



2026 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, 2026

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Local Responsibilities and Commitment

This Annual Status Report (ASR) was prepared by AECOM on behalf of the Environmental Health Department of Newcastle City Council (NCC).

This ASR has been signed off by Ed Foster, Head of Public Safety and Regulation.

If you have any comments on this ASR please send them to Michael Terry at: Newcastle City Council, 7th Floor, Civic Centre, Newcastle upon Tyne NE1 8QH or telephone 0191 2116102 or email psr@newcastle.gov.uk

Executive Summary: Air Quality in Our Area

Air Quality in Newcastle Upon Tyne

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 (LAQM) 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 is a corrosive gas which is predominantly produced from the combustion of coal or crude oil.
Particulate Matter (PM ₁₀ and PM _{2.5})	Particulate matter is everything in the air that is not a gas. Particles can come from natural sources such as pollen, as well as human made sources such as smoke from fires, emissions from industry and dust from tyres and brakes. PM₁₀ refers to particles under 10 micrometres. Fine particulate matter or PM_{2.5} are particles under 2.5 micrometres.

In the City of Newcastle, the main pollutant of concern is NO₂, with the largest contribution being from road vehicles. NCC has declared two Air Quality Management Areas (AQMA) due to monitored exceedances of the annual mean NO₂ objective, in the city centre and Gosforth.

Further information can be found here: [Air quality, pollution and monitoring | Newcastle City Council](#)

Annual mean concentrations measured in 2025 did not exceed the annual mean objective at any monitoring sites across NCC's jurisdiction (after distance correction). One monitoring site measured concentrations which were within 10% of the objective (after distance correction); DT8 (38.6 $\mu\text{g}/\text{m}^3$), which is located within the city centre AQMA (AQMA 1b).

At DT81, annual mean NO_2 concentrations measured 65.2 $\mu\text{g}/\text{m}^3$ in 2025 prior to distance correction, dropping to 35.7 $\mu\text{g}/\text{m}^3$ after distance correction. As this concentration is above 60 $\mu\text{g}/\text{m}^3$, it may exceed the short term NO_2 1-hour objective.

Overall, monitored annual mean NO_2 concentrations in Newcastle have shown on average, a 1% decrease across all sites compared to 2024.

City Centre AQMA (AQMA 1b) has not yet achieved compliance with the annual mean NO_2 Air Quality Objective, therefore NCC are required to keep this in place and continue monitoring. Gosforth AQMA (AQMA 5) has been compliant with the relevant Air Quality Objective (monitoring below 36 $\mu\text{g}/\text{m}^3$ when corrected to relevant exposure) for 6 years now so NCC will pursue its revocation.

No significant new emission sources have been identified since the previous ASR, and the most significant source of atmospheric pollution continues to be emissions from road traffic. The concern is predominately elevated concentrations of NO_2 in the city of Newcastle, although it is recognised that PM_{10} and $\text{PM}_{2.5}$ can also have health effects at concentrations below the relevant air quality objectives.

Actions to Improve Air Quality

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

The Environmental Improvement Plan¹ sets out actions that will drive continued improvements to air quality and to meet the new national interim and long-term targets for

¹ DEFRA. Environmental Improvement Plan 2023, January 2023

fine PM_{2.5}, the pollutant of most harm to human health. The Air Quality Strategy² provides more information on local authorities' responsibilities to work towards these new targets and reduce fine particulate matter in their areas.

The Road to Zero³ details the Government's approach to reduce exhaust emissions from road transport through a number of mechanisms, in balance with the needs of the local community. This is extremely important given that cars are the most popular mode of personal travel and the majority of AQMAs are designated due to elevated concentrations heavily influenced by transport emissions.

NCC has set up a Clean Air Zone (CAZ) in partnership with Gateshead Council in response to a governmental legal order. This requires NCC to take action to reduce NO/NO₂ emissions from vehicles. The zone covers most of Newcastle city centre, including routes over the Tyne bridge, Swing bridge, Redheugh bridge and High-Level bridge.

The CAZ went into operation in January 2023, charging certain vehicles to enter the zone, excluding private cars, motorbikes or any vehicle that meets national CAZ emissions.

During 2023 and 2024 the Newcastle/Gateshead CAZ team awarded £4,760,647.10 which allowed 1,141 vehicles that regularly enter the CAZ to be replaced with compliant models. Applicants continue to access funding to replace their non-compliant vehicles when a suitable replacement has been sourced. Operators of taxis, vans, buses, coaches and heavy goods vehicles (HGV) may be charged if the vehicles do not comply with government emission standards. The introduction of the CAZ is likely to have contributed to decreasing NO₂, PM₁₀ and PM_{2.5} concentrations. Further details are available online here: [Newcastle and Gateshead Clean Air Zone | Newcastle City Council](#).

Conclusions and Priorities

NCC have been updating the AQAP in 2025/26, with a draft version of this expected to be adopted from autumn 2026. NCC's priorities for 2026 are to implement and monitor the progress of the measures outlined within this AQAP, conducting a feasibility study into options to improve air quality at Stephenson Rd and bus electrification, with a key

² DEFRA. Air Quality Strategy – Framework for Local Authority Delivery, August 2023

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

overarching priority of improving air quality such that the Clean Air Zone (CAZ) can be revoked.

How to get Involved

The Newcastle city centre AQAP includes a number of measures that will require a high level of public support and buy-in to ensure they are successful, such as:

- Increasing access to alternative modes of travel to the private motor car;
- Increased use of low emission vehicles;
- Increased use of cycle-ways to encourage modal shift across the city of Newcastle; and
- Use of car loan schemes and car clubs, including the uptake of car sharing and pooling or the use of alternative forms of travel.

The Council will continue to provide information about air quality and pollution control:

- Paper copies, or alternative formats, of any of the electronic reports are published online here: [Air quality, pollution and monitoring | Newcastle City Council](#);
- Information on how individuals can reduce their impact on air pollution is published online here: [Air quality - ways to help reduce air pollution | Newcastle City Council](#);
- Information on previous review and assessment reports; and
- Any questions or concerns about air pollution in the city answered.

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1 Local Air Quality Management

This report provides an overview of air quality in NCC during 2025. It fulfils the requirements of 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 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 ASR is an annual requirement showing the strategies employed by NCC 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

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

The Environmental Improvement Plan⁴ sets out actions that will drive continued improvements to air quality and to meet the new national interim and long-term targets for fine PM_{2.5}, the pollutant of most harm to human health. The Air Quality Strategy⁵ provides more information on local authorities' responsibilities to work towards these new targets and reduce fine particulate matter in their areas.

The Road to Zero⁶ details the Government's approach to reduce exhaust emissions from road transport through a number of mechanisms, in balance with the needs of the local community. This is extremely important given that cars are the most popular mode of personal travel and the majority of AQMAs are designated due to elevated concentrations heavily influenced by transport emissions.

NCC has set up a Clean Air Zone (CAZ) in partnership with Gateshead Council in response to a governmental legal order. This requires NCC to take action to reduce NO/NO₂ emissions from vehicles. The zone covers most of Newcastle city centre, including routes over the Tyne bridge, Swing bridge, Redheugh bridge and High-Level bridge.

The CAZ went into operation in January 2023, charging certain vehicles to enter the zone, excluding private cars, motorbikes or any vehicle that meets national CAZ emissions standards. Operators of taxis, vans, buses, coaches and heavy goods vehicles (HGV) may be charged if the vehicles do not comply with government emission standards. The introduction of the CAZ is likely to have contributed to decreasing NO₂, PM₁₀ and PM_{2.5} concentrations. Further details are available online here: [Newcastle and Gateshead Clean Air Zone | Newcastle City Council](#).

⁴ DEFRA. Environmental Improvement Plan 2023, January 2023

⁵ DEFRA. Air Quality Strategy – Framework for Local Authority Delivery, August 2023

⁶ DfT. The Road to Zero: Next steps towards cleaner road transport and delivering our Industrial Strategy, July 2018

2.1 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 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 Newcastle can be found in Table 2.1. The table presents a description of the two AQMAs that are currently designated within NCC.

Appendix D: Map(s) of Monitoring Locations and AQMAs provides maps of the AQMAs and also the air quality monitoring locations in relation to the AQMAs. The AQMA is designated for the air quality objective for annual mean NO₂.

NCC are producing an updated AQAP for the City Centre AQMA, due to be published autumn 2026. NCC intends to pursue the revocation of Gosforth AQMA following six years of compliance.

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?	Highest Concentration: Declaration	Highest Concentration: Current Year	Number of Years Compliant with Air Quality Objective	Name and Date of AQAP Publication	Web Link to AQAP
AQMA No. 1b (city centre)	Declared April 2008	NO ₂ Annual Mean	An area encompassing the previous AQMAs 1-3, covering Newcastle city centre	NO	127.3 µg/m ³ (measured 2004 concentration)	39.8 µg/m ³	0 years	City of Newcastle upon Tyne Air Quality Action Plan – Newcastle city centre AQMA January 2006	AQMA 1b
AQMA No. 5 (Gosforth)	Declared April 2008	NO ₂ Annual Mean	An area encompassing parts of the A189 and B1318 in Gosforth	YES	46.9 µg/m ³	33.0 µg/m ³	6 years	Air Quality Action Plan: South Gosforth, NCC May 2011	AQMA 5

☒ Newcastle City Council confirm the information on UK-Air regarding their AQMA(s) is up to date

☒ Newcastle City Council confirm that all current AQAPs have been submitted to DEFRA

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

DEFRA's appraisal of last year's ASR concluded that the report is well structured, detailed, and provides the information specified in the Guidance. The following comments are designed to help inform future reports. The response of the Council, where required, are provided in italic.

1. The ASR notes Gosforth AQMA has five years (2020, 2021, 2022, 2023, and 2024) compliance of $<36 \mu\text{g}/\text{m}^3$ at relevant exposure and therefore the Council intends to pursue revocation of this AQMA. This is acceptable and the Council should seek to revoke the AQMA as a priority. *NCC intends to pursue the revocation of Gosforth AQMA following six years of compliance.*
2. Whilst Table 2.2. has been completed, the measure status for several measures are 'ongoing' or 'implemented' and therefore, it is unclear overall which measures are active and have been progressed during the reporting year. This should be clarified in the 2026 ASR and align with the measures in the upcoming AQAP. As this was a comment in the appraisal of the 2024, it is recommended that this is actioned as soon as possible. *This information has been included in this ASR, as per the measures in the new AQAP.*
3. The Council have identified their priorities for the 2024 reporting year such as evaluating the implementation of the CAZ and producing an updated AQAP. This is welcomed.
4. Trends in the monitoring data are presented and discussed in detail, which is welcomed.
5. Clear maps are included with the ASR which show the AQMA boundaries relevant to the reporting year and the monitoring locations across NCC.
6. The Council have outlined their approach to address $\text{PM}_{2.5}$ measures, with reference to a Clean Air Zone, Smoke Control Areas and Local Monitoring. There are also future actions demonstrating the Council's proactivity to reduce emissions. This is an example of best practice.
7. The use of the Public Health Objectives Framework D01 has been outlined, however the values are inconsistent with the reported values on the website. In

2023, the value Newcastle upon Tyne was 5%, not 4.6% which is value for the Northwest region. The value for England is correct. These values should be checked thoroughly in future reports. *This has been thoroughly checked in this year's report, with the correct 2024 value for Newcastle upon Tyne reported.*

8. QA/QC measures have been outlined including the justification for using a national factor over a local factor, given the national factor is more conservative. However, the version of the bias adjustment spreadsheet used is incorrect. The ASR provides a screenshot of the March 2025 version, however, an April 2025 version would have been the most up to date given the ASR is also dated April 2025. This should be checked in future reports to determine the impact of any change to the monitoring results. *The most recent version of the bias adjustment spreadsheet (March 2026) has been used to report the 2025 national bias adjustment factor.*
9. All tables have been completed correctly, though there are minor formatting errors in Table B.1 relating to monthly exceedances of the objective which are not in bold. Although this does not impact the outcome of the ASR, this should be thoroughly checked in future reports. *Tables have been checked for formatting errors, with any identified being amended.*

NCC has taken forward a number of direct measures during the current reporting year of 2025 in pursuit of improving local air quality. NCC are producing a new AQAP, with a draft version to be adopted in autumn 2026. This action plan will replace the previous action plan, which ran from 2006 to 2026, and outlines the actions that NCC will deliver between 2026 - 2030 in order to reduce concentrations of air pollutants and exposure to air pollution. Details of all measures completed, in progress or planned are set out in Table 2.2. Ten measures are included within Table 2.2, with the type of measure and the progress NCC have made during the reporting year of 2025 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.

Key air quality measures completed by NCC last year:

- Production of the new AQAP

The majority of the measures presented in Table 2.2 (as will be outlined in the new AQAP) are ongoing or in progress.

These include:

- Implementation of a Clean Air Zone in part of Newcastle and Gateshead;
- Electrification of the bus fleet;
- Development of the new joint Newcastle-Gateshead Local Plan;
- Ongoing investment in walking and cycling infrastructure; and
- Nexus Corporate Metro Season Ticket scheme

Furthermore, the Council's main priority is to undertake a feasibility study at Stephenson Road to assess and explore options to improve air quality. And to continue to promote the electrification of the bus fleet in NCC.

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

- Changing public perception and behaviour;
- Challenges relating to the most suitable and effective method of raising and communicating AQ awareness;
- Funding - reliance on other departments and organisations due to small budget within Local Authority Environmental Health department;
- Ability to deliver measures. Reliance on other departments who have greater control over transport related measures;
- Political buy-in; and
- Impact from CAZ evaluation – will it stay or be revoked.

Whilst the measures stated above and in Table 2.2 will help to contribute towards compliance, NCC anticipates that further additional measures not yet prescribed will be required in subsequent years to achieve compliance and enable the revocation of Newcastle Centre AQMA (AQMA 1b).

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
Priority Air Quality Actions														
1	Clean Air Zone	Promoting Low Emission Transport	Low Emission Zone (LEZ)	2023	2023	NCC	NCC	No	Funded	> £10 million	Ongoing	Reduction of up to 15.5 µg/m³ in annual mean NO₂ concentration	Number of non-compliant vehicles travelling within CAZ area	CAZ was partially implemented in January 2023 and was fully operational in July 2023
2	Bus Electrification	Vehicle Fleet Efficiency	Promoting Low Emission Public Transport	2026	2030	NCC, NEMSA	LUF, ZEBRA 2, TBC	No	Partially Funded	> £10 million	Ongoing	Reduction of up to 2.9 µg/m³ in annual mean NO₂ concentration	Number of zero emissions buses	-
3	Exposure Limitation at Stephenson Road	Other	Other	2026	2030	NCC	NCC	No	Partially Funded	£50k - £100k	Not started	Quantification work in process	Compliance with short-term mean NO₂ objective and annual mean Limit Value	-
4	Local Plan	Policy Guidance and Development Control	Air Quality Planning and Policy Guidance	2028	N/A	NCC	NCC	No	Funded	<£10k	In progress	Direct LAQ benefit not quantifiable.	Production of Local Plan	-
5	Movement Strategy	Policy Guidance and Development Control	Other policy	2026	N/A	NCC	NCC	No	Funded	<£10k	In progress	Direct LAQ benefit not quantifiable.	Production of Movement Strategy	Consultation held in late 2024
6	Active Travel Investment	Promoting Travel Alternatives	Other	2030	N/A	NCC, NEMSA	TBC	No	Partially Funded	£500k - £1 million	In progress	No specific target reduction identified	Miles of active travel infrastructure	-
7	Travel Cards	Promoting Travel Alternatives	Other	2025	N/A	NCC, NEMSA, Nexus	Nexus	No	Funded	<£10k	In progress	Direct LAQ benefit not quantifiable.	Number of travel cards issued	Travel card schemes in place
8	Smoke Control Area Education and Enforcement	Other	Other	2025	N/A	NCC Environmental Health	NCC	No	Funded	< £10k	In progress	Direct LAQ benefit not quantifiable.	Number of complaints	-
9	Car Club	Alternatives to private vehicle use	Car Clubs	2025	N/A	NCC, Enterprise	NCC	No	Partially Funded	£50k - £100k	In progress	Reduction of up to 72.8% in annual NOₓ emissions	Number of car club bays	30 car club bays across the city; 1 electric
10	Electric charging infrastructure	Promoting Low Emission Transport	Procuring alternative Refuelling infrastructure to promote Low Emission Vehicles, EV recharging, Gas fuel recharging	2030	N/A	NCC, NEMSA	TBC	No	Not funded	£500k - £1 million	In progress	Reduction of up to 32.2 kg/yr of NOₓ emissions	Number of chargers installed	Range of rapid and standard chargers installed.

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 Strategy⁷, 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.

- NCC is taking the following measures to address PM_{2.5}: whilst the CAZ is aiming to primarily reduce NO₂ concentrations, it will also help reduce PM_{2.5} concentrations by increasing the emission standard of vehicles;
- NCC have developed a Smoke Control Area and Solid Fuel Enforcement Policy. With the legislation surrounding the use of solid fuel changing in the last few years, NCC have revoked all 77 old Smoke Control Orders established between 1958 and 1977, and created a new, city wide Smoke Control Order. It is hoped this will help deal with smoky chimney complaints from a nuisance perspective but also help reduce the emissions of harmful PM concentrations. The change in the Smoke Control Order will help enforce amendments to the CAA93 under the EA21;
- Suppliers of wood have been inspected to ensure compliance with the EA21;
- The Public Health Outcomes Framework has published statistics on the health effects of exposure of the public to fine particulate pollution ([Public Health Outcomes Framework - at a glance summary \(phe.org.uk\)](https://phe.org.uk/public-health-outcomes-framework-at-a-glance-summary)). The fraction of mortality attributable to particulate air pollution (Indicator D01) was 4.7% in 2024 for Newcastle upon Tyne. This is lower than the national value of 5.3% in 2024; and
- NCC measures PM_{2.5} concentrations at the automatic monitor Newcastle centre. Annual mean PM_{2.5} concentrations increased from 7.2 µg/m³ in 2024 to 8.2 µg/m³ in 2025.

Future actions to address PM_{2.5} are:

- Source apportion the fraction of PM_{2.5} generated within Newcastle, and estimate concentrations from those of PM₁₀;

⁷ Defra. Air Quality Strategy – Framework for Local Authority Delivery, August 2023

- Investigate further PM_{2.5} monitoring, and model PM_{2.5} sources; and
- Work with partners to raise awareness.

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

This section sets out the monitoring undertaken within 2025 by NCC and how it compares with the relevant air quality objectives. In addition, monitoring results are presented for a five-year period between 2021 and 2025 to allow monitoring trends to be identified and discussed.

3.1 Summary of Monitoring Undertaken

3.1.1 Automatic Monitoring Sites

NCC undertook automatic (continuous) monitoring at four sites during 2025. Table A.1 in Appendix A shows the details of the automatic monitoring sites.

NB. 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.

The [Air Quality in the United Kingdom \(ukairquality.net\)](https://ukairquality.net) page presents automatic monitoring results for NCC, with automatic monitoring results also available through the UK-Air website. ([Home - Defra, UK](https://home.defra.gov.uk)) .

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

NCC undertook non-automatic (i.e. passive) monitoring of NO₂ at 54 sites during 2025.

