Bath & North East Somerset Council

Improving People's Lives

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

Information	Bath & North East Somerset Council Details
Local Authority Officer	Dr Nicola Courthold Alexei Turner Tiago Roque Jocelyn Dunne
Department	Environmental Monitoring
Address	Bath & North East Somerset Council Lewis House Manvers Street Bath BA1 1JG
Telephone	01225 396622
E-mail	Environmental_Monitoring@bathnes.gov.uk
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Local Responsibilities and Commitment

This ASR was prepared by the Environmental Monitoring Team of Bath & North East Somerset Council with the support and agreement of the following departments:

- Climate and Engagement
- Energy Transformation
- Planning & Conservation
- Planning Policy
- Traffic Management and Network
- Green Infrastructure & Nature Recovery
- Transport Strategy
- Parking Services
- Public Health & Prevention
- CAZ Project Team
- Liveable Neighbourhood
- Trading Standards
- Waste and Fleet operations

This ASR has been approved by:

Head of Community and Compliance (Lynda Deane); Team Manager - Environmental Protection and Licensing (Aled Williams); Environmental Protection Manager (Michelle Tett); Head of Highways Delivery Parking and Passenger Transport (Paul Garrod); CAZ Operations Manager (Tom Baker).

This ASR has been signed off by the Director of Public Health & Prevention, Rebecca Reynolds.

If you have any comments on this ASR, please send them to Environmental Monitoring at:

Address: Environmental Monitoring
Bath & North East Somerset Council
Lewis House
Manvers Street
Bath
BA1 1JG

Telephone: 01225 396622

Email: Environmental_Monitoring@bathnes.gov.uk

Executive Summary: Air Quality in Our Area

Air Quality in Bath & North East Somerset Council

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

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

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

Table ES 1 - Description of Key Pollutants

Pollutant	Description
Nitrogen Dioxide (NO_2)	Nitrogen dioxide is a gas which is generally emitted from high-temperature combustion processes such as road transport or energy generation.
Sulphur Dioxide (SO_2)	Sulphur dioxide (SO_2) is a corrosive gas which is predominantly produced from the combustion of coal or crude oil.
Particulate Matter (PM_{10} and $PM_{2.5}$)	Particulate matter is everything in the air that is not a gas. Particles can come from natural sources such as pollen, as well as human made sources such as smoke from fires, emissions from industry and dust from tyres and brakes. PM_{10} refers to particles under 10 micrometres. Fine particulate matter or $PM_{2.5}$ are particles under 2.5 micrometres.

Bath and North East Somerset (B&NES) is mainly a rural district with Bath as the major urban area, together with the small towns of Keynsham, Radstock and Midsomer Norton. The main air pollutant source within the area is from road traffic. This is exacerbated in Bath with the city being set in a valley surrounded by hills which can trap the pollution within the city.

As the source of air pollution in Bath and North East Somerset is overwhelmingly from traffic, the approach to improving air pollution is by traffic management and sustainable transport improvement measures. There is a collaboration between the four West of England authorities in transport terms through the West of England Mayoral Combined Authority and the Travel West brand, which acknowledges that commuters don't think in terms of authority boundaries.

In Bath, through traffic travels into the Air Quality Management Area (AQMA) on four main corridors:

- M4 junction 18 to A36 south;
- M4 junction 18 to A367;
- A4 west (Bristol) to A36 south; and
- A4 west to A4 east (with 7.5t weight limit).

The lack of alternative routes and a restricted number of River Avon crossing points means that the streets are often congested during peak periods, despite a very high proportion of employed Bath residents using sustainable modes for travel to work. The 2021 census[1] indicated that only 28% of employed Bath residents drive to work, compared to 40% across the whole district. This has been supported by substantial investments in cycling and walking infrastructure. In 2021 the census also showed approximately 40% of people worked mainly from home. The census was carried out in March 2021 and the results may have been impacted by changes in working practices influenced by the COVID pandemic.

In Bath and North East Somerset, three Air Quality Management Areas (AQMAs) have been declared for nitrogen dioxide (NO_2), including the major road network within Bath, and sections of the A37 in Temple Cloud and Farrington Gurney. Details of the AQMAs are given in Table 2.1 and maps of the AQMAs are in Appendix D. Details of the AQMAs can also be found on the Council's Air Quality Webpage. The Keynsham and The Saltford AQMAs were revoked in May 2024.

There is no clear evidence of a safe level of exposure to particulate matter (PM) or NO_2 below which there is no risk of adverse health effects. This means that further reduction of PM or NO_2 concentrations below air quality standards is likely to bring additional health

[1] UK 2021 Census results https://www.ons.gov.uk/census/maps?lad=E06000022

benefits[2]. In recognition of this and the World Health Organisation (WHO) guidelines published in 2021[3], in a Cabinet Report[4] Bath and North East Somerset Council referenced it's ambition to creating its own reducing local target for NO_2, reinforcing the aspiration that reducing pollution should be an aim in all decision-making. By introducing a local NO_2 objective level for example, where all monitoring locations would aim to achieve an annual average level at, or below, 36 µg/m^3 by 2025, it demonstrates a will to be aspirational in further protecting public health.

Bath and North East Somerset Council had 170 NO_2 monitoring sites and 3 particulate matter monitoring sites in 2024. At the end of every year, the Council reviews the information which it has collected throughout the year and applies a correction factor. Corrected data is then compared to the national air quality objectives which are detailed in Appendix E.

Headlines from the 2024 continuous analysers are:

- Bath and North East Somerset Council has monitors at 3 locations in 2024, including 3 NO_2, 2 PM_{10} and 1 $PM_{2.5}$ analyser, detailed in Table A.1, Appendix A.
- NO_2 – all monitoring results were below the annual average objective of 40 µg/m^3 and there were no exceedances of the 1-hour objective (18 exceedances allowed). NO_2 concentrations decreased compared to results in 2023 at all sites. Overall, the decrease from 2023 was 12% which is a larger than average decrease across the Automatic Urban and Rural Network (AURN) which was 7%. The AURN is a national network of monitoring sites.
- PM_{10} – all monitoring results were below the annual average objective of 40 µg/m^3 and there were 4 exceedances of the 24-hour mean objective (35 exceedances allowed) at CM3 (Windsor Bridge), this was due to the construction site next to the monitor. The results were lower than in 2023 at Windsor Bridge and similar to 2022, again this is due to the construction site. Results remained the same at Bath A4 roadside. The AURN network showed an average 3% decrease across the network.

[2] Public Health England. Air Quality: A Briefing for Directors of Public Health, 2017

[3] WHO global air quality guidelines: particulate matter (PM2.5 and PM10), ozone, nitrogen dioxide, sulfur dioxide and carbon monoxide, 2021

[4] Bath and North East Somerset Cabinet report E3339 – Clean Air Plan Annual Report 2021

- $PM_{2.5}$ – monitoring was below the annual average objective of 20 µg/m^3. The results were lower by 25% (2.4 µg/m^3) than in 2023, whereas the AURN network only showed an average 1% decrease across the network.

A summary of NO_2 results from diffusion tubes across B&NES:

- In 2024 Bath & North East Somerset has monitored NO_2 at 167 locations with 24 of these locations using triplicate diffusion tubes. A triplicate site is where 3 diffusion tubes are located at one site, this makes the data more robust as a fault with one tube (e.g. spider's nest in a tube, water ingress etc.) will not lead to loss of monitoring data for the month.
- The average decrease across the long-term sites was 9% compared with 2023 monitoring data, this is a larger decrease than the average across the AURN network (7%). There was a general decrease across the network with only 3 sites showing a very slight increase (<1µg/m^3).
- All sites were below the Government's objective of 40 µg/m^3 in 2024.
- 1-hour objective – All sites in Bath & North East Somerset are below an annual average of 60 µg/m^3 – this suggests that the 1-hour NO_2 objective is unlikely to be exceeded[5].

Summary of the monitoring using Zephyr analysers:

- Indicative monitoring was carried out at Gay St (Bath), Anchor Road (Bath), Victoria Buildings (Bath), Pulteney Road (Bath), High Street (Bathampton), Bath Hill (Keynsham), and West Road (Midsomer Norton) using three Zephyrs. (Full details in Appendix F)
- The monitor at Gay Street is linked with the traffic lights in Queen Square, where a high 15-minute concentration would trigger a change in the traffic light sequence to discourage traffic and lower pollution. The monitor at Gay Street had annual average NO_2 concentrations of 17 µg/m^3, PM_{10} 9 µg/m^3 and $PM_{2.5}$ 5 µg/m^3 which are below the objectives.

[5] Local Air Quality Management Technical Guidance LAQM.TG22. May 2025.

Actions to Improve Air Quality

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

The core actions are:

Bath Clean Air Plan

- Average 2024 annual nitrogen dioxide (NO_2) concentrations within the CAZ are 40% lower than the 2019 baseline, representing a reduction of 13.0 µg/m^3. There has also been a reduction of 41%, or 10.4 µg/m^3, in the area immediately surrounding the CAZ.
- Additionally, NO_2 concentrations have continued to decrease when compared to 2023. Concentrations within the CAZ have decreased a further 12% when compared to 2023, with reductions also being seen in the CAZ Boundary (10%).
- The percentage of chargeable non-compliant vehicles (as per cent of total traffic) entering the zone each week reduced from 6% in the launch week, to an average of 0.9% by the end of 2024.
- In total, the Council's Financial Assistance Scheme enabled 949 vehicles to be upgraded by the end December 2024, including 110 taxis, 22 coaches, 783 LGVs and 32 HGVs.
- Compliance percentages rose between launch week and the end of 2024 from 63% to 91% for Van/LGVs; 67% to 99% for Taxi/PHVs; 73% to 99% for buses (as a result of the CAZ bus retrofit scheme); 86% to 96% for smaller HGVs and 93% to 99% for larger HGVs.

Other measures

- Revocation of the Keynsham and Saltford Air Quality Management Areas following more than 3 years of measured concentrations below objective levels.
- A webform was successfully launched in 2022 to report allegations of breaches of vehicles weight restrictions, particularly within the CAZ. Throughout 2024, Trading Standards have carried out proactive monitoring of roads carrying weight restrictions, with 25 cases of contravention reported, with five further cases

detected based on observations. Additionally, 72 cases of weight restriction contraventions on Cleveland Bridge have been investigated.

- Following on from local trials, the 'Kick the Habit' campaign was developed and launched in 2022 to raise awareness of anti-idling within local communities. Throughout 2024, the Council have re-engaged with schools in the authority about the campaign, and generated a 'report it form' so members of the public can quickly report incidents of engine-idling.
- The Journey to Net Zero (JNZ) was adopted in 2022 with B&NES progressing some of those measures identified in the policy throughout 2024. These measures include the introduction of emissions-based parking for vehicles parking in Council owned carparks and the continued roll out of the Liveable Neighbourhoods programme. The Bath City Centre, Bath Quays Links, Bath to Bristol Sustainable Corridor and the Somer Valley Links projects, funded through the City Region Sustainable Transport Settlement Scheme (CRSTS) are also being progressed.

- A pilot project was developed and completed in early 2023 which focused on Farrington Gurney and Temple Cloud to capture learning relating to effective community engagement and behaviour change around air quality.
- Launched in 2019, the Clean Air Schools Toolkit was refreshed in 2024, and made available to all schools across B&NES.
- Following sign-off in 2023, Temple Cloud and Farrington Gurney Action Plan is progressing as planned.

- Throughout 2024, the Council developed an updated Air Quality Action Plan for Bath[6]. This was consulted on in December 2024 and adopted in April 2025.

[6] Bath and North East Somerset Council – Air Quality Action Plan, 2025.

Conclusions and Priorities

In 2024, monitoring at existing locations showed a decrease in concentrations at most locations compared with 2023. There were no exceedances of the annual average NO_2 objective.

Bath and North East Somerset Council expects the following actions to be taken forward over the course of the next reporting year:

- Liveable neighbourhoods are an important part of the Council's plan to tackle the Climate and Ecological Emergency, and in 2024 B&NES made 3 trial-through restrictions permanent (monitoring data is available on the Council's website). Following approval of a Full Business Case, 4 more trial-through restrictions are underway in 2024, and planning is underway to deliver interventions across the further LN areas by March 2027.
- The repairs surrounding Cleveland Bridge were completed in October 2022, and the bridge fully reopened subject to an 18-tonne weight restriction. The bridge structure continues to be monitored in 2024, the results of which will determine a review of the associated weight restriction.
- Development of Air Quality Strategy that connects the broad air quality related measures to ensure effective co-ordination and collaboration with neighbouring authorities.

Bath & North East Somerset Council's priorities for the coming year are:

- Continuing to progress along JAQU's road map to success in relation to continuing compliance with nitrogen dioxide concentrations within the Clean Air Zone.
- Close cooperation with the Sustainability Team on the declared Climate Emergency and planned carbon neutrality by 2030 across the authority area.
- Continue to provide mobile automatic air quality monitoring to respond to monitoring requests following the purchase of Zephyr electro-chemical automatic monitors.
- Development of an Air Quality Strategy.
- The rollout of all CRSTS schemes, including Liveable Neighbourhoods and supporting Residents Parking Zone schemes.
- The WECA Green Recovery Fund will deliver 13 electric vehicle charge points in 2025/2026. Additionally, following receipt of Local Electric Vehicle Infrastructure (LEVI) funding, the tender will go live in 2025 to appoint a charge point operator. These charge points will be installed predominantly within communities on-street.

- Take forward actions introduced in the updated 2025 Air Quality Action Plan for Bath.
- Revocation of the Farrington Gurney Air Quality Management Area following more than 3 years of measured concentrations below objective levels.

The principal challenges and barriers to implementation that Bath and North East Somerset Council anticipates facing are:

- Understanding how the change in working patterns and flexibility due to the long-lasting changes brought about by Covid-19 pandemic affects air quality.
- National and international factors affecting economic vibrancy and supply chains that impact the ability of fleet operators and individuals to upgrade their vehicles or use alternative travel options

Progress on certain measures has been slower than expected for the following reasons:

- The installation of Electric Vehicle Infrastructure (EVI) under the GULW project has been delayed due to rapid charger global supply chain problems. The issue has been exacerbated by some major suppliers exiting the UK EV charging market.

How to get Involved

As the main source of air pollution in Bath and North East Somerset is from road sources, the Council wishes to encourage a greater amount of active travel across the district. The walking, wheeling and cycling infrastructure in Bath and North East Somerset is improving all the time and there are more opportunities to hire electric bikes being developed. There is also an ongoing e-Scooter trial.

We recommend that people visit the 'Travel West' website, as this provides live data on public transport (bus checker app) for journey planning as well as route information for walkers and cyclists. The webpage is administered by the West of England Mayoral Combined Authority and also includes information on car clubs, traffic reports, electric vehicle charging infrastructure; alongside other information that simplifies travel choices.

Further information relating to the Council led improvements to air quality in Bath and North East Somerset as part of the National Air Quality Plan can be found at the Clean Air Zone website.

The Council has an ambitious programme of improving residential streets and encouraging safe, active, and more sustainable forms of travel, such as walking, wheeling

and cycling by developing suggestions from the community through its Liveable Neighbourhoods programme. More information on the programme can be found on the Liveable Neighbourhoods website.

Further information on current and historic air quality data can be found at the Council's Air Quality website.

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1 Local Air Quality Management

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

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

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

2 Actions to Improve Air Quality

2.1 Air Quality Management Areas

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

A summary of AQMAs declared by Bath & North East Somerset Council can be found in Table 2.1. The table presents a description of the 3 AQMAs that are currently designated within Bath & North East Somerset Council. Appendix D: Maps of Monitoring Locations and AQMAs provides maps of AQMAs and also the air quality monitoring locations in relation to the AQMAs. The air quality objectives pertinent to the current AQMA designations are as follows:

- NO_2 annual mean;
- NO_2 hourly mean.

We propose to revoke Farrington Gurney AQMA in 2025 (see Appendix G).

In May 2024 we revoked The Keynsham High Street Air Quality Management Area 2010 and The Saltford Air Quality Management Area 2013.

The monitoring in both the Bath and Temple Cloud show continued compliance with the 1-hour objective (based on diffusion tube data below 60 µg/m^3). However, we do not propose to amend the current AQMAs to remove the 1-hour objective as the actions to reduce NO_2 are applicable to both objectives.

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
The Bath London Road Air Quality Management Area – 2013	Declared 1 February 2002, amended v1 19 August 2005, amended v2 30 July 2008, amended v3 18 July 2013	NO_2 Annual Mean	The area covers the major road network in Bath, encompassing any buildings whose facades are within the area.	NO	London Road AURN 2001 - 57 µg/m^3	Walcot Parade 2 2024 – 32.9 µg/m^3	3[b]	Bath Air Quality Action Plan (2025)	Visit the AQAP for Bath London Road AQMA
The Bath London Road Air Quality Management Area – 2013	Declared 18 July 2013	NO_2 1 Hour Mean	The area covers the major road network in Bath, encompassing any buildings whose facades are within the area.	NO	Lambridge - 2012 – 62 µg/m^3 [a]	Walcot Parade 2 2024 – 32.9 µg/m^3	8[d]	Bath Air Quality Action Plan (2025)	Visit the AQAP for Bath London Road AQMA
Temple Cloud Air Quality Management Area 2018	Declared 20 August 2018	NO_2 Annual Mean	The area starts approximately 245 m north of the A37/Temple Inn Lane junction and runs along the A37 to approximately 150 m south of the A37/Eastcourt Road junction.	NO	Temple Cloud 1 2017 – 67 µg/m^3	Temple Cloud 10 2023 – 35.4 µg/m^3	2[b]	Farrington Gurney and Temple Cloud Air Quality Action Plan (April 2023)	Visit the AQAP for Temple Cloud AQMA

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
Temple Cloud Air Quality Management Area 2018	Declared 20 August 2018	NO_2 1 Hour Mean	The area starts approximately 245 m north of the A37/Temple Inn Lane junction and runs along the A37 to approximately 150 m south of the A37/Eastcourt Road junction.	NO	Temple Cloud 1 2017 – 67 µg/m^3 (a)	Temple Cloud 10 2023 – 35.4 µg/m^3	6(d)	Farrington Gurney and Temple Cloud Air Quality Action Plan (April 2023)	Visit the AQAP for Temple Cloud AQMA
Farrington Gurney Air Quality Management Area 2018	Declared 20 August 2018	NO_2 Annual Mean	The area starts approximately 165 metres north of the A37/Church Lane junction and runs south along the A37 to the Bath & North East Somerset Council boundary, and additionally extends approximately 100 m east along the A362 from the A37/A362 junction.	NO	Farrington Gurney 2 2017 - 52 µg/m^3	Farrington Gurney 2 2023 – 24.1 µg/m^3	7(c)	Farrington Gurney and Temple Cloud Air Quality Action Plan (April 2023)	Visit the AQAP for Farrington Gurney AQMA

☒ **Bath & North East Somerset Council confirm the information on UK-Air regarding their AQMA(s) is up to date.**

☒ **Bath & North East Somerset Council confirm that all current AQAPs have been submitted and approved by Defra.**

(a) The 1 hour objective was included in the AQMAs based on diffusion tube data >60 µg/m^3

(b) This is the number of years compliance with 40 µg/m^3, as monitoring is based on diffusion tubes the AQMAs have not been considered for revocation as they have not met 3 years below 36 µg/m^3.

(c) This is the number of years compliance with 40 µg/m^3 and includes 2 years affected by the COVID pandemic, as monitoring is based on diffusion tubes the number of years below 36 µg/m^3 post COVID has been considered.

(d) Based on the number of years of diffusion tube data >60 µg/m^3

2.2 Progress and Impact of Measures to address Air Quality in Bath & North East Somerset Council

Defra's appraisal of last year's ASR (2024) concluded.

The report is well structured, detailed, and provides the information specified in the Guidance. The following comments are designed to help inform future reports:

1. Due to the hard work by B&NES in recent years, air quality has improved, and the Council have been able to revoke the Keynsham and Saltford AQMAs in June 2024 following several years of compliance. As these AQMAs were technically still applicable in the reporting period (2023), it would have been preferable to include these in Table 2.1 and report on these as such. However, it is noted these are now revoked.
   Council response: Noted.
2. Text on page 26 indicates that the Farrington Gurney AQMA has been compliant (as assessed by below 36 µg/m^3) for four years. However, Table 2.1 indicates the AQMA has been compliant for six years. It is assumed Table 2.1 has been completed assessing compliance against 40 µg/m^3.
   Council response: This assumption is correct, text will be updated to make this clearer.
3. The Farrington Gurney AQMA has achieved full compliance (below 36 µg/m^3) since 2020 but was within 10% but below the objective in 2019. The report indicates the Council are not currently considering revocation due to planned future developments. The nature of these developments and their potential impact on air quality has not been made clear. B&NES is advised to begin considering plans to revoke the AQMA. Should compliance continue to be achieved at the AQMA in 2024, B&NES will likely be required to revoke the AQMA at this point.
   Council response: The monitoring period contained 2 years (2020 and 2021) which were affected by COVID restrictions. As there are now 3 years data post COVID restrictions (2022-2024), Farrington Gurney has now been assessed for revoking the AQMA, see Appendix G.
4. Site I.D DT224 distance corrected value is 35.9 µg/m^3. Currently stated at 36 µg/m^3 with Table 2.1 which presents a slight inconsistency in the data recorded in the ASR in regard to level of exceedance (declaration and current year). Report results as they appear in the ASR data tables to ensure values are consistently recorded

throughout the ASR. The number of years compliant with the AQO should also be recorded for all AQMAs.

Council response: Noted. All results have been reported consistently in 2025.

5. The Bath London Road and Temple Cloud AQMAs are not eligible for revocation due only two years of compliance and an exceedance in 2023 respectively. B&NES are not considering revocation at this stage. This decision is supported.
6. An updated AQAP for Farrington Gurney and Temple Cloud AQMAs were adopted in 2023, and a new AQAP for the Bath London Road AQMA is being prepared. This is welcomed, and an update is expected in the 2025 ASR.

   Council response: Updates have been included in this ASR 2025.
7. The ASR has been signed off by the relevant Director of Public Health as advised in last year's ASR appraisal. This is welcomed.

   Council response: This was not advised in last year's appraisal. Our ASRs have been signed off as required by the relevant Director of Public Health since 2022.
8. In 2023, additional diffusion tubes were deployed to provide monitoring data for potential hot spots, to track the trial Liveable Neighbourhoods introduced in the year and following requests from concerned residents. These added monitoring sites did not come at the expense of pre-existing and longer-term monitoring. The Council's adaptable approach to their monitoring regime is commendable, and B&NES should continue to be flexible in this regard.
9. All table values should be provided to 1 decimal place in future ASRs, where applicable and in accordance with the ASR Template. There are slight rounding discrepancies across tables with the use of differing decimal places.

   Council response: Noted. All results have been reported consistently in 2025.
10. B&NES also have reported on Zephyr monitoring undertaken in 2023. It is appreciated that this has been presented in a separate appendix for clarity as these are not reference-grade and therefore cannot be used to determine compliance.
11. The report includes a comprehensive discussion of trends in monitoring data, which has been discussed by region. This is helpful to any readers not familiar with the particular local characteristics of B&NES.
12. The report contains a detailed discussion of actions undertaken by B&NES in 2023 to improve air quality. This includes measure specific to $PM_{2.5}$ which is welcomed. A large portion of work has been focused on the Bath CAZ and accompanying Clean Air Plan. This has led, in part, to improvements in the Bath AQMA which is now

compliant. B&NES should also consider further focused attention on targeting the existing exceedance at the Temple Cloud AQMA.

Council response: Further information on actions in Temple Cloud has been provided.

13. A local bias adjustment factor has been derived from the co-location study within B&NES and compared to the national bias adjustment factor. The national bias adjustment factor (0.81) was ultimately selected as the continuous monitor at the co-location had poor data capture in 2023, albeit it is acknowledged that the local factor was also 0.81. The choice of bias adjustment factor has been justified suitably. This is welcomed.
14. QA/QC has been completed sufficiently. The AIR-PT scheme results have been reported on. The report also outlines the precision check of triplicate diffusion tube monitoring sites as good, with a coefficient of variation of less than 10%. This is encouraged to continue in future ASRs.
15. Trend graphs and maps of monitoring locations and AQMAs are clear and well presented.
16. Comments on last year's appraisal have been responded to, which is welcomed.
17. It is noted B&NES have ordered their monitoring locations by area and not site ID. This is acceptable.

Bath & North East Somerset 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. Sixty-four measures are included within Table 2.2, with the type of measure and the progress Bath & North East Somerset Council have made during the reporting year of 2024 presented. Where there have been, or continue to be, barriers restricting the implementation of the measure, these are also presented within Table 2.2.

More detail on these measures can be found in their respective Action Plans; Clean Air Plan: Full Business Case (2020), Bath AQAP (2011 & 2025), and AQAP for Temple Cloud and Farrington Gurney (2023).

Key completed measures are:

Bath Clean Air Plan

- The Clean Air Zone launched within Bath on 15 March 2021. Average 2024 annual nitrogen dioxide (NO_2) concentrations within the CAZ are 40% lower than the 2019 baseline, representing a reduction of 13.0 µg/m^3. There has also been a reduction

of 41%, or 10.4 μg/m^3, in the area immediately surrounding the CAZ. (Note that the CAZ has a greater actual NO_2 reduction despite the percentage change being marginally lower).

- Additionally, NO_2 concentrations have continued to decrease when compared to 2023. Concentrations within the CAZ have decreased a further 12% when compared to 2023, with reductions also being seen in the CAZ_Boundary (10%).
- The percentage of chargeable non-compliant vehicles (as percentage of total traffic) entering the zone each week reduced from 6% in the launch week, to an average of 0.9% by the end of 2024.
- The Council's Financial Assistance Scheme (FAS), introduced as part of the Clean Air Fund, has enabled 949 vehicles to be upgraded by the end of 2024 where the scheme closed. This includes 110 taxis, 22 coaches, 783 LGVs and 32 HGVs.
- Compliance percentages rose between launch week and the end of 2024 from 63% to 91% for Vans/LGVs; 67% to 99% for Taxi/PHVs; 73% to 99% for buses (a result of the CAZ Bus Retrofit Programme); and from 86% to 96% for smaller HGVs and 93% to 99% for larger HGVs.

Other measures

- The Keynsham and Saltford Air Quality Management Areas were revoked in June 2024 following more than 3 years of measured NO_2 concentrations below objective levels.
- A webform was successfully launched in 2022 to report allegations of breaches of vehicle weight restrictions, particularly within the CAZ. Trading Standards have carried out proactive monitoring of the roads carrying weight restrictions, and to date 25 cases of weight restriction contravention have been reported, with an additional 72 cases reported on Cleveland Bridge. Of those cases that were breaching the weight restriction, 32 warning letters have been issued to drivers, and 3 cases have been heard in court, resulting in fines.
- Following on from local trials, the 'Kick the Habit' campaign was developed and launched in 2022 to raise awareness of anti-idling within local communities. Throughout 2024, the Council have re-engaged with schools in the authority about

the campaign, and generated a ‘report it form’ so members of the public can quickly report incidents of engine-idling[7].

- The Journey to Net Zero (JNZ) and the Local Plan Partial Update were both adopted in 2022. During 2024, the Council has published the Transport Action Map and developed the Active Travel Masterplan, which sets out the existing and planned network of active travel infrastructure required to enable and provide for sustainable forms of transport.
- Under the JNZ, B&NES have developed a new Transport Strategy for the wider North East Somerset entitled ‘Creating Sustainable Communities’. Whilst this is under review due to new housing targets, the strategy seeks to broaden and accelerate the approach to creating sustainable communities across the rest of the district, specifically in Keynsham and Saltford, Somer Valley, Hicks Gate and Whitchurch Village.
- The emission-based charging structure was introduced in January 2022 for on street resident’s parking permits; in Bath car parks in September 2023 and across all other paid for parking locations from November 2024. Whilst not directed at NO_2, higher car charges for more polluting vehicles are complementary to the objectives of Bath’s Clean Air Zone, aiming to further decrease concentrations of NO_2.
- Liveable Neighbourhoods (LN) are an important part of the Council’s plan to tackle the Climate and Ecological Emergency, and in 2024 three trial through-traffic restrictions were made permanent.
- Launched in 2019, and refreshed in 2024, the Clean Air Schools Toolkit has been made available to all schools across B&NES and promoted through the school’s newsletter on a regular basis.
- Throughout 2024, the Council developed an updated Air Quality Action Plan for Bath. This was consulted on in December 2024 and adopted in April 2025.
- Within Temple Cloud a Vehicle Activated Sign (VAS) was successfully installed in April 2022, using height sensors to alert vehicles of HGVs oncoming in the middle of the road. This aims to reduce emissions on the A37 by reducing stop-starting, particularly by larger vehicles. Data from this VAS, including speed and vehicle counts, continues to be reviewed into 2024.

[7] B&NES – Report Engine Idling on the Public Highway.

- A pilot project was developed and completed in early 2023 which focused on Farrington Gurney and Temple Cloud to capture learning relating to effective community engagement and behaviour change around air quality.
- Following sign-off in 2023, Temple Cloud and Farrington Gurney Air Quality Action Plan is progressing as planned.

Bath & North East Somerset Council expects the following measures to be completed over the course of the next reporting year:

- Liveable Neighbourhoods (LN) are an important part of the Council's plan to tackle the Climate and Ecological Emergency. Following approval of a Full Business Case, a further four trial through-traffic restrictions were in place in 2024, and planning is underway to for further roll out of the programme.
- The repairs surrounding Cleveland Bridge were completed in October 2022, and the bridge fully reopened subject to an 18-tonne weight restriction. This remained in place throughout 2024. The bridge structure is being monitored, the results of which will determine a review of the associated weight restriction.
- Development of an Air Quality Strategy that connects the broad air quality related measures more to ensure effective co-ordination and collaboration with neighbouring authorities and Climate and Ecological Emergency related actions.

Bath & North East Somerset Council's priorities for the coming year are:

- Continuing to progress along JAQU's road map to success in terms of continued compliance with nitrogen dioxide concentrations within the Clean Air Zone.
- Close cooperation with the Sustainability Team on the declared Climate Emergency and planned carbon neutrality by 2030 across the authority area.
- Continue to provide mobile automatic air quality monitoring to respond to monitoring requests following purchase of Zephyr electro-chemical automatic monitor.
- Development of an Air Quality Strategy.
- Further development of the CRSTS schemes, including Liveable Neighbourhoods and supporting Residents Parking Zone schemes.
- The WECA Green Recovery Fund will deliver 13 electric vehicle charge points in 2025/2026. Additionally, following receipt of Local Electric Vehicle Infrastructure

(LEVI) funding, the tender will go live in 2025 to appoint a charge point operator. These charge points will be installed predominantly within communities on-street.
- Take forward actions introduced in the updated 2025 Air Quality Action Plan for Bath.
- Revocation of the Farrington Gurney Air Quality Management Area following more than 3 years of measured concentrations below objective levels.

Bath & North East Somerset Council worked to implement these measures in partnership with the following stakeholders during 2024:

- Joint Air Quality Unit
- West of England Combined Authority
- Bus operators
- E-cargo bike operators; and
- Local communities.

The principal challenges and barriers to implementation that Bath & North East Somerset Council anticipates facing are:

- Understanding how the change in working patterns and flexibility due to the long-lasting changes brought about by Covid-19 pandemic affects air quality.
- National and international factors affecting economic vibrancy and supply chains that impact the ability of fleet operators and individuals to upgrade their vehicles or use alternative travel options

Progress on the following measures has been slower than expected due to:

- The installation of Electric Vehicle Infrastructure (EVI) under the GULW project has been delayed due to rapid charger global supply chain problems. The issue has been exacerbated by some major suppliers exiting the UK EV charging market.

Bath & North East Somerset Council anticipates that the measures stated above and in Table 2.2 will achieve compliance in the Farrington Gurney, Bath, and Temple Cloud AQMAs.

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
BATH CAP 2	Bath Charging Clean Air Zone	Traffic Management	Emission based road user charging	2021	2021	Bath and North East Somerset Council	Joint Air Quality Unit CAZ Implementation Fund	Fully funded	£1m-£10m	Implementation	4 µg/m^3 (at key locations)	Measured annual average concentrations of NO_2. Number of monitoring sites (PCM and LAQM with façade adjustments) measuring above 40µg/m^3.	Came into operation 15th March 2021. B&NES passed the State 3 Assessment outlined by JAQU in 2022, defining the CAZ as having maintained success.	EXPECTED HIGH EFFECTIVENESS. Start date was delayed due to Covid-19.
BATH 20	Journey To Net Zero	Transport Planning and Infrastructure	Other	2020	2030	WECA and Bath and North East Somerset Council	WECA & DfT	Fully funded.	tbc	Implementation	tbc	tbc	The Council continues to build upon the JNZ, having published the Transport Action Plan for B&NES. Additionally, B&NES have developed a new Active Travel Masterplan, setting out the existing and future network of active travel infrastructure, as well as a adopting a new Transport Strategy: Creating Sustainable Communities, covering towns in North East Somerset. The JNZ has also introduced measures such as emissions-based parking charges in council car parks across the district. This sees higher polluting vehicles paying slightly higher charges to encourage a shift to cleaner, more sustainable travel in B&NES.	EXPECTED HIGH EFFECTIVENESSS.
TC10	The use of Vehicle Activated Signs (VAS) to help smooth traffic flows and reduce emissions.	Traffic Management	Other	2022	2022	B&NES Highways	Capital Funding	Fully Funded	£10k - £50k	*Completed*	This action would focus on preventing a deterioration in the quality of the air locally	HGV crossing in the tight section. (Causes stop-start)	Vehicle Activated Signs were installed in April 2022. In 2023 Southbound traffic AADT 5322, 85th% 26.5mph; Northbound traffic AADT 5809, 85th% 29.6mph (March data missing) In 2024 Southbound traffic AADT 5918, 85th% 26.2mph; Northbound traffic AADT 6164, 85th% 29.5mph	This measure will help avoid HGV crossing in the tight section of the A37, the main cause of traffic in that section and the higher concentration of NO_2.
BATH CAP 1	*Reduced residents parking permit charges for ULEVs*	*Promoting Low Emission Transport*	*Other*	*Apr-21*	*2022*	*Bath and North East Somerset Council*	*JAQU CAZ Early Measures Fund.*	*Fully funded*	*£50-£100k*	*Completed*	*Not known*	*Number of permits for ULEVS as %age of total*	*As planned, this trial scheme ended in March 2022. Overall uptake was low, with 43 permits issued within the 2021/2022 financial year.*	*Uptake and affordability of ULEVs.*
BATH CAP 3	*Retrofitting buses*	*Vehicle Fleet Efficiency*	*Vehicle Retrofitting programmes*	*2020*	*2022*	*Bath and North East Somerset Council; bus operators and Energy Saving Trust*	*Joint Air Quality Unit CAZ Clean Air Fund*	*Fully funded*	*£1m-£10m*	*Completed*	*Tbc*	*Overall NO_2 emissions reduction*	*Completed in June 2022, with all 88 vehicles successfully retrofitted.*	
BATH CAP 4	*Financial Assistance Scheme*	*Vehicle Fleet Efficiency*	*Other*	*2020*	*2021*	*Bath and North East Somerset Council*	*Joint Air Quality Unit CAZ Clean Air Fund*	*Partially funded.*	*£1m-£10m*	*Completed*	*Tbc*	*Measured annual average concentrations of NO_2. Number of vehicles registered for the scheme. Number of vehicles fitted with telematics. Number of vehicles upgraded.*	*947 vehicles upgraded by the end of December 2023 (22 buses/coaches, 2 minibuses, 32 HGVs, 781 LGVs and 110 taxis/PHVs). This scheme is now complete with all funding allocated.*	*Economic conditions and business solvency. Private vehicle and campervans difficult to replace and often low number of journeys in zone to justify change.*
BATH CAP 5	*E-cargo bike distribution measure. Previously known as: 'Support and facilities for alternative delivery and servicing options for businesses'*	*Freight and Delivery Management*	*Delivery and Service Plans*	*2021*	*2022*	*Bath and North East Somerset Council*	*Joint Air Quality Unit CAZ Clean Air Fund*	*Fully funded.*	*£500k-£1m*	*Aborted*	*Tbc*	*Number of deliveries made by e-cargo bikes – new journeys and those formerly by other couriers or methods.*	*Scheme was aborted due to low uptake rates; the courier delivery market remains competitive and evolving. Other E-cargo projects are planned locally and are to be delivered by WECA.*	*Delivery and Service Plans aborted and replaced with only/last mile.*

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BATH CAP 6	*Sustainable Travel and Transport Team*	*Promoting Low Emission Transport / Promoting Travel Alternatives*	*Other*	*2020*	*2025*	*Bath and North East Somerset Council*	*Joint Air Quality Unit CAZ Clean Air Fund*	*Fully funded.*	*£500k-£1m*	*Completed*	*Tbc*	*Number of vehicle operators advised. KPI for Bath CAP 4*	*Approximately 2000 people spoken to by the end of December 2022, with an additional 100 online questionnaires completed for the second phase of the Financial Assistance Scheme (FAS). The FAS has now closed with all funding allocated.*	*Difficult to measure impact. Not as important as Bath CAP 4.*
BATH CAP 7	Weight restriction enforcement	Traffic Management	Other	2021	2025	Bath and North East Somerset Council	Joint Air Quality Unit CAZ Clean Air Fund	Fully funded.	£10-£50k	Implementation	Tbc	Number of vehicles exceeding weight limit before and after.	A webform to report allegations of breaches of vehicle weight restrictions was launched in 2022. Officers within Trading Standards are responding to complaints and carrying out proactive monitoring of roads carrying weight restriction limits. To date, 25 cases of weight restriction contravention have been reported, with an additional 72 cases of weight restriction contraventions reported on Cleveland Bridge.	EXPECTED LOW EFFECTIVENESS. Some delay due to emerging moving traffic offences legislation.
BATH CAP 8	Anti-idling education and enforcement.	Traffic Management	Anti-idling enforcement.	2021	2025	Bath and North East Somerset Council	Joint Air Quality Unit CAZ Clean Air Fund	Fully funded.	£10-£50k	Implementation	Not known	Number of signs erected.	Following on from some local trials, the 'Kick the Habit' campaign was developed and launched in 2022. Throughout 2024, we have re-engaged with schools in the authority about the campaign. We continue to engage with members of the public contacting us about areas where engine idling happens frequently and where possible contact the vehicle owner directly. As a result, we have generated a report it forms so members of the public can quickly report incidents of engine idling to us.	EXPECTED LOW EFFECTIVENESS. Difficult to measure impact. Engine and vehicle technology increasingly automatically switches engines off. Practically difficult to enforce and an educative approach is favoured
BATH CAP 9	Queen Square Urban Traffic Management Control	Traffic Management	UTC	2021	-	Bath and North East Somerset Council	Joint Air Quality Unit CAZ Clean Air Fund	Fully funded.	£500k - £1m	Implementation	4µg/m^3	Gay St NO_2	The UTMC at Gay Street was reinstated following the full reopening of Cleveland Bridge in October 2022. Throughout 2024, concentrations of NO_2 did not exceed the objective.	EXPECTED HIGH EFFECTIVENESS. Part and full closure of Cleveland Bridge has impacted the operation.
BATH 1	*Bath Transport Package*	*Traffic Management*	*Other*	*2015*	*Substantially Complete.*	*Bath and North East Somerset Council*	*DfT*	*Partially funded.*	*£1m - £10m*	*Completed*	*Not known*	*Park & Ride (P&R) bus patronage and vehicles using the P&R*	*890 additional P&R spaces between 2012 and 2015. Patronage at the 3 P&R sites overall grew by 16% between 2008/09-2016/17.* *4 EV charging sockets installed at each P&R site.* *Bus infrastructure works included: Raised pavements at 375 stops to ease access on and off buses; 169 Real Time Passenger Information displays; Replacement of existing shelters and the addition of new bus shelters.* *There are live VMS, 7 on the edge of the city and 6 in the City Centre for parking info and P&R promotion.* *Extension of 10am to 6pm traffic restrictions in Stall Street and Lower Borough Walls.* *Seven Dials shared space and cycle scheme. Closure of Saw Close car park (22 spaces).*	

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BATH 2	Cleveland Bridge area restrictions. (Originally: Cleveland Bridge area restrictions feasibility study [& Low Emission Zone Feasibility Study])	Traffic Management	Strategic highway improvements, congestion management and traffic reduction.	2011 and new weight restrictions 2020	2022	Local Authority Traffic Management and Network	Department for Transport	Partially funded.	£1m - £10m	Implementation/ completed	n/a	Measured NO_2 levels.	Cleveland Bridge repairs started in June 2021, with the condition of the bridge being much worse than previously identified. Traffic signal shuttle working with width restriction remained in place until October 2022. The bridge fully reopened in October 2022 subject to an 18-tonne weight restriction. This remains in place into 2025. The condition of the bridge is being monitored, the results of which will determine a review of the associated 18-tonne weight restriction. Air quality at locations within the vicinity of the bridge will continue to be monitored.	EXPECTED MEDIUM EFFECTIVENESS.2020 works were delayed due to Covid-19.
BATH 3	*Low Carbon Bus Trial (CIVITAS 1.3)*	*Vehicle Fleet Efficiency*	*Promoting Low Emission Public Transport*	*2010*	*Complete.*	*Local Authority Environmental Health, Local Authority Transport Dept.*	*Local Authority, Funding: Defra Air Quality Grant*	*Partially funded.*	*£100k - £1m*	*Completed*	*0.2 µg/m^3*	*Fuel usage / costs.*	*Complete. As a result, 8 hybrid electric buses were in operation for 10 years on park and ride services. Now superseded by Bath CAP 3 (CAZ retrofitting).*	*39% improved fuel economy (mpg). 28% fuel saving (l/100km). Overall operating cost increase of £0.03/km (but due in part to prototype status). NO_x comparison unavailable.*
BATH 4	*Urban Freight Transhipment (CIVITAS 7.2)*	*Freight and Delivery Management*	*Freight Consolidation Centre*	*2011*	*Complete (funding ceased).*	*Bath and North East Somerset Council, DHL, Bristol City Council and retail outlets in Bath*	*Local Authority, Funding and CIVITAS (EU)*	*Partially funded.*	*£100k - £1m*	*Aborted*	*Reduced vehicle emissions*	*Number of deliveries transferred from LGV / HGV to E-cargo bike. Number of participating businesses. NOx emissions*	*See Bath CAP 5 and Bath 18: E-Cargo Bike last-mile delivery service funding was provided in 2019. Pilot scheme to subsidise delivery costs for businesses.*	*High level of subsidy required and no funding available – replaced with new E-cargo bike last-mile delivery (see Bath 18 below)*
BATH 5	*Improved Enforcement of TROs (CIVITAS 3.4 - Demand Management Strategies)*	*Freight and Delivery Management*	*Route Management Plans/ Strategic routing strategy for HGV's*	*2010*	*Complete.*	*Bath and North East Somerset Council*	*Bath and North East Somerset Council*	*Fully funded.*	*£10k – 50k*	*Completed*	*n/a*	*HGV traffic flows. NO_2 levels.*	*See Bath CAP 7*	*The trial indicated that identifying breaches of the 7.5 tonne weight limit and informally contacting the relevant operators led to a reduction in HGV volumes. For details see 2016 ASR.*
BATH 6	*Bicycle Hire including Electric Bikes (CIVITAS 6.4 and 6.5)*	*Transport Planning and Infrastructure*	*Public Cycle Hire Scheme*	*2015*	*2018*	*Bath and North East Somerset Council and 'Next Bike'*	*Local Sustainable Transport Fund and Access Fund*	*Fully funded.*	*£100k - £1m*	*Completed/ Aborted*	*Not known.*	*Vehicle mix (% bikes). No. of hires.*	*Superseded by e-scooter hire – see BATH 19. New cycle hire facility launched 2014 with PAYG at 9 stations across Bath. 5 further hire stations added to total 14 in 2016. Contract expired in 2019 and a new electric cycle hire scheme was tendered in 2019 but no contract was awarded. The focus has now shifted to an e-scooter trial.*	*Over 15,000 hires between June 2014 and June 2016. 877 users per month. Electric cycle hire scheme was tendered in 2019. Original hire scheme cancelled because non-profitable and e-bikes more suitable.*
BATH 7	Electric Vehicle Charging Infrastructure (EVI)	Promoting Low Emission Transport	EV charging	2014	2027	West of England Combined Authority, OZEV, Revive Network, LEVI tender winning CPO.	Local Sustainable Transport Fund, Access Fund, OZEV GULW, ULEV Taxi Infrastructure and WECA Green Recovery Fund, DfT Local Electric Vehicle Infrastructure (LEVI) fund.	Fully funded	£1m - £10m	Implementation	Not known	Number of charging devices per 100k population (DfT metric), number of charge points, number of EVs registered, number of charger events, number of Revive network users	The WECA Green Recovery Fund will deliver 13 EV charge points in 2025/2026 followed by a further 10 in 2026/2027. LEVI funding has been received, and a tender will go live in 2025 to appoint a charge point operator. These charge points will be installed predominately within communities on-street.	EXPECTED MEDIUM EFFECTIVENESS. GULW project delayed by rapid charger global supply chain problems. This problem has been exacerbated by some major suppliers exiting the UK EV charging market.
BATH 8	*Improve Building Emission Assessments*	*Policy Guidance and Development Control*	*Other policy*	*n/a*	*n/a*	*Bath and North East Somerset Council*	*n/a*	*n/a*	*n/a*	*Aborted*	*n/a*	*Number of air quality assessments including spreadsheet tool.*	*No progress*	*Lack of resource and low priority due to low %age source apportionment.*

