



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

Information	South Norfolk and Broadland Details
Local Authority Officer	Will Gorrod
Department	Environmental Protection
Address	Horizon Business Centre, Peachman Way, Norwich NR7 0WF
Telephone	01508 535369
E-mail	cpandeq@southnorfolkandbroadland.gov.uk
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Local Responsibilities and Commitment

This ASR was prepared by the Environmental Protection Department at South Norfolk and Broadland with the support and agreement Norfolk County Council Sustainable Transport Team and Norfolk Public Health as well as following officers:

Officers involved in the preparation of the ASR:

Will Gorrod - Environmental Management Officer



Alison Old – Environmental Quality Team Manager



This ASR has been signed off by a Director of Public Health.

If you have any comments on this ASR please send them to Will Gorrod at:

Environmental Protection Team, South Norfolk and Broadland District Council, Horizon Business Centre, Peachman Way, Norwich, NR7 0WF

cpandeq@southnorfolkandbroadland.gov.uk

Executive Summary: Air Quality in Our Area

Air Quality in South Norfolk and Broadland

Breathing 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.

Air quality across South Norfolk and Broadland has continued to show an overall positive trend, with no exceedances of national air quality objectives recorded during the 2025 reporting year. As such there is no requirement to designate any Air Quality Management Areas (AQMAs) in 2026.

Nitrogen dioxide (NO₂) remains the principal pollutant of concern, primarily linked to emissions from road traffic. Higher concentrations are still generally observed in suburban areas around Norwich and within several market towns; however, these levels remain within the relevant objective limits. While some monitoring data for 2025 indicates slightly higher concentrations compared to 2024, most likely reflecting normal year to year variability the longer-term trend continues to show improvement, as illustrated by the five-year averages presented in Figures A1 and A2.

Monitoring and Developments

- **NO₂ Monitoring:** Passive diffusion tubes continue to operate at 27 sites in South Norfolk and 24 sites in Broadland, providing a robust and consistent long-term dataset for nitrogen dioxide concentrations.
- **PM_{2.5} Monitoring:** Following the deployment of four Zephyr indicative monitors in 2024 to trial particulate matter (PM_{2.5}) monitoring, data from two of these monitors has now been published. The results can be found in Appendix C. These monitors provide valuable real-time, location-specific information, helping to improve

understanding of fine particulate pollution across the districts, as well as diurnal variations in NO₂.

Indicative monitoring and supporting background modelling suggest that the districts are on track to meet the forthcoming national targets for fine particulate matter (PM_{2.5}). Current evidence indicates progress towards achieving the annual mean concentration target of a maximum of 10 µg m³ by 31 December 2040. Continued monitoring and analysis will be undertaken to track progress against long-term Particulate Matter objectives.

We remain committed to improving air quality and will continue to monitor pollutant levels, support the transition to cleaner transport options, and work collaboratively with partners to raise public awareness and promote positive environmental outcomes.

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

Table ES 1 - Description of Key Pollutants

Pollutant	Description
Nitrogen Dioxide (NO ₂)	Nitrogen dioxide is a gas which is generally emitted from high-temperature combustion processes such as road transport or energy generation.
Sulphur Dioxide (SO ₂)	Sulphur dioxide (SO ₂) is a corrosive gas which is predominantly produced from the combustion of coal or crude oil.
Particulate Matter (PM ₁₀ and PM _{2.5})	Particulate matter is everything in the air that is not a gas. Particles can come from natural sources such as pollen, as well as human made sources such as smoke from fires, emissions from industry and dust from tyres and brakes. PM₁₀ refers to particles under 10 micrometres. Fine particulate matter or PM_{2.5} are particles under 2.5 micrometres.

Actions to Improve Air Quality

Whilst air quality has improved significantly in recent decades, targeted local action remains important to protect public health and the environment.

The National Air Quality Strategy provides the framework for local authority responsibilities, including delivery against both interim and long-term PM_{2.5} targets, which

are increasingly significant given the growing body of evidence linking fine particulate matter to adverse health outcomes.

In support of these national priorities, South Norfolk and Broadland Councils have continued to expand and refine their local air quality monitoring programme. As of the 2025 reporting year, the councils have deployed:

- 4 Zephyr monitors
- 2 Praxis monitors (trialled but not adopted)

These indicative monitors are strengthening the local evidence base, providing improved spatial and temporal understanding of particulate pollution.

To ensure that monitoring efforts are appropriately targeted, a multi-source, evidence-led methodology has been used to identify communities that may be more vulnerable to the effects of air pollution across South Norfolk and Broadland. This approach draws upon a combination of health, environmental and socio-demographic datasets, including:

1. Health risk and life expectancy data
2. Deprivation mapping
3. Health outcomes, including COPD admissions
4. Vulnerability indices developed by UKHSA
5. Strategic considerations for monitoring deployment

Further detail is provided in Section 2.3.

This targeted approach helps ensure that both monitoring and mitigation measures are focused where they are likely to have the greatest impact.

An Interim Air Quality Strategy has been developed locally, with a final version currently being prepared and expected to be published later in 2026.

The councils continue to regulate industrial emissions through the Local Air Pollution Prevention and Control (LAPPC) and Local Authority Integrated Pollution Prevention and Control (LA-IPPC) regimes, ensuring that permitted processes operate in line with national environmental standards. Air quality considerations also remain integral to the planning process, helping to ensure that new development does not adversely affect local air quality.

In terms of sustainable transport, the councils continue to support the work of Norfolk County Council to reduce emissions from transport. Initiatives such as the use of cargo bikes and the expansion of electric bus services into the districts are helping to reduce reliance on conventional vehicles and encourage lower-emission travel options. During 2025, park and ride contracts with Norfolk County Council are being renewed, with plans to introduce an expanded electric bus fleet alongside the existing network, further contributing to emissions reduction across the area.

Conclusions and Priorities

Air quality across both South Norfolk and Broadland continues to meet national standards. All monitored nitrogen dioxide (NO₂) concentrations remain below the relevant air quality objective thresholds, and no further detailed assessment is required. The Council will therefore proceed to the 2027 Annual Status Report (ASR).

Key Observations

- NO₂ levels remain low overall and continue to demonstrate a generally downward long-term trend, consistent with previous years.
- While some 2025 monitoring data indicates slightly higher concentrations compared with 2024, the longer-term picture remains positive, with five-year averages (Figures A1 and A2) continuing to show overall improvement.
- The diffusion tube monitoring network is kept under regular review. Several consistently low-reading locations have been rationalised and replaced where appropriate to better reflect current exposure conditions and improve spatial coverage.
- Indicative PM_{2.5} monitoring suggests concentrations are at or below long-term objective level set under the Environment Act 2021. However, the data also indicates that a significant proportion of measured particulate pollution is likely attributable to regional or background sources, including long-range transport and non-local emissions. This interpretation will continue to be refined as further data becomes available and supports the broader exposure reduction approach.

Monitoring Improvements

- Deployment of indicative monitors capable of continuously measuring NO₂, PM₁₀, and PM_{2.5} continues to enhance understanding of local air quality patterns.

- Data from two Zephyr monitors has now been published, with results presented in Appendix C.
- These datasets are providing improved insight into both spatial variation and diurnal behaviour of pollutants, strengthening evidence for future decision-making and public engagement.

Community Engagement and Education

- Since 2022, the Council has delivered targeted education campaigns focused on the impacts of domestic wood burning, particularly when used as a secondary heating source.
- In 2027, the Council will support and promote Clean Air Night, an initiative designed to raise awareness of the effects of domestic combustion on air quality.
- The Local Air Quality Strategy has now been completed and is currently awaiting Member approval, expected in the third quarter of 2026.
- In 2026, for the first time, in partnership with other internal departments we will introduce a grant funding scheme supporting projects that use trees and shrubs to create natural air pollution barriers and improve local environmental quality.

Air quality is also embedded within the Council's wider Environmental Strategies, with the following key actions identified:

- Working collaboratively with partners and stakeholders to support positive improvements in air quality, including engagement with universities, transport operators (bus, coach, taxi), freight and haulage operators, schools, and car-sharing initiatives.
- Raising awareness of air quality issues among local businesses and residents.
- Increasing pre-application engagement on air quality matters within the planning process.
- Developing supplementary planning guidance documents relating to air quality.

How to get Involved

For further information on air quality please contact us at:

cpandeq@southnorfolkandbroadland.gov.uk

If the public would like to find out more about air quality in general, there are a number of resources available. These include:

<https://uk-air.defra.gov.uk/> (UK government air quality)

www.airqualityengland.co.uk (A quick reference to air quality information for a variety of local authority areas across England)

www.metoffice.gov.uk/guide/weather/air-quality (Met Office air quality web page)

People can help improve air quality by:

- Walking and cycling or using public transport instead of driving where possible,
- If using a car don't leave the engine running in queues or while waiting for someone.
- Looking for sustainable home energy suppliers who don't use fossil fuel.
- Avoiding burning at home, when possible.
- Planting more trees and greenery

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1 Local Air Quality Management

This report provides an overview of air quality in South Norfolk and Broadland during 2025. 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 South Norfolk and Broadland Councils 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

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.

South Norfolk and Broadland Councils currently do not have any declared AQMAs. A local Air Quality Strategy has been developed to prevent and reduce polluting activities but is subject to councillor approval (estimated to be 3rd quarter 2026). The Local Air Quality Strategy will be available to view on the South Norfolk and Broadland Councils website upon approval.

2.1 Progress and Impact of Measures to address Air Quality in South Norfolk and Broadland

Defra's appraisal of last year's ASR concluded the following:

There are some minor errors which should be corrected but are not required for acceptance of the updated ASR:

- Some subscripts are missing from pollutants throughout the report. **Corrected for 2026.**
- The applied bias adjustment factor has not been included in Tables B.1 and B.2. **This has been amended.**
- No screen grab has been provided of the national bias adjustment factor spreadsheet showing the methodology of selecting the appropriate national bias adjustment factor. **Screengrab provided in Appendix C.**
- Text in the ASR states that there are 27 diffusion tubes within BDC, however Table A.4 shows results for 24 sites. In Table A.2, BN10, BN11 and BN12 appear twice. These errors should be amended prior to publication. **This has been corrected for 2026.**
- SNBDC have included discussion of the Public Health Outcomes Framework fraction of mortality attributable to particulate air pollution for both Councils as well as presenting the trends in comparison the England rates. This is commended and should be included in future reports.
- Figures have been included showing the monitoring results for all sites across the last five years. Although these figures are crowded, they are well complemented by the individual graphs for each site.
- It is encouraging to see that SNBDC carried out additional monitoring with Zephyr and Praxis monitors. In future ASRs, the results from these monitors should be included in a separate appendix.

South Norfolk and Broadland Councils have taken forward a number of direct measures during the current reporting year of 2025 in pursuit of improving local air quality. Details of all measures completed, in progress or planned are set out in Table 2.1. 17 measures are included within Table 2.1, with the type of measure and the progress South Norfolk and Broadland Councils 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 2.1.

Key completed measures are:

- **The opening of the Long Stratton bypass.**
- **Four Zephyr monitors now operational**

South Norfolk and Broadland Councils expect the following measures to be completed over the course of the next reporting year:

- **Approval and publication of the Local Air Quality Strategy**

South Norfolk and Broadland Council's priorities for the coming year are:

- **Increase education and awareness for public, policy makers and officers.**
- **Increase monitoring and information collection capability.**
- **Support pollution prevention and air quality improvement wherever possible.**

South Norfolk and Broadland Councils worked to implement these measures in partnership with the following stakeholders during 2025:

- **Norfolk County Council Sustainable Transport Team**
- **Norfolk County Council Public Health**
- **Other Norfolk District Councils**
- **Norfolk County Council Highways**

The principal challenges and barriers to implementation that South Norfolk and Broadland Councils anticipate facing are funding and policy decisions.

Progress on Local Air Quality Strategy measures has been slower than expected due to delays in councillor approval process.

Table 2.1 – 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	Defra AQ Grant Funding	Funding Status	Estimated Cost of Measure	Measure Status	Reduction in Pollutant / Emission from Measure	Key Performance Indicator	Progress to Date	Comments / Barriers to Implementation
1	Increasing AQ Expertise in local councils through training, guidance, and knowledge sharing.	Collaborative working	Training	2024	N/A	Norfolk District Councils, Norfolk County Council, Natural England	Norfolk Public Health	-	N/A	N/A	On going	N/A	Increased Knowledge for officers and managers.	Quarterly Countywide AQ meetings and seminars.	Regular guest speakers from MMO, NHS, Natural England, Global Action Plan and others to increase AQ knowledge and understanding for officers and managers.
2	Construction of the Long Stratton Bypass	Traffic Management	Strategic highway improvements,	2024	2025	Norfolk County Council, Private Property Developers	Norfolk County Council, Private Property Developers				Completed	Likely significant (results in ASR)	Reducing emissions and energy use and improving residents health and well being	Build completed	Monitoring project in place for NO2 and PM2.5 before and after measure introduced.
3	Publish Local Air Quality Strategy	Policy	Policy	2024	2026	South Norfolk Council, Broadland District Council	South Norfolk Council, Broadland District Council		Funded	No extra expense	On going	N/A	Strategy will be published	To be completed 2025	Due to go to environmental committee for approval (following public consultation) in 2025
4	Continue to Improve Monitoring Network.	Monitoring	Monitoring	2022	2027	Broadland and South Norfolk Council / Norfolk County Council	Environmental Protection Team/ Norfolk Public Health	-	Funded	£4,500 per monitor	On going	N/A	Increased data of pollution hotspots	4 Earthsense Zephyrs and 2 Praxis monitors have been procured by the Environmental Protection Team	We are awaiting funding from public health (NCC) for a further 2 Zephyr monitors.
5	Energy Efficiency of New Build Properties	Policy Guidance and Development Control	Air Quality Planning and Policy Guidance	2005	-	Property Developers	Property Developers				On going	N/A	Reduction of energy bills and energy use	Implemented	Reduction of energy bills and energy use
6	authority for the E.C.O (Energy Company Obligation) scheme	Public Information	Other	2013	-	Broadland and South Norfolk DC's and All L.A's	Broadland and South Norfolk DC's and All L.A's		-		On going	N/A	Reducing emissions and energy use	Providing information when requested	Reducing emissions and energy use
7	Health Improvement Grants	Other	Other	2018	-	Broadland and South Norfolk DC's	Broadland and South Norfolk DC's				On going	N/A	Reducing emissions and energy use and improving	On going	Reducing emissions and energy use and improving resident's health and well being

Measure No.	Measure Title	Category	Classification	Year Measure Introduced in AQAP	Estimated / Actual Completion Date	Organisations Involved	Funding Source	Defra AQ Grant Funding	Funding Status	Estimated Cost of Measure	Measure Status	Reduction in Pollutant / Emission from Measure	Key Performance Indicator	Progress to Date	Comments / Barriers to Implementation
													residents health and well being		
8	Warm Homes Fund	Other	Other	2018	-	Broadland District Council and some housing associations	Broadland District Council and some housing associations				On going	N/A	Reducing emissions and energy use and improving residents health and well being	Planning	Reducing emissions and energy use and improving residents health and well being
9	Community Rail Partnerships	Promoting Travel Alternatives	Promote use of rail and inland waterways	1997	-	Norfolk Community Rail Partnership	Norfolk Community Rail Partnership, Local Rail Operator				On going	N/A	Individual up take	On going	Reducing emissions and congestion
10	Norfolk Bus Passenger Charter	Promoting Alternatives to private vehicle use	Low Emissions Strategy	2018	-	Norfolk County Council	Norfolk County Council				On going	N/A	Collaborative working to improve air quality within the Greater Norwich Area through various projects and initiatives	On going	Enhanced partnership in place between Norfolk County Council and local operators, as well as a Bus Service Improvement Plan which is delivering a range of new/enhanced bus services, fare discounts, bus stop improvements, travel hub works and bus priority schemes. There have been positive improvements in bus passenger numbers across the county, these have increased by 26% since 2022
11	Air Quality Countywide Meetings	Other	Other	2023	-	Broadland District Council, South Norfolk Council, Norwich City Council, Norfolk County Council, Breckland Council, Great Yarmouth Council, West Norfolk Council	Broadland District Council, South Norfolk Council, Norwich City Council, Norfolk County Council, Breckland Council, Great Yarmouth Council, West Norfolk Council				On going	N/A	Collaborative working to improve air quality within Norfolk through various projects and initiatives	On going	Collaborative working to improve air quality within the Norfolk through various projects and initiatives including through joint bids for funding
12	Bike/Scooter/E-Bike Hire Scheme Introduction	Public Transportation	Other	2023	-	Norfolk County Council	Norfolk County Council				On going	N/A	Individual take up	On going	Reducing emissions and congestion

Measure No.	Measure Title	Category	Classification	Year Measure Introduced in AQAP	Estimated / Actual Completion Date	Organisations Involved	Funding Source	Defra AQ Grant Funding	Funding Status	Estimated Cost of Measure	Measure Status	Reduction in Pollutant / Emission from Measure	Key Performance Indicator	Progress to Date	Comments / Barriers to Implementation
13	Cargo Bike Library for Businesses	Public Transportation	Other	2023	2025	Norfolk County Council	Defra	Yes			On going	N/A	Business take up	On going	Original project has now completed, however NCC is still working with businesses to monitor ongoing use of cargo bike fleet.
14	New Electric Bus Schemes	Public Transportation	Other	2023	-	Norfolk County Council	Norfolk County Council				On going	N/A	Number of Busses	On going	70 electric buses have now been added to the fleet in Norfolk and are running on a range of routes through Norwich and beyond. 2025 update: Another agreement has been made with First Bus for the joint funding of additional electric buses including 14 for Norwich and the surrounding area as well as infrastructure at additional depots.
15	Cycling, walking and wheeling improvements	Public Transportation	Other			Norfolk County Council, South Norfolk and Broadland Councils	Norfolk County Council				On going	N/A	Individual take up	On going	Work to deliver the Greater Norwich Local Cycling and Walking Infrastructure Plan to improve cycling, walking and wheeling facilities
16	Electric vehicle charge points	Low Emission Technology	Other			Norfolk County Council, South Norfolk and Broadland Councils	Norfolk County Council				On going	N/A	Individual take up	Norfolk County Council and South Norfolk and Broadland Council's have collaborated on procurement of EV charge-points as well as on joint-funding for EV schemes. There are also proposals for additional EV charge points in Broadland car parks to be funded by the Local Electric Vehicle Infrastructure (LEVI) fund which Norfolk County Council manages.	Increase availability of EV charge points across the area, to promote EV update and ensure EV charging is considered in relevant Climate/Environmental strategies and policies

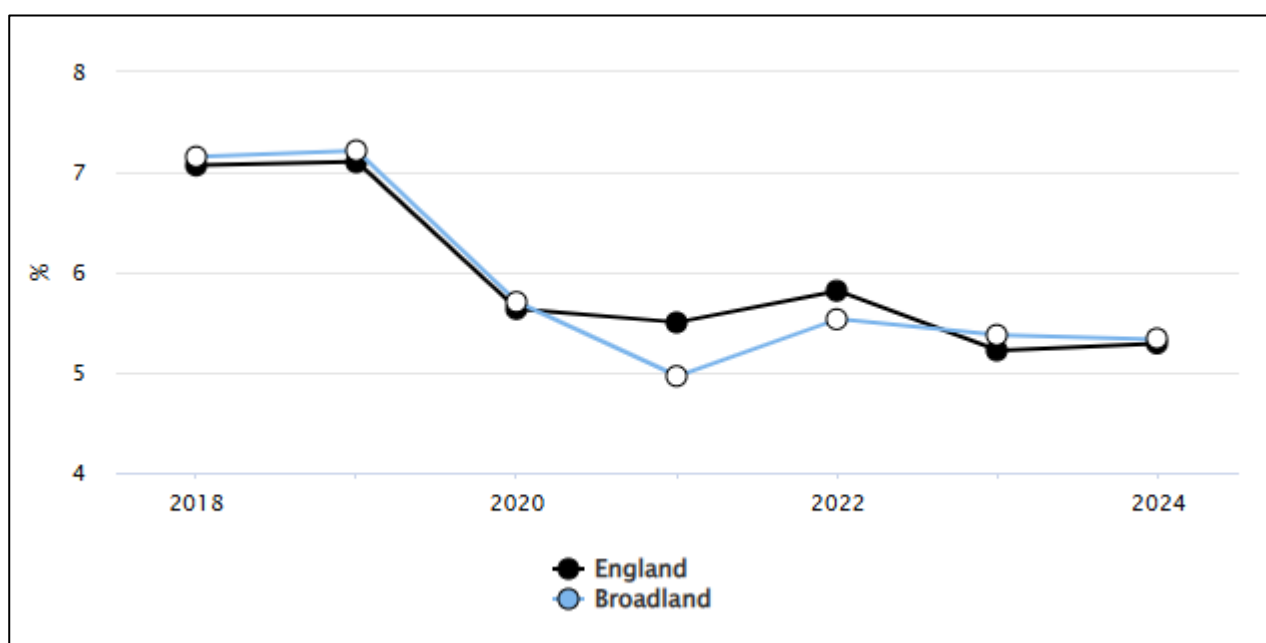
Measure No.	Measure Title	Category	Classification	Year Measure Introduced in AQAP	Estimated / Actual Completion Date	Organisations Involved	Funding Source	Defra AQ Grant Funding	Funding Status	Estimated Cost of Measure	Measure Status	Reduction in Pollutant / Emission from Measure	Key Performance Indicator	Progress to Date	Comments / Barriers to Implementation
17	School Travel Plans	Promoting travel alternatives	School Travel Plans	2024	Ongoing	Norfolk County Council	Norfolk County Council				Ongoing	N/A	Individual take up	A review is being undertaken to identify whether a comprehensive programme of support can be offered to schools to support more pupils travelling to school actively	Norfolk County Council already funds access to Modeshift Stars software for all schools, enabling them to generate and manage their own travel plans, with the ambition to have the majority of schools with an up to date school travel plan. Options being explored for all schools in Norfolk to provide information on mode travelled to school throughout the academic year to provide baseline data to measure progress against.

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

As detailed in Policy Guidance LAQM.PG22 (Chapter 8) and the Air Quality Strategy¹, local authorities are expected to work towards reducing emissions and/or concentrations of fine particulate matter (PM_{2.5}). There is clear evidence that PM_{2.5} (particulate matter smaller 2.5 micrometres) has a significant impact on human health, including premature mortality, allergic reactions, and cardiovascular diseases.

The latest data on the fraction of mortality attributed to particulate air pollution in South Norfolk and Broadland, and how this compares to the average for England can be seen in the charts below (Source: The Public Health Outcome Framework, 2026).

Plot A.1 – Fraction of Mortality Attributable to Particulate Air Pollution (Broadland)

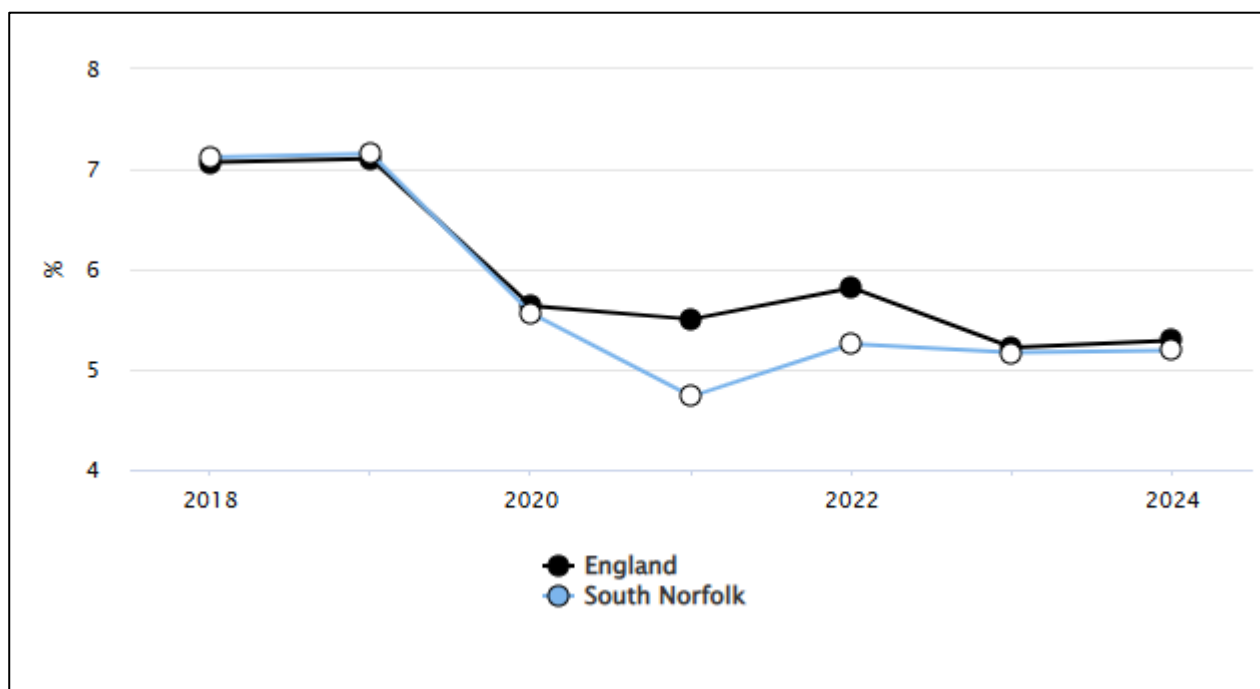


Public Health Outcome Framework, 2026². Background annual average PM_{2.5} concentrations for the year of interest are modelled on a 1km x 1km grid using an air dispersion model, and calibrated using measured concentrations taken from background sites in Defra's Automatic Urban and Rural Network (<https://uk-air.defra.gov.uk/interactive-map>).

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

² Fingertips | Department of Health and Social Care

Plot A.2 – Fraction of Mortality Attributable to Particulate Air Pollution (South Norfolk)



South Norfolk and Broadland Councils are taking the following measures to address PM_{2.5}:

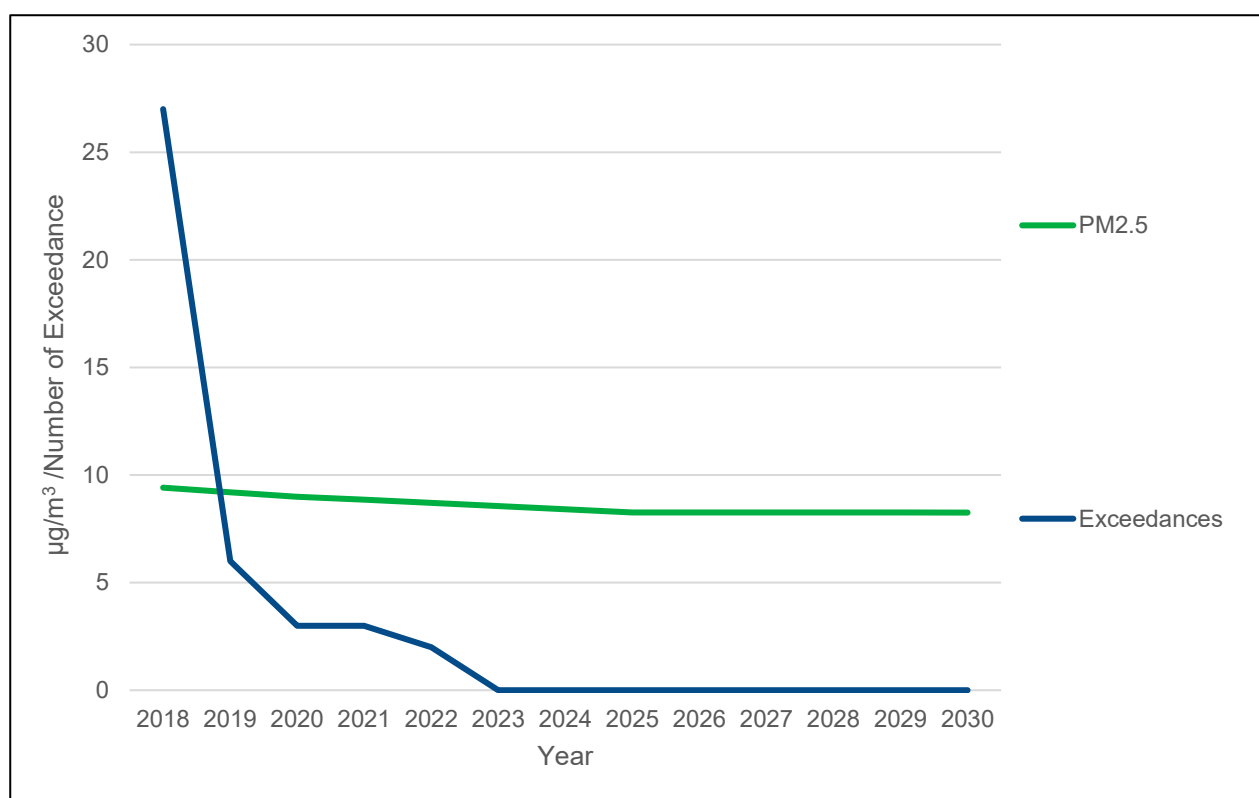
- Establishing a programme for monitoring particulate matter across the districts to understand levels and any areas of concern.
- The Councils continue to ensure regular two-way engagement with representatives of the Office for Health Improvement and Social Care, and the Director of Public Health at Norfolk County Council.
- The Councils are building stronger working relationships with Public Health including encouraging active travel (walking, cycling) to reduce local vehicle use.
- We work with local industrial processes as part of our duties under the Integrated Pollution Prevention and Control Regulations to ensure local air quality is safeguarded.
- We review planning applications for new developments to ensure local air quality is considered via the planning regime.

The Environment Bill was passed in 2020 and subsequent Environment Act 2021 has been published. The Environment Act 2021 establishes a legally binding duty on government to bring two new air quality targets into secondary legislation. This duty sits within the environmental target's framework outlined in the Environment Act (Part 1). The air quality targets set under the Act are:

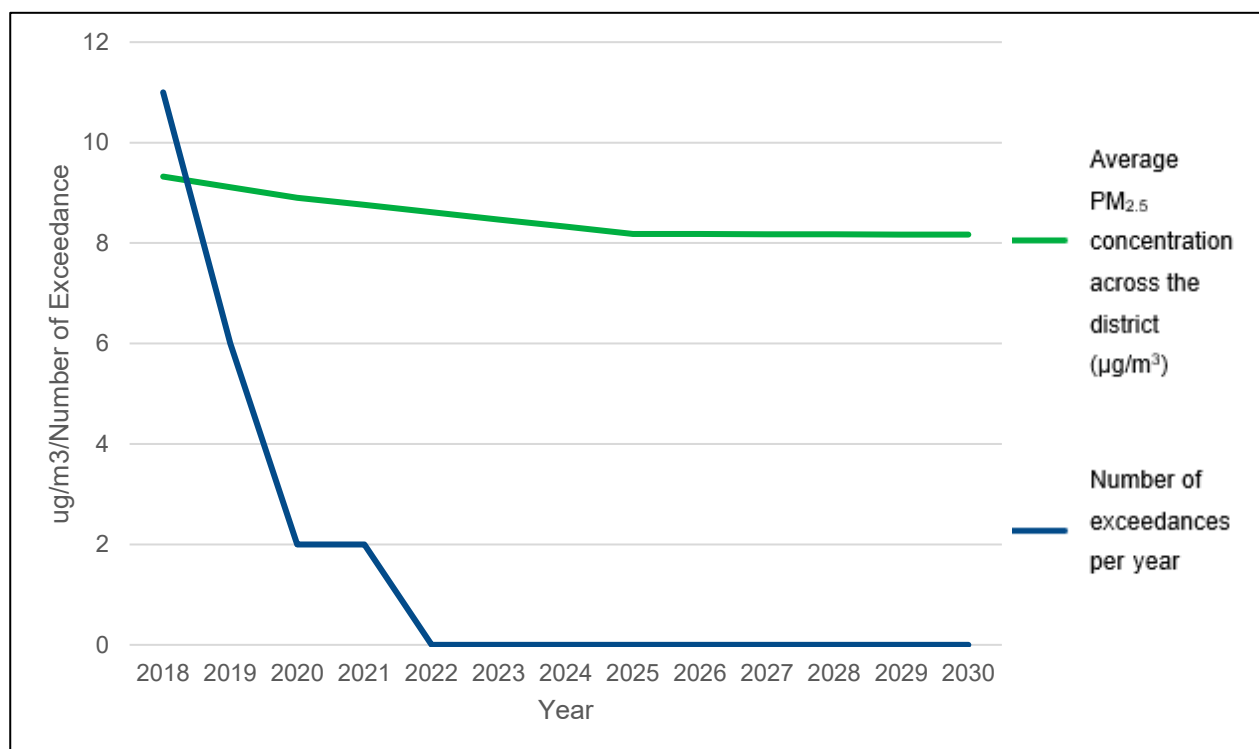
- Annual Mean Concentration Target ('concentration target') - a maximum concentration of $10\mu\text{g}/\text{m}^3$ to be met across England by 2040
- Population Exposure Reduction Target ('exposure target') - a 35% reduction in population exposure by 2040 (compared to a base year of 2018).

Broadland District Council and South Norfolk District Council have both referred to the DEFRA background concentration data³ to consider $\text{PM}_{2.5}$ across the districts as well as using indicative monitoring data. This data has been used to assess if the background concentrations are above the relevant air quality targets. Average background concentration projections (shown in plot A.3 and A.4 below) for both councils show that both councils are already below the Environment Act 2021 annual mean concentration target.

Plot A.3 - Projected South Norfolk $\text{PM}_{2.5}$ /Modelled Exceedances 2018-2030



³ Background Mapping data for local authorities - Defra, UK

Plot A.4 - Projected Broadland PM_{2.5}/Modelled Exceedances 2018-2030

In 2024 South Norfolk and Broadland Councils purchased two ‘Earthsense Zephyr’ indicative PM_{2.5} and NO₂ monitors, which are currently deployed in both districts. This has expanded to four units as of late 2025. Data from 2 of the units can be seen in table C.3, 4 and 5. Data from all 4 of these units will be available in the 2026 reporting year. These units are currently monitoring PM_{2.5} and NO₂ levels at the locations where we have historically recorded the highest NO₂ diffusion tube concentrations in each district. Two further ‘Praxis’ monitors have also been procured with the intension of being used at sites with acute pollution problems, such as building sites. The overall aim of this equipment is to help provide more in-depth knowledge regarding air pollution in both districts. To ensure that the indicative PM_{2.5} monitoring is focused where it is most needed, a multi-source, evidence-based approach was used to identify communities with heightened vulnerability to air pollution across South Norfolk and Broadland. This approach integrated health, environmental, and socio-demographic data:

1. Health Risk and Life Expectancy Data

- The **UEA Health Data Interpretation Group** identified air pollution—particularly PM_{2.5}—as a significant risk factor affecting life expectancy.

- Their analysis showed that even a small reduction in PM2.5 levels could lead to a measurable increase in healthy life expectancy, guiding the prioritisation of areas with higher modelled PM2.5 concentrations.

2. Deprivation Mapping

- Using the **Norfolk Insight Deprivation Map**, areas were assessed based on the **Index of Multiple Deprivation (IMD)**, which includes factors such as income, employment, education, health, and living environment.
- Communities with higher deprivation scores have been prioritised, as these populations are more likely to be affected by environmental stressors, including air pollution.

3. Health Outcomes – COPD Admissions

- Emergency hospital admissions for **Chronic Obstructive Pulmonary Disease (COPD)** were analysed at the ward level using data from **Public Health at Norfolk County Council**.
- While COPD is not directly caused by air pollution, high admission rates may indicate areas where pollution could be exacerbating existing health conditions, warranting further investigation.

4. Vulnerability Index from UKHSA

- A **pilot vulnerability indicator** developed by the UK Health Security Agency (UKHSA) was used to rank areas by their population-level vulnerability to air pollution.
- This index considered age demographics, deprivation, proximity to sensitive sites (e.g. schools, care homes), and modelled pollution levels (NO₂ and PM2.5).