Table A.2 in Appendix A presents the details of the non-automatic sites.

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

The monitoring network is regularly reviewed by NCC which means that existing monitoring locations are removed and new monitoring locations added.

Added monitoring locations in 2025 are:

- DT172, DT173 and DT174 Jesmond Road
- DT175 Jesmond Park West

Decommissioned monitoring locations in 2025 are (due to consistently low NO₂):

- DT42 Blue House roundabout (north)
- DT44 102 – 104 High Street, Gosforth
- DT56 263 Shields Road
- DT57 124 Shields Road
- DT65 Blackett Street (near Old Eldon Square)
- DT73 Stamfordham Road (roundabout near junction with West Denton Way)
- DT165 Osborne Road (opposite Jesmond Nursery)
- DT170 Westgate Road (opposite entrance to former General Hospital)

3.2 Individual Pollutants

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

3.2.1 Nitrogen Dioxide (NO₂)

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

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

For diffusion tubes, the full 2025 dataset of monthly mean values is provided in Appendix B. Note that the concentration data presented in Table B.1 includes distance corrected values, only where relevant.

The LAQM.TG22 Guidance recommends that the 'revocation of an AQMA should be considered following three consecutive years of annual mean NO₂ concentrations being lower than 36 µg/m³ (i.e. within 10% of the annual mean NO₂ objective).

Locations which were within 10% of the annual mean objective (>36 µg/m³ and <40 µg/m³) and above annual mean objective (>40 µg/m³) following bias adjustment at the monitoring site, which may indicate a risk of potential exceedance, are listed below:

- DT8 (10 Market Street) with 38.6 µg/m³
- Triplicate site DT29, DT30, DT31 (Percy Street Romon 3) with 41.0 µg/m³
- DT81 (Stephenson Road) with 65.2 µg/m³

However, two of these sites are not at relevant exposure so require distance correction.

The concentrations for the exceeding sites above, following distance correction at relevant exposure, are listed below:

- Triplicate site DT29, DT30, DT31 (Percy Street Romon 3) – distance corrected to 31.0 µg/m³.
- DT81 (Stephenson Road) – distance corrected to 35.7 µg/m³

Therefore, the remaining site that's within 10% of the annual mean objective (>36 µg/m³ and <40 µg/m³) or above annual mean objective (>40 µg/m³), is listed below:

- DT8 (10 Market Street), located within AQMA 1b (City Centre)

Overall, it seems that there was a significant reduction in NO₂ concentrations when the Covid-19 restrictions were in place in 2020. Since then, NO₂ concentrations have increased from these low concentrations, however, have not returned to pre-pandemic concentrations. The introduction of the CAZ in 2023 has also likely contributed to decreases in pollutant concentrations.

Results for 2025 suggest that the City Centre AQMA (AQMA 1b) has not been compliant this year and NCC should continue monitoring. However, Gosforth AQMA (AQMA 5) has been compliant for 6 years as of 2025, and therefore NCC intend to pursue revocation of this AQMA, in line with LAQM TG(22) Guidance.

Table A.5 in Appendix A compares the ratified continuous monitored NO₂ hourly mean concentrations for the past five years with the air quality objective of 200 µg/m³, not to be exceeded more than 18 times per year. This shows that none of the automatic monitoring sites recorded any hourly means which exceeded 200 µg/m³ and are therefore compliant with the air quality objective.

3.2.2 Particulate Matter (PM₁₀)

Table A.6 in Appendix A: Monitoring Results compares the ratified and adjusted monitored PM₁₀ annual mean concentrations for the past five years with the air quality objective of 40 µg/m³.

Table A.7 in Appendix A compares the ratified continuous monitored PM₁₀ daily mean concentrations for the past five years with the air quality objective of 50 µg/m³, not to be exceeded more than 35 times per year.

NCC undertook PM₁₀ monitoring at two locations in 2025 (Newcastle Centre AURN and Newcastle Cradlewell AURN); concentrations in 2025 were all well below the objective, as they have been for all of the past five years.

The trends recorded at these locations are shown in Figure A.14. Overall, the concentrations remained the same at Newcastle Centre AURN with an annual mean concentration of 12.7 µg/m³. At Newcastle Cradlewell AURN there was a slight decrease in annual mean PM₁₀ concentrations from 13.0 µg/m³ in 2024 to 12.9 µg/m³ in 2025.

The PM₁₀ daily mean air quality objective was only exceeded 3 times, meaning that this objective was met in 2025.

3.2.3 Particulate Matter (PM_{2.5})

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

The annual mean concentration in 2025 was 8.2 µg/m³. This is well below the objective of 20 µg/m³, as it has been for all of the past five years.

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) ^(1,2)	Distance to kerb of nearest road (m) ⁽¹⁾	Inlet Height (m)
Newcastle Centre AURN	St Mary's Place	Urban Background	425029	564916	NO, NO ₂ , NO _x , PM ₁₀ , PM _{2.5} , O ₃	Yes	AQMA 1b (City Centre)	Chemiluminescent, TEOM-FDMS, UV-absorption	N/A	20.0	2.5
Cradlewell AURN	Jesmond Road, Cradlewell	Roadside	425992	333555	NO ₂ , PM ₁₀ , O ₃	Yes	AQMA 1b (City Centre)	Chemiluminescent, TEOM-FDMS, UV-absorption	7.0	3.0	2.5
Pilgrim Street	Swan House, Pilgrim Street	Roadside	425124	564112	NO ₂	Yes	AQMA 1b (City Centre)	Chemiluminescent	20.0	3.0	1.8
Percy Street	Percy Street	Roadside	424776	564861	NO ₂	Yes	AQMA 1b (City Centre)	Chemiluminescent	10.0	2.0	1.8

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)
DT2, DT3, DT4	St Mary's Place	Urban Background	425028	564917	NO ₂	YES - AQMA 1b	0.0	20.0	Yes	2.5
DT6	John Dobson St/North Street	Kerbside	425003	564713	NO ₂	YES - AQMA 1b	0.0	2.0	No	2.5
DT7	Blackett Street/Northumberland Street	Kerbside	424933	564475	NO ₂	YES - AQMA 1b	0.0	1.0	No	2.5
DT8	10 Market Street (sign 87M34)	Kerbside	424936	564333	NO ₂	YES - AQMA 1b	0.0	1.0	No	2.5
DT9	98 - 100 Pilgrim Street	Kerbside	425056	564197	NO ₂	YES - AQMA 1b	0.0	4.0	No	2.5
DT10	Pilgrim Street/Swan House roundabout	Kerbside	425081	564166	NO ₂	YES - AQMA 1b	41.0	8.0	No	2.5
DT13	Neville Street/Westgate Road	Kerbside	424737	563933	NO ₂	YES - AQMA 1b	0.0	1.0	No	2.5
DT14	Waterloo Street/Westmoreland Road	Kerbside	424303	563841	NO ₂	YES - AQMA 1b	2.0	1.0	No	2.5
DT16	3 Nexus House, St James Boulevard	Kerbside	424271	564103	NO ₂	YES - AQMA 1b	40.0	1.0	No	2.5
DT19	Gallowgate/Percy Street	Kerbside	424586	564472	NO ₂	YES - AQMA 1b	10.0	1.0	No	2.5
DT20	Newgate Street/Grainger Street	Kerbside	424736	564172	NO ₂	YES - AQMA 1b	5.0	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)
DT26	Leazes Lane/Percy Street	Kerbside	424616	564561	NO ₂	YES - AQMA 1b	10.0	1.0	No	2.5
DT28	101 Percy Street/St Thomas Street	Kerbside	424725	564771	NO ₂	YES - AQMA 1b	1.0	4.0	No	2.5
DT29, DT30, DT31	Percy Street Romon 3	Kerbside	424776	564864	NO ₂	YES - AQMA 1b	6.0	1.0	Yes	2.5
DT37	Sandhill/Swing Bridge	Kerbside	425149	563811	NO ₂	YES - AQMA 1b	15.0	1.0	No	2.5
DT43	53 High Street, Gosforth	Kerbside	424394	567634	NO ₂	YES - AQMA 5	1.0	3.0	No	2.5
DT45	201 Gosforth High St (formerly Gosforth Hog 1)	Kerbside	424412	568082	NO ₂	YES - AQMA 5	2.0	3.0	No	2.5
DT50	84 Station Road	Kerbside	425499	568111	NO ₂	YES - AQMA 5	1.0	2.0	No	2.5
DT62	5 Birchfield Gardens	Kerbside	419449	565149	NO ₂	NO	3.0	2.0	No	2.5
DT63 (249 in 2015)	Bewick House, Neville Street	Kerbside	424550	563900	NO ₂	YES - AQMA 1b	N/A	2.0	No	2.5
DT80	A167 AQ Mesh	Kerbside	425286	564422	NO ₂	YES - AQMA 1b	N/A	2.0	No	2.5
DT81	Stephenson Rd, entrance to Jesmond Pk West	Kerbside	426546	566260	NO ₂	YES - AQMA 1b	15.0	1.0	No	2.5
DT82	A1058 Coast Rd, to front of 101 Coast Rd	Kerbside	427444	566674	NO ₂	NO	16.0	2.0	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)
DT84	A1058 Coast Rd, Wills Building	Kerbside	428141	566885	NO ₂	NO	40.0	1.0	No	2.5
DT87	Cowgate Roundabout	Kerbside	422087	566233	NO ₂	NO	14.0	3.0	No	2.5
DT94	Clayton St West (outside 18)	Kerbside	424457	563984	NO ₂	NO	8.0	1.0	No	2.5
DT102	John Dobson Street (outside Portland Ho)	Kerbside	425106	564466	NO ₂	NO	N/A	1.0	No	2.5
DT5, DT115, DT116	St Marys Place, John Dobson Street	Kerbside	424948	564872	NO ₂	YES - AQMA 1b	0.0	1.0	No	2.5
DT12, DT117, DT118	8 Mosley Street on sign	Kerbside	425072	564119	NO ₂	YES - AQMA 1b	0.0	2.0	No	2.5
DT17, DT119, DT120	96 - 98 Westgate Road/Cross Street junction	Kerbside	424439	564057	NO ₂	YES - AQMA 1b	2.0	2.0	No	2.5
DT18, DT121, DT122	Gallowgate/St Andrews St	Kerbside	424431	564394	NO ₂	YES - AQMA 1b	30.0	2.0	No	2.5
DT21, DT123, DT124	115 - 119 Grainger Street/Market Street junction	Kerbside	424793	564283	NO ₂	YES - AQMA 1b	5.0	3.0	No	2.5
DT23, DT125, DT126	Leazes Lane near Romon (formerly Leazes Lane Romon 2)	Kerbside	424519	564765	NO ₂	YES - AQMA 1b	12.0	2.0	No	2.5
DT25, DT127, DT128	Strawberry Place, west end Shearer's Bar	Kerbside	424336	564492	NO ₂	YES - AQMA 1b	0.0	2.0	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)
DT32, DT129, DT130	City Road near former Tyne Tees Television Studios	Kerbside	425821	564241	NO ₂	YES - AQMA 1b	30.0	2.0	No	2.5
DT34, DT131, DT132	Quayside, outside Trinity Chambers	Kerbside	425415	563908	NO ₂	YES - AQMA 1b	2.0	2.0	No	2.5
DT36, DT133, DT134	The Side Dean Street junction	Kerbside	425092	563942	NO ₂	YES - AQMA 1b	15.0	1.0	No	2.5
DT53, DT135, DT136	2 - 3 Osborne Terrace	Kerbside	425425	565360	NO ₂	NO	5.0	2.0	No	2.5
DT54, DT137, DT138	178 Sandyford Road	Kerbside	425732	565371	NO ₂	YES - AQMA 1b	6.0	2.0	No	2.5
DT64, DT139, DT140	Blackett St, to front of Waterstones	Kerbside	424826	564451	NO ₂	YES - AQMA 1b	N/A	2.0	No	2.5
DT76, DT141, DT142	Tyne Bridge (Cale Cross Ho)	Kerbside	425185	563987	NO ₂	YES - AQMA 1b	N/A	1.0	No	2.5
DT77, DT143, DT144	Tyne Bridge (West tower)	Kerbside	425277	563834	NO ₂	YES - AQMA 1b	N/A	4.0	No	2.5
DT78, DT145, DT146	Tyne Bridge (East tower)	Kerbside	425294	563844	NO ₂	YES - AQMA 1b	N/A	4.0	No	2.5
DT79, DT147, DT148	Tyne Bridge (Spire)	Kerbside	425199	564002	NO ₂	YES - AQMA 1b	N/A	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)
DT85, DT149, DT150	St James Boulevard (Nat Express)	Kerbside	424225	563769	NO ₂	NO	N/A	1.0	No	2.5
DT86, DT151, DT152	St James Boulevard (Dance City)	Kerbside	424252	564014	NO ₂	NO	N/A	1.0	No	2.5
DT95, DT155, DT156	Clayton St West (front of church)	Kerbside	424445	563901	NO ₂	NO	18.0	2.0	No	2.5
DT105, DT159, DT160	Collingwood Street (south side)	Kerbside	424874	563991	NO ₂	NO	N/A	1.0	No	2.0
DT106, DT161, DT162	Collingwood Street (north side)	Kerbside	424862	563996	NO ₂	YES - AQMA 1b	N/A	1.0	No	2.0
DT111, DT163, DT164	Bewick Street (Bewick Ho)	Kerbside	424514	563919	NO ₂	YES - AQMA 1b	4.0	1.0	No	2.0
DT167, DT168, DT169	Strawberry Place, opposite DT25	Kerbside	424340	564482	NO ₂	YES - AQMA 1b	N/A	1.0	No	2.0
DT171	Haddricks Mill Rd	Kerbside	425461	567771	NO ₂	YES – AQMA 5	N/A	0.5	No	2.0
DT172, DT173, DT174	Jesmond Road	Kerbside	425361	565375	NO ₂	NO	N/A	1.0	No	2.0
DT175	Jesmond Pk West	Kerbside	426548	566282	NO ₂	NO	N/A	3.5	No	2.0

Notes:

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

(2) N/A if not applicable.

Table A.3 – Annual Mean NO₂ Monitoring Results: Automatic Monitoring (µg/m³)

Site ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Site Type	Valid Data Capture for Monitoring Period (%) ⁽¹⁾	Valid Data Capture 2025 (%) ⁽²⁾	2021	2022	2023	2024	2025
DEFRA AURN	425027	564917	Urban Background	95.8	95.8	28.3	27.5	19.2	17.5	17.0
Cradlewell AURN	425992	565834	Kerbside	98.6	98.6	32.5	34.4	31.8	28.3	26.7
Pilgrim Street	425127	564111	Kerbside	99.9	99.9	30.2	34.9	32.5	27.7	27.4
Percy Street	424777	564863	Kerbside	100.0	100.0	42	43	42.4	41.1	38.2

☒ **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 NO₂ 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 2025**

Notes:

The annual mean concentrations are presented as µg/m³.

Exceedances of the NO₂ annual mean objective of 40µg/m³ 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 NO₂ Monitoring Results: Non-Automatic Monitoring (µg/m³)

Diffusion Tube ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Site Type	Valid Data Capture for Monitoring Period (%) ⁽¹⁾	Valid Data Capture 2025 (%) ⁽²⁾	2021	2022	2023	2024	2025
DT2, DT3, DT4	425028	564917	Urban Background	100.0	100.0	22.0	21.3	17.3	17.0	16.2
DT6	425003	564713	Kerbside	82.7	82.7	30.3	31.4	27.5	26.0	24.7
DT7	424933	564475	Kerbside	82.7	82.7	41.2	37.0	31.9	28.3	31.4
DT8	424936	564333	Kerbside	82.7	82.7	39.9	44.7	42.2	38.5	38.6
DT9	425056	564197	Kerbside	82.7	82.7	32.1	30.2	20.0	20.2	22.3
DT10	425081	564166	Kerbside	0.0	0.0	36.5	35.4	25.9	-	-
DT13	424737	563933	Kerbside	57.7	57.7	42.1	43.5	35.2	31.9	30.5
DT14	424303	563841	Kerbside	90.4	90.4	31.9	30.1	25.7	23.9	23.3
DT16	424271	564103	Kerbside	90.4	90.4	28.4	26.8	21.6	19.3s	20.7
DT19	424586	564472	Kerbside	92.3	92.3	34.5	33.6	28.6	26.7	27.1
DT20	424736	564172	Kerbside	75.0	75.0	45.4	41.3	36.4	34.3	35.0

Diffusion Tube ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Site Type	Valid Data Capture for Monitoring Period (%) ⁽¹⁾	Valid Data Capture 2025 (%) ⁽²⁾	2021	2022	2023	2024	2025
DT26	424616	564561	Kerbside	90.4	90.4	36.3	34.6	30.5	29.4	29.8
DT28	424725	564771	Kerbside	100.0	100.0	31.8	30.2	28.7	27.1	25.9
DT29, DT30, DT31	424776	564864	Kerbside	100.0	100.0	50.8	53.3	45.9	44.0	41.0
DT37	425149	563811	Kerbside	90.4	90.4	35.2	30.1	26.4	23.1	24.0
DT43	424394	567634	Kerbside	100.0	100.0	34.6	33.8	29.5	27.6	26.2
DT45	424412	568082	Kerbside	59.6	59.6	32.9	36.4	29.4	30.1	29.8
DT50	425499	568111	Kerbside	84.6	84.6	37.4	35.5	31.2	28.4	22.1
DT62	419449	565149	Kerbside	84.6	84.6	26.8	25.9	26.5	24.6	25.6
DT63 (249 in 2015)	424550	563900	Kerbside	90.4	90.4	36.8	35.0	31.7	29.9	29.0
DT80	425286	564422	Kerbside	100.0	100.0	43.4	37.7	30.0	31.5	27.0
DT81	426546	566260	Kerbside	100.0	100.0	<u>97.7</u>	<u>92.2</u>	<u>67.1</u>	<u>64.5</u>	<u>65.2</u>
DT82	427444	566674	Kerbside	100.0	100.0	31.3	31.8	25.8	23.9	23.7

Diffusion Tube ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Site Type	Valid Data Capture for Monitoring Period (%) ⁽¹⁾	Valid Data Capture 2025 (%) ⁽²⁾	2021	2022	2023	2024	2025
DT84	428141	566885	Kerbside	90.4	90.4	30.8	31.9	23.3	31.4	28.4
DT87	422087	566233	Kerbside	75.0	75.0	42.4	41.4	29.7	25.2	20.2
DT94	424457	563984	Kerbside	65.4	65.4	39.8	39.1	32.4	30.2	32.0
DT102	425106	564466	Kerbside	82.7	82.7	32.5	45.1	33.1	36.4	30.2
DT5, DT115, DT116	424948	564872	Kerbside	100.0	100.0	44.2	46.3	40.3	36.3	33.9
DT12, DT117, DT118	425072	564119	Kerbside	100.0	100.0	48.7	-	35.1	33.1	34.5
DT17, DT119, DT120	424439	564057	Kerbside	75.0	75.0	26.6	24.6	22.1	19.7	22.0
DT18, DT121, DT122	424431	564394	Kerbside	100.0	100.0	26.0	27.1	22.8	22.2	20.9
DT21, DT123, DT124	424793	564283	Kerbside	82.7	82.7	37.9	35.9	33.7	29.7	32.3
DT23, DT125, DT126	424519	564765	Kerbside	100.0	100.0	28.6	26.3	23.3	21.3	20.8
DT25, DT127, DT128	424336	564492	Kerbside	100.0	100.0	54.1	46.4	38.5	23.5	21.5

