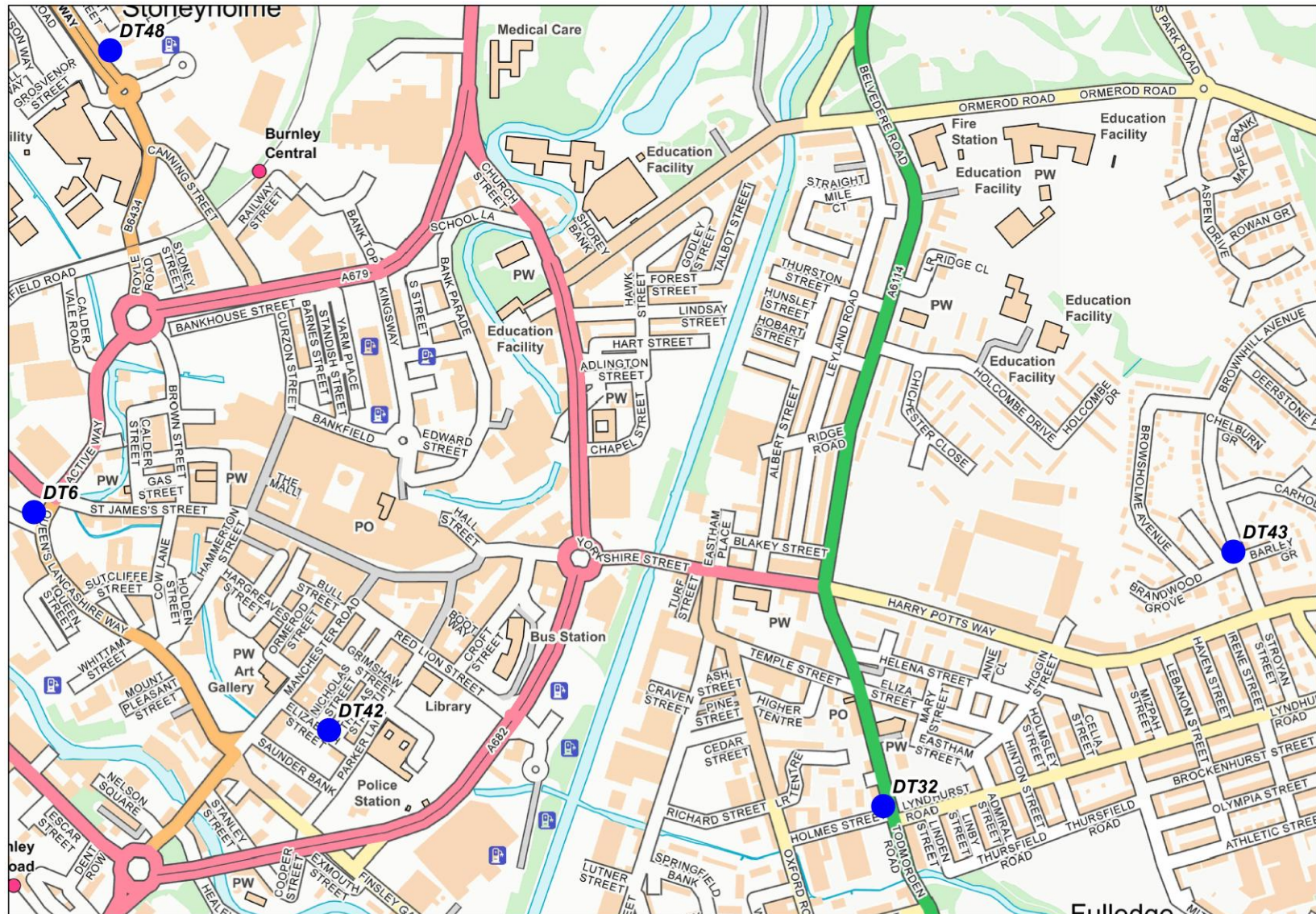
No diffusion tube NO₂ monitoring locations within Burnley Borough Council required distance correction during 2024.