3 5. Strategic Monitoring Deployment

- Based on these data sources, areas with overlapping indicators of vulnerability—such as high deprivation, elevated PM2.5, and health sensitivity—were selected for the deployment of Zephyr indicative monitors.
- This targeted approach ensures that monitoring efforts are both equitable and impactful, focusing on communities where interventions could yield the greatest health benefits.

- With monitoring now in place, we can begin to explore tailored interventions appropriate to each community's needs. These may include:
 - Promoting active travel and cleaner transport options
 - Engaging schools and care facilities in awareness campaigns
 - Supporting local planning decisions that reduce exposure
 - Collaborating with health services to address pollution-related vulnerabilities

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

This section sets out the monitoring undertaken within 2025 by South Norfolk and Broadland Councils 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.

4.1 Summary of Monitoring Undertaken

4.1.1 Non-Automatic Monitoring Sites

South Norfolk and Broadland Councils undertook non-automatic (i.e. passive) monitoring of NO₂ at 51 sites during 2025. Table A1 and A2 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.

4.2 Individual Pollutant

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.

4.2.1 Nitrogen Dioxide

Table A3 and A4 in Appendix A compare the ratified and adjusted monitored NO₂ annual mean concentrations for the past five years with the air quality objective of 40µg/m³. Note that the concentration data presented represents the concentration at the location of the monitoring site, following the application of bias adjustment and annualisation, as required (i.e. the values are exclusive of any consideration to fall-off with distance adjustment).

For diffusion tubes, the full 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.

In 2025 there were no exceedances for NO₂ in both districts. Levels have however, been increasing in several locations when compared to the 2024 reporting year. This pattern appears to be consistent with other nearby districts (Breckland and King's Lynn and West Norfolk). Over a longer timeline levels are on the whole still decreasing (see Table A3 and A4). One diffusion tube was removed in the 2025 reporting year (BN48). This was due to the tube being lost on several occasions, possibly due to theft. A new diffusion tube location (BN49) has been installed. We will be continuing to review diffusion tube locations at the end of the 2026 reporting year.

Appendix A: Monitoring Results

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

Diffusion Tube ID	Site Name	Site Type	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Pollutants Monitored	In AQMA? Which AQMA?	Distance to Relevant Exposure (m) ⁽¹⁾	Distance to kerb of nearest road (m) ⁽²⁾	Tube Co-located with a Continuous Analyser?	Tube Height (m)
DT3	3- 90 THE STREET,PORINGLAND	Suburban	626798	302091	NO2	No		9.0	No	1.5
DT4	4-87 DENMARK ST,DISS	Suburban	611212	279623	NO2	No		2.0	No	2.5
DT5	5-131 VICTORIA RD,DISS	Suburban	611936	279576	NO2	No		3.0	No	1.5
DT7	7- A140 LONG STRATTON	Roadside	619725	292748	NO2	No		1.0	No	2.5
DT8	8- FAIRLAND ST,WYMONDHAM	Kerbside	611107	301436	NO2	No		1.0	No	2.5
DT9	9- KIRBY BEDON ROAD, BIXLEY	Kerbside	625451	306152	NO2	No		2.0	No	2.5
DT11	11- 2 THICKTHORN COTTAGES	Rural	618138	305619	NO2	No		1.0	No	1.5
DT12	12- RIGHTUP LANE,WYMONDHAM	Suburban	611533	300986	NO2	No		2.0	No	2.5
DT15	15- HARLESTON (HOTEL)	Roadside	624476	283267	NO2	No		1.0	No	2.0

Diffusion Tube ID	Site Name	Site Type	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Pollutants Monitored	In AQMA? Which AQMA?	Distance to Relevant Exposure (m) ⁽¹⁾	Distance to kerb of nearest road (m) ⁽²⁾	Tube Co-located with a Continuous Analyser?	Tube Height (m)
DT16	16- DISS ROAD,SCOLE	Roadside	614893	278863	NO2	No		1.0	No	2.0
DT17	17-LONGWATER LANE (NEAR TO SCHOOL)	Roadside	616991	311546	NO2	No		1.0	No	3.0
DT18	18- LS CHINESE	Roadside	619714	292732	NO2	No		1.0	No	2.5
DT19	19- LS TRAFFIC LIGHT EAST	Roadside	619734	292751	NO2	No		8.0	No	2.5
DT20	20- LS FUNERAL DIRECTORS	Suburban	619643	292348	NO2	No		2.0	No	2.0
DT21	21- LS SOUTHBOUND 60 MTRS	Suburban	619696	292656	NO2	No		1.0	No	2.5
DT22	22- LS SWAN LANE CO-OP CHEM	Roadside	619711	292720	NO2	No		15.0	No	2.0
DT24	24- 14 STATION RD,WYMONDHAM	Suburban	611325	301191	NO2	No		1.0	No	1.5
DT25	25- BUS STOP,NWH RD, STRATTON	Roadside	619824	293031	NO2	No		1.0	No	2.5
DT29	29- 25 BROAD ST,HARLESTON	Suburban	624625	283496	NO2	No		7.0	No	2.5
DT30	30 - Morrisons/Parsons Diss	Roadside	611785	279593	NO2	No		1.0	No	2.5
DT32	32 - Bridge Street, Loddon	Roadside	636167	298802	NO2	No		2.0	No	2.0
DT33	33 - Tuttles Lane East, Wymondham	Roadside	612543	302678	NO2	No		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)
DT34	34 - 44 Old Newmarket Road, Cringleford	Suburban	619278	305655	NO2	No		7.0	No	2.0
DT35	35 - Colney Lane / Newmarket Road, Cringleford	Roadside	619730	305855	NO2	No		2.0	No	2.5
DT36	36 - Dereham Road, Costessey	Kerbside	616842	310368	NO2	No		4.0	No	3.0
DT37	37 - Roundwell Medical Centre, Costessey	Suburban	616813	310415	NO2	No		9.0	No	2.0
DT38	38 - The Harte Pub Roundabout, Costessey	Roadside	617193	311669	NO2	No		2.0	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.2 – Details of Non-Automatic Monitoring Sites – Broadland

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)
BN10	BN10 Yarmouth Road, Thorpe St Andrew	Roadside	625369	308437	NO2	No		1.0	No	3.0
BN11	BN11 Reepham Road, Hellsdon	Suburban	621649	311632	NO2	No		8.0	No	2.5
BN12	BN12 10 Boundary Road, Hellsdon	Suburban	621697	311569	NO2	No		6.0	No	2.0
BN13	BN13 214 Milecross Lane, Hellsdon	Suburban	621814	311640	NO2	No		9.0	No	2.0
BN15	BN15 Norwich Road, Wroxham Library Wroxham	Roadside	630113	318014	NO2	No		2.0	No	3.5
BN18	BN18 Middletons Lane, Hellsdon	Roadside	620186	311833	NO2	No		5.0	No	2.5
BN19	BN19 187 Yarmouth Road/Pound Lane, Thorpe St Andrew	Suburban	627492	308775	NO2	No		8.0	No	2.0
BN20	BN20 The Street, Acle	Kerbside	640165	310353	NO2	No		3.0	No	3.5
BN24	BN24 127 Fifers Lane, Hellsdon	Suburban	621466	312666	NO2	No		16.0	No	2.0
BN27	BN27 300 Wroxam Road, Sprowston	Suburban	625505	312473	NO2	No		3.0	No	3.0
BN29	BN29 27 High Street, Cawston	Roadside	613458	323917	NO2	No		2.0	No	3.0

Diffusion Tube ID	Site Name	Site Type	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Pollutants Monitored	In AQMA? Which AQMA?	Distance to Relevant Exposure (m) ⁽¹⁾	Distance to kerb of nearest road (m) ⁽²⁾	Tube Co-located with a Continuous Analyser?	Tube Height (m)
BN30	BN30 Salhouse Road, Sprowston	Roadside	626169	311059	NO2	No		2.0	No	3.0
BN31	BN31 Chartwell Road, Old Catton	Roadside	623259	311310	NO2	No		2.0	No	3.0
BN34	BN34 Cromer Road, Hellsdon	Kerbside	621712	311698	NO2	No		1.0	No	3.0
BN35	BN35 373 Drayton High Road, Hellsdon	Suburban	620206	311723	NO2	No		10.0	No	2.5
BN36	BN36 Norwch Road, Wroxham	Kerbside	629892	317484	NO2	No		1.5	No	3.0
BN41	BN41 High Street Coltishall	Kerbside	626804	319855	NO2	No		5.0	No	2.5
BN42	BN42 Middletons Lane, Hellsdon	Roadside	621244	312899	NO2	No		2.0	No	3.0
BN43	BN43 56 Holt Road, Horsford	Roadside	619440	315682	NO2	No		1.5	No	2.5
BN44	BN44 Station Road, Reepham	Roadside	609926	322883	NO2	No		0.0	No	2.5
BN45	BN45 Red Lion Street, Aylsham	Kerbside	619349	326966	NO2	No		1.0	No	2.0
BN46	BN46 Norwich Road, Coltishall	Roadside	626776	319797	NO2	No		2.0	No	2.5
BN47	BN47 Plumstead Road East / Thunder Lane, Thorpe St Andrew	Suburban	626204	310046	NO2	No		14.0	No	2.0
BN49	BN49 Falcon Road West, Sprowston	Roadside	624843	311806	NO2	No		0.5	No	2.0

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

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
DT3	626798	302091	Suburban		100.0	13.4	13.3	12.1	11.6	12.7
DT4	611212	279623	Suburban		100.0	22.1	22.4	21.3	20.7	21.4
DT5	611936	279576	Suburban		100.0	21.9	21.5	19.0	19.2	20.1
DT7	619725	292748	Roadside		100.0	27.3	25.8	24.4	23.7	19.2
DT8	611107	301436	Kerbside		100.0	15.7	15.5	15.3	13.5	14.8
DT9	625451	306152	Kerbside		100.0	17.9	18.4	16.6	16.3	16.6
DT11	618138	305619	Rural		100.0	10.8	11.4	9.9	9.3	10.3
DT12	611533	300986	Suburban		92.3	18.8	18.7	17.1	15.3	16.2
DT15	624476	283267	Roadside		100.0	21.4	19.9	19.0	18.8	19.5
DT16	614893	278863	Roadside		100.0	14.5	14.6	13.6	13.2	13.9
DT17	616991	311546	Roadside		100.0	22.4	24.6	22.3	18.9	18.7

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
DT18	619714	292732	Roadside		100.0	20.4	20.0	18.9	17.4	16.6
DT19	619734	292751	Roadside		100.0	24.4	24.3	22.8	21.5	27.4
DT20	619643	292348	Suburban		100.0	21.0	21.8	21.1	18.2	16.0
DT21	619696	292656	Suburban		100.0	23.4	21.6	20.2	18.6	16.1
DT22	619711	292720	Roadside		100.0	15.5	16.1	15.1	14.4	13.2
DT24	611325	301191	Suburban		100.0	12.9	13.7	13.2	11.1	12.5
DT25	619824	293031	Roadside		100.0	21.2	21.1	19.8	19.0	16.7
DT29	624625	283496	Suburban		100.0	27.6	23.6	22.3	23.2	23.3
DT30	611785	279593	Roadside		100.0	19.4	17.6	15.8	13.8	16.8
DT32	636167	298802	Roadside		100.0				12.4	14.1
DT33	612543	302678	Roadside		100.0				18.4	19.1
DT34	619278	305655	Suburban		100.0				13.2	13.3
DT35	619730	305855	Roadside		100.0				12.4	14.0

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
DT36	616842	310368	Kerbside		90.4				20.2	21.3
DT37	616813	310415	Suburban		100.0				14.1	15.4
DT38	617193	311669	Roadside		100.0				11.8	12.5

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

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

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

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

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

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

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

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
BN10	625369	308437	Roadside	100.0	100.0	19.3	18.4	18.9	17.9	16.6
BN11	621649	311632	Suburban	100.0	100.0	25.0	23.7	20.1	20.1	21.5
BN12	621697	311569	Suburban	100.0	100.0	21.6	20.7	17.7	17.3	19.1
BN13	621814	311640	Suburban	100.0	100.0	18.8	17.7	15.7	15.8	16.5
BN15	630113	318014	Roadside	92.3	92.3	15.7	17.3	14.7	13.8	15.8
BN18	620186	311833	Roadside	100.0	100.0	14.1	13.5	13.6	12.2	13.0
BN19	627492	308775	Suburban	100.0	100.0	19.0	18.6	18.1	16.9	17.4
BN20	640165	310353	Kerbside	100.0	100.0	16.9	16.8	16.4	16.7	17.3
BN24	621466	312666	Suburban	90.4	90.4	13.8	13.0	12.1	11.9	12.4
BN27	625505	312473	Suburban	100.0	100.0	20.4	21.2	21.7	19.2	17.1
BN29	613458	323917	Roadside	100.0	100.0	14.5	13.9	12.2	11.8	12.8
BN30	626169	311059	Roadside	100.0	100.0	16.7	17.4	18.0	17.1	18.0

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
BN31	623259	311310	Roadside	100.0	100.0	28.4	26.2	23.9	23.7	24.6
BN34	621712	311698	Kerbside	100.0	100.0	30.0	29.0	24.5	26.1	26.4
BN35	620206	311723	Suburban	100.0	100.0	19.0	15.9	15.7	14.3	16.1
BN36	629892	317484	Kerbside	90.4	90.4	21.5	20.6	18.2	18.6	19.2
BN41	626804	319855	Kerbside	100.0	100.0			15.2	15.2	16.4
BN42	621244	312899	Roadside	92.3	92.3				19.5	19.3
BN43	619440	315682	Roadside	100.0	100.0				16.0	17.4
BN44	609926	322883	Roadside	100.0	100.0				17.0	16.8
BN45	619349	326966	Kerbside	100.0	100.0				14.4	16.0
BN46	626776	319797	Roadside	100.0	100.0				16.3	15.8
BN47	626204	310046	Suburban	100.0	100.0				10.7	12.6
BN49	624843	311806	Roadside	100.0	100.0					14.3

☒ **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**.

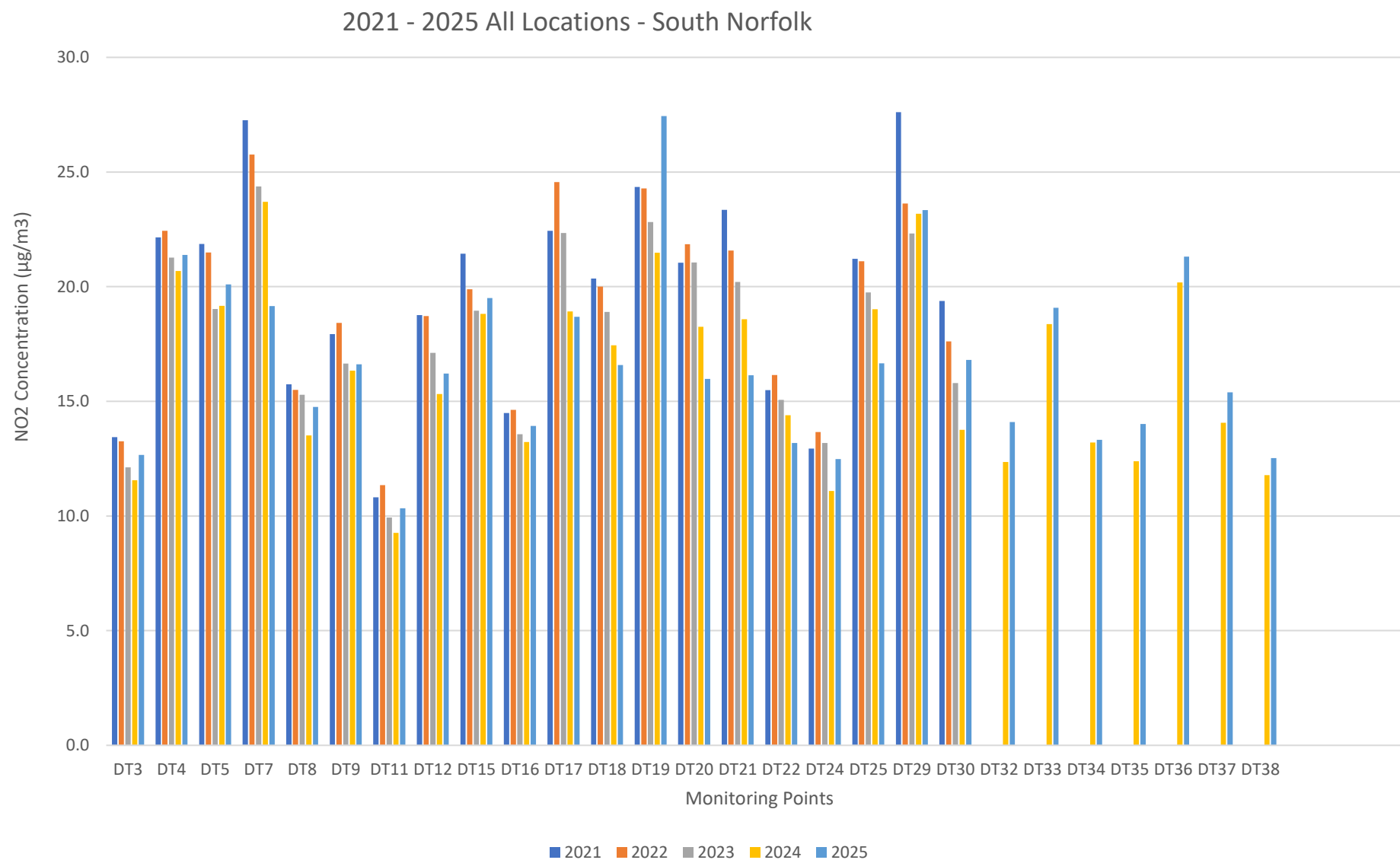
Means for diffusion tubes have been corrected for bias. All means have been “annualised” as per LAQM.TG22 if valid data capture for the full calendar year is less than 75%. See Appendix C for details.

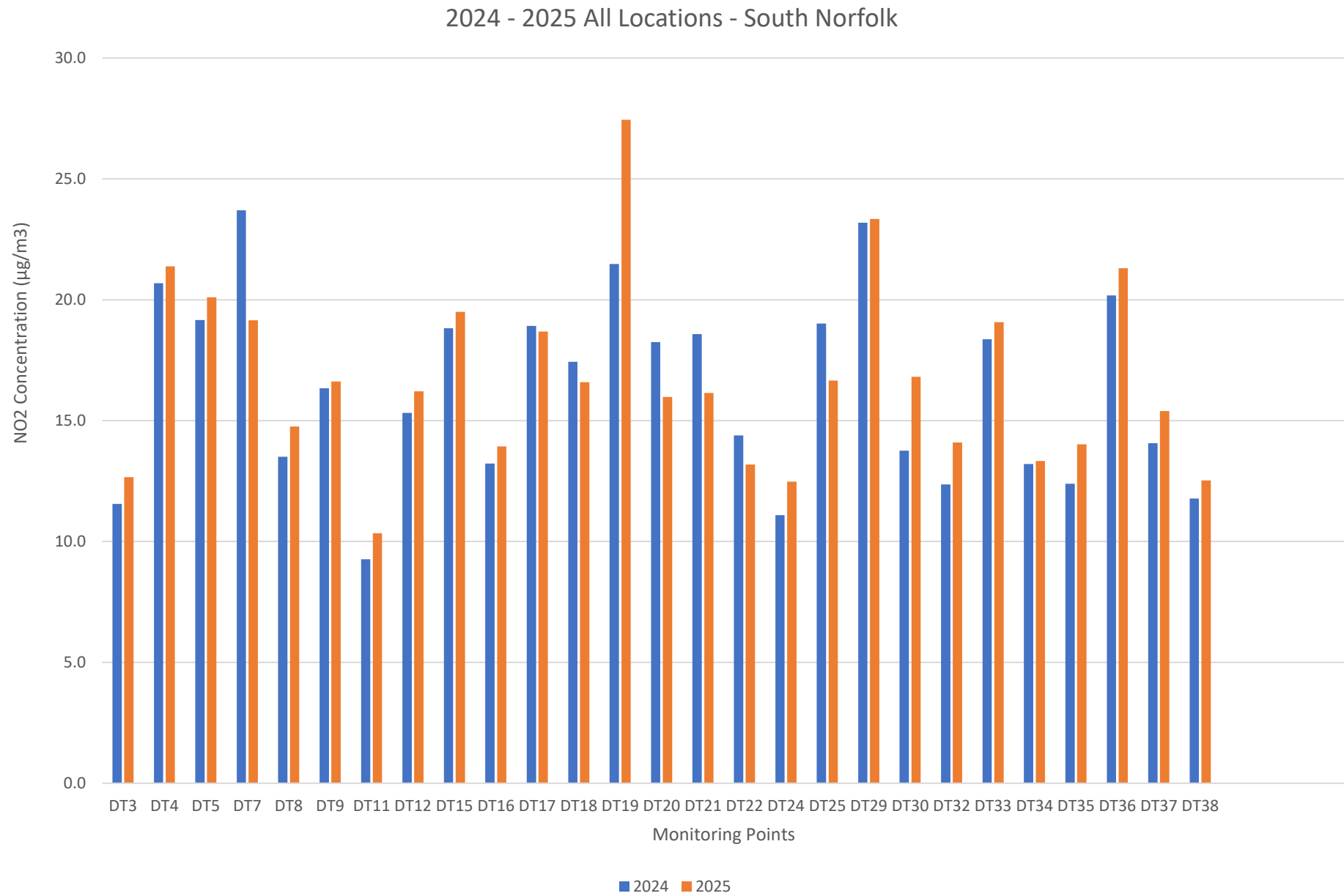
Concentrations are those at the location of monitoring and not those following any fall-off with distance adjustment.

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

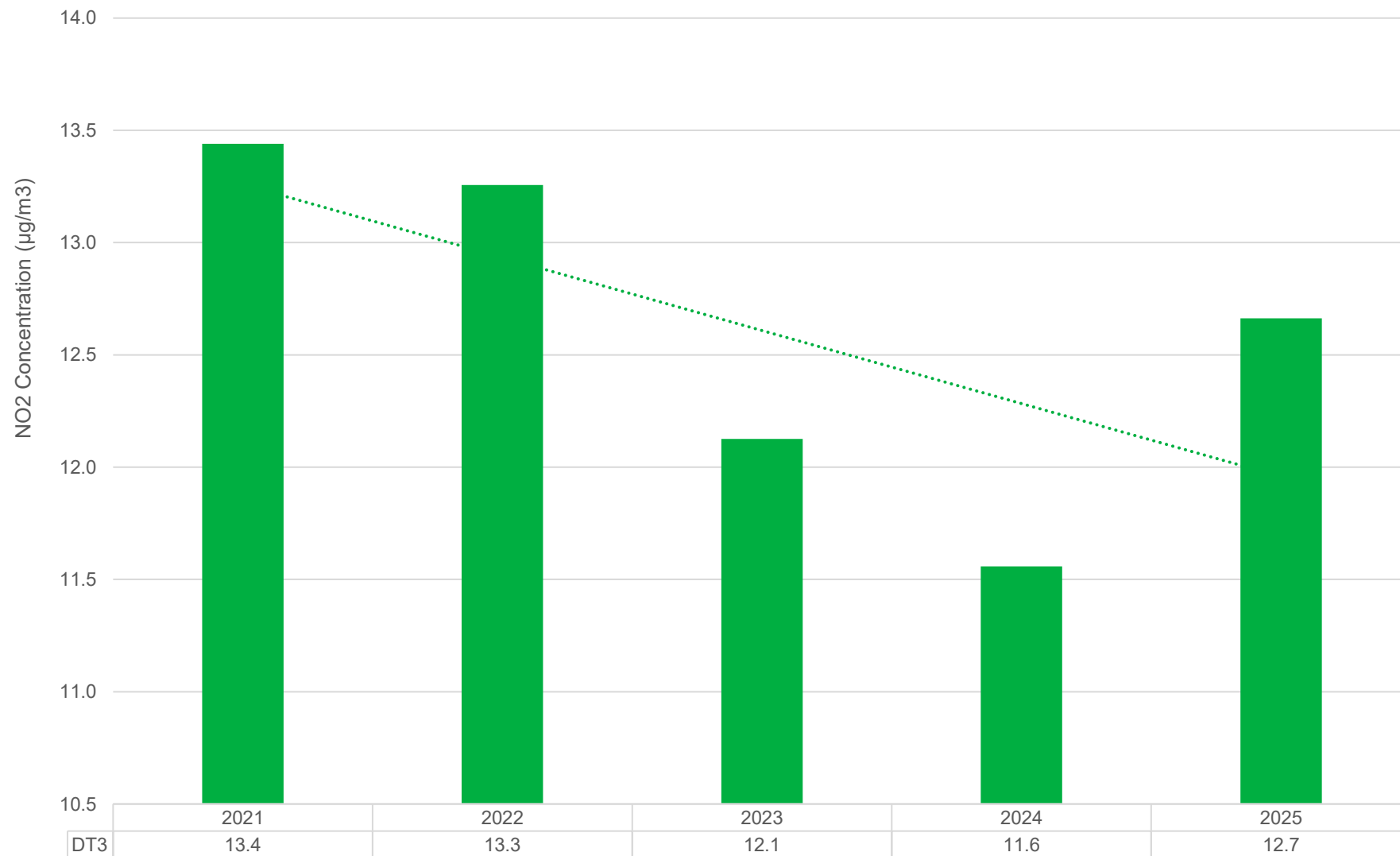
(2) Data capture for the full calendar year (e.g. if monitoring was carried out for 6 months, the maximum data capture for the full calendar year is 50%).