Diffusion Tube ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Site Type	Valid Data Capture for Monitoring Period (%) ⁽¹⁾	Valid Data Capture 2025 (%) ⁽²⁾	2021	2022	2023	2024	2025
DT32, DT129, DT130	425821	564241	Kerbside	100.0	100.0	31.9	28.7	23.5	21.6	20.1
DT34, DT131, DT132	425415	563908	Kerbside	92.3	92.3	30.8	28.6	25.3	23.5	23.8
DT36, DT133, DT134	425092	563942	Kerbside	100.0	100.0	31.9	28.9	24.6	22.7	23.7
DT53, DT135, DT136	425425	565360	Kerbside	100.0	100.0	31.5	30.6	25.1	23.3	21.5
DT54, DT137, DT138	425732	565371	Kerbside	100.0	100.0	39.9	39.4	32.0	28.0	27.0
DT64, DT139, DT140	424826	564451	Kerbside	92.3	92.3	27.4	28.5	26.3	22.7	23.4
DT76, DT141, DT142	425185	563987	Kerbside	100.0	100.0	38.8	39.1	31.2	30.0	26.4
DT77, DT143, DT144	425277	563834	Kerbside	100.0	100.0	30.8	28.3	24.9	28.0	28.8
DT78, DT145, DT146	425294	563844	Kerbside	100.0	100.0	39.1	38.0	31.2	21.8	26.1
DT79, DT147, DT148	425199	564002	Kerbside	100.0	100.0	42.9	36.2	31.3	27.6	29.8

Diffusion Tube ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Site Type	Valid Data Capture for Monitoring Period (%) ⁽¹⁾	Valid Data Capture 2025 (%) ⁽²⁾	2021	2022	2023	2024	2025
DT85, DT149, DT150	424225	563769	Kerbside	100.0	100.0	36.6	33.1	28.8	27.6	28.4
DT86, DT151, DT152	424252	564014	Kerbside	100.0	100.0	32.0	30.9	22.3	21.4	22.4
DT95, DT155, DT156	424445	563901	Kerbside	100.0	100.0	32.5	28.8	28.1	26.5	29.2
DT105, DT159, DT160	424874	563991	Kerbside	100.0	100.0	36.1	-	-	27.8	31.4
DT106, DT161, DT162	424862	563996	Kerbside	80.8	80.8	38.1	35.6	32.0	32.4	36.5
DT111, DT163, DT164	424514	563919	Kerbside	92.3	92.3	-	27.8	26.3	22.6	23.1
DT167, DT168, DT169	424340	564482	Kerbside	92.3	92.3	-	-	-	20.3	21.2
DT171	422813	564455	Kerbside	92.3	92.3	-	-	-	20.3	17.0
DT172, DT173, DT174	425361	565375	Kerbside	75.0	75.0	-	-	-	-	33.3
DT175	426548	566282	Kerbside	51.9	51.9	-	-	-	-	21.5

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

☒ Diffusion tube data has been bias adjusted

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

Notes:

The annual mean concentrations are presented as $\mu\text{g}/\text{m}^3$.

Exceedances of the NO_2 annual mean objective of $40\mu\text{g}/\text{m}^3$ are shown in **bold**.

NO_2 annual means exceeding $60\mu\text{g}/\text{m}^3$, 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%).

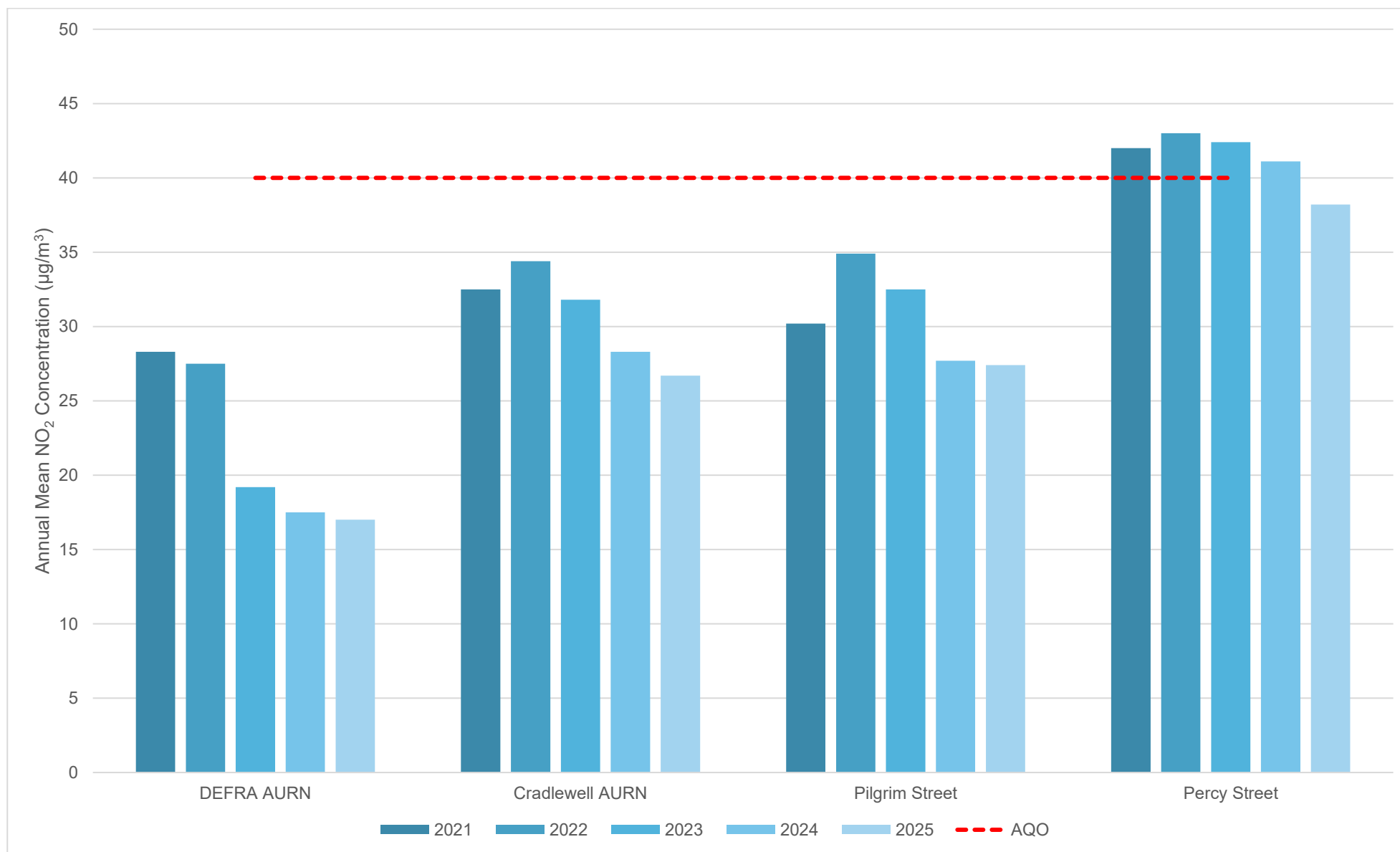
Figure A.1 – Trends in Annual Mean NO₂ Concentrations at Automatic Monitoring Sites

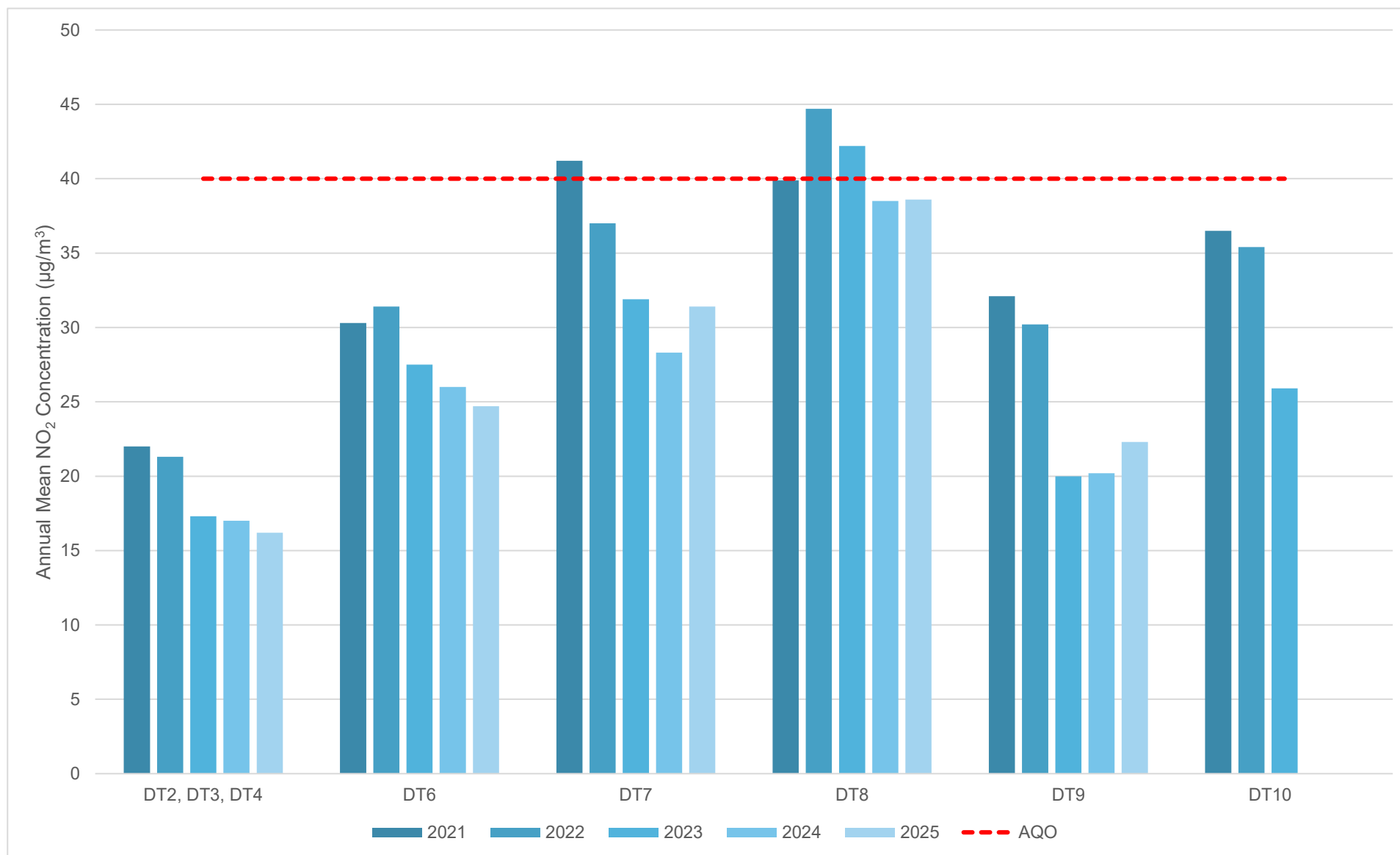
Figure A.2 – Trends in Annual Mean NO₂ Concentrations in the Newcastle Centre AQMA (AQMA 1b) (a)

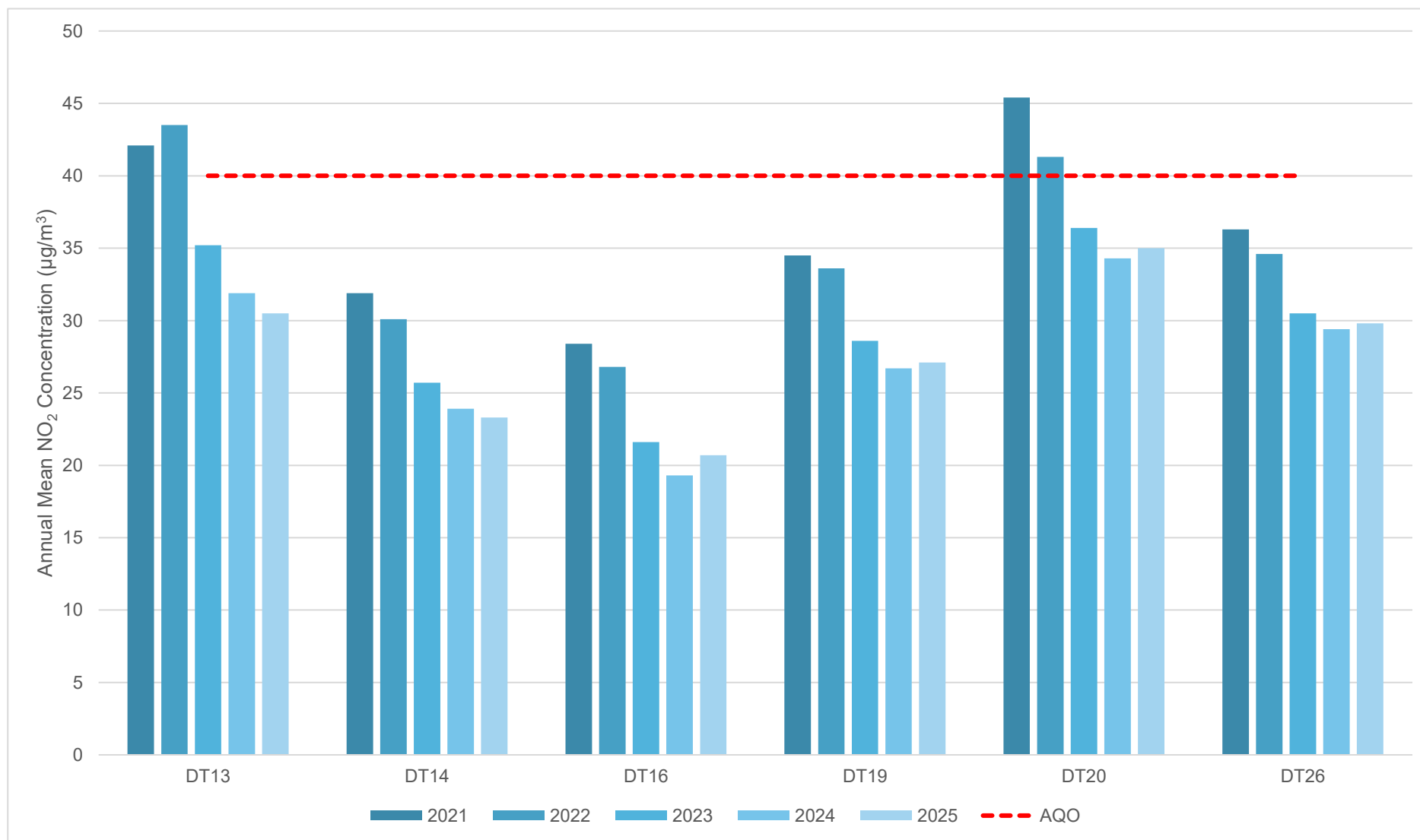
Figure A.3 – Trends in Annual Mean NO₂ Concentrations in the Newcastle Centre AQMA (AQMA 1b) (b)

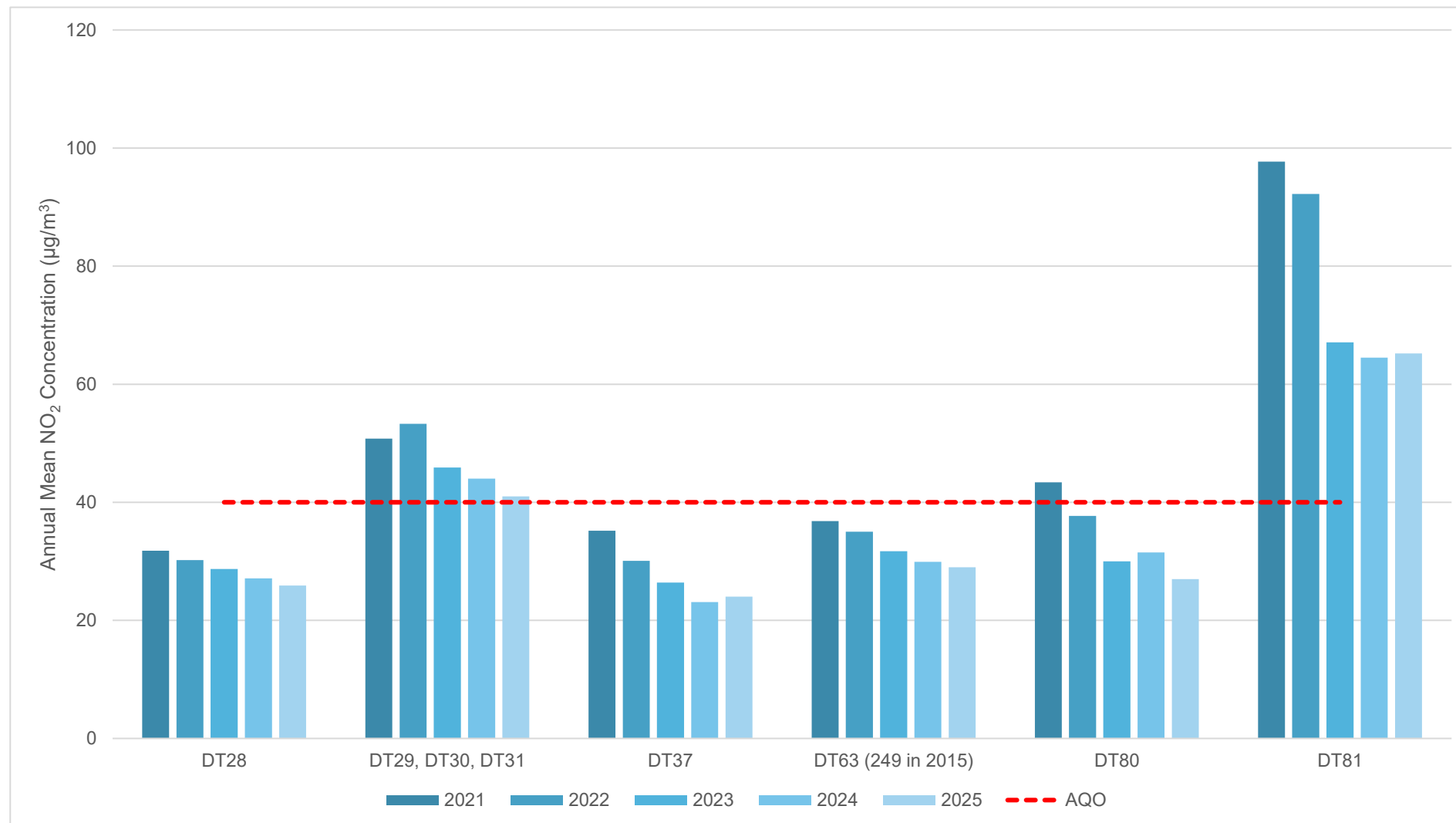
Figure A.4 – Trends in Annual Mean NO₂ Concentrations in the Newcastle Centre AQMA (AQMA 1b) (c)