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BATH 9	*ECO Stars Vehicle Recognition Scheme*	*Vehicle Fleet Efficiency*	*Fleet efficiency and recognition schemes*	*n/a*	*n/a*	*Bath and North East Somerset Council*	*n/a*	*n/a*	*n/a*	*Aborted*	*n/a*	*Number of haulage operators & vehicles audited. HGV vehicle mix survey (number plate and engine standard).*	*No progress*	*Low priority due to limited reported effectiveness and lack of resource.*
BATH 10	Review Council and Emergency Service Vehicle Fleet	Vehicle Fleet Efficiency	Fleet efficiency and recognition schemes	2016	2021	Bath and North East Somerset Council	OZEV Go Ultra Low West Scheme	n/a	n/a	Implementation/ completed	Not known	Euro engine standard survey	Review undertaken by Energy Saving Trust for successful GULW Bid. The Council pledged to change 25% of light duty fleet to ULEVs by 2021. At the beginning of 2025, 52% of the light duty fleet (47 vehicles) are electric. Additionally, two of the first electric mowers have gone into service with the ground's maintenance team at Haycombe. All large lorries that are part of the fleet are Euro 6 or meet equivalent standards.	EXPECTED MEDIUM EFFECTIVENESS. MoU signed by emergency services as a roadmap for meeting Euro 6 compliance for all but cars by 2021. Council fleet also compliant.
BATH 11	*Monitoring of Bus Fleet Quality*	*Vehicle Fleet Efficiency*	*Fleet efficiency and recognition schemes*	*AQAP from 2011 & CAP from 2017*	*2021*	*Bath and North East Somerset Council and bus operators*	*CAP Clean Air Fund*	*n/a*	*n/a*	*Completed*	*Critical measure in delivering compliance according to Full Business Case for Clean Air Zone*	*Euro engine standard survey. Number of emissions abatement retrofit / original design.*	*Superseded by Bath CAP3. OZEV Low Emission Bus Scheme bid unsuccessful. Pre-CVRAS Clean Bus Technology Fund relatively ineffective with some retrofitting unable to meet certification requirements. The Clean Air Fund bid as part of the CAP and CBTF extension means that theoretically all public bus services will be upgraded to CVRAS Euro VI by the end of 2020. Additionally, WECA will ensure that as part of its local bus service contract, Euro 6 buses are used on all contracted routes by 31st December 2023. See 'Bath CAP 3.*	*Superseded by Bath CAP3. Full audit of fleet planned as part of CAZ proposals. Bus upgrade programme agreed with operators most retrofits completed at time of writing.*
BATH 12	*Transport & Travel Information*	*Public Information*	*Other*	*2014*	*Complete.*	*Bath and North East Somerset Council*	*DfT*	*n/a*	*n/a*	*Completed*	*Not known*	*Number of signs. Contribute to achieving a target increase in bus passenger journeys per annum of 3% on a 2001/2 base level of 9.184m.*	*248 real time bus passenger information displays installed across B&NES. Overall bus passenger satisfaction in 2016 stood at 41% very satisfied and 47% satisfied, in 2016.*	*Bus checker app implemented as part of LSTF West of England project and available via the Travel West website.*
BATH 13	*Alternative Exhaust Emissions Abatement*	*Vehicle Fleet Efficiency*	*Fleet efficiency and recognition schemes*	*2019 (as part of CAP)*	*Nov 2020*	*Bath and North East Somerset Council*	*CAP Clean Air Fund 2020 (subject to award)*	*n/a*	*n/a*	*Completed*	*Not known*	*Number of retrofitted HGVs. Number of buses retrofitted.*	*Superseded by BATH CAP 3. Clean Bus Technology Fund used for retrofitting of 35 buses across the West of England to Euro 5/6. Also, Clean Vehicle Technology Fund award (joint bid) enabled Thermal Management Technology (TMT) to 42 buses across the West of England fitted as standard with Selective Catalytic Reduction (SCR). CAP CAF bid for 117 fully funded vehicle retrofits, 13 repowers and 26 CBTF Extension funded retrofits.*	*Availability of CVRAS (Clean Vehicle Retrofit Accreditation Scheme) accredited retrofit solutions.*
BATH 14	*Rossiter Road Traffic Management Measures*	*Traffic Management*	*Strategic highway improvements*	*2015*	*Complete.*	*Bath and North East Somerset Council*	*DfT / B&NES Highways budget*	*n/a*	*n/a*	*Completed*	*Moving traffic from receptors.*	*Traffic flows. NO_2 levels.*	*Completed 2015 and annual mean NO_2 levels reduced from 49 in 2014 to 28 µg/m^3 in 2016 on Widcombe Parade.*	

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BATH 15	*Promotional Website*	*Public Information*	*Via the internet*	*2016*	*2022*	*Bath and North East Somerset Council*	*Initially DEFRA AQ Grant, then B&NES budget and Clean Air Plan Implementation Fund*	*Fully funded.*	*£6,5k original budget.*	*Completed*	*Not known*	*Number of hits*	*Power BI visualisation with an interactive map showing annual data from 2014 to 2023 remains operational. A live feed from the automatic analyser sites is available to view on the UK-AIR website. The locations of the analysers can be viewed on an interactive map, where data is also available to download.*	
BATH 16	B&NES Corporate Travel Plan	Vehicle Fleet Efficiency	Fleet efficiency and recognition schemes	2015	2020	Bath and North East Somerset Council	Council budget	Fully funded.	n/a	Implementation	Not known	Business mileage. Modal shift (e.g., number of employees transferred from private car to bike, walking or public transport bus)	There continues to be a reduction in business miles in 2024/2025 when compared to the baseline and 2019/2020 (pre-covid). There was a slight uptick in trend when compared to 2023/2024, however, this is expected as the Council continue to deliver services and transition to blended working. It is however anticipated that the Council's car pool fleet will be fully electric/hybrid by August 2025.	MEDIUM EFFECTIVNESS. 1 car is ringfenced for the Peasedown communities HUB.
BATH 17	Clean Air Schools Kit	Promoting Travel Alternatives	School Travel Plans / Other	2019	2025 (anticipated lifecycle)	Local Authority and Primary Schools	B&NES budget	Fully funded.	n/a	Implementation	Not known	School uptake numbers.	Launched in 2019 and being used by several schools, the toolkit was refreshed in 2022 and 2024. The toolkit has been made available to all schools across B&NES and has been further promoted through the school's newsletter on a regular basis and Hub website, so it is easier to navigate.	LOW EFFECTIVENESS. Despite low immediate effect, a necessary component part of a suite of measures to nudge long term change.
Bath 18	*e-cargo and ULEV delivery scheme*	*Freight and Delivery Management*	*Freight Partnerships for city centre deliveries*	*2020*	*2025*	*Bath and North East Somerset Council and WeGo*	*OZEV GULW SCHEME*	*Partially funded*	*£100k - £500k*	*Aborted*	*tbc*	*Number of deliveries transferred from previous method*	*In February 2021 the revised bid was approved resulting in £500,000 to begin the project. Existing pilot terminated in January 2022, enabling the subsidised delivery trial to commence. Measure now taken forward as 'BATH CAP 5' above, however, this was aborted in 2022 due to low uptake.*	*Real focus on e-cargo delivery in terms of funding. To subsidise delivery to discourage regular courier. Big impact for some businesses.*
BATH 19	Future Transport Zone new technology trials (MaaS & e-scooters)	Transport Planning and Infrastructure	Other	2020	2023	WECA; DfT Bath and North East Somerset Council; and VOI	WECA & DfT	Partially funded	£1m - £10m	Implementation	Not known	Mobility as a Service & e-scooter technology uptake numbers	No update for 2024.	EXPECTED HIGH EFFECTIVENESS. Experimental. Short-trip replacement only. Safety concerns and difficulty enforcing against use on pedestrian only footways. The use of privately-owned e-scooters on public land remains illegal. Expansion of the scheme is dependent on Bristol and South Gloucester operations and agreeing for B&NES to expand.
BATH 21	*Public Realm and Movement*	*Traffic Management*	*Re-prioritising road space away from cars*	*2020*	*2021*	*WECA and Bath and North East Somerset Council*	*WECA and Bath and North East Somerset Council*	*Fully funded.*	*tbc*	*Completed*	*tbc*	*Active travel count on road space and vehicular ATC*	*Experimental access restrictions in Kingsmead Square, stopping motor vehicles between 11am and midnight, were in place throughout 2022. Following a public consultation, this Experimental Traffic Regulation Order was made was permanent in 2023.*	

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
BATH 22	*Clean Air Day*	*Public Information*	*Leaflets, TV, internet, etc.*	*2018*	*Annual ongoing*	*Bath and North East Somerset Council and Global Action Plan*	*Bath and North East Somerset Council, and Global Action Plan*	*Not funded*	*tbc*	*Aborted*	*Not known*	*Number of pledges and interactions*	*This was aborted in 2020 due to Covid-19 lockdown.*	*Impossible to measure effectiveness.*
BATH 23	Liveable Neighbourhoods	Traffic Management	Re-prioritising road space away from cars	2020	tbc	West of England Mayoral Combined Authority (MCA) and Bath and North East Somerset Council	CRSTS and Bath and North East Somerset Council (Transport Improvement Programme & Council Capital Programme)	Fully funded	£1m - £10m	Planning/ implementation	tbc	Active travel count on road space and vehicular ATC and/or ANPR data	In 2021, B&NES prioritised the development of 15 Liveable Neighbourhoods and throughout 2022, worked collaboratively with communities to identify existing issues and gather people's ideas for measures that could bring improvements to their area. 3 trial through-traffic restrictions were introduced in November 2022 and made permanent in 2024. Following an approval of an FBC, 4 more trial through-traffic restrictions are underway in 2024, and planning is underway to deliver further interventions.	EXPECTED HIGH EFFECTIVENESS Possible improvements in residential streets with potential worsening on main routes, although data so far is not showing any significant impacts.
BATH 24	*Electric-Brompton hire scheme*	*Transport Planning and Infrastructure*	*Public (e)Cycle Hire Scheme*	*2020*		*WECA and Bath and North East Somerset Council*	*WECA and Bath and North East Somerset Council*			*Aborted*	*tbc*	*Uptake number*	*Aborted*	
BATH 25	*Milsom St access restrictions*	*Traffic Management*	*Re-prioritising road space away from cars*	*2020*	*2021*	*Bath and North East Somerset Council*	*Bath and North East Somerset Council*	*Fully funded*	*£10k - £50k*	*Completed*	*tbc*	*Pedestrian footfall.*	*Milsom Street was under an experimental traffic order from July 2020 that saw only buses being allowed to use the road from the junction of George Street and Quiet Street between 10am and 6pm. Restrictions were introduced as part of various measures across Bath to help with social distancing, whilst keeping pedestrians and cyclists safe in the city. However. Following a consultation, this experimental TRO was made permanent in 2023.*	
BATH 26	Supplementary Planning Document	Policy Guidance and Development Control	Air Quality Planning and Policy Guidance	2024	2026	Bath and North East Somerset Council	B&NES budget	Not funded	<10k	Planning	tbc	tbc		
BATH 27	Bath City Centre Sustainable Transport Corridor	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	2030	West of England Mayoral Combined Authority (MCA) and Bath and North East Somerset Council	CRSTS and Bath and North East Somerset Council (Transport Improvement Programme & Council Capital Programme)	Fully funded.	£1m - £10m	Planning	tbc	tbc	This project is split into 2 phases, the final business case is being developed for phase 1 and the outline business case for phase 2.	
BATH 28	Scholar's Way Active Travel Route	Transport Planning and Infrastructure	Other	2024	2026	Bath and North East Somerset Council	CAZ reinvestment reserve	Fully funded.	£1m - £10m	Planning	tbc	tbc		
BATH 29	School Streets	Traffic Management	Other	2024	2026	Bath and North East Somerset Council	CAZ reinvestment reserve	Fully funded	£100k- £500k	Planning	tbc	tbc		Recently contacted all schools in B&NES to request expressions of interest. Schemes will be monitored to understand the impact of traffic, active travel and air quality.
BATH 30	Smoke Control Area Review	Promoting Low Emission Plant	Other policy	2025	2026	Bath and North East Somerset Council	B&NES budget	Not funded	<10k	Planning	tbc	tbc		

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
BATH 31	Council corporate renewables and decarbonisation	Promoting Low Emission Plant	Shift to installations using low emission fuels for stationary and mobile sources	2024	2030	Bath and North East Somerset Council	tbc	tbc	tbc	Implementation	tbc	tbc	1.67MW installed of a potential rooftop capacity of c.2.5MW and 2 care homes removed gas boilers and replaced with Air Source Heat Pumps – reduces local NOx emissions. Same template to be followed for Council corporate buildings.	Council corporate renewables and decarbonisation including installation of rooftop solar and heat pumps to enable reduction in carbon dioxide emissions and NOx emissions locally
BATH 32	Domestic and business retrofitting projects	Promoting Low Emission Plant	Shift to installations using low emission fuels for stationary and mobile sources	2024	2030	Bath and North East Somerset Council and MCA	tbc	tbc	tbc	Implementation	tbc	No of properties with solar panels or heat pumps or new insulation	Currently in the installation phase of 2nd round of solar together installations, with over 700 registrations. 70 applications for home upgrade grant.	Domestic and business retrofitting projects relating to increasing uptake of rooftop solar; heat pump installation and energy efficiency measures
BATH 33	Awareness raising commercial vans	Promoting travel alternatives	other	2025	2030	Bath and North East Somerset Council	tbc	Not funded	tbc	Planning	Not known	tbc		
BATH 34	Clean Air Schools Kit – secondary schools	Promoting Travel Alternatives	Other	2019	2025 (anticipated lifecycle)	Local Authority and Secondary Schools	B&NES budget	Not funded	<10k	Planning	Not known	School uptake numbers.		
BATH 35	Bristol to Bath Bus corridor	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	2030	West of England Mayoral Combined Authority (MCA) and Bath and North East Somerset Council	CRSTS and Bath and North East Somerset Council (Transport Improvement Programme & Council Capital Programme)	Fully funded	tbc	Planning	N/A	tbc		
BATH 36	Bath Sustainable Walking and Cycling Links	Traffic Management	Strategic highway improvements, Re-prioritising road space away from cars, including Access management, Selective vehicle priority, bus priority, high vehicle occupancy lane	2026	2026	MCA B&NES	CRSTS	Fully funded.	tbc	Planning	N/A	tbc	Outline design	Timeframes of CRSTS – must be delivered by March 2027
BATH 37	Bath Quays Links	Traffic Management	Strategic highway improvements, re-prioritising road space away from cars, including Access management, Selective vehicle priority, bus priority, high vehicle occupancy lane	2026	2026	MCA B&NES	CRSTS	Fully funded.	tbc	Planning	N/A	tbc	Detailed design	Timeframes of CRSTS – must be delivered by March 2027
BATH 38	Bath Car Club	Alternatives to private vehicle use	Car Clubs	2026	2026	B&NES	tbc	tbc	tbc	Planning	N/A	tbc		
TC1	Determine feasibility of vehicle width restriction through Temple Cloud	Traffic Management	Other	2027	Not known	B&NES Highways	Not funded	Not funded	£50k-£100k	Further assessment required before this can be established.	18 µg/m^3 at worst case receptor if the study recommends that we go forward with the width restriction	Reduction in nitrogen dioxide concentrations	Officer advice is that we could undertake further assessment including obtaining origin and destination data across a wide area and complete further modelling across a wider area. However, since a width restriction is unlikely to be feasible this not being pursued further.	Legal advice suggests that a width restriction without support from neighbouring authorities and other statutory consultees would be problematic. The A37 is part of the national Primary Route Network and therefore a width restriction is unlikely to be deliverable.

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
TC2	*Undertake significant 'cutting back' of the high hedge/vegetation on the eastern side of the narrow section to allow more effective use of the existing carriageway by HGVs.*	*Traffic Management*	*Other*	*2020*	*2021*	*B&NES Public Protection*	*B&NES Public Protection*	*Fully funded*	*<£10k*	*Completed*	*3 µg/m^3 at worst case receptor*	*Reduction in nitrogen dioxide concentrations*	*Hedges and some Ash trees have been cut back just before the line of the road. Some cut back had been done previously for safety reasons.*	*Some of the residents were initially against it, of fear from the garden wall being struck by larger vehicles and by the walls falling apart after the removal of vegetation. But with assistance of our specialists, we managed to reverse fears.*
TC 3	New public footpath bypass	Promoting Travel Alternatives	Promotion of walking	2022	2026	B&NES Highways, Public Rights of Way	Been identified for 2021 Capital Program	Fully funded	£10k-£100k	Planning	No reduction in concentration in Nitrogen Dioxide, however there would be an exposure reduction for residents.	Public footpath link built	Change the PROW closer to the edge of the field	LOW EFFECTIVENESS. There are some legal constraints with the owner of the field and owners of neighbouring properties impeding the progression of the work
TC 4	Advice and information for residents	Public Information	Via the Internet, via other mechanisms	2022	2028	B&NES Public Protection	Local Authority (Public Health)	Fully funded	<£10k	Implementation	No reduction in concentration in Nitrogen Dioxide, however there would be an exposure reduction for residents.	Number of hits on website, number of people engaged with	Throughout 2022, work commenced on collating advice and distributing a leaflet to residents in areas of higher air pollution. The leaflets were delivered by hand which allowed opportunistic conversations positively framed around what actions could realistically be taken to reduce exposure to poorer air quality. These measures included keeping road facing windows closed and maintaining protective vegetation near the road to act as a protective barrier.	Limited resources and lowering of nitrogen dioxide concentrations resulted in it being a low priority.
TC 5	School travel plan (Modeshift STARS)	Promoting Travel Alternatives	School Travel Plans	2020	2028	B&NES Sustainable Travel	Local Authority (Active Travel)	Fully funded	<£10k	Implementation	No reduction in concentrations in Nitrogen Dioxide, however there would be an exposure reduction for residents	Hand's up data	School is signed up for Modeshift STARS	LOW EFFECTIVENESS. Despite low immediate effect, a necessary component part of a suite of measures to nudge long term change.
TC 6	Clean Air Schools Toolkit	Public Information	Other (Education)	2020	2028	B&NES Public Health	Local Authority (Public Health)	Fully funded	<£10k	Implementation	No reduction in concentrations, exposure reduction, but would also deliver emission reduction through anti idling scheme etc.	School uptake numbers	Introduced in 2020 and being used by several schools, the toolkit was refreshed in 2022 and 2024. It was utilised for Clean Air Day by at least 2 focussed schools as part of a community engagement project. The toolkit has been made available to all schools across B&NES and has been further promoted through the school's newsletter and Hub website, so it is easier to navigate.	LOW EFFECTIVENESS. Despite low immediate effect, a necessary component part of a suite of measures to nudge long term change.
TC 7	Influence planning decisions for any development within 200 metres of an AQMA boundary	Policy Guidance and Development Control	Air Quality Planning and Policy Guidance	2022	2028	B&NES Planning, Public Protection	Local Authority (Planning, Public Protection)	Fully funded	<£10k	Implementation	No reduction in concentration in Nitrogen Dioxide, however there would be an exposure reduction for residents.	Number of decisions consulted on	On going	
TC 8	Targeted information campaign for the most vulnerable groups	Public Information	Via other mechanisms	2022	2028	B&NES Public Health	Local Authority (Public Health)	Fully funded	<£10k	Implementation	No reduction in concentration in Nitrogen Dioxide, however there would be an exposure reduction for residents.	Uptake of information by organisations and individuals	A bespoke 0-5 years information leaflet was made available to GP's, pharmacies, health visitors, with some information leaflets being delivered to care homes and local businesses. Patient waiting room screen slide set with primary care staff training slides.	LOW EFFECTIVENESS

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
TC 9	Investigate the potential technology and its feasibility in air pollution cleaning	Technology	Other		n/a	B&NES Public Protection	Local Authority (Public Protection)	n/a	<£10k	Research	Further research required	Reduction in concentration of nitrogen dioxide		Further work needs to be undertaken to establish what technology exists and whether it would be suitable for this setting.
FG 1	Advice and information for residents	Public Information	Via the Internet, via other mechanisms	2022	2028	B&NES Public Protection	Local Authority (Public Health)	Fully funded	<£10k	Implementation	No reduction in concentration in Nitrogen Dioxide, however there would be an exposure reduction for residents.	Number of hits on website, number of people engaged with	Throughout 2022, work commenced on collating advice and distributing a leaflet to residents in areas of higher air pollution. The leaflets were delivered by hand which allowed opportunistic conversations positively framed around what actions could realistically be taken to reduce exposure to poorer air quality. These measures included keeping road facing windows closed and maintaining protective vegetation near the road to act as a protective barrier.	LOW EFFECTIVENESS. Limited resources and lowering of nitrogen dioxide concentrations resulted in it being a low priority.
FG 2	School travel plan (Modeshift STARS)	Promoting Travel Alternatives	School Travel Plans	2022	2028	B&NES Sustainable Travel	Local Authority (Active Travel)	Fully funded	<£10k	Implementation	No reduction in concentrations in Nitrogen Dioxide, however there would be an exposure reduction for residents	Hand's up data	School is signed up for Modeshift STARS	LOW EFFECTIVENESS. Despite low immediate effect, a necessary component part of a suite of measures to nudge long term change.
FG 3	Clean Air Schools Toolkit	Public Information	Other (Education)	2022	2028	B&NES Public Health	Local Authority (Public Health)	Fully funded	<£10k	Implementation	No reduction in concentrations, exposure reduction, but would also deliver emission reduction through anti idling scheme etc.	School uptake numbers	Introduced in 2020 and being used by several schools, the toolkit was refreshed in 2022 and 2024. It was utilised for Clean Air Day by at least 2 focussed schools as part of a community engagement project. The toolkit has been made available to all schools across B&NES and has been further promoted through the school's newsletter and Hub website, so it is easier to navigate.	LOW EFFECTIVENESS. Despite low immediate effect, a necessary component part of a suite of measures to nudge long term change.
FG 4	Influence planning decisions for any development within 200 metres of an AQMA boundary	Policy Guidance and Development Control	Air Quality Planning and Policy Guidance	2022	2028	B&NES Planning, Public Protection	Local Authority (Planning, Public Protection)	Fully funded	<£10k	Implementation	No reduction in concentration in Nitrogen Dioxide, however there would be an exposure reduction for residents.	Number of decisions consulted on	On going Applications consulted on included the development of the Somer Valley Enterprise Zone (SVEZ).	
FG 5	Targeted information campaign for the most vulnerable groups	Public Information	Via other mechanisms	2022	2028	B&NES Public Health	Local Authority (Public Health)	Fully funded	<£10k	Implementation	No reduction in concentration in Nitrogen Dioxide, however there would be an exposure reduction for residents.	Uptake of information by organisations and individuals	A bespoke 0-5 years information leaflet was made available to GP's, pharmacies, health visitors, with some information leaflets being delivered to care homes and local businesses. Patient waiting room screen slide set with primary care staff training slides.	LOW EFFECTIVENESS
FG 6	If necessary: Construction of an additional lane on the A37 southbound approach to the A37/A362 signals utilising the existing verge and possibly the existing footway or hatchway if required.	Traffic Management	Strategic highway improvements	Review, if necessary, upon annual completion of Annual Status Report	n/a	B&NES	n/a	n/a	£1 million - £10 million	On Hold	Reductions in concentrations predicted of up to 8.4µg/m^3		Concentration of NO_2 currently under 40µg/m^3 so it is not needed	Currently it is not necessary.
FG 7	*Tree planting along the right-hand side of the A362 approaching the A37*	*Transport Planning and Infrastructure*	*other*	*2022*	*2022*	*B&NES Neighbourhood Environmental Services*	*Trees for Climate funding*	*Fully funded*	*<£10k*	*Completed*	*No reduction in concentration in Nitrogen Dioxide, however there would be an exposure reduction for residents.*	*Number of trees planted, reduction of noise and PM*	*Trees have been planted in January 2022*	

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

As detailed in Policy Guidance LAQM.PG22 (Chapter 8) and the Air Quality Strategy[8], local authorities are expected to work towards reducing emissions and/or concentrations of fine particulate matter ($PM_{2.5}$). There is clear evidence that $PM_{2.5}$ (particulate matter smaller 2.5 micrometres) has a significant impact on human health, including premature mortality, allergic reactions, and cardiovascular diseases.

The Office for Health Improvement & Disparities (OHID) 'Public Health Outcomes Framework' indicator 'D01 Fraction of mortality attributable to particulate air pollution[9] (particulates under 2.5 micrometres in diameter as opposed to nitrogen dioxide)' for Bath & North East Somerset Council in 2023 (the most recent year available) is 4.4%. This is similar to the values across the South West region of 4.3% and 5.2% nationally.

In 2015 Bath & North East Somerset Council started to monitor $PM_{2.5}$ at Chelsea House, London Road, Bath (CM4), this a roadside site set 15 m back from the road. Monitoring from this location shows concentrations of $PM_{2.5}$ remaining constant over the last 3 years. Due to its small size $PM_{2.5}$ can travel large distances in the air. 40-50% of $PM_{2.5}$ levels can be from sources outside the local authority boundary (LAQM.TG22)[10].

Bath & North East Somerset Council is working on a Clean Air Plan which introduced a Clean Air Zone in 2021 to tackle the worst polluting vehicles. These measures will also address $PM_{2.5}$ including BATH CAP 2 (Charging Clean Air Zone), BATH CAP 3 (Retrofitting Buses) and BATH CAP 8 (anti-idling).

Within Bath and North East Somerset, the city of Bath is a Smoke Control Area. Details of this area can be found at Bath & North East Somerset Council Smoke Control Website. Within this area the Council works to ensure that only authorised fuels or appliances are used.

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

[9] OHID Health Outcomes Framework

[10] Local Air Quality Management - Technical Guidance (TG22), August 2022

Under the Environment Act 2021, the Council has introduced new enforcement provisions that apply to buildings that emit smoke from a chimney within Bath's Smoke Control Area, meaning it is illegal to burn smoky fuels in an open fireplace or in a non-approved wood burning or multi-fuel stove. These new enforcement provisions have introduced a fine of £175 for a first offence, escalating to £300 for each subsequent offence. More information can be found on at Bath & North East Somerset Council Indoor Fires and Wood Burning Website.

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

This section sets out the monitoring undertaken within 2024 by Bath & North East Somerset 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

Bath & North East Somerset Council undertook automatic (continuous) monitoring at 3 sites during 2024, including 3 NO_2, 2 PM_{10} and 1 $PM_{2.5}$ analysers. Table A.1 in Appendix A shows the details of the automatic monitoring sites.

Monitoring ceased at the Guildhall in February 2024 as concentrations were consistently below 25 µg/m^3.

The UK Air Quality webpage presents automatic monitoring results for Bath & North East Somerset Council automatic sites, with automatic monitoring results also available through the UK-Air website (Bath A4 Roadside (CM8)).

Local authorities do not have to report annually on the following pollutants: 1,3 butadiene, benzene, carbon monoxide and lead, unless local circumstances indicate there is a problem. Whilst we are fully compliant with the national air quality objective with respect to benzene, Bath & North East Somerset Council has a benzene monitor which is part of the national non-automatic hydrocarbon network located at the Bath A4 Roadside (CM8) site. Results from this site are available at UK-AIR Non Automatic Hydrocarbon Website listed as Bath A4 Roadside and details are also given in Appendix F.

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

3.1.2 Non-Automatic Monitoring Sites

Bath & North East Somerset Council undertook non- automatic (i.e. passive) monitoring of NO_2 at 167 sites during 2024. Table A.2 in Appendix A presents the details of the non-automatic sites.

9 new sites were introduced in 2024, 1 site in Radstock to confirm the extent of a possible hotspot, 3 sites were for Liveable Neighbourhood projects, 4 sites around Keynsham to obtain some baseline data prior to possible development and a further monitoring site to respond to a public request. The new monitoring sites were:

- Radstock
  - DT317 – Radstock – Combe End
- Keynsham
  - DT318 – Keynsham – Bypass North
  - DT319 – Keynsham – Bypass South
  - DT323 – Keynsham – Hick's Gate A4
  - DT324 – Keynsham – Hick's Gate A4174
- Liveable Neighbourhoods
  - DT320 – Bath – Cleveland Walk
  - DT321 – Bath – Sion Road
  - DT322 – Bath – Winifred's Lane
- Other sites
  - DT316 – Bath – Midland Road

In 2024 24 sites were removed from the network and a further 19 sites were reduced to single tubes from triplicates as concentrations were consistently well below the objective.

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.

An interactive map showing diffusion tube locations and monitoring trends is available at Bath & North East Somerset Council – Nitrogen dioxide Monitoring Data.

3.1.3 Indicative Monitoring Sites

During 2024 Bath & North East Somerset also carried out monitoring using 3 Zephyr samplers (Appendix F).

- Gay Street (Bath)
- Victoria Buildings (Bath)
- Pulteney Road (Bath)
- Anchor Road (Bath)
- High Street (Bathampton)
- Bath Hill (Keynsham)
- West Road (Midsomer Norton)

These samplers are indicative and monitor NO_2 using electrochemical sensors, PM_{10} and $PM_{2.5}$ using optical particle count sensors giving real-time results every 15 minutes. Results are shown in Appendix F.

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 (NO_2)

Table A.3 and Table A.4 in Appendix A compare the ratified and adjusted monitored NO_2 annual mean concentrations for the past five years with the air quality objective of 40 µg/m^3. Note that the concentration data presented represents the concentration at the location of the monitoring site, following the application of bias adjustment and annualisation, as required (i.e. the values are exclusive of any consideration to fall-off with distance adjustment).

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

Table A.5 in Appendix A compares the ratified continuous monitored NO_2 hourly mean concentrations for the past five years with the air quality objective of 200 µg/m^3, not to be exceeded more than 18 times per year.

Automatic Monitoring Data

The trend data shows that 2024 was not a peak year for NO_2, with monitoring results decreasing compared with 2023 at all sites (Table A.3 and Figure A.1, Appendix A). All continuous analyser monitoring results were below the annual average objective of 40 µg/m^3 and there were no exceedances of the 1-hour objective (18 exceedances allowed).

NO_2 reduced by an average of 12% compared to results in 2023; this is a greater reduction than the average 7% reduction in levels across the National AURN network.

Diffusion Tube Monitoring Data

The trends in diffusion tube monitoring since 2020 are shown in Table A.4 and Figure A.2-A.19 in Appendix A. Monitoring results of NO_2 in 2024 were lower than in 2023 by an average of 9% across the network, this is a larger decrease compared with the results across the AURN (7%). Results are showing a general downward trend. Some locations were slightly higher in 2024 than in 2023.

No monitoring sites were at or above 60 µg/m^3, indicating the 1-hour objective has not been exceeded. There are currently no plans to amend the AQMA to remove the 1-hour objective from the Bath AQMA or Temple Cloud AQMA.

Bath

Monitoring continued at 131 sites in Bath (Figure D.2-D.4 in Appendix D). The results from monitoring sites in Bath show that in 2024 the annual average objective was not exceeded in Bath (Figures A.2-A.14 in Appendix A).

There were no sites in Bath having levels which are between 36-40 µg/m^3.

There were a large number of sites which had concentrations below 30 µg/m^3 for at least two years, monitoring ceased at a 24 of these sites in April 2024 and 19 triplicate sites were reduced to single tubes in January 2024. Some sites below 30 µg/m^3 will remain for ongoing monitoring of the Clean Air Plan and Liveable Neighbourhood projects.

Bathampton

Monitoring continued along Bathampton High Street and on A36 in Bathampton (Figure D.5 in Appendix D). The results from 2024 show that levels in Bathampton were below 40 µg/m^3 (Figure A.15 in Appendix A) with concentrations decreasing. Monitoring will continue in Bathampton as part of the Clean Air Plan.

Batheaston

Monitoring continued along London Road West in Batheaston, on the A4 in Batheaston, and on the Toll Bridge linking Batheaston with Bathampton (Figure D.5 in Appendix D). The results from 2024 show that levels at all locations were below 40 µg/m^3 (Figure A.15 in Appendix A) and with concentrations decreasing, one site showed an increase but only had two months monitoring so could not be annualised. Monitoring will continue in Batheaston as part of the Clean Air Plan.

Farrington Gurney

In 2024 monitoring continued at 3 key locations in Farrington Gurney (Figure D.6 in Appendix D). The results in 2024 remained below the objective of 40 µg/m^3 with concentrations decreasing (Figure A.16 in Appendix A). Monitoring has remained below 36 µg/m^3 for five years (including two years which were affected by COVID restrictions).

A review of the area in Appendix G recommends revoking the Farrington Gurney AQMA.

Monitoring is continuing in Farrington Gurney.

Keynsham

In 2024 monitoring continued at 6 locations in Keynsham (Figure D.7 in Appendix D). A further 4 additional sites was added for a short period to obtain baseline data prior to possible development.

In 2024 the results show that all the monitoring locations were below 40 µg/m^3 with concentrations decreasing at all sites except Keynsham High Street which saw a slight increase (Figure A.17 in Appendix A).

The Keynsham AQMA was revoked[11] in June 2024 following 6 years of monitoring below 36 µg/m^3.

Old Mills

Monitoring in Old Mills was carried out 1 location close to a proposed development (Figure D.6 in Appendix D). The results from 2024 show that levels were below 40 µg/m^3 with concentrations decreasing (Figure A.16 in Appendix A).

[11] Revocation of Keynsham Air Quality Management Area

Radstock

Monitoring was carried out in Radstock at 3 locations (Figure D. 8 in Appendix D). The results from 2024 showed that all locations were below 40 µg/m^3. There also no sites with concentrations between 36-40 µg/m^3 (Figure A.16 in Appendix A). Monitoring continues in Radstock at one key location.

Saltford

In 2024 monitoring was carried out at 2 locations within Saltford (Figure D.9 in Appendix D). The results from 2024 show that levels at both locations were below 40 µg/m^3 with concentrations decreasing (Figure A.18 in Appendix A). Monitoring will continue at 2 sites in Saltford.

The Saltford AQMA was revoked[12] in June 2024 following seven years of monitoring below 36 µg/m^3.

Temple Cloud

In 2024 monitoring continued at 6 locations within Temple Cloud (Figure D.10 in Appendix D). The 2024 results show that concentrations are decreasing (Figure A.19 in Appendix A). All sites were below 40 µg/m^3 and there were also no sites with concentrations which are between 36-40 µg/m^3.

In 2024 all sites were below 60 µg/m^3, this indicates the 1-hour objective was not exceeded.

Monitoring continues in Temple Cloud.

Whitchurch

In 2024 monitoring was carried out at 4 locations in Whitchurch (Figure D.11 in Appendix D). The results from 2024 show that levels at all locations were below 40 µg/m^3 with decreasing concentrations (Figure A.18 in Appendix A). Monitoring will continue at 4 sites in Whitchurch.

[12] Revocation of Saltford Air Quality Management Area

3.2.2 Particulate Matter (PM_{10})

Table A.6 in Appendix A: Monitoring Results compares the ratified and adjusted monitored PM_{10} annual mean concentrations for the past five years with the air quality objective of 40µg/m^3.

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

Monitoring for PM_{10} has been carried out at 2 sites during 2024 using BAM1020 analysers (one heated (CM8) and one unheated (CM3)). The data has been corrected to Gravimetric equivalent by dividing by 1.035 (heated) or multiplying by 0.833 (unheated) and annualised where appropriate. QA/QC procedures are described in Appendix C.

Windsor Bridge (CM3) is at a worst-case location on the opposite side of the junction to the residential properties. Bath A4 Roadside enclosure (CM8) is located on London Road.

The results show that the annual average objective was not exceeded during 2024 and the number of exceedances of the 24-hour objective (50 µg/m^3) were below 35 at all sites. The results at the Bath A4 Roadside were the same as 2023 but the annual average results decreased at CM3 (Windsor Bridge) compared with 2023 and there were also 4 exceedances of the 24-hour objective. Concentrations remain higher that previous years at CM3 due to a large construction site next to the analyser (Figures A.20-A.21 and Tables A.6-A.7) and is unlikely to cause on-going high concentrations once the development is complete.

3.2.3 Particulate Matter ($PM_{2.5}$)

Table A.8 and Figure A.22 in Appendix A present the ratified and adjusted monitored $PM_{2.5}$ annual mean concentrations for the past five years.

The results show lower concentrations of $PM_{2.5}$ compared to previous years, with the annual average concentration below the air quality objective of 20 µg/m^3. The results show that there were 0 days with moderate (24-hour average concentrations >35 µg/m^3) levels of $PM_{2.5}$ in Bath & North East Somerset.