Figure A.1 – Trends in Annual Mean NO₂ Concentration – South Norfolk

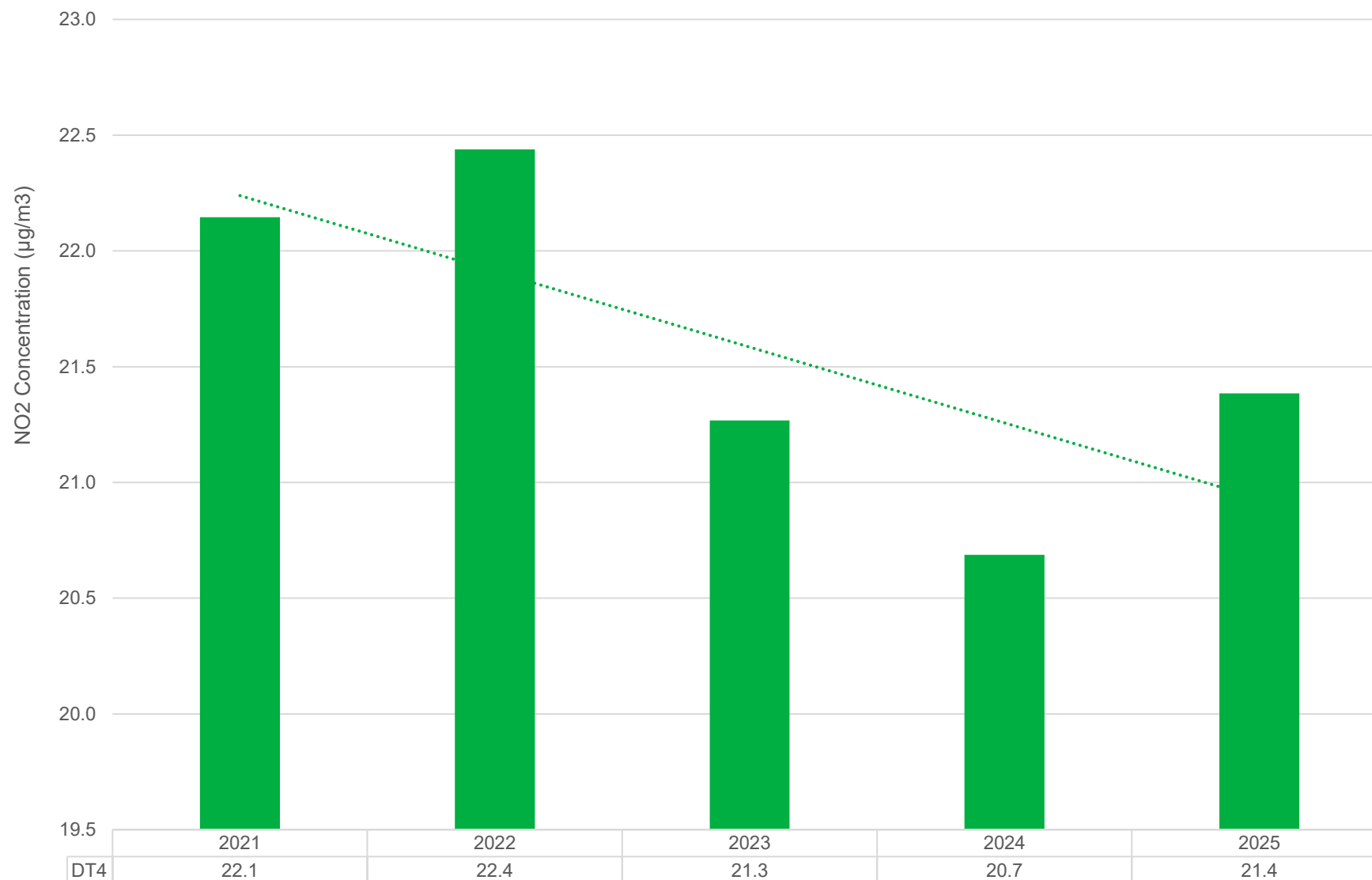




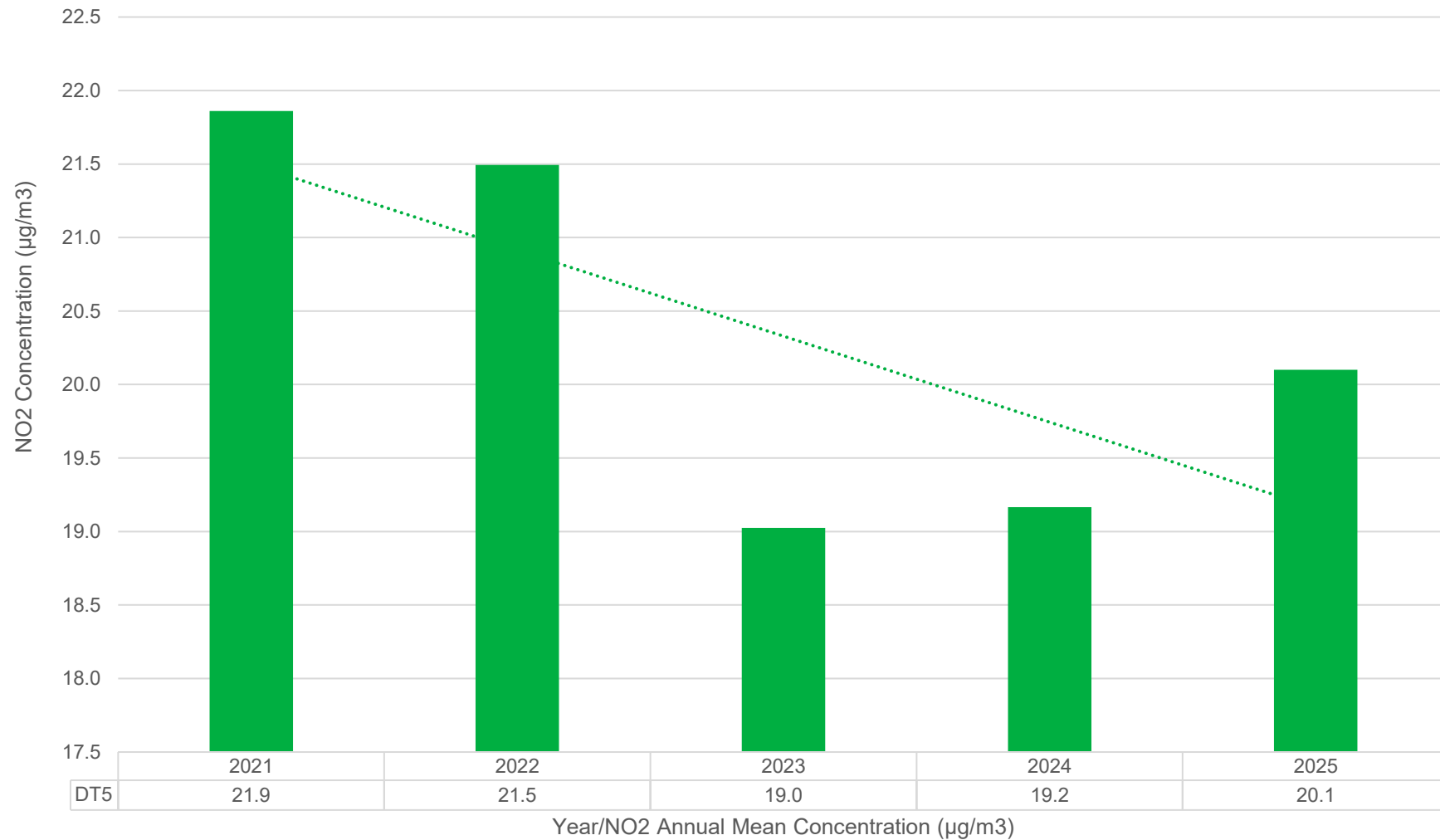
DT3 NO2 Mean Concentrations 2021 - 2025

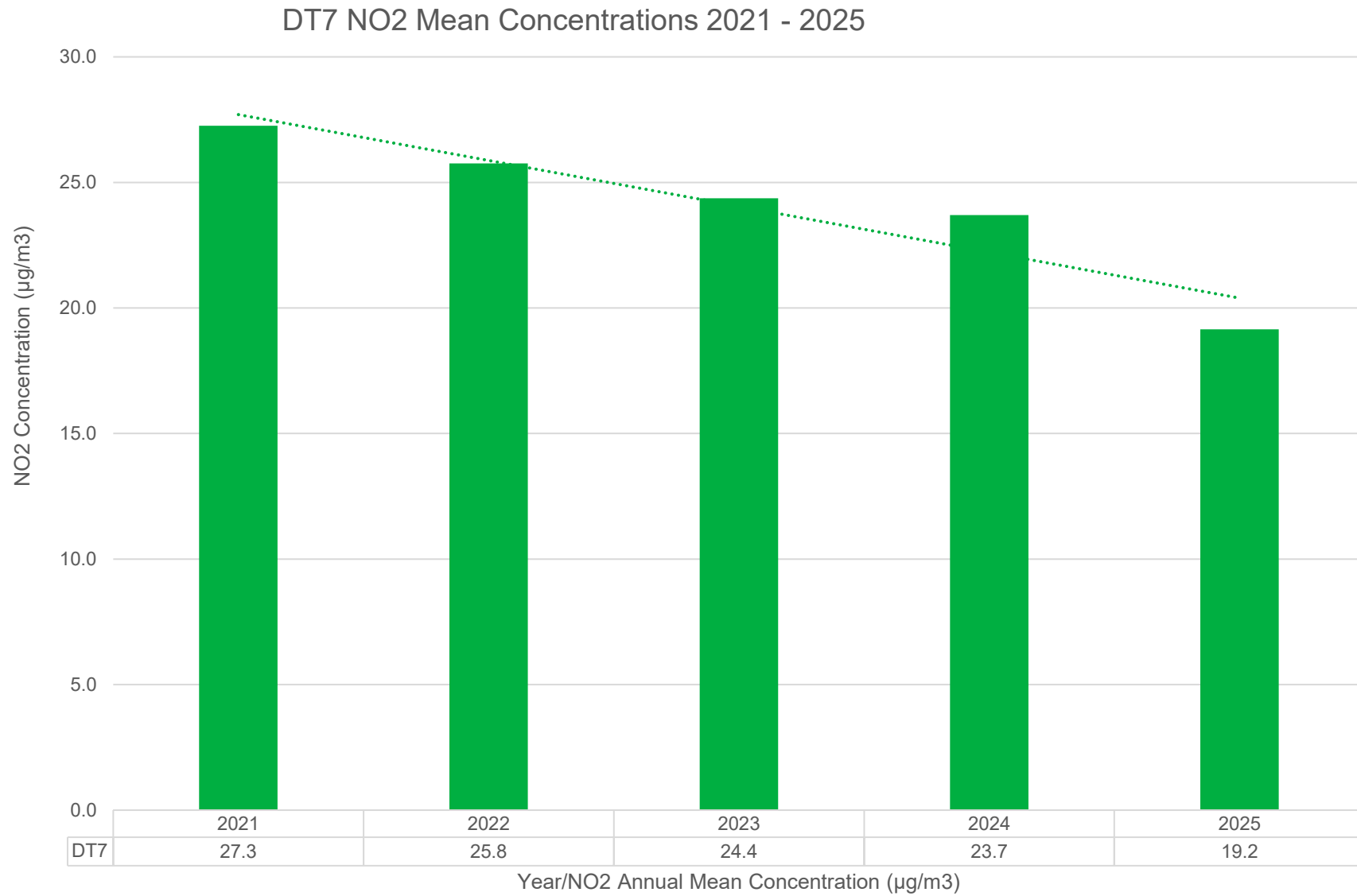


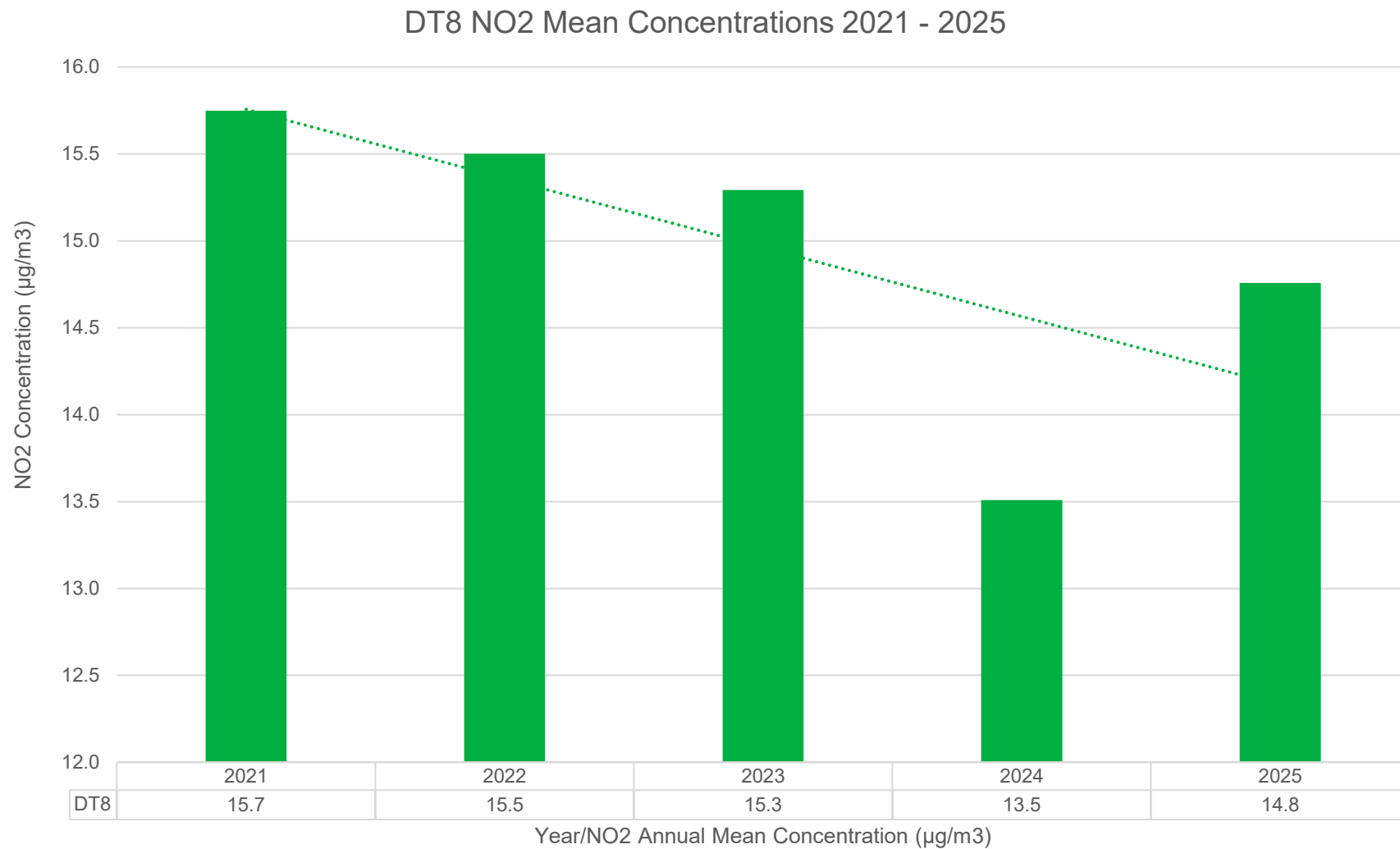
DT4 NO2 Mean Concentrations 2021 - 2025



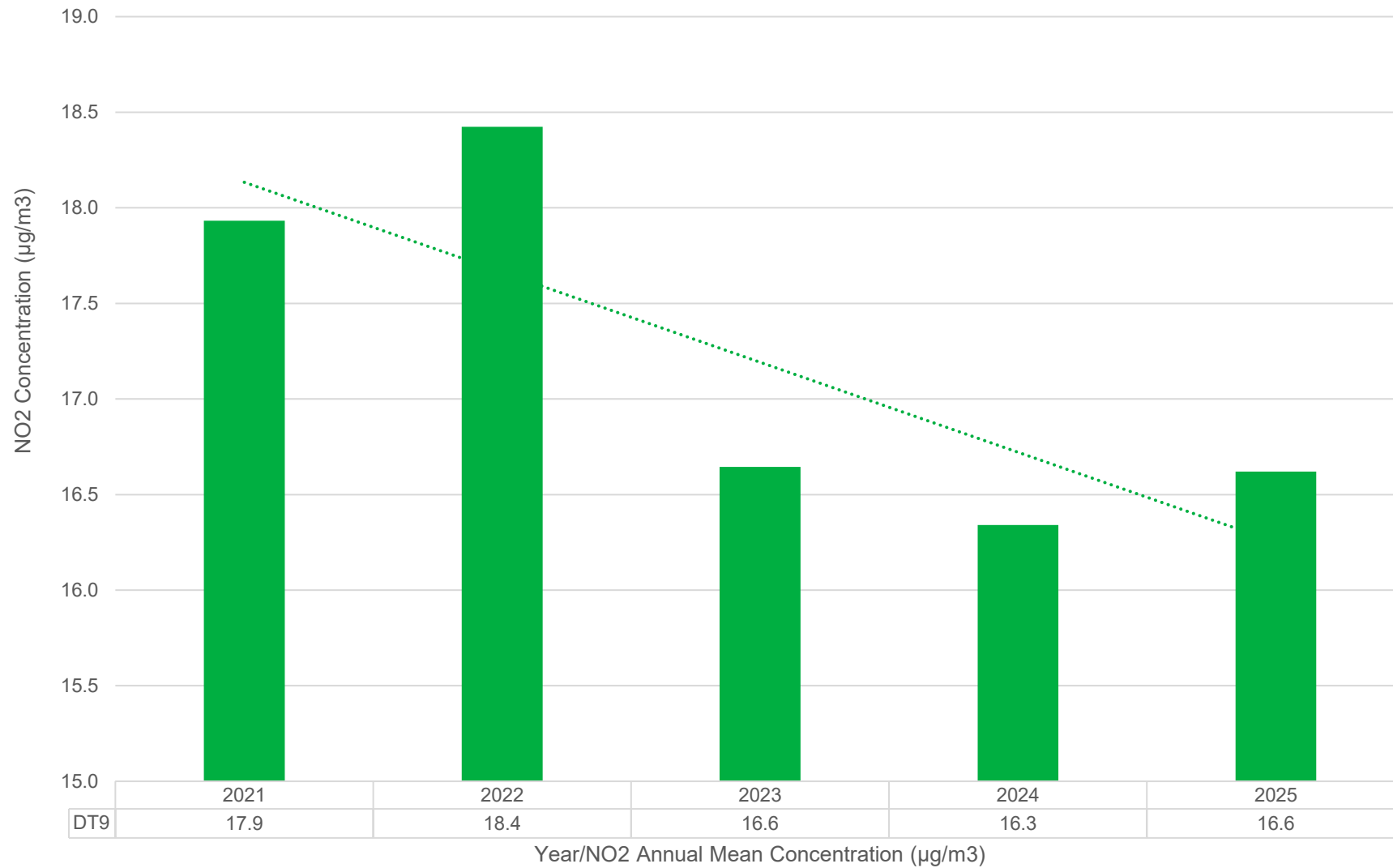
DT5 NO2 Mean Concentrations 2021 - 2025



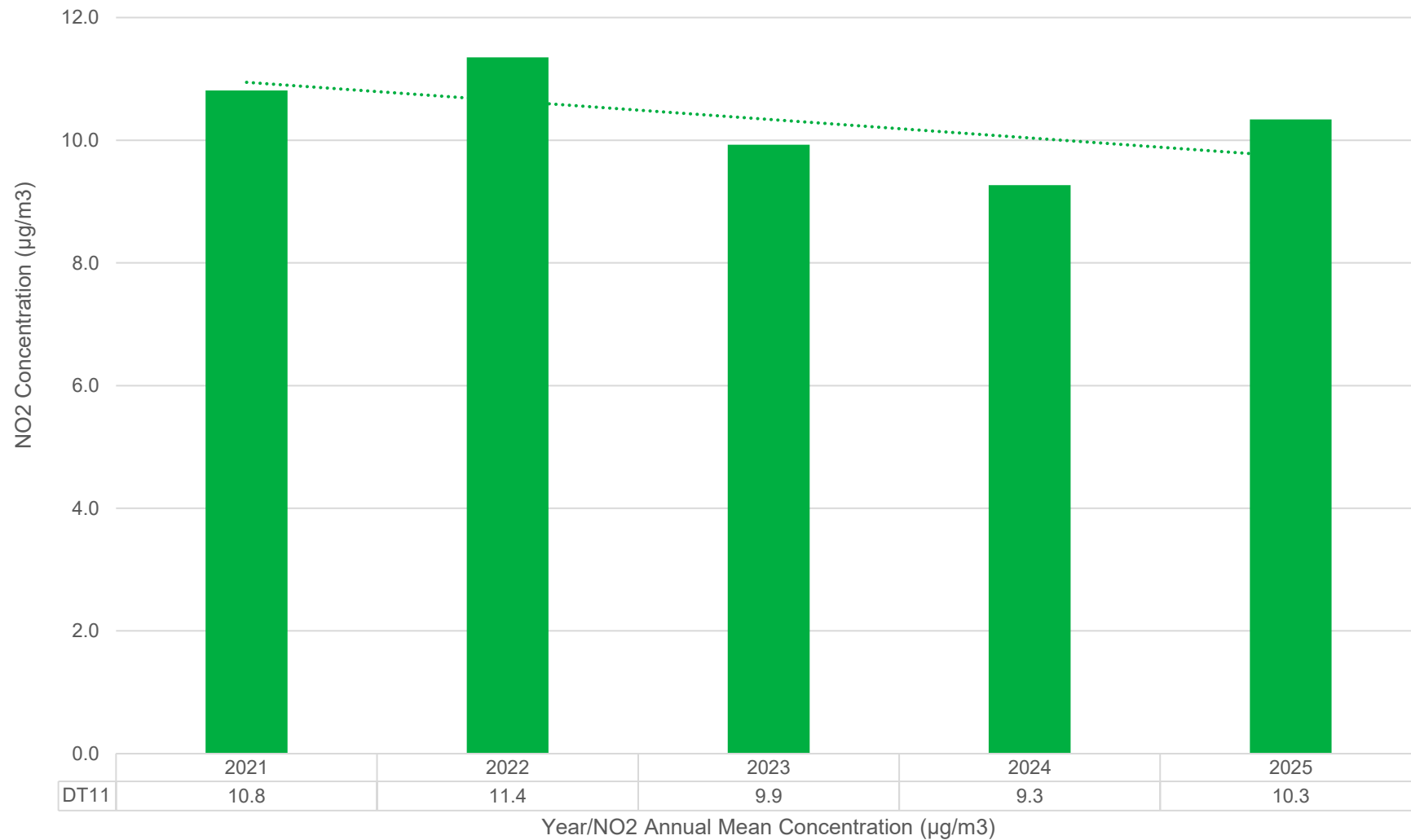


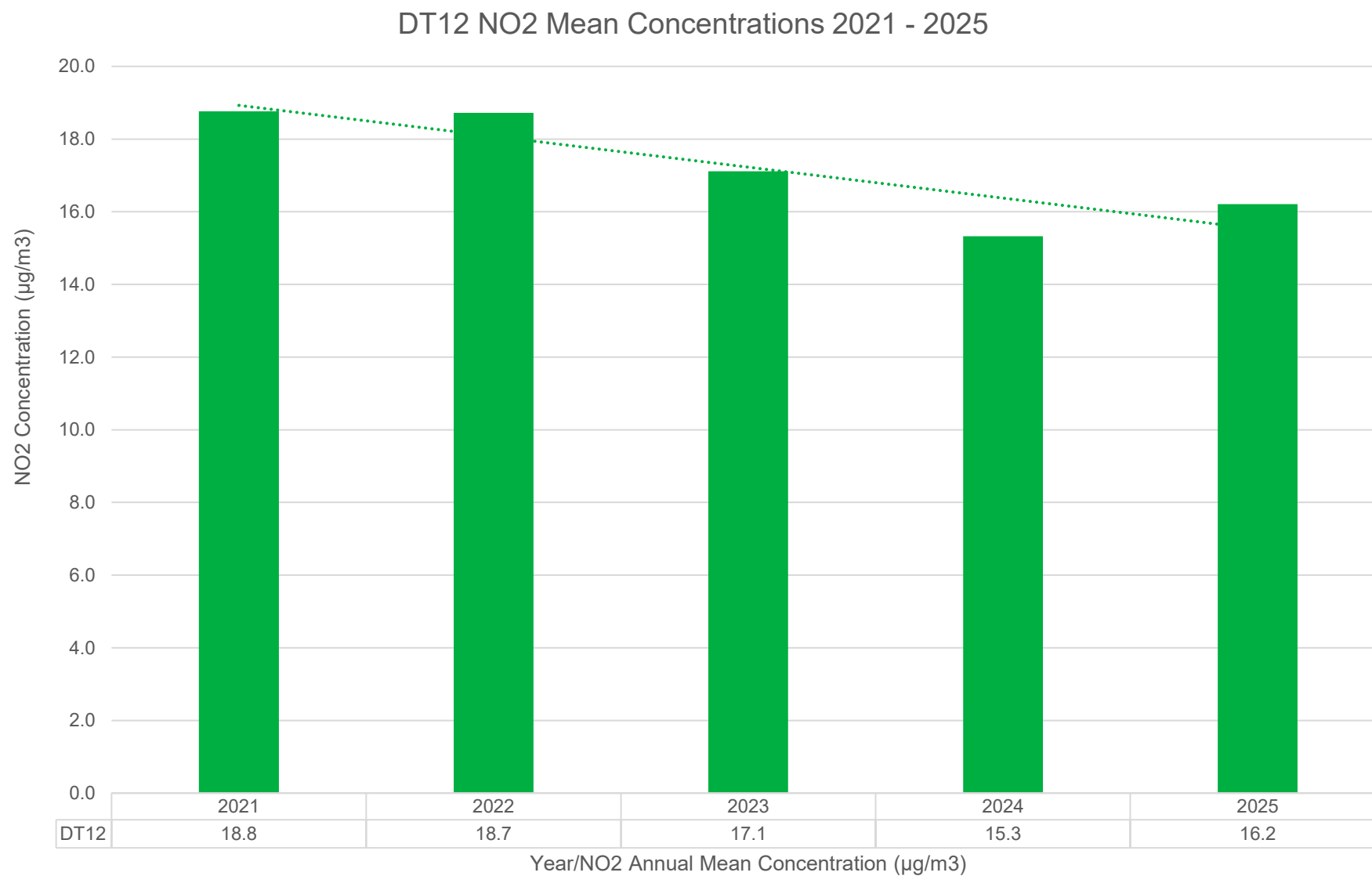


DT9 NO2 Mean Concentrations 2021 - 2025

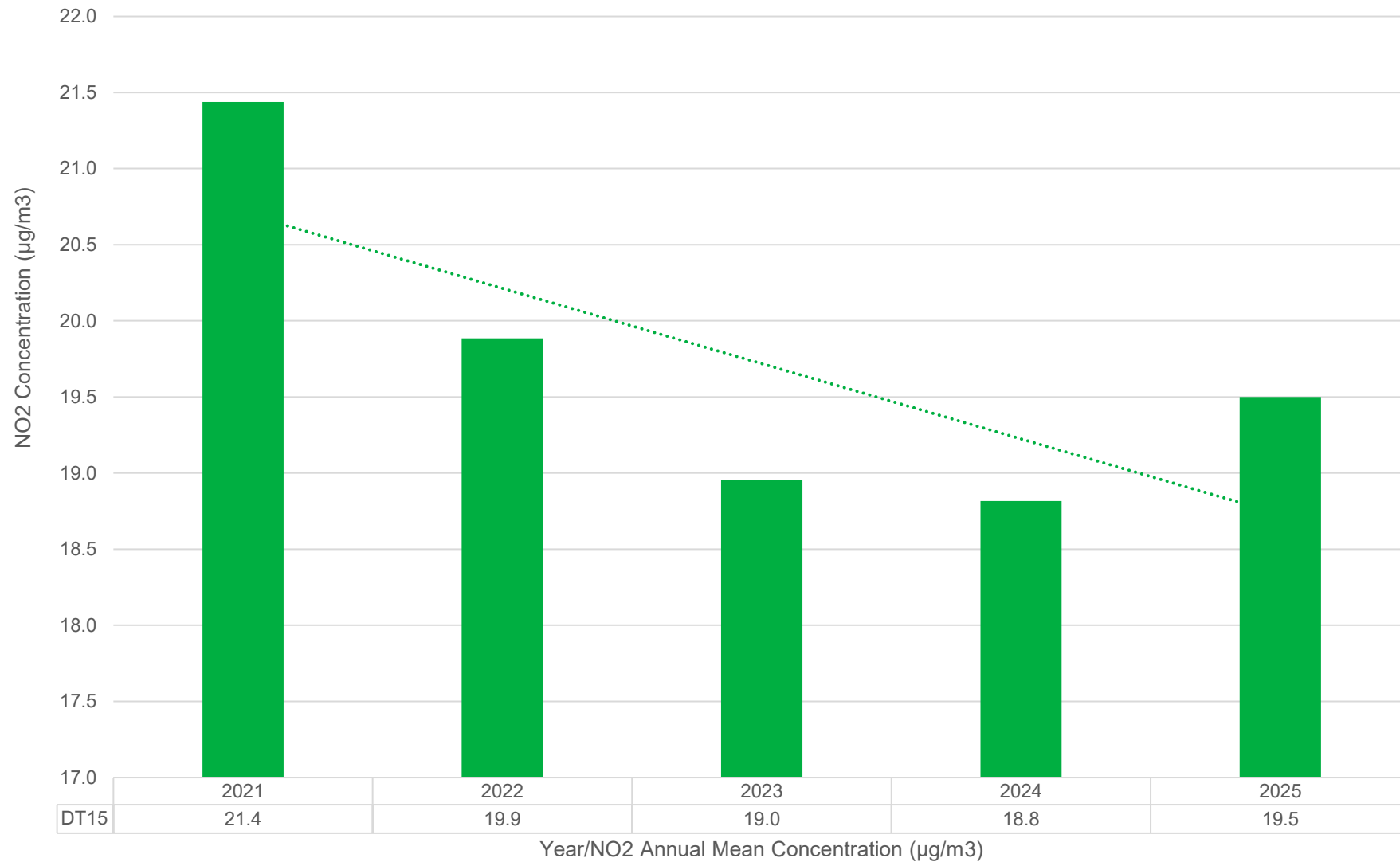


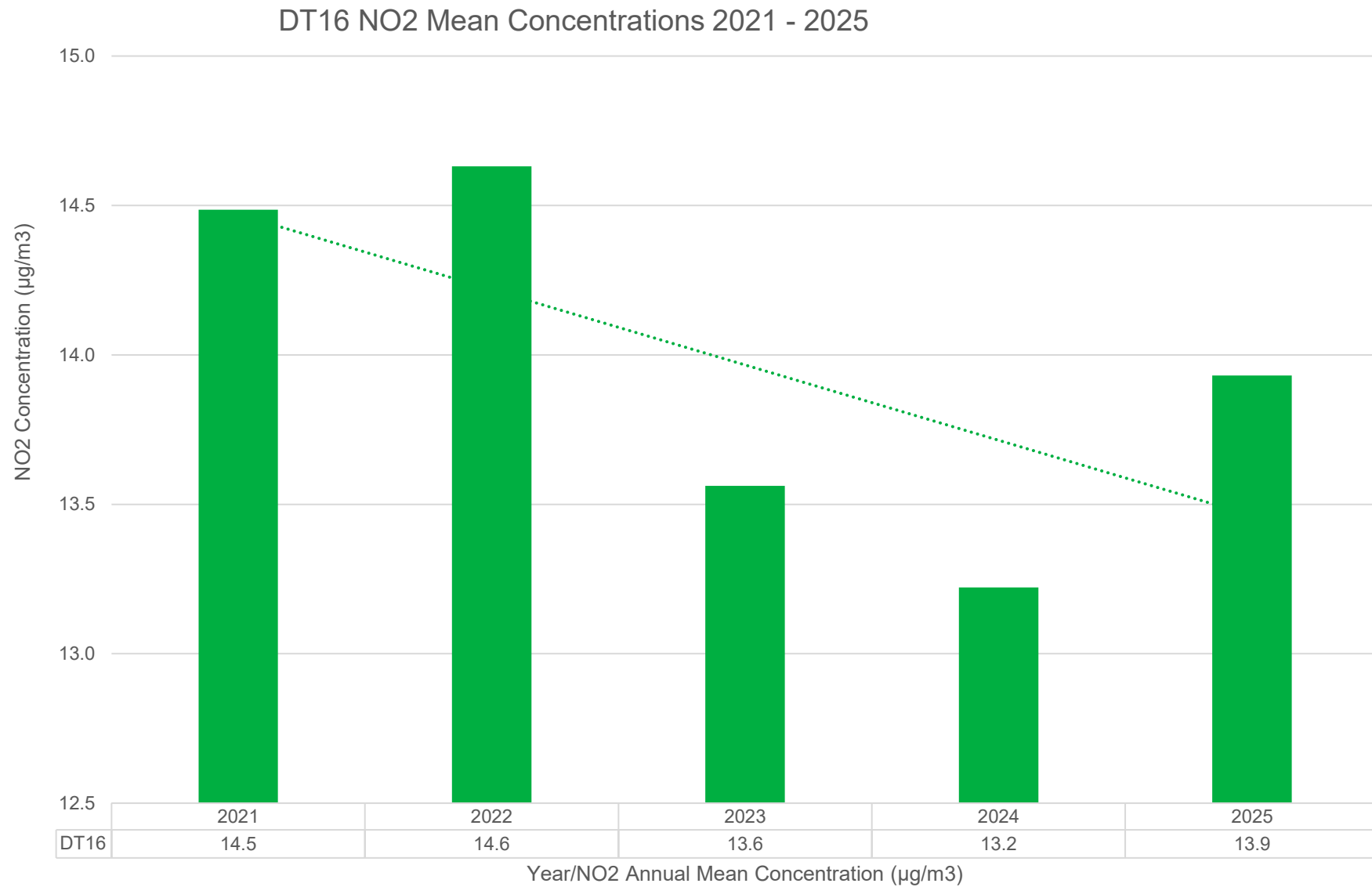
DT11 NO2 Mean Concentrations 2021 - 2025

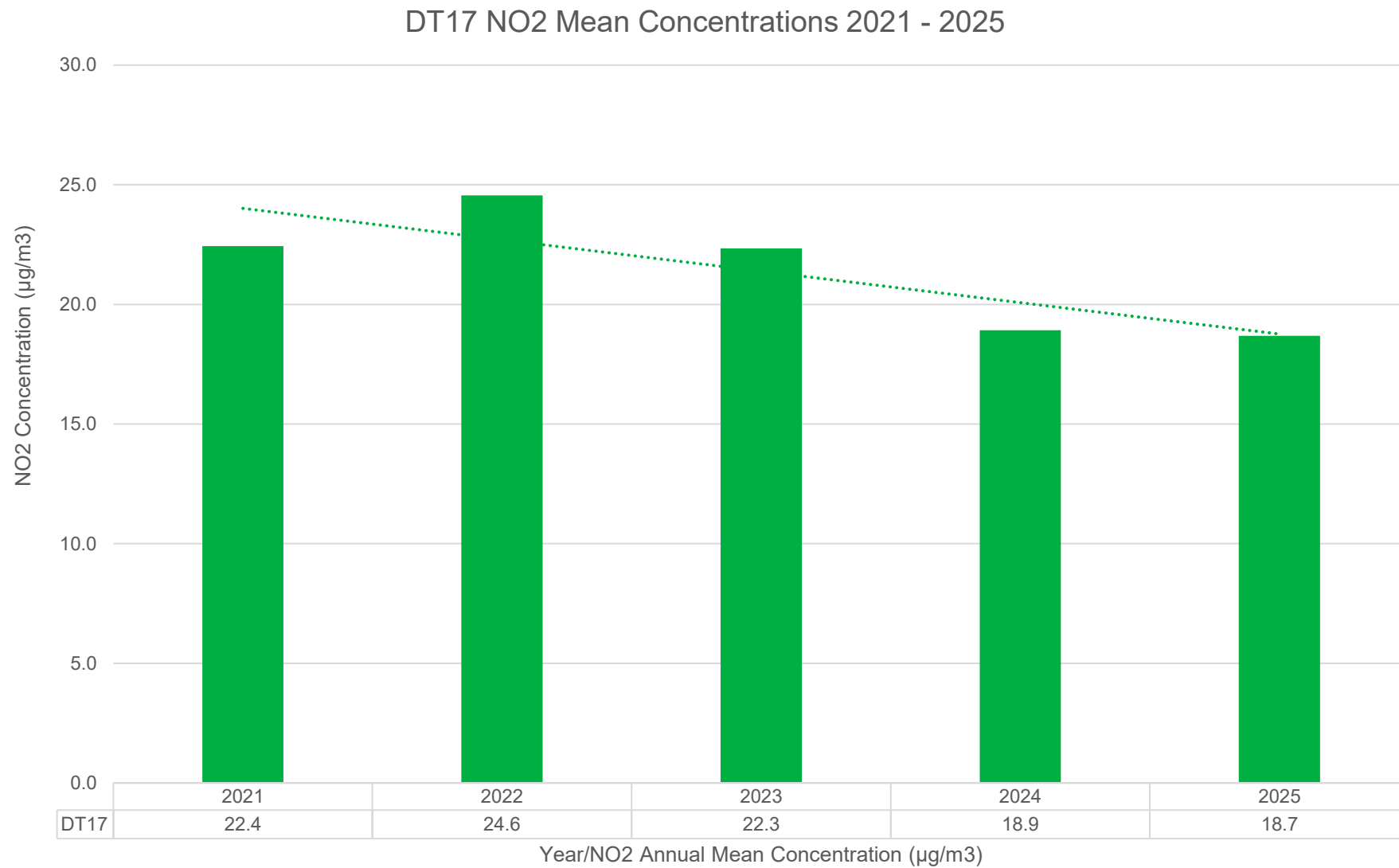




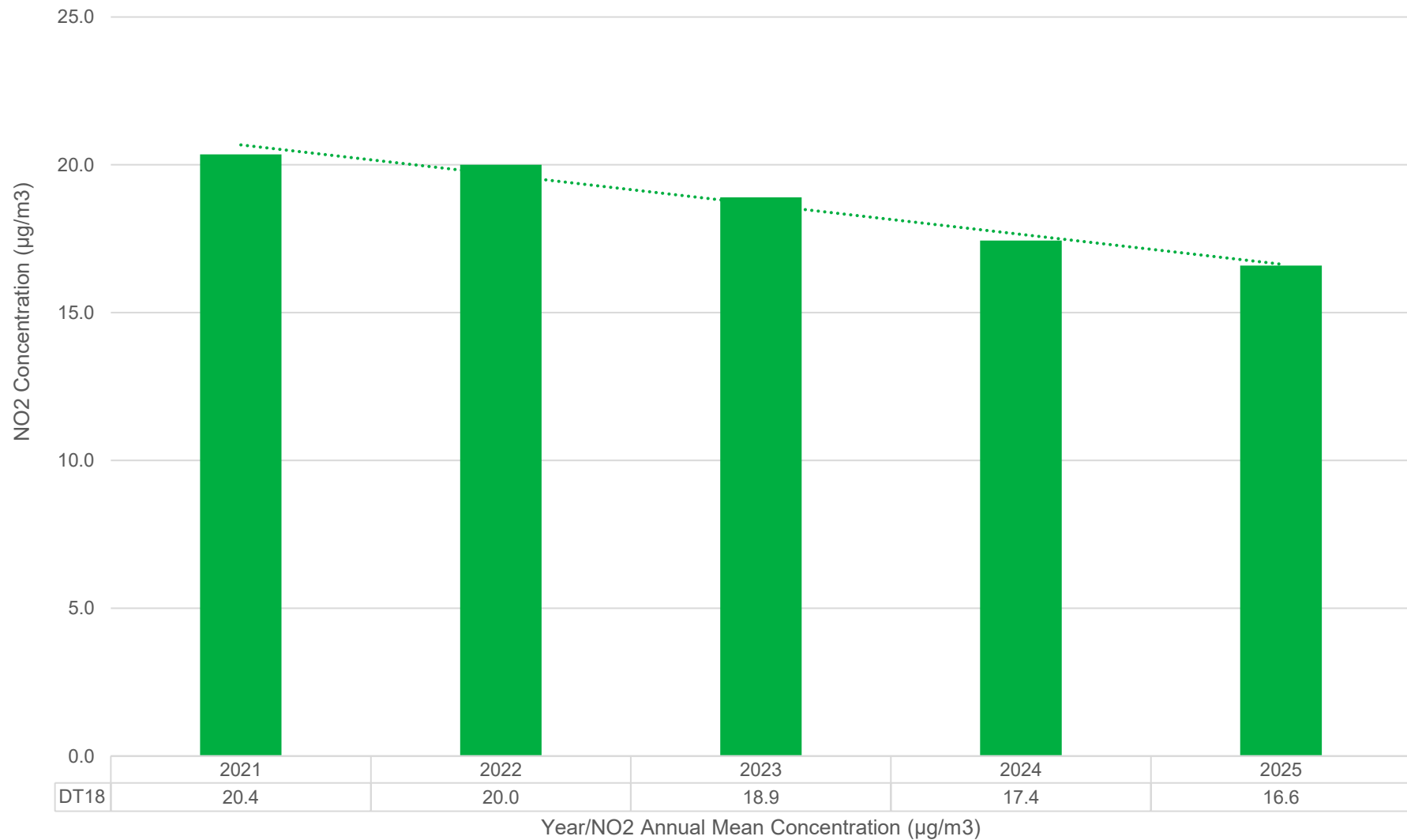
DT15 NO2 Mean Concentrations 2021 - 2025



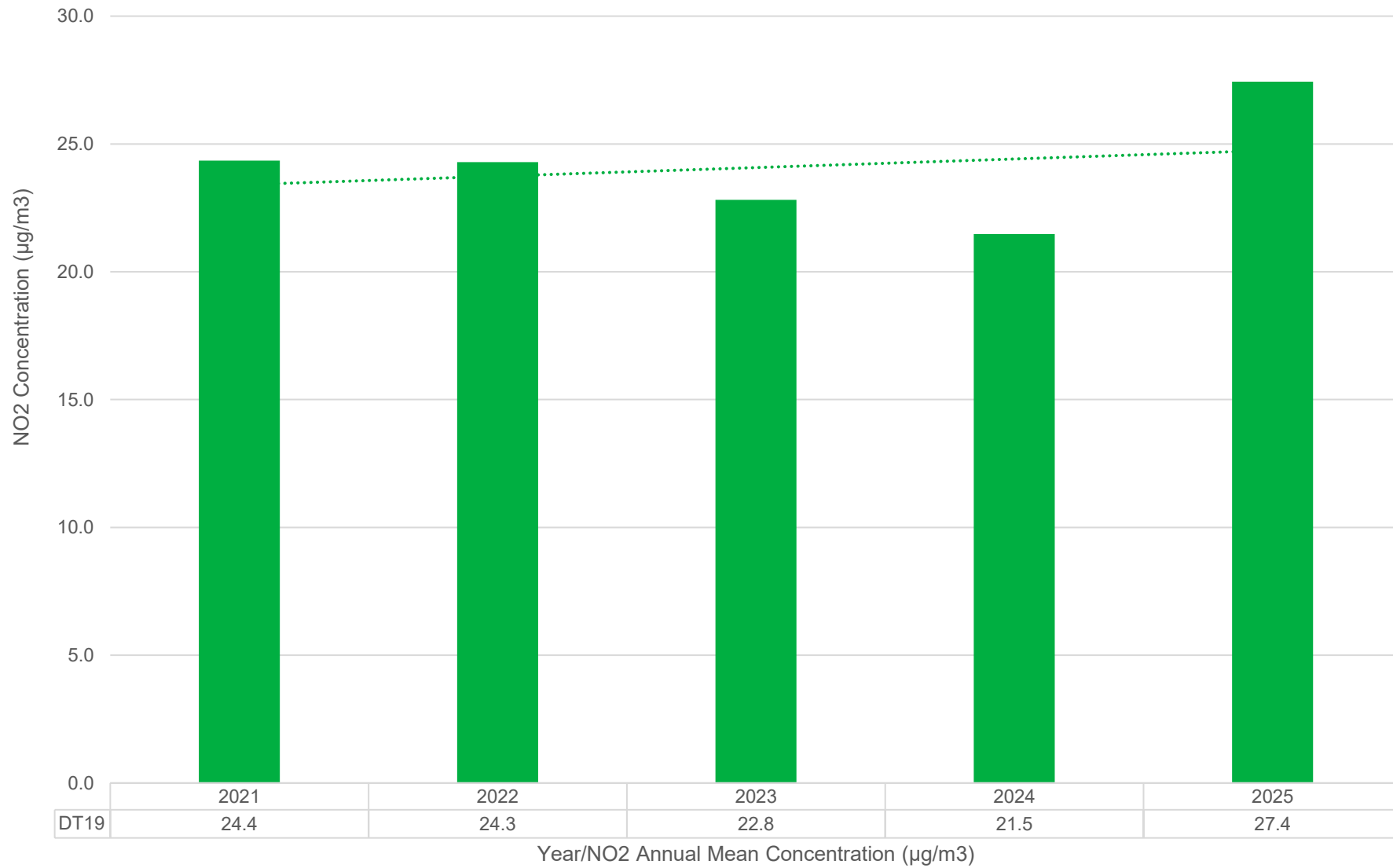




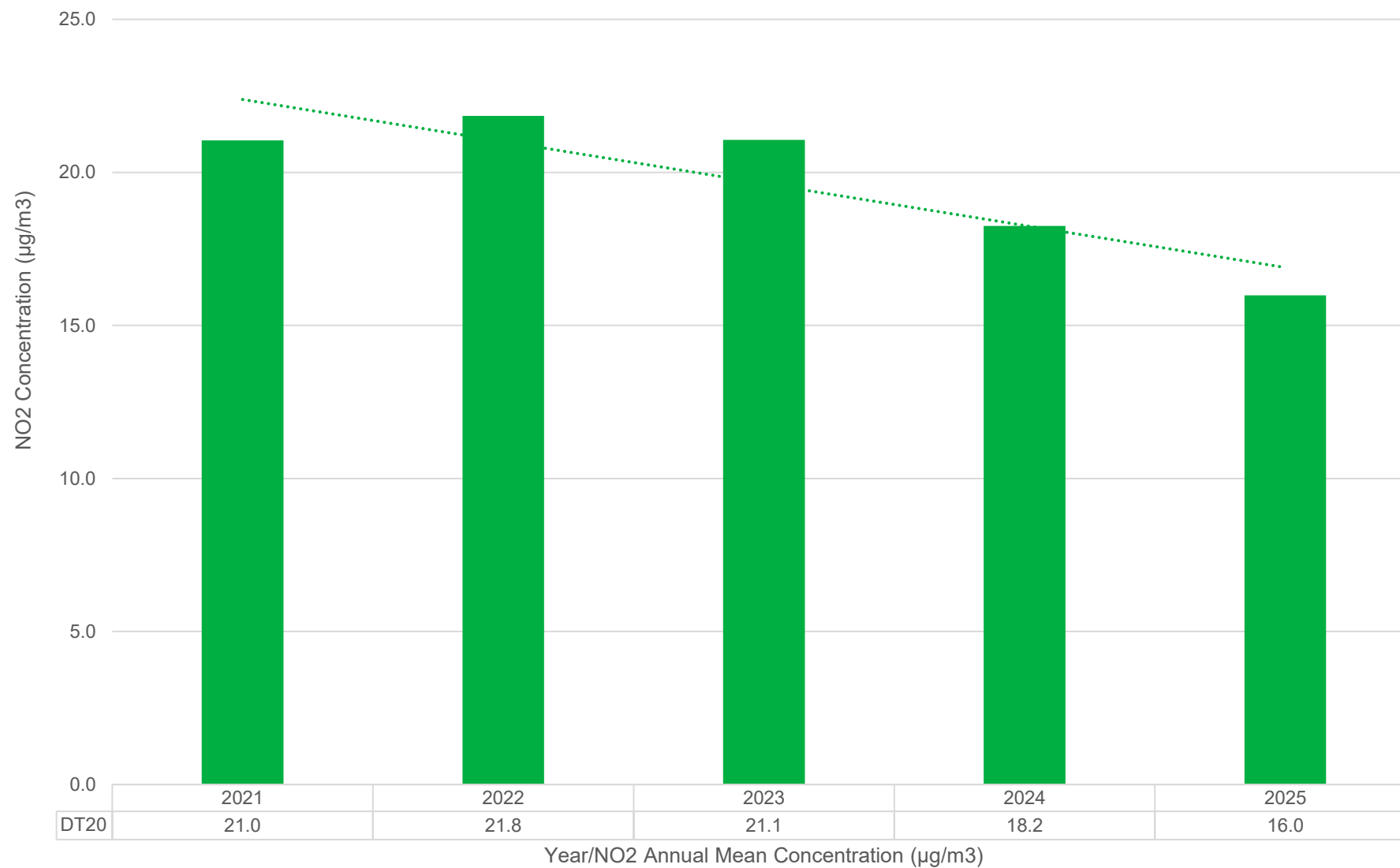
DT18 NO2 Mean Concentrations 2021 - 2025