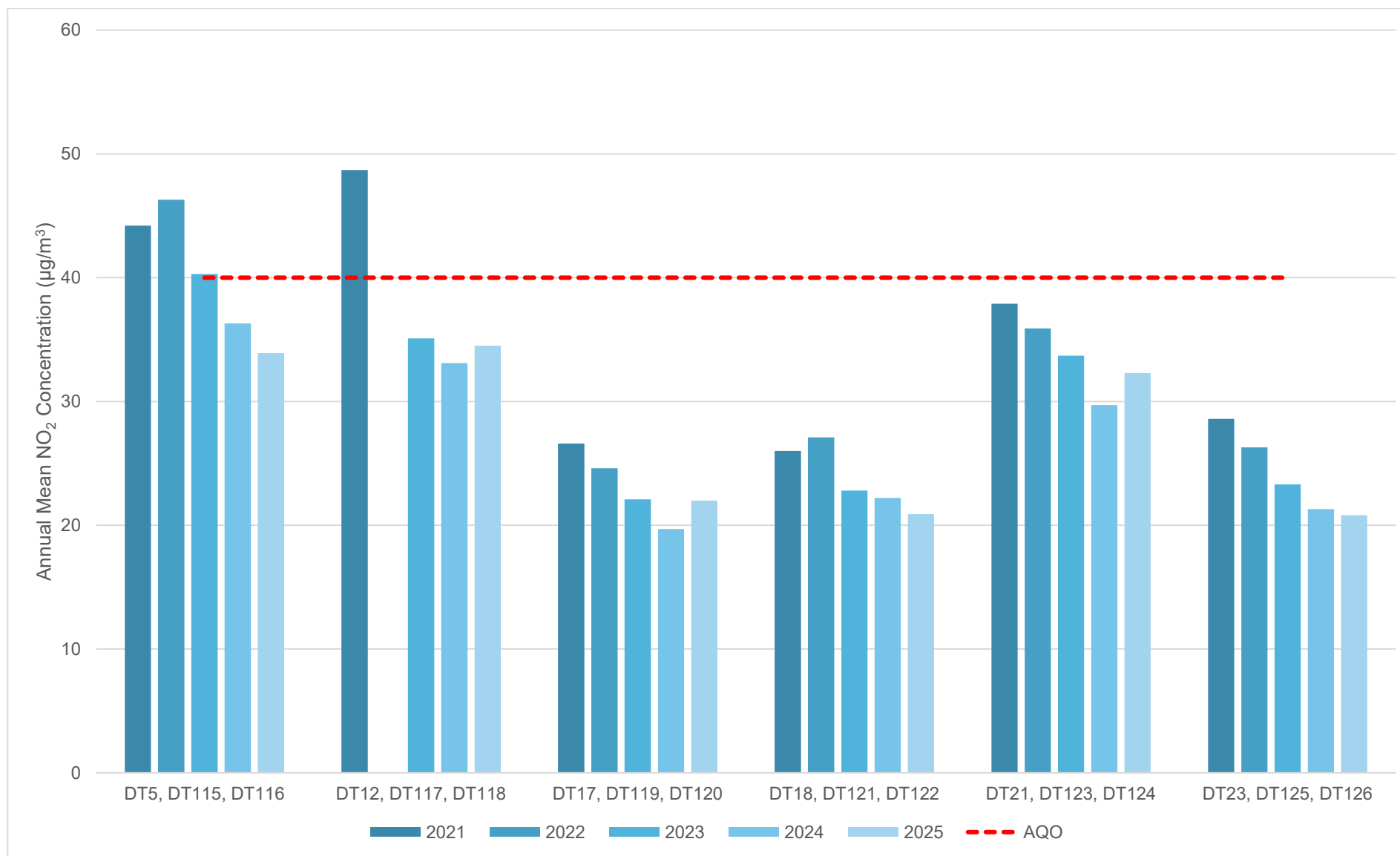
Figure A.5 – Trends in Annual Mean NO₂ Concentrations in the Newcastle Centre AQMA (AQMA 1b) (d)

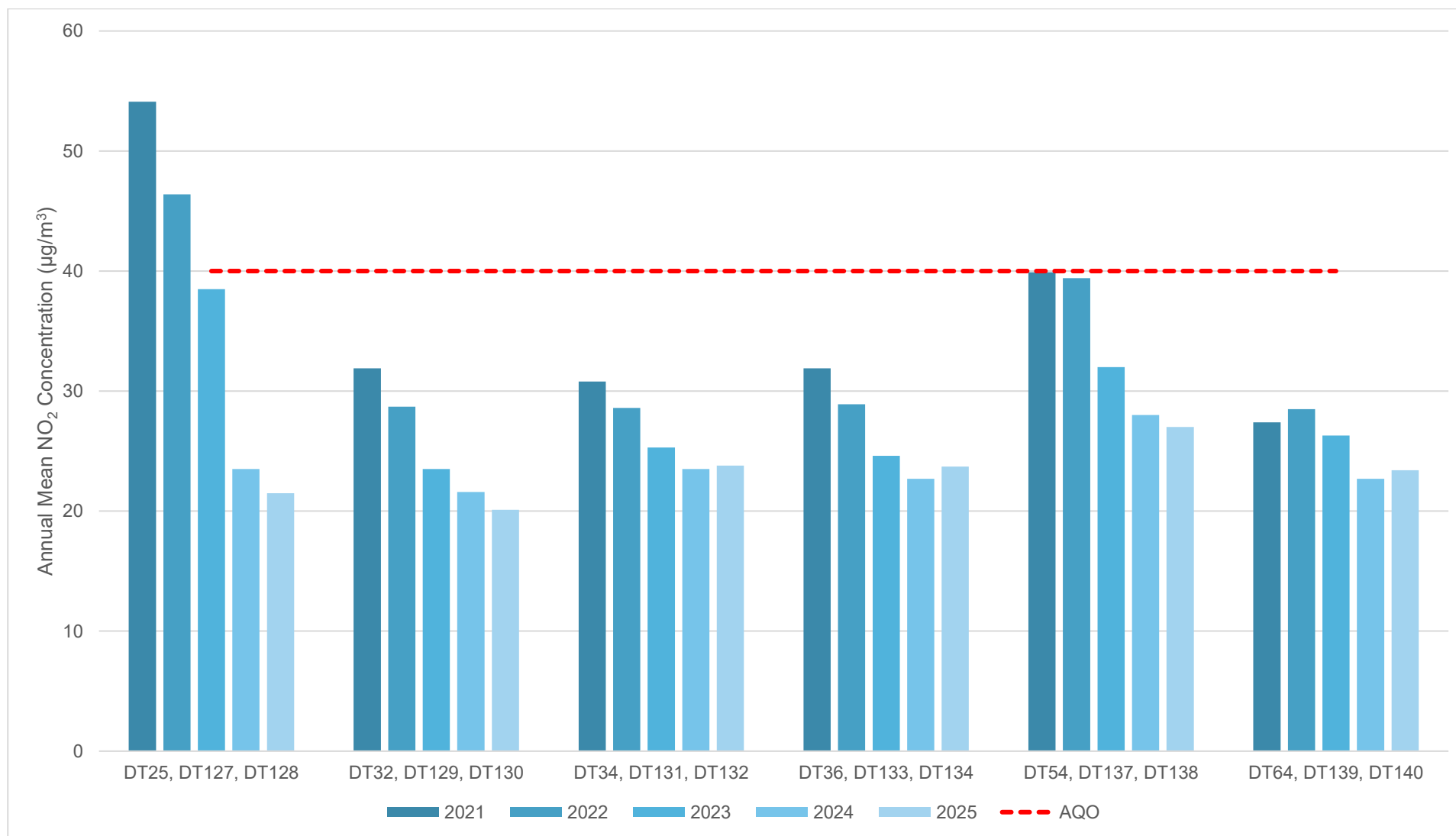
Figure A.6 – Trends in Annual Mean NO₂ Concentrations in the Newcastle Centre AQMA (AQMA 1b) (e)

Figure A.7 – Trends in Annual Mean NO₂ Concentrations in the Newcastle Centre AQMA (AQMA 1b) (f)

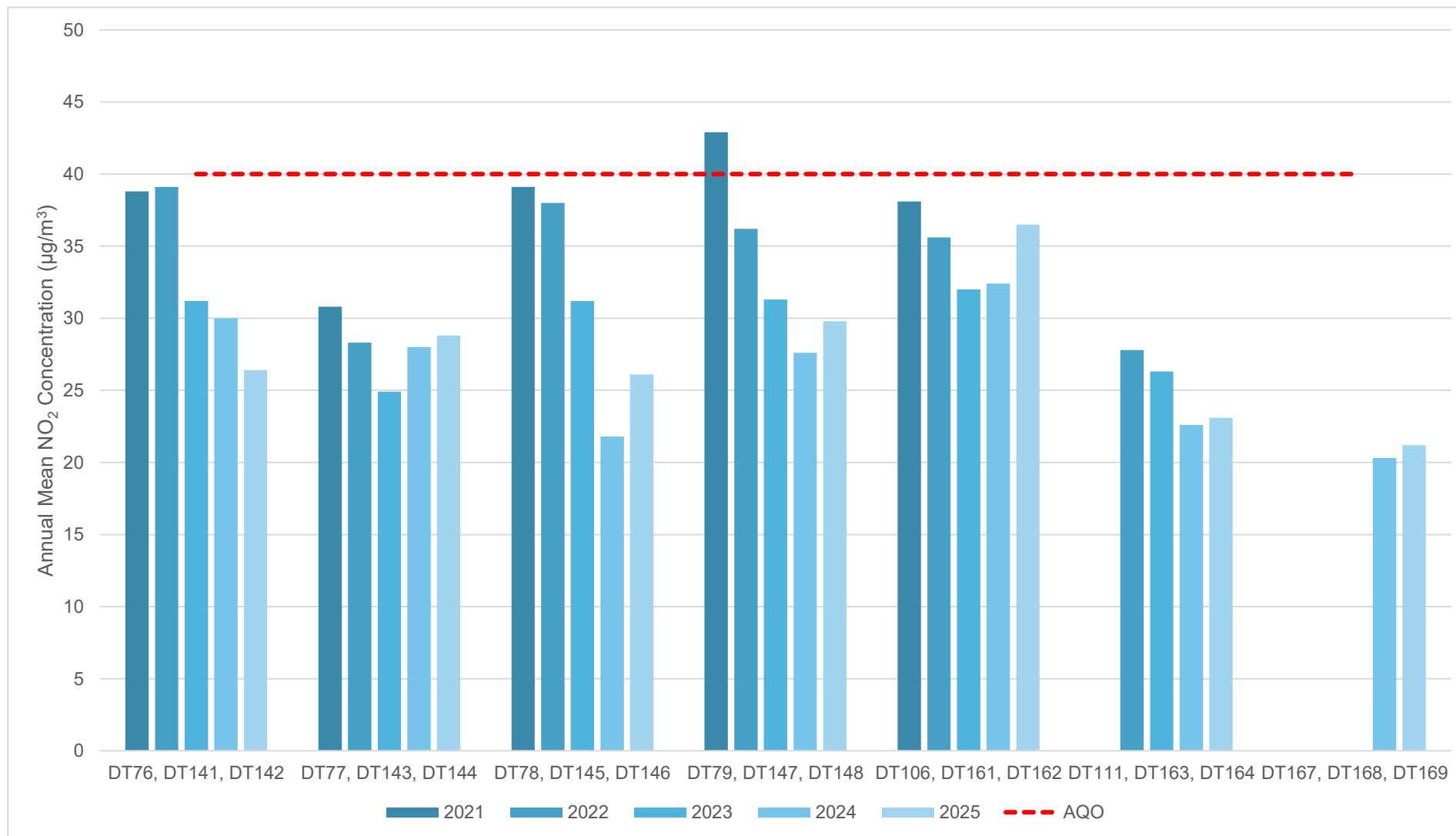


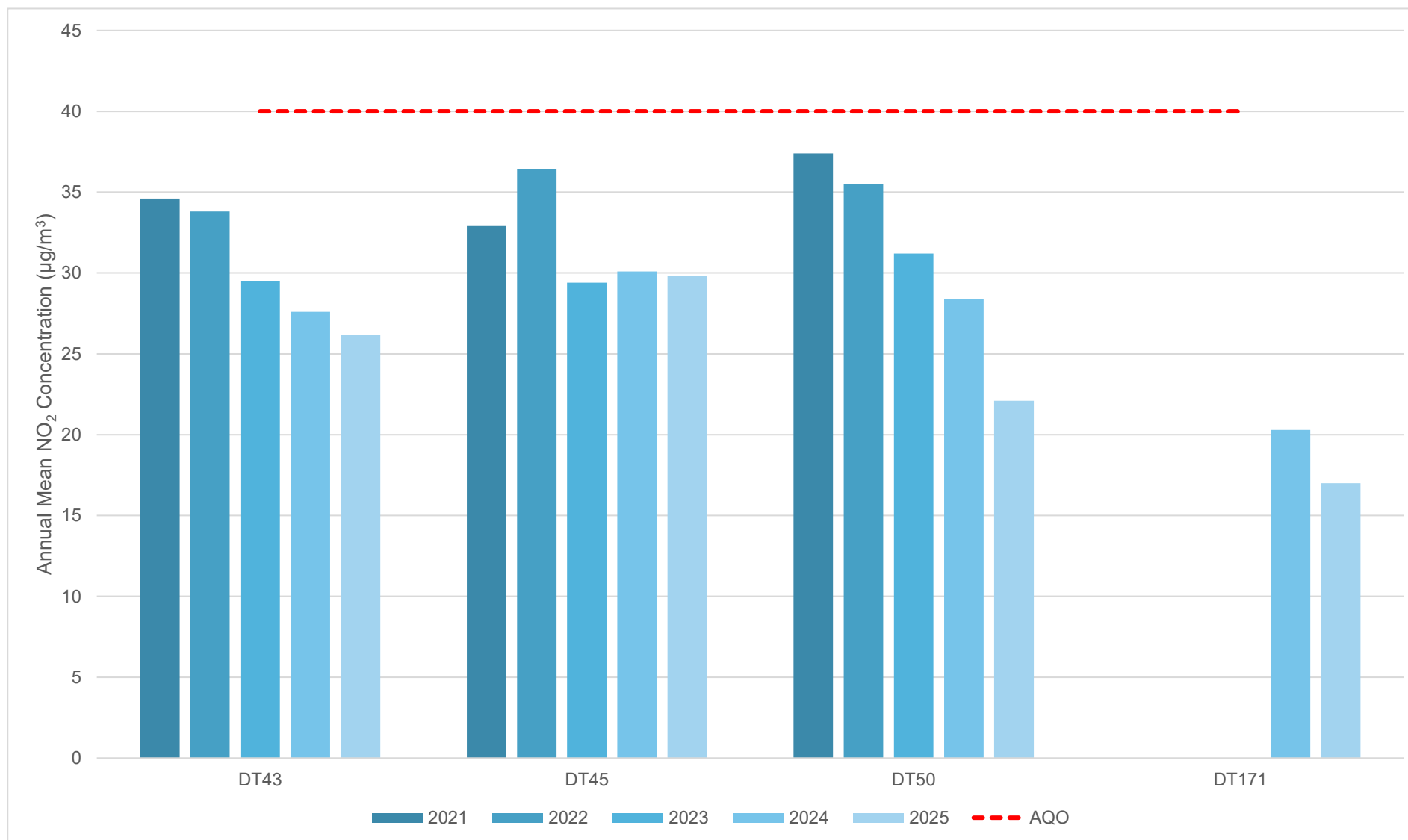
Figure A.8 – Trends in Annual Mean NO₂ Concentrations in the Gosforth AQMA (AQMA 5)

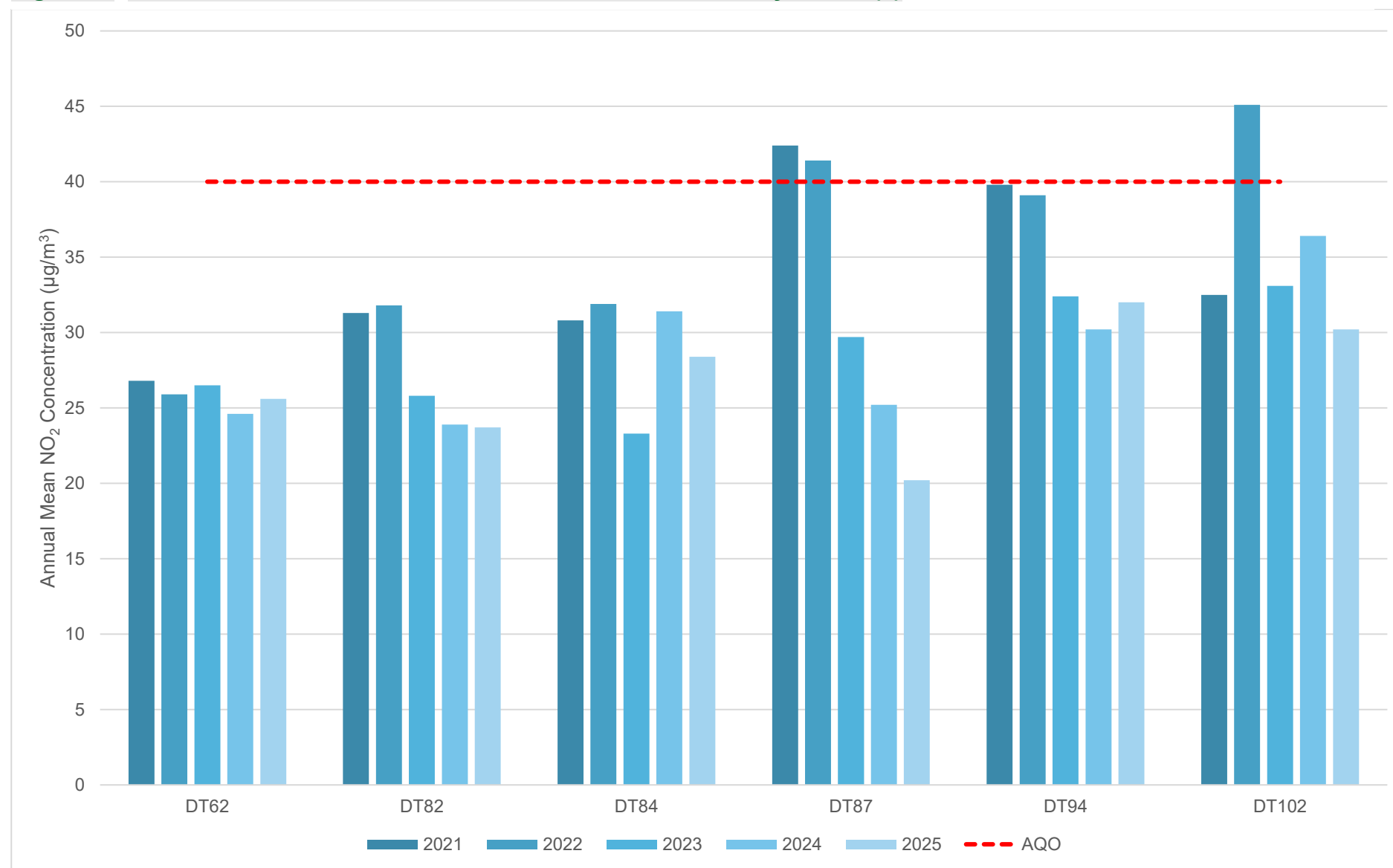
Figure A.9 – Trends in Annual Mean NO₂ Concentrations outside any AQMA (a)