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)
CM3	Windsor Bridge	Roadside	373593	164861	NO_2, PM_{10}	Yes	Bath	Chemiluminescent BAM1020	2.0	4.0	2.0
CM4	Chelsea House	Roadside	375419	165853	NO_2, $PM_{2.5}$	Yes	Bath	Chemiluminescent BAM1020 (smart heated)	0.0	15.0	2.0
CM8	Bath A4 Roadside	Roadside	375394	165824	NO_2, PM_{10}	Yes	Bath	Chemiluminescent BAM1020 (smart heated)	3.5	3.5	1.9

Notes:

(1) N/A if not applicable

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

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

Diffusion Tube ID	Site Name	Site Type	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Pollutants Monitored	In AQMA? Which AQMA?	Distance to Relevant Exposure (m) (1)	Distance to kerb of nearest road (m) (2)	Tube Co-located with a Continuous Analyser?	Tube Height (m)
DT003	Bath - Broad St	Roadside	374992	165173	NO_2	Yes (Bath)	1.7	1.3	No	2.6
DT004	Bath - George St	Kerbside	374899	165159	NO_2	Yes (Bath)	3.0	1.0	No	2.3
DT005	Bath - Gay St - Top	Roadside	374797	165161	NO_2	Yes (Bath)	3.0	1.0	No	2.6

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)
DT008	Bath - Windsor Bridge	Roadside	373518	165124	NO_2	Yes (Bath)	0.0	3.5	No	2.3
DT009	Bath - Upper Bristol Rd	Roadside	373993	165174	NO_2	Yes (Bath)	5.0	1.0	No	2.6
DT014	Bath - Bathwick St	Roadside	375602	165365	NO_2	Yes (Bath)	1.0	1.0	No	2.5
DT015	Bath - Beckford Rd	Roadside	375733	165414	NO_2	Yes (Bath)	7.0	1.0	No	2.7
DT016	Bath - Warminster Rd	Roadside	376063	165492	NO_2	Yes (Bath)	18.0	4.0	No	2.4
DT017a	Bath - Widcombe School	Roadside	375634	164406	NO_2	Yes (Bath)	5.0	1.0	No	2.6
DT018	Bath - Widcombe High St	Roadside	375414	164216	NO_2	Yes (Bath)	0.0	5.0	No	2.5
DT020a, DT020b, DT020c	Bath - Wells Rd	Roadside	374760	164310	NO_2	Yes (Bath)	0.0	1.5	No	2.3
DT021	Bath - Wells Rd /Upper Oldfield Park	Roadside	374454	164202	NO_2	Yes (Bath)	3.0	1.0	No	2.7
DT023	Bath - Alexandra Park	Urban Background	375105	163991	NO_2	No	n/a	n/a	No	3.3
DT026	Bath - Upper Wellsway	Roadside	373576	161908	NO_2	No	0.0	3.0	No	2.0
DT034	Bath - Newbridge Rd	Roadside	373092	165106	NO_2	Yes (Bath)	5.0	1.0	No	2.3
DT037a	Bath - Charlotte St	Roadside	374622	164994	NO_2	Yes (Bath)	3.0	1.0	No	2.7
DT039	Bath - Manvers St	Roadside	375247	164591	NO_2	Yes (Bath)	3.0	2.0	No	2.3
DT042	Bath - Dorchester St	Kerbside	375230	164383	NO_2	Yes (Bath)	1.5	1.0	No	2.4

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)
DT043	Bath - St. James Parade	Kerbside	375053	164426	NO_2	Yes (Bath)	2.6	0.9	No	2.9
DT045	Bath - James St West	Roadside	374697	164763	NO_2	Yes (Bath)	0.0	5.0	No	2.7
DT052, DT053, DT054	Bath - Walcot Terrace	Roadside	375462	165843	NO_2	Yes (Bath)	0.0	3.0	No	2.5
DT055	Bath - Lambridge	Roadside	376451	166502	NO_2	Yes (Bath)	-1.5	2.6	No	2.6
DT060	Bath - Victoria Buildings	Roadside	374039	164760	NO_2	Yes (Bath)	3.7	0.5	No	2.5
DT062	Bath - Argyle Terrace	Roadside	373211	164743	NO_2	Yes (Bath)	4.0	3.0	No	2.8
DT084	Bath - Bear Flat	Roadside	374604	163806	NO_2	No	5.7	1.9	No	2.3
DT085	Bath - RUH – North	Roadside	373073	165983	NO_2	No	7.0	1.5	No	2.3
DT087	Bath - Oak Street	Roadside	374702	164414	NO_2	Yes (Bath)	0.0	2.7	No	2.3
DT090a, DT090b, DT090c	Bath - Anglo Terrace	Roadside	375288	165758	NO_2	Yes (Bath)	2.5	1.6	No	2.3
DT142	Bath - Prior Park Road	Kerbside	375513	164194	NO_2	No	0.3	0.8	No	2.5
DT143	Bath - Rackfield Place	Roadside	372644	164738	NO_2	No	0.3	3.6	No	2.6
DT145	Bath - Lansdown Road	Kerbside	374930	165550	NO_2	Yes (Bath)	2.5	0.7	No	2.5
DT147	Bath - Terrace Walk	Roadside	375195	164735	NO_2	No	0.3	1.7	No	2.7

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)
DT148a, DT148b, DT148c	Bath - Julian Road	Roadside	374573	165523	NO_2	No	0.4	2.2	No	2.5
DT149	Bath - Camden 3	Kerbside	375038	165838	NO_2	No	2.0	0.4	No	2.6
DT150	Bath - Brougham Hayes	Roadside	373955	164590	NO_2	No	1.9	1.3	No	2.6
DT151	Bath - Widcombe Hill	Kerbside	375598	164190	NO_2	No	3.9	0.8	No	2.2
DT152	Bath - Bathwick Hill	Roadside	375800	164912	NO_2	No	2.0	1.0	No	2.6
DT153	Bath - North Road	Roadside	376069	165356	NO_2	No	3.0	1.9	No	2.4
DT154	Bath - Bradford Road	Roadside	375529	162389	NO_2	No	0.4	2.2	No	2.4
DT155	Bath - Newbridge Hill 2	Roadside	372696	165488	NO_2	No	7.0	1.8	No	2.5
DT156	Bath - Corn Street	Roadside	374827	164531	NO_2	No	2.4	2.6	No	2.5
DT157	Bath - Charles Street	Roadside	374664	164815	NO_2	No	1.5	3.2	No	2.4
DT158	Bath - Paragon 2	Roadside	375051	165350	NO_2	Yes (Bath)	5.4	1.1	No	3.0
DT159	Bath - Walcot Street	Roadside	375075	165287	NO_2	No	3.0	2.5	No	2.7
DT160	Bath - North Parade Road	Roadside	375284	164694	NO_2	No	6.3	1.3	No	2.6
DT165	Bath - Brassknocker Hill	Kerbside	377960	162736	NO_2	No	7.0	0.8	No	2.5
DT167	Bath - Weston High Street	Roadside	372587	166629	NO_2	No	0.4	1.0	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)
DT168	Bath - Englishcombe Lane	Roadside	373207	163339	NO_2	No	3.4	1.6	No	2.5
DT169	Bath - Eastbourne Avenue	Roadside	375667	166369	NO_2	No	5.1	2.0	No	2.5
DT171	Bath - Frome Road/ Upper Bloomfield	Roadside	373706	162411	NO_2	No	0.4	4.2	No	2.4
DT172a, DT172b, DT172c	Bath - London Road 2	Roadside	375374	165813	NO_2	Yes (Bath)	0.6	3.6	No	2.5
DT173	Bath - Upper Bristol Road 2	Roadside	374362	165016	NO_2	Yes (Bath)	0.6	2.2	No	2.4
DT179a	Bath - Upper Bristol Road 3	Roadside	373299	165093	NO_2	Yes (Bath)	0.0	1.5	No	2.0
DT180a	Bath - Wells Road 2	Roadside	374537	163968	NO_2	No	0.7	1.7	No	2.4
DT181	Bath - Wellsway	Roadside	374618	163494	NO_2	No	15.0	1.2	No	2.5
DT182a, DT182b, DT182c	Bath - Gay Street - Lower	Roadside	374796	165123	NO_2	Yes (Bath)	3.7	1.1	No	2.3
DT183	Bath - Chapel Row	Roadside	374712	164913	NO_2	No	0.0	2.1	No	2.5
DT185	Bath - Greenway Lane	Kerbside	374712	163417	NO_2	No	0.5	0.7	No	2.4
DT186	Bath - Coronation Avenue	Roadside	373170	163416	NO_2	No	3.3	1.4	No	2.4
DT187	Bath - Stanley Road West	Roadside	373835	164438	NO_2	No	0.2	1.7	No	2.3
DT188	Bath - Moorland Road	Roadside	373696	164343	NO_2	No	0.5	3.4	No	2.6

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)
DT189	Bath - Old Newbridge Hill	Roadside	372251	165686	NO_2	No	10.0	2.1	No	2.5
DT190	Bath - Church Street	Kerbside	375814	164027	NO_2	No	0.0	0.9	No	2.5
DT192	Bath - Fairfield Road	Roadside	375505	166428	NO_2	No	3.6	1.3	No	2.5
DT193	Bath - Granville Road	Roadside	374260	167661	NO_2	No	4.5	1.5	No	2.5
DT194	Bath - Brooklyn Road	Roadside	376096	166878	NO_2	No	3.5	1.0	No	2.6
DT195	Bath - Lansdown Lane	Roadside	372537	167235	NO_2	No	11.0	1.9	No	2.5
DT196	Bath - Oakley	Kerbside	377133	164045	NO_2	No	2.0	0.8	No	2.5
DT197	Bath - Rush Hill	Roadside	372703	162983	NO_2	No	5.5	2.0	No	2.4
DT198a, DT198b, DT198c	Bath - Walcot Parade	Kerbside	375240	165739	NO_2	Yes (Bath)	0.4	1.0	No	3.3
DT199	Bath - Hensley Road	Roadside	374353	163504	NO_2	No	8.0	1.1	No	2.4
DT200	Bath - Millmead Road	Roadside	373375	164307	NO_2	No	3.4	1.6	No	2.4
DT201	Bath - The Hollow	Roadside	373003	164250	NO_2	No	1.3	2.4	No	2.5
DT202	Bath - Charlcombe	Kerbside	374636	166701	NO_2	No	5.0	0.4	No	2.5
DT206a	Bath - Park Lane	Roadside	373742	165305	NO_2	No	0.5	1.8	No	2.5
DT207	Bath - Darlington Street	Roadside	375630	165132	NO_2	No	4.0	1.1	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)
DT209	Bath - Bellots Road	Roadside	373490	164804	NO_2	No	3.5	1.5	No	2.5
DT210	Bath - Red Lion Roundabout	Roadside	373895	162254	NO_2	No	0.4	1.5	No	2.4
DT211	Bath - St John's Road	Roadside	375218	165290	NO_2	No	0.0	2.0	No	2.5
DT212	Bath - Oldfield Road	Roadside	374356	163985	NO_2	No	5.0	1.8	No	2.4
DT213a	Bath - Marlborough Lane	Roadside	374262	165127	NO_2	No	6.0	3.0	No	2.5
DT214a	Bath - Marlborough Buildings	Roadside	374354	165448	NO_2	No	2.6	1.0	No	2.5
DT215a	Bath - Queen Parade Place	Roadside	374758	165096	NO_2	No	0.3	2.6	No	2.6
DT216a	Bath - Monmouth Place	Roadside	374574	164958	NO_2	Yes (Bath)	0.3	1.5	No	2.4
DT217a	Bath - Cavendish Road	Roadside	374335	165990	NO_2	No	1.2	1.0	No	2.4
DT218	Bath - Weston Road	Roadside	373668	165697	NO_2	No	3.0	1.4	No	2.5
DT219	Bath - Morford Street	Roadside	374872	165570	NO_2	No	0.0	1.5	No	2.5
DT221	Bath - Gay Street - façade	Roadside	374793	165119	NO_2	No	0.2	4.4	No	2.7
DT222a, DT222b, DT222c	Bath - Anglo Terrace façade	Roadside	375322	165778	NO_2	Yes (Bath)	0.5	1.8	No	2.4
DT223a, DT223b, DT223c	Bath - Canton Place	Roadside	375322	165759	NO_2	Yes (Bath)	2.4	4.0	No	2.3

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)
DT224a, DT224b, DT224c	Bath - Walcot Parade 2	Roadside	375207	165726	NO_2	Yes (Bath)	0.4	1.1	No	2.4
DT225a, DT225b, DT225c	Bath - Cleveland Terrace	Kerbside	375203	165708	NO_2	Yes (Bath)	2.8	0.7	No	2.4
DT226a, DT226b, DT226c	Bath - AURN	Roadside	375394	165824	NO_2	Yes (Bath)	3.5	3.5	Yes	1.9
DT227a	Bath - Wells Road 3	Kerbside	374580	163979	NO_2	No	1.1	0.4	No	2..25
DT228a	Bath - Lower Bristol Road 2	Roadside	374002	164754	NO_2	Yes (Bath)	1.4	3.0	No	2.4
DT229a, DT229b, DT229c	Bath - Lower Bristol Road 3	Kerbside	373936	164779	NO_2	Yes (Bath)	10.8	0.2	No	2.5
DT230a, DT230b, DT230c	Bath - Upper Bristol Road 4	Roadside	373439	165098	NO_2	Yes (Bath)	3.7	1.2	No	2.4
DT231a, DT231b, DT231c	Bath - Upper Bristol Road 5	Kerbside	373480	165125	NO_2	Yes (Bath)	4.7	0.3	No	2.4
DT232a	Bath - Lansdown Road 3	Kerbside	374942	165391	NO_2	Yes (Bath)	4.3	0.6	No	2.4
DT233a	Bath - Lansdown Road 4	Kerbside	374956	165359	NO_2	Yes (Bath)	6.7	0.9	No	2.5
DT234a, DT234b, DT234c	Bath - Gay Street 2	Kerbside	374806	165084	NO_2	Yes (Bath)	2.2	0.5	No	2.4
DT235a, DT235b, DT235c	Bath - Wells Road 4	Roadside	374694	164288	NO_2	Yes (Bath)	6.0	1.3	No	2.4

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)
DT236a	Bath - Pulteney Terrace	Roadside	375668	164493	NO_2	No	4.7	1.6	No	2.4
DT237	Bath - Broad Street 2	Roadside	375000	165179	NO_2	Yes (Bath)	0.5	1.5	No	2.4
DT238a, DT238b, DT238c	Bath - Broad Street 3	Roadside	375008	164117	NO_2	Yes (Bath)	0.2	2.1	No	2.5
DT239a, DT239b, DT239c	Bath - Broad Street 4	Kerbside	375008	165145	NO_2	Yes (Bath)	1.9	0.4	No	2.4
DT240a	Bath - Bathwick Street 2	Roadside	375489	165450	NO_2	Yes (Bath)	2.6	1.7	No	2.4
DT241a	Bath - Bathwick Street 3	Roadside	375520	165446	NO_2	Yes (Bath)	2.0	1.8	No	2.5
DT242a, DT242b, DT242c	Bath - Charlotte Street 2	Roadside	374583	164974	NO_2	Yes (Bath)	2.1	1.7	No	2.4
DT243a	Bath - Sydney Place	Roadside	375625	165312	NO_2	Yes (Bath)	7.8	1.1	No	2.4
DT244	Bath - Whiteway	Roadside	372494	163165	NO_2	No	3.0	1.5	No	2.3
DT245	Bath - Whiteway 2	Roadside	372401	163212	NO_2	No	0.5	1.4	No	2.4
DT246a	Bath - Dorchester Street 2	Roadside	375186	164372	NO_2	Yes (Bath)	23.0	4.9	No	2.4
DT247a	Bath - Monmouth Place 2	Roadside	374627	164924	NO_2	Yes (Bath)	0.3	1.1	No	2.6
DT248a, DT248b, DT248c	Bath - Chapel Row 2	Roadside	374711	164931	NO_2	No	0.4	1.6	No	2.4

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)
DT288	Bath - Victoria Buildings - façade	Roadside	374045	164760	NO_2	Yes (Bath)	0.0	4.1	No	2.4
DT294	Bath - Walcot Parade 3	Roadside	375207	165726	NO_2	Yes (Bath)	7.6	1.1	No	5.5
DT300	Bath - Penn Hill Road	Roadside	372663	166274	NO_2	No	7.5	1.7	No	2.5
DT301	Bath - Southlands	Roadside	372612	166457	NO_2	No	4.7	4.2	No	2.5
DT302	Bath - Anchor Road	Roadside	372851	166390	NO_2	No	7.6	1.9	No	2.7
DT303	Bath - Prior Park Road 2	Kerbside	375819	163764	NO_2	No	0.4	0.5	No	2.2
DT304	Bath - Walcot Parade 4	Roadside	375202	165724	NO_2	Yes (Bath)	0.8	1.6	No	2.1
DT305	Bath - Wells Road 5	Kerbside	374790	164309	NO_2	Yes (Bath)	2.1	3.2	No	2.7
DT312	Bath - Sydney Place 2	Roadside	375721	165169	NO_2	No	8.3	1.2	No	2.5
DT313	Bath - Sham Castle Lane	Roadside	375943	165107	NO_2	No	12.0	1.6	No	2.7
DT314	Bath - Catharine Place	Kerbside	374653	165402	NO_2	No	4.3	0.5	No	2.5
DT315	Bath - Sion Hill	Roadside	374148	166052	NO_2	No	0.5	1.6	No	2.4
DT316	Bath - Midland Road	Roadside	373856	165055	NO_2	No	8.0	4.9	No	2.9
DT320	Bath - Cleveland Walk	Roadside	376209	164852	NO_2	No	20.0	1.3	No	2.4
DT321	Bath - Sion Road	Roadside	374164	166160	NO_2	No	47.0	1.6	No	2.4

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)
DT322	Bath - Winifred's Lane	Roadside	374327	166115	NO_2	No	7.8	1.1	No	2.4
DT091	Bathampton High Street	Roadside	377683	166408	NO_2	No	0.0	1.1	No	2.3
DT166	Bathampton, A36	Roadside	377543	165924	NO_2	No	23.0	1.2	No	2.4
DT058	Batheaston – London Road West A	Roadside	377643	167365	NO_2	No	0.0	1.0	No	2.5
DT094	Batheaston - London Road West B	Roadside	377290	167097	NO_2	No	0.0	1.3	No	2.5
DT130	Batheaston - London Road West C	Roadside	377802	167456	NO_2	No	0.0	1.4	No	2.5
DT163	Batheaston, A4 Box Road	Roadside	378911	167259	NO_2	No	2.4	1.8	No	2.4
DT191	Batheaston - Mill Lane	Roadside	377339	167065	NO_2	No	4.0	1.0	No	2.5
DT134	Farrington Gurney 2	Roadside	362891	155485	NO_2	Yes (Farrington Gurney)	0.0	4.5	No	2.5
DT136	Farrington Gurney 3	Roadside	362884	155790	NO_2	Yes (Farrington Gurney)	0.0	1.2	No	2.1
DT138	Farrington Gurney 5	Roadside	362983	155459	NO_2	Yes (Farrington Gurney)	3.0	1.9	No	2.5
DT033	Keynsham	Urban Background	364803	168237	NO_2	No	8.0	1.0	No	2.6
DT065	Keynsham - Charlton Rd A	Roadside	365399	168701	NO_2	No	3.0	1.0	No	2.7

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)
DT066	Keynsham – High Street A	Roadside	365360	168815	NO_2	No	1.0	1.0	No	2.5
DT067	Keynsham - Somerfield	Roadside	365457	168496	NO_2	No	2.0	1.0	No	2.8
DT107	Keynsham - Bath Hill South	Roadside	365710	168339	NO_2	No	0.0	1.3	No	2.5
DT141	Keynsham A4	Roadside	366921	168096	NO_2	No	13.0	1.4	No	2.4
DT318	Keynsham - Bypass North	Roadside	366215	168459	NO_2	No	0.0	1.8	No	2.5
DT319	Keynsham - Bypass South	Roadside	366209	168409	NO_2	No	0.0	4.0	No	2.5
DT323	Keynsham - Hicks Gate A4	Roadside	363916	169773	NO_2	No	n/a	2.1	No	2.4
DT324	Keynsham - Hicks Gate A4174	Roadside	364196	169818	NO_2	No	n/a	2.1	No	2.4
DT296	Old Mills	Roadside	364748	155000	NO_2	No	0.0	1.8	No	2.0
DT295	Radstock - Bath New Road	Roadside	368825	155080	NO_2	No	0.7	2.3	No	2.3
DT307	Radstock - Bath New Road 3	Roadside	368810	155122	NO_2	No	9.8	2.3	No	2.3
DT317	Radstock - Combe End	Roadside	368815	155060	NO_2	No	0.2	1.2	No	2.2
DT075	Saltford - The Crown	Roadside	368375	166988	NO_2	No	0.0	3.0	No	2.6
DT077	Saltford - Bath Road	Roadside	368778	166687	NO_2	No	0.0	2.0	No	2.2

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)
DT096a, DT096b, DT096c	Temple Cloud 1	Roadside	362219	157923	NO_2	Yes (Temple Cloud)	0.0	1.5	No	2.4
DT108a	Temple Cloud 2	Roadside	362179	158055	NO_2	Yes (Temple Cloud)	6.2	1.3	No	2.6
DT109a	Temple Cloud 3	Roadside	362344	157658	NO_2	Yes (Temple Cloud)	2.0	1.7	No	2.6
DT252a	Temple Cloud 9	Roadside	362195	158007	NO_2	Yes (Temple Cloud)	0.0	1.1	No	2.4
DT253a, DT253b, DT253c	Temple Cloud 10	Roadside	362243	157846	NO_2	Yes (Temple Cloud)	-2.1	3.6	No	2.3
DT255a	Temple Cloud 12	Roadside	362284	157741	NO_2	Yes (Temple Cloud)	0.0	1.2	No	2.2
DT032	Whitchurch	Roadside	361242	167652	NO_2	No	2.7	2.1	No	2.3
DT098	Whitchurch 2	Roadside	361276	167555	NO_2	No	0.0	1.3	No	2.3
DT100	Whitchurch 4	Roadside	361326	167606	NO_2	No	6.0	1.6	No	2.3
DT101	Whitchurch 5	Roadside	361235	167824	NO_2	No	4.0	1.6	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 NO_2 Monitoring Results: Automatic Monitoring (µg/m^3)

Site ID	Site Name	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
CM3	Windsor Bridge	373593	164861	Roadside	98.0	98.0	23.2	22.7	20.5	18.8	18.3
CM4	Chelsea House	375419	165853	Roadside	99.4	99.4	19.5	17.7	17.5	17.0	14.1
CM8	Bath A4 Roadside	375394	165824	Roadside	96.0	96.0	28.0	26.9	24.9	24.0	20.2

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

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

☒ **Where exceedances of the NO_2 annual mean objective occur at locations not representative of relevant exposure, the fall-off with distance concentration has been calculated and reported concentration provided in brackets for 2024.**

Notes:

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

Exceedances of the NO_2 annual mean objective of 40µg/m^3 are shown in **bold**.

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

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

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

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

Table A.4 – Annual Mean NO_2 Monitoring Results: Non-Automatic Monitoring (µg/m^3)

Diffusion Tube ID	Site Name	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
DT003	Bath - Broad St	374992	165173	Roadside	100.0	100.0	27.0	28.8	27.6	25.7	21.7
DT004	Bath - George St	374899	165159	Kerbside	92.5	92.5	22.3	22.2	22.6	19.8	16.3
DT005	Bath - Gay St - Top	374797	165161	Roadside	100.0	100.0	21.9	23.0	20.8	18.0	15.9
DT008	Bath - Windsor Bridge	373518	165124	Roadside	100.0	100.0	22.8	22.5	19.7	19.0	17.1
DT009	Bath - Upper Bristol Rd	373993	165174	Roadside	92.5	92.5	25.7	24.3	23.4	21.2	17.8
DT014	Bath - Bathwick St	375602	165365	Roadside	100.0	100.0	28.5	19.7	19.5	19.8	18.4
DT015	Bath - Beckford Rd	375733	165414	Roadside	100.0	100.0	21.7	19.7	17.8	17.8	16.2
DT016	Bath - Warminster Rd	376063	165492	Roadside	100.0	100.0	24.2	21.8	20.1	18.3	14.4
DT017a	Bath - Widcombe School	375634	164406	Roadside	90.6	90.6	23.3	20.3	19.3	18.4	17.0
DT018	Bath - Widcombe High St	375414	164216	Roadside	100.0	100.0	17.9	17.4	16.6	14.8	15.3
DT020a, DT020b, DT020c	Bath - Wells Rd	374760	164310	Roadside	100.0	100.0	39.7	**42.6**	38.5	34.9	32.3
DT021	Bath - Wells Rd /Upper Oldfield Park	374454	164202	Roadside	92.5	92.5	25.9	27.6	26.7	22.3	19.9
DT023	Bath - Alexandra Park	375105	163991	Urban Background	100.0	100.0	8.4	8.5	8.2	7.0	6.3

Diffusion Tube ID	Site Name	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
DT026	Bath - Upper Wellsway	373576	161908	Roadside	83.0	83.0	20.8	22.5	21.7	18.4	16.9
DT034	Bath - Newbridge Rd	373092	165106	Roadside	100.0	100.0	23.3	21.6	20.6	19.6	17.7
DT037a	Bath - Charlotte St	374622	164994	Roadside	92.5	92.5	25.9	24.3	22.0	19.3	17.7
DT039	Bath - Manvers St	375247	164591	Roadside	81.1	81.1	23.8	25.0	23.1	21.8	20.2
DT042	Bath - Dorchester St	375230	164383	Kerbside	100.0	100.0	36.2	**40.5**	34.9	32.7	30.3
DT043	Bath - St. James Parade	375053	164426	Kerbside	92.5	92.5	31.0	34.5	30.2	29.6	27.4
DT045	Bath - James St West	374697	164763	Roadside	83.0	83.0	21.8	24.0	22.4	19.9	18.1
DT052, DT053, DT054	Bath - Walcot Terrace	375462	165843	Roadside	100.0	100.0	28.9	25.3	24.0	23.1	20.6
DT055	Bath - Lambridge	376451	166502	Roadside	92.5	92.5	29.4	27.9	25.8	25.4	22.8
DT060	Bath - Victoria Buildings	374039	164760	Roadside	100.0	100.0	37.5	40.0	33.4	29.9	25.3
DT062	Bath - Argyle Terrace	373211	164743	Roadside	100.0	100.0	32.7	33.5	29.5	26.6	22.3
DT084	Bath - Bear Flat	374604	163806	Roadside	81.1	81.1	23.1	23.5	23.4	20.6	18.9
DT085	Bath - RUH – North	373073	165983	Roadside	100.0	100.0	23.1	22.2	19.7	19.4	18.4
DT087	Bath - Oak Street	374702	164414	Roadside	100.0	100.0	22.6	21.5	21.1	18.8	18.0

Diffusion Tube ID	Site Name	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
DT090a, DT090b, DT090c	Bath - Anglo Terrace	375288	165758	Roadside	100.0	100.0	37.5	33.2	32.7	29.9	26.5
DT142	Bath - Prior Park Road	375513	164194	Kerbside	90.6	90.6	26.5	23.3	22.5	21.7	21.3
DT143	Bath - Rackfield Place	372644	164738	Roadside	90.6	90.6	21.9	21.4	21.0	19.2	17.8
DT145	Bath - Lansdown Road	374930	165550	Kerbside	100.0	100.0	21.0	20.1	19.3	17.8	15.7
DT147	Bath - Terrace Walk	375195	164735	Roadside	100.0	100.0	20.0	19.8	18.2	17.9	15.6
DT148a, DT148b, DT148c	Bath - Julian Road	374573	165523	Roadside	90.6	90.6	20.4	19.6	18.9	17.4	17.2
DT149	Bath - Camden 3	375038	165838	Kerbside	100.0	100.0	20.7	19.0	17.5	15.4	15.3
DT150	Bath - Brougham Hayes	373955	164590	Roadside	100.0	100.0	22.5	22.2	21.1	20.0	18.7
DT151	Bath - Widcombe Hill	375598	164190	Kerbside	100.0	100.0	20.7	19.2	17.3	15.7	14.3
DT152	Bath - Bathwick Hill	375800	164912	Roadside	100.0	100.0	19.0	18.3	16.5	15.9	14.1
DT153	Bath - North Road	376069	165356	Roadside	92.5	92.5	13.3	12.9	13.3	12.1	11.2
DT154	Bath - Bradford Road	375529	162389	Roadside	100.0	100.0	21.2	21.0	20.8	18.4	16.9
DT155	Bath - Newbridge Hill 2	372696	165488	Roadside	100.0	100.0	12.4	12.4	12.8	10.5	9.9
DT156	Bath - Corn Street	374827	164531	Roadside	92.5	92.5	21.1	21.8	18.4	18.2	16.0

Diffusion Tube ID	Site Name	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
DT157	Bath - Charles Street	374664	164815	Roadside	100.0	100.0	21.6	22.4	22.3	18.9	16.8
DT158	Bath - Paragon 2	375051	165350	Roadside	100.0	100.0	24.0	24.5	22.1	19.6	16.5
DT159	Bath - Walcot Street	375075	165287	Roadside	100.0	25.0	20.0	19.1	18.1	16.8	14.5
DT160	Bath - North Parade Road	375284	164694	Roadside	90.6	90.6	23.3	23.1	23.4	22.8	21.3
DT165	Bath - Brassknocker Hill	377960	162736	Kerbside	100.0	25.0	28.0	26.1	24.8	22.0	18.3
DT167	Bath - Weston High Street	372587	166629	Roadside	100.0	100.0	17.4	18.4	16.5	15.9	13.2
DT168	Bath - Englishcombe Lane	373207	163339	Roadside	84.9	84.9	11.4	10.9	10.9	9.2	9.4
DT169	Bath - Eastbourne Avenue	375667	166369	Roadside	100.0	25.0	18.1	17.5	16.5	14.9	13.2
DT171	Bath - Frome Road/ Upper Bloomfield	373706	162411	Roadside	92.5	92.5	22.2	23.2	20.8	17.9	16.5
DT172a, DT172b, DT172c	Bath - London Road 2	375374	165813	Roadside	100.0	100.0	34.8	31.1	29.6	27.6	23.7
DT173	Bath - Upper Bristol Road 2	374362	165016	Roadside	100.0	100.0	27.9	25.7	25.4	23.6	21.1
DT179a	Bath - Upper Bristol Road 3	373299	165093	Roadside	92.5	92.5	27.0	26.9	23.9	22.1	21.5
DT180a	Bath - Wells Road 2	374537	163968	Roadside	100.0	100.0	31.2	30.3	27.6	24.6	23.1
DT181	Bath - Wellsway	374618	163494	Roadside	92.5	92.5	26.5	25.0	24.8	22.1	18.9

Diffusion Tube ID	Site Name	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
DT182a, DT182b, DT182c	Bath - Gay Street - Lower	374796	165123	Roadside	92.5	92.5	30.4	32.9	31.1	27.1	22.9
DT183	Bath - Chapel Row	374712	164913	Roadside	100.0	100.0	21.5	25.7	24.1	20.6	18.3
DT185	Bath - Greenway Lane	374712	163417	Kerbside	83.0	83.0	11.7	10.9	11.4	9.7	9.0
DT186	Bath - Coronation Avenue	373170	163416	Roadside	100.0	25.0	16.1	15.4	14.5	13.2	11.8
DT187	Bath - Stanley Road West	373835	164438	Roadside	100.0	25.0	19.3	18.1	17.5	15.5	14.7
DT188	Bath - Moorland Road	373696	164343	Roadside	58.5	58.5	19.3	16.7	16.5	15.1	13.3
DT189	Bath - Old Newbridge Hill	372251	165686	Roadside	90.6	90.6	23.4	25.2	23.0	19.9	17.8
DT190	Bath - Church Street	375814	164027	Kerbside	100.0	100.0	10.7	10.6	9.5	8.1	7.3
DT192	Bath - Fairfield Road	375505	166428	Roadside	100.0	25.0	14.1	12.3	11.8	10.6	10.4
DT193	Bath - Granville Road	374260	167661	Roadside	100.0	25.0	7.2	7.9	6.0	5.7	5.4
DT194	Bath - Brooklyn Road	376096	166878	Roadside	100.0	25.0	12.6	12.4	11.3	10.5	9.9
DT195	Bath - Lansdown Lane	372537	167235	Roadside	100.0	25.0	16.5	18.5	18.3	17.3	15.2
DT196	Bath - Oakley	377133	164045	Kerbside	100.0	25.0	20.2	17.6	17.9	15.1	12.9
DT197	Bath - Rush Hill	372703	162983	Roadside	100.0	100.0	19.2	19.5	18.1	16.3	14.2

Diffusion Tube ID	Site Name	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
DT198a, DT198b, DT198c	Bath - Walcot Parade	375240	165739	Kerbside	100.0	100.0	**40.6**	37.8	35.9	34.1	29.7
DT199	Bath - Hensley Road	374353	163504	Roadside	100.0	25.0	9.9	9.7	9.1	8.3	7.7
DT200	Bath - Millmead Road	373375	164307	Roadside	100.0	100.0	12.9	13.0	12.2	10.8	9.9
DT201	Bath - The Hollow	373003	164250	Roadside	100.0	100.0	21.2	20.5	18.9	16.2	15.6
DT202	Bath - Charlcombe	374636	166701	Kerbside	100.0	25.0	11.3	10.3	10.5	9.0	8.2
DT206a	Bath - Park Lane	373742	165305	Roadside	90.6	90.6	23.2	24.1	23.2	21.3	19.4
DT207	Bath - Darlington Street	375630	165132	Roadside	92.5	92.5	31.9	26.7	25.3	25.2	22.0
DT209	Bath - Bellots Road	373490	164804	Roadside	100.0	25.0	15.4	15.1	14.1	13.6	12.6
DT210	Bath - Red Lion Roundabout	373895	162254	Roadside	90.6	90.6	28.3	28.2	26.8	23.6	21.5
DT211	Bath - St John's Road	375218	165290	Roadside	100.0	100.0	15.6	14.0	13.1	12.7	11.0
DT212	Bath - Oldfield Road	374356	163985	Roadside	100.0	25.0	13.8	14.2	13.5	11.4	10.4
DT213a	Bath - Marlborough Lane	374262	165127	Roadside	100.0	100.0	18.5	18.2	17.7	14.2	12.4
DT214a	Bath - Marlborough Buildings	374354	165448	Roadside	92.5	92.5	17.5	16.1	15.2	13.2	11.2
DT215a	Bath - Queen Parade Place	374758	165096	Roadside	100.0	100.0	14.4	15.3	14.7	13.0	11.4

Diffusion Tube ID	Site Name	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
DT216a	Bath - Monmouth Place	374574	164958	Roadside	100.0	25.0	25.6	24.4	23.1	19.6	17.4
DT217a	Bath - Cavendish Road	374335	165990	Roadside	100.0	100.0	15.5	13.6	12.9	11.3	10.0
DT218	Bath - Weston Road	373668	165697	Roadside	92.5	92.5	16.9	15.1	14.8	13.7	12.2
DT219	Bath - Morford Street	374872	165570	Roadside	100.0	100.0	18.5	17.7	17.6	15.7	14.0
DT221	Bath - Gay Street - façade	374793	165119	Roadside	100.0	100.0	25.0	27.7	27.5	23.1	20.4
DT222a, DT222b, DT222c	Bath - Anglo Terrace façade	375322	165778	Roadside	100.0	100.0	**41.4**	38.1	36.6	33.5	29.9
DT223a, DT223b, DT223c	Bath - Canton Place	375322	165759	Roadside	92.5	92.5	33.2	25.6	25.6	24.2	21.4
DT224a, DT224b, DT224c	Bath - Walcot Parade 2	375207	165726	Roadside	100.0	100.0	**44.2**	**43.1**	39.7	37.7	32.9
DT225a, DT225b, DT225c	Bath - Cleveland Terrace	375203	165708	Kerbside	100.0	100.0	32.4	32.2	28.7	27.6	23.7
DT226a, DT226b, DT226c	Bath - AURN	375394	165824	Roadside	100.0	100.0	28.7	26.9	24.9	23.6	20.3
DT227a	Bath - Wells Road 3	374580	163979	Kerbside	100.0	100.0	31.4	32.4	30.1	27.8	24.5
DT228a	Bath - Lower Bristol Road 2	374002	164754	Roadside	100.0	100.0	27.1	24.7	22.2	20.1	16.1

Diffusion Tube ID	Site Name	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
DT229a, DT229b, DT229c	Bath - Lower Bristol Road 3	373936	164779	Kerbside	100.0	100.0	28.0	30.1	25.5	23.5	21.2
DT230a, DT230b, DT230c	Bath - Upper Bristol Road 4	373439	165098	Roadside	100.0	100.0	34.6	35.2	31.9	29.3	25.7
DT231a, DT231b, DT231c	Bath - Upper Bristol Road 5	373480	165125	Kerbside	83.0	83.0	33.4	32.1	29.4	26.5	24.0
DT232a	Bath - Lansdown Road 3	374942	165391	Kerbside	92.5	92.5	23.9	23.2	22.3	20.9	18.6
DT233a	Bath - Lansdown Road 4	374956	165359	Kerbside	100.0	100.0	21.8	22.9	22.4	20.3	17.9
DT234a, DT234b, DT234c	Bath - Gay Street 2	374806	165084	Kerbside	92.5	92.5	32.0	36.0	33.2	28.2	22.9
DT235a, DT235b, DT235c	Bath - Wells Road 4	374694	164288	Roadside	100.0	100.0	32.0	35.1	31.0	30.4	26.3
DT236a	Bath - Pulteney Terrace	375668	164493	Roadside	100.0	100.0	23.4	21.0	19.9	18.6	17.6
DT237	Bath - Broad Street 2	375000	165179	Roadside	100.0	100.0	25.3	30.8	29.2	28.0	21.5
DT238a, DT238b, DT238c	Bath - Broad Street 3	375008	164117	Roadside	100.0	100.0	25.6	28.6	26.5	26.5	18.3
DT239a, DT239b, DT239c	Bath - Broad Street 4	375008	165145	Kerbside	100.0	100.0	26.5	31.8	29.3	28.9	24.4
DT240a	Bath - Bathwick Street 2	375489	165450	Roadside	92.5	92.5	22.5	18.1	19.5	16.8	15.2

Diffusion Tube ID	Site Name	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
DT241a	Bath - Bathwick Street 3	375520	165446	Roadside	90.6	90.6	18.4	15.0	14.9	13.6	12.9
DT242a, DT242b, DT242c	Bath - Charlotte Street 2	374583	164974	Roadside	100.0	25.0	20.9	18.8	17.7	15.5	13.4
DT243a	Bath - Sydney Place	375625	165312	Roadside	100.0	100.0	24.7	20.9	19.3	19.7	17.8
DT244	Bath - Whiteway	372494	163165	Roadside	83.0	83.0	16.1	16.9	15.9	13.4	12.2
DT245	Bath - Whiteway 2	372401	163212	Roadside	100.0	25.0	19.9	19.5	18.3	16.1	13.4
DT246a	Bath - Dorchester Street 2	375186	164372	Roadside	83.0	83.0	30.1	31.1	29.7	30.0	27.6
DT247a	Bath - Monmouth Place 2	374627	164924	Roadside	92.5	92.5	27.0	26.1	23.0	21.5	19.9
DT248a, DT248b, DT248c	Bath - Chapel Row 2	374711	164931	Roadside	100.0	100.0	29.0	36.6	34.5	28.4	24.8
DT288	Bath - Victoria Buildings - façade	374045	164760	Roadside	100.0	25.0	-	29.1	28.7	26.5	21.3
DT294	Bath - Walcot Parade 3	375207	165726	Roadside	100.0	25.0	-	-	26.9	25.3	21.5
DT300	Bath - Penn Hill Road	372663	166274	Roadside	83.0	83.0	-	-	13.8	12.0	10.6
DT301	Bath - Southlands	372612	166457	Roadside	100.0	100.0	-	-	9.5	7.7	6.7
DT302	Bath - Anchor Road	372851	166390	Roadside	100.0	100.0	-	-	21.3	19.2	18.0
DT303	Bath - Prior Park Road 2	375819	163764	Kerbside	92.5	92.5	-	-	13.9	11.9	11.6

Diffusion Tube ID	Site Name	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
DT304	Bath - Walcot Parade 4	375202	165724	Roadside	100.0	100.0	-	-	**40.4**	36.4	31.7
DT305	Bath - Wells Road 5	374790	164309	Kerbside	100.0	100.0	-	-	38.0	33.1	30.2
DT312	Bath - Sydney Place 2	375721	165169	Roadside	100.0	100.0	-	-	-	16.2	13.0
DT313	Bath - Sham Castle Lane	375943	165107	Roadside	75.0	75.0	-	-	-	9.3	8.5
DT314	Bath - Catharine Place	374653	165402	Kerbside	100.0	100.0	-	-	-	11.1	9.5
DT315	Bath - Sion Hill	374148	166052	Roadside	100.0	100.0	-	-	-	7.4	7.2
DT316	Bath - Midland Road	373856	165055	Roadside	100.0	25.0	-	-	-	-	10.3
DT320	Bath - Cleveland Walk	376209	164852	Roadside	100.0	75.0	-	-	-	-	5.8
DT321	Bath - Sion Road	374164	166160	Roadside	86.1	58.5	-	-	-	-	6.0
DT322	Bath - Winifred's Lane	374327	166115	Roadside	88.9	60.4	-	-	-	-	10.9
DT091	Bathampton High Street	377683	166408	Roadside	100.0	100.0	16.8	18.4	18.1	15.9	13.0
DT166	Bathampton, A36	377543	165924	Roadside	100.0	100.0	20.8	18.8	17.2	16.1	12.8
DT058	Batheaston – London Road West A	377643	167365	Roadside	100.0	100.0	19.8	20.9	16.2	16.2	13.9
DT094	Batheaston - London Road West B	377290	167097	Roadside	100.0	25.0	20.3	20.0	18.5	17.3	14.4

Diffusion Tube ID	Site Name	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
DT130	Batheaston - London Road West C	377802	167456	Roadside	100.0	25.0	21.5	19.7	17.3	17.0	14.5
DT163	Batheaston, A4 Box Road	378911	167259	Roadside	69.2	17.0	17.6	13.9	13.7	13.8	15.0
DT191	Batheaston - Mill Lane	377339	167065	Roadside	100.0	100.0	14.7	15.3	15.1	13.0	10.7
DT134	Farrington Gurney 2	362891	155485	Roadside	100.0	100.0	31.1	32.1	29.7	25.1	24.1
DT136	Farrington Gurney 3	362884	155790	Roadside	100.0	100.0	27.9	29.2	27.6	24.0	22.1
DT138	Farrington Gurney 5	362983	155459	Roadside	100.0	100.0	27.1	28.4	26.6	23.2	22.5
DT033	Keynsham	364803	168237	Urban Background	100.0	100.0	9.7	9.6	8.8	7.9	7.2
DT065	Keynsham - Charlton Rd A	365399	168701	Roadside	100.0	100.0	21.3	22.5	20.5	17.5	17.2
DT066	Keynsham – High Street A	365360	168815	Roadside	100.0	100.0	26.8	27.5	26.4	22.4	23.2
DT067	Keynsham - Somerfield	365457	168496	Roadside	84.9	84.9	24.1	24.6	22.5	20.0	19.9
DT107	Keynsham - Bath Hill South	365710	168339	Roadside	90.6	90.6	29.0	28.4	25.1	22.4	21.8
DT141	Keynsham A4	366921	168096	Roadside	90.6	90.6	23.4	25.2	24.2	20.7	19.6
DT318	Keynsham - Bypass North	366215	168459	Roadside	100.0	100.0	-	-	-	-	14.9
DT319	Keynsham - Bypass South	366209	168409	Roadside	90.6	90.6	-	-	-	-	13.4

Diffusion Tube ID	Site Name	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
DT323	Keynsham - Hicks Gate A4	363916	169773	Roadside	100.0	43.4	-	-	-	-	13.9
DT324	Keynsham - Hicks Gate A4174	364196	169818	Roadside	82.6	35.8	-	-	-	-	23.5
DT296	Old Mills	364748	155000	Roadside	100.0	100.0	-	-	21.5	18.7	17.5
DT295	Radstock - Bath New Road	368825	155080	Roadside	92.5	92.5	-	-	**40.2**	36.7	35.4
DT307	Radstock - Bath New Road 3	368810	155122	Roadside	83.0	83.0	-	-	-	31.2	29.2
DT317	Radstock - Combe End	368815	155060	Roadside	100.0	100.0	-	-	-	-	13.6
DT075	Saltford - The Crown	368375	166988	Roadside	90.6	90.6	23.3	23.0	21.4	20.0	17.6
DT077	Saltford - Bath Road	368778	166687	Roadside	90.6	90.6	21.0	19.3	18.7	17.1	16.2
DT096a, DT096b, DT096c	Temple Cloud 1	362219	157923	Roadside	100.0	100.0	**44.8**	**44.2**	**41.6**	39.0	35.4
DT108a	Temple Cloud 2	362179	158055	Roadside	100.0	100.0	30.3	30.3	28.6	27.1	24.4
DT109a	Temple Cloud 3	362344	157658	Roadside	92.5	92.5	27.9	29.4	25.4	24.7	22.0
DT252a	Temple Cloud 9	362195	158007	Roadside	90.6	90.6	32.1	34.0	32.6	30.1	28.7
DT253a, DT253b, DT253c	Temple Cloud 10	362243	157846	Roadside	100.0	100.0	37.2	39.4	35.1	34.0	29.8
DT255a	Temple Cloud 12	362284	157741	Roadside	100.0	100.0	36.2	37.5	35.5	34.6	31.5

Diffusion Tube ID	Site Name	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
DT032	Whitchurch	361242	167652	Roadside	90.6	90.6	27.8	28.1	27.4	24.4	22.3
DT098	Whitchurch 2	361276	167555	Roadside	100.0	100.0	23.3	23.7	22.4	19.6	17.0
DT100	Whitchurch 4	361326	167606	Roadside	100.0	100.0	19.6	21.3	19.7	16.6	15.2
DT101	Whitchurch 5	361235	167824	Roadside	92.5	92.5	30.5	30.4	28.9	26.5	22.2

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

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

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

Notes:

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

Exceedances of the NO_2 annual mean objective of 40µg/m^3 are shown in **bold**.