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

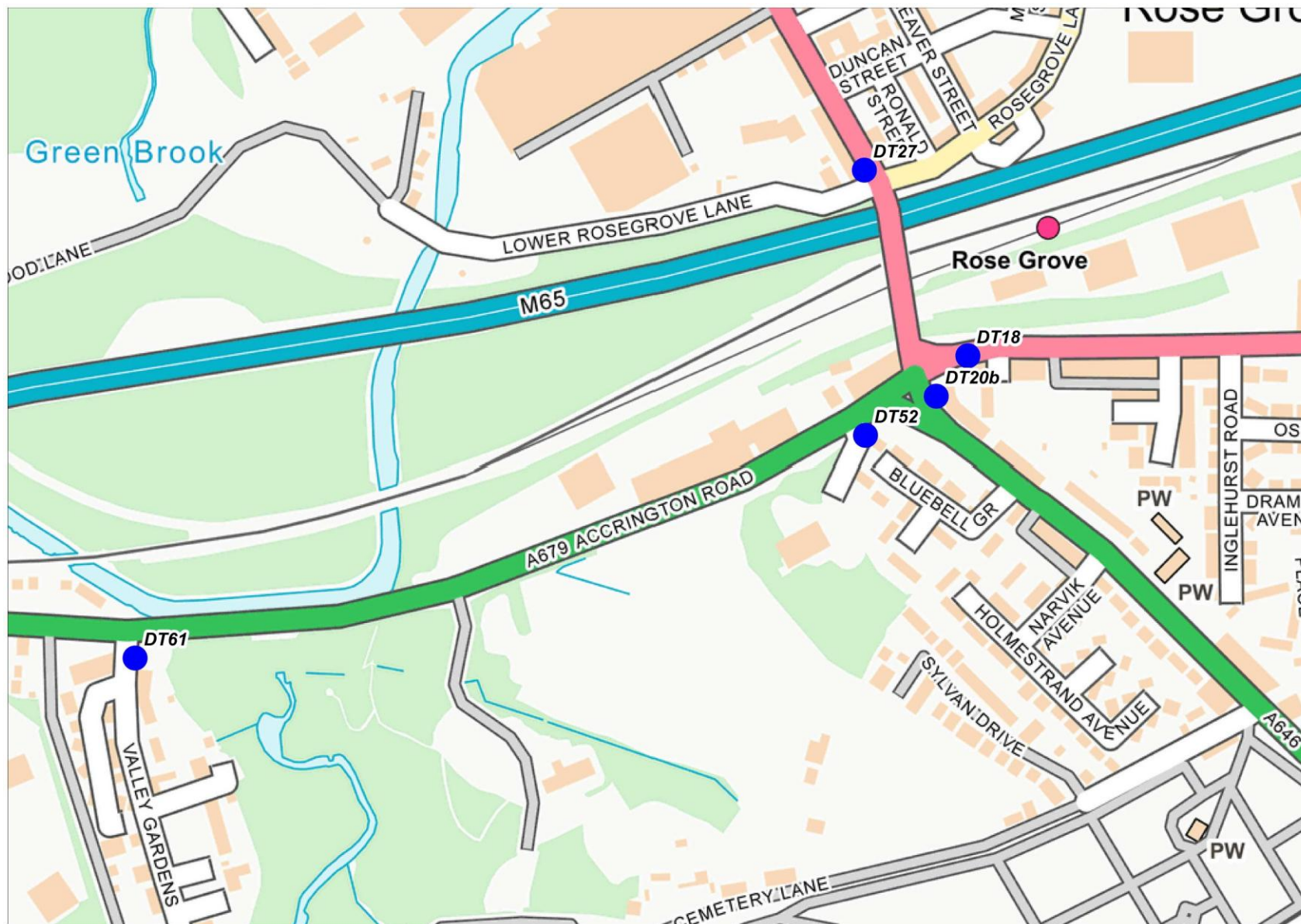
Figure D.1 – Map of Non-Automatic Monitoring Site