Figure A.10 – Trends in Annual Mean NO₂ Concentrations outside any AQMA (b)

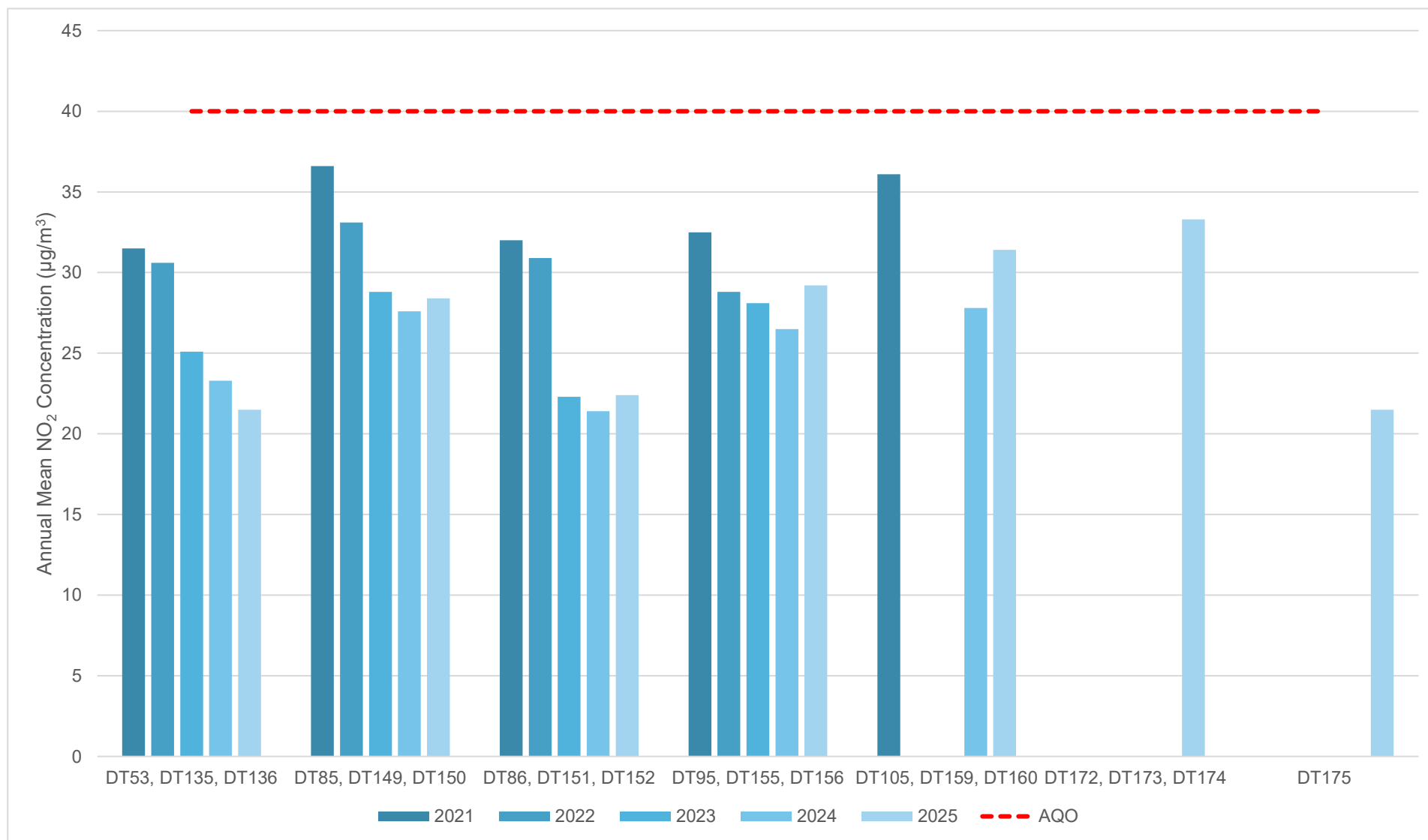


Table A.5 – 1-Hour Mean NO₂ Monitoring Results, Number of 1-Hour Means > 200µg/m³

Site ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Site Type	Valid Data Capture for Monitoring Period (%) ⁽¹⁾	Valid Data Capture 2025 (%) ⁽²⁾	2021	2022	2023	2024	2025
DEFRA AURN	425027	564917	Urban Background	95.8	95.8	0	0	0	0	0
Cradlewell AURN	425992	565834	Kerbside	98.6	98.6	0	0	0	0	0
Pilgrim Street	425127	564111	Kerbside	99.9	99.9	0	0	0	0 (91)	0
Percy Street	424777	564863	Kerbside	100.0	100.0	0	0	0	1	0

Notes:

Results are presented as the number of 1-hour periods where concentrations greater than 200µg/m³ have been recorded.

Exceedances of the NO₂ 1-hour mean objective (200µg/m³ 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%).

Figure A.11 – Trends in Number of NO₂ 1-Hour Means > 200µg/m³

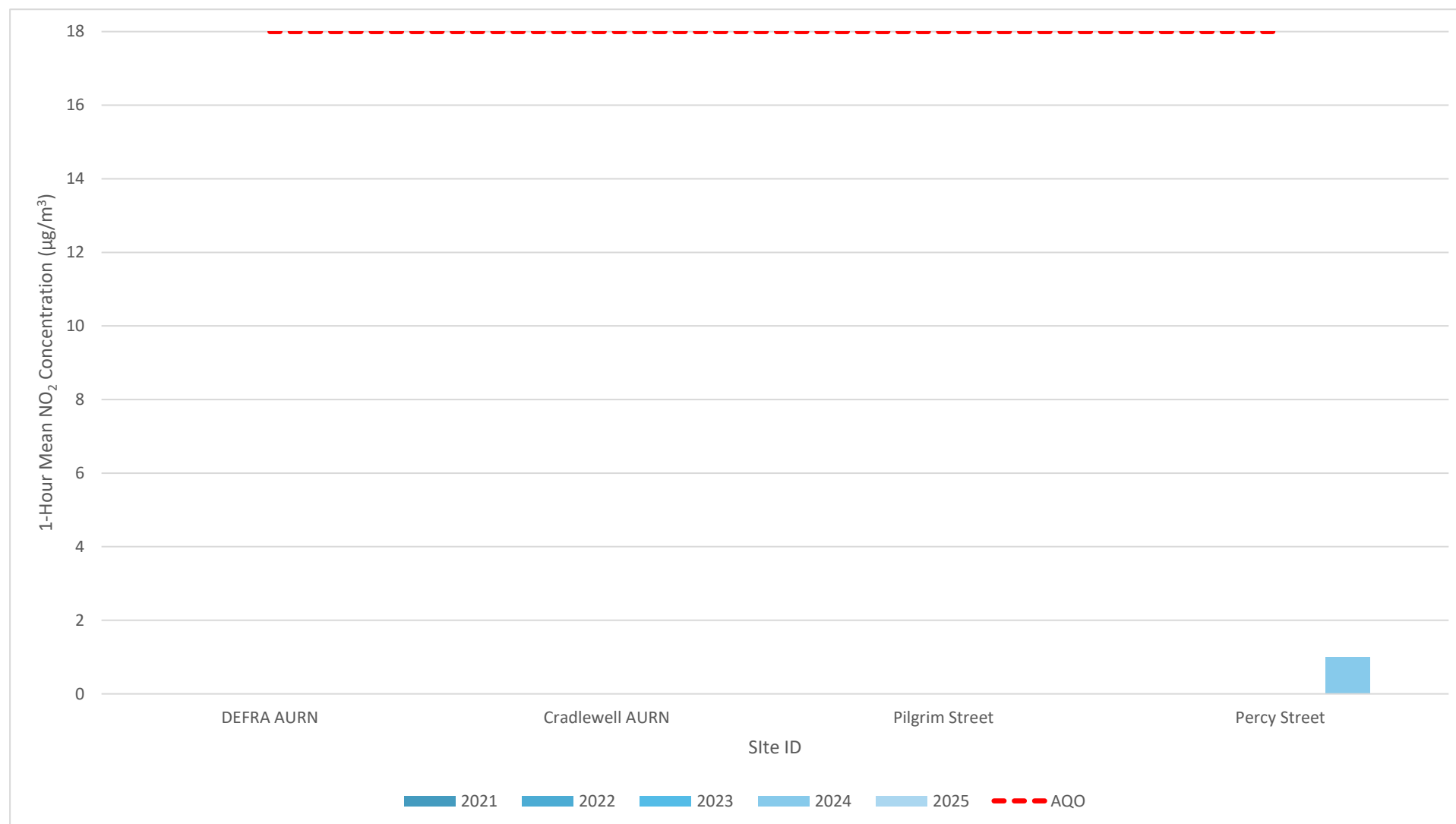


Table A.6 – Annual Mean PM₁₀ Monitoring Results (µg/m³)

Site ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Site Type	Valid Data Capture for Monitoring Period (%) ⁽¹⁾	Valid Data Capture 2025 (%) ⁽²⁾	2021	2022	2023	2024	2025
DEFRA AURN	425027	564917	Urban Background	96.3	96.3	14.3	12.4	10.7	12.7	12.7
Cradlewell AURN	425992	565834	Kerbside	99.4	99.4	12.9	12.8	13.2	13.0	12.9

☒ **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/m³.

Exceedances of the PM₁₀ annual mean objective of 40µg/m³ 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.12 – Trends in Annual Mean PM₁₀ Concentrations

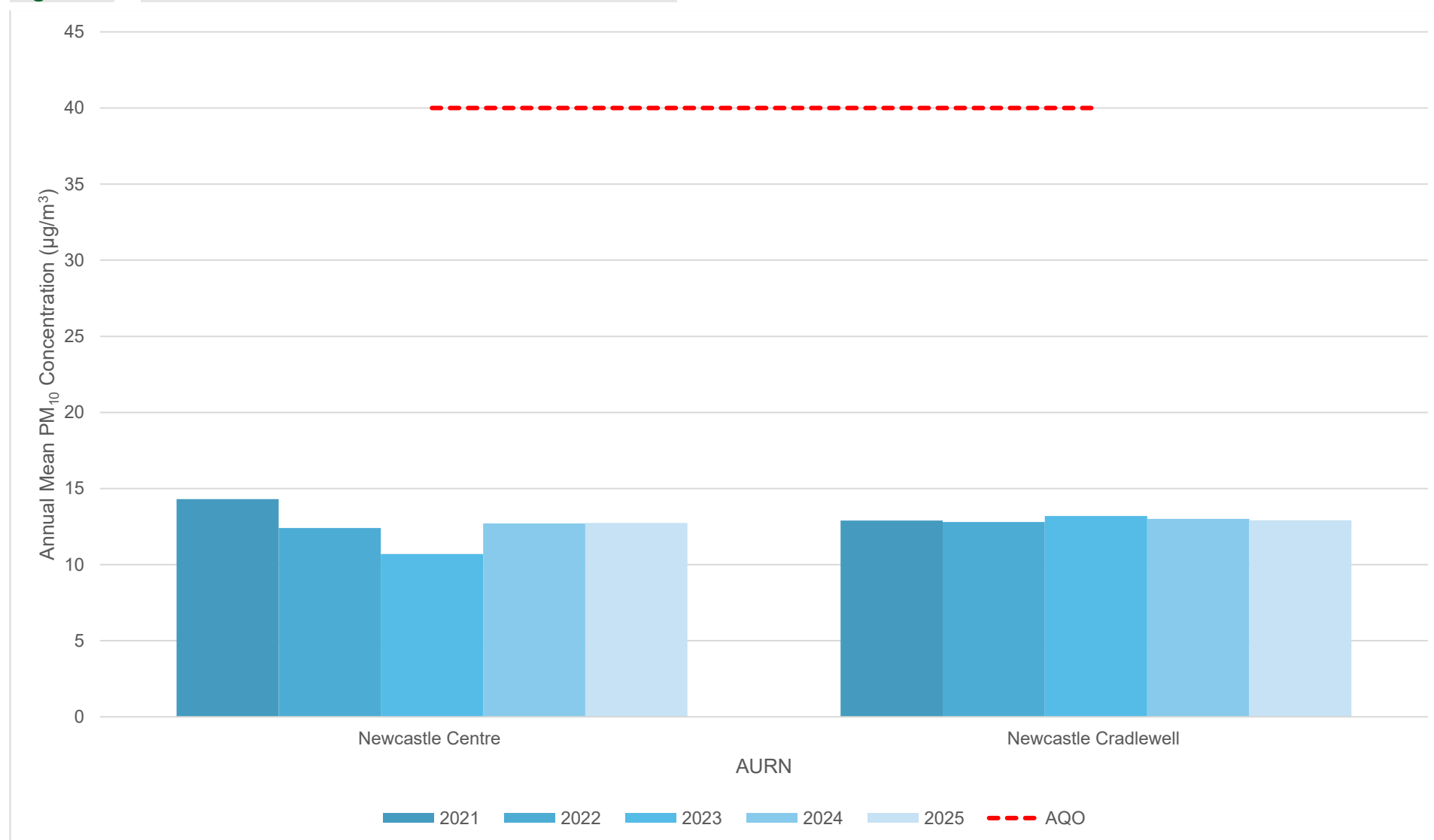


Table A.7 – 24-Hour Mean PM₁₀ Monitoring Results, Number of PM₁₀ 24-Hour Means > 50µg/m³

Site ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Site Type	Valid Data Capture for Monitoring Period (%) ⁽¹⁾	Valid Data Capture 2025 (%) ⁽²⁾	2021	2022	2023	2024	2025
DEFRA AURN	425027	564917	Urban Background	96.3	96.3	0	5	0	0	1
Cradlewell AURN	425992	565834	Kerbside	99.4	99.4	0	3	0	0	2

Notes:

Results are presented as the number of 24-hour periods where daily mean concentrations greater than 50µg/m³ have been recorded.

Exceedances of the PM₁₀ 24-hour mean objective (50µg/m³ 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.13 – Trends in Number of 24-Hour Mean PM₁₀ Results > 50µg/m³

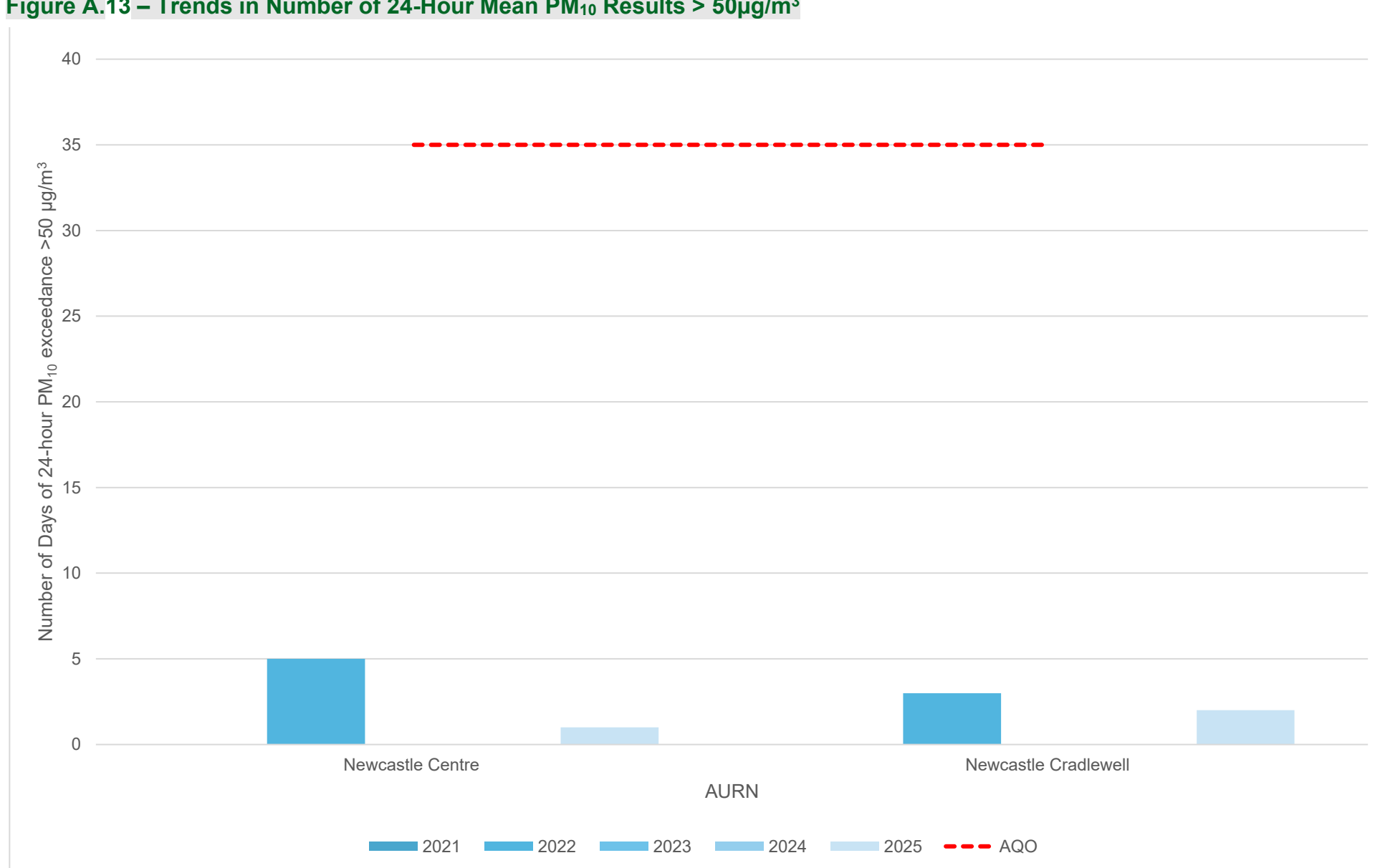


Table A.8 – Annual Mean PM_{2.5} Monitoring Results (µg/m³)

Site ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Site Type	Valid Data Capture for Monitoring Period (%) ⁽¹⁾	Valid Data Capture 2025 (%) ⁽²⁾	2021	2022	2023	2024	2025
DEFRA AURN	425027	564917	Urban Background	95.9	95.9	7.1	6.5	6.3	7.2	8.2

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

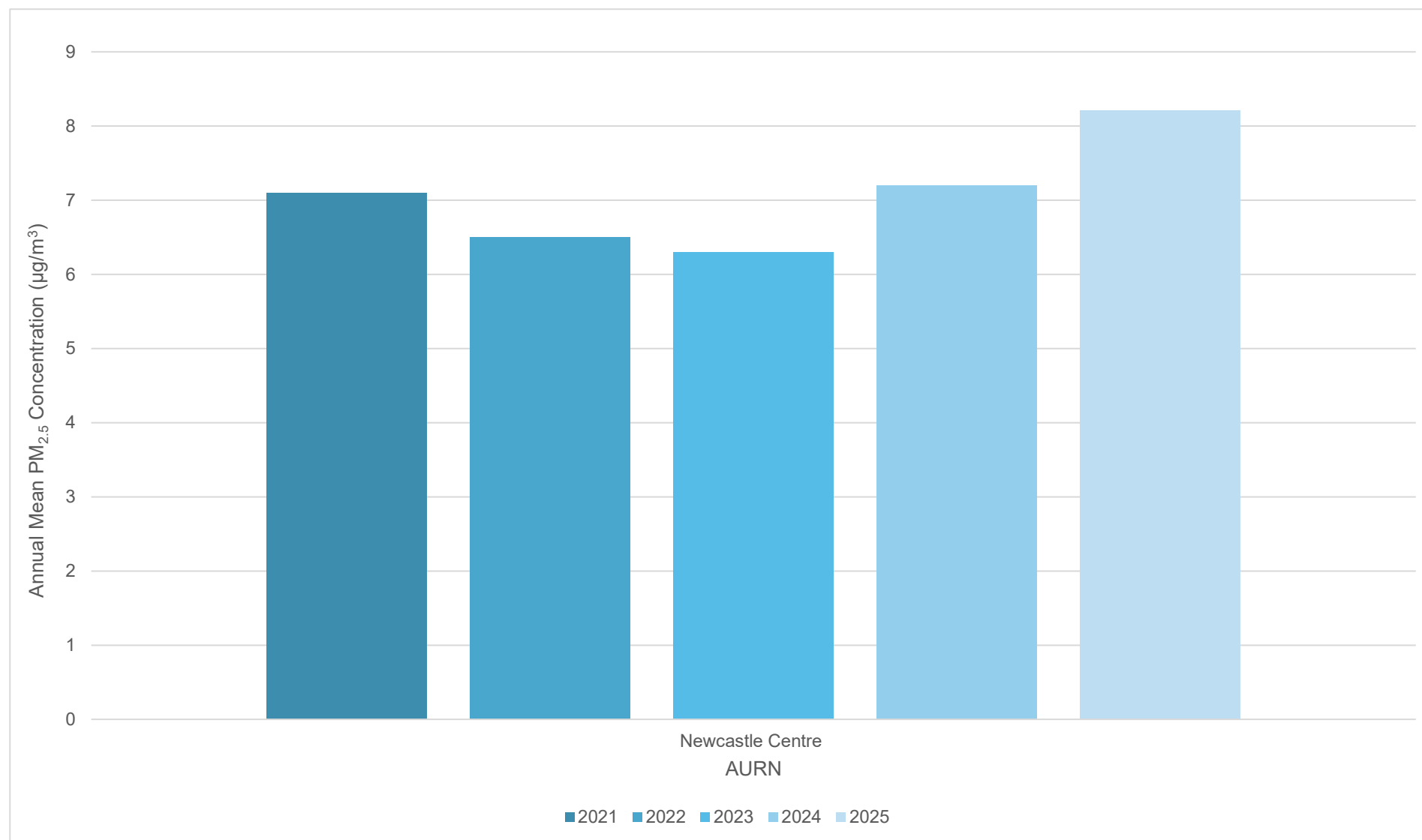
Notes:

The annual mean concentrations are presented as µg/m³.