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

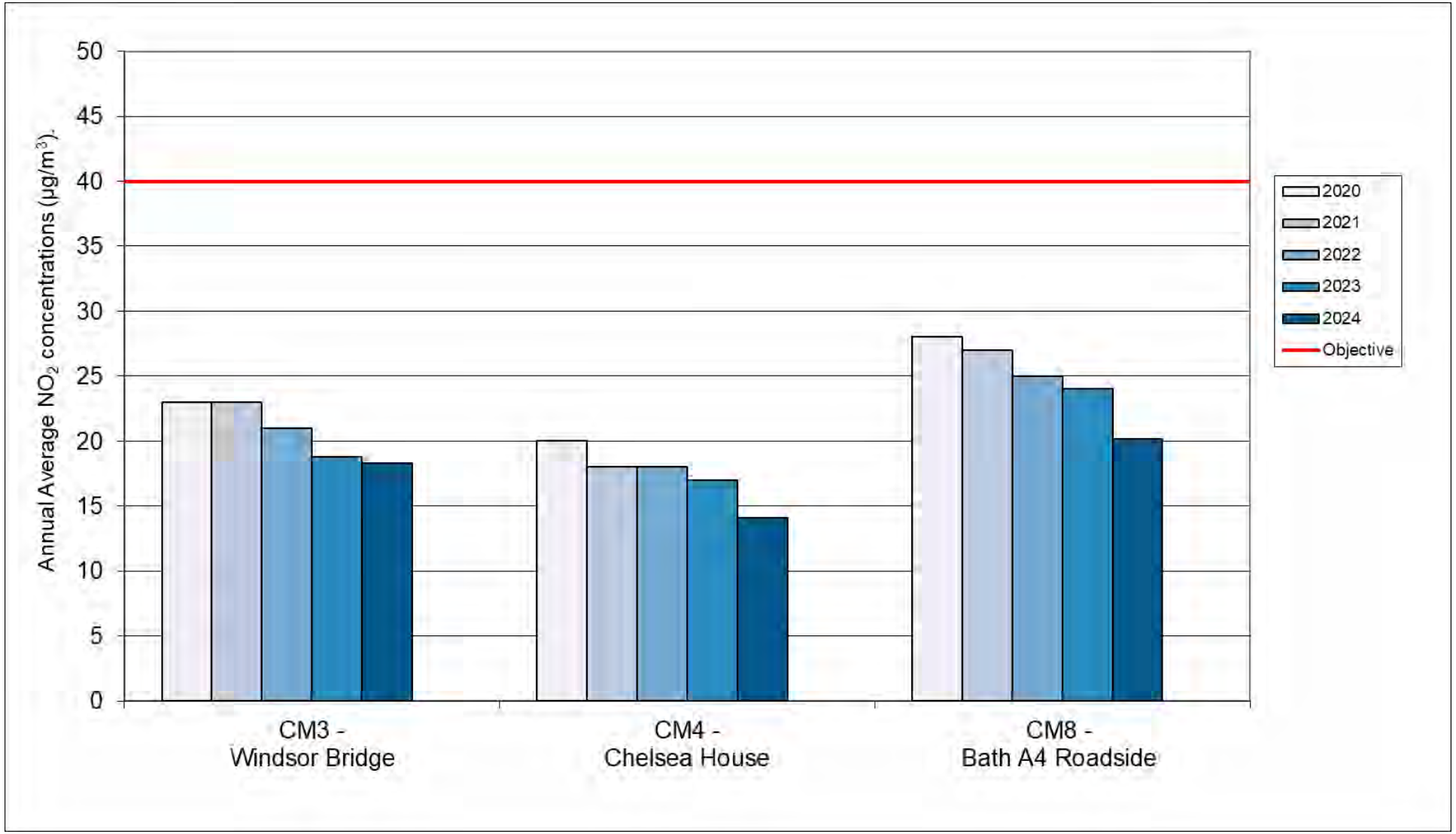
Means for diffusion tubes have been corrected for bias. All means have been “annualised” as per LAQM.TG22 if valid data capture for the full calendar year is less than 75%. See Appendix C for details.

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.

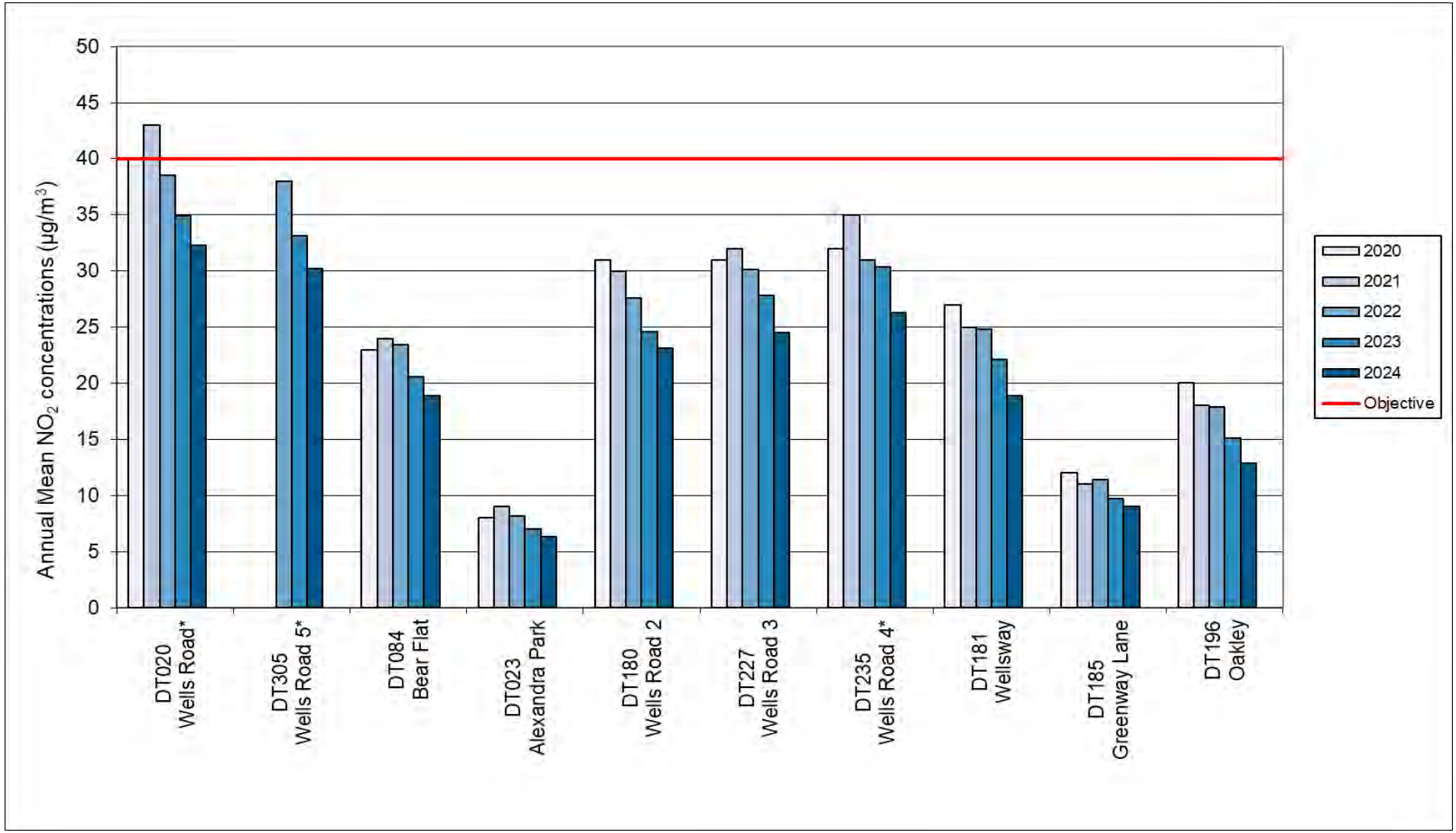
(2) Data capture for the full calendar year (e.g. if monitoring was carried out for 6 months, the maximum data capture for the full calendar year is 50%).

Figure A.1 – Trends in Annual Mean NO_2 Concentrations Measured at the Automatic Monitoring Sites



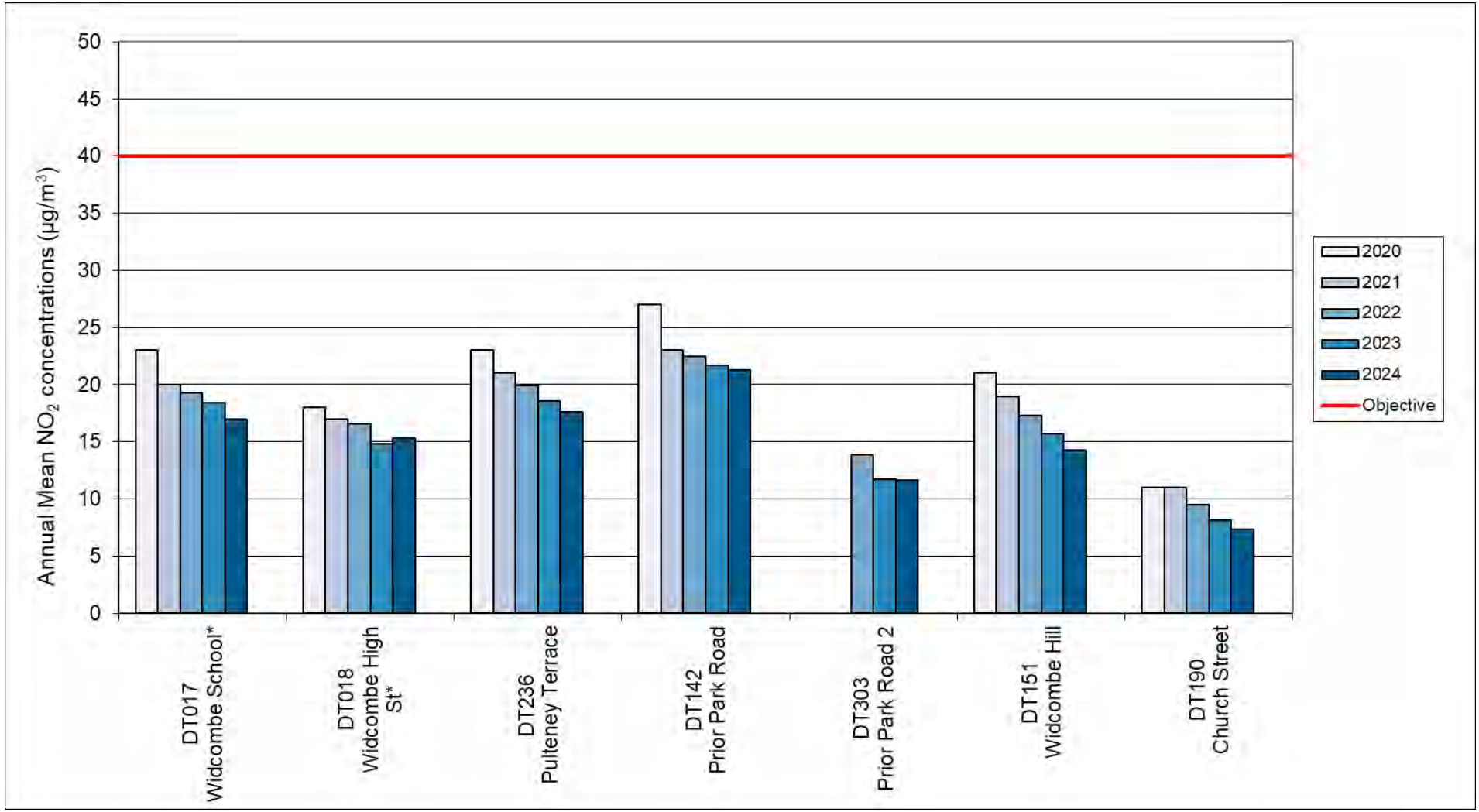
Note: All sites are within the Bath AQMA

Figure A.2 – Trends in Annual Mean NO_2 Concentrations Measured at Diffusion Tube Monitoring Sites – Bath, Widcombe and Lyncombe (1)



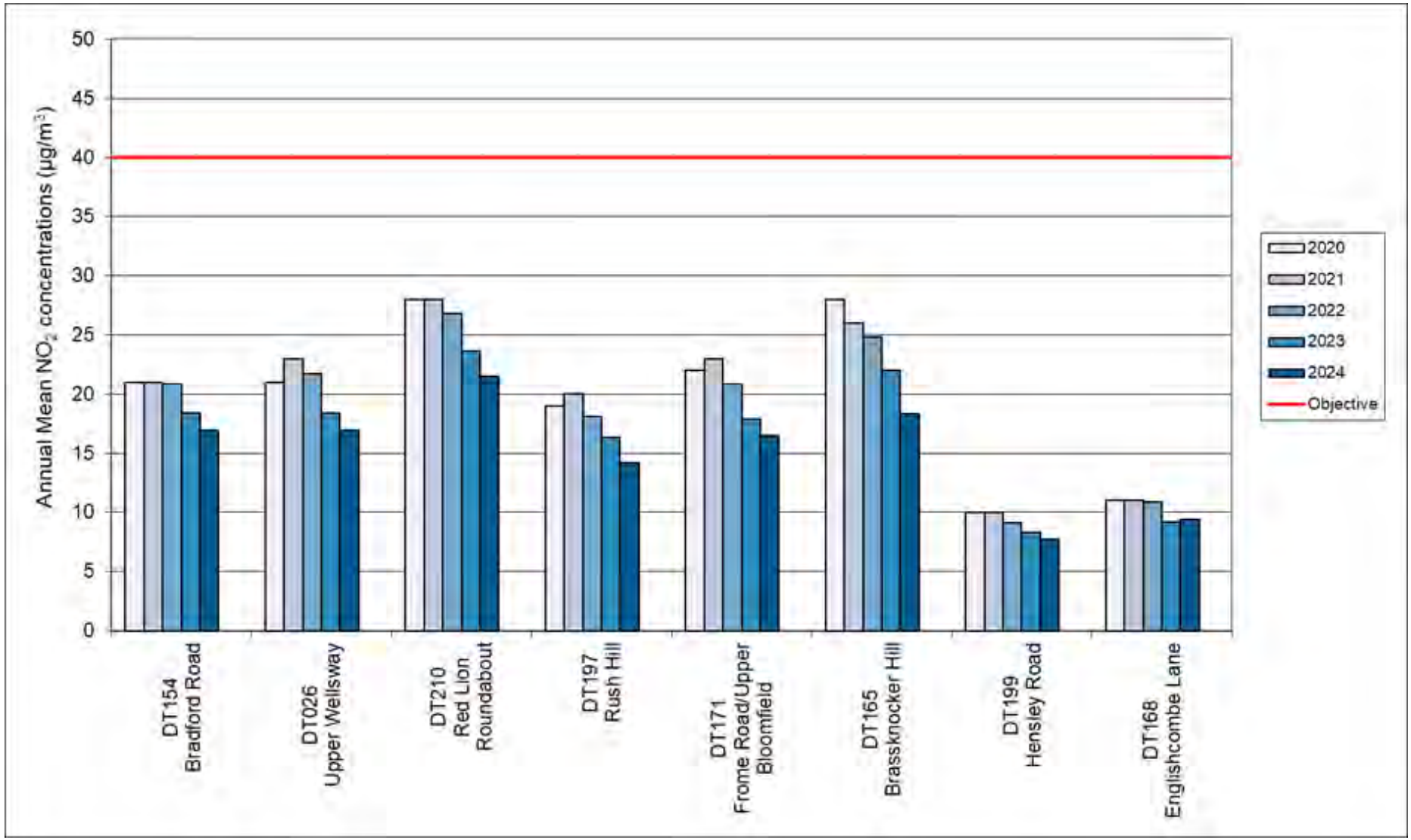
Note: * indicates that sites are within the Bath AQMA.

Figure A.3 – Trends in Annual Mean NO_2 Concentrations Measured at Diffusion Tube Monitoring Sites – Bath, Widcombe and Lyncombe (2)



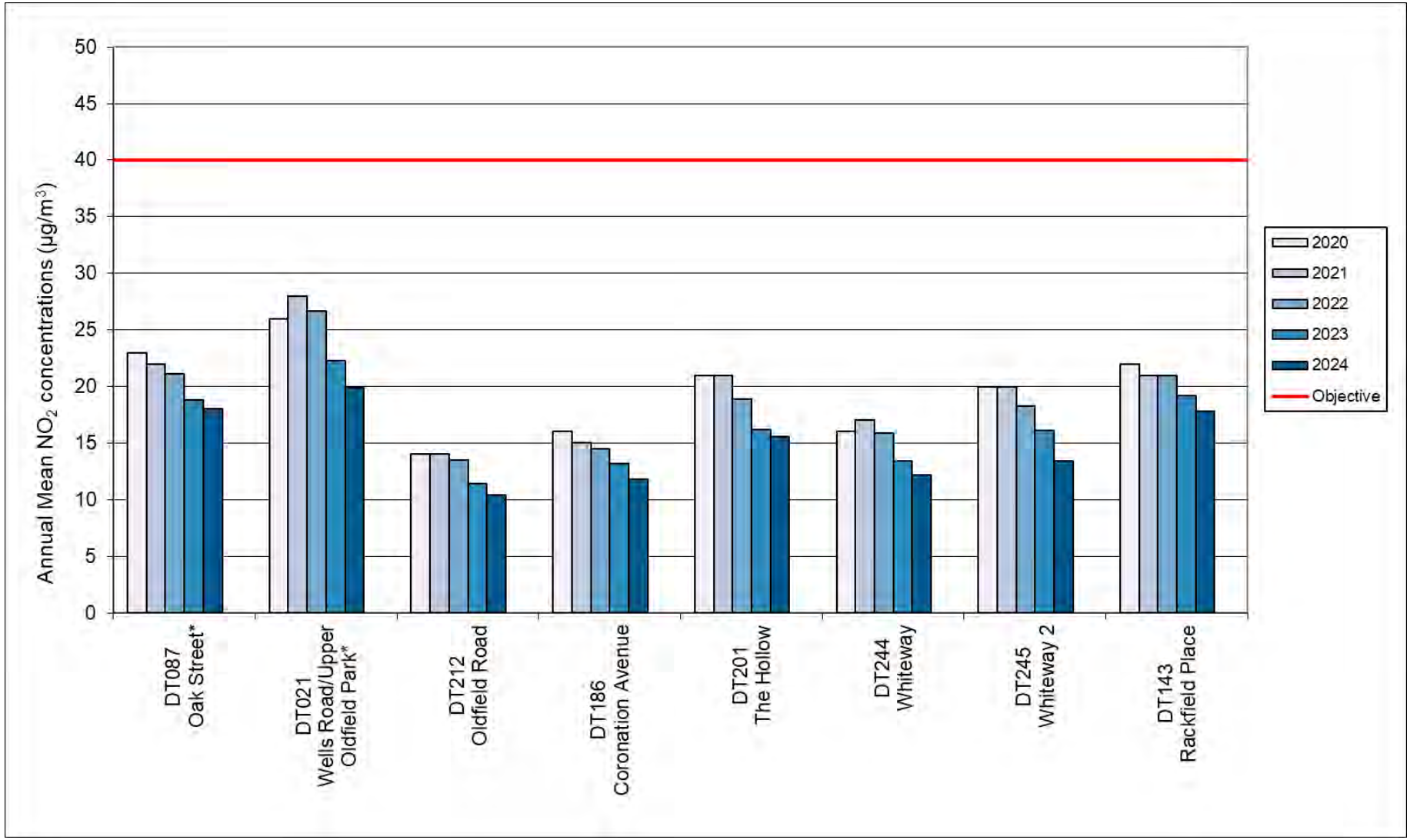
Note: * indicates that sites are within the Bath AQMA.

Figure A.4 – Trends in Annual Mean NO_2 Concentrations Measured at Diffusion Tube Monitoring Sites – Bath, Combe Down, Odd Down, Bathavon South and Moorlands



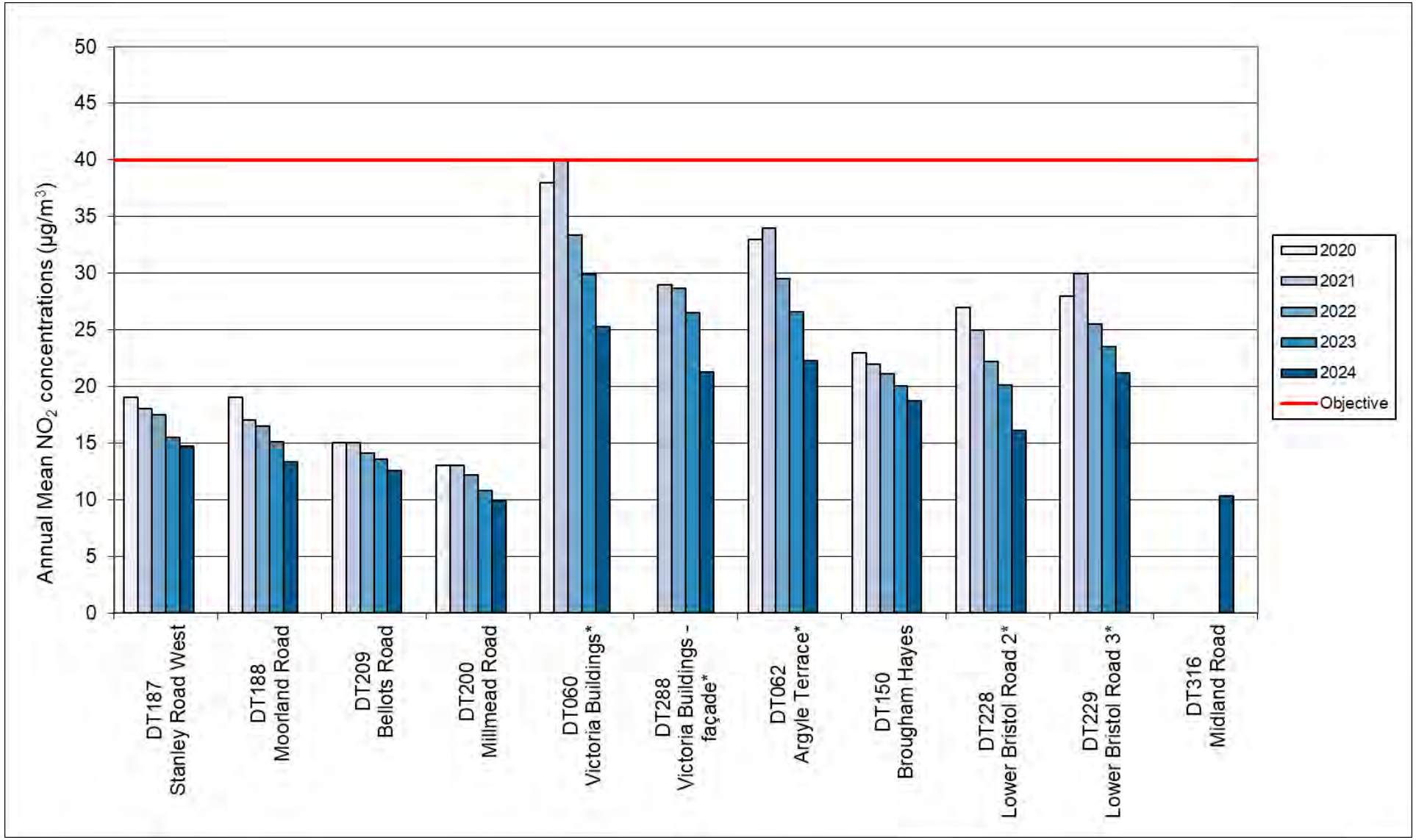
Note: No sites are within an AQMA

Figure A.5 – Trends in Annual Mean NO_2 Concentrations Measured at Diffusion Tube Monitoring Sites – Bath, Oldfield Park, Southdown and Twerton



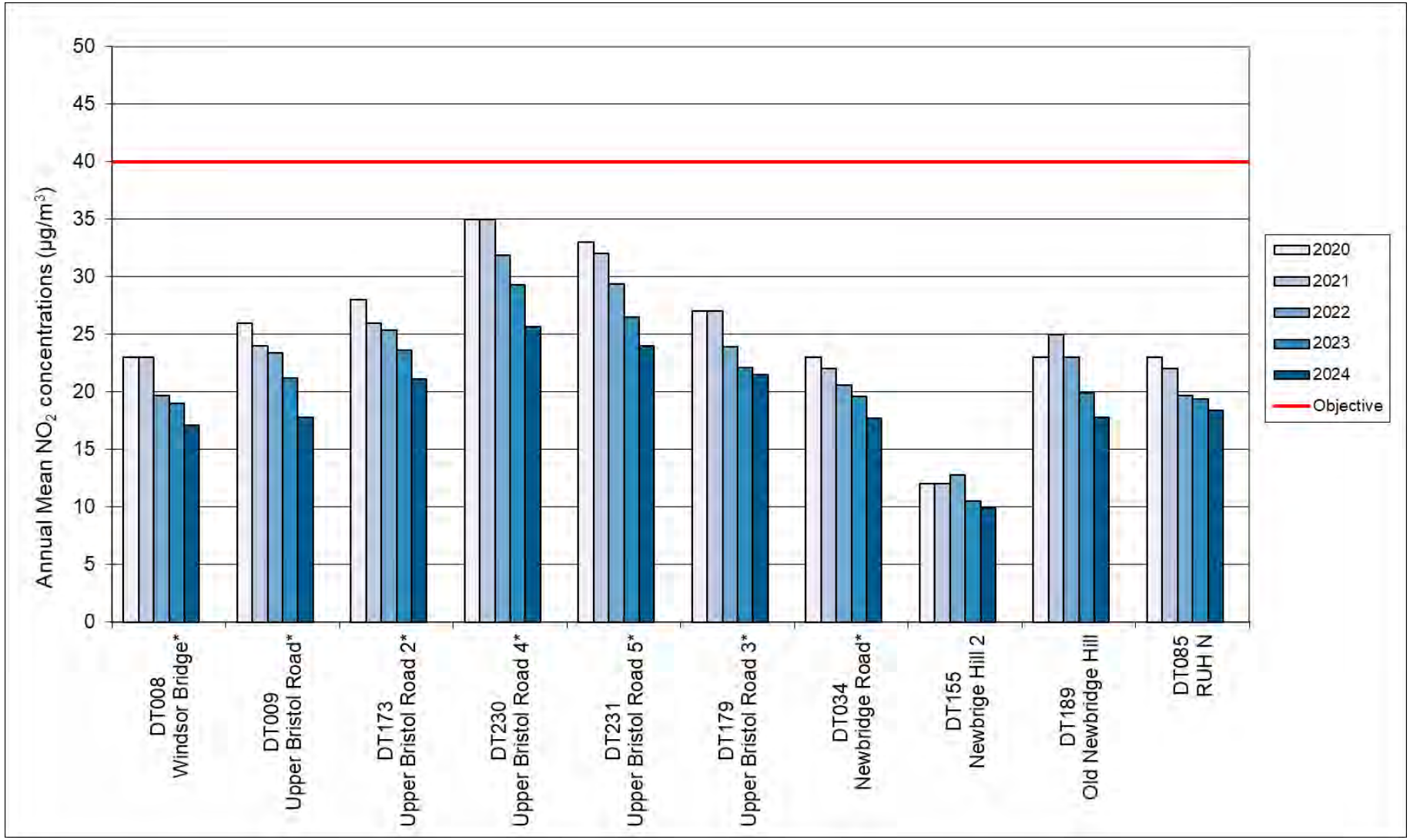
Note: * indicates that sites are within the Bath AQMA.

Figure A.6 – Trends in Annual Mean NO_2 Concentrations Measured at Diffusion Tube Monitoring Sites – Bath, Westmoreland



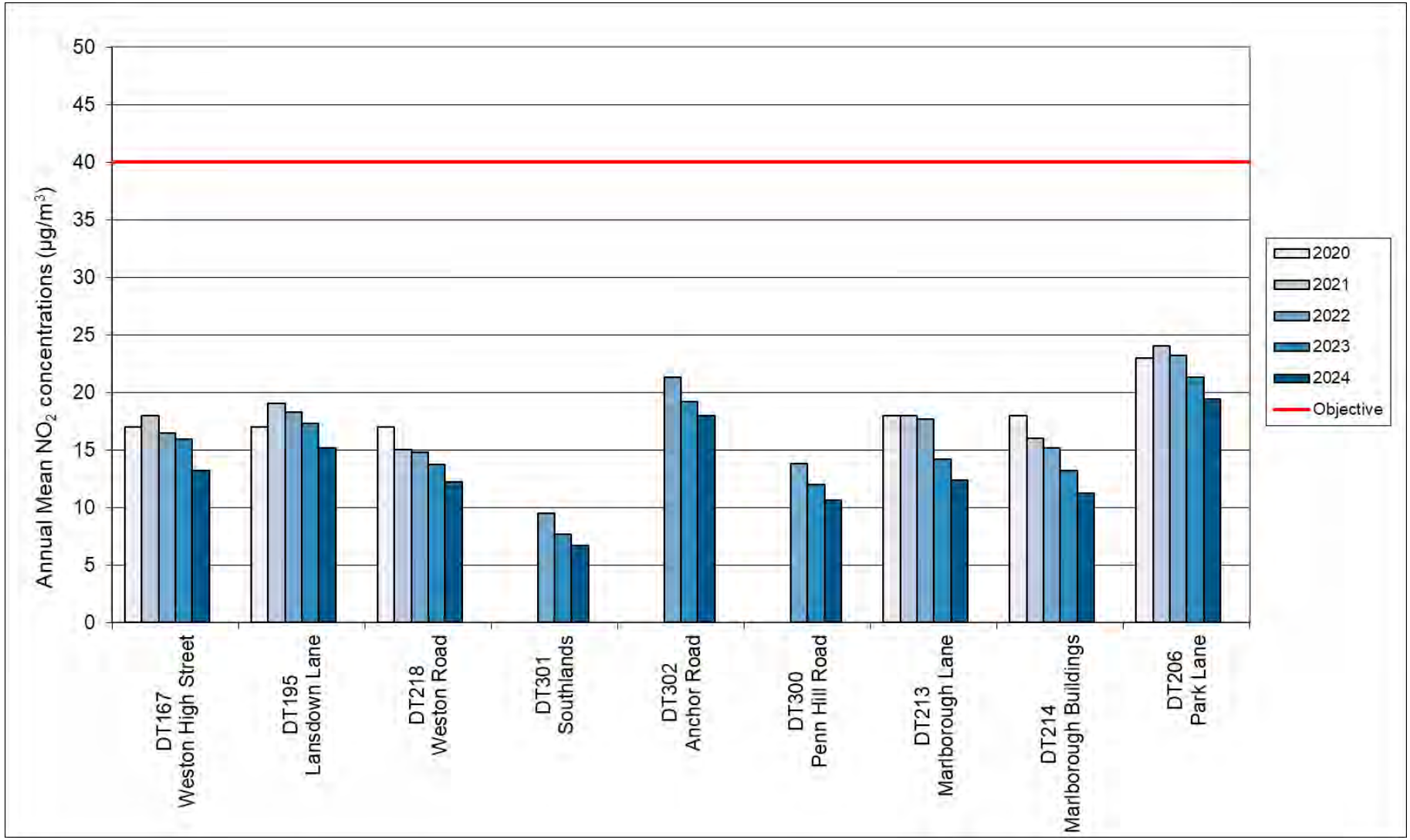
Note: * indicates that sites are within the Bath AQMA.

Figure A.7 – Trends in Annual Mean NO_2 Concentrations Measured at Diffusion Tube Monitoring Sites – Bath, Newbridge and Kingsmead



Note: * indicates that sites are within the Bath AQMA.

Figure A.8– Trends in Annual Mean NO_2 Concentrations Measured at Diffusion Tube Monitoring Sites – Bath, Weston and Kingsmead



Note: * indicates that sites are within the Bath AQMA.

Figure A.9– Trends in Annual Mean NO_2 Concentrations Measured at Diffusion Tube Monitoring Sites – Bath, Lansdown and Lambridge

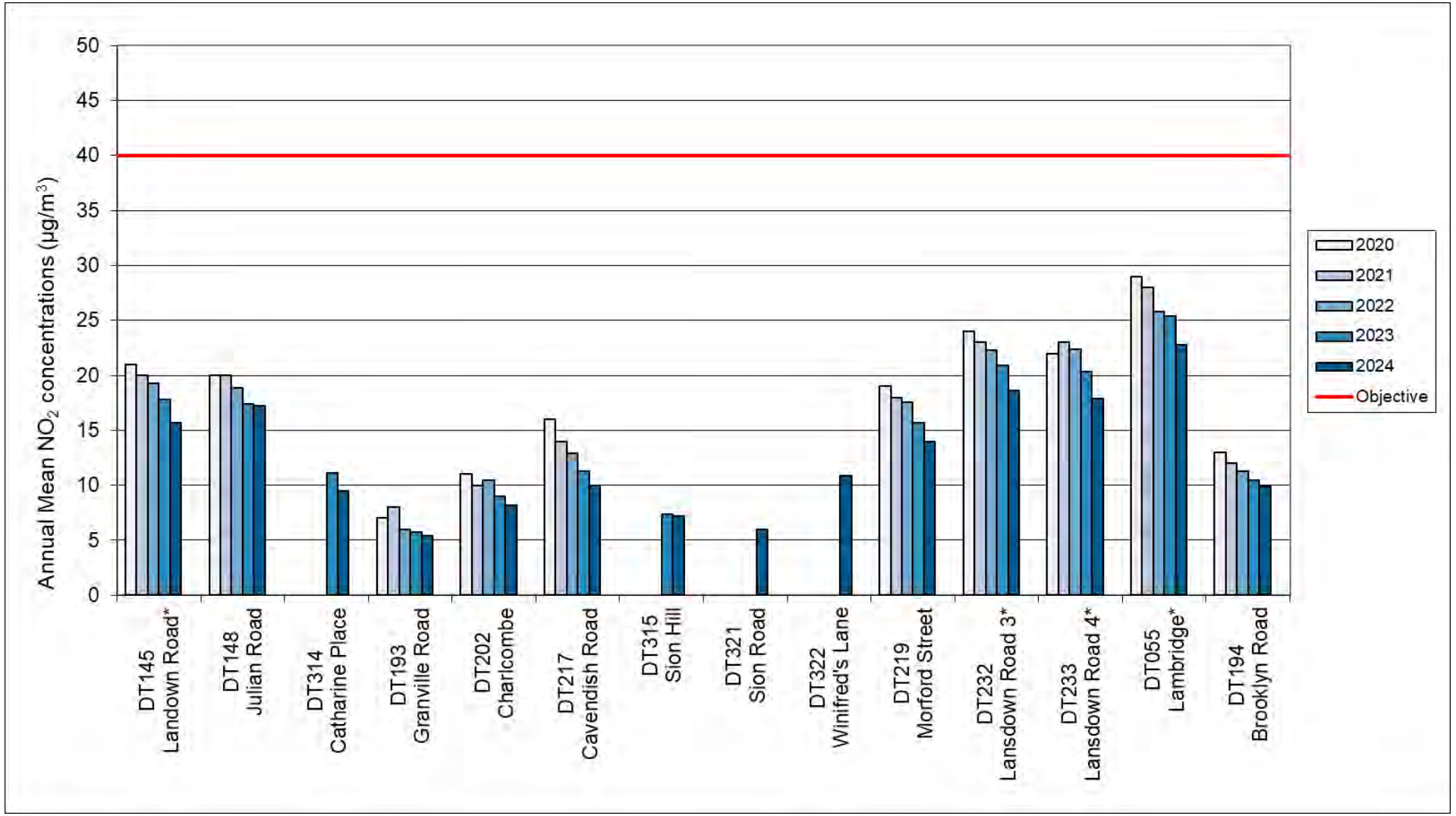
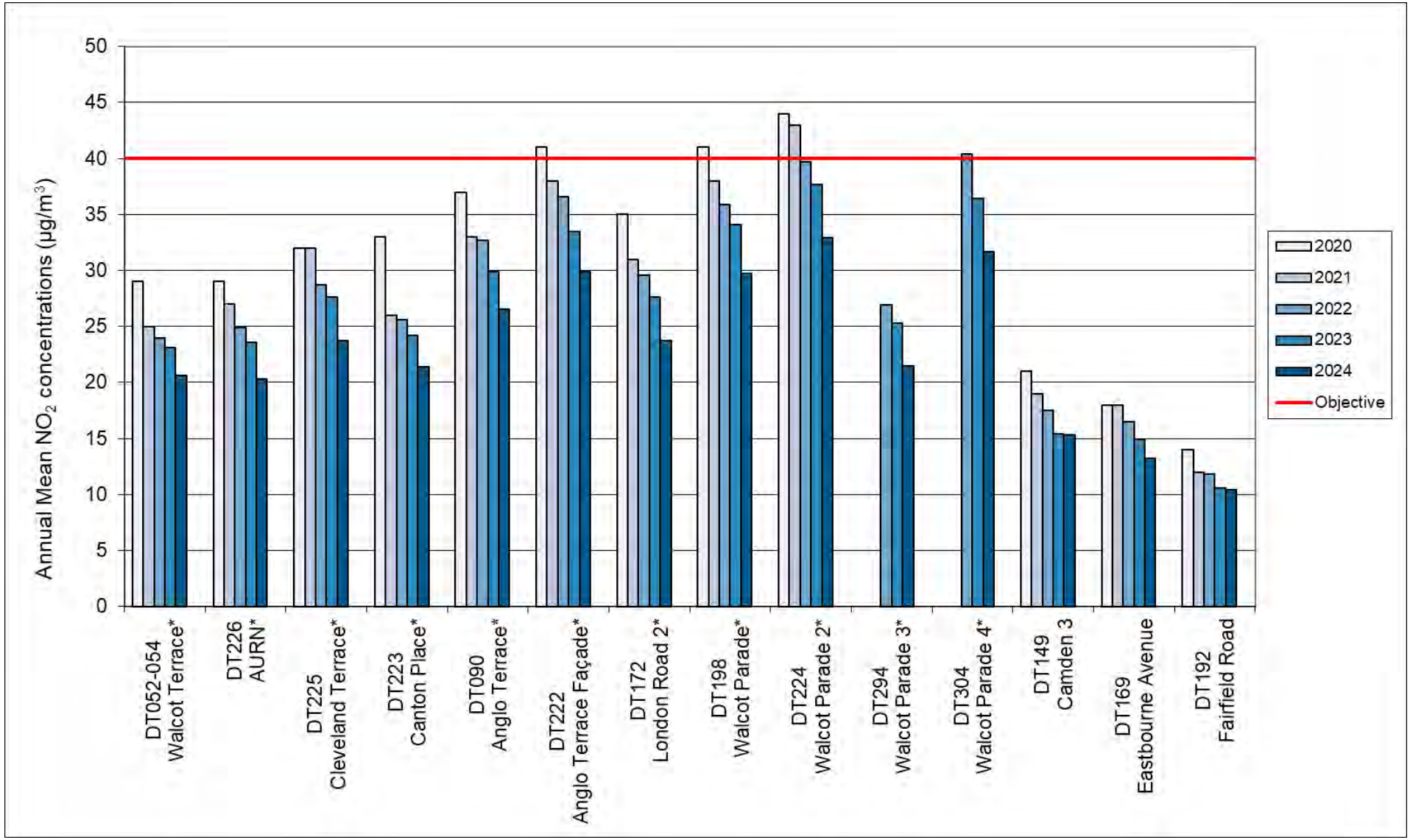
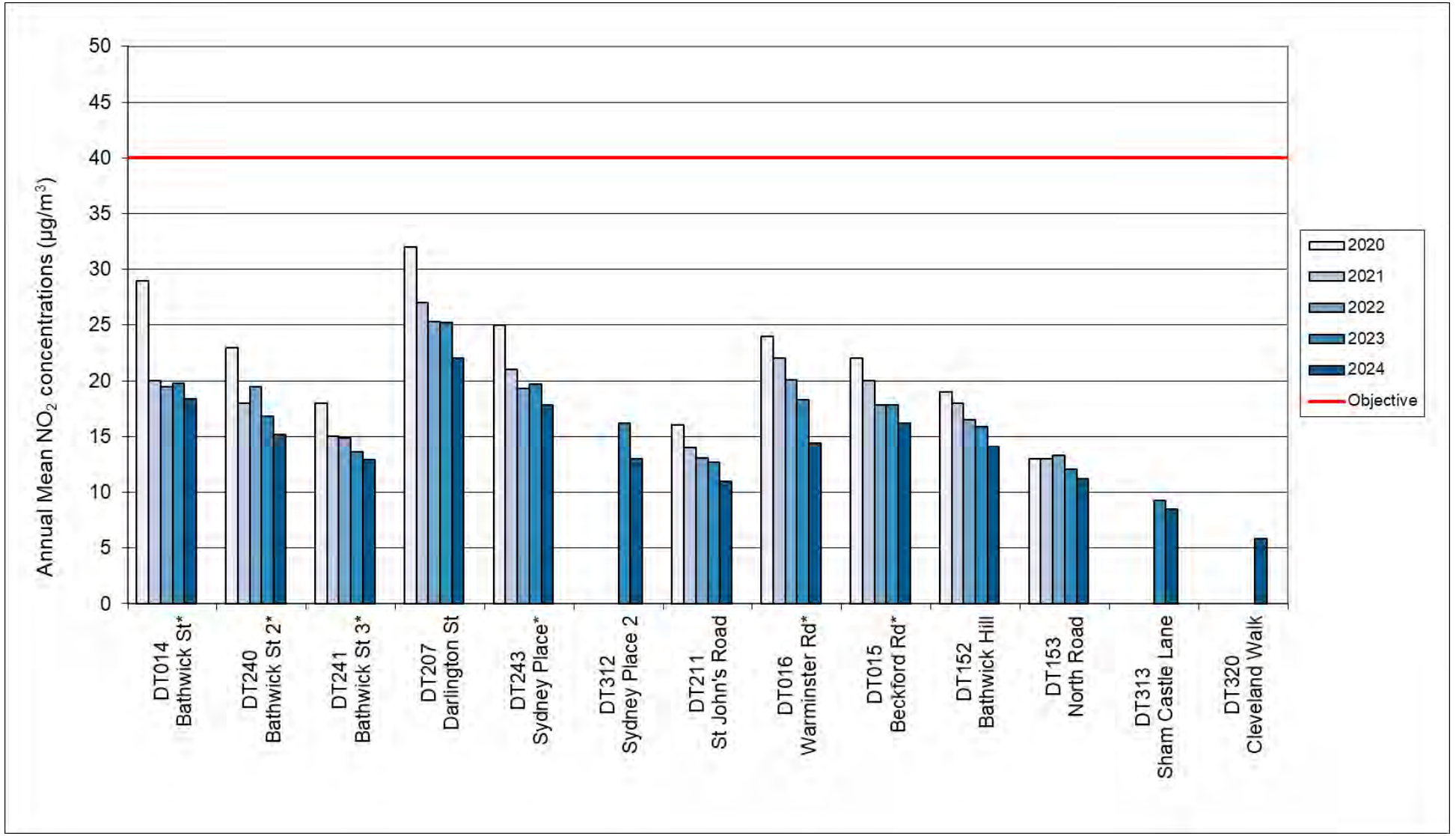


Figure A.10 – Trends in Annual Mean NO_2 Concentrations Measured at Diffusion Tube Monitoring Sites – Bath, Walcot



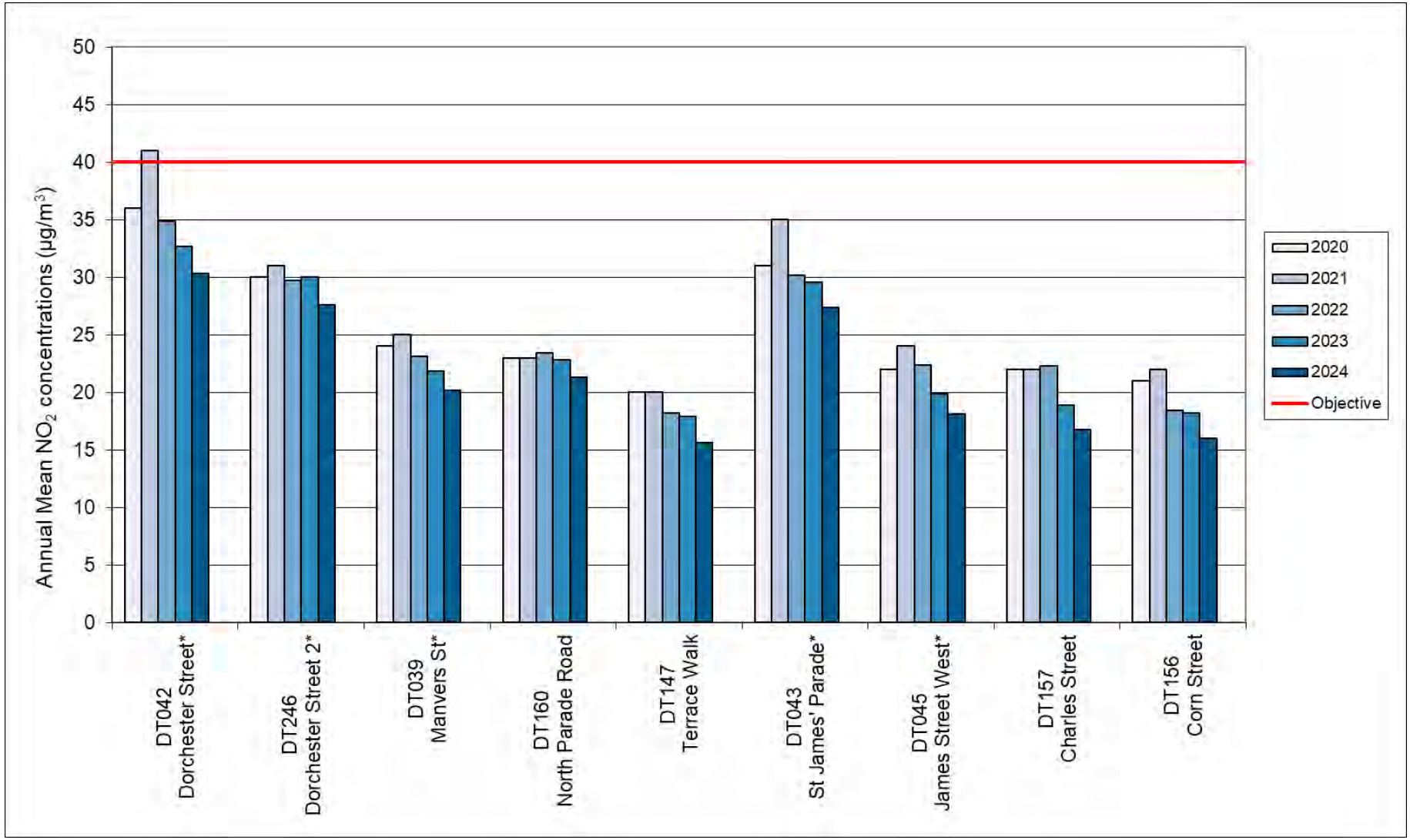
Note: * indicates that sites are within the Bath AQMA.