Borough-wide Tube Monitoring Locations



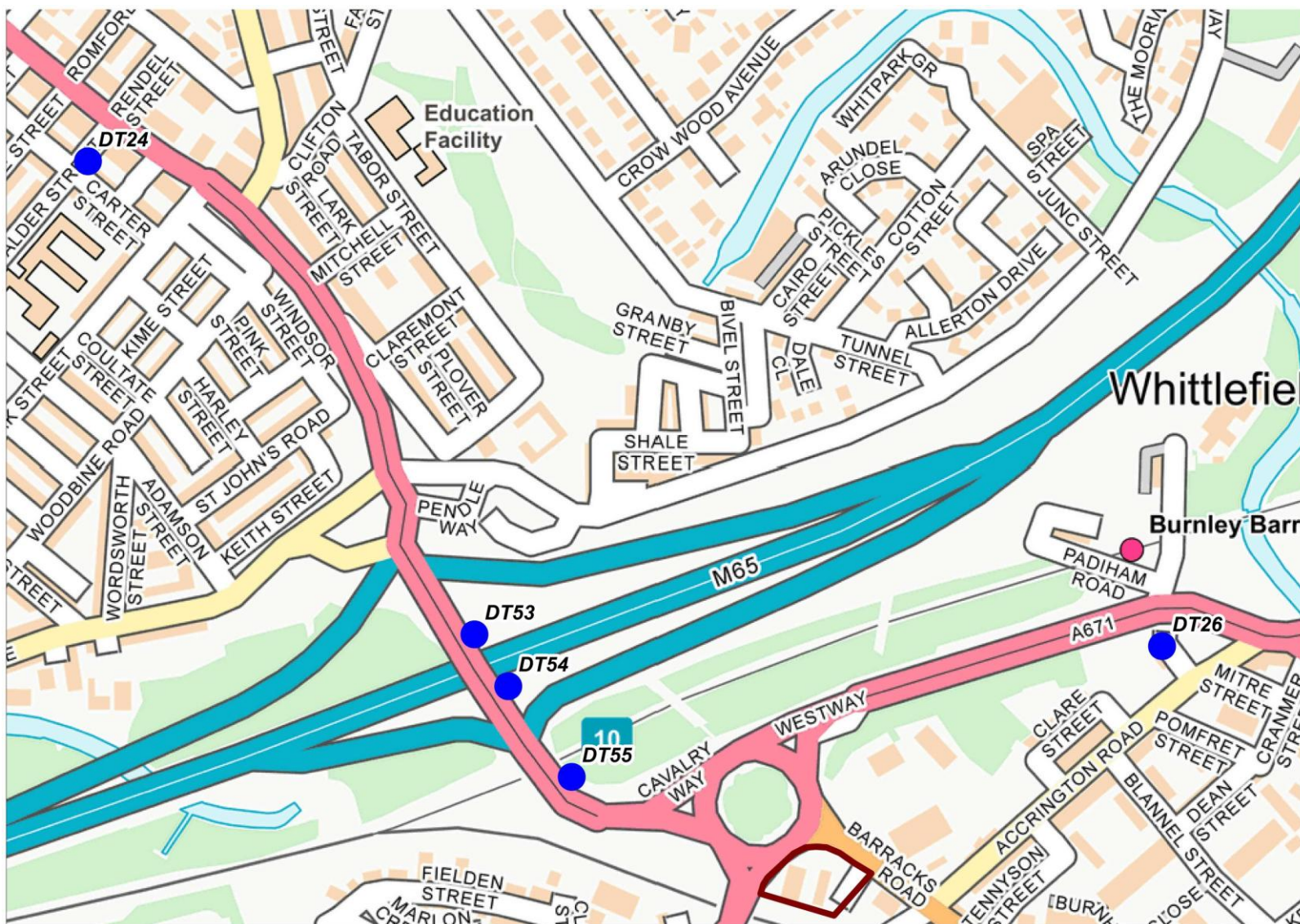
Central Locations DT6, DT32, DT42, DT43, DT48