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

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

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

Figure A.14 – Trends in Annual Mean PM_{2.5} Concentrations

Appendix B: Full Monthly Diffusion Tube Results for 2025

Table B.1 – NO₂ 2025 Diffusion Tube Results (µg/m³)

DT ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual Mean: Raw Data	Annual Mean: Annualised and Bias Adjusted (0.8)	Annual Mean: Distance Corrected to Nearest Exposure	Comment
DT2	425028	564917	35.0	26.5	27.0	16.5	12.6	14.9	12.6	15.6	22.2	20.7	22.1	21.4	-	-	-	Triplicate Site with DT2, DT3 and DT4 - Annual data provided for DT4 only
DT3	425028	564917	32.2	24.8	13.7	18.5	11.2	14.9	13.1	17.7	22.5	21.3	23.9	24.3	-	-	-	Triplicate Site with DT2, DT3 and DT4 - Annual data provided for DT4 only
DT4	425028	564917	27.6	20.4	25.9	19.3	8.8	13.8	13.1	17.6	23.0	21.5	24.3	24.7	20.1	16.2	-	Triplicate Site with DT2, DT3 and DT4 - Annual data provided for DT4 only
DT5	424948	564872	69.7	50.4	45.7	36.2	29.4	39.3	30.2	34.7	44.2		45.1	37.7	-	-	-	Triplicate Site with DT5, DT115 and DT116 - Annual data provided for DT116 only
DT6	425003	564713	46.1	32.2	31.1	27.6	22.5	23.7			29.5	32.2	29.3	33.4	30.8	24.7	-	
DT7	424933	564475	55.0	42.6	40.1	37.3	25.8	29.6			39.0	38.6	39.3	43.3	39.1	31.4	-	
DT8	424936	564333	56.8	55.2	51.6	53.2	35.1	48.9			41.8	43.7	50.1	44.5	48.1	38.6	-	
DT9	425056	564197	41.1	30.5	33.6	27.5	18.2	20.0			26.4	22.7	28.0	29.9	27.8	22.3	-	
DT10	425081	564166														-	-	
DT12	425072	564119	53.0	51.9	43.7	46.9	35.1	39.0	32.2		44.7	34.6	43.2	48.8	-	-	-	Triplicate Site with DT12, DT117 and DT118 - Annual data provided for DT118 only
DT13	424737	563933	58.5		49.0	38.5	26.5				29.0	45.4	46.5		41.9	30.5	-	
DT14	424303	563841	47.6	35.8	34.0	29.7	18.3	20.9	23.4	22.2	29.6		34.2	23.0	29.0	23.3	-	
DT16	424271	564103	36.3	32.6	29.0	27.0	21.0	17.4		21.0	19.8	23.5	26.8	29.3	25.8	20.7	-	
DT17	424439	564057	38.8	35.1	30.0	30.0	17.8	17.6				25.9	27.0	28.4	-	-	-	Triplicate Site with DT17, DT119 and DT120 - Annual data provided for DT120 only
DT18	424431	564394	36.2	39.3	34.2	31.2	21.7	18.3	19.7	17.7	25.2	27.3	34.0	26.5	-	-	-	Triplicate Site with DT18, DT121 and DT122 - Annual data provided for DT122 only
DT19	424586	564472	47.3		36.4	32.7	25.4	29.5	30.5	27.4	34.3	36.6	37.9	33.8	33.8	27.1	-	
DT20	424736	564172	42.4	49.9	53.5	42.8	38.4	30.2			42.6	43.5	48.6		43.5	35.0	-	
DT21	424793	564283	46.1	45.8	44.6	36.2	27.7				50.4	43.0	46.3	39.8	-	-	-	Triplicate Site with DT21, DT123 and DT124 - Annual data provided for DT124 only
DT23	424519	564765	35.3	33.6	31.6	27.7	18.6		18.2	18.6	21.0	26.5	26.7		-	-	-	Triplicate Site with DT23, DT125 and DT126 - Annual data provided for DT126 only
DT25	424336	564492	42.8		31.7	28.5	21.8	18.8	21.4	21.3	27.8	27.0	32.8	29.1	-	-	-	Triplicate Site with DT25, DT127 and DT128 - Annual data provided for DT128 only

DT ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual Mean: Raw Data	Annual Mean: Annualised and Bias Adjusted (0.8)	Annual Mean: Distance Corrected to Nearest Exposure	Comment
DT26	424616	564561	48.3	42.8	36.2	39.3		28.8	31.7	32.4	37.9	38.7	33.5	38.5	37.1	29.8	-	
DT28	424725	564771	31.7	38.3	37.5	37.6	30.2	22.5	26.3	30.6	31.5	27.9	36.8	35.6	32.2	25.9	-	
DT29	424776	564864	62.0	54.9	55.1	48.8	43.5	47.6	38.2	55.2	46.6	53.1	53.7	51.5	-	-	-	Triplicate Site with DT29, DT30 and DT31 - Annual data provided for DT31 only
DT30	424776	564864	69.7	56.9	52.1	50.9	42.0	48.6	39.1	54.6	37.6	53.5	56.4	49.4	-	-	-	Triplicate Site with DT29, DT30 and DT31 - Annual data provided for DT31 only
DT31	424776	564864	65.5	52.1	57.8	50.2	48.0	47.0	39.8		39.2	54.2	57.1	49.1	51.0	41.0	31.0	Triplicate Site with DT29, DT30 and DT31 - Annual data provided for DT31 only
DT32	425821	564241	43.5		32.6	26.2	18.8	15.5	17.1	19.0	20.6	25.6	28.2	23.0	-	-	-	Triplicate Site with DT32, DT129 and DT130 - Annual data provided for DT130 only
DT34	425415	563908	40.2	33.2	33.8		23.6	21.8	24.5		26.5	25.2	28.3	29.0	-	-	-	Triplicate Site with DT34, DT131 and DT132 - Annual data provided for DT132 only
DT36	425092	563942	45.4	36.3	35.5	27.7	21.7	23.1	22.9	22.9	25.0	27.2	35.9	34.0	-	-	-	Triplicate Site with DT36, DT133 and DT134 - Annual data provided for DT134 only
DT37	425149	563811	39.3	38.4	39.7	29.3	24.4	21.3	25.0	23.3	26.1	24.6	36.7		29.8	24.0	-	
DT43	424394	567634	59.2	33.0	39.3	29.4	29.0	27.5	25.7	24.4	30.8	34.6	25.9	32.5	32.6	26.2	-	
DT45	424412	568082						33.4	25.5	28.1	30.7	37.0	37.8	38.8	33.0	29.8	-	
DT50	425499	568111	14.7	27.9		31.2	23.8	25.2	28.7	25.9	28.2	29.3	33.4	34.4	27.5	22.1	-	
DT53	425425	565360	34.1	36.2	35.0	27.9	27.2	19.3	22.2	19.8	25.1	26.0	31.2	27.7	-	-	-	Triplicate Site with DT53, DT135 and DT136 - Annual data provided for DT136 only
DT54	425732	565371	49.6	46.5	37.9	30.4	26.4	27.9	24.3	26.3	33.1	33.8	36.7	33.2	-	-	-	Triplicate Site with DT54, DT137 and DT138 - Annual data provided for DT138 only
DT62	419449	565149	36.4	43.0		42.6	27.8		21.2	30.0	25.8	21.7	33.7	36.8	31.9	25.6	-	
DT63 (249 in 2015)	424550	563900	50.9	45.4	41.4	32.2	28.8	26.0	29.1	29.2	33.2		43.7	37.9	36.2	29.0	-	
DT64	424826	564451	43.4	24.9		28.8	20.7	20.6	23.2		28.4	40.6	35.3	31.9	-	-	-	Triplicate Site with DT64, DT139 and DT140 - Annual data provided for DT140 only
DT76	425185	563987	54.1	36.8	39.4	29.7	23.8	26.4	26.0	23.4	27.1	33.5	35.0	32.5	-	-	-	Triplicate Site with DT76, DT141 and DT142 - Annual data provided for DT142 only
DT77	425277	563834	62.6	46.8	45.1			33.4	31.8	25.6	27.8	35.7	43.6	29.4	-	-	-	Triplicate Site with DT77, DT143 and DT144 - Annual data provided for DT144 only
DT78	425294	563844	38.6	31.8	43.0	33.7	32.3	33.0	29.7	24.8	24.6	23.6	40.1	31.9	-	-	-	Triplicate Site with DT78, DT145 and DT146 - Annual data provided for DT146 only
DT79	425199	564002	47.7	39.3	34.0	42.5	36.2	33.6	31.8	33.0	34.5	26.6	41.4	30.9	-	-	-	Triplicate Site with DT79, DT147 and DT148 - Annual data provided for DT148 only
DT80	425286	564422	54.9	37.1	44.5	31.4	22.8	28.0	25.7	24.5	28.7	31.3	39.0	35.7	33.6	27.0	-	

DT ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual Mean: Raw Data	Annual Mean: Annualised and Bias Adjusted (0.8)	Annual Mean: Distance Corrected to Nearest Exposure	Comment
DT81	426546	566260	97.4	88.2	90.7	80.5	72.0	82.5	72.8	73.9	74.0	73.8	83.4	84.6	81.2	65.2	35.7	
DT82	427444	566674	44.7	36.7	37.1	26.3	16.0	25.8	21.3	26.5	28.0	26.1	31.6	34.3	29.5	23.7	-	
DT84	428141	566885	57.1	33.3	46.8	37.4	28.9	26.9	31.8	33.3	36.6	28.1	28.7		35.4	28.4	-	
DT85	424225	563769	47.8	41.2	39.9	42.3	32.7	26.2	26.5	30.0	35.7	32.4	40.1	37.7	-	-	-	Triplicate Site with DT85, DT149 and DT150 - Annual data provided for DT150 only
DT86	424252	564014	37.0	34.0	33.6	34.0	23.9	20.3	21.0	21.0	27.2	25.0	31.7	32.0	-	-	-	Triplicate Site with DT86, DT151 and DT152 - Annual data provided for DT152 only
DT87	422087	566233		32.1	29.7	25.0	19.9	23.9	24.1		29.0	30.1	29.4	8.3	25.2	20.2	-	
DT94	424457	563984	58.6	49.4	45.8	35.8	33.0	32.5					45.4	47.1	43.5	32.0	-	
DT95	424445	563901	40.4	41.5	33.8	36.2	29.4	27.5	27.8	31.5	38.2	33.0	44.5	42.9	-	-	-	Triplicate Site with DT95, DT155 and DT156 - Annual data provided for DT156 only
DT102	425106	564466	27.8	50.8	46.3	35.9	27.6	33.1			34.4	39.5	40.6	40.0	37.6	30.2	-	
DT103	425086	564405													-	-	-	Triplicate Site with DT103, DT157 and DT158 - Annual data provided for DT158 only
DT105	424874	563991	44.7		47.0		29.2	37.1	30.3		35.9	40.2	40.7	45.2	-	-	-	Triplicate Site with DT105, DT159 and DT160 - Annual data provided for DT160 only
DT106	424862	563996	56.9	47.3	50.3	47.1			37.8		43.3		44.0	48.3	-	-	-	Triplicate Site with DT106, DT161 and DT162 - Annual data provided for DT162 only
DT111	424514	563919		37.8	34.5	32.3	23.0	19.6	24.4	25.5		26.6	26.7	30.6	-	-	-	Triplicate Site with DT111, DT163 and DT164 - Annual data provided for DT164 only
DT115	424948	564872	52.8	48.8	50.4	36.1	30.6	44.2	34.3	34.8	46.7	46.6	42.1	41.8	-	-	-	Triplicate Site with DT5, DT115 and DT116 - Annual data provided for DT116 only
DT116	424948	564872	54.4	46.0		42.0	29.1	39.1			42.5	46.1	45.0	40.4	42.2	33.9	-	Triplicate Site with DT5, DT115 and DT116 - Annual data provided for DT116 only
DT117	425072	564119	51.2	43.7	51.5	49.9	33.7	35.0	34.5		42.3	36.3	45.6	46.9	-	-	-	Triplicate Site with DT12, DT117 and DT118 - Annual data provided for DT118 only
DT118	425072	564119	55.2	55.8	51.2	49.2	37.0	38.6	29.2	35.1	45.0	40.5	47.1	47.3	42.9	34.5	-	Triplicate Site with DT12, DT117 and DT118 - Annual data provided for DT118 only
DT119	424439	564057	38.0	33.8	26.3	24.1	15.6	16.8				22.4	31.5		-	-	-	Triplicate Site with DT17, DT119 and DT120 - Annual data provided for DT120 only
DT120	424439	564057	39.0	35.7	31.0	27.7	16.2	20.2				23.0	30.1		27.4	22.0	-	Triplicate Site with DT17, DT119 and DT120 - Annual data provided for DT120 only
DT121	424431	564394	40.6	31.8	34.6	28.3	18.2	20.1	18.5	13.6	18.6		34.1	29.1	-	-	-	Triplicate Site with DT18, DT121 and DT122 - Annual data provided for DT122 only
DT122	424431	564394	13.3	34.9	31.9	29.1	16.3	21.5	18.9	18.5	27.3	20.3			26.0	20.9	-	Triplicate Site with DT18, DT121 and DT122 - Annual data provided for DT122 only

DT ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual Mean: Raw Data	Annual Mean: Annualised and Bias Adjusted (0.8)	Annual Mean: Distance Corrected to Nearest Exposure	Comment
DT123	424793	564283	50.8	37.9	45.1	38.2	30.1				32.6	39.6	36.1	42.3	-	-	-	Triplicate Site with DT21, DT123 and DT124 - Annual data provided for DT124 only
DT124	424793	564283	50.5	44.4	44.6	41.2	29.2	34.2			38.0	37.1	41.3	44.1	40.2	32.3	-	Triplicate Site with DT21, DT123 and DT124 - Annual data provided for DT124 only
DT125	424519	564765	36.7	36.4	26.9	27.2	18.4		19.2	22.5		23.2	29.3	26.0	-	-	-	Triplicate Site with DT23, DT125 and DT126 - Annual data provided for DT126 only
DT126	424519	564765	37.0	39.7	25.3	27.9	15.9	19.6	17.2	23.0	28.5	26.2	30.4	27.8	25.9	20.8	-	Triplicate Site with DT23, DT125 and DT126 - Annual data provided for DT126 only
DT127	424336	564492	40.4		33.5	25.8	18.3	16.6	22.8	9.6	25.8	25.8	30.5	30.1	-	-	-	Triplicate Site with DT25, DT127 and DT128 - Annual data provided for DT128 only
DT128	424336	564492	35.3	31.5	34.1	29.5	15.2	20.4	18.0	20.9	24.1	29.7	35.5	26.4	26.8	21.5	-	Triplicate Site with DT25, DT127 and DT128 - Annual data provided for DT128 only
DT129	425821	564241	35.9	30.1	32.8	23.8	15.6	18.1	20.2	19.0	23.5	20.0	29.9	27.9	-	-	-	Triplicate Site with DT32, DT129 and DT130 - Annual data provided for DT130 only
DT130	425821	564241	45.9	34.5	28.5	27.3	16.7	16.0	19.6	18.7	19.6	23.8	26.6	24.7	25.0	20.1	-	Triplicate Site with DT32, DT129 and DT130 - Annual data provided for DT130 only
DT131	425415	563908	42.8	35.3	38.8	28.7	22.9	24.4	22.1		29.9	28.2	34.9	33.3	-	-	-	Triplicate Site with DT34, DT131 and DT132 - Annual data provided for DT132 only
DT132	425415	563908	41.5	40.0		27.5	20.1	22.9			23.3	25.5	33.0	28.3	29.6	23.8	-	Triplicate Site with DT34, DT131 and DT132 - Annual data provided for DT132 only
DT133	425092	563942	37.9	34.4	30.4	26.1	20.6	25.5	23.4	18.5	26.1	31.0	37.8	35.5	-	-	-	Triplicate Site with DT36, DT133 and DT134 - Annual data provided for DT134 only
DT134	425092	563942	48.0	39.3	34.9	26.0	20.3	23.9	22.0	21.6	31.1	24.9	33.0	31.8	29.5	23.7	-	Triplicate Site with DT36, DT133 and DT134 - Annual data provided for DT134 only
DT135	425425	565360	28.6	39.4	36.6	29.0	23.9	18.1	22.4	21.3	27.0	25.8	28.4	28.8	-	-	-	Triplicate Site with DT53, DT135 and DT136 - Annual data provided for DT136 only
DT136	425425	565360	18.9	39.2	29.7	29.2	23.3	18.2	23.9	24.8	23.2	21.4	26.6	22.6	26.7	21.5	-	Triplicate Site with DT53, DT135 and DT136 - Annual data provided for DT136 only
DT137	425732	565371	47.7	44.2	43.3	29.6	24.9		28.8	24.6	30.5	33.9	39.6	36.1	-	-	-	Triplicate Site with DT54, DT137 and DT138 - Annual data provided for DT138 only
DT138	425732	565371	51.3		20.5	32.5	26.9	27.5	27.9	21.4	35.5	35.3	35.9	33.0	33.6	27.0	-	Triplicate Site with DT54, DT137 and DT138 - Annual data provided for DT138 only
DT139	424826	564451	45.8	38.9		31.6	23.0	22.1			28.0		36.2	32.3	-	-	-	Triplicate Site with DT64, DT139 and DT140 - Annual data provided for DT140 only
DT140	424826	564451	39.9	33.4	24.1	24.4	20.4	20.6	20.2		25.9	25.7	34.3	33.0	29.1	23.4	-	Triplicate Site with DT64, DT139 and DT140 - Annual data provided for DT140 only