Figure A.11 – Trends in Annual Mean NO_2 Concentrations Measured at Diffusion Tube Monitoring Sites – Bath, Bathwick



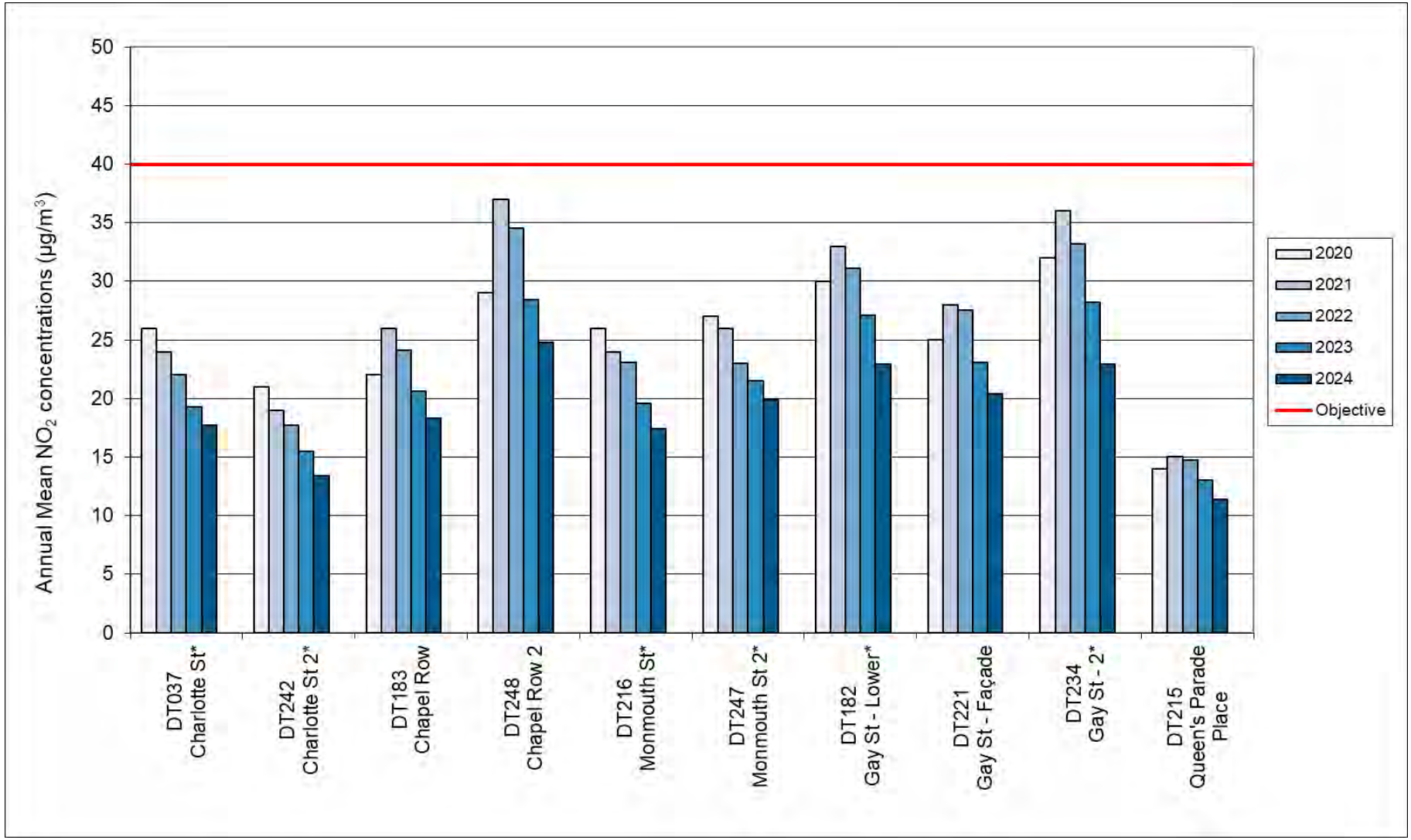
Note: * indicates that sites are within the Bath AQMA.

Figure A.12 – Trends in Annual Mean NO_2 Concentrations Measured at Diffusion Tube Monitoring Sites – Bath, Kingsmead (South)



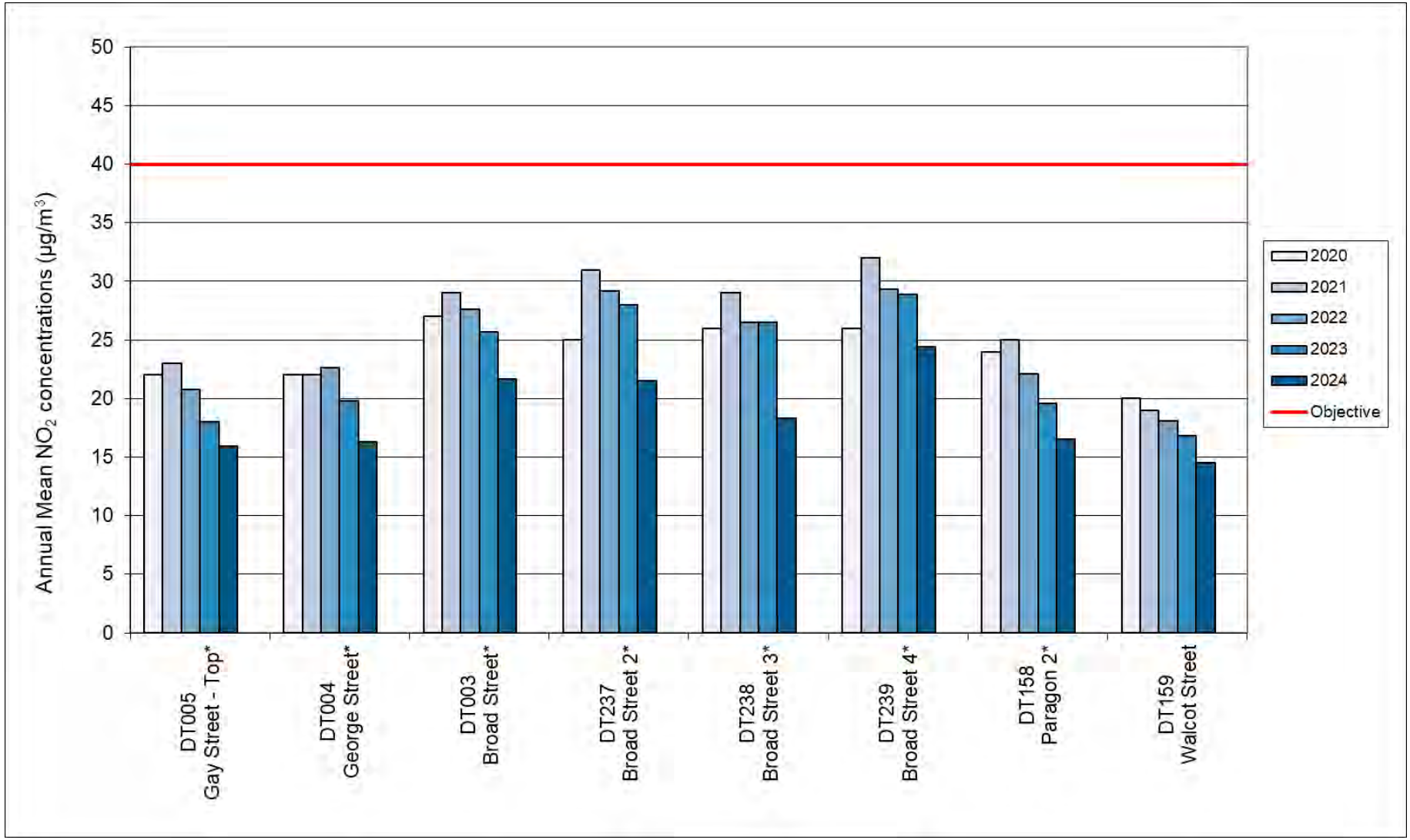
Note: * indicates that sites are within the Bath AQMA.

Figure A.13 – Trends in Annual Mean NO_2 Concentrations Measured at Diffusion Tube Monitoring Sites – Bath, Kingsmead (North West)



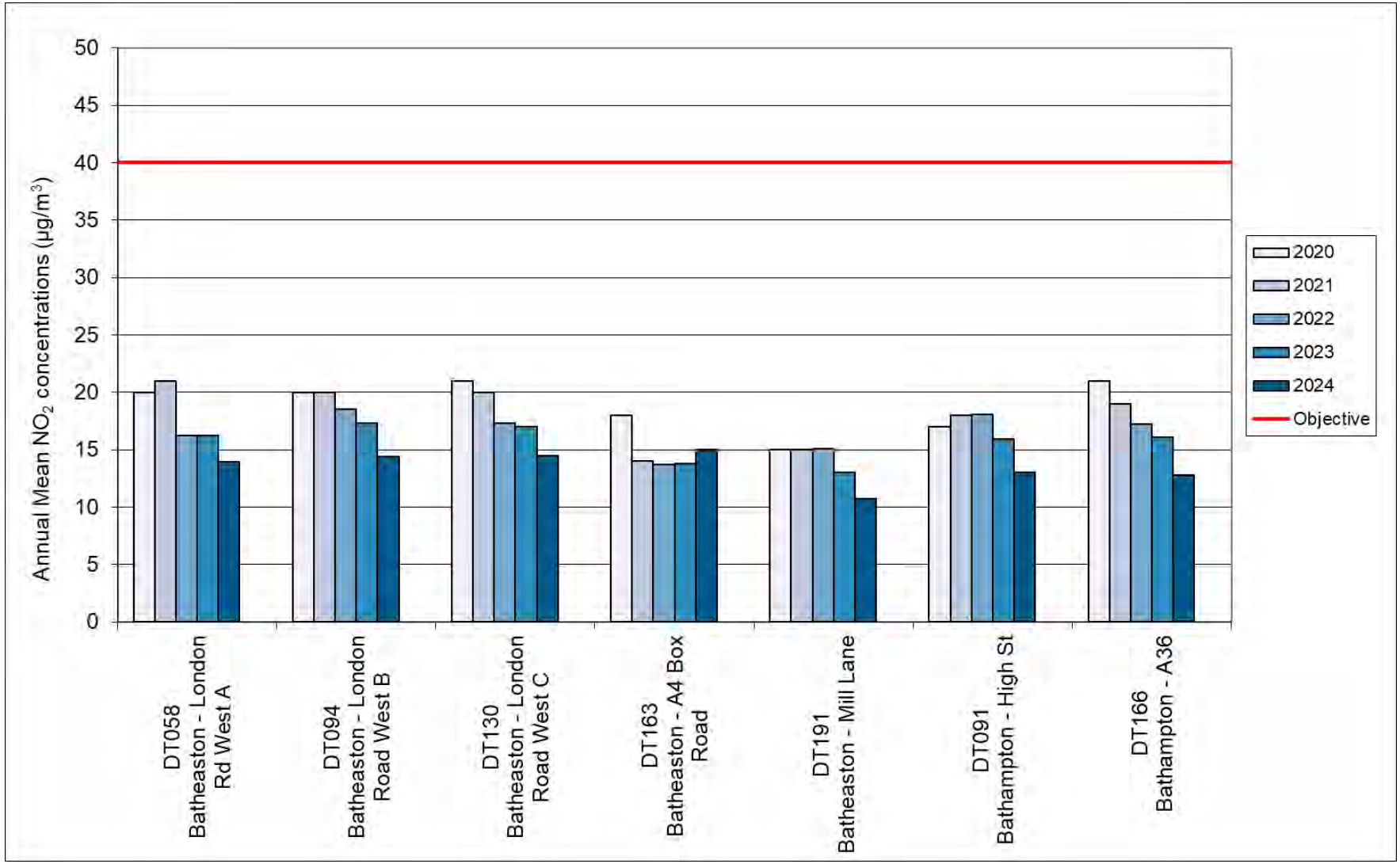
Note: * indicates that sites are within the Bath AQMA.

Figure A.14 – Trends in Annual Mean NO_2 Concentrations Measured at Diffusion Tube Monitoring Sites – Bath, Kingsmead (North East)



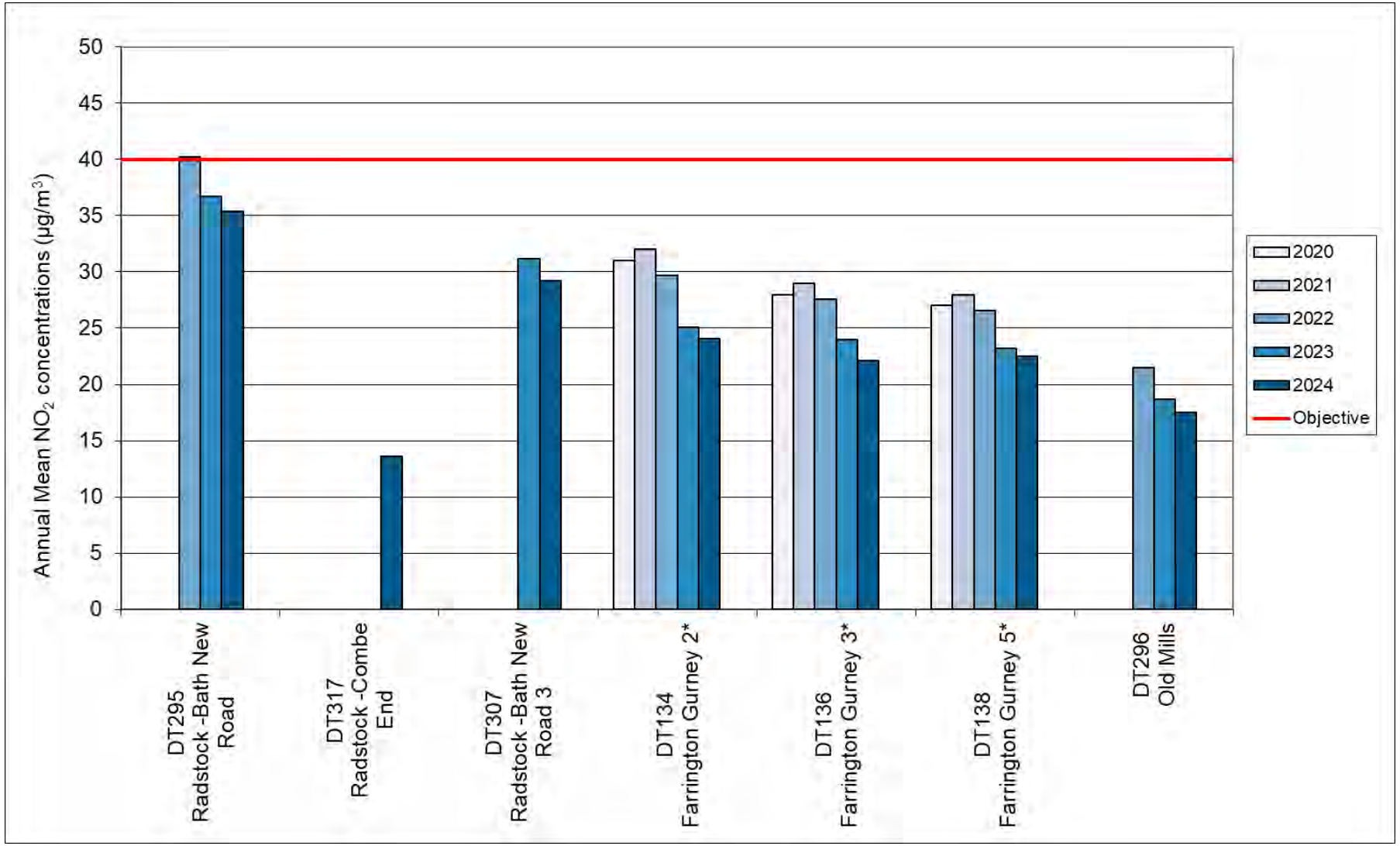
Note: * indicates that sites are within the Bath AQMA.

Figure A.15 – Trends in Annual Mean NO_2 Concentrations Measured at Diffusion Tube Monitoring Sites – Batheaston and Bathampton



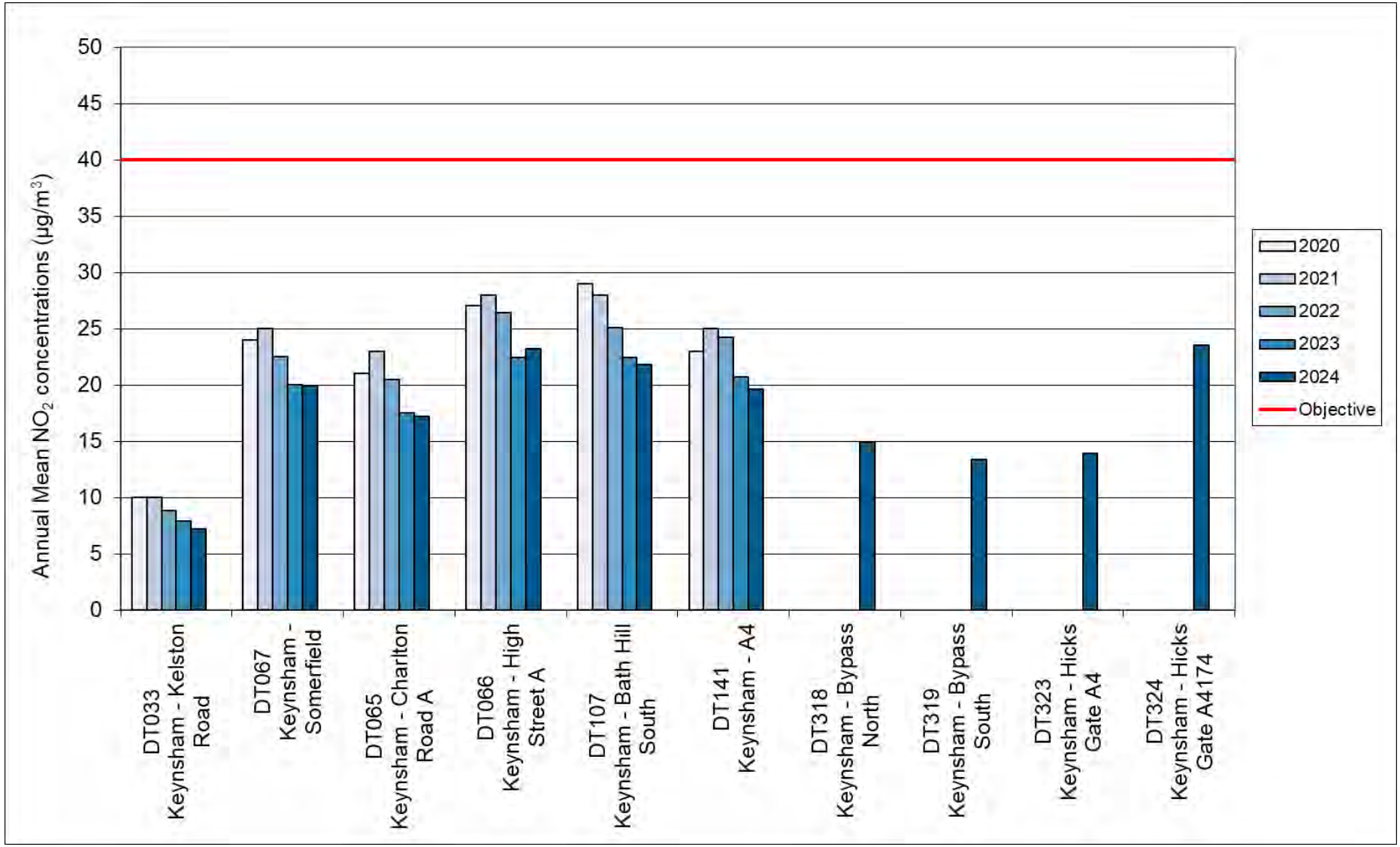
Note: No sites are within an AQMA

Figure A.16 – Trends in Annual Mean NO_2 Concentrations Measured at Diffusion Tube Monitoring Sites – Radstock, Old Mills and Farrington Gurney



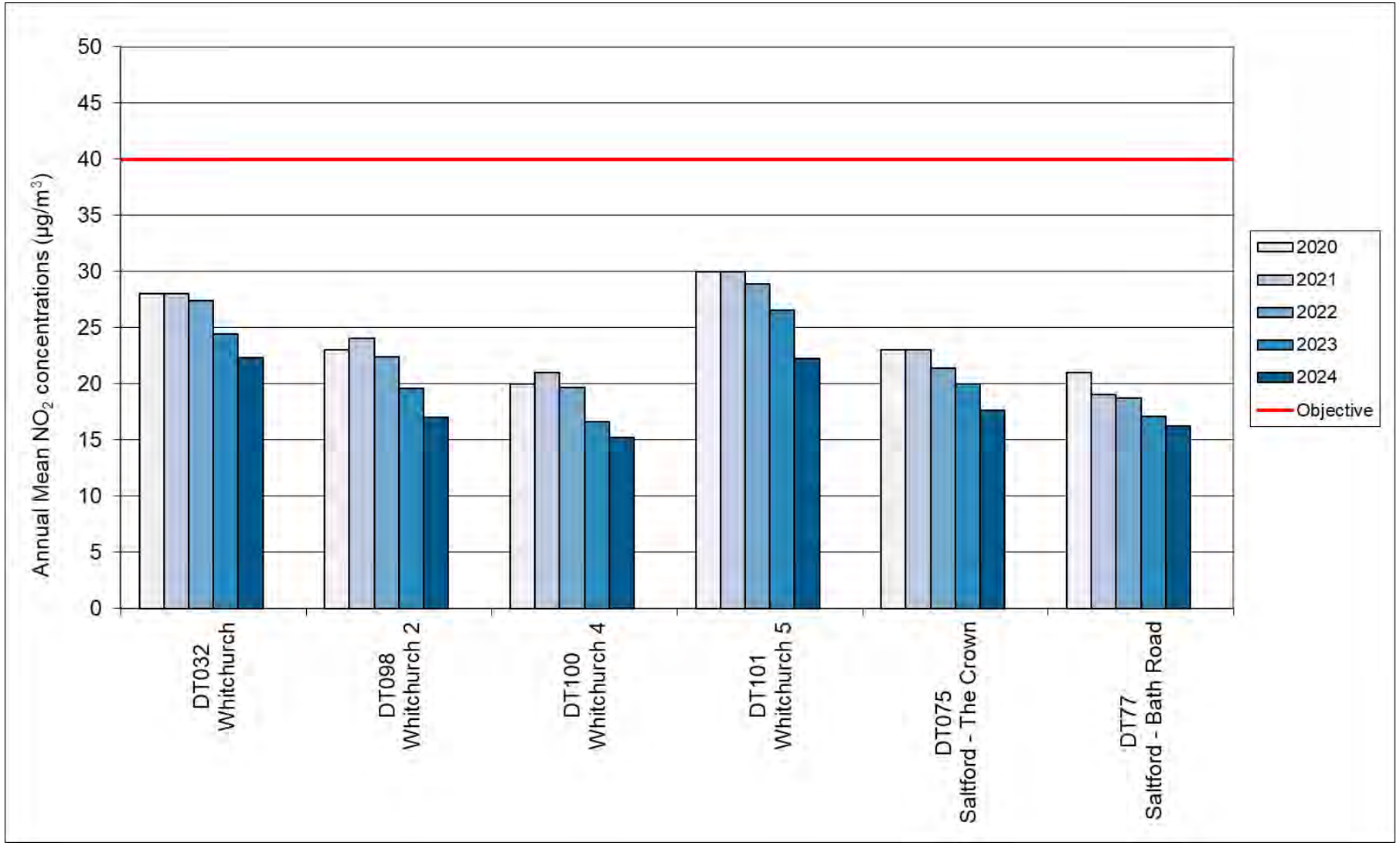
Note: * indicates that sites are within the Farrington Gurney AQMA.

Figure A.17 – Trends in Annual Mean NO_2 Concentrations Measured at Diffusion Tube Monitoring Sites – Keynsham



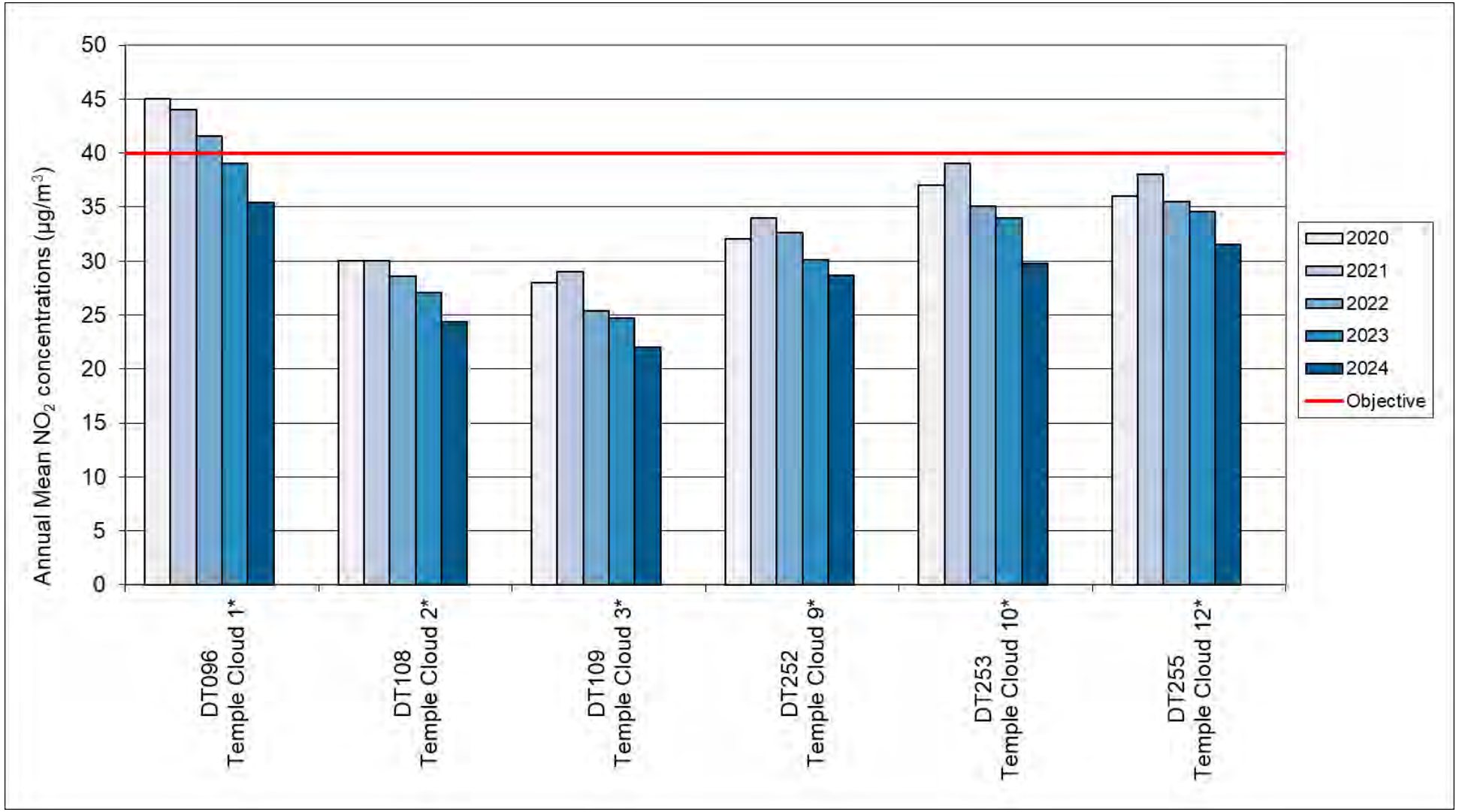
Note: No sites are within an AQMA

Figure A.18 – Trends in Annual Mean NO_2 Concentrations Measured at Diffusion Tube Monitoring Sites – Whitchurch and Saltford



Note: No sites are within an AQMA

Figure A.19 – Trends in Annual Mean NO_2 Concentrations Measured at Diffusion Tube Monitoring Sites –Temple Cloud



Note: * indicates that sites are within the Temple Cloud AQMA.

Table A.5 – 1-Hour Mean NO_2 Monitoring Results, Number of 1-Hour Means > 200µg/m^3

Site ID	Site Name	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
CM3	Windsor Bridge	373593	164861	Roadside	98.0	98.0	0	0	0	0	0
CM4	Chelsea House	375419	165853	Roadside	99.4	99.4	0	0	0	0	0
CM8	Bath A4 Roadside	375394	165824	Roadside	96.0	96.0	1	0	1	0 (82)	0

Notes:

Results are presented as the number of 1-hour periods where concentrations greater than 200µg/m^3 have been recorded.

Exceedances of the NO_2 1-hour mean objective (200µg/m^3 not to be exceeded more than 18 times/year) are shown in **bold**.

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

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

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

Table A.6 – Annual Mean PM_{10} Monitoring Results (µg/m^3)

Site ID	Site Name	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
CM3	Windsor Bridge	373593	164861	Roadside	95.8	95.8	18.7	17.9	21.1	29.2	21.4
CM8	Bath A4 Roadside	375394	165824	Roadside	90.6	73.2	18.5	18.5	18.6	15.1	15.1

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

Notes:

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

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

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

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

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

Figure A.20 – Trends in Annual Mean PM_{10} Concentrations

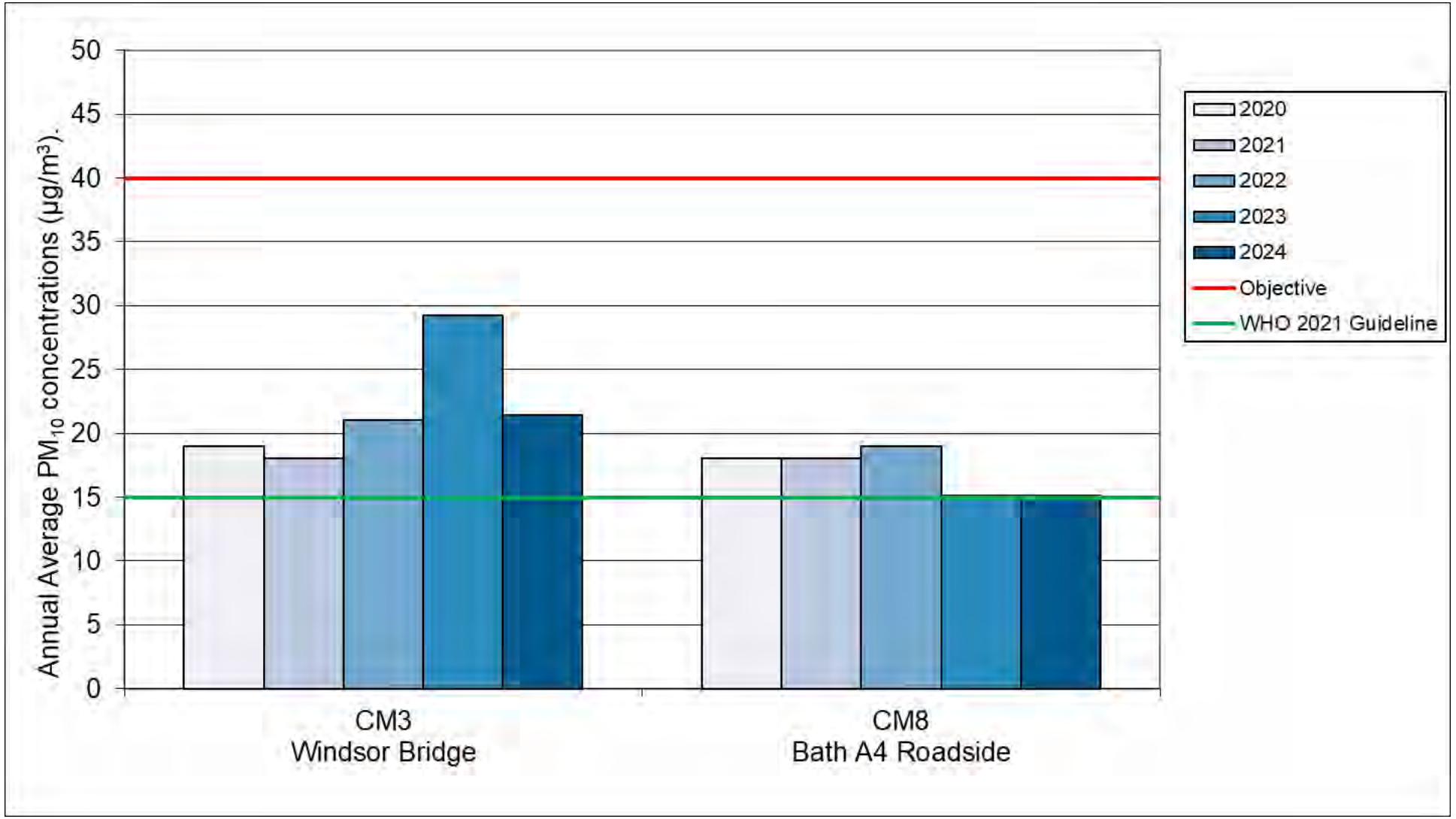


Table A.7 – 24-Hour Mean PM_{10} Monitoring Results, Number of PM_{10} 24-Hour Means > 50µg/m^3

Site ID	Site Name	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
CM3	Windsor Bridge	373593	164861	Roadside	95.8	95.8	1	1	0	23	4
CM8	Bath A4 Roadside	375394	165824	Roadside	90.6	73.2	1	1	0	0 (24.6)	0 (24)

Notes:

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

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

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

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

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

Figure A.21 – Trends in Number of 24-Hour Mean PM10 Results > 50µg/m³

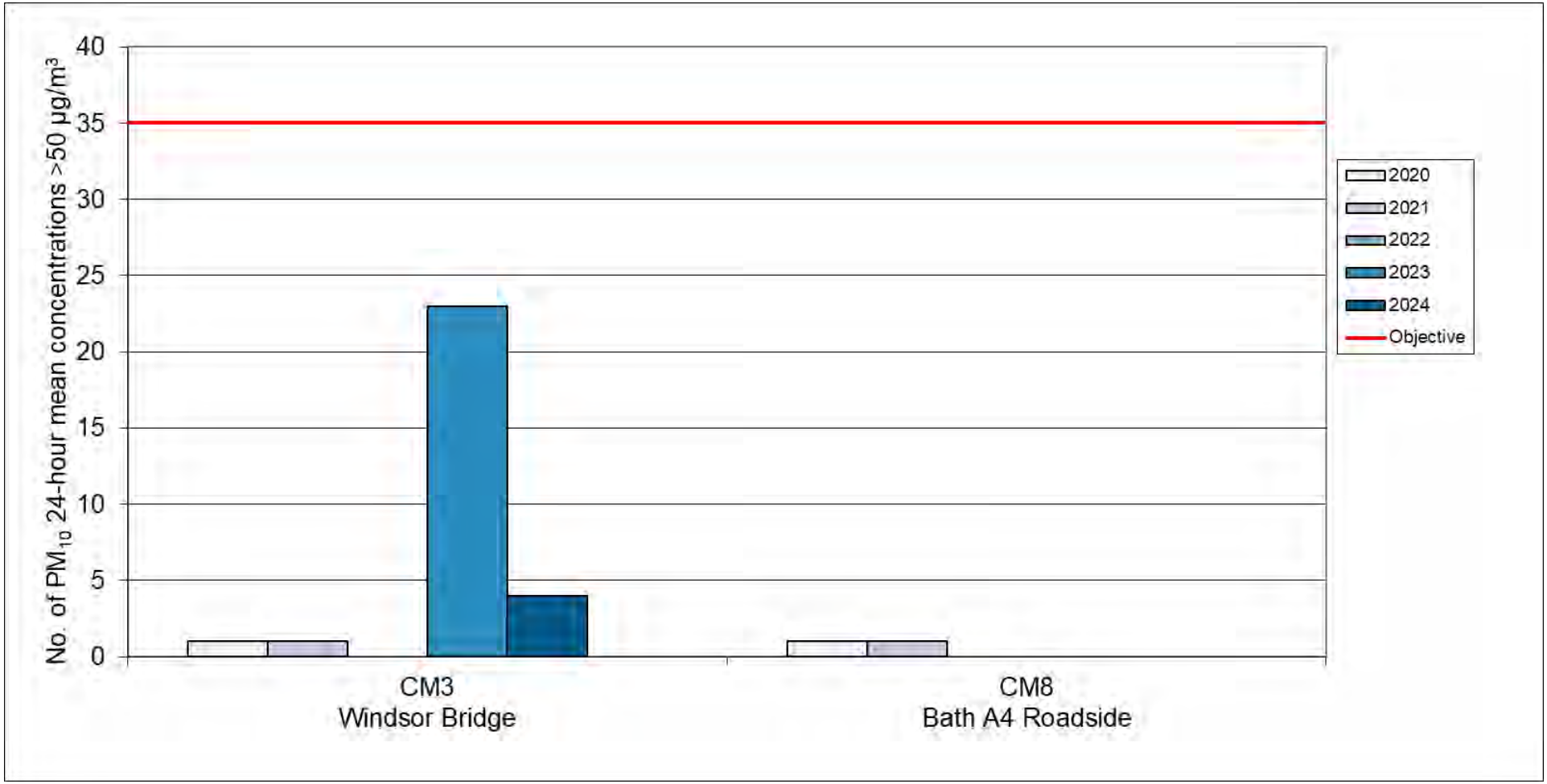


Table A.8 – Annual Mean $PM_{2.5}$ Monitoring Results (µg/m^3)

Site ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Site Type	Valid Data Capture for Monitoring Period (%) (1)	Valid Data Capture 2024 (%) (2)	2020	2021	2022	2023	2024
CM4	375419	165853	Roadside	97.6	97.6	9.7	10.4	10.6	9.8	7.4

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

Notes:

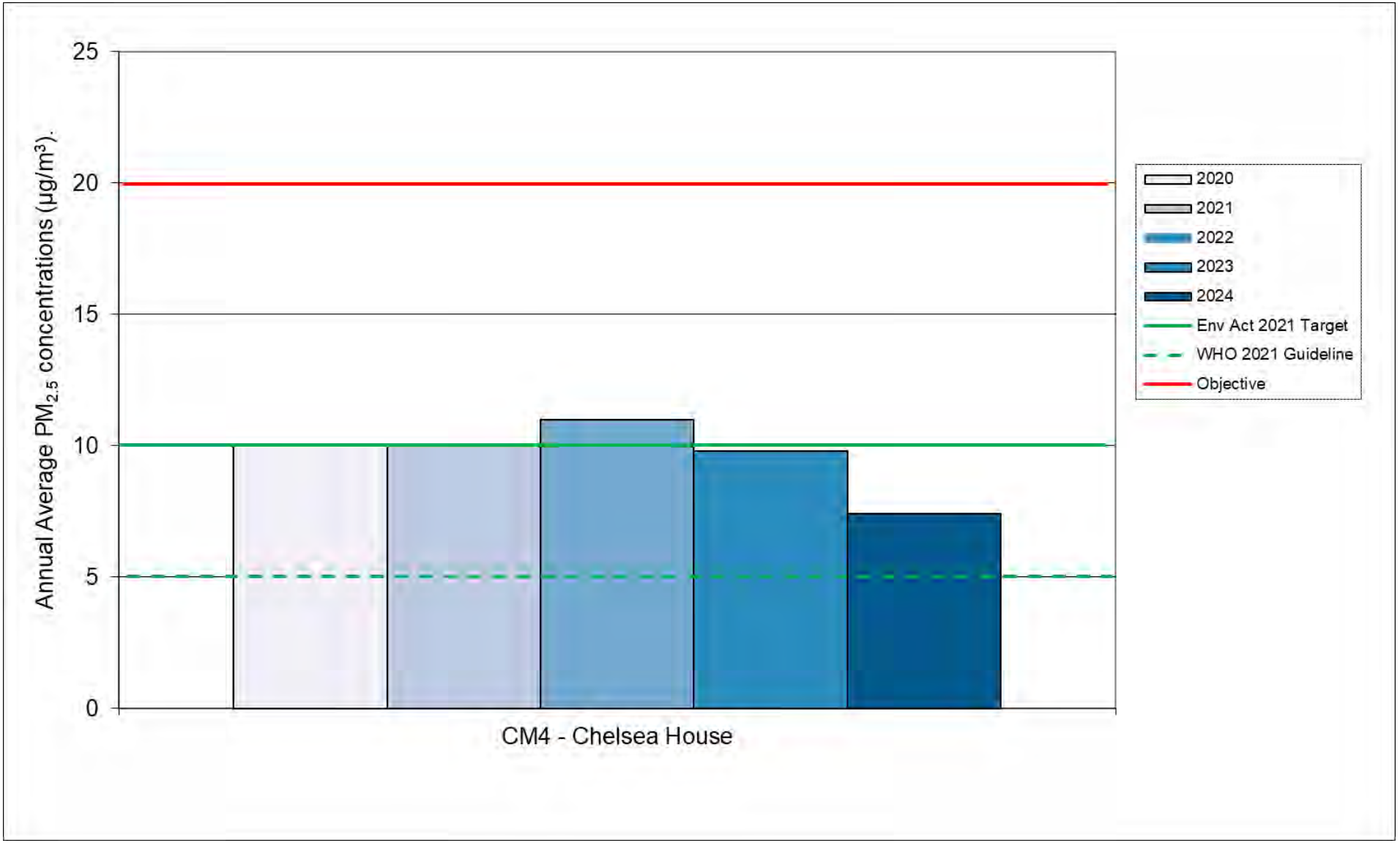
The annual mean concentrations are presented as µg/m^3.