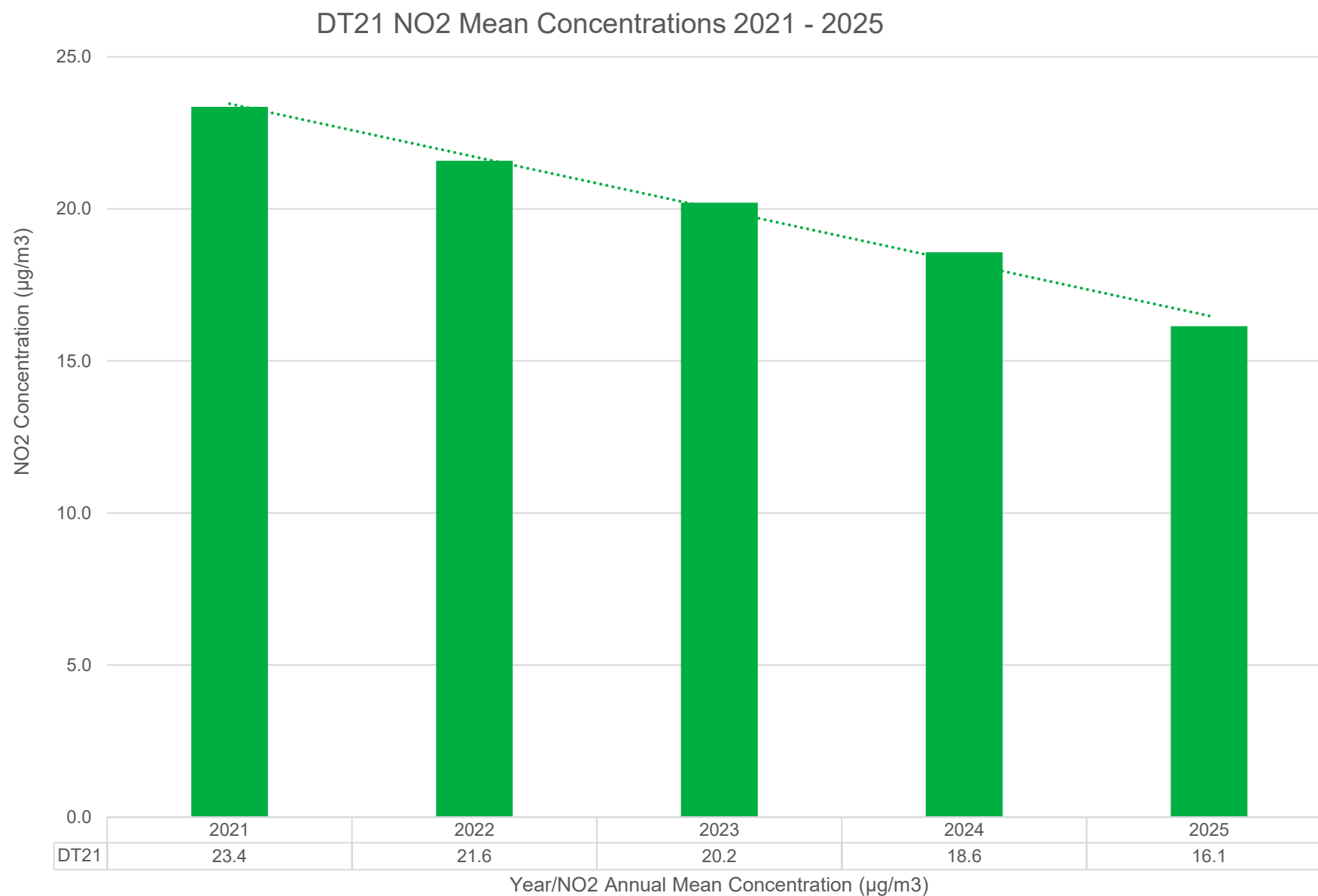


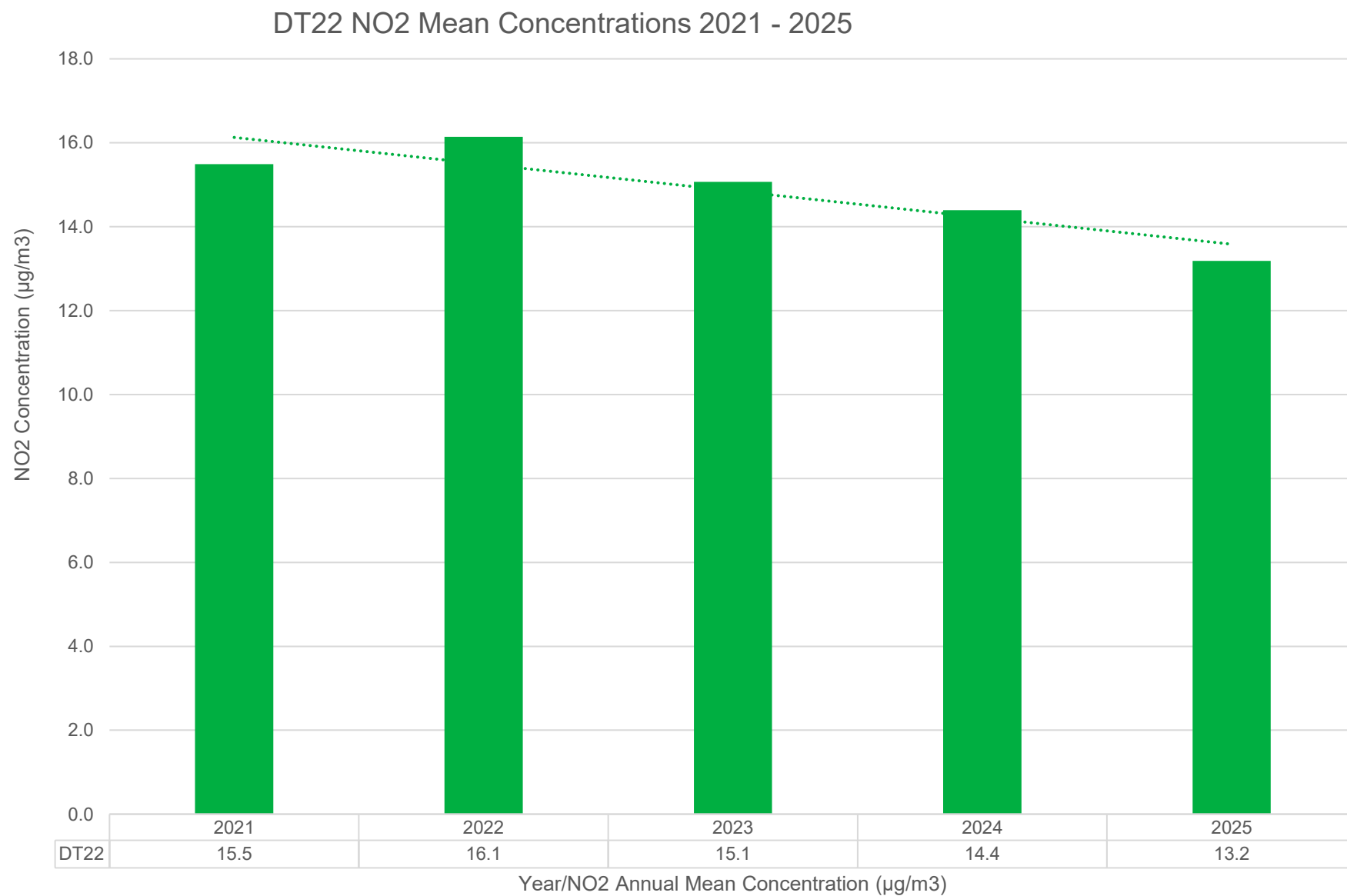
DT19 NO2 Mean Concentrations 2021 - 2025



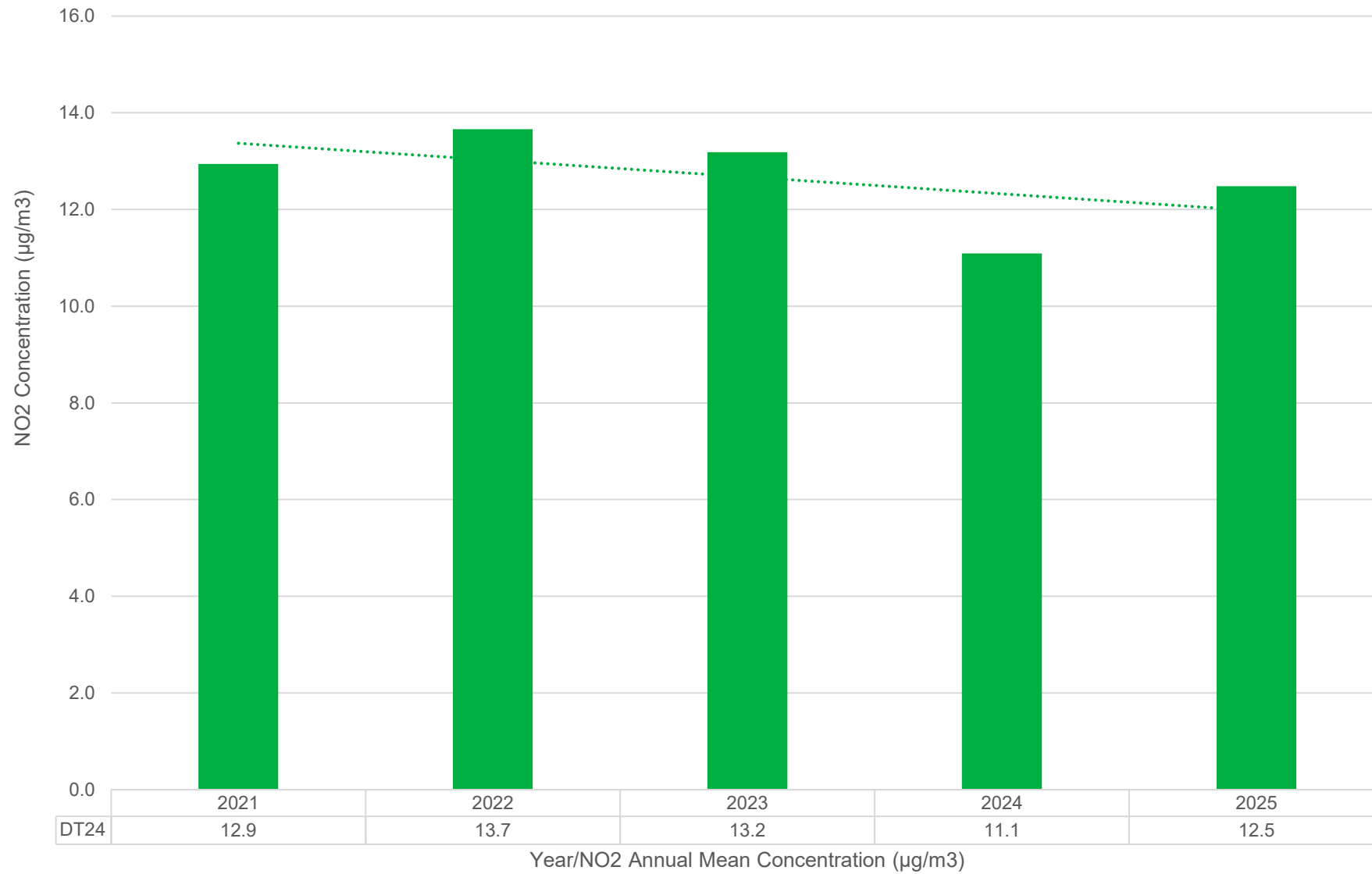
DT20 NO2 Mean Concentrations 2021 - 2025



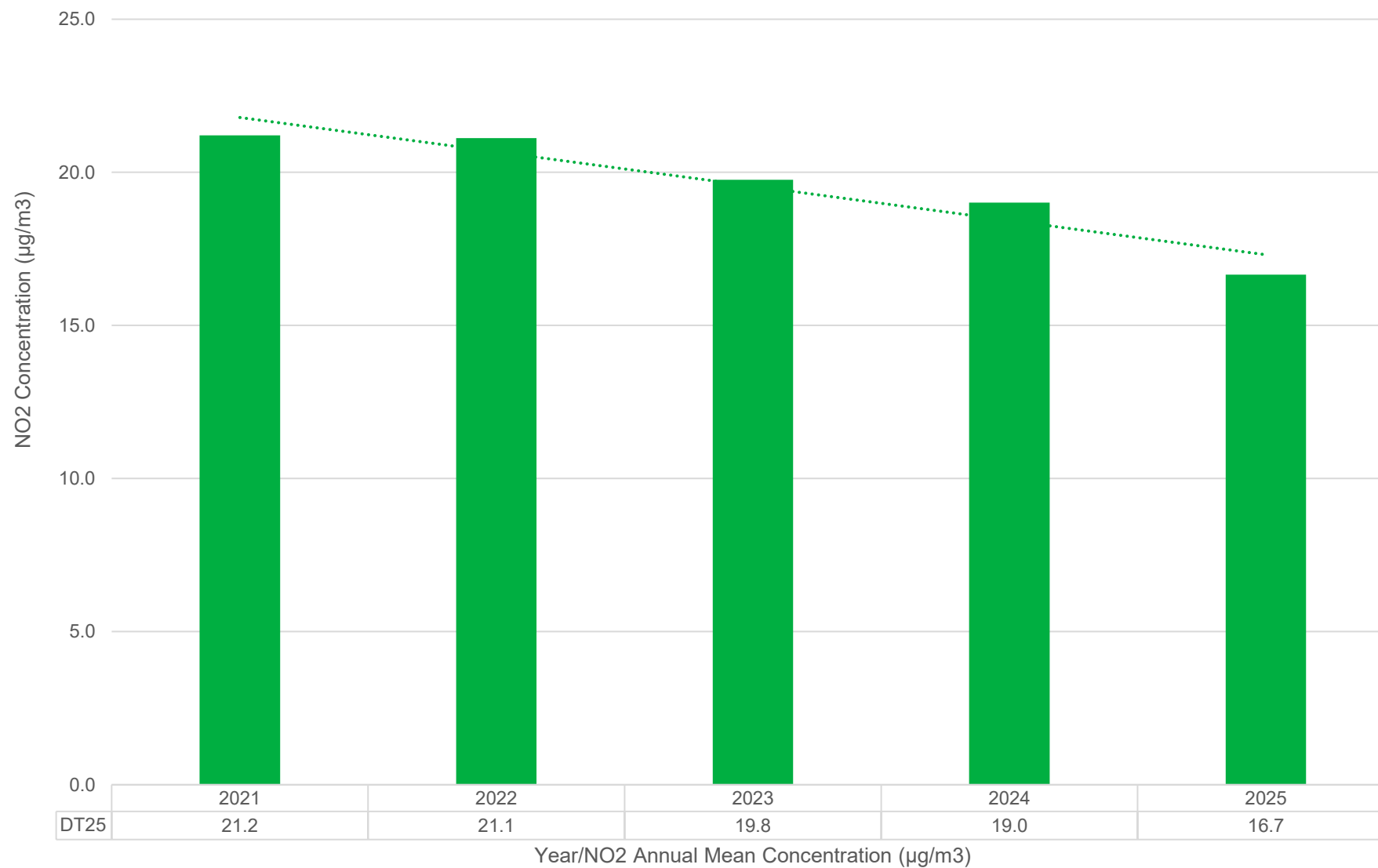


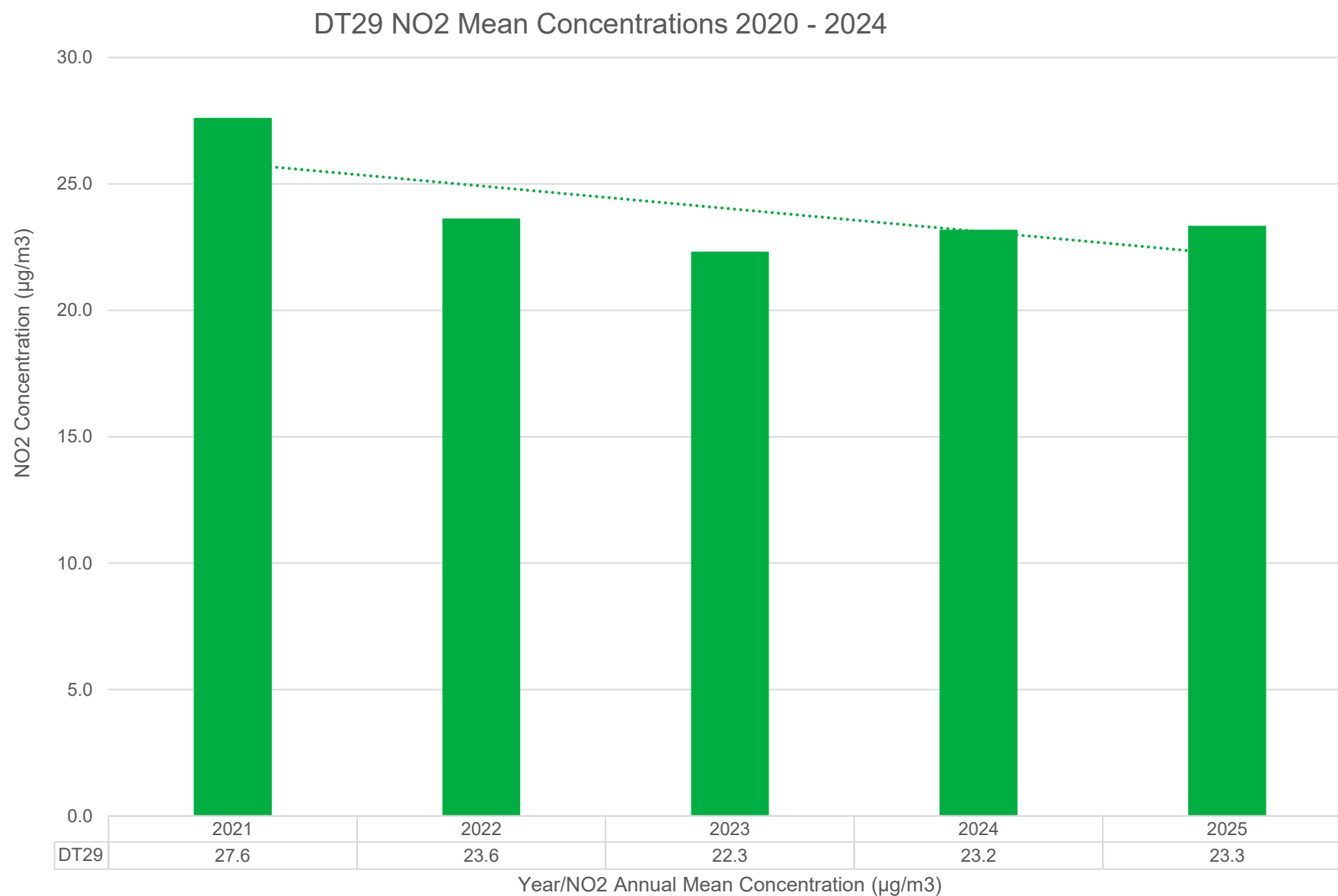


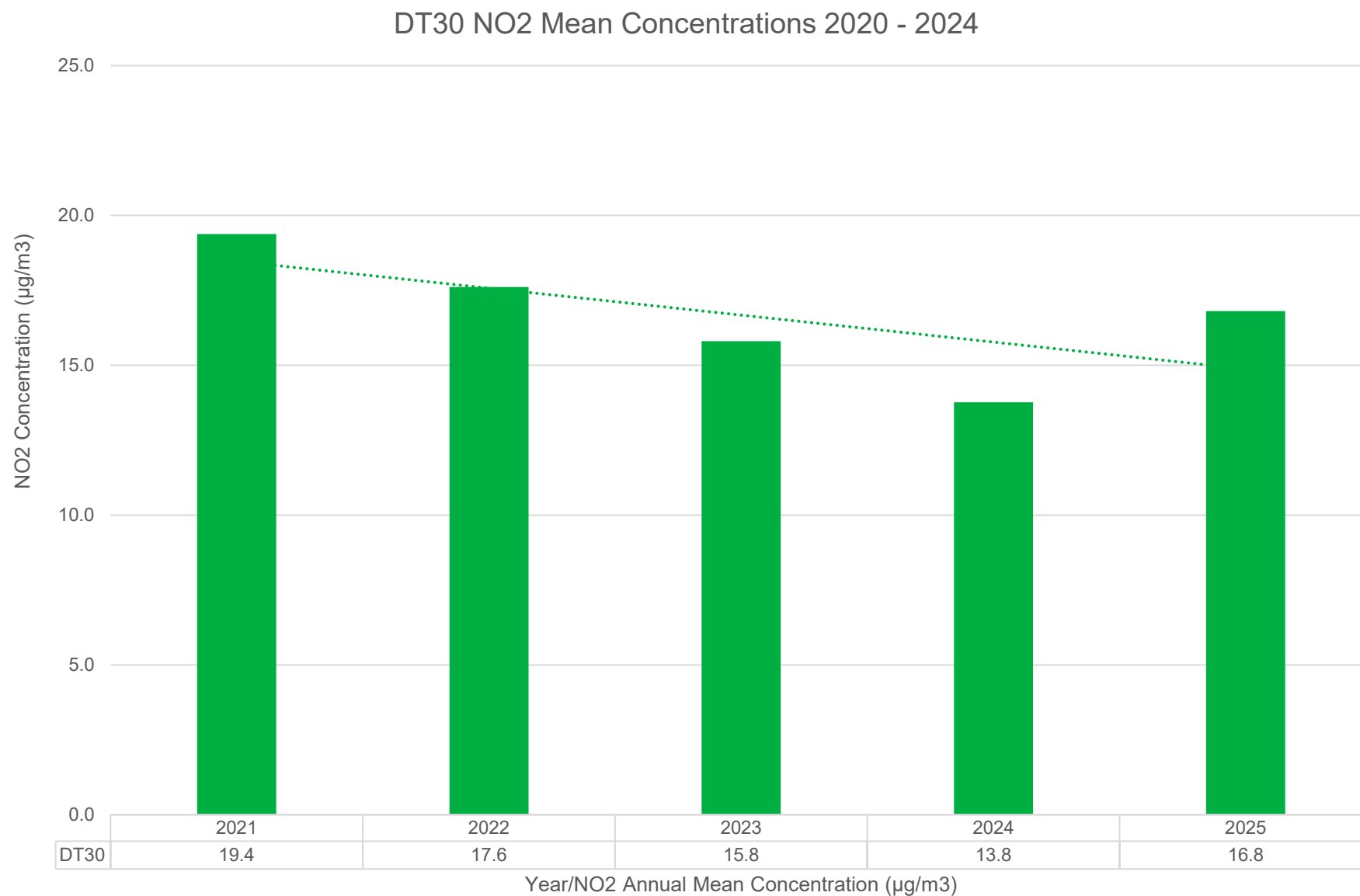
DT24 NO2 Mean Concentrations 202 - 2024

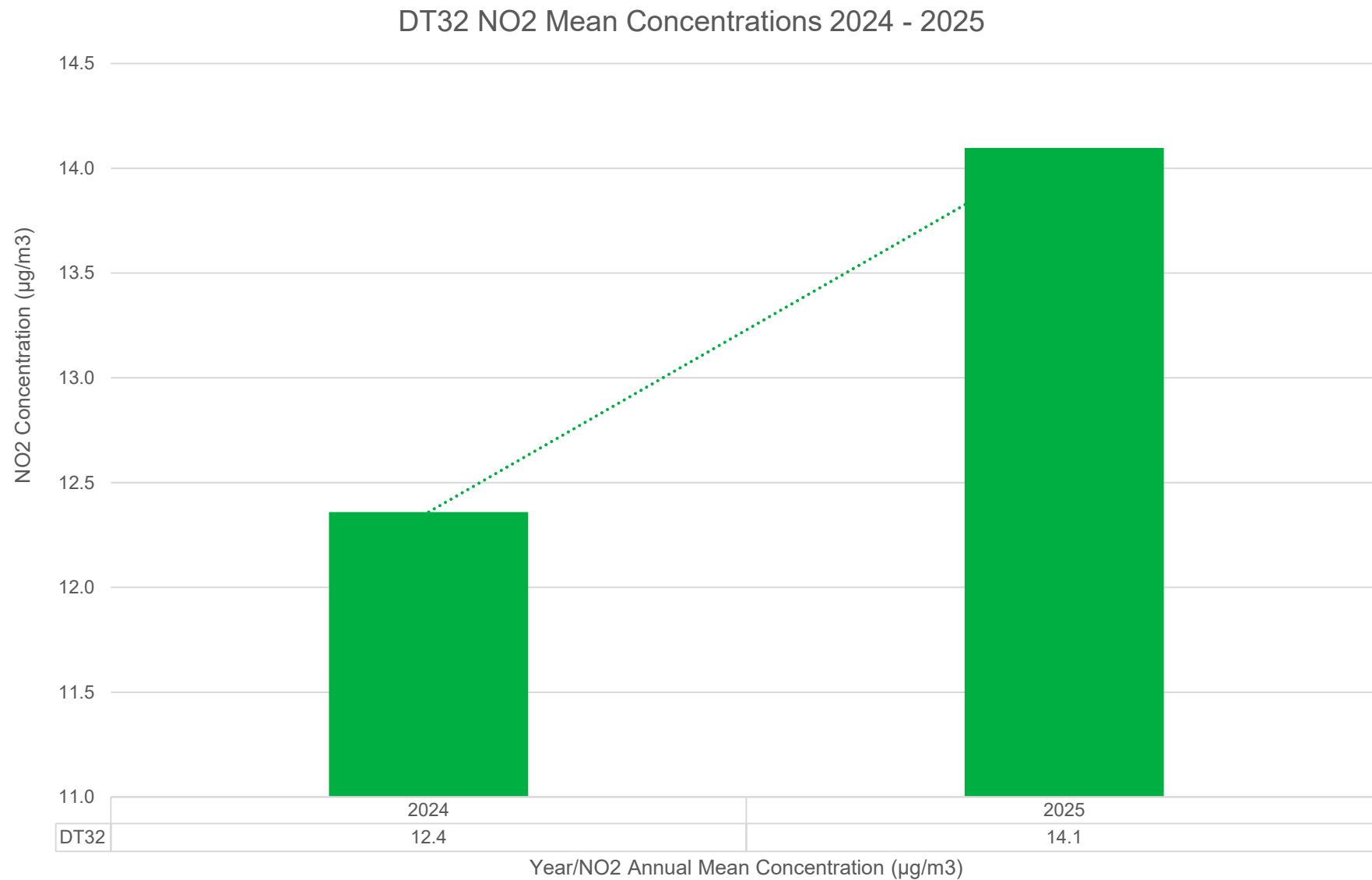


DT25 NO2 Mean Concentrations 2020 - 2024

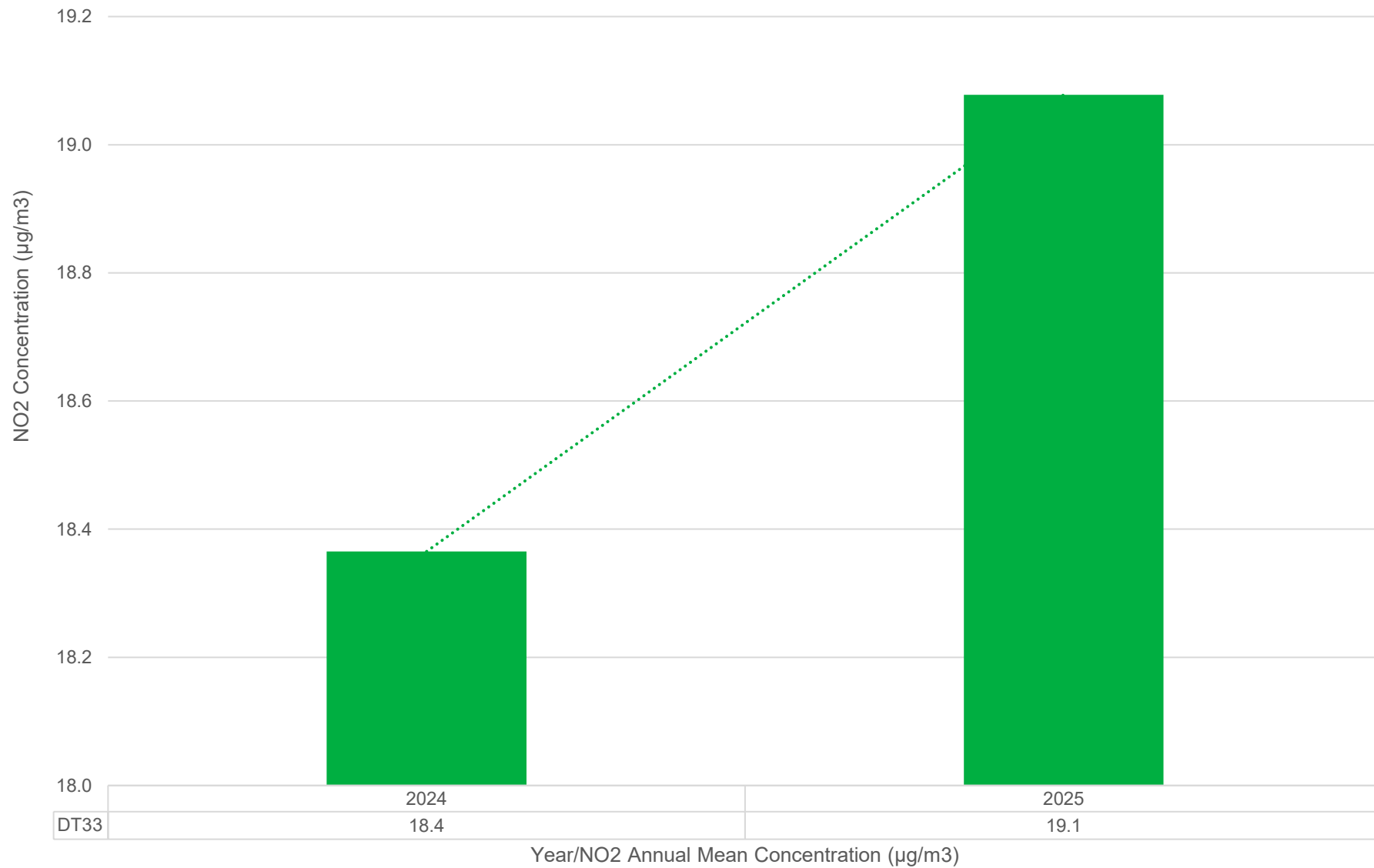




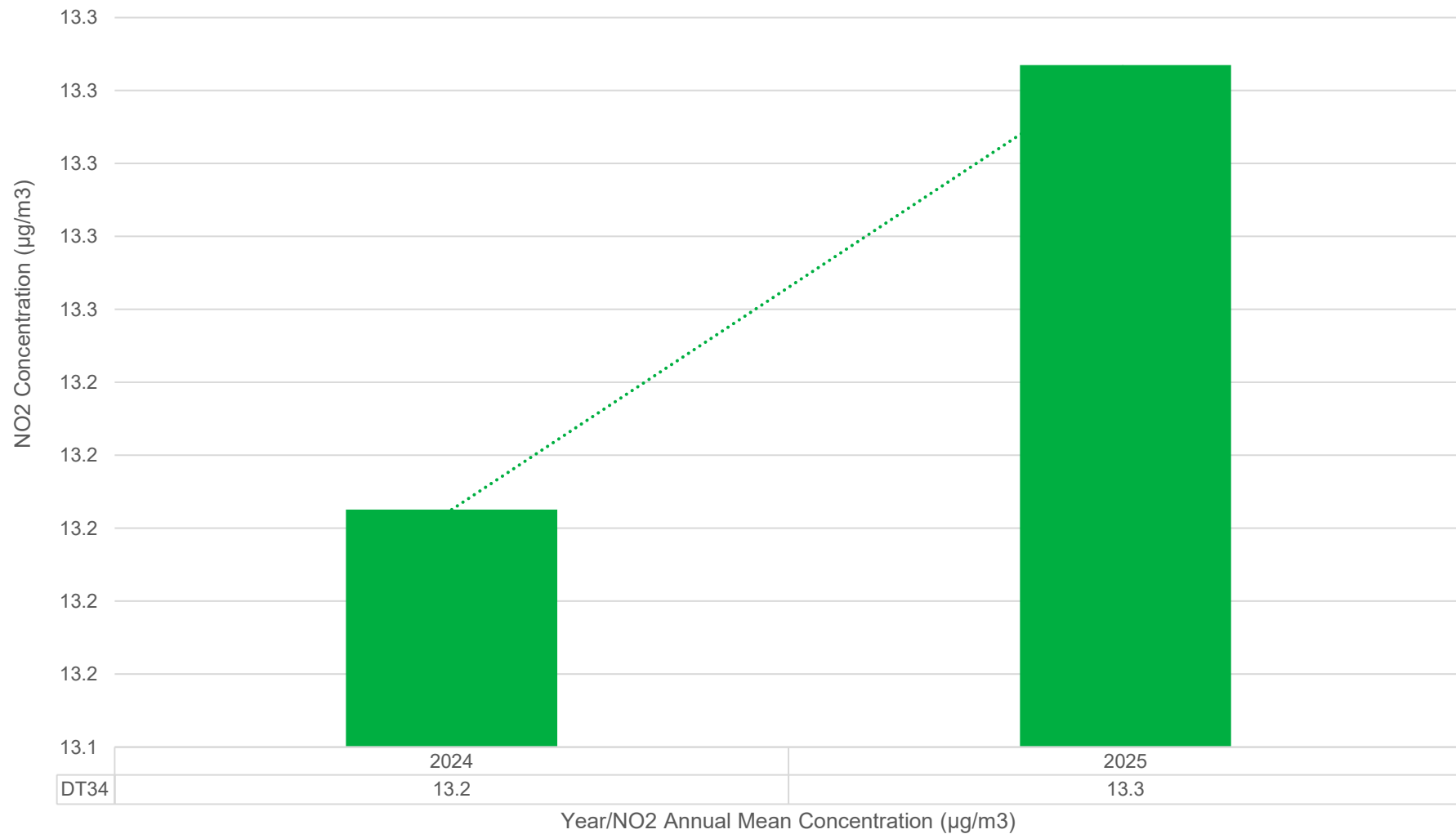




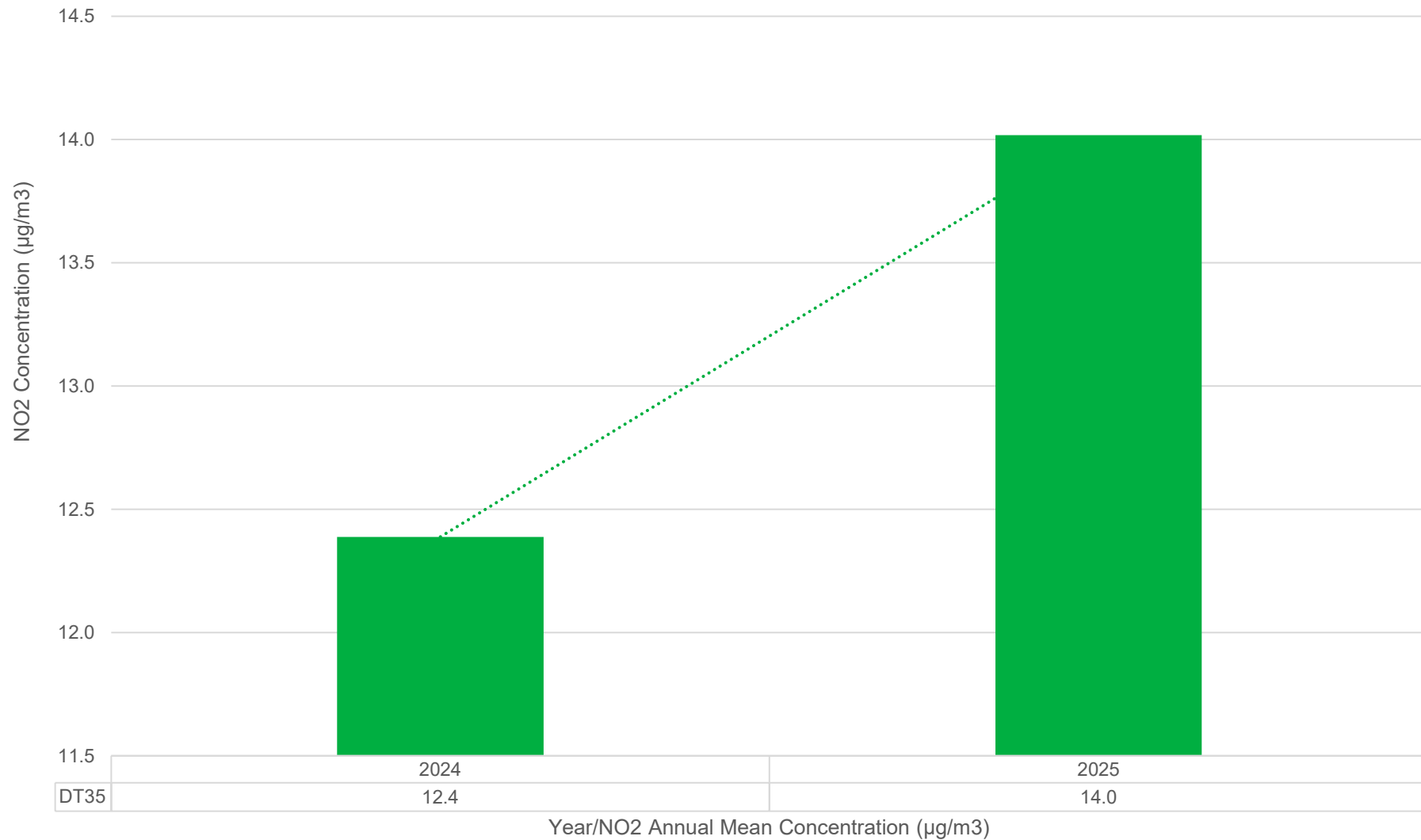
DT33 NO2 Mean Concentrations 2024 - 2025