DT ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual Mean: Raw Data	Annual Mean: Annualised and Bias Adjusted (0.8)	Annual Mean: Distance Corrected to Nearest Exposure	Comment
DT141	425185	563987	57.6	42.2	34.7	33.7	23.0	27.0	25.6	23.8	31.5	30.5	37.3	34.4	-	-	-	Triplicate Site with DT76, DT141 and DT142 - Annual data provided for DT142 only
DT142	425185	563987	61.0	46.5	32.1	32.8	23.0	25.4	26.2	20.0	27.3	29.6	36.1	32.4	32.8	26.4	-	Triplicate Site with DT76, DT141 and DT142 - Annual data provided for DT142 only
DT143	425277	563834	53.1	25.5	43.6		30.2	29.7	30.7	24.9	30.1	32.6	41.8	31.2	-	-	-	Triplicate Site with DT77, DT143 and DT144 - Annual data provided for DT144 only
DT144	425277	563834	57.6	45.2	42.3	32.9		34.4	27.7	26.1	30.4	35.4	45.2	31.0	35.8	28.8	-	Triplicate Site with DT77, DT143 and DT144 - Annual data provided for DT144 only
DT145	425294	563844	38.5	36.4	43.5	32.9	33.3	31.7	31.0	21.6	25.8	30.3	39.7	32.9	-	-	-	Triplicate Site with DT78, DT145 and DT146 - Annual data provided for DT146 only
DT146	425294	563844	41.1	39.9		35.0	33.2	32.5	28.1	11.9	20.8		41.7	28.5	32.4	26.1	-	Triplicate Site with DT78, DT145 and DT146 - Annual data provided for DT146 only
DT147	425199	564002	51.8	43.0	53.9	37.7	35.4	32.4	32.1	29.4	35.6	33.9	42.0	33.7	-	-	-	Triplicate Site with DT79, DT147 and DT148 - Annual data provided for DT148 only
DT148	425199	564002	48.2	41.9	42.9	32.3	31.9	30.9	34.3	34.3	32.9	34.6	37.3	41.3	37.1	29.8	-	Triplicate Site with DT79, DT147 and DT148 - Annual data provided for DT148 only
DT149	424225	563769	40.1	42.3	43.9	41.8	33.5	24.1	28.4	28.3	35.7	22.6	35.2	43.0	-	-	-	Triplicate Site with DT85, DT149 and DT150 - Annual data provided for DT150 only
DT150	424225	563769	44.5	38.3	42.3	42.2	37.4	26.6	27.5	31.0	33.7	31.9	27.4	40.3	35.4	28.4	-	Triplicate Site with DT85, DT149 and DT150 - Annual data provided for DT150 only
DT151	424252	564014	38.4	37.5	32.3	31.6	20.8	19.3	20.6	22.9	22.6	23.7	27.6	32.4	-	-	-	Triplicate Site with DT86, DT151 and DT152 - Annual data provided for DT152 only
DT152	424252	564014	37.5		30.3	29.8	19.5	19.3	20.0	22.6	28.6	26.1	30.7		27.9	22.4	-	Triplicate Site with DT86, DT151 and DT152 - Annual data provided for DT152 only
DT155	424445	563901	48.6	44.6	39.9	44.5	26.4	29.5	24.3	33.8	34.3	32.2	39.6	41.4	-	-	-	Triplicate Site with DT95, DT155 and DT156 - Annual data provided for DT156 only
DT156	424445	563901	42.1	50.7	42.9	41.5	27.0	26.1	26.4	34.6		31.4	42.7		36.4	29.2	-	Triplicate Site with DT95, DT155 and DT156 - Annual data provided for DT156 only
DT157	425086	564405													-	-	-	Triplicate Site with DT103, DT157 and DT158 - Annual data provided for DT158 only
DT158	425086	564405														-	-	Triplicate Site with DT103, DT157 and DT158 - Annual data provided for DT158 only
DT159	424874	563991	46.1	46.3			27.9	31.9	29.7		36.0		36.6	39.2	-	-	-	Triplicate Site with DT105, DT159 and DT160 - Annual data provided for DT160 only
DT160	424874	563991		65.0	46.0	38.5	28.1		30.3	34.3		32.8	46.6	42.6	39.1	31.4	-	Triplicate Site with DT105, DT159 and DT160 - Annual data provided for DT160 only

DT ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual Mean: Raw Data	Annual Mean: Annualised and Bias Adjusted (0.8)	Annual Mean: Distance Corrected to Nearest Exposure	Comment
DT161	424862	563996	47.8	52.3	49.6	48.5		41.5			38.4		48.8	50.5	-	-	-	Triplicate Site with DT106, DT161 and DT162 - Annual data provided for DT162 only
DT162	424862	563996	57.6	48.3	54.5	47.7			40.3	34.1	37.7		49.6		45.4	36.5	-	Triplicate Site with DT106, DT161 and DT162 - Annual data provided for DT162 only
DT163	424514	563919	33.9		37.9			19.4	21.6	25.8		21.4	29.9	34.5	-	-	-	Triplicate Site with DT111, DT163 and DT164 - Annual data provided for DT164 only
DT164	424514	563919	32.0		37.4	36.8	20.1		23.1	25.4		23.7	30.0	30.3	28.7	23.1	-	Triplicate Site with DT111, DT163 and DT164 - Annual data provided for DT164 only
DT167	424340	564482		32.1	38.3	28.1	22.6		21.6	19.9	21.2	24.0	27.7	25.1	-	-	-	Triplicate Site with DT167, DT168 and DT169 - Annual data provided for DT169 only
DT168	424340	564482	16.5	33.8	35.1	29.8	14.9		22.7	16.6		23.6	28.5	29.9	-	-	-	Triplicate Site with DT167, DT168 and DT169 - Annual data provided for DT169 only
DT169	424340	564482	36.7	36.7	45.8	26.5	21.9		22.0	19.7	23.7	22.9	28.0	27.8	26.4	21.2	-	Triplicate Site with DT167, DT168 and DT169 - Annual data provided for DT169 only
DT171	422813	564455		28.8	23.0	21.1	16.0	15.7	19.0	18.0	21.6	22.5	24.6	22.0	21.1	17.0	-	
DT172	425361	565375				46.9	37.5	37.5	42.3	42.2	44.5	44.5	38.8	48.3	-	-	-	Triplicate Site with DT172, DT173 and DT174 - Annual data provided for DT174 only
DT173	425361	565375				44.4	37.3	40.0	38.8	42.7	44.2	38.6	45.3	40.1	-	-	-	Triplicate Site with DT172, DT173 and DT174 - Annual data provided for DT174 only
DT174	425361	565375				40.6	36.3	38.1	35.7	39.8	42.2	45.7	43.6	43.6	41.5	33.3	-	Triplicate Site with DT172, DT173 and DT174 - Annual data provided for DT174 only
DT175	426548	566282							23.0	26.1	27.6	24.3	25.5	23.8	25.1	21.5	-	

- ☒ All erroneous data has been removed from the NO₂ diffusion tube dataset presented in Table B.1
- ☒ Annualisation has been conducted where data capture is <75% and >25% in line with LAQM.TG22
- ☒ Local bias adjustment factor used
- ☐ National bias adjustment factor used
- ☒ Where applicable, data has been distance corrected for relevant exposure in the final column
- ☒ Newcastle City Council confirm that all 2025 diffusion tube data has been uploaded to the Diffusion Tube Data Entry System

Notes:

Exceedances of the NO₂ annual mean objective of 40µg/m³ are shown in **bold**.

NO₂ annual means exceeding 60µg/m³, indicating a potential exceedance of the NO₂ 1-hour mean objective are shown in **bold and underlined**.

See Appendix C for details on bias adjustment and annualisation.

Appendix C: Supporting Technical Information / Air Quality Monitoring Data QA/QC

New or Changed Sources Identified Within Newcastle City Council During 2025

Newcastle City Council has not identified any new sources relating to air quality within the reporting year of 2025.

Additional Air Quality Works Undertaken by Newcastle City Council During 2025

Newcastle City Council has not completed any additional works within the reporting year of 2025.

QA/QC of Diffusion Tube Monitoring

The diffusion tubes are supplied and analysed by Socotec Didcot using the 50% triethanolamine (TEA) in acetone method. Socotec Didcot participates in the Annual Field Inter-Comparison Exercise and the laboratory also participates in DEFRA's AIR (previously WASP) NO₂ Proficiency Testing (PT) Scheme. The Socotec Didcot laboratory follows the procedures set out in the Harmonisation Practical Guidance and is UKAS accredited.

In 2025, Socotec Didcot performed as follows in the AIR PT rounds:

<https://laqm.defra.gov.uk/wp-content/uploads/2026/03/AIR-PT-Rounds-62-to-74-February-2024-February-2026.pdf>

AR062 (January – February 2024): 100%

AR063 (April -June 2024): 100%

AR065 (July-August 2024):100%

AR066 (September-October 2024): 100%

AR068 (January- February 2025): 87.5%

AR069 (April-June 2025): 100%

AR071 (July-September 2025): 100%

AR072 (October- December 2025): 87.5%

AR074 (January-February 2026): 100%

The diffusion tubes have been deployed in line with the DEFRA diffusion tube calendar in 2025.

Diffusion Tube Annualisation

Four diffusion tube sites recorded <75% data capture in 2025, thus requiring annualisation of the results. All sites had a data capture of >25%. The data were annualised by comparison to three regional background automatic monitoring stations operated as part of the DEFRA Automatic Urban and Rural Network (AURN) as per Boxes 7-9 and 7-10 in the Technical Guidance LAQM.TG22. These sites all had sufficient data capture (>85%), and are listed below:

- Newcastle Centre
- Sunderland Silkworth
- Hartlepool St Abbs Walk

Table C.1 – Annualisation Summary (concentrations presented in $\mu\text{g}/\text{m}^3$)

Site ID	Annualisation Factor Newcastle Centre	Annualisation Factor Sunderland Silkworth	Annualisation Factor Hartlepool St Abbs Walk	Average Annualisation Factor	Raw Data Annual Mean	Annualised Annual Mean
DT13	0.9158	0.9134	0.8848	0.9047	41.9	37.9
DT45	1.0950	1.1761	1.0948	1.1220	33.0	37.1
DT94	0.9259	0.9126	0.9109	0.9165	43.5	39.8
DT175	1.0536	1.1187	1.0350	1.0691	25.1	26.8

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.

NCC have calculated a local bias adjustment factor of 0.8 to the 2025 monitoring data based on two co-location studies, the calculation is provided in Table C.3. The national bias adjustment factor of 0.78 is shown below. The local bias adjustment factor was applied as this provided a more conservative assessment. A summary of bias adjustment factors used by NCC over the past five years is presented in Table C.2.

National Diffusion Tube Bias Adjustment Factor Spreadsheet						Spreadsheet Version Number: 03/26				
Follow the steps below in the correct order to show the results of relevant co-location studies						This spreadsheet will be updated at the end of June 2023				
Data only apply to tubes exposed monthly and are not suitable for correcting individual short-term monitoring periods						Whenever presenting adjusted data, you should state the adjustment factor used and the version of the spreadsheet				
This spreadsheet will be updated every few months: the factors may therefore be subject to change. This should not discourage their immediate use.						LAQM Helpdesk Website				
The LAQM Helpdesk is operated on behalf of Defra and the Devolved Administrations by Bureau Veritas, in conjunction with contract partners AECOM and the National Physical Laboratory.						Spreadsheet maintained by the National Physical Laboratory. Original compiled by Air Quality Consultants Ltd.				
Step 1:		Step 2:	Step 3:	Step 4:						
Select the Laboratory that Analyses Your Tubes from the Drop-Down List		Select a Preparation Method from the Drop-Down List	Select a Year from the Drop-Down List	Where there is only one study for a chosen combination, you should use the adjustment factor shown with caution. Where there is more than one study, use the overall factor* shown in blue at the foot of the final column.						
If a laboratory is not shown, we have no data for this laboratory.		If a preparation method is not shown, we have no data for this method at this laboratory.	If a year is not shown, we have no data	If you have your own co-location study then see footnote ¹ . If uncertain what to do then contact the Local Air Quality Management Helpdesk at LAQMHelpdesk@bureauveritas.com or 0800 0327953						
Analysed By ¹	Method ² To make your selection, choose (All) from the pop-up list	Year ³ To make your selection, choose (All)	Site Type	Local Authority	Length of Study (months)	Diffusion Tube Mean Conc. (Dm) (µg/m ³)	Automatic Monitor Mean Conc. (Cm) (µg/m ³)	Bias (B)	Tube Precision ⁴	Bias Adjustment Factor (A) (Cm/Dm)
SOCOTEC Didcot	50% TEA in acetone	2025	R	North East Lincolnshire Council	12	24	19	22.5%	G	0.82
SOCOTEC Didcot	50% TEA in acetone	2025	UI	North Lincolnshire Council	12	15	12	21.9%	G	0.82
SOCOTEC Didcot	50% TEA in acetone	2025	UB	Derry City And Strabane District Council	12	12	8	40.1%	G	0.71
SOCOTEC Didcot	50% TEA in acetone	2025	R	Wreatham County Borough Council	12	16	14	9.2%	G	0.92
SOCOTEC Didcot	50% TEA in acetone	2025	R	Horsham District Council	11	19	16	21.3%	G	0.82
SOCOTEC Didcot	50% TEA in acetone	2025	R	Horsham District Council	10	20	16	26.3%	G	0.79
SOCOTEC Didcot	50% TEA in acetone	2025	R	Ipswich Borough Council	12	35	26	36.4%	G	0.73
SOCOTEC Didcot	50% TEA in acetone	2025	R	Leeds City Council	10	36	28	27.7%	G	0.78
SOCOTEC Didcot	50% TEA in acetone	2025	KS	Leeds City Council	12	27	20	35.4%	G	0.74
SOCOTEC Didcot	50% TEA in acetone	2025	R	Leeds City Council	12	36	26	37.4%	G	0.73
SOCOTEC Didcot	50% TEA in acetone	2025	R	Leeds City Council	11	23	18	26.9%	G	0.79
SOCOTEC Didcot	50% TEA in acetone	2025	UC	Leeds City Council	12	24	19	28.0%	G	0.78
SOCOTEC Didcot	50% TEA in acetone	2025	UB	Southend-on-sea City Council	11	16	12	28.8%	G	0.78
Overall Factor* (17 studies)								Use		0.78

Table C.2 – Bias Adjustment Factor

Monitoring Year	Local or National	If National, Version of National Spreadsheet	Adjustment Factor
2025	Local	-	0.80
2024	National	03/25	0.80
2023	Local	-	0.79
2022	Local	-	0.87
2021	Local	-	0.89

Table C.3 – Local Bias Adjustment Calculation

	Local Bias Adjustment Input 1	Local Bias Adjustment Input 2
Periods used to calculate bias	11	12

	Local Bias Adjustment Input 1	Local Bias Adjustment Input 2
Bias Factor A	0.86 (0.8 - 0.93)	0.75 (0.71 - 0.8)
Bias Factor B	16% (8% - 25%)	33% (25% - 41%)
Diffusion Tube Mean ($\mu\text{g}/\text{m}^3$)	20.0	51.0
Mean CV (Precision)	7.3%	4.0%
Automatic Mean ($\mu\text{g}/\text{m}^3$)	17.2	38.4
Data Capture	100%	100%
Adjusted Tube Mean ($\mu\text{g}/\text{m}^3$)	17 (16 - 19)	38 (36 - 41)

Notes:

A combined local bias adjustment factor of 0.8 was calculated.

NO₂ Fall-off with Distance from the Road

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

In the monitoring year of 2025, two monitoring locations in Newcastle required fall-off-with-distance calculations, as follows:

- DT29, DT30 and DT31 ((Percy Street)
- DT81 (Stephenson Road)

Table C.4 – Non-Automatic NO₂ Fall off With Distance Calculations (concentrations presented in $\mu\text{g}/\text{m}^3$)

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
DT29, DT30, DT31	1.0	7.0	39.8	15.5	31.0	
DT81	1.0	16.0	63.3	12.5	35.7	
DT106, DT161, DT162	1.0	N/A	36.5			<i>Warning: Receptor to kerb must be between 0.1m and 50m to calculate concentration. Please check distances and update STEP 2 - Diffusion Tube Inputs tab Columns Distance to Relevant Exposure and Distance to Kerb of Nearest Road</i>

QA/QC of Automatic Monitoring

NCC is the Local Site Operator (LSO) for the AURN monitoring sites (Newcastle Centre and Newcastle Cradlewell) and has adopted DEFRA's quality control procedures. Officers have been trained by DEFRA in the operation and maintenance of the AURN air quality monitoring equipment and they adhere to AEA Technology's Site Operator's Manual for the AURN. The AURNs are calibrated on a monthly basis by LSOs and serviced at six monthly intervals by Matts Monitors. Data from the AURNs are quality controlled and ratified by Bureau Veritas. The rest of the continuous monitoring sites (Percy Street and Pilgrim Street) are operated by the NCC and are serviced and maintained by Air Quality Management ADQM, and all data presented within this ASR is ratified.

PM₁₀ and PM_{2.5} Monitoring Adjustment

The type of PM₁₀/PM_{2.5} monitor(s) utilised within Newcastle (TEOM-FDMS) do not require the application of a correction factor.

Automatic Monitoring Annualisation

All automatic monitoring locations Newcastle recorded data capture of greater than 75%, therefore, it was not required to annualise any monitoring data.

NO₂ Fall-off with Distance from the Road

Wherever possible, monitoring locations are representative of exposure. However, where this is not possible, the NO₂ concentration at the nearest location relevant for exposure has been estimated using the NO₂ fall-off with distance calculator available on the LAQM Support website. No corrections for distance were required for any automatic monitoring data in 2025.