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

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

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

Figure A.22 – Trends in Annual Mean $PM_{2.5}$ Concentrations



Appendix B: Full Monthly Diffusion Tube Results for 2024

Table B.1 – NO_2 2024 Diffusion Tube Results ($\mu g/m^3$)

DT ID	Site Name	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 (0.82)	Annual Mean: Distance Corrected to Nearest Exposure	Comment
DT003	Bath - Broad St	374992	165173	30.8	29.3	27.7	23.8	25.3	22.4	24.2	24.3	27.2	26.0	30.3	26.4	26.5	21.7	-	
DT004	Bath - George St	374899	165159	24.0	20.4	19.7	17.6	20.4	17.3	16.8	15.9	22.6	24.9		18.9	19.9	16.3	-	
DT005	Bath - Gay St - Top	374797	165161	25.1	21.6	20.2	15.8	19.5	12.8	14.5	13.3	20.0	23.4	26.7	19.2	19.3	15.9	-	
DT008	Bath - Windsor Bridge	373518	165124	28.2	24.9	21.8	19.6	16.5	13.6	17.2	17.5	21.9	20.2	28.0	21.0	20.9	17.1	-	
DT009	Bath - Upper Bristol Rd	373993	165174	28.3	24.6		20.2	19.9	15.9	17.6	17.8	22.3	22.6	27.5	21.6	21.7	17.8	-	
DT014	Bath - Bathwick St	375602	165365	27.6	27.1	24.7	21.9	22.3	18.7	20.5	18.9	20.2	20.4	25.5	21.4	22.4	18.4	-	
DT015	Bath - Beckford Rd	375733	165414	27.8	19.5	19.5	17.3	22.0	17.8	16.9	14.3	21.3	21.8	23.4	15.2	19.7	16.2	-	
DT016	Bath - Warminster Rd	376063	165492	27.5	19.8	20.4	16.6	18.4	14.6	15.6	12.3	15.8	16.4	19.4	14.3	17.6	14.4	-	
DT017a	Bath - Widcombe School	375634	164406	27.4	22.4	20.1	18.3	19.3	19.0	18.1		19.2	19.8	26.6	17.9	20.7	17.0	-	
DT018	Bath - Widcombe High St	375414	164216	24.6	20.5	19.2	16.7	18.0	15.7	15.2	13.9	19.2	19.4	23.8	18.4	18.7	15.3	-	
DT020a	Bath - Wells Rd	374760	164310	44.9	39.8	37.7	38.0	40.6	32.9	34.9	34.5	46.1	35.9		36.0	-	-	-	Triplicate Site with DT020a, DT020b and DT020c - Annual data provided for DT020c only
DT020b	Bath - Wells Rd	374760	164310	46.4	39.5	39.8	39.3	41.7	37.1	36.1	33.8	46.3	40.0	44.2	35.1	-	-	-	Triplicate Site with DT020a, DT020b and DT020c - Annual data provided for DT020c only
DT020c	Bath - Wells Rd	374760	164310	45.7	38.6	38.9	38.3		35.9	33.5	35.6	44.0	39.3	46.6		39.4	32.3	-	Triplicate Site with DT020a, DT020b and DT020c - Annual data provided for DT020c only
DT021	Bath - Wells Rd /Upper Oldfield Park	374454	164202	32.9	22.7	25.9	21.4	26.8		17.3	12.9	26.0	29.4	31.3	20.7	24.3	19.9	-	
DT023	Bath - Alexandra Park	375105	163991	12.6	7.1	6.8	6.2	6.9	5.0	5.3	4.6	7.7	9.0	13.1	7.9	7.7	6.3	-	
DT026	Bath - Upper Wellsway	373576	161908	26.2	20.8	22.7	18.1	22.3	14.3	17.8	15.5	22.1	26.0			20.6	16.9	-	
DT034	Bath - Newbridge Rd	373092	165106	27.0	23.9	22.7	17.5	20.1	13.4	15.0	16.7	23.0	28.5	30.5	21.2	21.6	17.7	-	
DT037a	Bath - Charlotte St	374622	164994	28.7	21.1	18.7	24.7	21.5	15.8		14.6	23.8	20.4	26.0	22.7	21.6	17.7	-	
DT039	Bath - Manvers St	375247	164591	32.5	25.8	23.0	22.9	23.1	19.3	18.6		26.2		29.9	24.6	24.6	20.2	-	
DT042	Bath - Dorchester St	375230	164383	41.1	36.1	35.0	38.0	36.4	39.7	36.4	36.5	42.2	33.3	35.5	32.9	36.9	30.3	-	

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DT043	Bath - St. James Parade	375053	164426	39.7	32.0	34.6	30.8	31.6	29.2		25.4	35.6	36.1	41.0	31.0	33.4	27.4	-	
DT045	Bath - James St West	374697	164763	27.9	22.4	20.9	18.9		16.2		15.6	21.4	24.0	29.6	23.7	22.0	18.1	-	
DT052	Bath - Walcot Terrace	375462	165843	30.9	31.0	28.3	24.7	22.3	19.8	23.2	22.3	22.8	25.0	28.8	25.0	-	-	-	Triplicate Site with DT052, DT053 and DT054 - Annual data provided for DT054 only
DT053	Bath - Walcot Terrace	375462	165843	30.9	29.7	28.1	24.6	22.3	20.3	23.3	21.2	22.3	23.4	29.1	24.5	-	-	-	Triplicate Site with DT052, DT053 and DT054 - Annual data provided for DT054 only
DT054	Bath - Walcot Terrace	375462	165843	28.7	32.6	27.7	24.9	22.3	20.6	22.8	20.9	22.7	24.9	26.8	24.6	25.1	20.6	-	Triplicate Site with DT052, DT053 and DT054 - Annual data provided for DT054 only
DT055	Bath - Lambridge	376451	166502	32.2	30.3		29.0	27.6	26.9	26.8	24.4	30.4	25.0	29.3	23.5	27.8	22.8	26.3	
DT060	Bath - Victoria Buildings	374039	164760	40.7	29.9	30.0	27.7	32.0	25.1	26.3	24.4	33.0	33.8	38.8	28.0	30.8	25.3	-	
DT062	Bath - Argyle Terrace	373211	164743	36.6	31.3	31.2	24.9	25.6	17.7	21.4	20.5	27.9	30.2	33.4	26.2	27.2	22.3	-	
DT084	Bath - Bear Flat	374604	163806	32.7		22.0	21.4	23.4	17.0	16.4		23.8	27.7	27.3	19.4	23.1	18.9	-	
DT085	Bath - RUH – North	373073	165983	29.5	25.2	21.1	21.7	21.5	17.3	20.0	16.3	21.9	25.1	28.4	21.3	22.4	18.4	-	
DT087	Bath - Oak Street	374702	164414	30.8	23.7	23.9	18.9	20.2	15.6	18.1	16.6	24.4	20.7	29.0	22.1	22.0	18.0	-	
DT090a	Bath - Anglo Terrace	375288	165758	40.7	32.4	30.9	31.2	34.3	27.5		28.2	35.6	33.0	36.5		-	-	-	Triplicate Site with DT090a, DT090b and DT090c - Annual data provided for DT090c only
DT090b	Bath - Anglo Terrace	375288	165758	40.6	34.0	33.5	30.8	33.6	29.3	26.6	27.5		31.8	37.5		-	-	-	Triplicate Site with DT090a, DT090b and DT090c - Annual data provided for DT090c only
DT090c	Bath - Anglo Terrace	375288	165758	37.3	35.9	32.5	30.8	33.6	28.3	26.8	26.0	34.3	36.0	36.2	29.5	32.3	26.5	-	Triplicate Site with DT090a, DT090b and DT090c - Annual data provided for DT090c only
DT142	Bath - Prior Park Road	375513	164194	31.1	26.0	27.2	22.7	26.7	21.6	21.4	18.9	27.2	30.3	32.4		25.9	21.3	-	
DT143	Bath - Rackfield Place	372644	164738	27.7	23.8	23.8	17.3	19.6	14.6	16.6		22.8	24.0	28.5	20.1	21.7	17.8	-	
DT145	Bath - Lansdown Road	374930	165550	25.1	19.3	19.8	16.8	19.5	14.8	15.5	12.7	20.0	22.6	23.8	19.5	19.1	15.7	-	
DT147	Bath - Terrace Walk	375195	164735	26.8	18.5	18.4	16.0	17.3	15.4	16.2	14.1	21.3	22.0	23.2	19.8	19.1	15.6	-	
DT148a	Bath - Julian Road	374573	165523	25.6	19.5	18.9	18.1		19.4	18.4	16.1	25.1	23.6	28.3	20.8	-	-	-	Triplicate Site with DT148a, DT148b and DT148c - Annual data provided for DT148c only
DT148b	Bath - Julian Road	374573	165523	26.0	20.4	19.7	18.7		19.0	18.5	16.3	19.5	23.8	28.5	20.7	-	-	-	Triplicate Site with DT148a, DT148b and DT148c - Annual data provided for DT148c only
DT148c	Bath - Julian Road	374573	165523	24.5	19.4	18.8	18.7		19.8	17.9	14.4	21.8	22.2	27.9	20.7	20.9	17.2	-	Triplicate Site with DT148a, DT148b and DT148c - Annual data provided for DT148c only

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DT149	Bath - Camden 3	375038	165838	26.6	21.6	20.7	15.6	15.7	14.4	15.1	14.5	18.9	16.9	24.5	19.9	18.7	15.3	-	
DT150	Bath - Brougham Hayes	373955	164590	30.6	22.9	23.2	20.2	21.9	19.2	17.2	17.9	24.3	26.4	29.0	21.6	22.9	18.7	-	
DT151	Bath - Widcombe Hill	375598	164190	24.9	17.9	17.0	16.5	18.7	15.3	13.0	12.6	19.3	16.6	21.8	16.0	17.5	14.3	-	
DT152	Bath - Bathwick Hill	375800	164912	22.4	18.6	17.7	15.0	17.1	12.6	15.0	12.8	16.6	19.5	21.8	16.8	17.1	14.1	-	
DT153	Bath - North Road	376069	165356	20.4	14.3	14.8		11.4	10.0	10.9	9.5	12.8	15.9	18.4	12.0	13.7	11.2	-	
DT154	Bath - Bradford Road	375529	162389	24.0	22.1	24.1	15.7	20.2	14.0	15.9	14.9	20.3	27.3	30.3	18.6	20.6	16.9	-	
DT155	Bath - Newbridge Hill 2	372696	165488	19.0	13.6	12.7	10.1	9.7	7.8	8.5	7.7	11.5	13.5	19.5	11.8	12.1	9.9	-	
DT156	Bath - Corn Street	374827	164531	27.3	19.6	19.2	15.3	19.5	13.1		13.4	20.6	24.2	28.4	14.7	19.6	16.0	-	
DT157	Bath - Charles Street	374664	164815	27.0	21.2	22.6	15.2	19.3	12.2	16.6	14.5	20.6	26.4	29.8	19.8	20.4	16.8	-	
DT158	Bath - Paragon 2	375051	165350	27.7	21.2	24.3	17.6	18.4	13.9	15.5	14.9	20.1	22.4	29.0	17.3	20.2	16.5	-	
DT159	Bath - Walcot Street	375075	165287	24.8	20.4	18.1										21.1	14.5	-	
DT160	Bath - North Parade Road	375284	164694	30.6	27.6	28.0	24.9	22.1	11.4	23.3	23.3	30.7		35.9	27.3	25.9	21.3	-	
DT165	Bath - Brassknocker Hill	377960	162736	29.0	25.2	25.5										26.6	18.3	-	
DT167	Bath - Weston High Street	372587	166629	21.8	17.8	20.7	13.8	15.5	9.4	11.6	10.5	14.7	20.6	21.5	14.8	16.1	13.2	-	
DT168	Bath - Englishcombe Lane	373207	163339	16.9	10.7	10.1		8.8	6.5		6.3	13.3	12.3	19.1	10.1	11.4	9.4	-	
DT169	Bath - Eastbourne Avenue	375667	166369	23.9	17.8	15.8										19.2	13.2	-	
DT171	Bath - Frome Road/Upper Bloomfield	373706	162411	27.4	17.8	18.8	18.9	21.3		14.2	13.5	22.4	23.7	27.3	16.2	20.1	16.5	-	
DT172a	Bath - London Road 2	375374	165813	36.3	33.2	30.2	25.6	28.7	25.7		24.5	29.6	27.2			-	-	-	Triplicate Site with DT172a, DT172b and DT172c - Annual data provided for DT172c only
DT172b	Bath - London Road 2	375374	165813	36.8	32.9	28.5	29.2	28.0	25.6	25.4	24.7	28.1	29.0			-	-	-	Triplicate Site with DT172a, DT172b and DT172c - Annual data provided for DT172c only
DT172c	Bath - London Road 2	375374	165813	37.8	36.3	29.3	30.0	29.0	25.6		23.8	28.9	29.9	32.8	24.7	29.0	23.7	-	Triplicate Site with DT172a, DT172b and DT172c - Annual data provided for DT172c only
DT173	Bath - Upper Bristol Road 2	374362	165016	30.0	29.7	27.9	23.3	22.4	18.7	22.7	21.8	26.1	26.1	31.0	28.6	25.7	21.1	-	
DT179a	Bath - Upper Bristol Road 3	373299	165093	34.3	24.8	25.4	20.0	23.2	16.1		18.1	31.4	33.9	37.0	24.6	26.3	21.5	-	

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DT180a	Bath - Wells Road 2	374537	163968	32.5	29.2	29.1	25.3	29.9	26.0	25.7	21.8	28.7	29.9	35.2	25.5	28.2	23.1	-	
DT181	Bath - Wellsway	374618	163494	29.6	26.4	24.4	20.8	23.8	17.0	18.3	18.1	24.2	25.6		25.2	23.0	18.9	-	
DT182a	Bath - Gay Street - Lower	374796	165123	31.5	29.3	30.0	22.7	25.9	25.2	26.5	25.8		30.9	32.6		-	-	-	Triplicate Site with DT182a, DT182b and DT182c - Annual data provided for DT182c only
DT182b	Bath - Gay Street - Lower	374796	165123		27.8	29.0	23.3	28.3	25.9	26.6	24.0		29.5			-	-	-	Triplicate Site with DT182a, DT182b and DT182c - Annual data provided for DT182c only
DT182c	Bath - Gay Street - Lower	374796	165123		30.9		22.1	27.7	25.4	25.3	23.6		32.3		27.9	28.0	22.9	-	Triplicate Site with DT182a, DT182b and DT182c - Annual data provided for DT182c only
DT183	Bath - Chapel Row	374712	164913	29.2	24.9	25.1	17.0	21.7	16.4	15.4	18.5	23.3	25.7	28.8	22.4	22.4	18.3	-	
DT185	Bath - Greenway Lane	374712	163417	15.6	11.9	10.3	8.7	9.2		7.0	7.3	11.0	12.1	16.6		11.0	9.0	-	
DT186	Bath - Coronation Avenue	373170	163416	23.3	14.3	13.7										17.1	11.8	-	
DT187	Bath - Stanley Road West	373835	164438	26.5	18.5	19.0										21.3	14.7	-	
DT188	Bath - Moorland Road	373696	164343	25.0				14.6	10.3	11.7	12.0		17.7	25.1		16.7	13.3	-	
DT189	Bath - Old Newbridge Hill	372251	165686	28.9	21.2	20.4	19.9	21.2	18.8	17.4	17.6	24.5		28.4	20.2	21.7	17.8	-	
DT190	Bath - Church Street	375814	164027	15.1	9.6	8.4	7.8	7.4	5.1	5.6	5.1	9.5	9.7	13.4	10.0	8.9	7.3	-	
DT192	Bath - Fairfield Road	375505	166428	16.4	14.9	14.1										15.1	10.4	-	
DT193	Bath - Granville Road	374260	167661	8.6	7.2	7.8										7.9	5.4	-	
DT194	Bath - Brooklyn Road	376096	166878	17.5	13.2	12.3										14.4	9.9	-	
DT195	Bath - Lansdown Lane	372537	167235	27.1	20.0	18.8										22.0	15.2	-	
DT196	Bath - Oakley	377133	164045	20.4	15.8	19.8										18.7	12.9	-	
DT197	Bath - Rush Hill	372703	162983	18.8	19.8	19.0	16.9	16.3	11.8	14.1	13.1	16.7	21.4	23.3	16.9	17.4	14.2	-	
DT198a	Bath - Walcot Parade	375240	165739	43.9	39.2	36.5	34.7	34.3	31.9	32.7	30.9	38.7	36.2	41.4	33.2	-	-	-	Triplicate Site with DT198a, DT198b and DT198c - Annual data provided for DT198c only
DT198b	Bath - Walcot Parade	375240	165739	43.7	39.2	41.1	35.9	36.4	31.6	32.5	30.3	35.9	33.9	33.6	35.6	-	-	-	Triplicate Site with DT198a, DT198b and DT198c - Annual data provided for DT198c only
DT198c	Bath - Walcot Parade	375240	165739	43.1	40.8	41.5	36.7	36.6	32.7	32.6	28.1	38.5	36.9	39.5	36.3	36.3	29.7	-	Triplicate Site with DT198a, DT198b and DT198c - Annual data provided for DT198c only
DT199	Bath - Hensley Road	374353	163504	14.8	9.6	9.2										11.2	7.7	-	

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DT200	Bath - Millmead Road	373375	164307	18.5	12.5	12.1	9.5	10.9	7.4	7.3	7.5	13.4	16.1	17.3	12.6	12.1	9.9	-	
DT201	Bath - The Hollow	373003	164250	25.2	22.0	19.6	16.8	17.9	14.1	14.6	14.8	19.7	20.7	25.0	17.7	19.0	15.6	-	
DT202	Bath - Charlcombe	374636	166701	13.7	11.3	10.4										11.8	8.2	-	
DT206a	Bath - Park Lane	373742	165305	26.8	25.2	23.1	23.8	24.0	20.9	21.1	20.1	24.1	24.3	27.1		23.7	19.4	-	
DT207	Bath - Darlington Street	375630	165132	35.0	28.5	26.1	24.0	27.0	23.9		22.6	26.8	24.9	31.4	25.7	26.9	22.0	-	
DT209	Bath - Bellots Road	373490	164804	25.1	15.0	14.5										18.2	12.6	-	
DT210	Bath - Red Lion Roundabout	373895	162254	29.1	28.0	27.9	26.7	28.1	23.6	24.6	22.4	26.4		28.9	23.1	26.3	21.5	-	
DT211	Bath - St John's Road	375218	165290	18.0	14.6	15.0	11.2	11.0	8.4	9.4	9.3	14.1	15.1	19.7	14.5	13.4	11.0	-	
DT212	Bath - Oldfield Road	374356	163985	21.1	12.8	11.2										15.0	10.4	-	
DT213a	Bath - Marlborough Lane	374262	165127	21.6	16.3	14.3	14.1	15.7	10.4	12.0	11.7	13.3	17.2	21.2	14.1	15.2	12.4	-	
DT214a	Bath - Marlborough Buildings	374354	165448		16.7	12.7	12.9	11.4	9.1	10.0	10.2	12.9	16.5	22.2	16.3	13.7	11.2	-	
DT215a	Bath - Queen Parade Place	374758	165096	19.0	14.0	13.7	11.4	12.9	9.7	10.3	10.1	14.4	18.0	19.5	14.5	13.9	11.4	-	
DT216a	Bath - Monmouth Place	374574	164958	31.8	22.2	21.6										25.2	17.4	-	
DT217a	Bath - Cavendish Road	374335	165990	18.4	12.4	13.4	11.3	12.6	8.2	8.7	7.7	13.3	14.2	16.5	9.2	12.2	10.0	-	
DT218	Bath - Weston Road	373668	165697	20.2	16.8	16.6	13.1	12.1	10.6		10.9	12.2	17.0	19.5	15.0	14.9	12.2	-	
DT219	Bath - Morford Street	374872	165570	23.7	18.0	17.2	14.6	15.7	10.8	10.7	9.9	17.0	20.5	28.7	17.7	17.0	14.0	-	
DT221	Bath - Gay Street - façade	374793	165119	28.4	24.3	23.0	20.4	26.0	22.8	23.5	20.9	27.2	29.8	30.5	22.2	24.9	20.4	-	
DT222a	Bath - Anglo Terrace façade	375322	165778	44.1	39.2	38.1	35.6	36.2	32.0		30.3	37.5	36.5			-	-	-	Triplicate Site with DT222a, DT222b and DT222c - Annual data provided for DT222c only
DT222b	Bath - Anglo Terrace façade	375322	165778	45.9	39.9	36.6	37.9	34.0	33.2	30.1	30.3	39.1	38.3	41.7		-	-	-	Triplicate Site with DT222a, DT222b and DT222c - Annual data provided for DT222c only
DT222c	Bath - Anglo Terrace façade	375322	165778	47.5	38.2	38.6	35.9	35.8	32.5		28.6	36.8	37.6		34.0	36.5	29.9	-	Triplicate Site with DT222a, DT222b and DT222c - Annual data provided for DT222c only
DT223a	Bath - Canton Place	375322	165759		30.3	27.3	24.4	25.2	21.4	23.2	22.1		28.2	31.1	24.0	-	-	-	Triplicate Site with DT223a, DT223b and DT223c - Annual data provided for DT223c only
DT223b	Bath - Canton Place	375322	165759		29.2	27.4	24.5	26.1	19.6	23.4	21.7		27.2	31.4	25.3	-	-	-	Triplicate Site with DT223a, DT223b and DT223c - Annual data provided for DT223c only

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DT223c	Bath - Canton Place	375322	165759	30.9	29.5	29.0	24.5	25.9	20.1	23.5	22.7		26.0	30.7	24.9	26.1	21.4	-	Triplicate Site with DT223a, DT223b and DT223c - Annual data provided for DT223c only
DT224a	Bath - Walcot Parade 2	375207	165726	50.5	40.1	47.0	41.4	39.3	32.2	32.4	31.0	41.5	41.3	49.3	38.3	-	-	-	Triplicate Site with DT224a, DT224b and DT224c - Annual data provided for DT224c only
DT224b	Bath - Walcot Parade 2	375207	165726		42.6	45.4	41.1	41.1	36.5	35.2	31.5	40.4	43.4	45.0	38.8	-	-	-	Triplicate Site with DT224a, DT224b and DT224c - Annual data provided for DT224c only
DT224c	Bath - Walcot Parade 2	375207	165726	45.5	40.8	49.2	38.5	39.0	31.9	35.3	31.6	39.3	40.6	43.9	37.1	40.2	32.9	-	Triplicate Site with DT224a, DT224b and DT224c - Annual data provided for DT224c only
DT225a	Bath - Cleveland Terrace	375203	165708	33.8	32.7	32.4	28.3	28.3	24.1	22.2	24.4	27.6	28.3	34.2	27.9	-	-	-	Triplicate Site with DT225a, DT225b and DT225c - Annual data provided for DT225c only
DT225b	Bath - Cleveland Terrace	375203	165708	32.5	34.0	34.8	28.6	28.1	23.4	24.5	22.4	30.0	29.3	33.6	28.3	-	-	-	Triplicate Site with DT225a, DT225b and DT225c - Annual data provided for DT225c only
DT225c	Bath - Cleveland Terrace	375203	165708	33.7	33.8	33.6	27.8	27.2	21.7	23.1	22.8	28.9	30.0	36.0	29.6	28.9	23.7	-	Triplicate Site with DT225a, DT225b and DT225c - Annual data provided for DT225c only
DT226a	Bath - AURN	375394	165824	31.7	27.5	26.9	23.9	24.3	22.1	20.1	20.2	24.7	27.5	29.6	22.8	-	-	-	Triplicate Site with DT226a, DT226b and DT226c - Annual data provided for DT226c only
DT226b	Bath - AURN	375394	165824	32.7	29.4	25.8	24.4	23.4	22.4	20.9	19.0	24.4	25.0	23.3	23.6	-	-	-	Triplicate Site with DT226a, DT226b and DT226c - Annual data provided for DT226c only
DT226c	Bath - AURN	375394	165824	33.3	28.5	25.6	24.1	24.5	22.3	20.4	19.2	25.0	25.2	25.5	23.9	24.8	20.3	-	Triplicate Site with DT226a, DT226b and DT226c - Annual data provided for DT226c only
DT227a	Bath - Wells Road 3	374580	163979	38.1	30.4	23.6	28.2	29.4	27.4	26.1	23.7	32.9	30.8	39.3	28.2	29.9	24.5	-	
DT228a	Bath - Lower Bristol Road 2	374002	164754	28.0	22.6	22.2	17.4	19.0	13.7	14.8	14.0	18.9	22.3	25.9	16.9	19.7	16.1	-	
DT229a	Bath - Lower Bristol Road 3	373936	164779	36.6	29.4	32.4	24.9	25.6	20.4	23.1	19.5	24.3	30.5	31.7	22.7	-	-	-	Triplicate Site with DT229a, DT229b and DT229c - Annual data provided for DT229c only
DT229b	Bath - Lower Bristol Road 3	373936	164779	33.6	32.3	30.7	23.6	22.6	19.5	21.2	17.8	25.0	28.1	30.9	21.7	-	-	-	Triplicate Site with DT229a, DT229b and DT229c - Annual data provided for DT229c only
DT229c	Bath - Lower Bristol Road 3	373936	164779		34.4	27.7	22.8	23.6	19.4	20.9	18.5	23.7	28.2	29.5	19.2	25.9	21.2	-	Triplicate Site with DT229a, DT229b and DT229c - Annual data provided for DT229c only
DT230a	Bath - Upper Bristol Road 4	373439	165098	36.5	33.5	35.8	29.9	31.9	21.6	26.6	25.4	33.2	39.5	32.7		-	-	-	Triplicate Site with DT230a, DT230b and DT230c - Annual data provided for DT230c only
DT230b	Bath - Upper Bristol Road 4	373439	165098	37.2	30.6	35.9	28.9	31.8	21.9	26.3	23.8	31.1	37.8	39.8	27.5	-	-	-	Triplicate Site with DT230a, DT230b and DT230c - Annual data provided for DT230c only
DT230c	Bath - Upper Bristol Road 4	373439	165098	36.9	32.0	37.5	29.6	31.8	23.0	27.0	26.1	33.8	39.8	38.9		31.4	25.7	-	Triplicate Site with DT230a, DT230b and DT230c - Annual data provided for DT230c only
DT231a	Bath - Upper Bristol Road 5	373480	165125		30.0	27.6	28.5		24.5		23.4	33.7	30.7	31.6	26.3	-	-	-	Triplicate Site with DT231a, DT231b and DT231c - Annual data provided for DT231c only

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DT231b	Bath - Upper Bristol Road 5	373480	165125	34.9		29.6	27.7		22.5		23.9	33.4	31.3	30.0		-	-	-	Triplicate Site with DT231a, DT231b and DT231c - Annual data provided for DT231c only
DT231c	Bath - Upper Bristol Road 5	373480	165125	35.4	31.7	30.9	29.1		25.0			31.1	29.3	35.1		29.3	24.0	-	Triplicate Site with DT231a, DT231b and DT231c - Annual data provided for DT231c only
DT232a	Bath - Lansdown Road 3	374942	165391	28.7	22.0	22.9		20.0	19.9	18.5	16.3	23.5	25.5	29.1	23.7	22.7	18.6	-	
DT233a	Bath - Lansdown Road 4	374956	165359	27.3	23.9	21.8	18.1	22.8	15.4	17.6	14.5	24.4	26.6	30.1	20.1	21.9	17.9	-	
DT234a	Bath - Gay Street 2	374806	165084		33.3		25.8	29.0	25.4		22.8	28.7	27.8	30.6		-	-	-	Triplicate Site with DT234a, DT234b and DT234c - Annual data provided for DT234c only
DT234b	Bath - Gay Street 2	374806	165084			32.8	26.1	29.3	22.5	27.5	22.7	29.0	27.8	31.7		-	-	-	Triplicate Site with DT234a, DT234b and DT234c - Annual data provided for DT234c only
DT234c	Bath - Gay Street 2	374806	165084		30.5		24.9	28.5	27.3	26.4	23.2	28.5	27.6	28.9	25.7	27.9	22.9	-	Triplicate Site with DT234a, DT234b and DT234c - Annual data provided for DT234c only
DT235a	Bath - Wells Road 4	374694	164288	37.8	36.4	36.4	30.2	30.6	27.2	25.8	26.8	33.1	33.1	37.0	31.9	-	-	-	Triplicate Site with DT235a, DT235b and DT235c - Annual data provided for DT235c only
DT235b	Bath - Wells Road 4	374694	164288	36.4	33.5	34.9	30.4	31.0	26.2	28.7	24.9	34.0	34.9	35.7	30.1	-	-	-	Triplicate Site with DT235a, DT235b and DT235c - Annual data provided for DT235c only
DT235c	Bath - Wells Road 4	374694	164288	38.1	34.1	34.8	30.6	30.1	24.9	29.3	27.8	34.3	33.1	37.7	32.1	32.1	26.3	-	Triplicate Site with DT235a, DT235b and DT235c - Annual data provided for DT235c only
DT236a	Bath - Pulteney Terrace	375668	164493	29.1	24.2	22.2	19.4	19.4	16.6	16.5	16.1	22.0	23.4	28.6	21.0	21.5	17.6	-	
DT237	Bath - Broad Street 2	375000	165179	30.3	25.8	28.9	24.0	27.0	20.0	22.9	21.2	29.1	32.4	29.4	23.8	26.2	21.5	-	
DT238a	Bath - Broad Street 3	375008	164117	26.6	23.7	21.4	21.2	22.6	21.1	19.0	19.7	23.6	21.8	26.3	21.5	-	-	-	Triplicate Site with DT238a, DT238b and DT238c - Annual data provided for DT238c only
DT238b	Bath - Broad Street 3	375008	164117	27.4	23.7	21.8	21.3	20.8	19.3	19.3	18.8	22.7	22.2	27.3	22.0	-	-	-	Triplicate Site with DT238a, DT238b and DT238c - Annual data provided for DT238c only
DT238c	Bath - Broad Street 3	375008	164117	27.0	23.9	23.2	21.2	22.1	20.1	20.8	19.8	22.3	23.8	24.3	19.9	22.3	18.3	-	Triplicate Site with DT238a, DT238b and DT238c - Annual data provided for DT238c only
DT239a	Bath - Broad Street 4	375008	165145	32.1		30.2	28.2	30.3	27.9	26.8	28.4	30.7	29.8	30.9	23.7	-	-	-	Triplicate Site with DT239a, DT239b and DT239c - Annual data provided for DT239c only
DT239b	Bath - Broad Street 4	375008	165145	32.5	31.5		27.5	31.5	28.1	28.6	30.2	34.6	29.8	33.8	27.8	-	-	-	Triplicate Site with DT239a, DT239b and DT239c - Annual data provided for DT239c only
DT239c	Bath - Broad Street 4	375008	165145	33.9	26.6			31.2	28.3	27.3	28.3	33.1	28.8	32.7	28.2	29.7	24.4	-	Triplicate Site with DT239a, DT239b and DT239c - Annual data provided for DT239c only
DT240a	Bath - Bathwick Street 2	375489	165450	25.3	20.7		16.2	17.4	13.9	17.3	14.3	15.8	20.7	24.5	18.7	18.6	15.2	-	

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DT241a	Bath - Bathwick Street 3	375520	165446	21.9	18.3	15.8	12.9	13.4	11.6	12.0		13.5	15.5	22.6	16.3	15.8	12.9	-	
DT242a	Bath - Charlotte Street 2	374583	164974	23.7	19.2	16.3										-	-	-	Triplicate Site with DT242a, DT242b and DT242c - Annual data provided for DT242c only
DT242b	Bath - Charlotte Street 2	374583	164974	22.5	18.8	17.3										-	-	-	Triplicate Site with DT242a, DT242b and DT242c - Annual data provided for DT242c only
DT242c	Bath - Charlotte Street 2	374583	164974	23.2	17.0	16.3										19.4	13.4	-	Triplicate Site with DT242a, DT242b and DT242c - Annual data provided for DT242c only
DT243a	Bath - Sydney Place	375625	165312	25.7	22.7	21.5	21.6	22.4	19.1	20.5	17.7	21.8	23.9	24.2	19.6	21.7	17.8	-	
DT244	Bath - Whiteway	372494	163165	19.6	11.3	13.6	11.9	14.9	13.1			17.0	16.3	18.5	12.8	14.9	12.2	-	
DT245	Bath - Whiteway 2	372401	163212	22.4	16.2	19.5										19.4	13.4	-	
DT246a	Bath - Dorchester Street 2	375186	164372	39.4	34.2	36.8	33.5		32.8	31.5	31.1	36.1	30.9		31.1	33.7	27.6	-	
DT247a	Bath - Monmouth Place 2	374627	164924	30.7	25.5	23.8	23.8	22.6	19.2		19.2	25.0	26.0	27.7	24.1	24.3	19.9	-	
DT248a	Bath - Chapel Row 2	374711	164931		33.8	31.1	17.7	23.6	28.1		23.5	32.6	31.7	39.0		-	-	-	Triplicate Site with DT248a, DT248b and DT248c - Annual data provided for DT248c only
DT248b	Bath - Chapel Row 2	374711	164931	37.8	33.8	31.7	18.9	25.3	26.4	27.6	25.5	33.5	32.9	37.9	31.4	-	-	-	Triplicate Site with DT248a, DT248b and DT248c - Annual data provided for DT248c only
DT248c	Bath - Chapel Row 2	374711	164931	37.7	33.2	33.4	18.9	25.8	26.9	29.5	26.3	33.0	31.8			30.2	24.8	-	Triplicate Site with DT248a, DT248b and DT248c - Annual data provided for DT248c only
DT288	Bath - Victoria Buildings - façade	374045	164760	36.2	27.8	28.8										30.9	21.3	-	
DT294	Bath - Walcot Parade 3	375207	165726	37.0	28.1	28.6										31.2	21.5	-	
DT300	Bath - Penn Hill Road	372663	166274			14.3	11.7	12.7	11.1	10.2	9.9	13.6	14.8	18.9	12.3	12.9	10.6	-	
DT301	Bath - Southlands	372612	166457	13.6	9.6	10.7	6.4	6.3	4.5	5.0	4.6	7.2	10.4	12.3	8.0	8.2	6.7	-	
DT302	Bath - Anchor Road	372851	166390	27.0	24.7	26.0	21.6	19.0	17.5	19.2	16.3	22.2	24.0	26.0	20.6	22.0	18.0	-	
DT303	Bath - Prior Park Road 2	375819	163764	19.6	14.2	12.8	11.8	12.5	11.8		11.0	15.9	14.8	15.8	15.5	14.2	11.6	-	
DT304	Bath - Walcot Parade 4	375202	165724	48.1	41.3	39.6	39.0	39.0	35.0	36.5	29.8	39.5	39.9	41.3	35.0	38.7	31.7	-	
DT305	Bath - Wells Road 5	374790	164309	44.4	36.4	38.0	35.5	35.7	34.1	34.0	32.5	41.8	35.6	43.0	31.3	36.9	30.2	-	
DT312	Bath - Sydney Place 2	375721	165169	24.1	21.1	18.2	13.3	13.3	10.3	11.1	11.6	15.1	16.0	21.1	15.3	15.9	13.0	-	

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DT313	Bath - Sham Castle Lane	375943	165107	16.1	11.3	10.1	7.8		6.3			6.3	10.3	14.4	10.4	10.3	8.5	-	
DT314	Bath - Catharine Place	374653	165402	18.6	13.6	12.1	9.5	9.6	6.4	7.2	7.3	10.4	13.9	17.6	12.7	11.6	9.5	-	
DT315	Bath - Sion Hill	374148	166052	12.3	9.7	9.6	7.0	7.4	5.7	6.3	5.8	8.1	9.5	14.8	9.0	8.8	7.2	-	
DT316	Bath - Midland Road	373856	165055	18.9	13.9	11.9										14.9	10.3	-	
DT320	Bath - Cleveland Walk	376209	164852				6.6	6.3	5.3	5.9	6.3	7.9	8.3	8.2	8.6	7.0	5.8	-	
DT321	Bath - Sion Road	374164	166160					6.2	4.7	4.7	4.7	6.4		11.5	8.7	6.7	6.0	-	
DT322	Bath – Winifred's Lane	374327	166115					14.2	13.6	14.5	13.5		13.9	12.0	7.7	12.8	10.9	-	
DT091	Bathampton High Street	377683	166408	22.2	17.1	16.3	13.2	17.1	14.2	11.7	11.5	15.4	17.7	20.9	12.9	15.8	13.0	-	
DT166	Bathampton, A36	377543	165924	23.2	19.5	18.8	17.7	16.9	11.8	18.6	9.8	11.0	14.1	16.0	10.7	15.7	12.8	-	
DT058	Batheaston – London Road West A	377643	167365	23.5	21.0	19.7	14.7	13.7	11.6	11.5	13.1	16.7	19.6	22.9	16.0	17.0	13.9	-	
DT094	Batheaston - London Road West B	377290	167097	24.5	19.0	19.4										20.9	14.4	-	
DT130	Batheaston - London Road West C	377802	167456	23.8	18.4	21.0										21.0	14.5	-	
DT163	Batheaston, A4 Box Road	378911	167259		20.2	16.3										18.2	15.0	-	
DT191	Batheaston - Mill Lane	377339	167065	18.8	15.0	14.5	11.8	14.9	11.3	10.4	9.1	10.0	13.5	16.1	10.9	13.0	10.7	-	
DT134	Farrington Gurney 2	362891	155485	31.9	27.2	27.6	29.9	32.4	31.9	31.4	27.2	29.8	27.4	30.2	25.5	29.4	24.1	-	
DT136	Farrington Gurney 3	362884	155790	29.4	24.4	23.8	25.5	34.2	30.6	26.2	27.2	28.3	28.0	28.1	18.6	27.0	22.1	-	
DT138	Farrington Gurney 5	362983	155459	31.3	25.2	24.4	27.1	32.7	28.1	26.1	25.8	29.7	27.3	31.3	20.4	27.4	22.5	-	
DT033	Keynsham	364803	168237	14.4	8.6	8.1	7.2	7.4	4.6	5.5	5.5	9.2	10.7	15.9	9.0	8.8	7.2	-	
DT065	Keynsham - Charlton Rd A	365399	168701	26.1	20.5	19.0	18.9	19.9	17.9	15.6	16.7	25.1	22.4	30.1	20.1	21.0	17.2	-	
DT066	Keynsham – High Street A	365360	168815	29.6	28.2	28.2	26.5	27.4	25.2	26.5	29.3	29.9	28.3	32.9	28.2	28.4	23.2	-	
DT067	Keynsham - Somerfield	365457	168496	26.8	24.7	24.1		23.8	21.3	21.7	20.9		26.0	33.4	19.8	24.2	19.9	-	
DT107	Keynsham - Bath Hill South	365710	168339	29.5	28.0	26.8	24.5		25.0	24.3	24.8	26.0	26.1	31.8	25.3	26.6	21.8	-	
DT141	Keynsham A4	366921	168096	27.8	21.6	21.6	20.1	24.5	20.1	20.9	18.7	27.1	28.6	32.8		24.0	19.6	-	

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DT318	Keynsham – Bypass North	366215	168459	24.5	22.1	21.4	15.8	17.0	12.5	13.9	14.7	16.2	19.3	24.0	16.9	18.2	14.9	-	
DT319	Keynsham – Bypass South	366209	168409	22.3	13.8	14.8	15.8	16.9	13.5	12.7	11.2	21.3	17.1	20.6		16.4	13.4	-	
DT323	Keynsham - Hick's Gate A4	363916	169773								15.6	19.6	20.3	20.7	17.6	18.7	13.9	-	
DT324	Keynsham - Hick's Gate A4174	364196	169818								28.5	28.0	30.1		22.2	27.2	23.5	-	
DT296	Old Mills	364748	155000	25.6	21.6	23.9	18.9	24.2	19.0	20.6	14.4	19.1	24.8	25.8	18.7	21.4	17.5	-	
DT295	Radstock - Bath New Road	368825	155080	45.3	45.1	39.7	41.6	48.7	44.3	41.5	40.5	46.3	44.2		37.6	43.2	35.4	-	
DT307	Radstock - Bath New Road 3	368810	155122	38.2	33.8	37.5	35.4	39.7		33.9	30.3	32.5	35.1	39.8		35.6	29.2	-	
DT317	Radstock – Combe End	368815	155060	21.9	17.9	19.0	15.5	17.5	11.4	13.9	12.7	15.7	18.0	22.1	13.0	16.6	13.6	-	
DT075	Saltford - The Crown	368375	166988	26.1	23.5	23.6	17.4	22.6	14.2	17.1	15.5	20.1	26.8	29.2		21.5	17.6	-	
DT077	Saltford - Bath Road	368778	166687	21.9		20.8	18.4	21.5	20.5	18.1	15.9	19.5	19.3	23.2	18.6	19.8	16.2	-	
DT096a	Temple Cloud 1	362219	157923	46.0	37.5	40.5	42.9	45.2	41.0	41.8	37.8	45.1	43.2	45.6	33.9	-	-	-	Triplicate Site with DT096a, DT096b and DT096c - Annual data provided for DT096c only
DT096b	Temple Cloud 1	362219	157923	45.4	41.7	43.7	42.3	45.6	46.9		44.0	47.8	46.2	43.6	36.1	-	-	-	Triplicate Site with DT096a, DT096b and DT096c - Annual data provided for DT096c only
DT096c	Temple Cloud 1	362219	157923	44.8	40.2	43.9	47.9	47.5	48.4	40.9	39.4	45.6	43.5	49.3	37.0	43.2	35.4	-	Triplicate Site with DT096a, DT096b and DT096c - Annual data provided for DT096c only
DT108a	Temple Cloud 2	362179	158055	33.6	30.7	34.0	28.0	31.4	30.4	31.4	26.8	28.0	33.6	23.8	25.5	29.7	24.4	-	
DT109a	Temple Cloud 3	362344	157658	31.1	26.3	25.9	25.0	27.9	25.1		24.2	30.8	28.6	29.7	20.7	26.9	22.0	-	
DT252a	Temple Cloud 9	362195	158007	39.6	34.0	32.4	31.7	36.7	33.8	38.2		34.1	40.2	39.2	25.6	35.0	28.7	-	
DT253a	Temple Cloud 10	362243	157846	39.5	35.1	33.9	34.5	39.0	42.7	35.0	35.9	35.4	31.4		29.9	-	-	-	Triplicate Site with DT253a, DT253b and DT253c - Annual data provided for DT253c only
DT253b	Temple Cloud 10	362243	157846		36.6	31.8	37.5	39.6	41.2	37.5	36.6	37.4	33.8	39.3	31.8	-	-	-	Triplicate Site with DT253a, DT253b and DT253c - Annual data provided for DT253c only
DT253c	Temple Cloud 10	362243	157846	36.4	40.8	35.3	37.4	39.1	39.0	31.3	33.8	37.0	37.0	38.1	32.0	36.4	29.8	35.6	Triplicate Site with DT253a, DT253b and DT253c - Annual data provided for DT253c only
DT255a	Temple Cloud 12	362284	157741	39.3	36.5	35.1	38.7	42.8	43.1	38.2	38.6	41.9	35.9	42.6	28.2	38.4	31.5	-	
DT032	Whitchurch	361242	167652	33.4	28.4	29.7	27.3		25.3	24.5	24.3	24.7	26.3	32.4	22.7	27.2	22.3	-	
DT098	Whitchurch 2	361276	167555	27.0	19.9	21.3	21.9	24.2	19.9	17.6	14.6	21.6	19.7	25.4	16.1	20.8	17.0	-	

DT ID	Site Name	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 (0.82)	Annual Mean: Distance Corrected to Nearest Exposure	Comment
DT100	Whitchurch 4	361326	167606	24.5	18.5	18.7	16.7	18.7	17.1	13.3	14.4	20.0	20.3	23.7	15.9	18.5	15.2	-	
DT101	Whitchurch 5	361235	167824	34.0	26.3	28.5	28.3	28.7	26.0		19.2	23.7	30.0	31.8	21.3	27.1	22.2	-	

☒ **All erroneous data has been removed from the NO_2 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.**

☒ **Bath & North East Somerset Council confirm that all 2024 diffusion tube data has been uploaded to the Diffusion Tube Data Entry System.**

Notes:

Exceedances of the NO_2 annual mean objective of 40µg/m^3 are shown in **bold**.