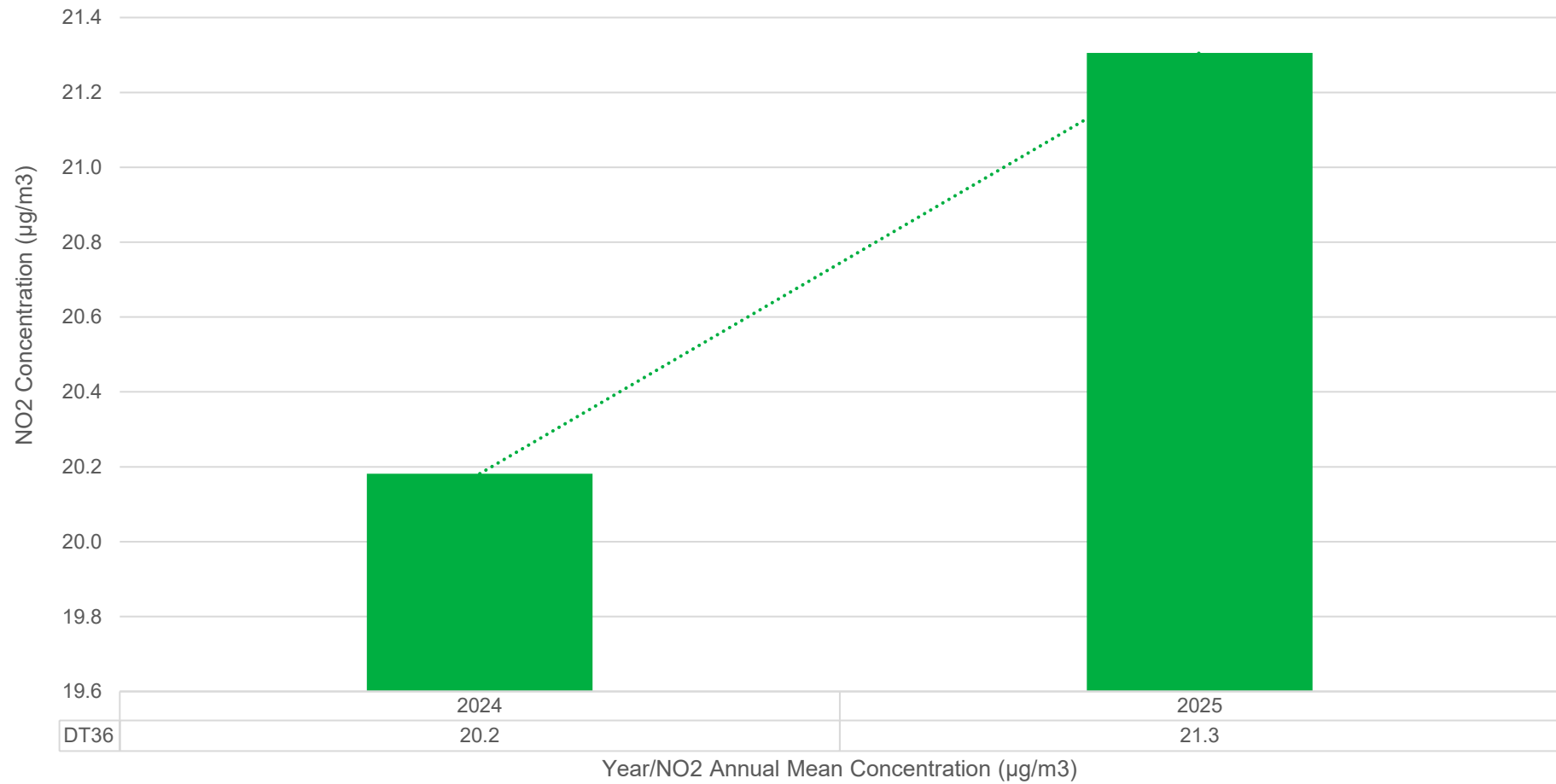
DT34 NO2 Mean Concentrations 2024 - 2025



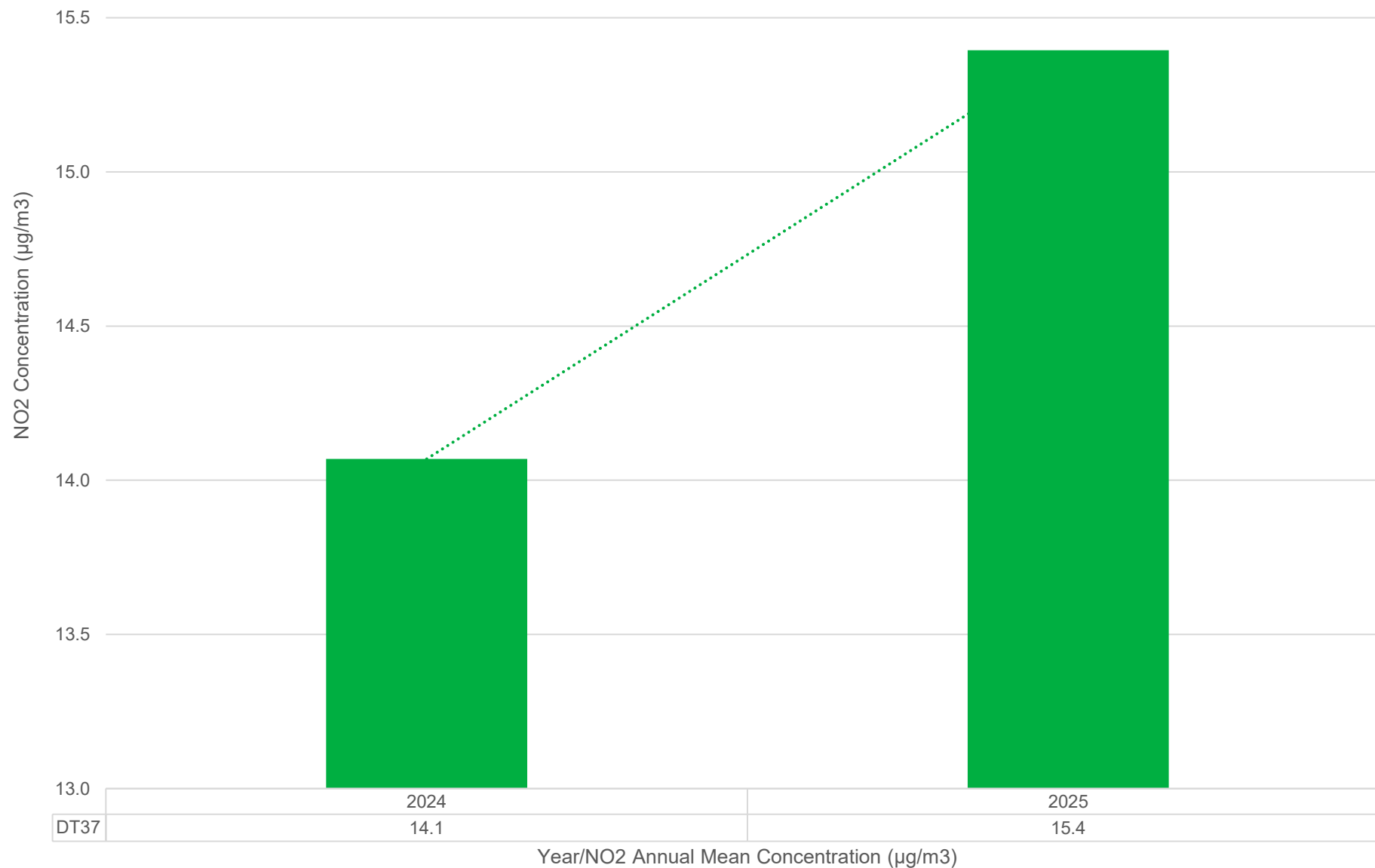
DT35 NO2 Mean Concentrations 2024 - 2025



DT36 NO2 Mean Concentrations 2024 - 2025



DT37 NO2 Mean Concentrations 2024 - 2025



DT38 NO2 Mean Concentrations 2024 - 2025

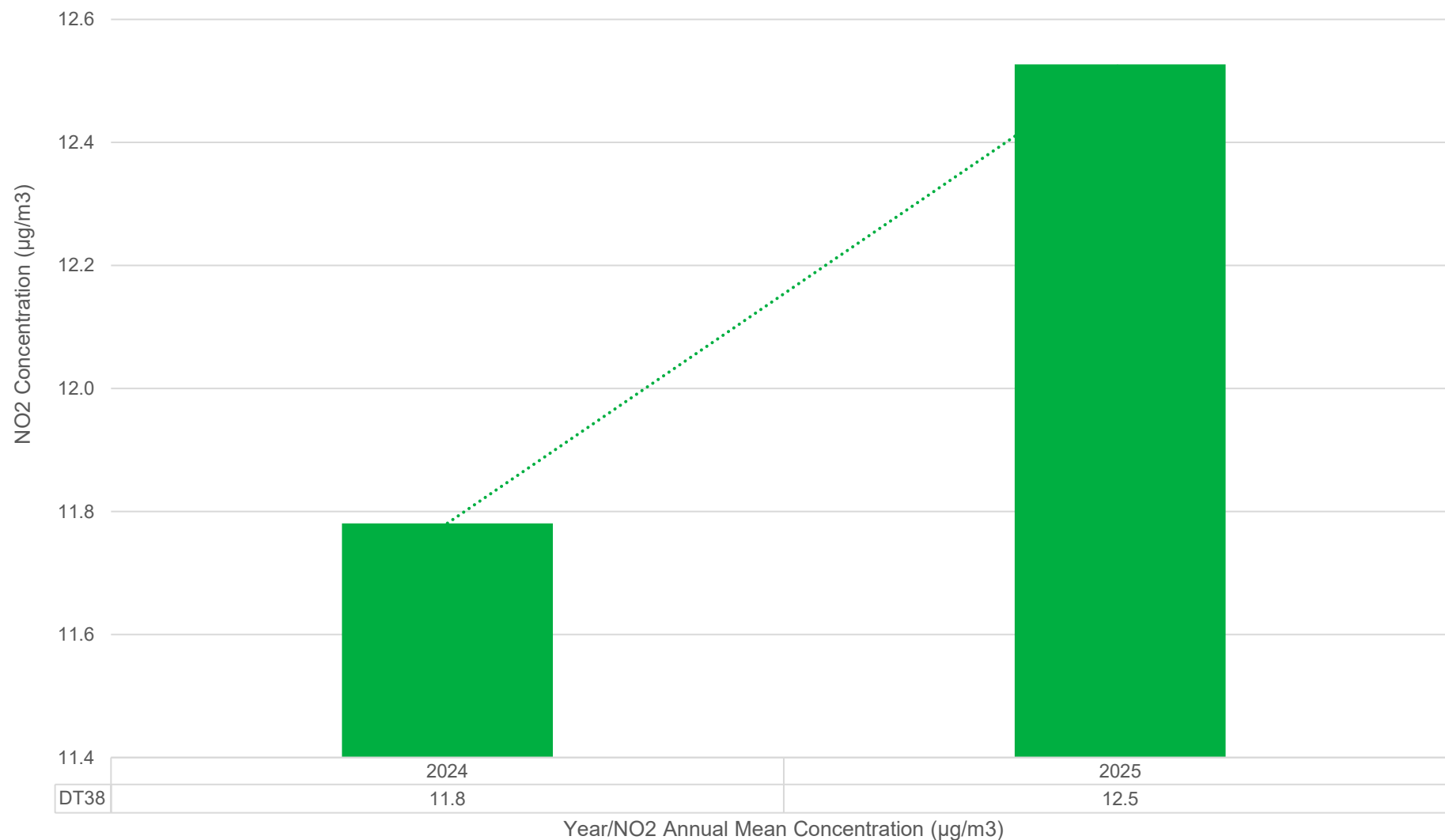
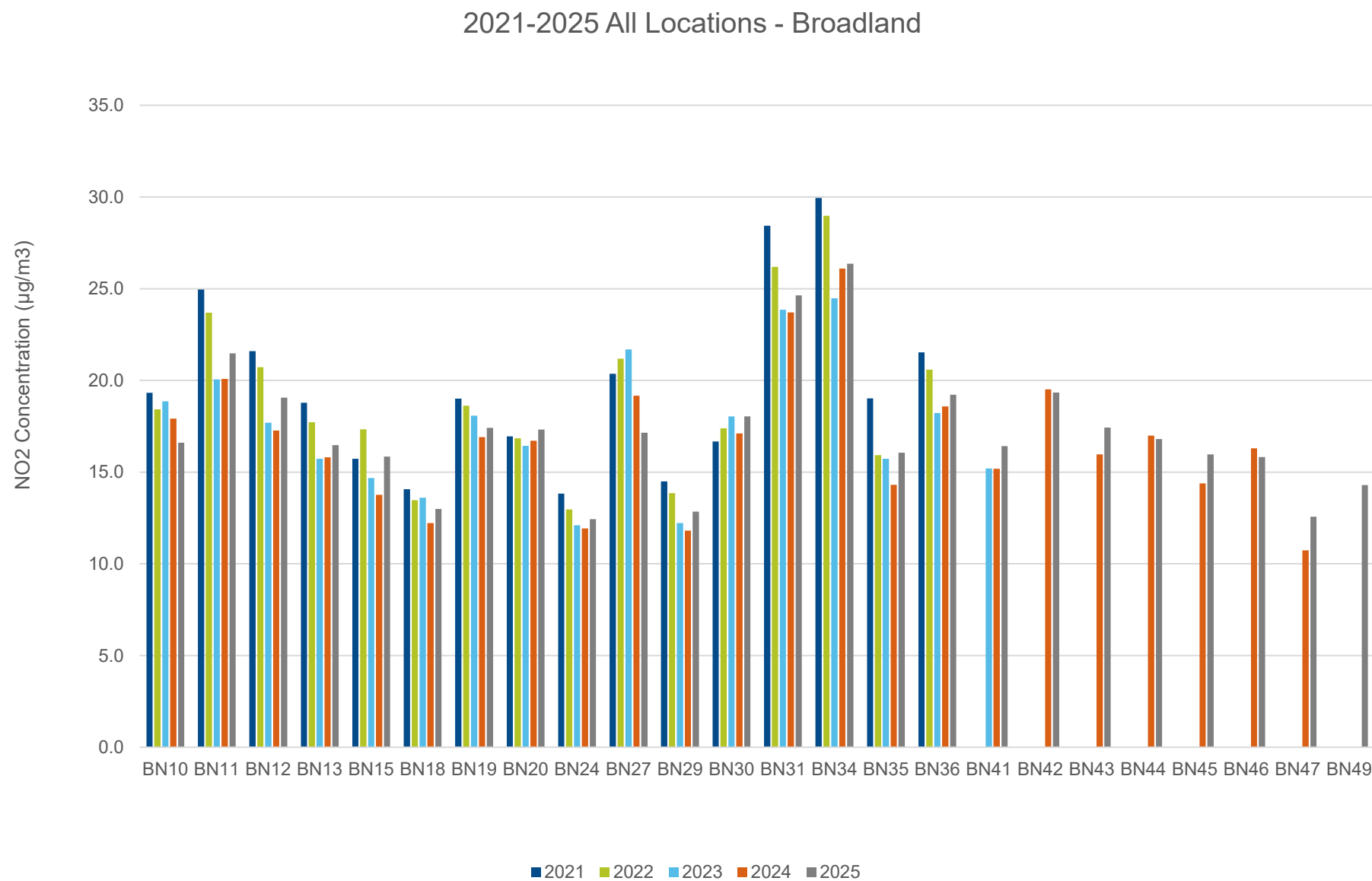
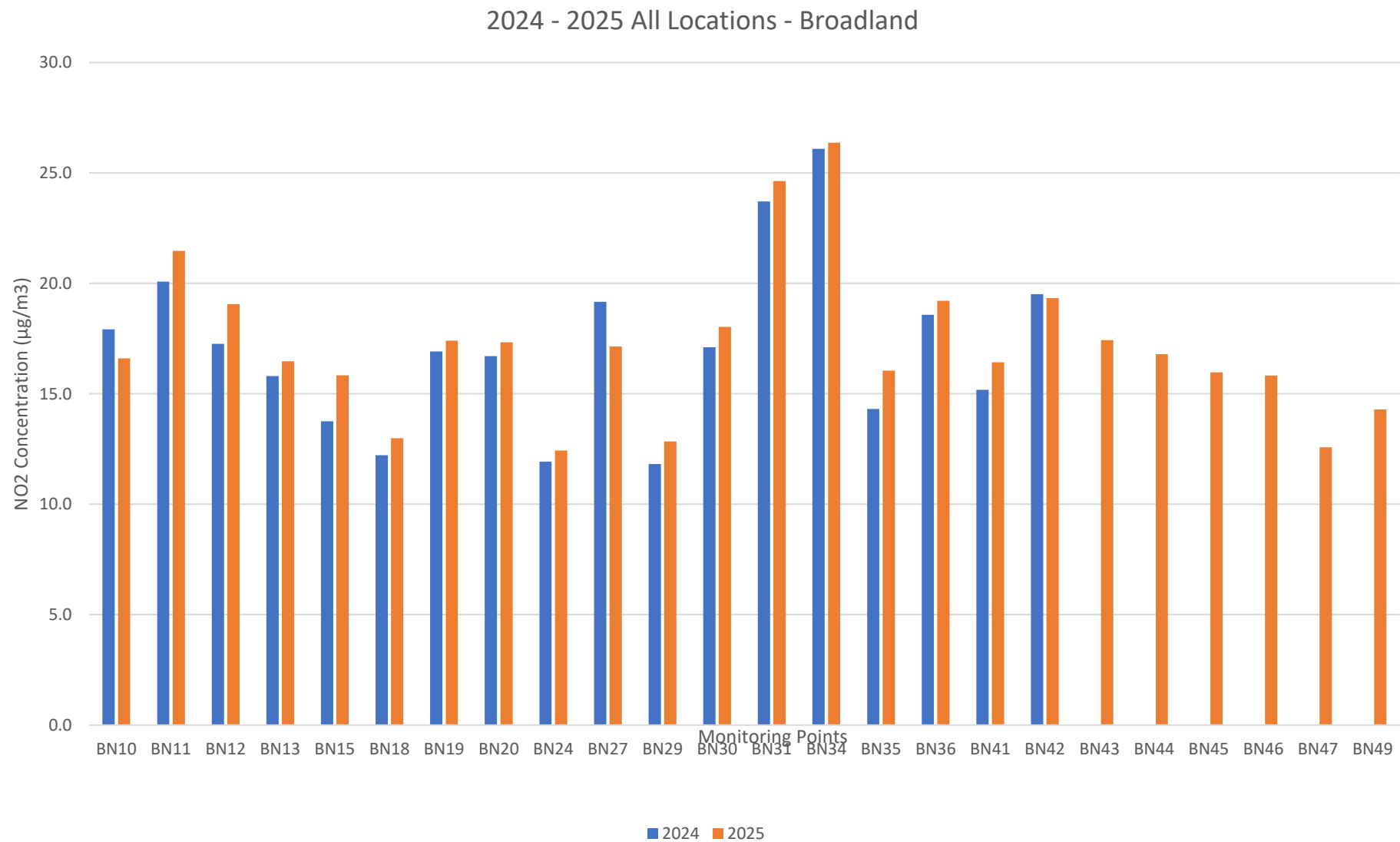


Figure A.2 – Trends in Annual Mean NO₂ Concentration – Broadland

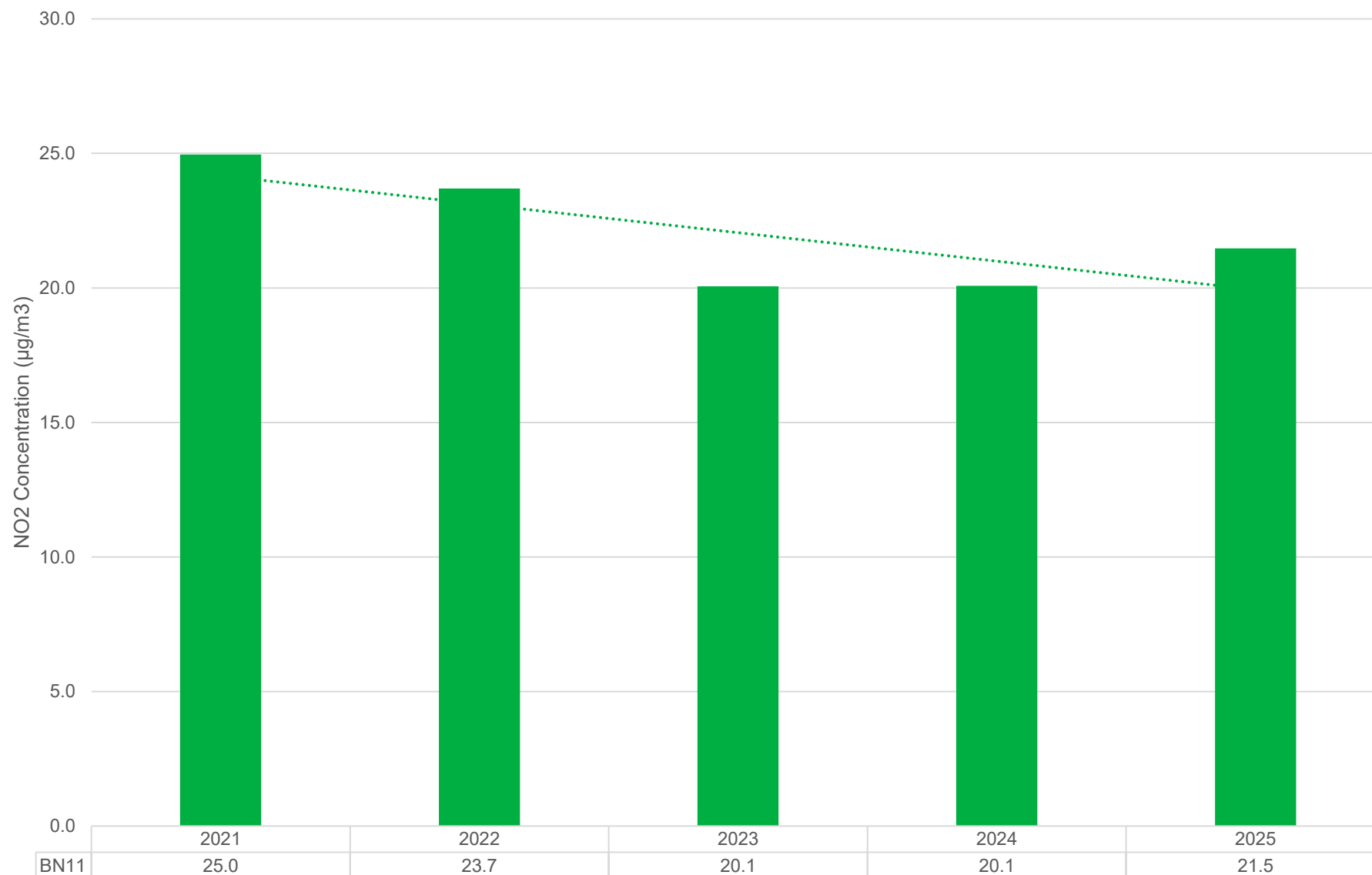




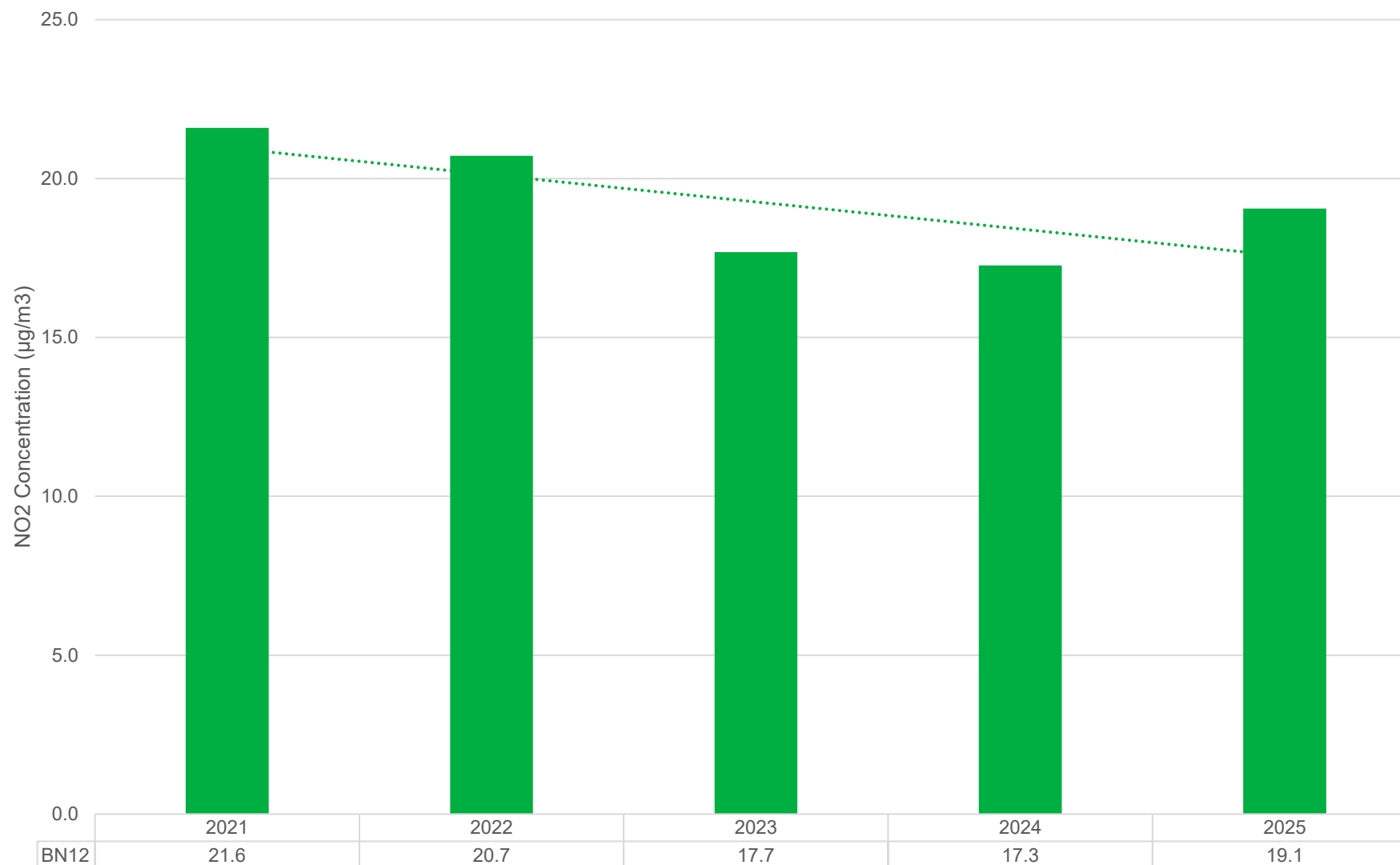
BN10 NO2 Mean Concentrations 2021- 2025



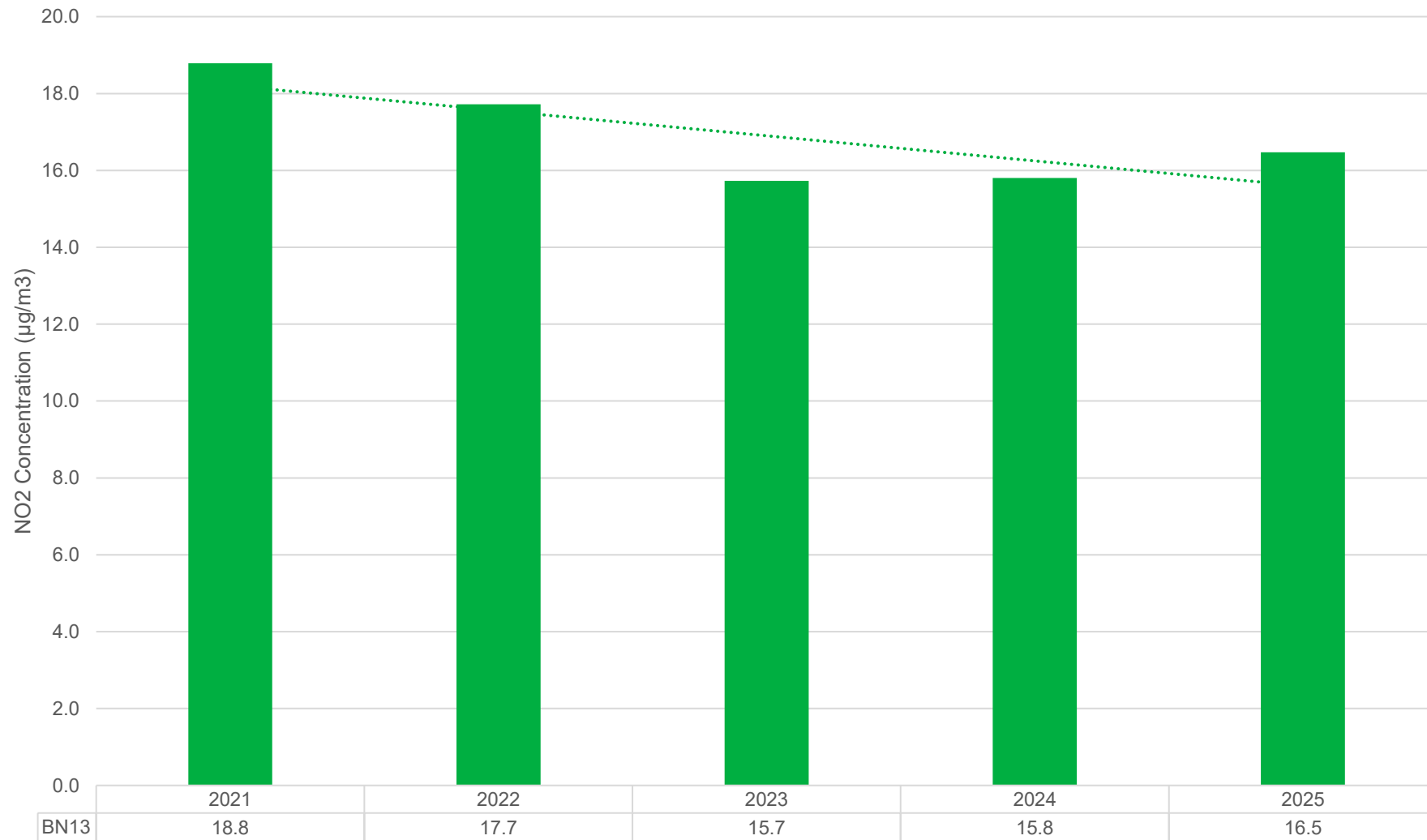
BN11 NO2 Mean Concentrations 2021 - 2025