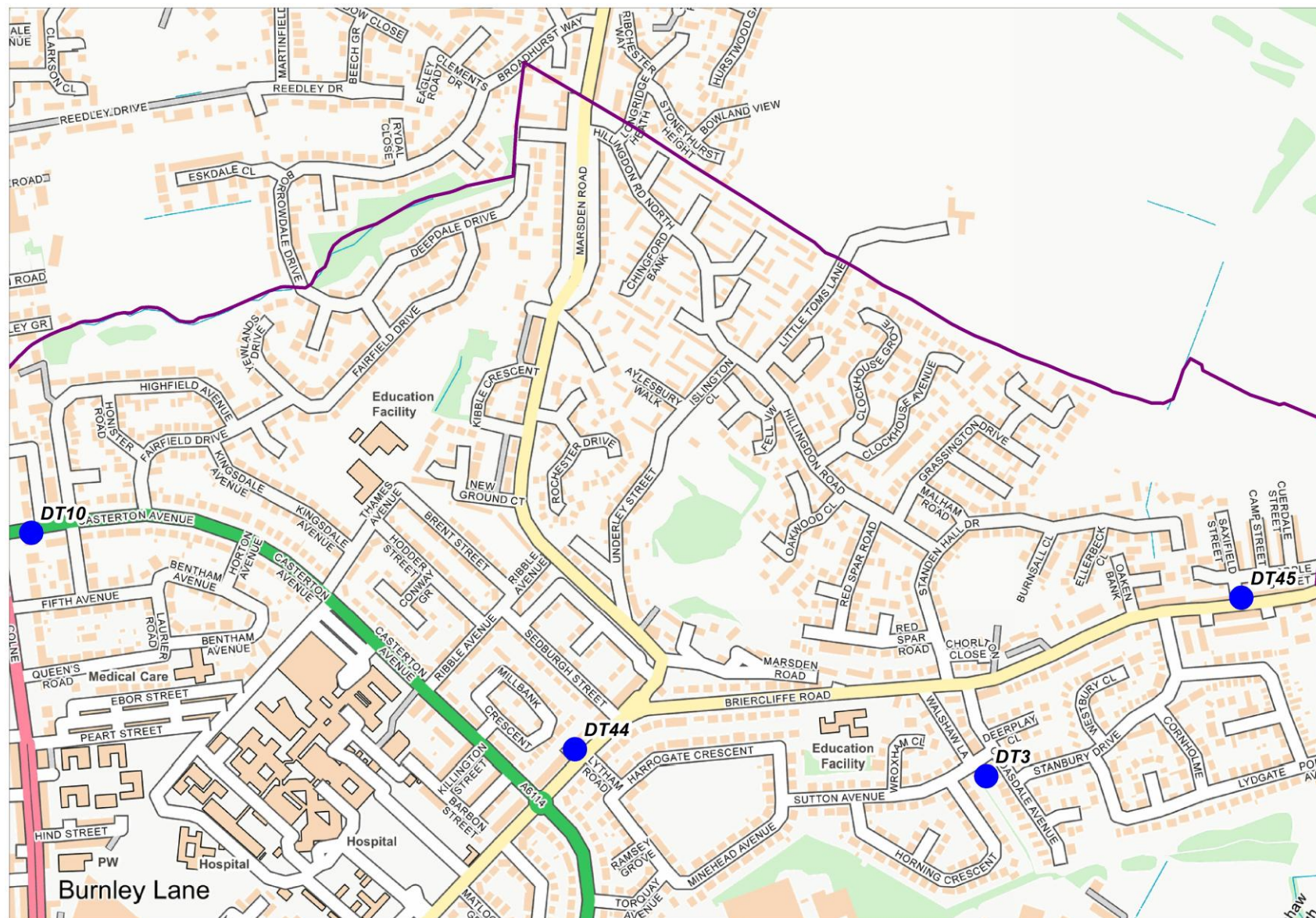
Rossendale Road/Valley Gardens locations DT18, DT20a, DT27, DT52, DT61



Burnley Road, Padiham locations DT50, DT51, DT57, DT58, DT59, DT60



Cavalry Way/Gannow Junction DT24, DT26, DT53, DT54, DT55, DT56



Casterton Ave/Briercliffe Rd Locations DT3, DT10, DT44, DT45

Appendix E: Summary of Air Quality Objectives in England

Table E.1 – Air Quality Objectives in England²

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

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

Glossary of Terms

Abbreviation	Description
AQAP	Air Quality Action Plan - A detailed description of measures, outcomes, achievement dates and implementation methods, showing how the local authority intends to achieve air quality limit values'
AQMA	Air Quality Management Area – An area where air pollutant concentrations exceed / are likely to exceed the relevant air quality objectives. AQMAs are declared for specific pollutants and objectives
ASR	Annual Status Report
Defra	Department for Environment, Food and Rural Affairs
DMRB	Design Manual for Roads and Bridges – Air quality screening tool produced by National Highways
LAQM	Local Air Quality Management
NO ₂	Nitrogen Dioxide
NO _x	Nitrogen Oxides
PM ₁₀	Airborne particulate matter with an aerodynamic diameter of 10µm or less
PM _{2.5}	Airborne particulate matter with an aerodynamic diameter of 2.5µm or less
QA/QC	Quality Assurance and Quality Control
SO ₂	Sulphur Dioxide

References

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