NO_2 annual means exceeding 60µg/m^3, indicating a potential exceedance of the NO_2 1-hour mean objective are shown in **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 Bath & North East Somerset Council During 2024

Bath & North East Somerset Council has not identified any new sources relating to air quality within the reporting year of 2024.

Additional Air Quality Works Undertaken by Bath & North East Somerset Council During 2024

During 2024, Bath & North East Somerset Council carried out further monitoring for Benzene and also using indicative Zephyr analysers results are detailed in Appendix F.

A further assessment was carried out in Farrington Gurney to determine if the AQMA can be revoked, details are given in Appendix G.

QA/QC of Diffusion Tube Monitoring

The diffusion tubes have been analysed by Gradko since 2017. The method of analysis is 20% triethanolamine (TEA) in water. Gradko is UKAS accredited for the analysis of the diffusion tubes and all the laboratories participate in the AIR-PT scheme formally the Workplace Analysis Scheme for Proficiency (WASP). The latest AIR-PT report for nitrogen dioxide for the laboratory indicates a performance classification as satisfactory for all periods in 2024. The Diffusion Tube Monitoring Calendar was followed throughout 2024.

Diffusion Tube Annualisation

During 2024 29 diffusion tubes (27 sites) had data capture less than 75%. To estimate the annual mean from the short-term monitoring period the Diffusion Tube Processing Tool was used. Four sites were selected from the national network within 50 miles of Bath and greater that 85% data capture: Charlton Mackrell (27 miles from Bath), Swindon Walcot (28 miles from Bath), Bristol St Paul's (11 miles from Bath) and Cardiff Centre (36 miles from Bath). Table C.1 shows the adjustment factors and which locations they are applied to. There was a further site (DT163) which could not be annualised as data capture at this site was only 17% (2 out of 3 months exposure).

Table C.1 – Annualisation Summary (concentrations presented in µg/m^3)

Site ID	Annualisation Factor Bristol St Paul's	Annualisation Factor Cardiff Centre	Annualisation Factor Charlton Mackrell	Annualisation Factor Swindon Walcot	Average Annualisation Factor	Raw Data Annual Mean	Annualised Annual Mean
DT159	0.8067	0.7918	0.8927	0.8739	0.8413	21.1	17.7
DT165	0.8067	0.7918	0.8927	0.8739	0.8413	26.6	22.4
DT169	0.8067	0.7918	0.8927	0.8739	0.8413	19.2	16.2
DT186	0.8067	0.7918	0.8927	0.8739	0.8413	17.1	14.4
DT187	0.8067	0.7918	0.8927	0.8739	0.8413	21.3	18.0
DT188	1.0035	1.0069	0.9279	0.9565	0.9737	16.7	16.2
DT192	0.8067	0.7918	0.8927	0.8739	0.8413	15.1	12.7
DT193	0.8067	0.7918	0.8927	0.8739	0.8413	7.9	6.6
DT194	0.8067	0.7918	0.8927	0.8739	0.8413	14.4	12.1
DT195	0.8067	0.7918	0.8927	0.8739	0.8413	22.0	18.5
DT196	0.8067	0.7918	0.8927	0.8739	0.8413	18.7	15.7
DT199	0.8067	0.7918	0.8927	0.8739	0.8413	11.2	9.4
DT202	0.8067	0.7918	0.8927	0.8739	0.8413	11.8	9.9
DT209	0.8067	0.7918	0.8927	0.8739	0.8413	18.2	15.3
DT212	0.8067	0.7918	0.8927	0.8739	0.8413	15.0	12.6
DT216a	0.8067	0.7918	0.8927	0.8739	0.8413	25.2	21.2
DT242a	0.8067	0.7918	0.8927	0.8739	0.8413	-	-
DT242b	0.8067	0.7918	0.8927	0.8739	0.8413	-	-
DT242c	0.8067	0.7918	0.8927	0.8739	0.8413	19.4	16.3
DT245	0.8067	0.7918	0.8927	0.8739	0.8413	19.4	16.3
DT288	0.8067	0.7918	0.8927	0.8739	0.8413	30.9	26.0
DT294	0.8067	0.7918	0.8927	0.8739	0.8413	31.2	26.3
DT316	0.8067	0.7918	0.8927	0.8739	0.8413	14.9	12.5
DT321	1.1424	1.1081	1.0671	1.0822	1.1000	6.7	7.4
DT322	1.0657	1.0538	0.9944	1.0317	1.0364	12.8	13.3
DT094	0.8067	0.7918	0.8927	0.8739	0.8413	20.9	17.6
DT130	0.8067	0.7918	0.8927	0.8739	0.8413	21.0	17.7
DT323	0.9270	0.9283	0.8911	0.8825	0.9072	18.7	17.0
DT324	1.0262	1.0708	1.0796	1.0320	1.0521	27.2	28.6

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/NO_2 continuous analysers. Alternatively, the national database of diffusion tube co-location surveys provides bias factors for the relevant laboratory and preparation method.

Bath & North East Somerset Council have applied a local bias adjustment factor of 0.82 to the 2024 monitoring data. A summary of bias adjustment factors used by Bath & North East Somerset Council over the past five years is presented in Table C.2.

A local bias factor is where the co-location monitoring site used represents local conditions. In Bath and North East Somerset this has been calculated using co-located diffusion tubes at the Bath A4 Roadside site (CM8) (Table C.3). The national bias factor is a combined factor which averages a number of local bias factor studies for the analytical laboratory and diffusion tube preparation method. Guidance on the choice of bias factor is given in LAQM.TG22 (Box 7.13) and includes consideration on diffusion tube locations compared with the co-location site, exposure period and number of studies contributing to the national bias factor.

The guidance in the LAQM.TG22 tends to suggest that the choice of a single bias correction factor is required for all diffusion tubes from the local authority. However, the bias correction factor chosen will only be appropriate for locations where similar traffic characteristics, street geometry, and distance from kerbside are repeatable. If a bias factor from a co-located site that is closer to a background location is used, the application of its bias factor to roadside locations will be likely to provide an underestimate of true concentrations and vice-versa for using a bias factor, derived from a roadside or kerbside site, that is applied to monitoring locations, further away from the kerb, the results are likely to be overestimated.

In 2024, Bath & North East Somerset Council have used the local bias factor. The national bias factor for 2024 was 0.84[13]. If the national bias had been used the results

[13] National Bias Adjustment Spreadsheet 04/25

would be 2% higher, with concentrations <1 µg/m^3 higher. All sites would remain below 40 µg/m^3 and only 2 sites in Temple Cloud (DT096 and DT253) being above 36 µg/m^3 at 36.3 µg/m^3 and 36.5 µg/m^3 respectively. The outcome of the assessment would not have been changed.

In 2020-22 the local bias adjustment factors were used to correct the diffusion tube data as they were the same as or higher than the national bias factor leading to a worse case result. In 2023 the national bias factor was used as there was no local factor available due to low data capture. The choice of factor will be reviewed annually.

Table C.2 – Bias Adjustment Factor

Monitoring Year	Local or National	If National, Version of National Spreadsheet	Adjustment Factor
2024	Local	-	0.82
2023	National	03/24	0.81
2022	Local	-	0.84
2021	Local	-	0.87
2020	Local	-	0.89

Table C.3 – Local Bias Adjustment Calculation

	Local Bias Adjustment Input 1	Local Bias Adjustment Input 2	Local Bias Adjustment Input 3	Local Bias Adjustment Input 4	Local Bias Adjustment Input 5
Periods used to calculate bias	12				
Bias Factor A	0.82 (0.76 - 0.88)				
Bias Factor B	22% (14% - 31%)				
Diffusion Tube Mean (µg/m^3)	24.8				
Mean CV (Precision)	3.3%				
Automatic Mean (µg/m^3)	20.2				
Data Capture	96%				
Adjusted Tube Mean (µg/m^3)	20 (19 - 22)				

Notes:

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

NO_2 Fall-off with Distance from the Road

Wherever possible, monitoring locations are representative of exposure. However, where this is not possible, the NO_2 concentration at the nearest location relevant for exposure has been estimated using the Diffusion Tube Data Processing Tool/NO_2 fall-off with distance calculator available on the LAQM Support website. Where appropriate, non-automatic annual mean NO_2 concentrations corrected for distance are presented in Table B.1.

For diffusion tube sites which have been located in roadside locations with concentrations above 36 µg/m^3, the distance adjustment has been calculator using the Diffusion Tube Data Processing Tool.

In Bath & North East Somerset there were no sites with concentrations above 36 µg/m^3 that were distanced adjusted. Two sites were adjusted as the site was located further from the road (e.g., on the side of a building) than the nearest façade (DT055 and DT253). A local background of 6.3 µg/m^3 was used in Bath (from Alexandra Park, DT023) and a background concentration taken from the background maps was used for sites outside of Bath. Table C.4 below shows the distances used in the calculator, background concentrations and the concentration at the façade for these sites. Urban centre, urban background and sites at the building façade have not been adjusted.

Table C.4 – Non-Automatic NO_2 Fall off With Distance Calculations (concentrations presented in µg/m^3)

Site ID	Distance (m): Monitoring Site to Kerb	Distance (m): Receptor to Kerb	Monitored Concentration (Annualised and Bias Adjusted)	Background Concentration	Concentration Predicted at Receptor	Comments
DT055	2.6	1.1	22.8	6.3	26.3	
DT253a, DT253b, DT253c	3.6	1.5	29.8	5.0	35.6	

Precision check for triplicate tubes

The precision of a diffusion tube is the ability of the measurements to be reproduced. Precision cannot be corrected for but can be improved by careful handling of the diffusion tubes in the laboratory and in the field. For triplicate sites (3 diffusion tubes at one location) it is possible to check the precision of the results using a spreadsheet tool[14] Diffusion tubes are considered to have "good" precision where the coefficient of variation of triplicate diffusion tubes for eight or more periods during the year is less than 20%, and the average coefficient of variation of all monitoring periods is less than 10%.

In 2024 there were 24 triplicate sites in Bath & North East Somerset. All sites showed good precision on individual periods. The average coefficient of variation was <10% (good) at all sites.

QA/QC of Automatic Monitoring

The Council's continuous analysers follow a QA/QC programme; the Bath A4 Roadside NO_2 (CM8) site is an AURN affiliated site and are managed as part of that network. Windsor Bridge (CM3), Chelsea House (CM4) and Bath A4 Roadside PM_{10} (CM8) sites follow the QA/QC programme below.

- There are daily checks on the data to ensure analysers and communications are working and faults are reported as soon as possible by Air Quality Data Management (AQDM).
- The sites are inspected and calibrated checks are made every four weeks by a member of the Environmental Quality Team at Bristol City Council, using certified traceable gases. The sites are also visited by a trained AURN Local Site Operator (LSO) to change the filters and check the analysers.
- The analysers are also serviced and re-calibrated at six monthly intervals by the equipment suppliers.
- The results of all service, maintenance and calibration checks are held and used for ratification and scaling of the data.

[14] Local Bias adjustment tool website.

In 2016-2024 the continuous data for Windsor Bridge, Chelsea House and Bath A4 Roadside PM_{10} was validated and ratified by Air Quality Data Management (AQDM), full details are in (Appendix H: Supporting Technical Information 2).

Recent live data can be viewed on the Council's Air Quality Data – Live website.

PM_{10} and $PM_{2.5}$ Monitoring Adjustment

The PM_{10} measurements are made using an unheated BAM1020 at Windsor Bridge (CM3) and have been corrected by multiplying by 0.833 as recommended in the LAQM.TG22.

The PM_{10} measurements are made using a heated BAM1020 at Bath A4 Roadside (CM8) and have been corrected by dividing by 1.035 as recommended in the LAQM.TG22.

The $PM_{2.5}$ measurements are made using a heated BAM1020 and do not require the application of a correction factor.

Automatic Monitoring Annualisation

During 2024 1 automatic analysers had data capture less than 75%. To estimate the annual mean from the short-term monitoring period the four sites were selected from the national network within 50 miles of Bath and greater that 85% data capture: Charlton Mackrell (27 miles from Bath), Swindon Walcot (28 miles from Bath), Bristol St Paul's (11 miles from Bath) and Cardiff Centre (36 miles from Bath). Table C.5**Error! Reference source not found.** shows the adjustment factors and which locations they are applied to.

Table C.5 – Automatic PM10 Annualisation Summary (concentrations presented in µg/m^3)

Background Site	Annual Data Capture	Annual Mean (A_m)	CM8	
			Period Mean (P_m)	Ratio (A_m/P_m)
Bristol St Paul's	96.5	15.0	14.5	1.034
Cardiff Centre	96.7	12.4	11.9	1.045
Charlton Mackrell	99.6	9.8	9.6	1.018
Swindon Walcot	98.4	10.4	10.0	1.032
Average (R_a)			**1.032**	
Raw Data Annual Mean (M)			**14.6**	
Annualised Annual Mean (M x R_a)			**15.1**	

NO_2 Fall-off with Distance from the Road

Wherever possible, monitoring locations are representative of exposure. However, where this is not possible, the NO_2 concentration at the nearest location relevant for exposure has been estimated using the NO_2 fall-off with distance calculator available on the LAQM Support website. Where appropriate, automatic annual mean NO_2 concentrations corrected for distance are presented in Table A.3.

No automatic NO_2 monitoring locations within Bath & North East Somerset Council required distance correction during 2024.

Appendix D: Maps of Monitoring Locations and AQMAs

Figure D.1 – Map of the AQMA in Bath and the continuous monitoring sites

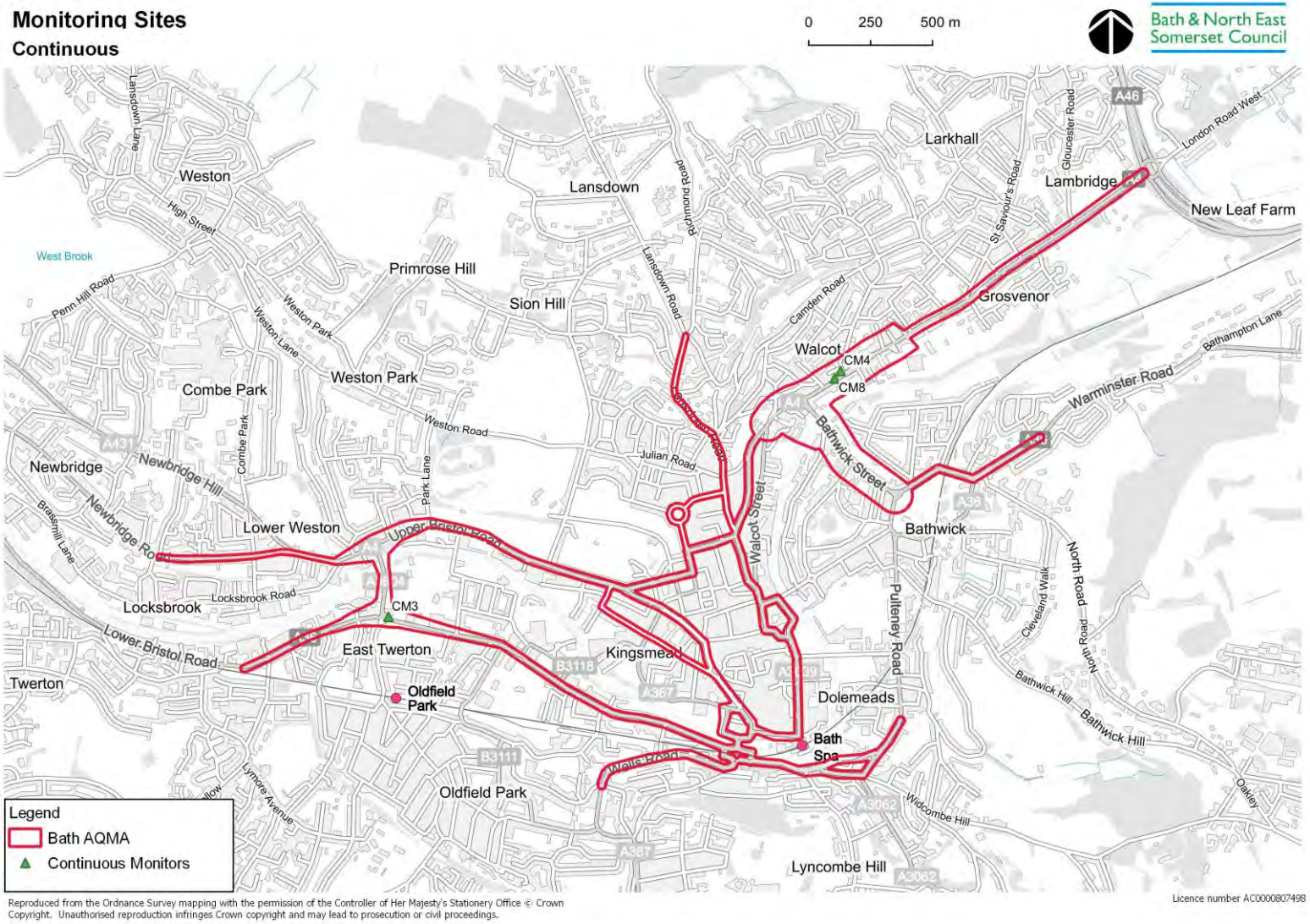


Figure D.2 – Map of the non-automatic monitoring sites and AQMA – Bath – Centre

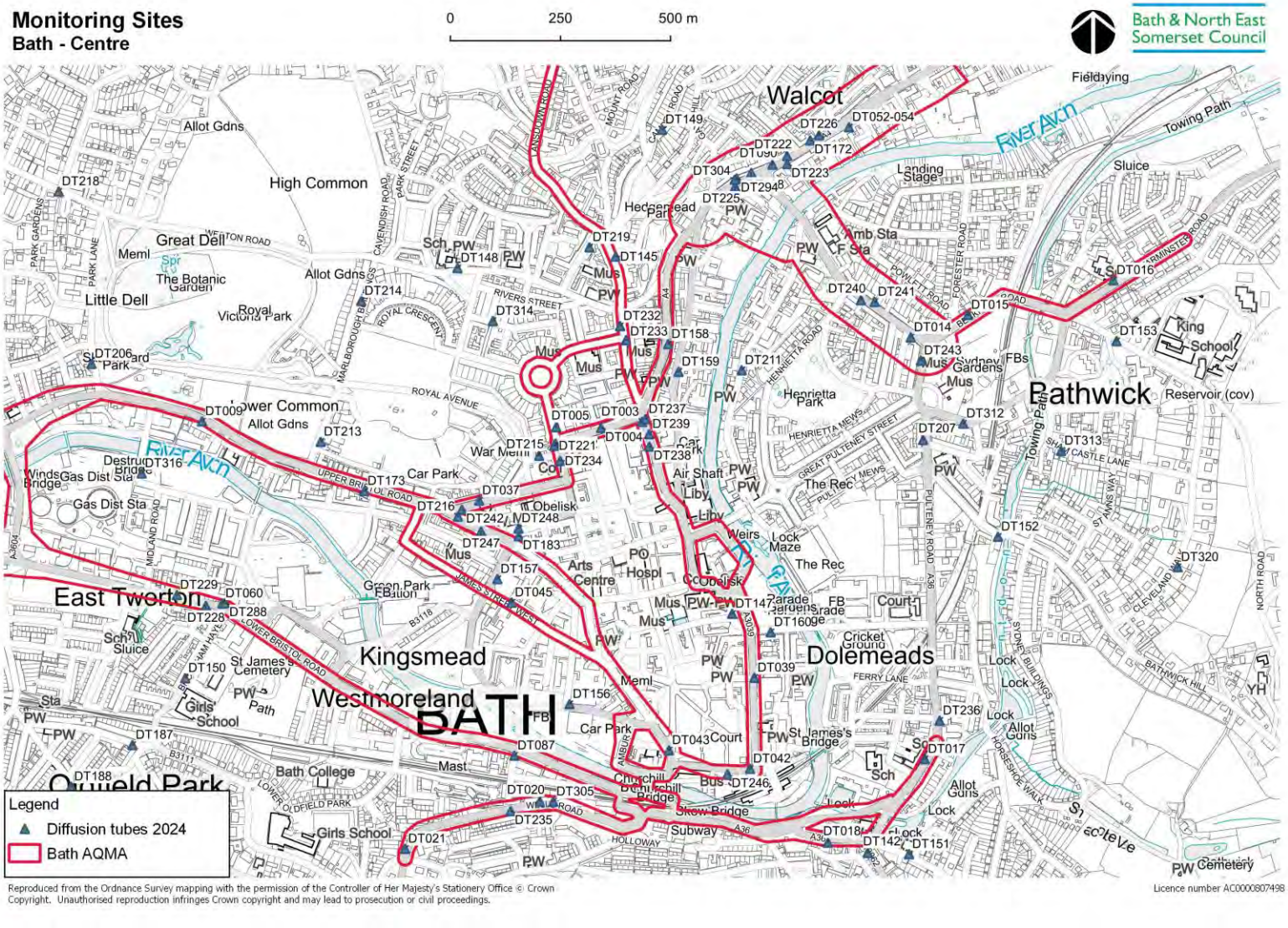


Figure D.3 – Map of the non-automatic monitoring sites and AQMA – Bath – North

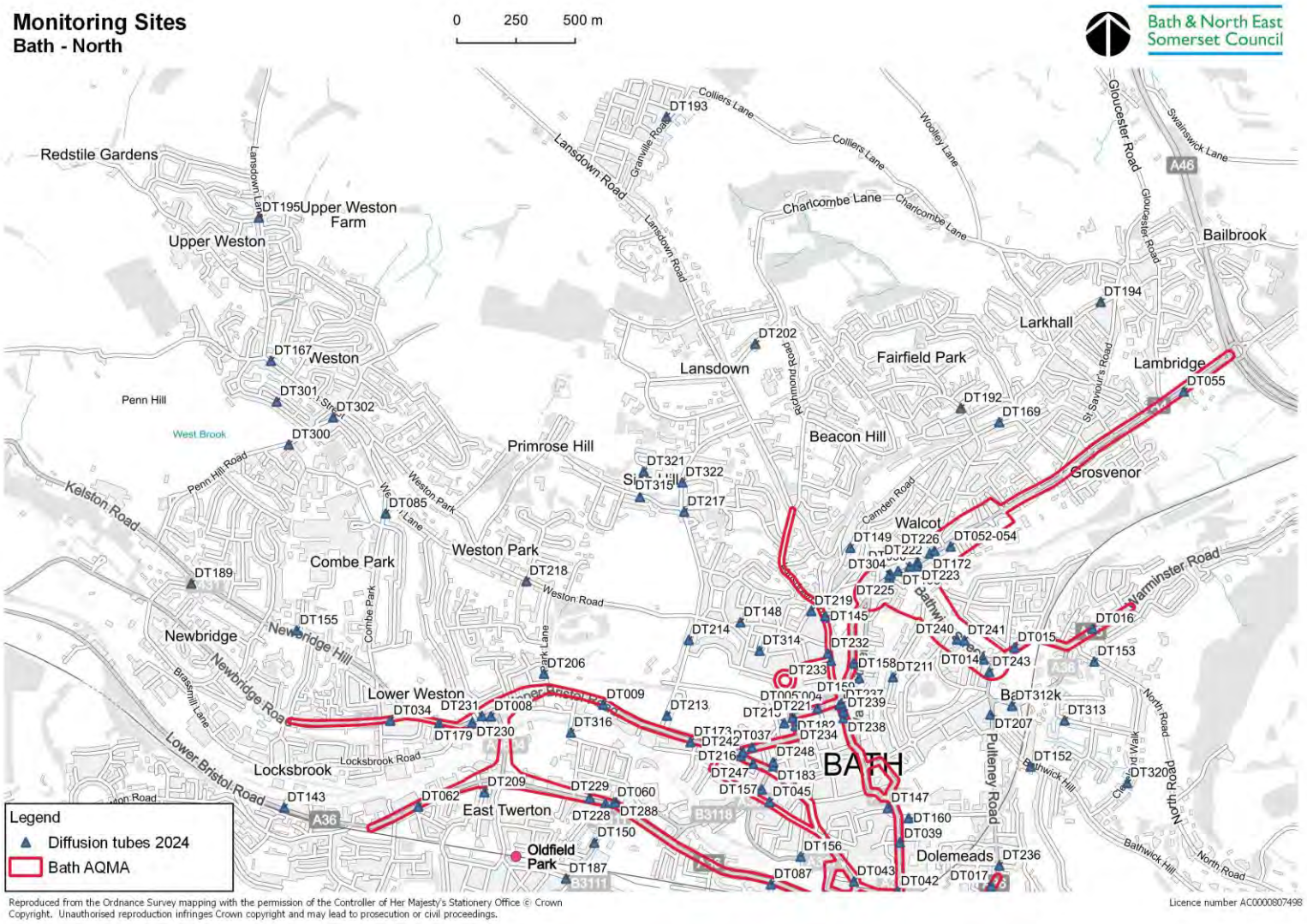


Figure D.4 – Map of the non-automatic monitoring sites and AQMA – Bath – South

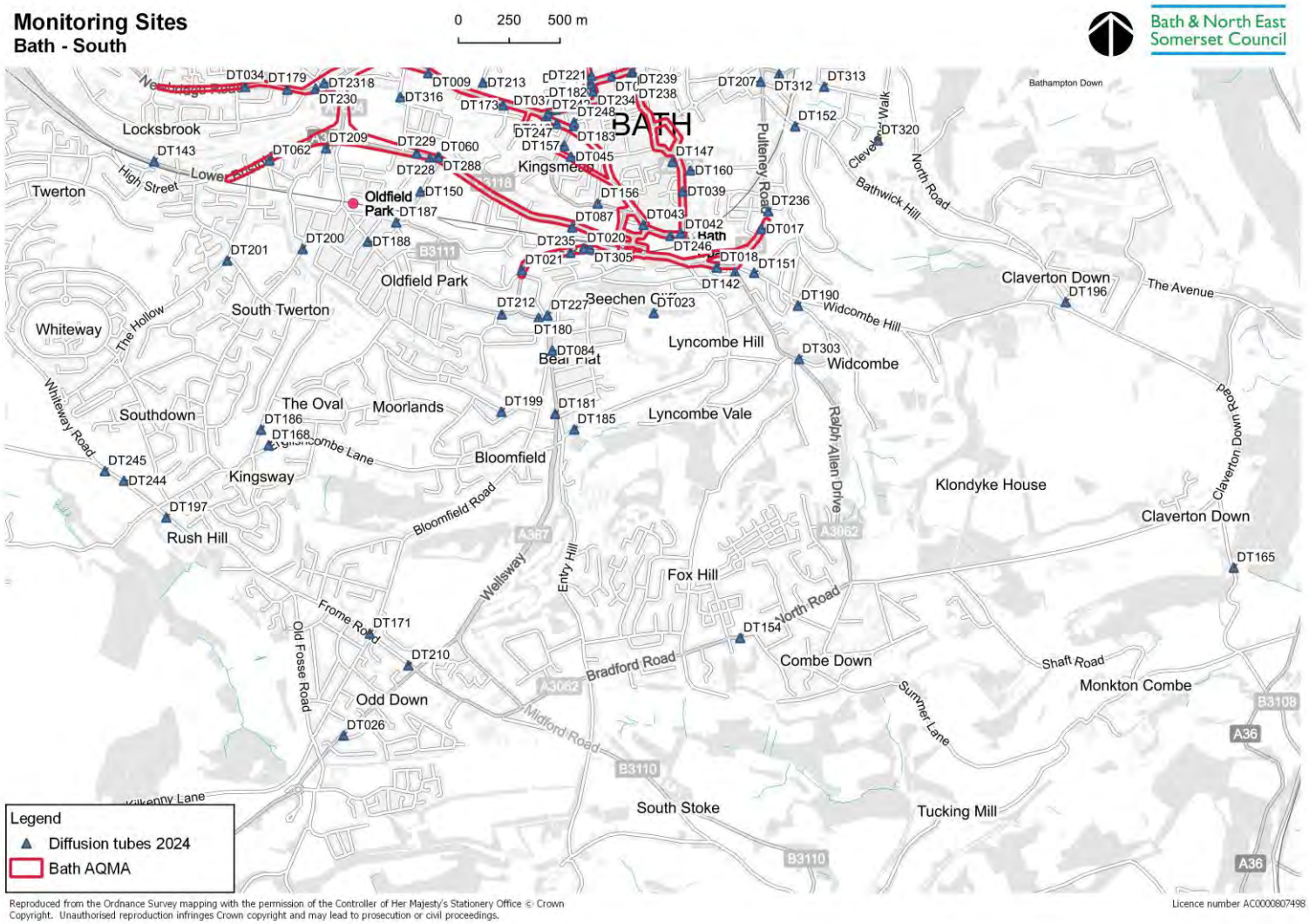


Figure D.5 – Map of the non-automatic monitoring sites and AQMA – Bathampton, Batheaston and Lambridge

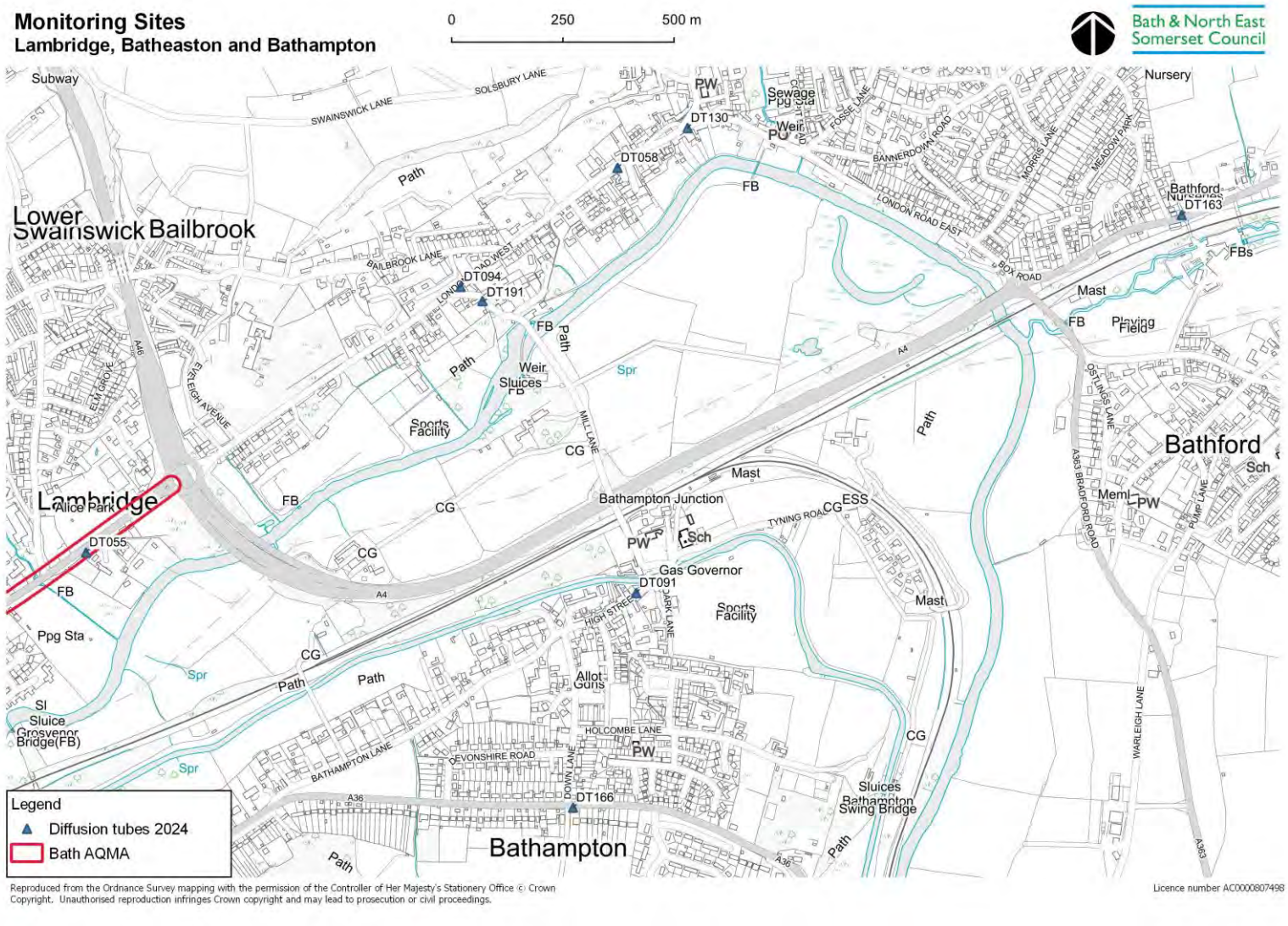


Figure D.6 – Map of the non-automatic monitoring sites and AQMA – Farrington Gurney and Old Mills