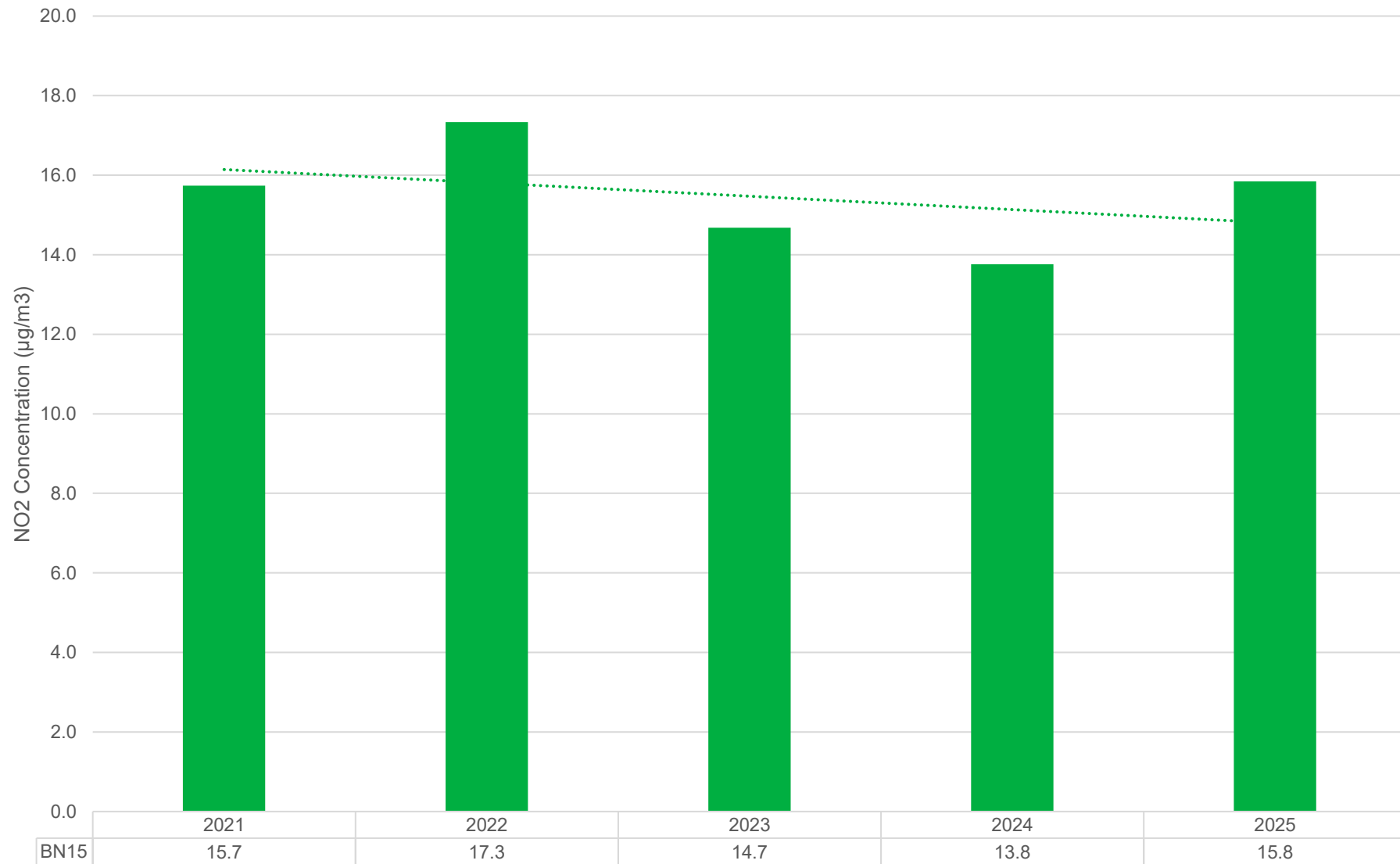
BN12 NO2 Mean Concentrations 2021 - 2025



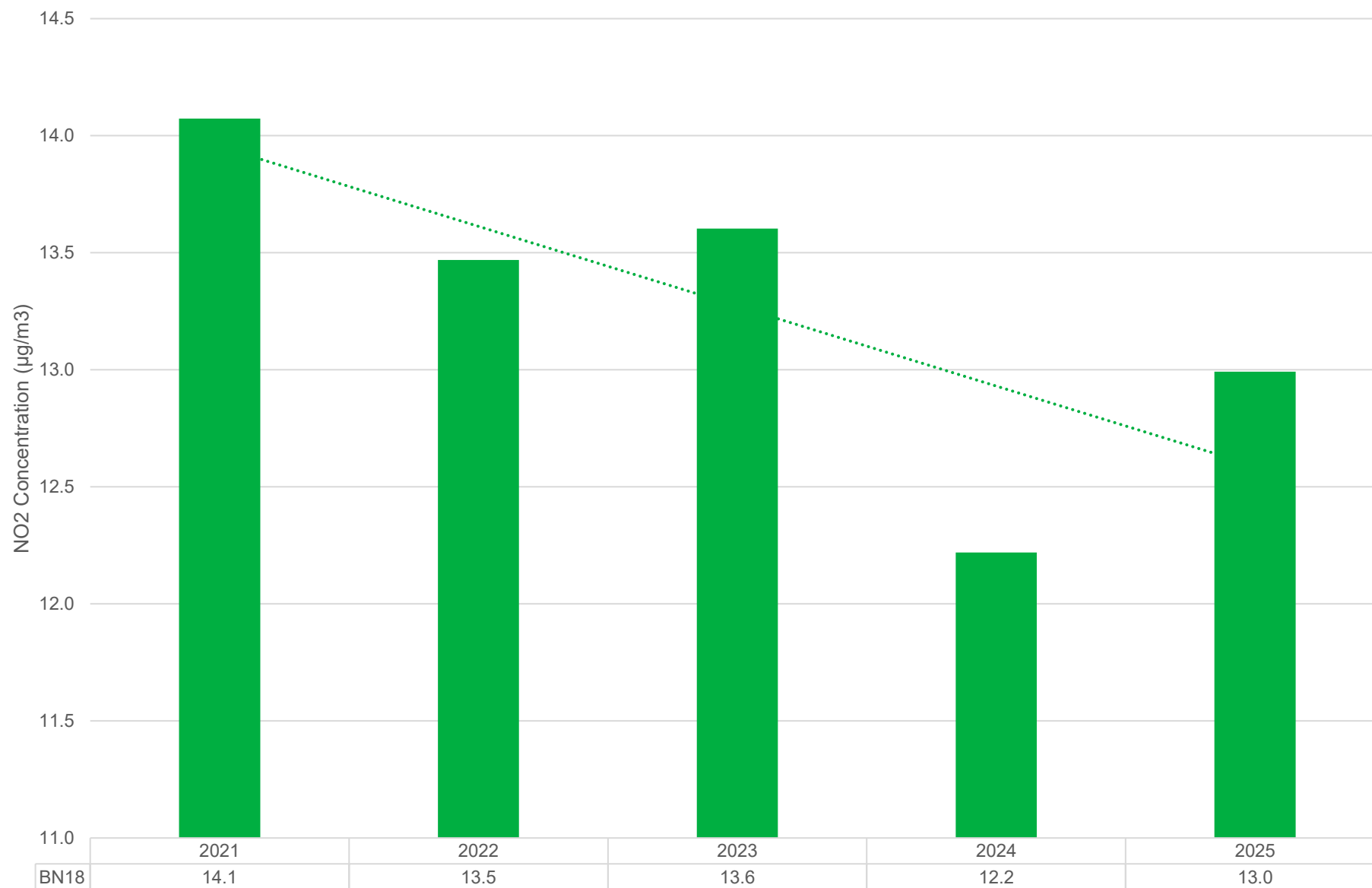
BN13 NO2 Mean Concentrations 2021 - 2025



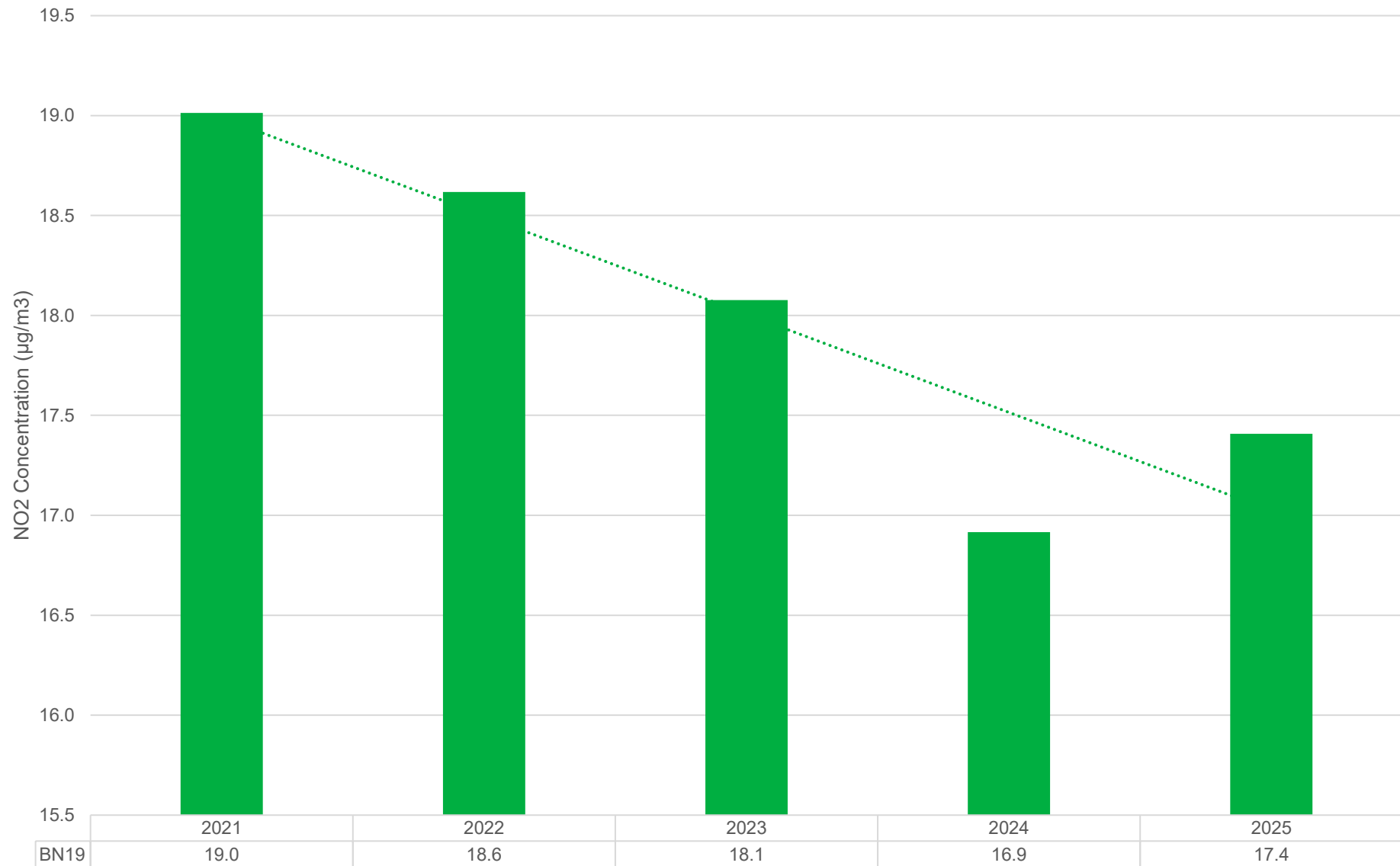
BN15 NO2 Mean Concentrations 2021 - 2025



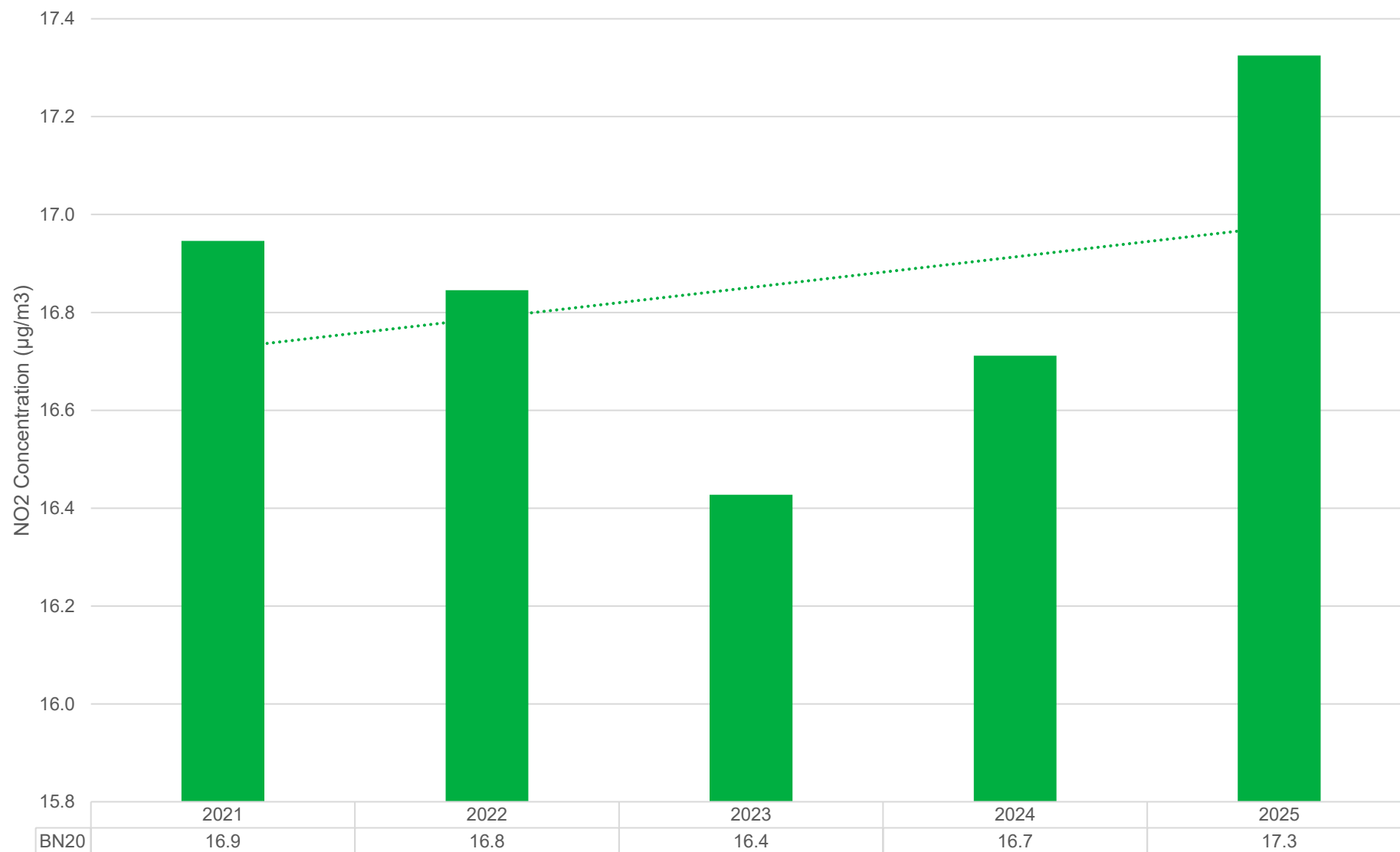
BN18 NO2 Mean Concentrations 2021 - 2025



BN19 NO2 Mean Concentrations 2021 - 2025



BN20 NO2 Mean Concentrations 2021 - 2025



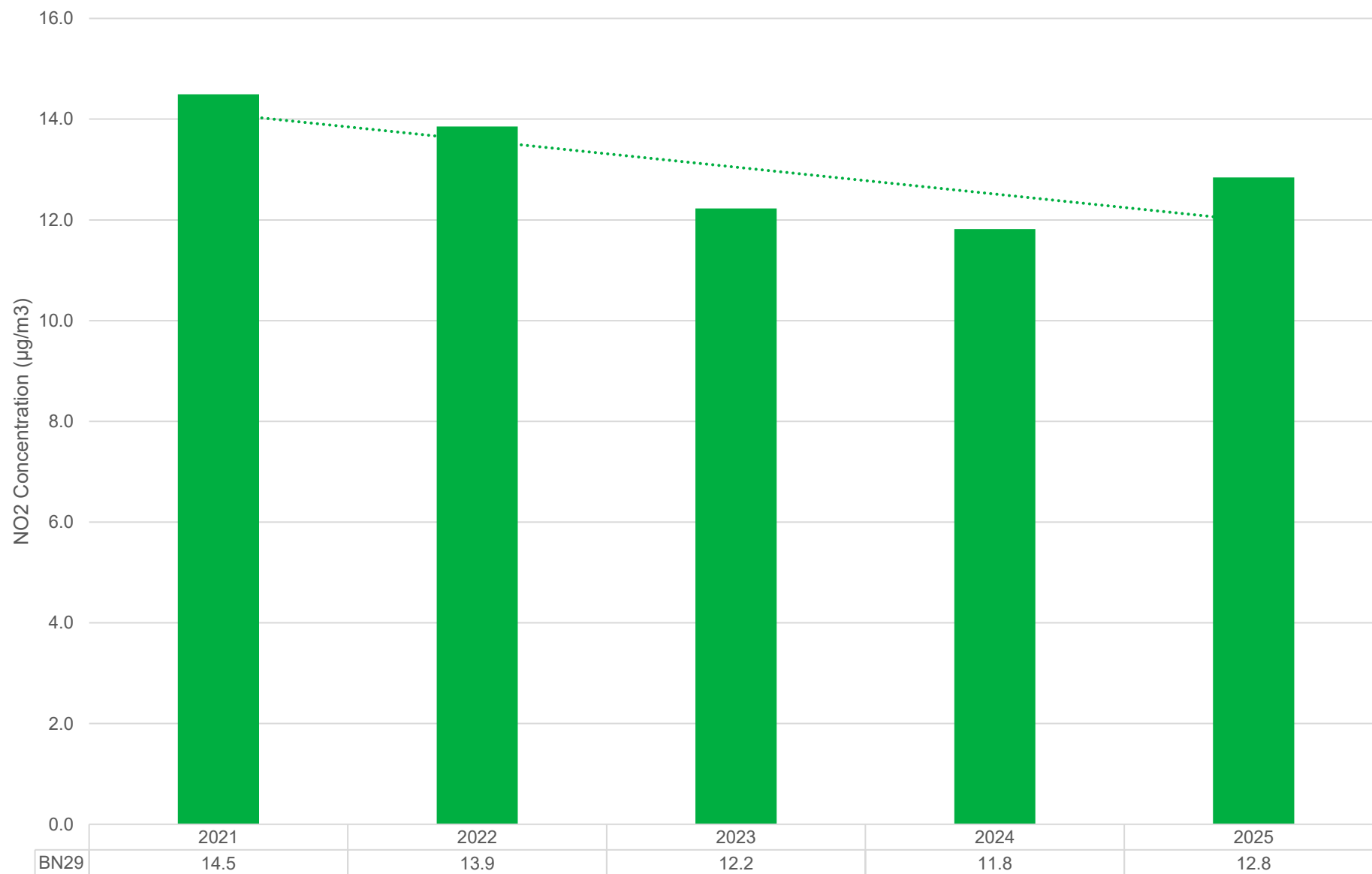
BN24 NO2 Mean Concentrations 2021 - 20245



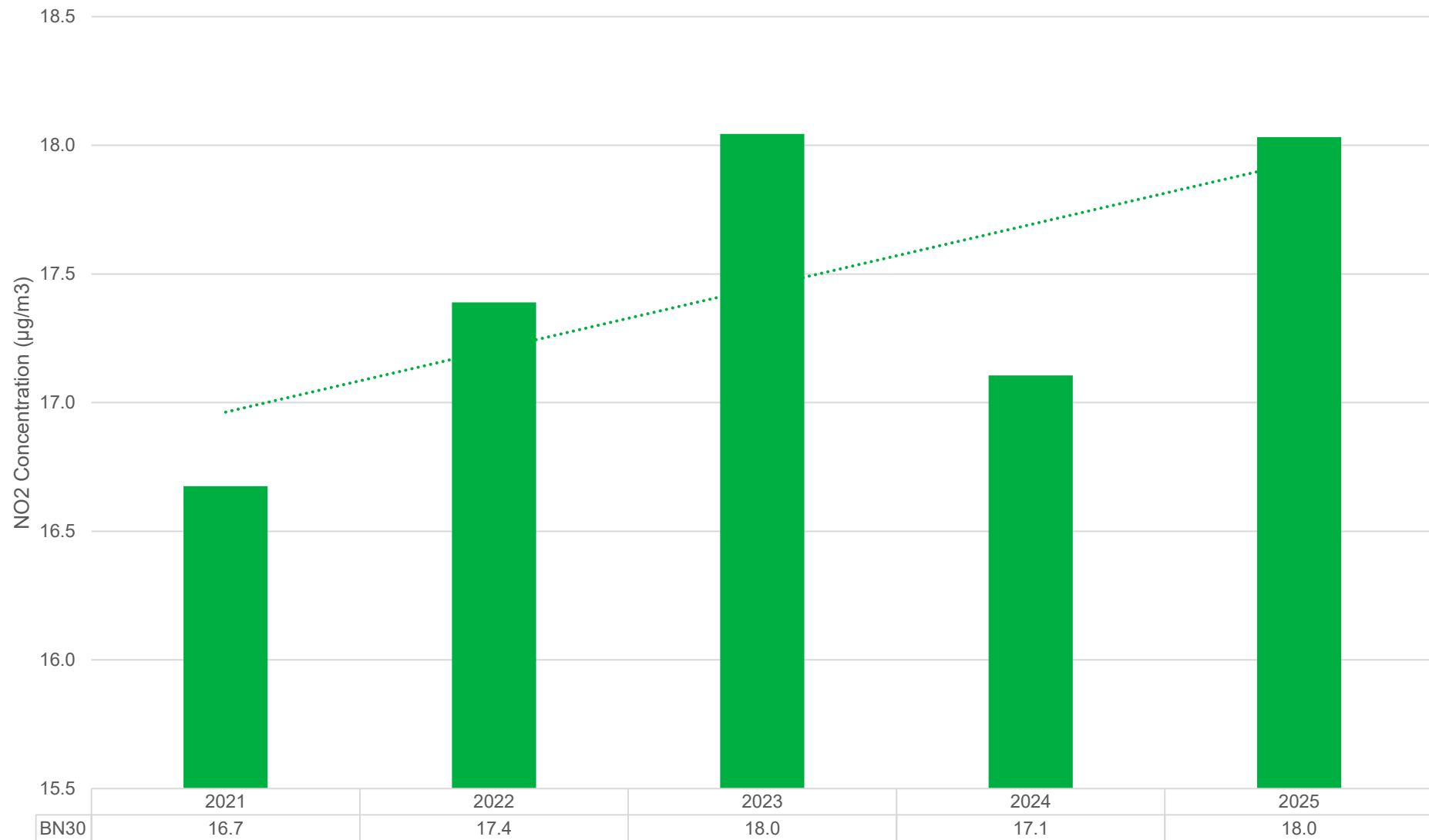
BN27 NO2 Mean Concentrations 2021 - 2025



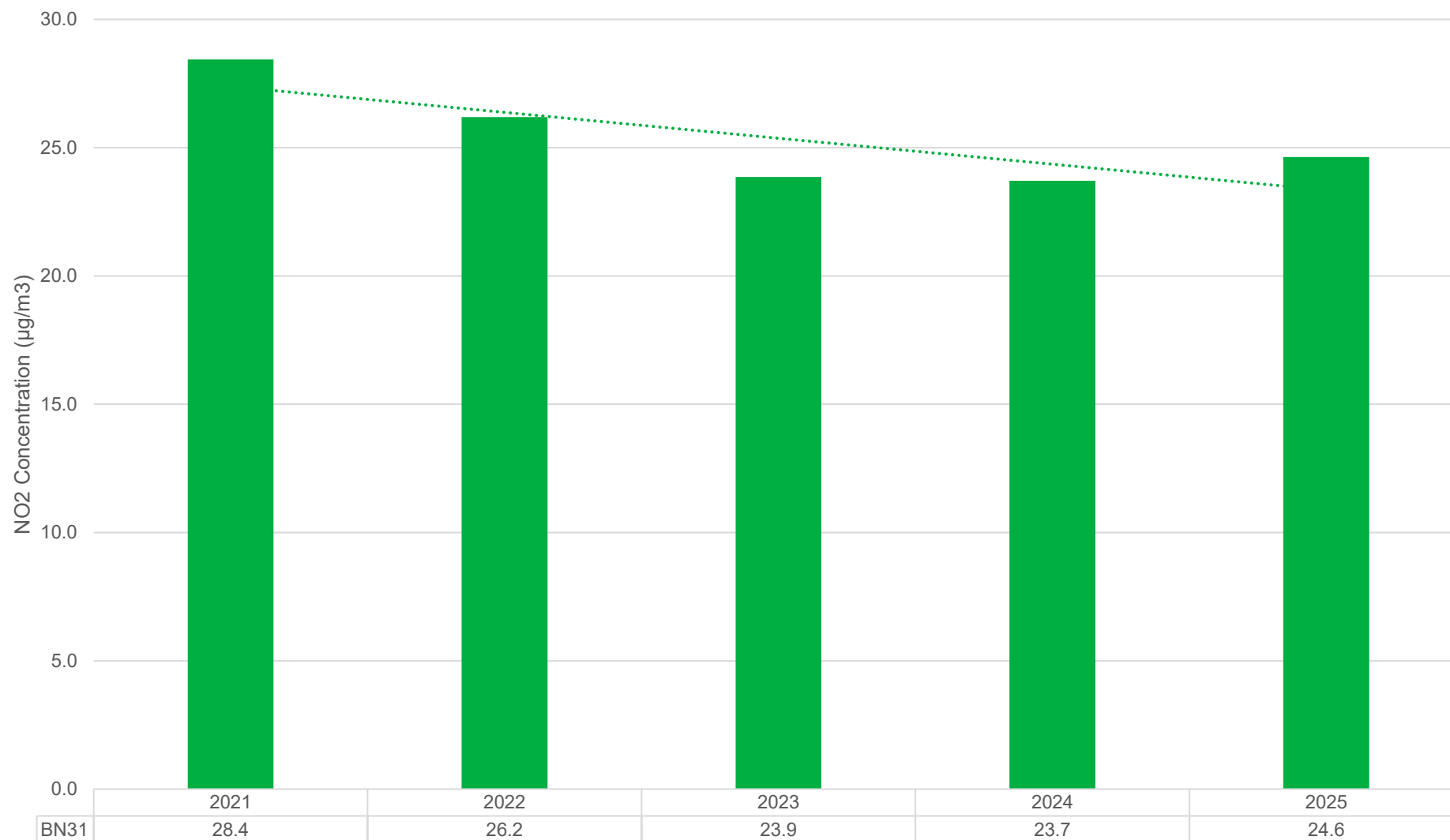
BN29 NO2 Mean Concentrations 2021 - 2025



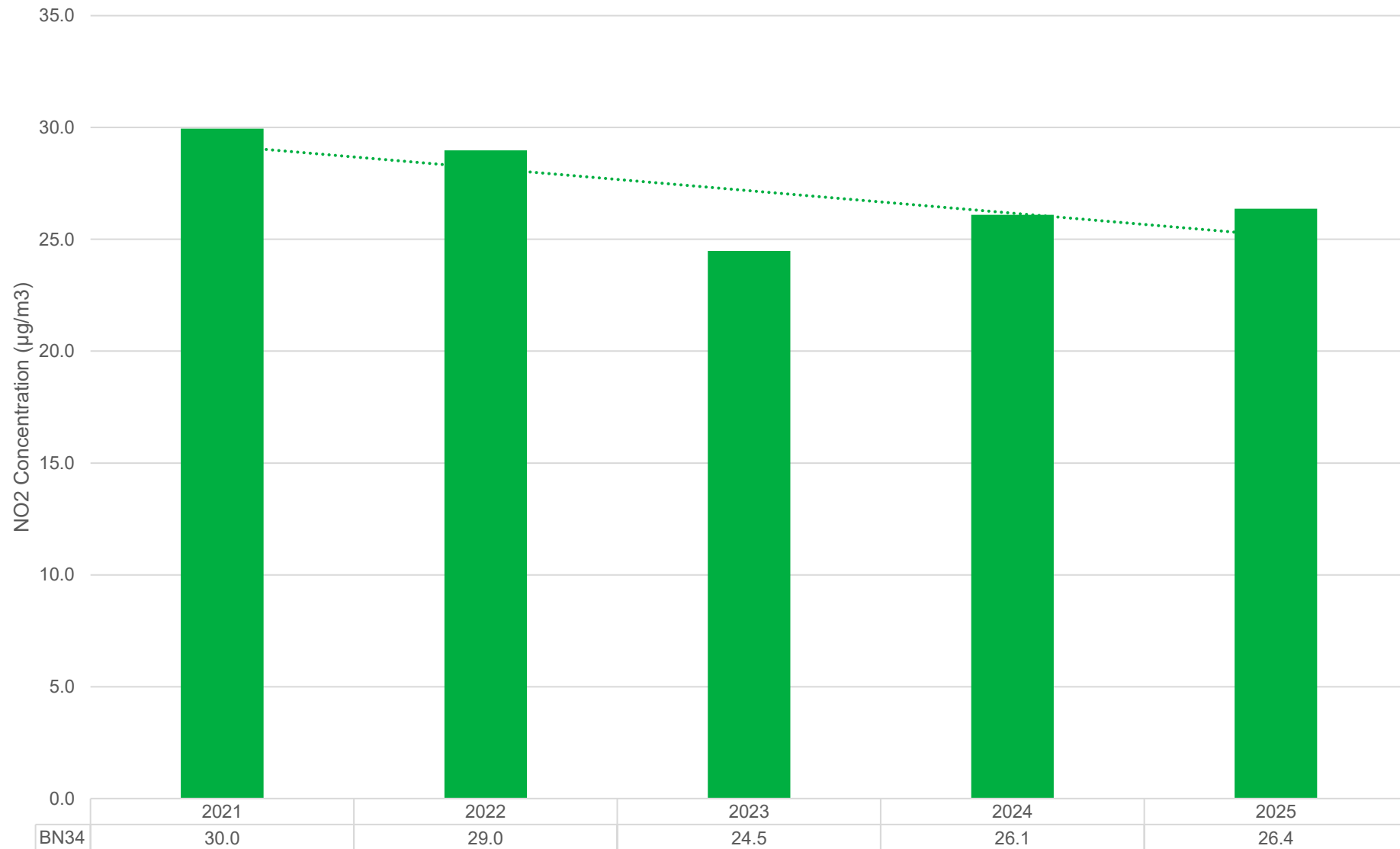
BN30 NO2 Mean Concentrations 2021- 2025



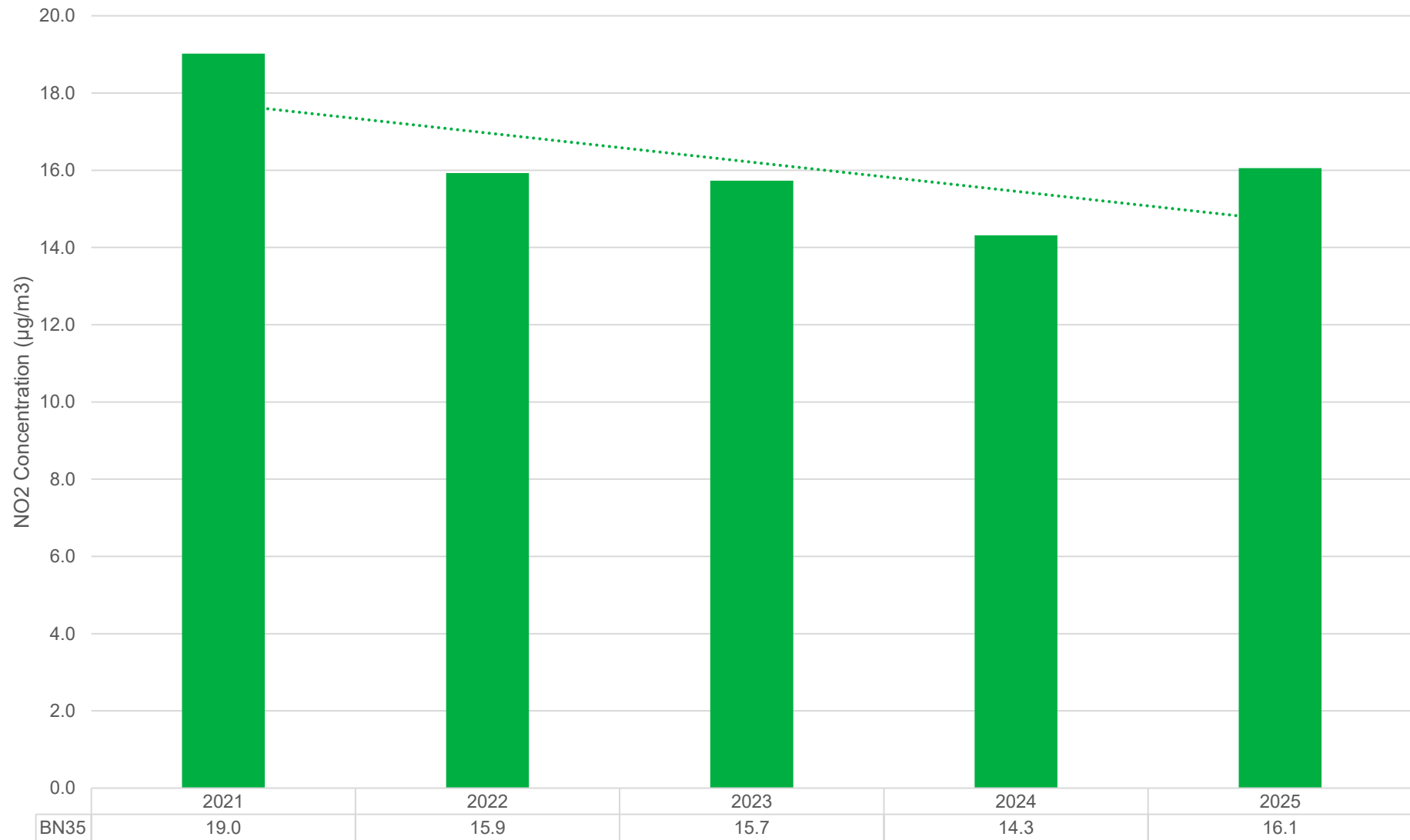
BN31 NO2 Mean Concentrations 2021 - 2025



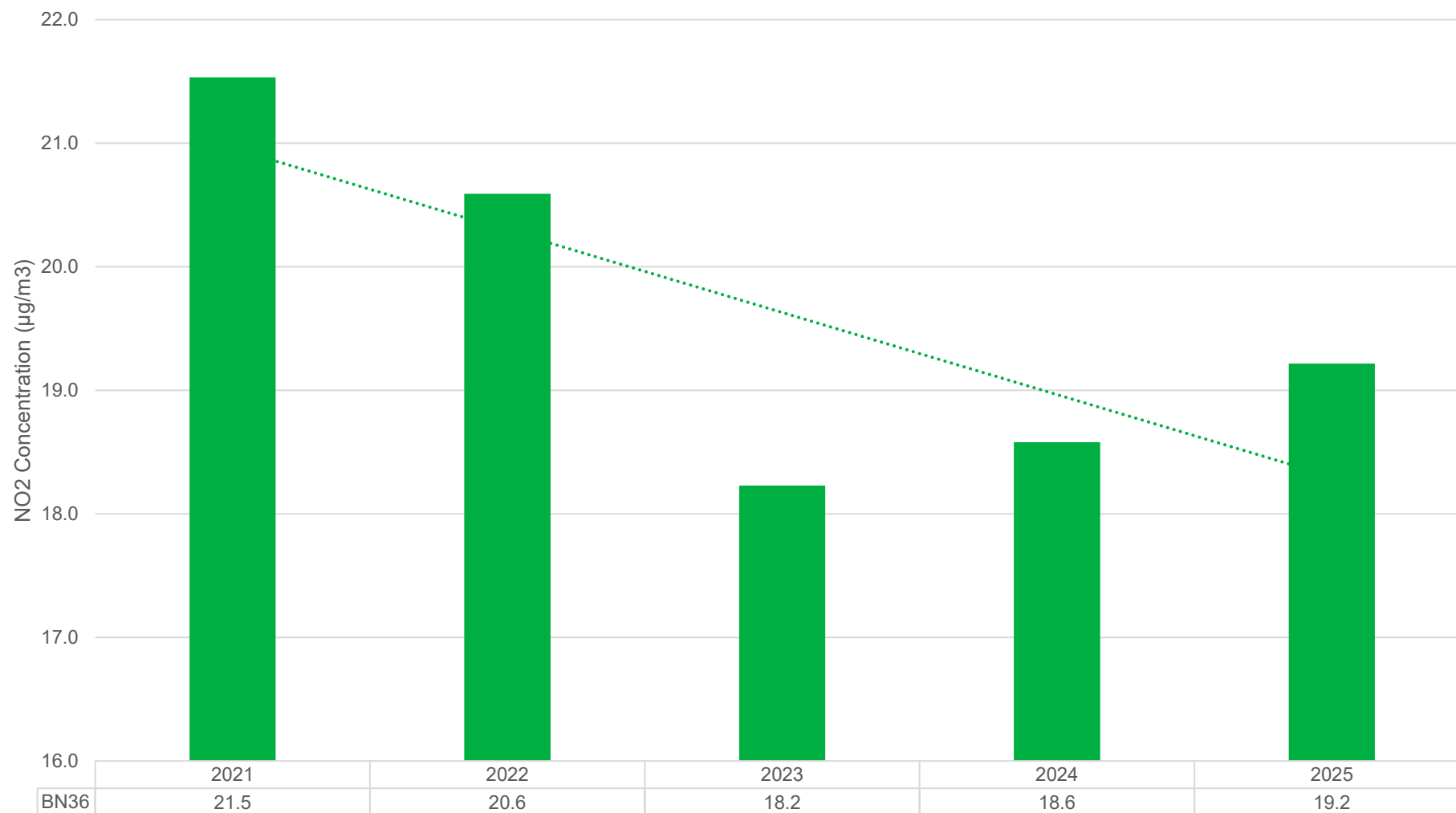
BN34 NO2 Mean Concentrations 2021 - 2025