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

Figure D.1 – Air Quality Monitoring in Newcastle upon Tyne City Centre

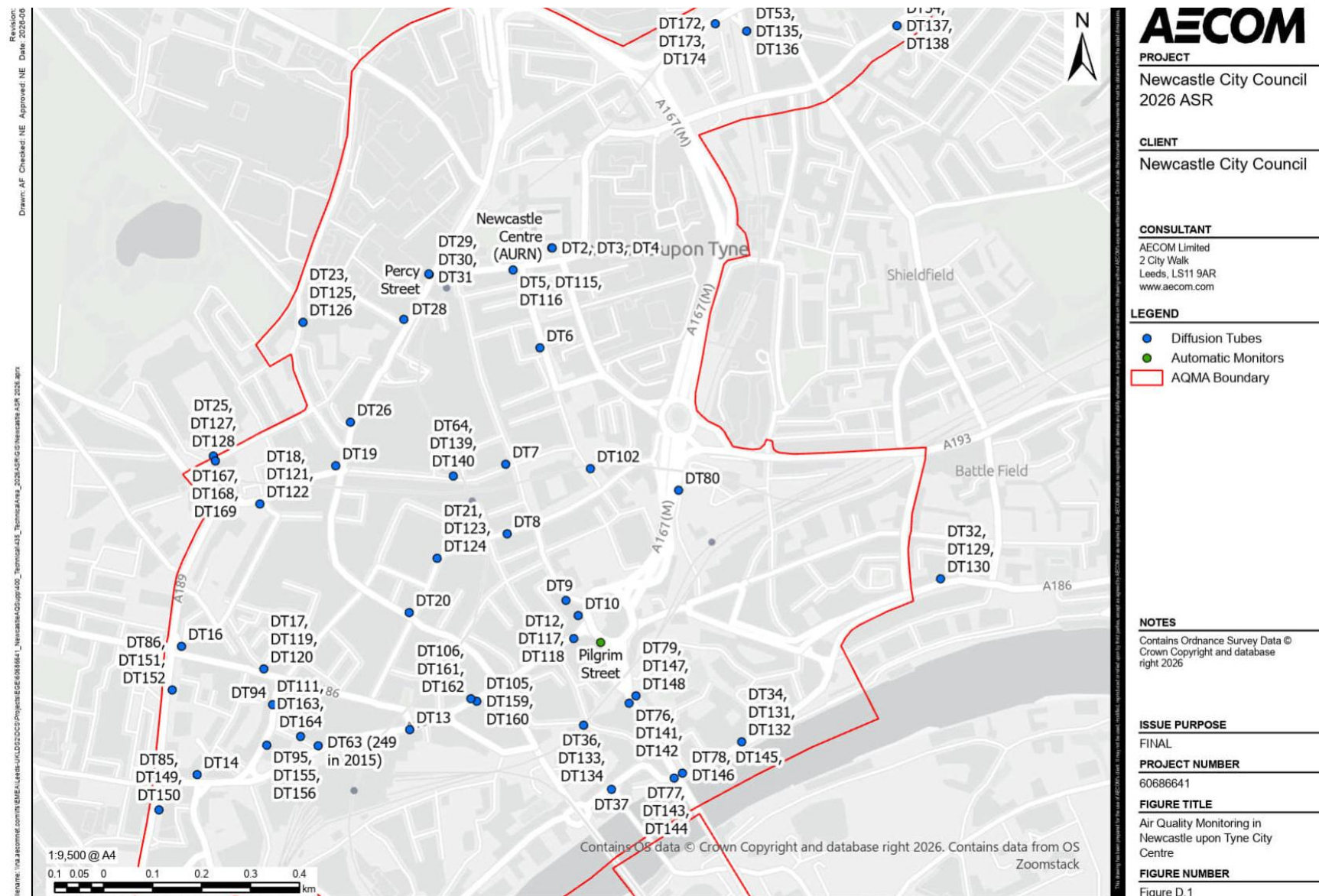
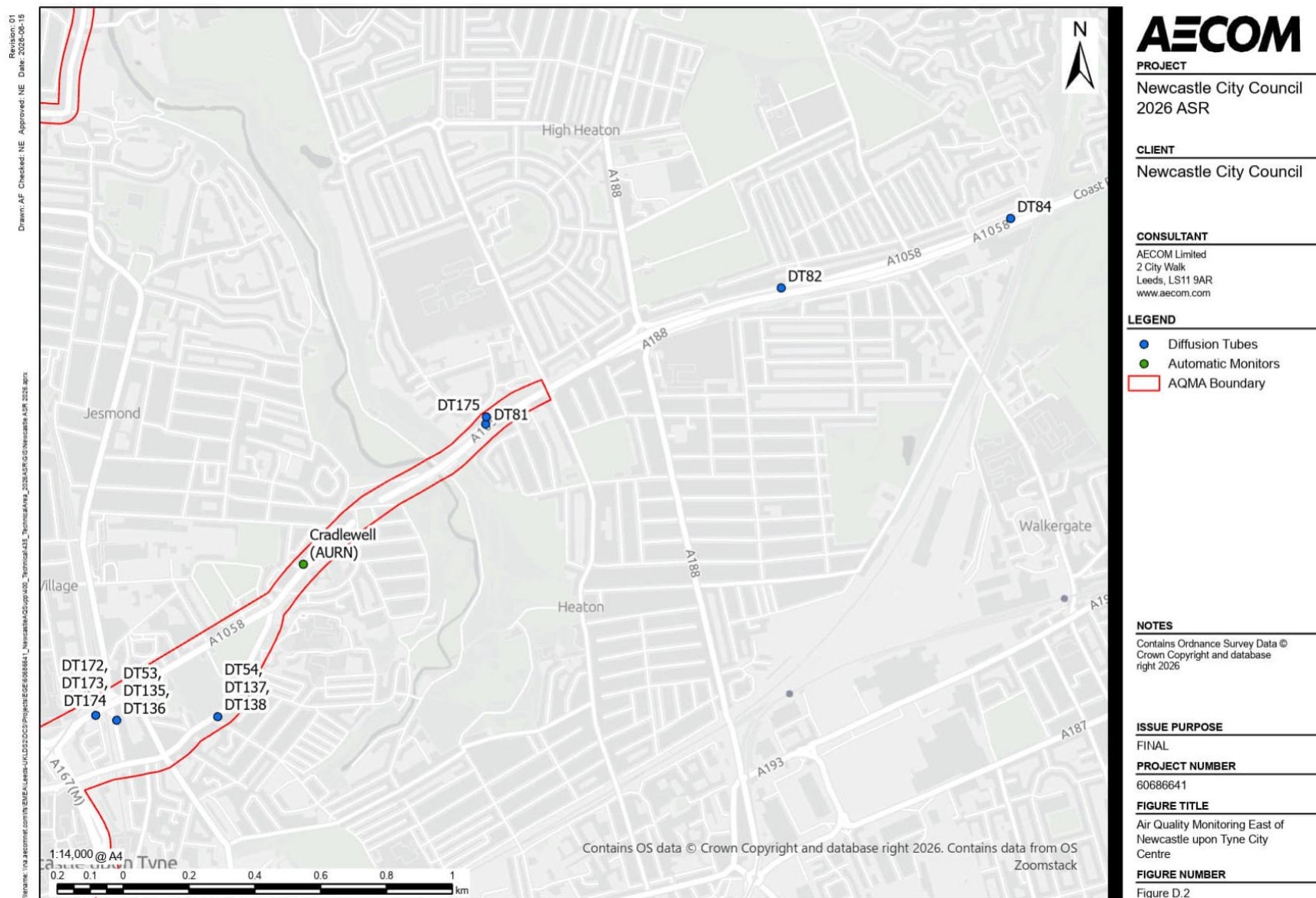


Figure D.2 – Air Quality Monitoring East of Newcastle upon Tyne City Centre



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Figure D.4 – Air Quality Monitoring in Gosforth

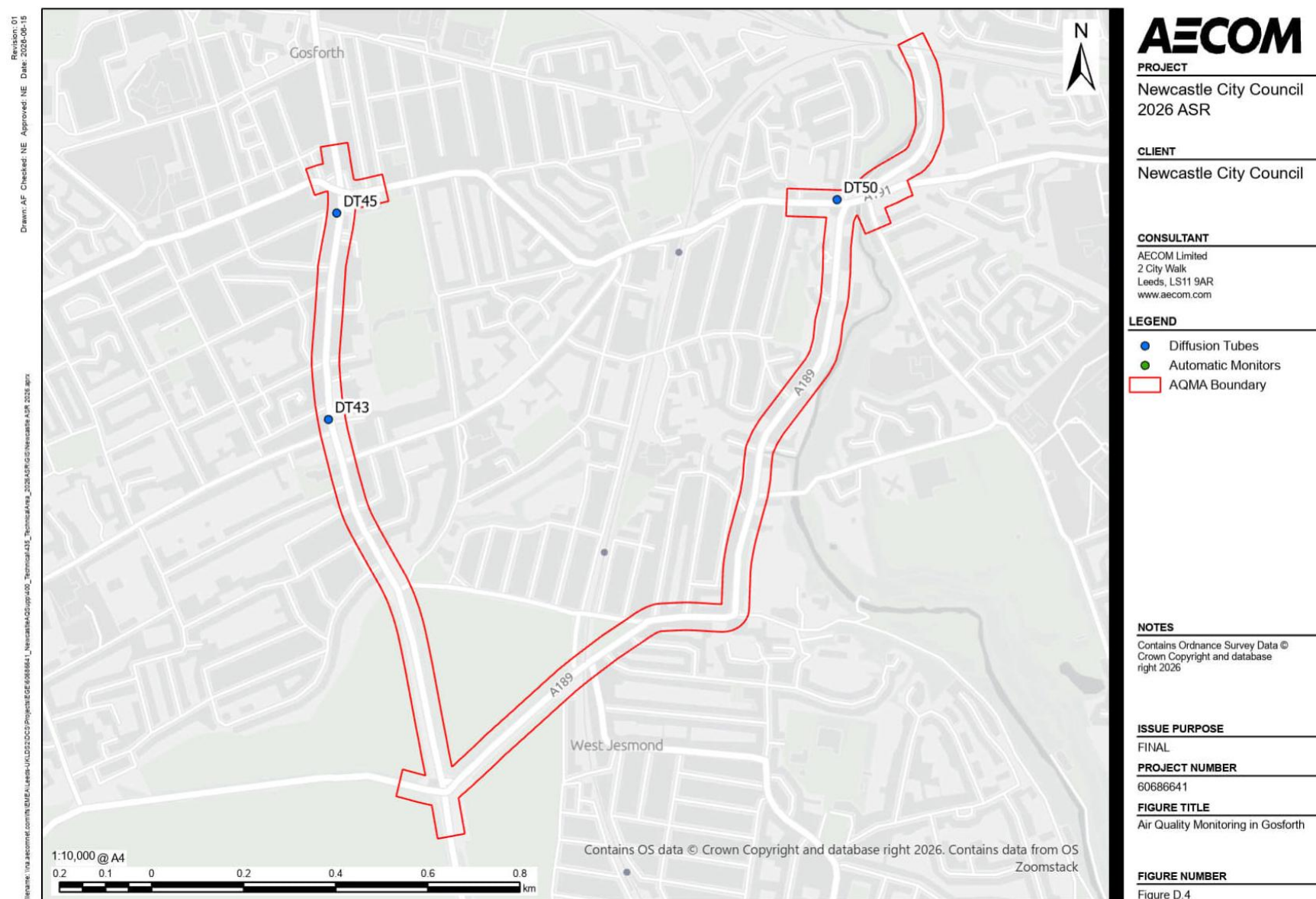


Figure D.5 – Air Quality Monitoring to the South-East of Newcastle upon Tyne City Centre

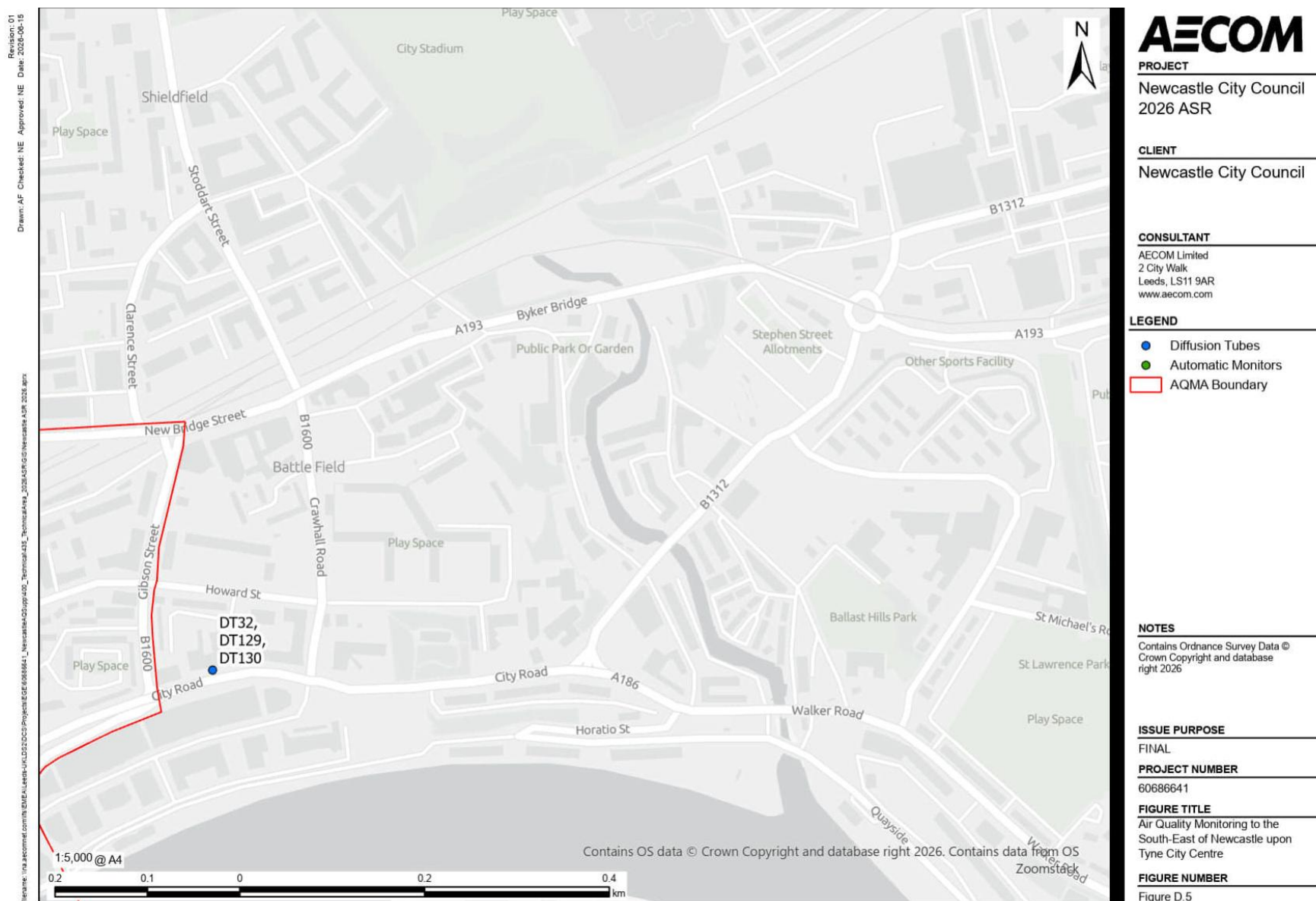
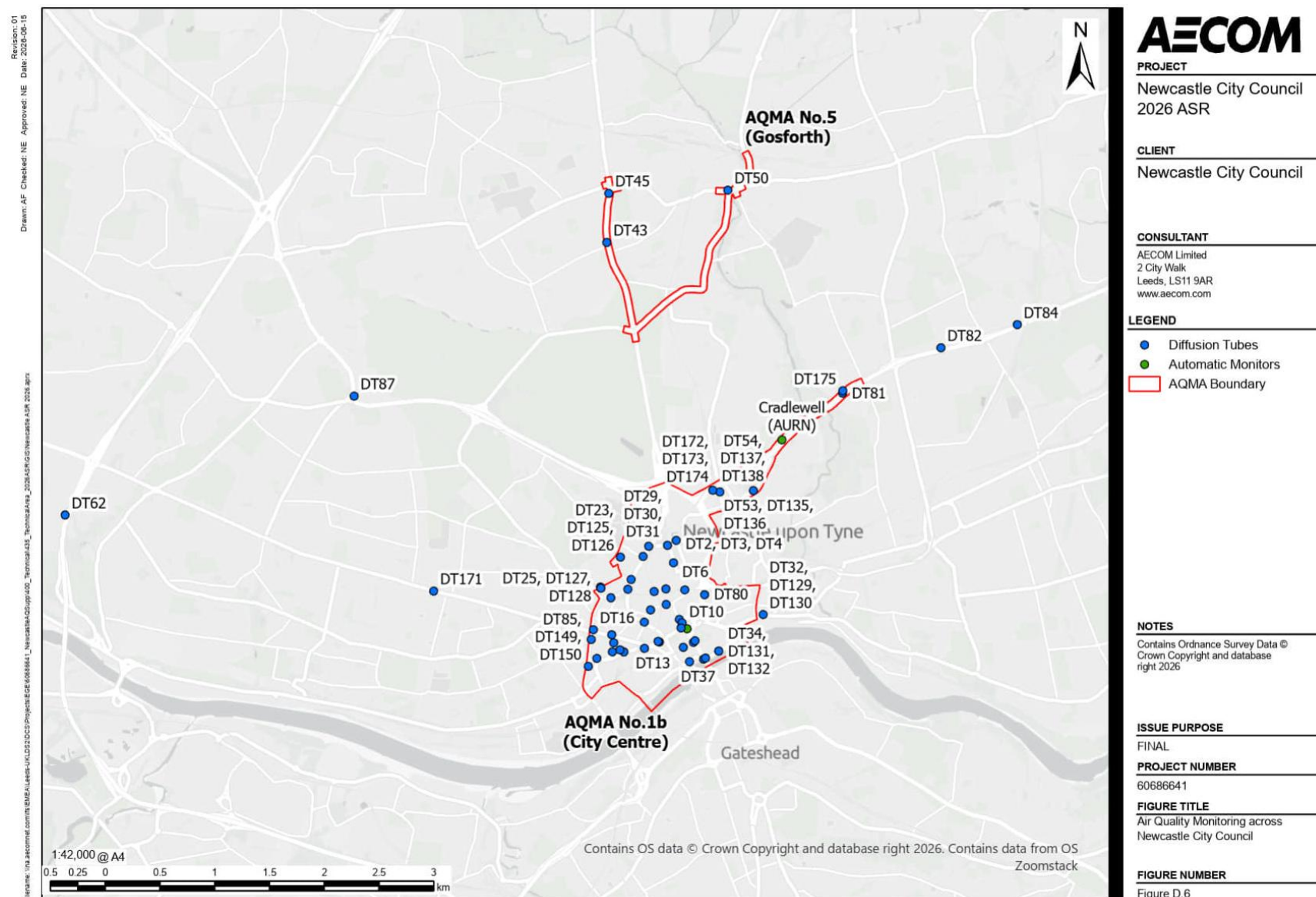


Figure D.6 – Air Quality monitoring across Newcastle City Council

Appendix E: Summary of Air Quality Objectives in England

Table E.1 – Air Quality Objectives in England⁸

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

⁸ The units are in microgrammes of pollutant per cubic metre of air (µg/m³).

Glossary of Terms

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

References

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