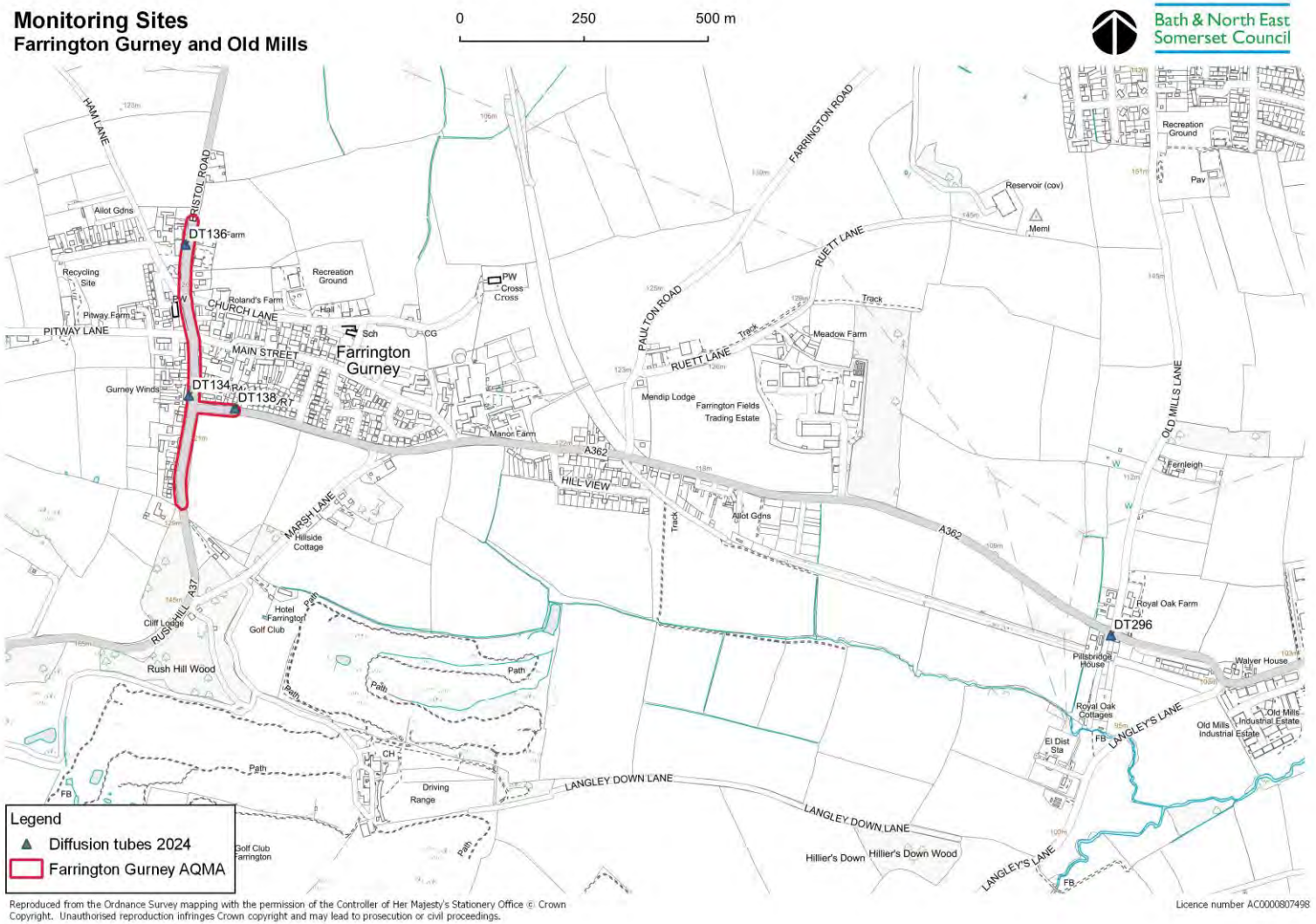


Figure D.7 – Map of the non-automatic monitoring sites – Keynsham

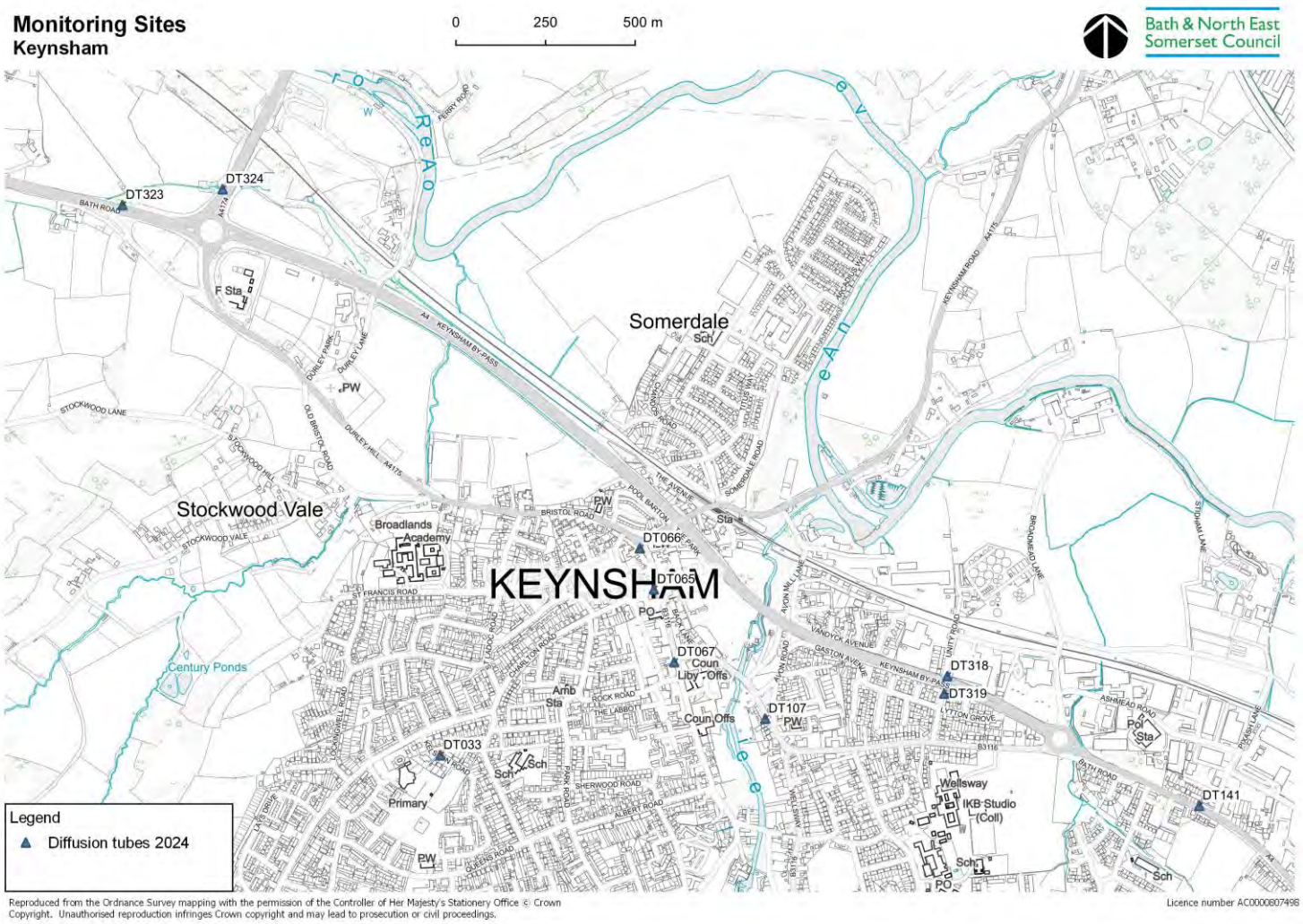


Figure D. 8 – Map of the non-automatic monitoring sites – Radstock

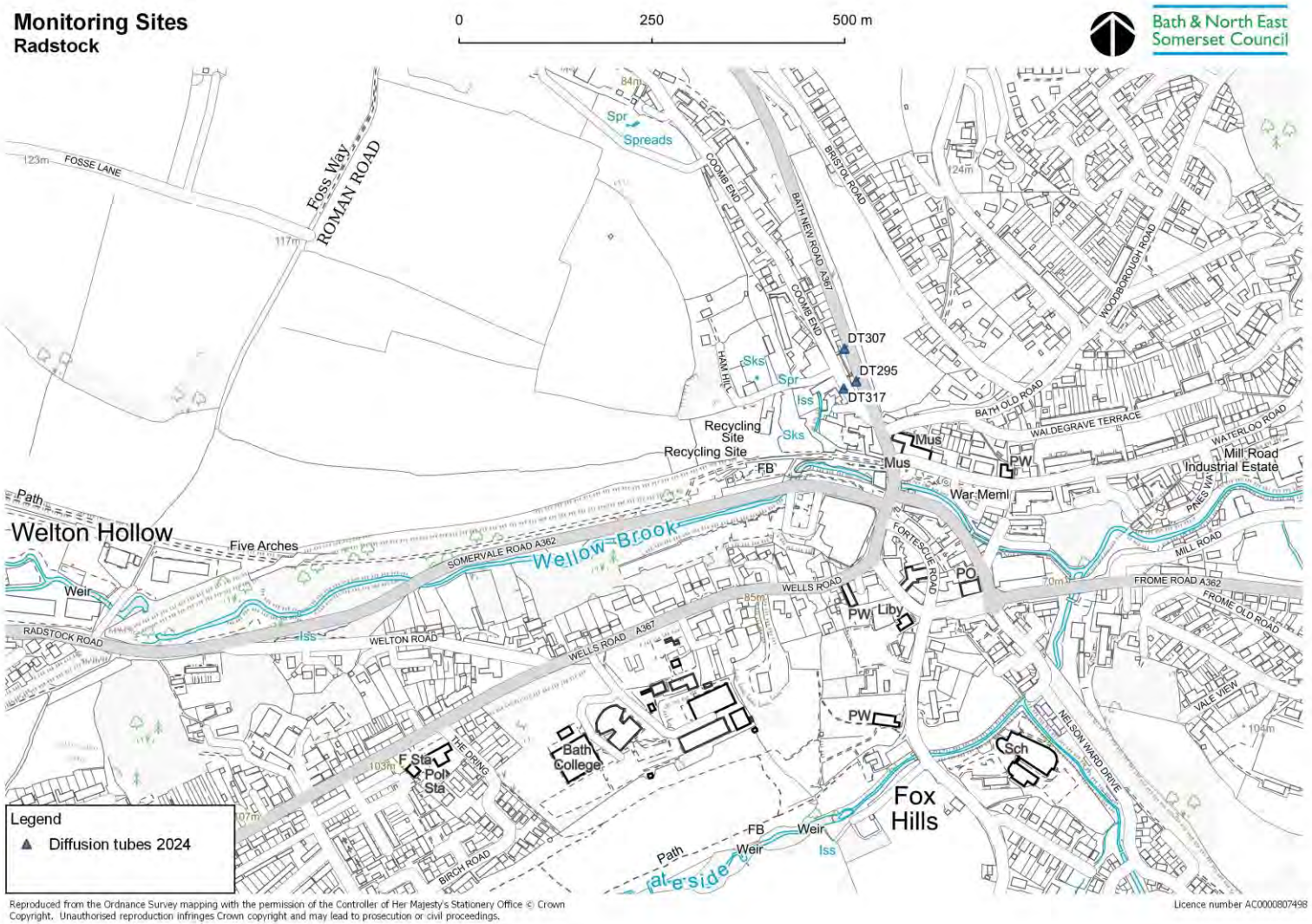


Figure D.9 – Map of the non-automatic monitoring sites – Saltford

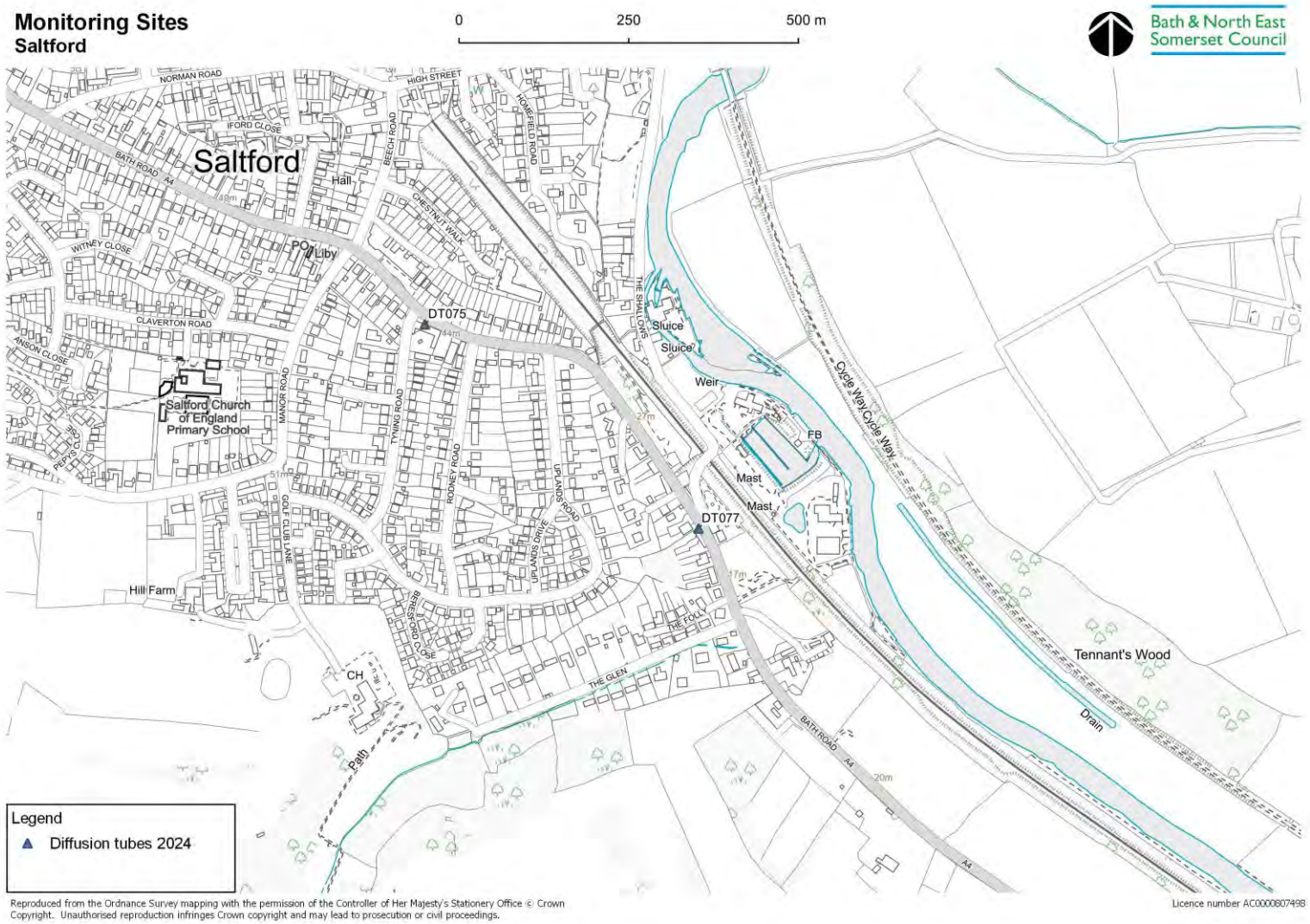


Figure D.10 – Map of the non-automatic monitoring sites and AQMA – Temple Cloud

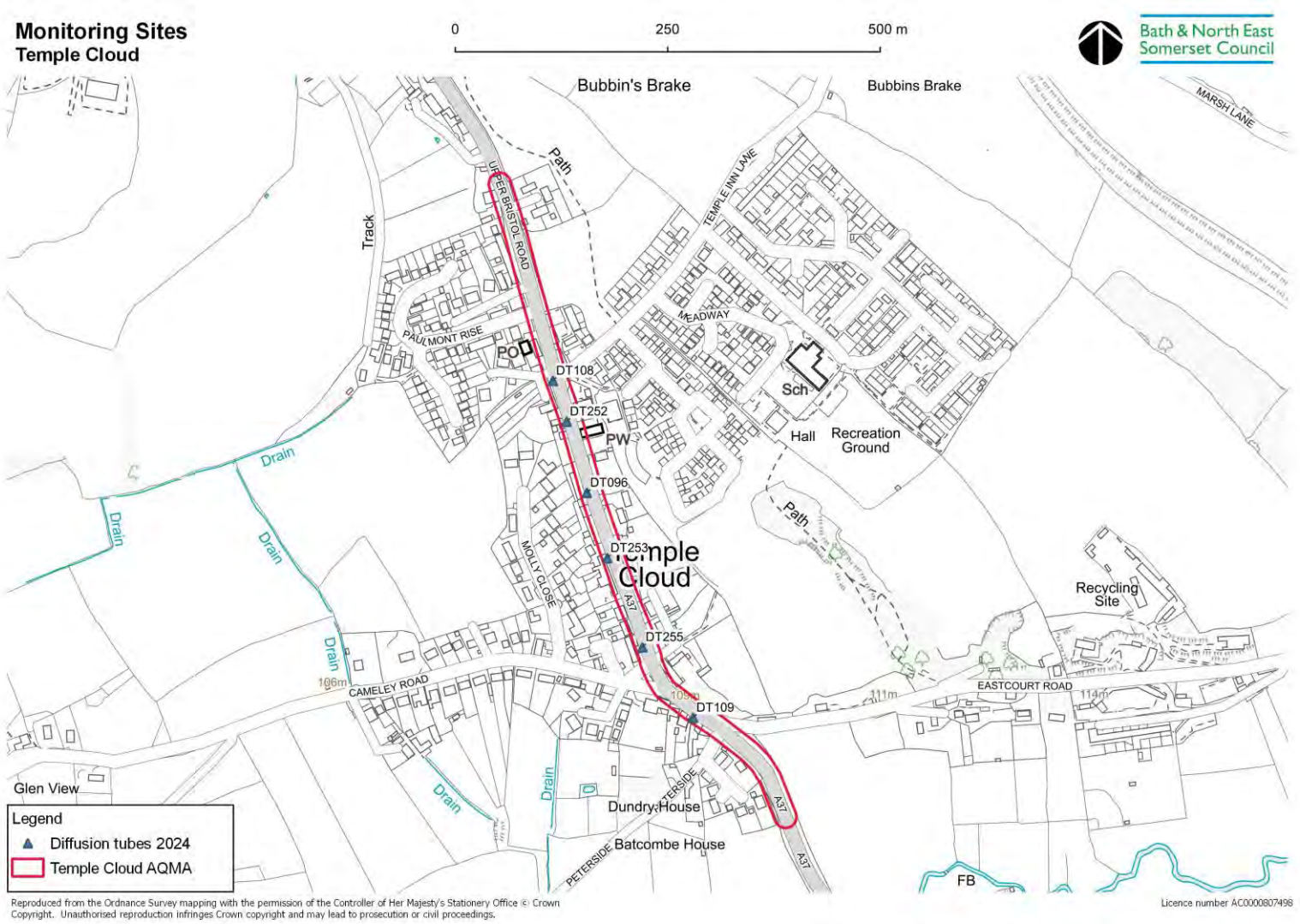
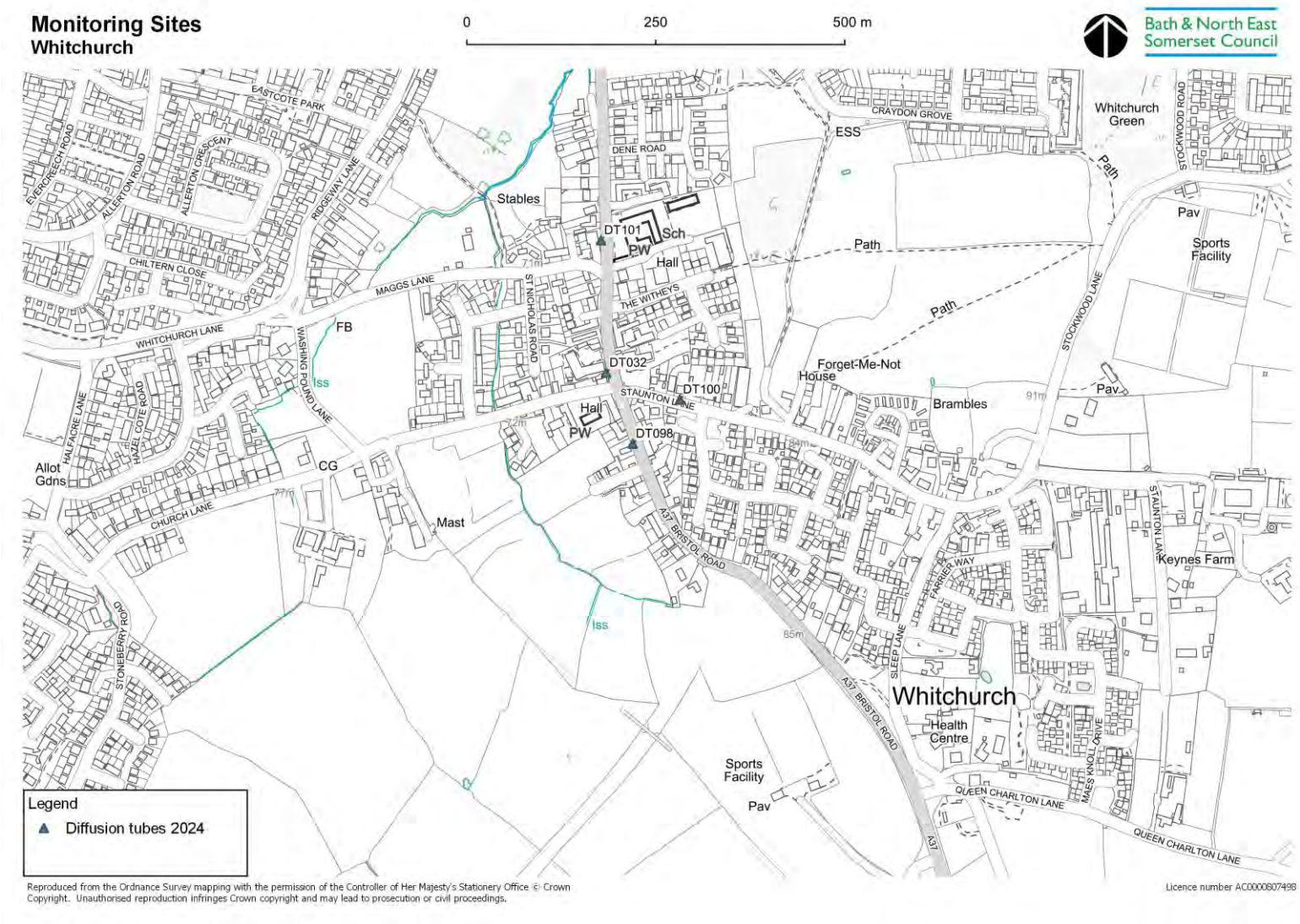


Figure D.11 – Map of the non-automatic monitoring sites – Whitchurch



Appendix E: Summary of Air Quality Objectives in England

Table E.1 – Air Quality Objectives in England[15]

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

[15] The units are in microgrammes of pollutant per cubic metre of air (µg/m^3).

Appendix F: Other monitoring

Benzene

Whilst we are fully compliant with the national air quality objective with respect to benzene, Bath & North East Somerset Council has a benzene monitor which is part of the national non-automatic hydrocarbon network. This uses a pumped benzene tube (a benzene tube which has a fixed amount of air being drawn through it).

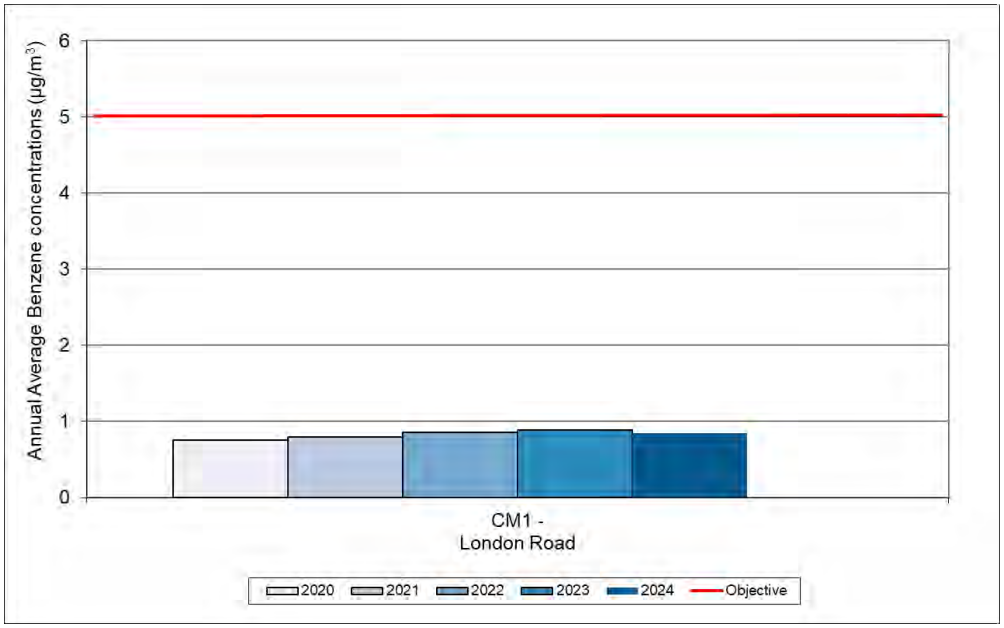
Monitoring results for benzene are shown in Table F.1 and Figure F.1. The results show that there are no exceedances of the benzene objectives during 2024. Trends in benzene show that levels remain similar to previous years (Figure F.1).

Table F.1 – Annual Mean Results: Benzene Monitoring (µg/m3)

Site ID	Site Name	Data Capture for 2024 (%)	2020	2021	2022	2023	2024
CM8	Bath A4 Roadside	92	0.8	0.8	0.9	0.9	0.8

Note: Benzene Annual Mean Objective is 5 µg/m^3

Figure F.1 – Trends in Benzene Monitoring



Zephyr Monitoring

The Zephyr analyser is an indicative analyser which uses electrochemical sensors to measure NO_2 concentrations and optical sensors to monitor particulates. The Zephyr also has a fan which draws air onto the sensors. It is possible that co-locating with our more accurate 'reference method' analysers (e.g., CM3 Windsor Bridge) will improve the accuracy (not precision) of the data by providing a local calibration factor that can be applied to the data retrospectively.

There is a Zephyr analysers which are part of the Clean Air Plan work and in use to dynamically adjust traffic signal phases at Gay Street/Queen Square, Bath when NO_2 concentrations are high. The Zephyr is permanently in Gay Street (Zephyr 1) linked to the traffic lights. A second Zephyr (Zephyr 2) acts as a 'Gold Pod' to ensure the units are calibrated to a continuous analyser. This Zephyr and an additional Zephyr (Zephyr 3) are also used to carry out surveys across the district in response to requests.

The traffic lights are set to trigger based on the 15-minute NO_2 concentration; the trigger would shorten the cycle time. The trigger was initially set by reviewing the local continuous sites comparing the highest 15 minutes averages with the annual averages 5 years between 2015-2019. A best fit line was put through the data and the concentration at 36 µg/m^3 was calculated. The threshold was adjusted during 2021 to take into account the verification with data at Windsor Bridge (Table F.2), no further changes were made in 2024.

Table F.2 – NO_2 Thresholds to trigger a traffic light change (µg/m^3)

Date set	28/04/2021	21/10/2021	23/11/2021	03/12/2021
15-minute NO_2 threshold	180	170	148	118

It should be noted that it is recommended by the manufacturer to change the sensors every 2 years. We replaced the sensors in October 2024. Co-location will be carried out in early 2025 to check how the new sensors compare with the continuous analyser.

The nitrogen dioxide results from the analysers are shown in Table F.3 and for PM_{10} and $PM_{2.5}$ in Table F.4. As the monitoring for Zephyrs 2 and 3 is short-term and has data capture of <25% the concentrations have not been annualised except for Bathampton High Street where data capture was 44.5%. Where annualisation has taken place, the method in Appendix C has been followed. The results, although indicative show no exceedances of the air quality objectives.

Table F.3 – NO_2 Monitoring Results: Zephyr analyser

Site	Dates at site	Mean NO_2 ($\mu g/m^3$)	NO_2 1-Hour Means > 200 $\mu g/m^3$ (2)	Data Capture 2024(%) (1)
Zephyr 1				
Bath - Gay Street	1/1/24-31/12/24	17	0	99.5%
Zephyr 2				
Keynsham – Bath Hill	30/4/24-19/7/24	12	0 (41)	21.8%
Bath – Anchor Road	19/7/24-16/10/24	14	0 (54)	23.6%
Midsomer Norton – West Road	16/10/24-31/12/24	26	0 (114)	11.4%
Zephyr 3				
Bath – Victoria Buildings	29/1/24-19/4/24	13	0 (58)	22.2%
Bath – Pulteney Road	19/4/24-19/7/24	8	0 (31)	24.8%
Bathampton - High Street	19/7/24-31/12/24	9(3)	0 (48)	44.5%

Notes:

Exceedances of the NO_2 annual mean objective of 40µg/m^3 are shown in **bold**.
(1) 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%).
(2) If the period of valid data is less than 85%, the 99.8th percentile of 1-hour means is provided in brackets.
(3) Data has been annualised.

Table F.4 – PM Monitoring Results: Zephyr analysers

Site	Dates at site	Annual Mean PM_{10} ($\mu g/m^3$)	PM_{10} 24-hour Means >50 $\mu g/m^3$ (2)	Annual Mean $PM_{2.5}$ ($\mu g/m^3$)	Data Capture 2024 (%)(1)
Zephyr 1					
Bath - Gay Street	1/1/24-31/12/24	9	0	5	99.5%
Zephyr 2					
Keynsham – Bath Hill	30/4/24-19/7/24	9	0 (18)	6	21.8%
Bath – Anchor Road	19/7/24-16/10/24	9	0 (18)	6	23.6%
Midsomer Norton – West Road	16/10/24-31/12/24	12	0 (28)	8	11.6%
Zephyr 3					
Bath – Victoria Buildings	29/1/24-19/4/24	9	0 (19)	6	22.2%
Bath – Pulteney Road	19/4/24-19/7/24	9	0 (17)	6	24.8%
Bathampton - High Street	19/7/24-31/12/24	10	0 (22)	6	44.5%

Notes:

(1) 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%).
(2) If the period of valid data is less than 85%, the 90.4th percentile of 24-hour means is provided in brackets.

Appendix G: Supporting Technical Information: Assessment of Farrington Gurney for Revoking the AQMA

Revoking an AQMA

Under the Environment Act 1995 Part IV (section 83), as amended by the Environment Act (2021), an AQMA can be revoked if following a subsequent air quality review, it is shown that the air quality objectives are being achieved and are likely to remain so.

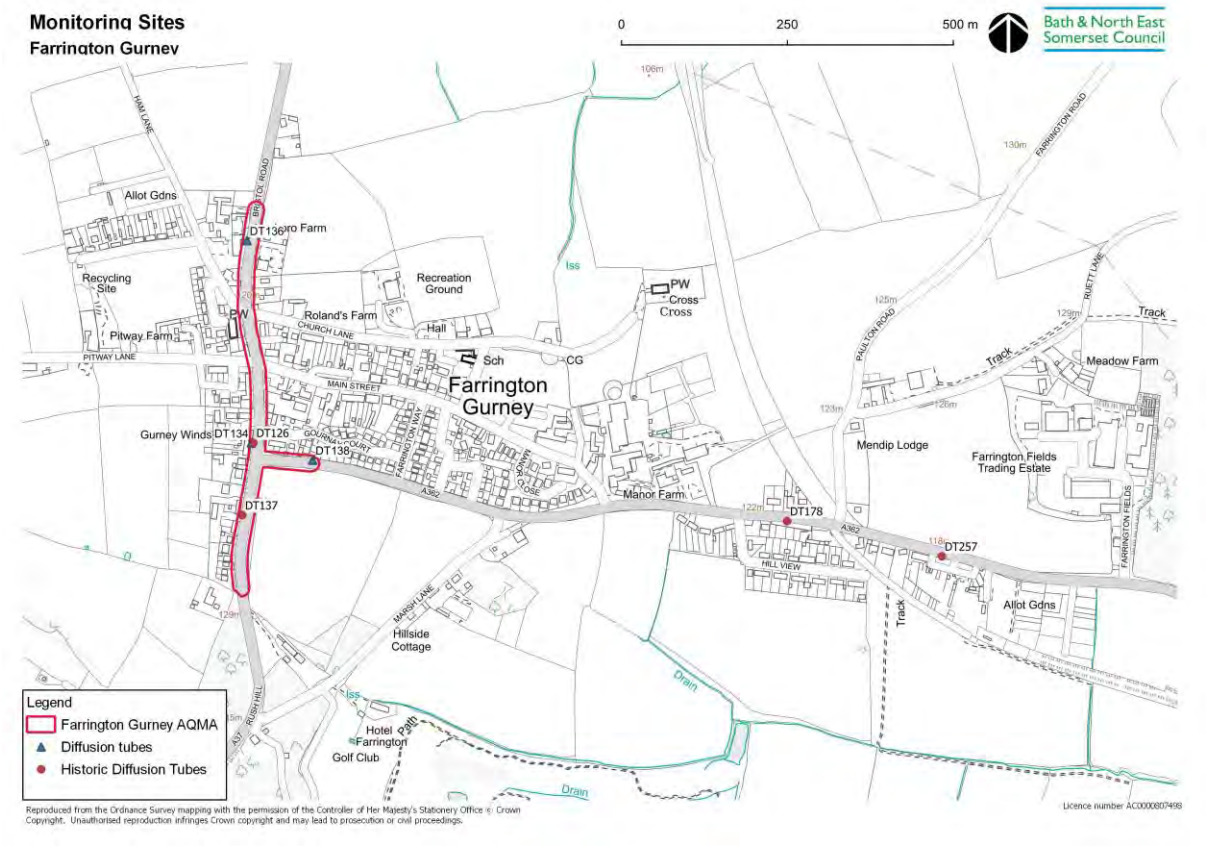
The Technical Guidance (LAQM.TG22) states "*The revocation of an AQMA should be considered following three consecutive years of compliance with the relevant objective as evidenced through monitoring. Where NO_2 monitoring is completed using diffusion tubes, to account for the inherent uncertainty associated with the monitoring method, it is recommended that revocation of an AQMA should be considered following three consecutive years of annual mean NO_2 concentrations being lower than 36µg/m^3 (i.e. within 10% of the annual mean NO_2 objective).*" The 2024 ASR highlighted that the Farrington Gurney AQMA has had numerous consecutive years' monitoring below the objective.

This section reviews the monitoring in Farrington Gurney since the declaration of the AQMA and considers any local developments which may have an impact on air quality in the AQMA.

Farrington Gurney

In August 2018 Bath & North East Somerset Council declared an AQMA in Farrington Gurney following a detailed assessment which highlighted several locations along the A37 through the area which exceeded the air quality objective for annual mean NO_2. An AQAP for the area was completed in 2020, and updated in 2023 following consultation, which included numerous measures to reduce NO_2 concentrations, as detailed in Table 2.2.

Figure G.1 - Map showing Farrington Gurney AQMA and monitoring locations



As part of the AQAP B&NES Officers reviewed developments within 200 metres of AQMA boundary. Officers influenced decisions to ensure lowest negative impact to air quality, in accordance with "*Land-Use Planning & Development Control: Planning for Air Quality; Guidance from Environmental Protection UK and the Institute of Air Quality Management for the consideration of air quality within the land-use planning and development control processes"* (IAQM, January 2017). This included work undertaken on the Sommer Valley Enterprise Zone (SVEZ).

Additional actions to improve air quality throughout the AQMA included planting trees along the right-hand side of the A362 approaching the A37. Planting suitable trees or shrubs that have a positive effect on air quality between the traffic and the building facades and can provide a barrier between air pollution and residents or pedestrians and can absorb some pollutants over time.

Education and information campaigns were undertaken throughout the area to raise awareness and deliver advise to residents. Included within these campaigns, a B&NES Council dedicated a School Travel Plan Officer to support schools to develop online School Travel Plans via Modeshift STARS. Measures encouraged

active travel and cleaner modes of travel working with Farrington Gurney Primary School.

Monitoring

Monitoring in Farrington Gurney began in 2017 at 5 sites. Sites DT134, DT136, DT138 have remained monitoring annually since 2017. Additional sites, as seen in Table G.1, were added to monitoring for limited periods.

Table G.1 - Annual Mean NO_2 Diffusion Tube Monitoring Results (µg/m^3).

Diffusion Tube ID	Site Name	2017	2018	2019	2020	2021	2022	2023	2024
DT126	Farrington Gurney 1	**53.9**	**43.3**	-	-	-	-	-	-
DT134	Farrington Gurney 2	**52.3**	38.9	38.8	31.1	32.1	29.7	25.1	24.1
DT136	Farrington Gurney 3	**42.5**	39.6	37.3	27.9	29.2	27.6	24.0	22.1
DT137	Farrington Gurney 4	28.3	24.5	-	-	-	-	-	-
DT138	Farrington Gurney 5	38.8	37.7	35.6	27.2	28.4	26.6	23.2	22.5
DT178	Farrington Gurney 6	-	31.3	-	-	-	-	-	-
DT257	Farrington Gurney 7	-	-	-	18.6	18.9	-	-	-

Notes:

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

Exceedances of the NO_2 annual mean objective of 40µg/m^3 are shown in **bold**.

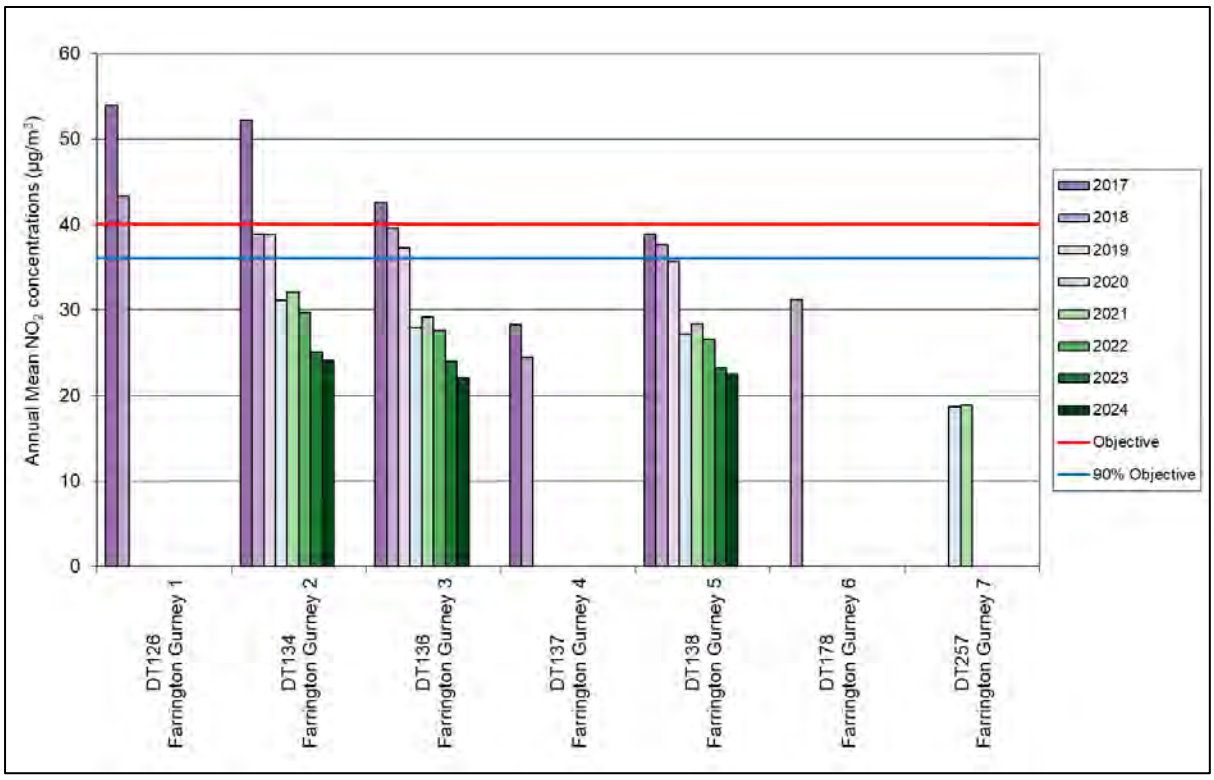
NO_2 annual means exceeding 60µg/m^3, indicating a potential exceedance of the NO_2 1-hour mean objective are shown in **bold and underlined**.

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.

The results of monitoring demonstrate a long-term decreasing trend in NO_2, illustrated in Figure G.2. The Air Quality objective for NO_2 has been met since 2020 with all diffusion tubes results being below 36 µg/m^3. Due to the impacts of the Covid-19 pandemic AQMA revocation was delayed ensuring decreasing trends continued and were not specifically related to pandemic impacts.

Figure G.2 – Trends in Annual Mean NO_2 Concentrations



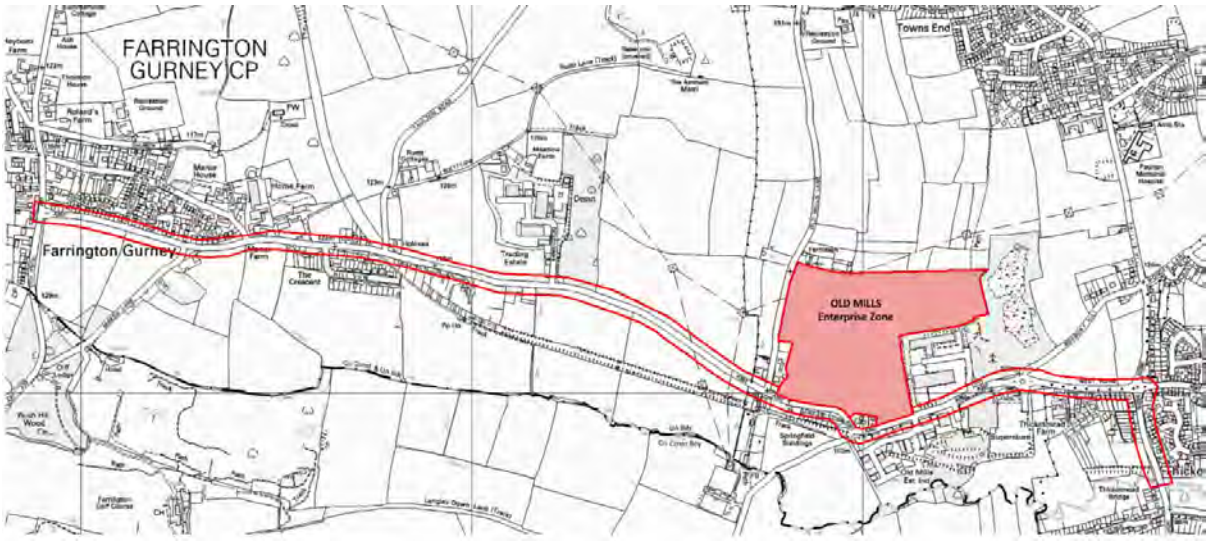
Local Developments

The SVEZ at Old Mills is based along the A362, east of Farrington Gurney towards Midsomer Norton (Figure G.3). It has been identified as a site for regeneration to encourage new jobs and business growth.

The Environmental Monitoring team liaised with the project team for the development of the SVEZ throughout the project, application and supporting air quality assessment documents are publicly available on the B&NES Website[16]. This input formed action FG4 within the AQAP measures, seen in Table 2.2.

[16] SVEZ Planning Application

Figure G.3 - Location of the Somer Valley Enterprise Zone at Old Mills in relation to Farrington Gurney.



Note: The red lines highlight the A362 between the Zone and Farrington Gurney.

Conclusion

As the monitoring data shows the air quality objective continues to be met and there is a downward trend in concentrations and no local developments are likely to significantly increase pollution concentrations in the AQMA it is recommended that the Farringdon Gurney AQMA is revoked.

Next Steps

Following the acceptance of this report by DEFRA the council with consult on the removal of the AQMA for Farringdon Gurney. A single member decision will be taken before the Council carries out the formal revocation process. The Council will also develop an Air Quality Strategy to ensure that Air Quality continues to improve across the district

Appendix H: Supporting Technical Information 2

QA/QC information provided by Air Quality Data Management.

QA/QC of Automatic Air Quality Instruments

Air quality measurements from the automatic instruments are validated and ratified by Air Quality Data Management (AQDM) to the standards described in the Local Air Quality Management – Technical Guidance LAQM (TG22) https://laqm.defra.gov.uk/technical-guidance.

Validation

This process operates on data during the data collection stage. All data are continually screened algorithmically and manually for anomalies. There are several techniques designed to discover spurious and unusual measurements within a very large dataset. These anomalies may be due to equipment failure, human error, power failures, interference or other disturbances. Automatic screening can only safely identify spurious results that need further manual investigation.

Raw data from the gaseous instruments (e.g. NO_x, O_3, SO_2 and CO) are scaled into concentrations using the latest values derived from the manual and automatic calibrations. These instruments are not absolute and suffer drifts. Both the zero baseline (background) and the sensitivity may change over time. Regular calibrations with certified gas standards are used to measure the zero and sensitivity. However, these are only valid for the moment of the calibration since the instrument will continue to drift. Raw measurements from particulate instruments (e.g. PM_{10} and $PM_{2.5}$) generally do not require scaling into concentrations. The original raw data are always preserved intact while the processed data are dynamically scaled and edited.

Ratification

This is the process that finalises the data to produce the measurements suitable for reporting. All available information is critically assessed so that the best data scaling is applied, and all anomalies are appropriately edited. Generally, this operates at three, six or twelve month intervals. However, unexpected faults can be identified during the instrument routine services or independent audits which are often at 6-monthly intervals. In practice,

therefore, the data can only be fully ratified in 12-month or annual periods. The data processing performed during the three and six monthly cycles helps build a reliable dataset that is finalised at the end of the year.

There is a diverse range of additional information that can be essential to the correct understanding and editing of data anomalies. These may include

- the correct scaling of data
- ignoring calibrations that were poor e.g. a spent zero scrubber
- closely tracking rapid drifts or eliminating the data
- comparing the measurements with other pollutants and nearby sites
- corrections due to span cylinder drift
- corrections due to flow drifts for the particulate instruments
- corrections for ozone instrument sensitivity drifts
- eliminating measurements for NO_2 conversion inefficiencies
- eliminating periods where calibration gas is in the ambient dataset
- identifying periods where instruments are warming-up after a power cut
- identification of anomalies due to mains power spikes
- correcting problems with the date and time stamp
- observations made during the sites visits and services

The identification of data anomalies, the proper understanding of the effects and the application of appropriate corrections requires expertise gained over many years of operational experience. Instruments and infrastructure can fail in numerous ways that significantly and visually affect the quality of the measurements. There are rarely simple faults that can be discovered by computer algorithms or can be understood without previous experience.

The PM_{10} and $PM_{2.5}$ concentrations may require scaling into Gravimetric Equivalent concentration units by use of the Volatile Correction Model (VCM) http://www.volatile-correction-model.info or by corrections published by Defra https://uk-air.defra.gov.uk/networks/monitoring-methods?view=mcerts-scheme depending on the measurement technique.

Further information about air quality data management, expert data ratification and examples of bad practices are given on the Air Quality Data Management (AQDM) website http://www.aqdm.co.uk.

Glossary of Terms

Abbreviation	Description
AQ	Air Quality
AADT	Annual Average Daily Traffic
AIR-PT	Air & Stack Emissions Proficiency Testing
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'
AQD	Air Quality Directive
AQDM	Air Quality Data Management
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
AQO	Air Quality Objective
ASR	Annual Status Report
AURN	Automatic Urban and Rural Network
ATC	Automatic Traffic Count
BAM1020	Beta Attenuation Monitor
B&NES	Bath and North East Somerset Council
CAP	Clean Air Plan
CAZ	Clean Air Zone
CBTF	Clean Bus Technology Fund
CM	Continuous Monitoring
CPO	Charge Point Operator
CRSTS	City Regional Sustainable Transport Scheme
CTP	Corporate Travel Plan
CVRAS	Clean Vehicle Retrofit Accreditation Scheme
Defra	Department for Environment, Food and Rural Affairs
DfT	Department for Transport
DT	Diffusion Tube
EU	European Union

Abbreviation	Description
EV	Electric Vehicle
EVI	Electric Vehicle Infrastructure
FAS	Financial Assistance Scheme
FBC	Final Business Case
GULW	Go Ultra Low West
HGV	Heavy Goods Vehicle
JAQU	Joint Air Quality Unit
JNZ	Journey to Net Zero
KPI	Key Performance indicator
LAQM	Local Air Quality Management
LEVI	Local Electric Vehicle Infrastructure
LGV	Light Goods Vehicle
LN	Liveable Neighbourhood
LSO	Local Site Operator
LSTF	Local Sustainably Transport Fund
MaaS	Mobility as a Service
MCA	Mayoral Combined Authority
MoU	Memorandum of Understanding
mpg	Miles Per Gallon
MW	Megawatt
NO_2	Nitrogen Dioxide
NO_x	Nitrogen Oxides
OHID	Office for Public Health Improvement & Disparities
OZEV	Office for Zero Emission Vehicles
PCM	Pollution Climate Model
PHV	Private Hire Vehicle
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
P&R	Park and Ride

Abbreviation	Description
PAYG	Pay as you go
PROW	Public Right of Way
QA/QC	Quality Assurance and Quality Control
SO_2	Sulphur Dioxide
SCR	Selective Catalytic Reduction
SVEZ	Somer Valley Enterprise Zone
TEA	Triethanolamine
TG22	Technical Guidance (Local Air Quality Management)
TMT	Thermal Management Technology
TRO	Traffic Regulation Order
$\mu g/m^3$	Micrograms per cubic metre
ULEV	Ultra-Low Emission Vehicles
UKAS	United Kingdom Accreditation Service
UTC	Urban Traffic Control
UTMC	Urban Traffic Management Control
VAS	Vehicle Activated Sign
VCM	Volatile Correct ion Model
VMS	Variable Message Sign
WASP	Workplace Analysis Scheme for Proficiency
WECA	West of England Mayoral Combined Authority
WHO	World Health Organisation

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