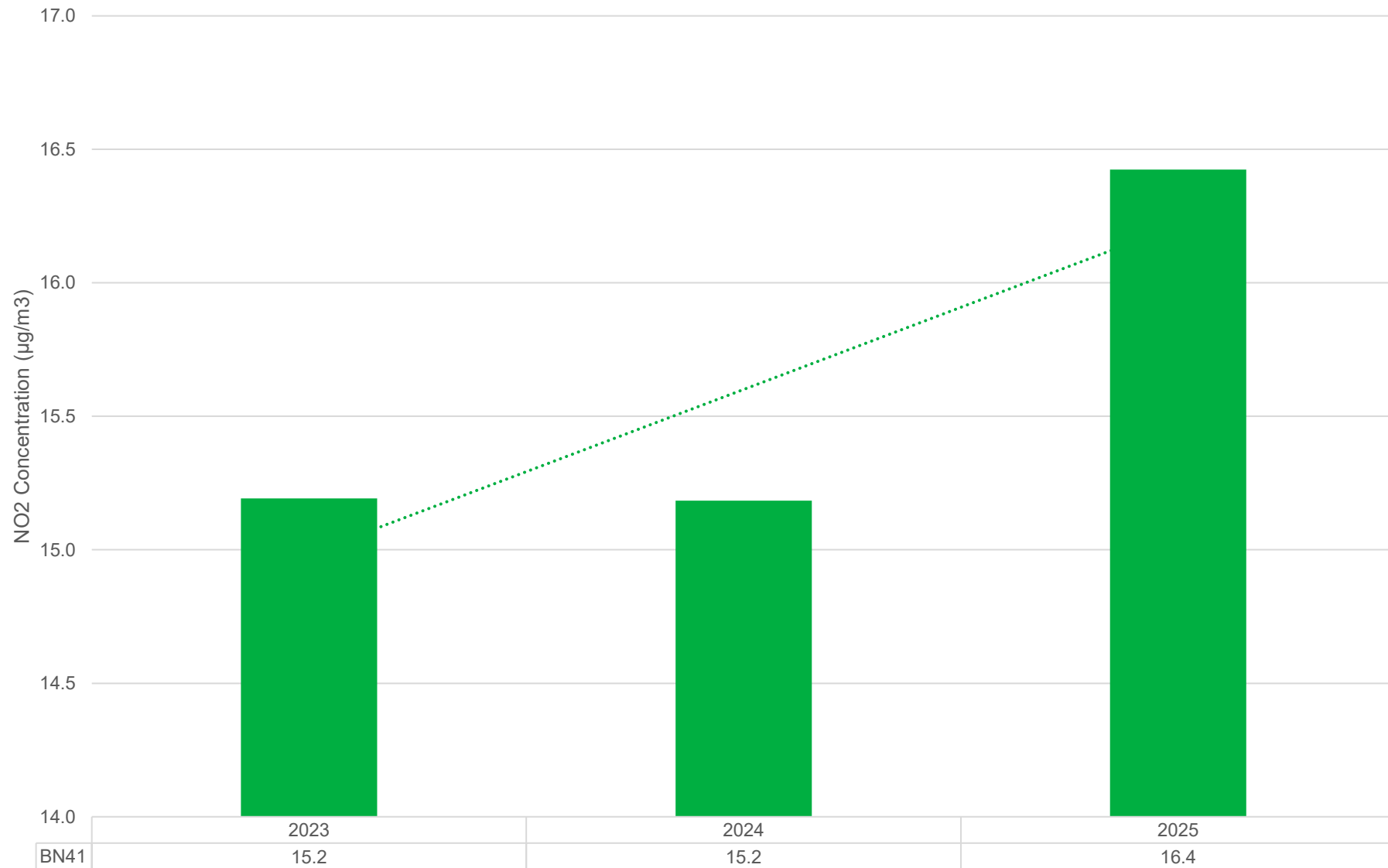
BN35 NO2 Mean Concentrations 2021 - 2025



BN36 NO2 Mean Concentrations 2021 - 2025



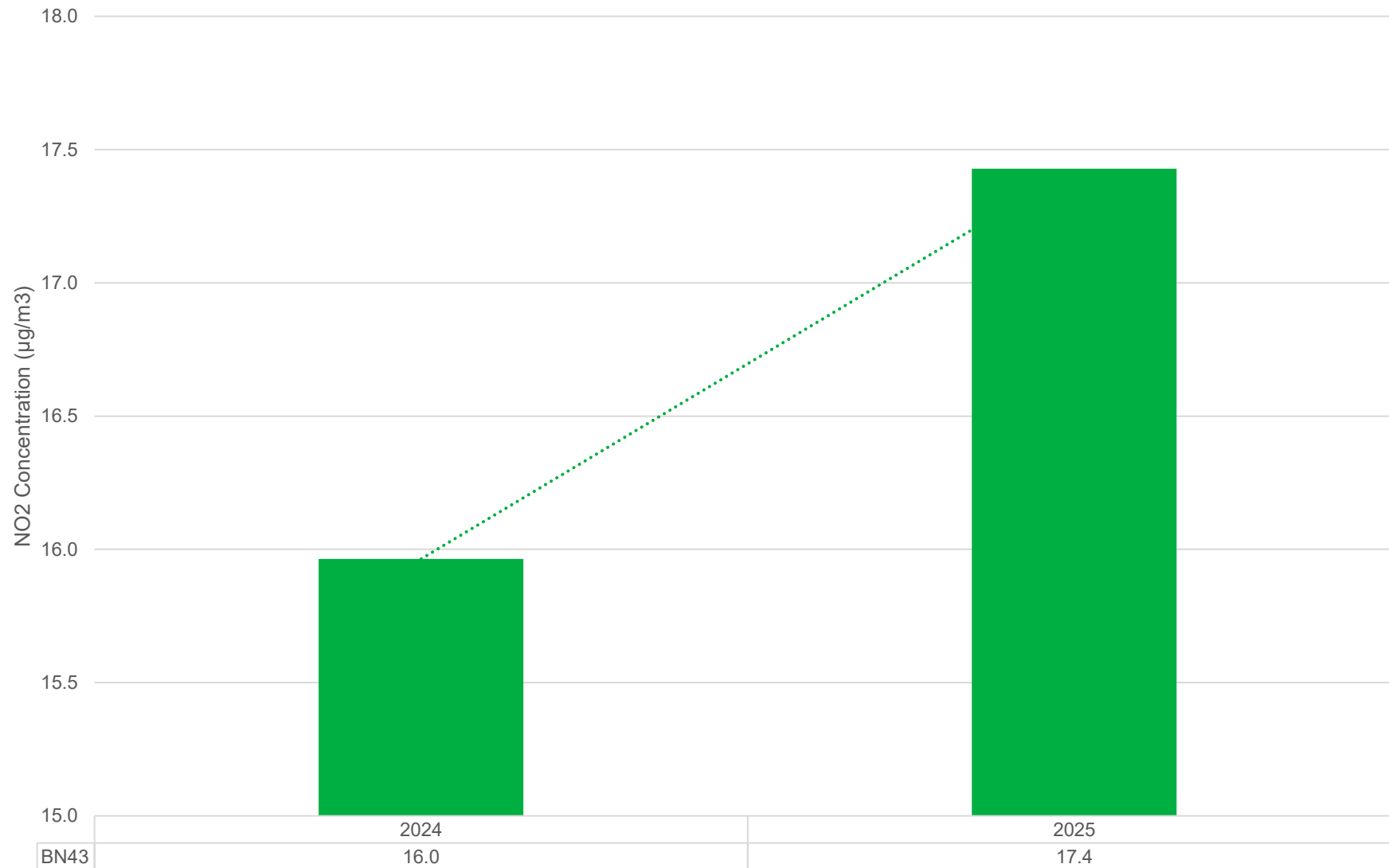
BN41 NO2 Mean Concentrations 2023 - 2025



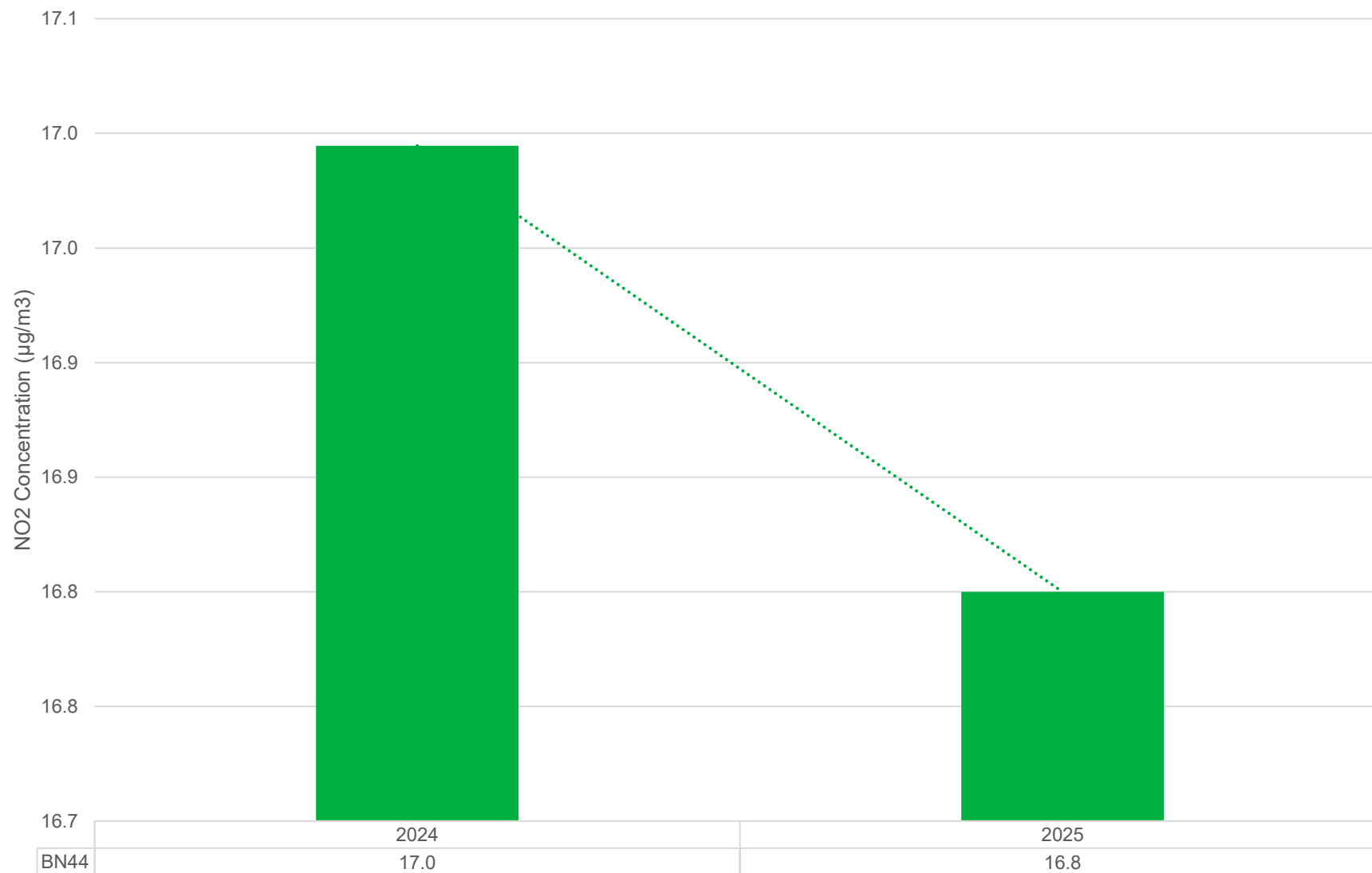
BN42 NO2 Mean Concentrations 2024 - 2025



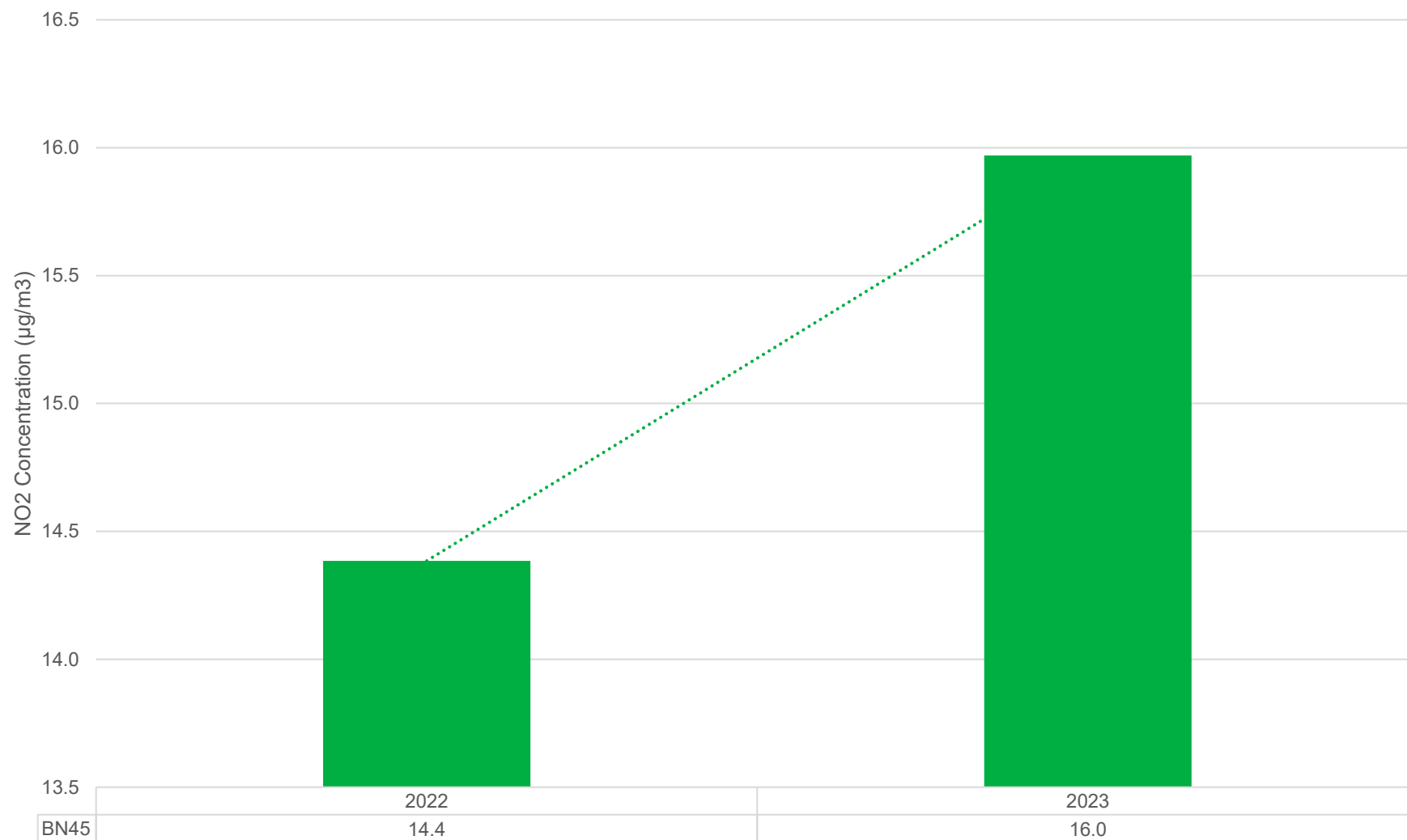
BN43 NO2 Mean Concentrations 2024 - 2025



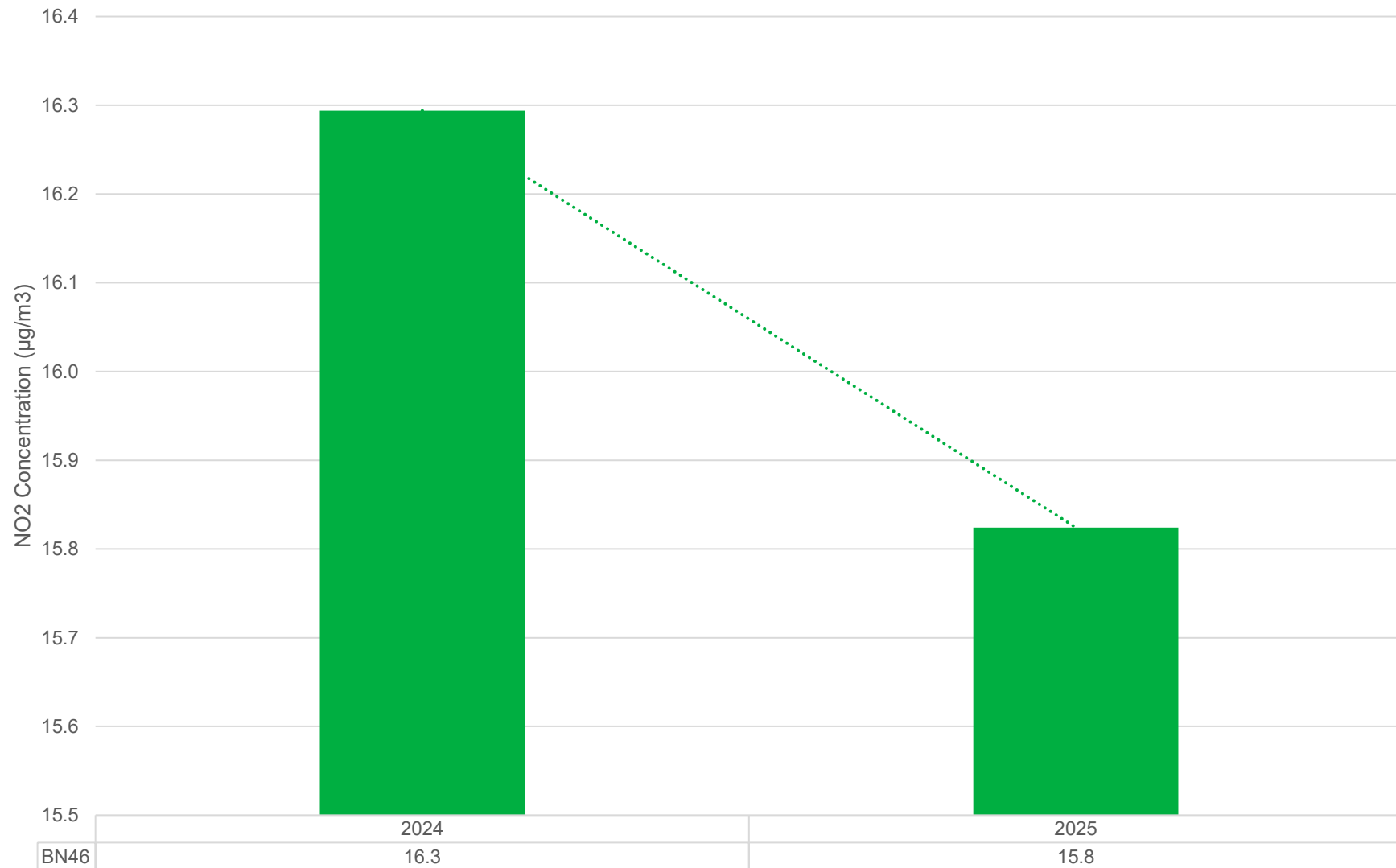
BN44 NO2 Mean Concentrations 2024 - 2025



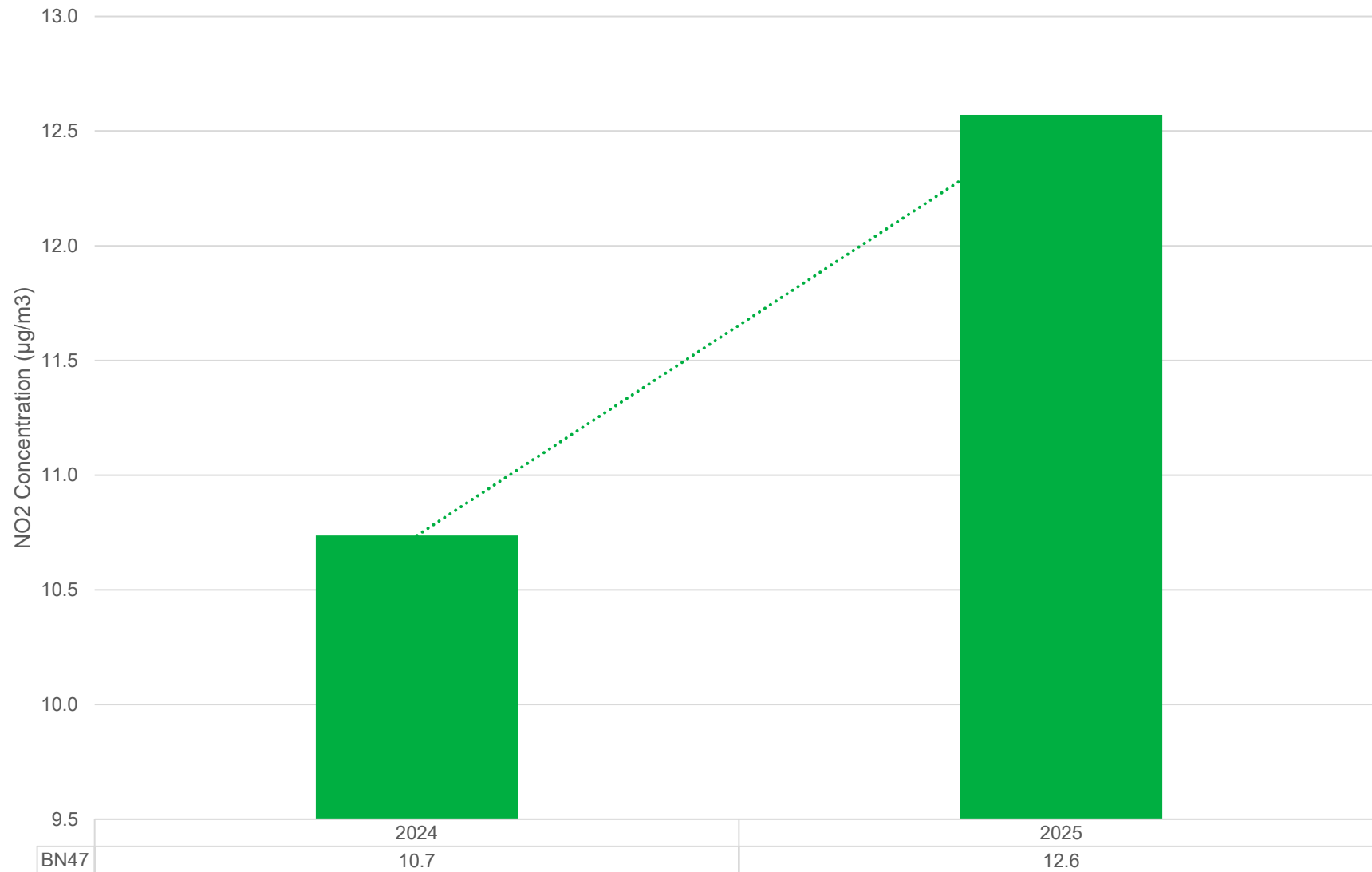
BN45 NO2 Mean Concentrations 2024 - 2025



BN46 NO2 Mean Concentrations 2024 - 2025



BN47 NO2 Mean Concentrations 2024 - 2025



Appendix B: Full Monthly Diffusion Tube Results for 2025

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

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 <(0.89)>	Annual Mean: Distance Corrected to Nearest Exposure	Comment
DT3	626798	302091	20.9	15.7	17.5	11.7	10.3	14.2	12.3	12.3	12.9	13.2	15.6	14.3	14.2	12.7		
DT4	611212	279623	31.5	25.9	28.7	25.3	19.9	21.6	20.9	20.4	20.9	24.0	25.4	23.9	24.0	21.4	-	
DT5	611936	279576	30.4	25.2	24.6	20.6	15.8	22.6	19.6	21.2	21.6	22.5	25.3	21.8	22.6	20.1	-	
DT7	619725	292748	33.7	25.9	28.4	23.2	19.1	23.4	22.1	17.5	14.8	15.9	16.6	17.8	21.5	19.2	-	
DT8	611107	301436	22.9	18.9	22.0	18.2	12.8	13.5	13.4	13.9	14.5	14.5	16.8	17.6	16.6	14.8	-	
DT9	625451	306152	31.1	20.1	21.4	17.3	11.6	17.9	13.2	15.3	16.9	16.0	21.6	21.8	18.7	16.6	-	
DT11	618138	305619	16.5	14.1	17.2	13.2	6.8	11.0	8.2	9.2	10.4	10.3	11.1	11.4	11.6	10.3	-	
DT12	611533	300986	25.1	19.1	23.3	16.2	14.0		12.6	16.1	18.5	18.4	19.8	17.5	18.2	16.2	-	
DT15	624476	283267	28.9	25.5	29.4	25.8	17.9	22.2	17.9	21.0	20.4	20.7	21.8	11.7	21.9	19.5	-	
DT16	614893	278863	24.7	16.8	18.7	15.5	11.2	13.4	14.0	14.0	12.3	15.5	15.3	16.6	15.7	13.9	-	
DT17	616991	311546	34.3	22.9	22.4	19.0	16.7	21.8	12.2	21.5	20.4	18.8	24.1	18.0	21.0	18.7	-	
DT18	619714	292732	24.6	22.2	23.7	22.0	16.4	17.7	16.7	15.1	13.4	15.5	18.3	18.1	18.6	16.6	-	
DT19	619734	292751	32.1	22.8	25.4	22.5	19.1	21.8	20.7	16.1	12.2	13.6	147.5	16.2	30.8	27.4	-	
DT20	619643	292348	30.2	20.7	22.9	19.9	14.3	22.0	16.7	9.4	13.0	15.6	14.7	16.3	18.0	16.0	-	
DT21	619696	292656	28.2	23.4	25.5	12.1	19.7	16.6	19.5	13.8	12.4	14.0	15.8	16.7	18.1	16.1	-	
DT22	619711	292720	25.5	17.8	21.6	17.8	12.1	12.6	2.2	12.8	12.3	12.7	15.8	14.7	14.8	13.2	-	
DT24	611325	301191	18.2	15.9	20.4	15.6	11.8	11.3	8.0	11.1	12.4	13.3	15.0	15.2	14.0	12.5	-	
DT25	619824	293031	31.0	22.6	24.0	19.8	17.0	20.0	16.6	14.7	12.9	12.3	17.1	16.8	18.7	16.7	-	

DT29	624625	283496	38.8	26.2	32.0	27.6	18.7	21.1	19.4	26.7	25.5	26.6	28.9	23.4	26.2	23.3	-	
DT30	611785	279593	29.0	22.0	22.7	18.7	11.6	17.3	16.9	16.8	16.5	17.3	17.9	20.0	18.9	16.8	-	
DT32	636167	298802	25.5	15.3	18.4	13.4	9.4	14.2	12.4	16.7	17.3	14.5	17.9	15.1	15.8	14.1	-	
DT33	612543	302678	28.4	24.8	27.1	21.1	13.1	17.9	15.4	18.2	21.6	21.3	25.2	23.2	21.4	19.1	-	
DT34	619278	305655	24.7	16.5	18.3	13.4	8.7	13.4	11.0	12.7	13.5	15.6	17.4	14.7	15.0	13.3	-	
DT35	619730	305855	25.8	19.5	21.0	13.5	7.9	12.4	11.8	12.4	14.2	15.4	18.3	16.9	15.8	14.0	-	
DT36	616842	310368	26.2	24.5	29.3	26.6	22.1	20.3	20.3	21.6	20.8		28.6	23.0	23.9	21.3	-	
DT37	616813	310415	25.7	16.3	19.3	15.5	10.1	17.7	12.3	14.4	16.8	20.3	17.0	22.2	17.3	15.4	-	
DT38	617193	311669	23.8	16.7	18.1	11.9	8.6	11.3	11.7	10.3	12.0	14.1	16.1	14.4	14.1	12.5	-	

- ☒ 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
- ☒ South Norfolk and Broadland Councils 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.

Table B.2 – NO₂ 2025 Diffusion Tube Results (µg/m³) - Broadland

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 <(0.89)>	Annual Mean: Distance Corrected to Nearest Exposure	Comment
BN10	625369	308437	27.1	26.6	24.3	17.8	15.8	14.3	13.7	14.9	11.5	19.0	20.2	18.7	18.7	16.6	-	
BN11	621649	311632	34.3	26.3	26.1	22.2	17.2	22.4	20.1	22.0	25.3	25.2	24.2	24.1	24.1	21.5	-	
BN12	621697	311569	26.2	31.4	27.9	21.6	16.2	17.1	15.4	17.5	20.6	20.1	21.1	21.9	21.4	19.1	-	
BN13	621814	311640	27.0	23.5	20.1	16.3	11.7	16.0	14.1	15.7	19.0	19.0	19.8	20.0	18.5	16.5	-	
BN15	630113	318014	23.6	21.4	20.8	19.5	14.3		11.3	17.9	13.3	13.5	17.9	22.2	17.8	15.8	-	
BN18	620186	311833	21.7	19.4	18.8	12.7	10.0	12.5	10.9	10.6	12.9	15.4	15.5	14.9	14.6	13.0	-	
BN19	627492	308775	27.0	23.4	27.8	21.9	19.9	13.8	12.3	14.5	17.9	19.2	17.4	19.5	19.6	17.4	-	
BN20	640165	310353	26.3	22.7	22.6	15.6	16.2	17.6	16.8	17.2	19.3	20.6	20.2	18.6	19.5	17.3	-	
BN24	621466	312666	21.6	19.7	17.1	13.0		9.7	9.9	9.2	11.4	12.7	14.8	14.6	14.0	12.4	-	
BN27	625505	312473	29.8	20.5	21.7	17.1	15.6	17.0	19.0	19.8	18.3	10.6	22.7	19.3	19.3	17.1	-	
BN29	613458	323917	21.4	17.6	18.6	16.1	11.0	13.6	11.3	11.8	11.9	13.3	13.0	13.5	14.4	12.8	-	
BN30	626169	311059	29.5	23.6	23.3	17.5	14.7	18.0	18.2	16.2	18.5	21.6	22.2	19.9	20.3	18.0	-	
BN31	623259	311310	37.8	34.1	30.5	29.3	21.2	25.7	22.0	23.3	27.3	27.6	26.7	26.6	27.7	24.6	-	
BN34	621712	311698	42.8	41.1	36.9	31.0	25.1	27.2	22.8	25.3	30.1	27.9	17.2	28.0	29.6	26.4	-	
BN35	620206	311723	23.5	21.4	23.1	17.4	14.4	12.9	14.6	15.3	15.7	18.6	22.9	16.7	18.0	16.1	-	
BN36	629892	317484	32.8	27.3	26.7	20.0	20.2	17.0	18.6	20.1	17.7	20.3	16.8	<0.47	21.6	19.2	-	
BN41	626804	319855	25.6	21.5	20.5	16.2	14.4	16.3	17.0	16.9	16.5	18.6	21.6	16.3	18.5	16.4	-	
BN42	621244	312899	31.7	30.2	28.3	27.7	18.9	15.1	14.7	15.5	19.1	17.5		20.3	21.7	19.3	-	
BN43	619440	315682	28.4	24.0	23.4	19.1	14.8	17.1	14.3	17.9	16.8	19.2	21.6	18.5	19.6	17.4	-	
BN44	609926	322883	25.7	22.3	23.8	18.4	15.9	16.4	17.2	16.3	16.6	16.2	20.4	17.4	18.9	16.8	-	

BN45	619349	326966	25.0	21.1	20.0	16.7	15.2	15.3	12.6	14.4	20.3	19.1	16.9	18.9	17.9	16.0	-	
BN46	626776	319797	27.8	21.6	21.1	17.8	12.9	19.8	16.9	20.6	11.8	13.7	18.9	10.6	17.8	15.8	-	
BN47	626204	310046	19.2	14.4	18.7	12.4	10.2	10.7	11.7	11.0	15.3	17.8	13.0	15.2	14.1	12.6	-	
BN49	624843	311806	26.2	19.2	19.4	14.1	11.4	12.8	13.4	13.1	15.9	17.0	17.6	12.6	16.1	14.3	-	

- ☒ 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
- ☒ South Norfolk and Broadland Councils 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 South Norfolk and Broadland During 2025

South Norfolk and Broadland Councils have not identified any new sources relating to air quality within the reporting year of 2024

Additional Air Quality Works Undertaken by South Norfolk and Broadland During 2025

During the 2025 reporting year Zephyr monitors were deployed in 2 locations in South Norfolk (Long Stratton Background and Long Stratton Town Centre). The primary purpose of the deployment was to investigate the impact of the A140 Long Stratton Bypass on the NO₂ and Particulate Matter concentrations. Interpretation of results is still ongoing and will be published in the 2026 reporting year. Raw data from the 2 Zephyr monitors can be seen in table C4,5 and 6 below. It is important to note that in the months of June, July and September unexpectedly high results were seen for all pollutants from the Long Stratton background monitor. Earthsense confirmed with us that this was an algorithmic problem which was corrected at the end of September. Consequently, the data from these months is not deemed to be accurate. 2 more Zephyr monitors have also now been deployed. Data from these units will be presented within next years ASR.

QA/QC of Diffusion Tube Monitoring

The supplier used for diffusion tube preparation and analysis within 2025 was Gradko International Ltd and the method of preparation was 20% TEA in water. Monitoring was undertaken in accordance with the 2025 Diffusion Tube Monitoring Calendar.

Diffusion Tube Annualisation

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

Diffusion Tube Bias Adjustment Factors

The diffusion tube data presented within the 2026 ASR have been corrected for bias using an adjustment factor. Bias represents the overall tendency of the diffusion tubes to under or over-read relative to the reference chemiluminescence analyser. LAQM.TG22 provides guidance with regard to the application of a bias adjustment factor to correct diffusion tube monitoring. Triplicate co-location studies can be used to determine a local bias factor based on the comparison of diffusion tube results with data taken from NO_x/NO₂ continuous analysers. Alternatively, the national database of diffusion tube co-location surveys provides bias factors for the relevant laboratory and preparation method.

South Norfolk and Broadland Councils have applied a national bias adjustment factor of 0.89 to the 2025 monitoring data (see screengrab below). A summary of bias adjustment factors used by South Norfolk and Broadland Councils over the past five years is presented in table C.1.

Analysed By	Method	Year	Site Type	Local Authority	Length of Study (months)	Diffusion Tube Mean Conc. (Dm) (µg/m ³)	Automatic Monitor Mean Conc. (Cm) (µg/m ³)	Bias (B)	Tube Precision	Bias Adjustment Factor (A) (Cm/Dm)
Gradko	50% TEA in acetone	2025	R	City Of York Council	10	16	15	7.0%	G	0.93
Gradko	50% TEA in acetone	2025	R	City Of York Council	11	21	18	18.1%	G	0.85
Gradko	20% TEA in water	2025	KS	Brighton & Hove City Council	10	37	29	28.0%	G	0.78
Aberdeen Scientific Services	20% TEA in water	2025		Overall Factor ² (6 studies)				Use		0.74
Edinburgh Scientific Services	50% TEA in acetone	2025		Overall Factor ² (1 study)				Use		0.78
Glasgow Scientific Services	20% TEA in water	2025		Overall Factor ² (1 study)				Use		0.72
Gradko	20% TEA in water	2025		Overall Factor ² (28 studies)				Use		0.89
Gradko	50% TEA in acetone	2025		Overall Factor ² (18 studies)				Use		0.92
Lambeth Scientific Services	50% TEA in acetone	2025		Overall Factor ² (2 studies)				Use		0.85
Milton Keynes Council	20% TEA in water	2025		Overall Factor ² (1 study)				Use		0.69
SOCOTEC Didcot	20% TEA in water	2025		Overall Factor ² (4 studies)				Use		0.81
SOCOTEC Didcot	50% TEA in acetone	2025		Overall Factor ² (17 studies)				Use		0.78
Somerset County Council	20% TEA in water	2025		Overall Factor ² (4 studies)				Use		0.81
Staffordshire County Council	20% TEA in water	2025		Overall Factor ² (14 studies)				Use		0.81
Tayside Scientific Services	20% TEA in water	2025		Overall Factor ² (1 study)				Use		0.67

Table C.1 – Bias Adjustment Factor

Monitoring Year	Local or National	If National, Version of National Spreadsheet	Adjustment Factor
2025	National	03/26	0.89
2024	National	03/25	0.84

2023	National	03/24	0.81
2022	National	03/23	0.83
2021	National	03/22	0.84

NO₂ Fall-off with Distance from the Road

No diffusion tube NO₂ monitoring locations within South Norfolk and Broadland Council's required distance correction during 2024.

Summary of Low Cost Air Quality Sensor Monitoring

Table C.2– Details of Low Cost Sensor Sites

Site ID	Site Name	Site Type	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Pollutants Monitored	Sensor Type	In AQMA?	Which AQMA? ⁽¹⁾	Distance to Relevant Exposure (m) ^(1,2)	Distance to kerb of nearest road (m) ⁽¹⁾	Inlet Height (m)
1516	Long Stratton Town Centre	Roadside	619721	292744	NO ₂ , PM ₁₀ , PM _{2.5}	Earthsense Zephyr	NO	N/A	10	2	2.5
1871	Long Stratton Background	Rural Background	618385	296035	NO ₂ , PM ₁₀ , PM _{2.5}	Earthsense Zephyr	NO	N/A	40	30	2.5

Table C.3 – Monthly Air Quality Sensor Monitoring Results – NO₂ (µg/m³)

Site 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 Data
1516	619721	292744	33	31	29	22	21	17	17	15	17	18	20	20	21
1871	618385	296035	10	9	13	16	21	37	33	32	20	17	19	20	20

Table C.4 – Monthly Air Quality Sensor Monitoring Results – PM2.5

Site ID	X OS Grid Ref (Eastin g)	Y OS Grid Ref (Northi ng)	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual Mean Data
1516	619721	292744	33	31	29	22	21	17	17	15	17	18	20	20	21
1871	618385	296035	10	9	13	16	21	37	33	32	20	17	19	20	20

Table C.5 – Monthly Air Quality Sensor Monitoring Results – PM10

Site ID	X OS Grid Ref (Eastin g)	Y OS Grid Ref (Northi ng)	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual Mean Data
1516	619721	292744	33	31	29	22	21	17	17	15	17	18	20	20	21
1871	618385	296035	10	9	13	16	21	37	33	32	20	17	19	20	20

Long Stratton Town Centre

Air Quality Exceedances of the AQS Objectives

NO₂ - annual data capture was 99.5 %

The annual mean was 21.5 $\mu\text{g m}^{-3}$ which did not exceed the 40 $\mu\text{g m}^{-3}$ Objective.

The maximum hourly mean was 86.8 $\mu\text{g m}^{-3}$ so there were no exceedances of the NO₂ hourly limit of 200 $\mu\text{g m}^{-3}$. There is an annual allowance of 18 hours so the Objective was not exceeded.

Gravimetric PM₁₀ - annual data capture was 99.5 %

The annual mean was 10.9 $\mu\text{g m}^{-3}$ which did not exceed the 40 $\mu\text{g m}^{-3}$ Objective.

The maximum daily mean was 54.2 $\mu\text{g m}^{-3}$ so there was 1 exceedance of the PM₁₀ daily limit of 50 $\mu\text{g m}^{-3}$. There is an annual allowance of 35 days so the Objective was not exceeded.

Gravimetric PM_{2.5} - annual data capture was 99.5 %

The annual mean was 7.3 $\mu\text{g m}^{-3}$ which did not exceed the 20 $\mu\text{g m}^{-3}$ Objective.

O₃ - annual data capture was 99.5 %

The maximum running 8-hour mean was 136.5 $\mu\text{g m}^{-3}$ so there were 17 days with exceedances of the Ozone limit of 100 $\mu\text{g m}^{-3}$. There is an annual allowance of 10 days so the Objective was **exceeded**. Note that the Ozone standard is not set in the regulations.

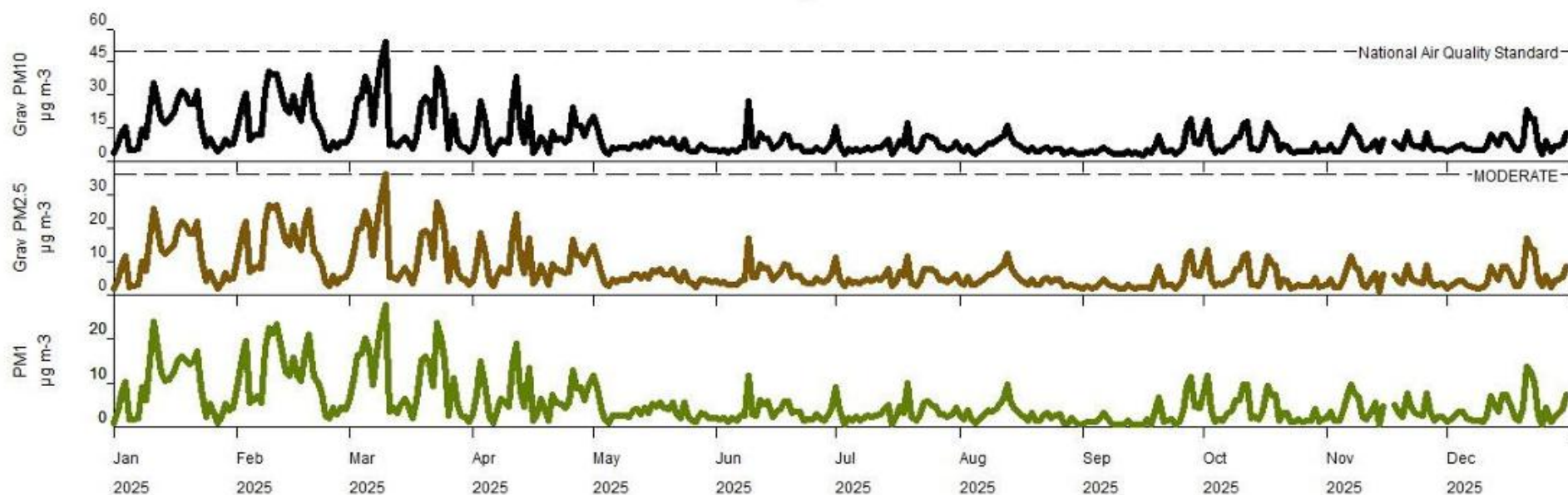
Air Quality Exceedances

Pollutant	Air Quality (England) Regulations 2000 & (Amendment) Regulations 2002	Max Conc	Number	Days	Allowed	Exceeded
Nitrogen Dioxide	Annual mean > 40 $\mu\text{g m}^{-3}$	21.5 $\mu\text{g m}^{-3}$	0	-	-	No
Nitrogen Dioxide	Hourly mean > 200 $\mu\text{g m}^{-3}$	86.8 $\mu\text{g m}^{-3}$	0	0	18 hours	No
PM ₁₀ Particulate Matter (Gravimetric)	Annual mean > 40 $\mu\text{g m}^{-3}$	10.9 $\mu\text{g m}^{-3}$	0	-	-	No
PM ₁₀ Particulate Matter (Gravimetric)	Daily mean > 50 $\mu\text{g m}^{-3}$	54.2 $\mu\text{g m}^{-3}$	1	1	35 days	No
PM _{2.5} Particulate Matter (Gravimetric)	Annual mean > 20 $\mu\text{g m}^{-3}$	7.3 $\mu\text{g m}^{-3}$	0	-	-	No
Ozone *	Daily max running 8-hr mean > 100 $\mu\text{g m}^{-3}$	136.5 $\mu\text{g m}^{-3}$	17	17	10 days	Yes

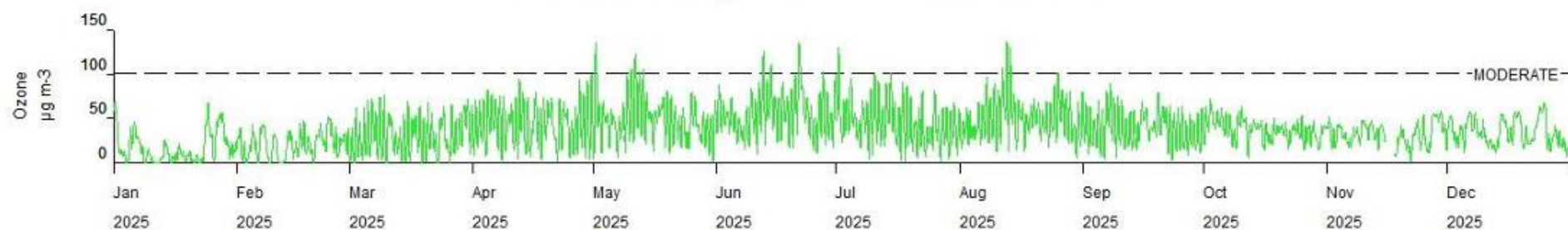
* Not set in regulations

SOUTH NORFOLK LONG STRATTON TOWN CENTRE ZEPHYR 2025

Daily Means



Running 8-hour Means



Long Stratton Background

Air Quality Exceedances of the AQS Objectives

NO₂ - annual data capture was 98.2 % and 99.8 % for the monitored period

The annual mean was 20.8 µg m⁻³ which did not exceed the 40 µg m⁻³ Objective.

The maximum hourly mean was 283.8 µg m⁻³ so there were 23 exceedances of the NO₂ hourly limit of 200 µg m⁻³. There is an annual allowance of 18 hours so the Objective was **exceeded**.

Gravimetric PM₁₀ - annual data capture was 98.2 % and 99.8 % for the monitored period

The annual mean was 10.7 µg m⁻³ which did not exceed the 40 µg m⁻³ Objective.

The maximum daily mean was 54.2 µg m⁻³ so there was 1 exceedance of the PM₁₀ daily limit of 50 µg m⁻³. There is an annual allowance of 35 days so the Objective was not exceeded.

Gravimetric PM_{2.5} - annual data capture was 98.2 % and 99.8 % for the monitored period

The annual mean was 7.0 µg m⁻³ which did not exceed the 20 µg m⁻³ Objective.

O₃ - annual data capture was 98.2 % and 99.8 % for the monitored period

The maximum running 8-hour mean was 167.3 µg m⁻³ so there were 80 days with exceedances of the Ozone limit of 100 µg m⁻³. There is an annual allowance of 10 days so the Objective was **exceeded**. Note that the Ozone standard is not set in the regulations.

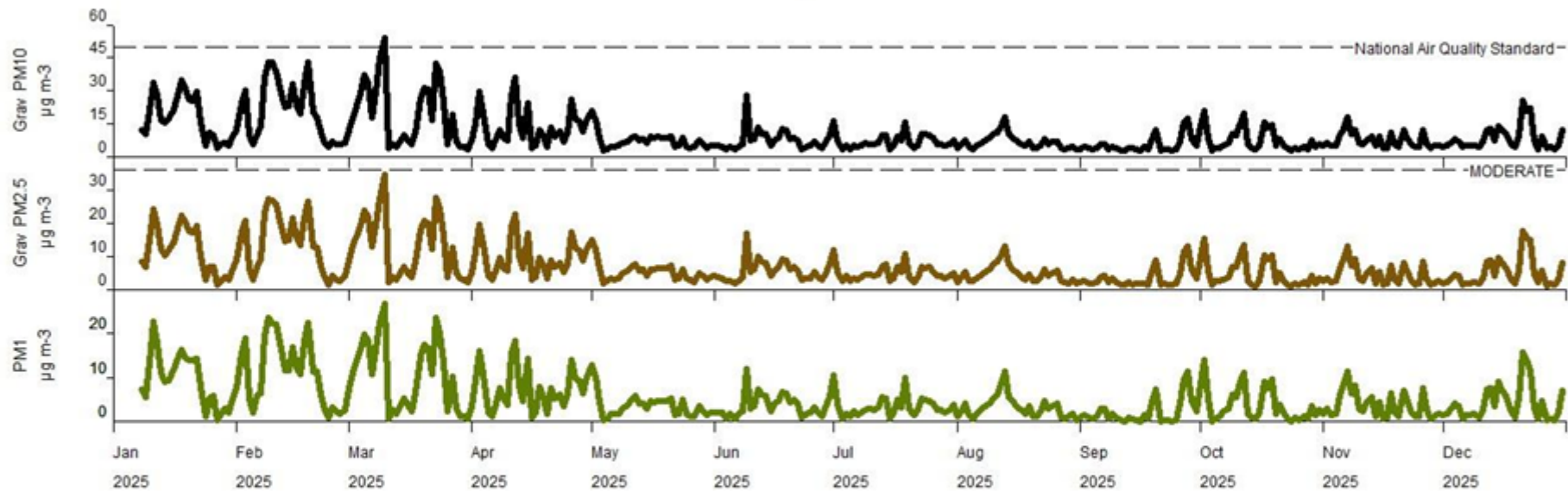
Air Quality Exceedances

Pollutant	Air Quality (England) Regulations 2000 & (Amendment) Regulations 2002	Max Conc	Number	Days	Allowed	Exceeded
Nitrogen Dioxide	Annual mean > 40 $\mu\text{g m}^{-3}$	20.8 $\mu\text{g m}^{-3}$	0	-	-	No
Nitrogen Dioxide	Hourly mean > 200 $\mu\text{g m}^{-3}$	283.8 $\mu\text{g m}^{-3}$	23	10	18 hours	Yes
PM ₁₀ Particulate Matter (Gravimetric)	Annual mean > 40 $\mu\text{g m}^{-3}$	10.7 $\mu\text{g m}^{-3}$	0	-	-	No
PM ₁₀ Particulate Matter (Gravimetric)	Daily mean > 50 $\mu\text{g m}^{-3}$	54.2 $\mu\text{g m}^{-3}$	1	1	35 days	No
PM _{2.5} Particulate Matter (Gravimetric)	Annual mean > 20 $\mu\text{g m}^{-3}$	7.0 $\mu\text{g m}^{-3}$	0	-	-	No
Ozone *	Daily max running 8-hr mean > 100 $\mu\text{g m}^{-3}$	167.3 $\mu\text{g m}^{-3}$	80	80	10 days	Yes

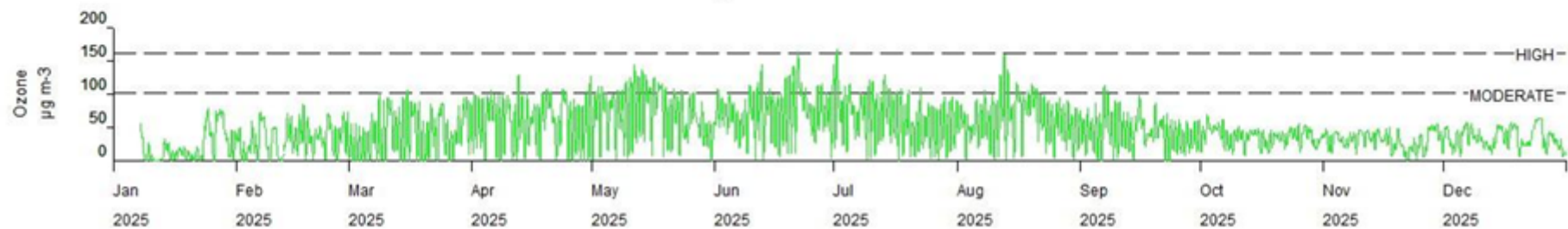
* Not set in regulations

SOUTH NORFOLK LONG STRATTON BACKGROUND ZEPHYR 2025

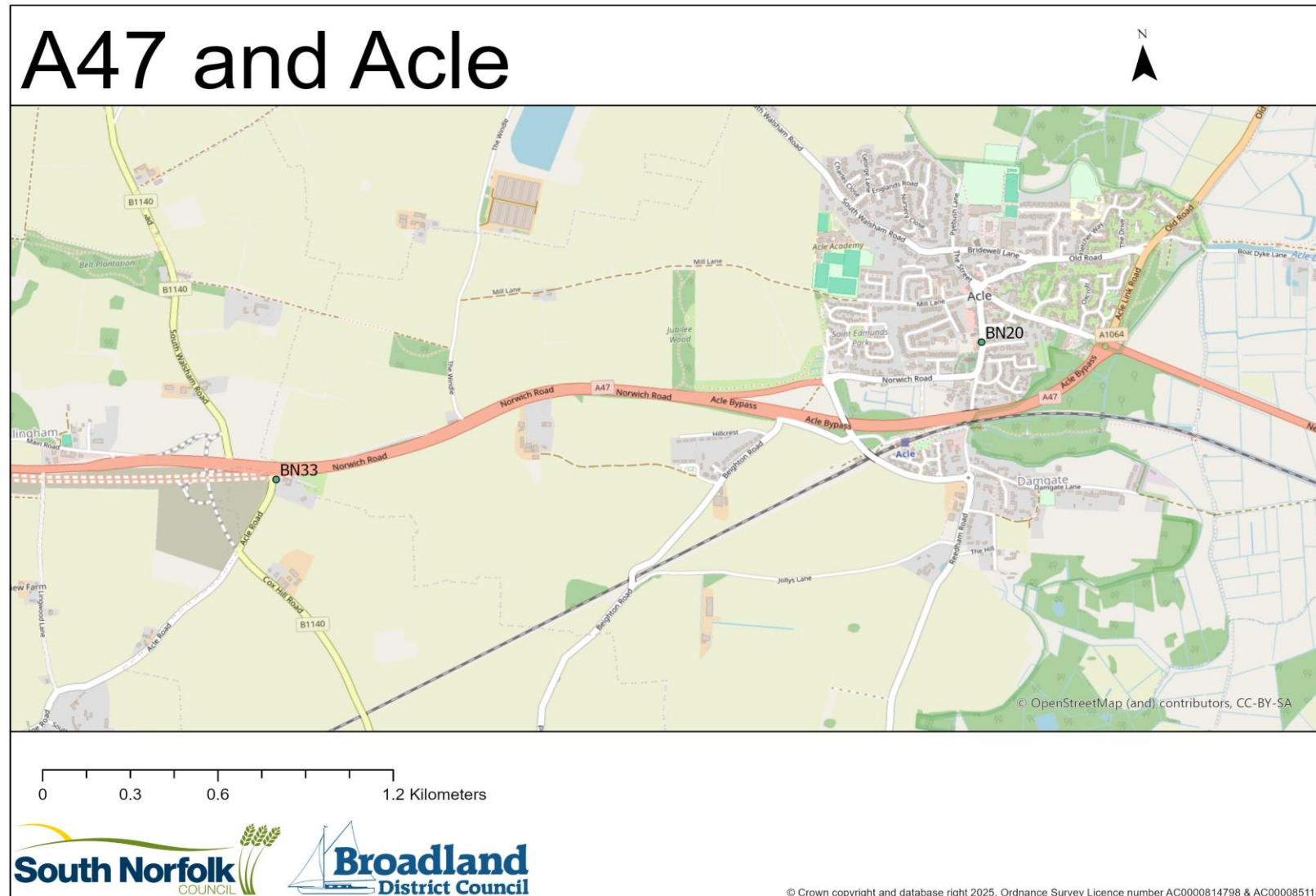
Daily Means



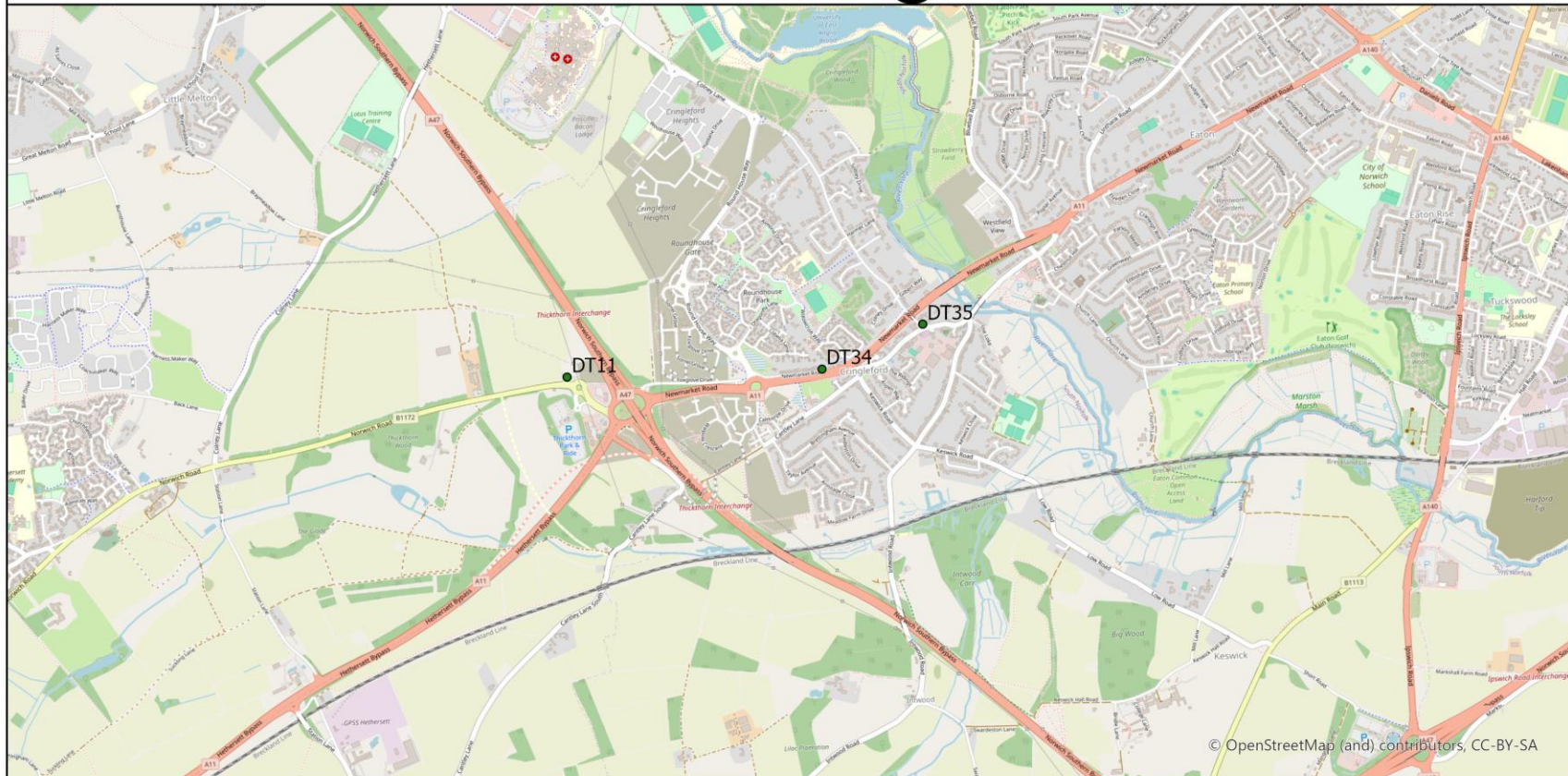
Running 8-hour Means



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



Thickthorn and Cringleford

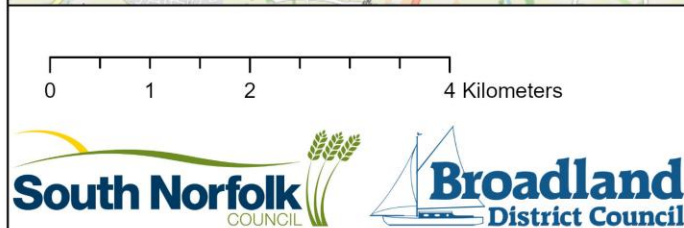
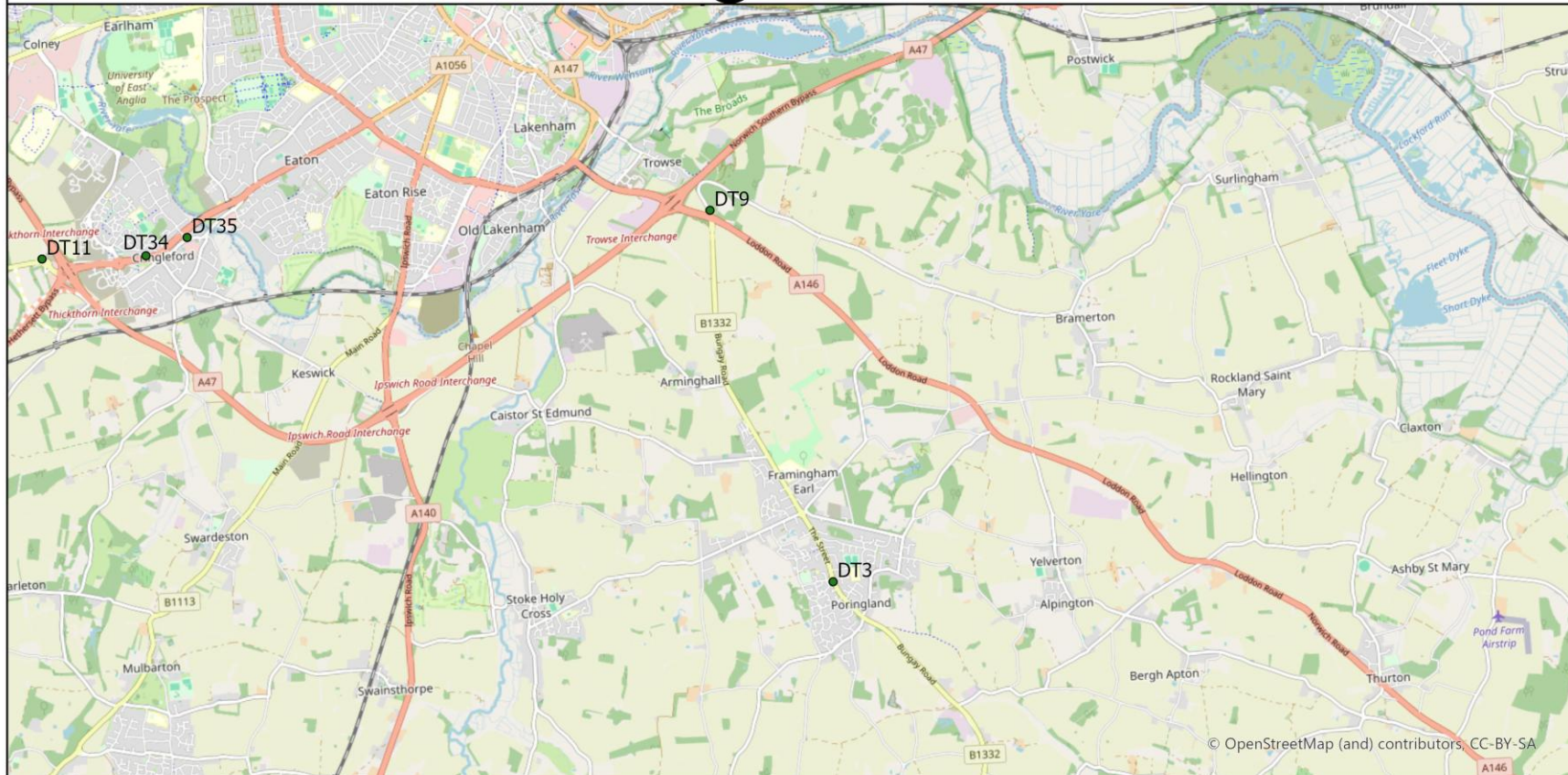


0 0.47 0.95 1.9 Kilometers



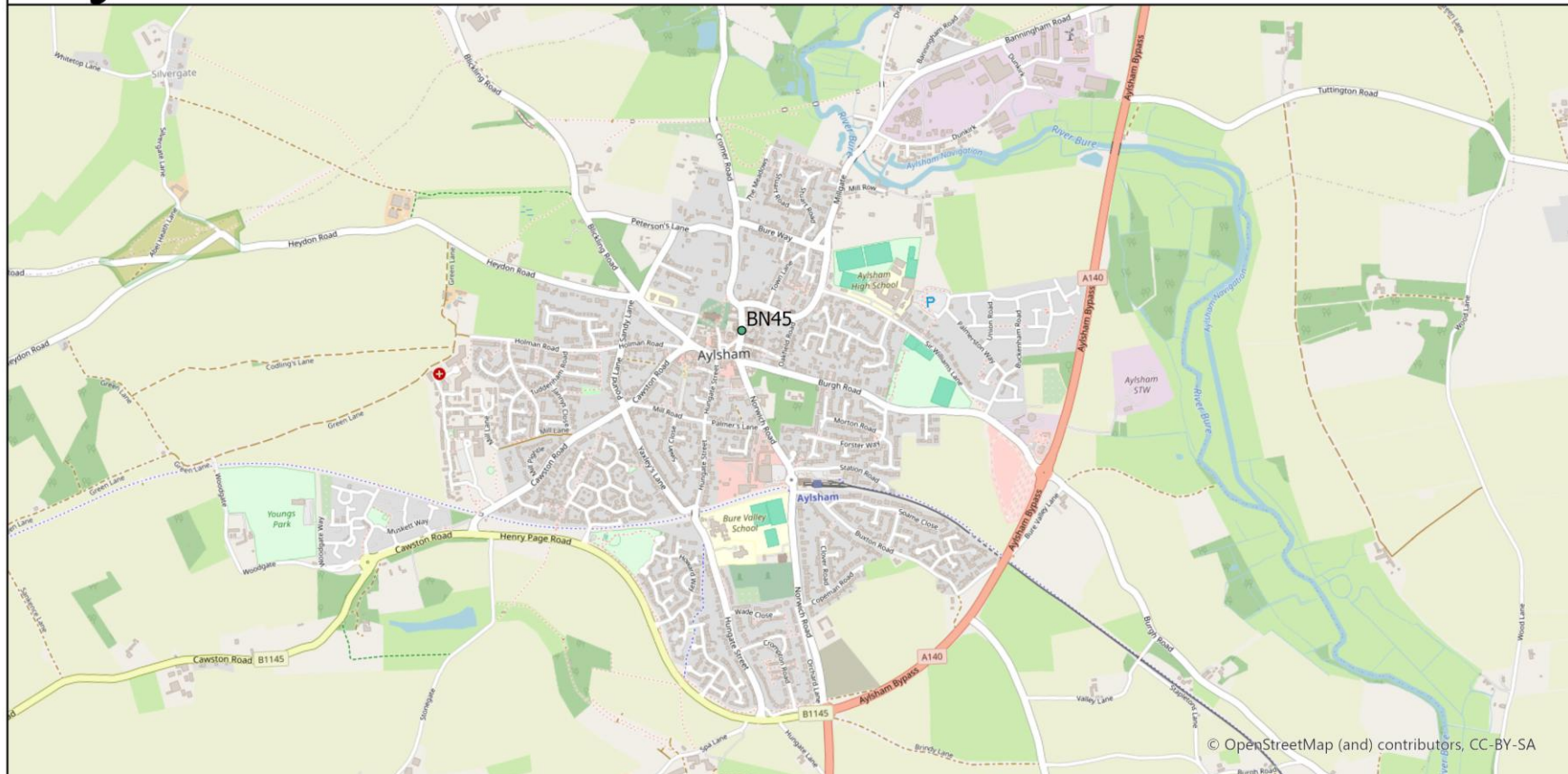
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A146 and Poringland



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Aylsham

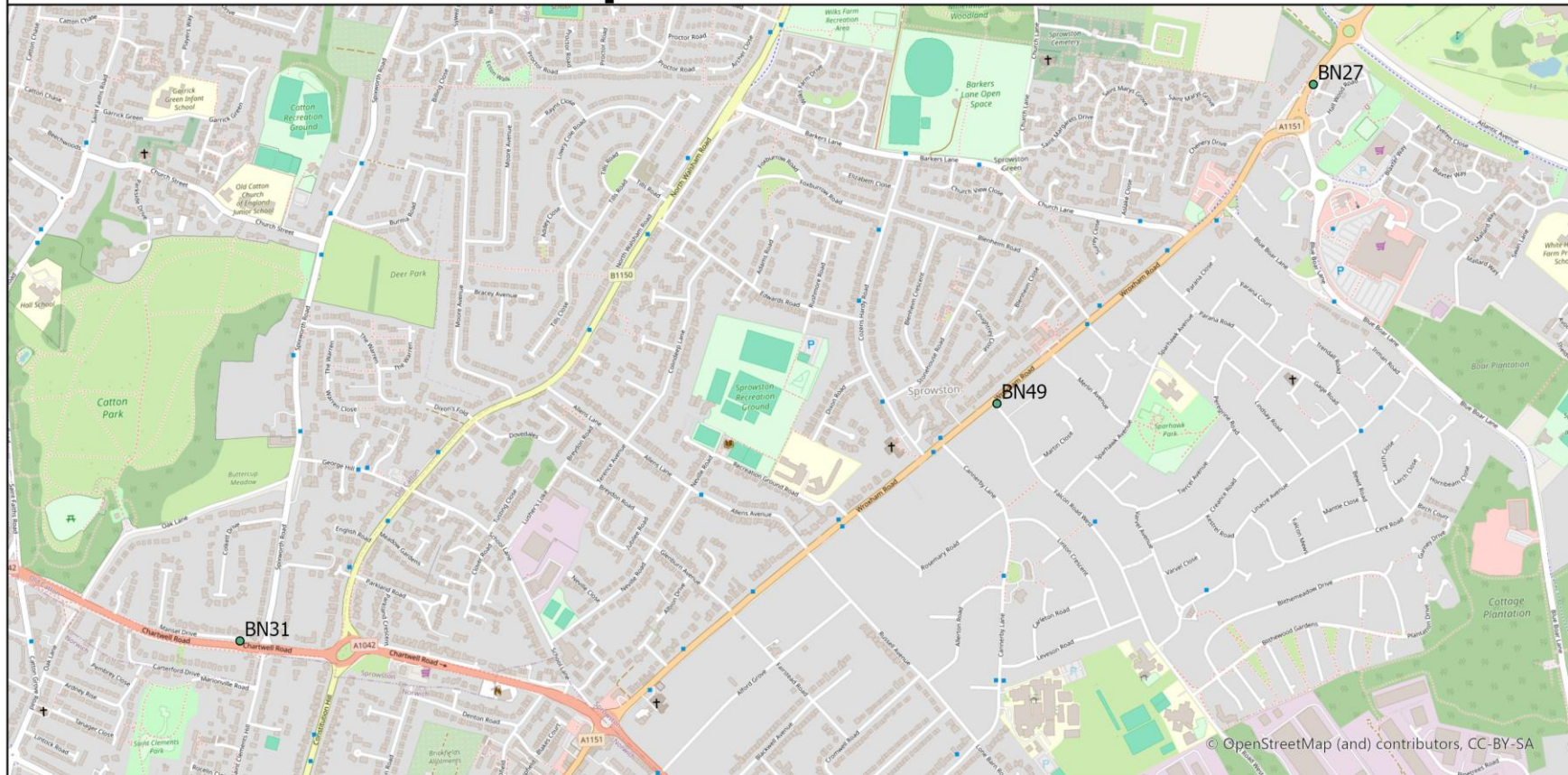


0 0.33 0.65 1.3 Kilometers



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Catton and Sprowston

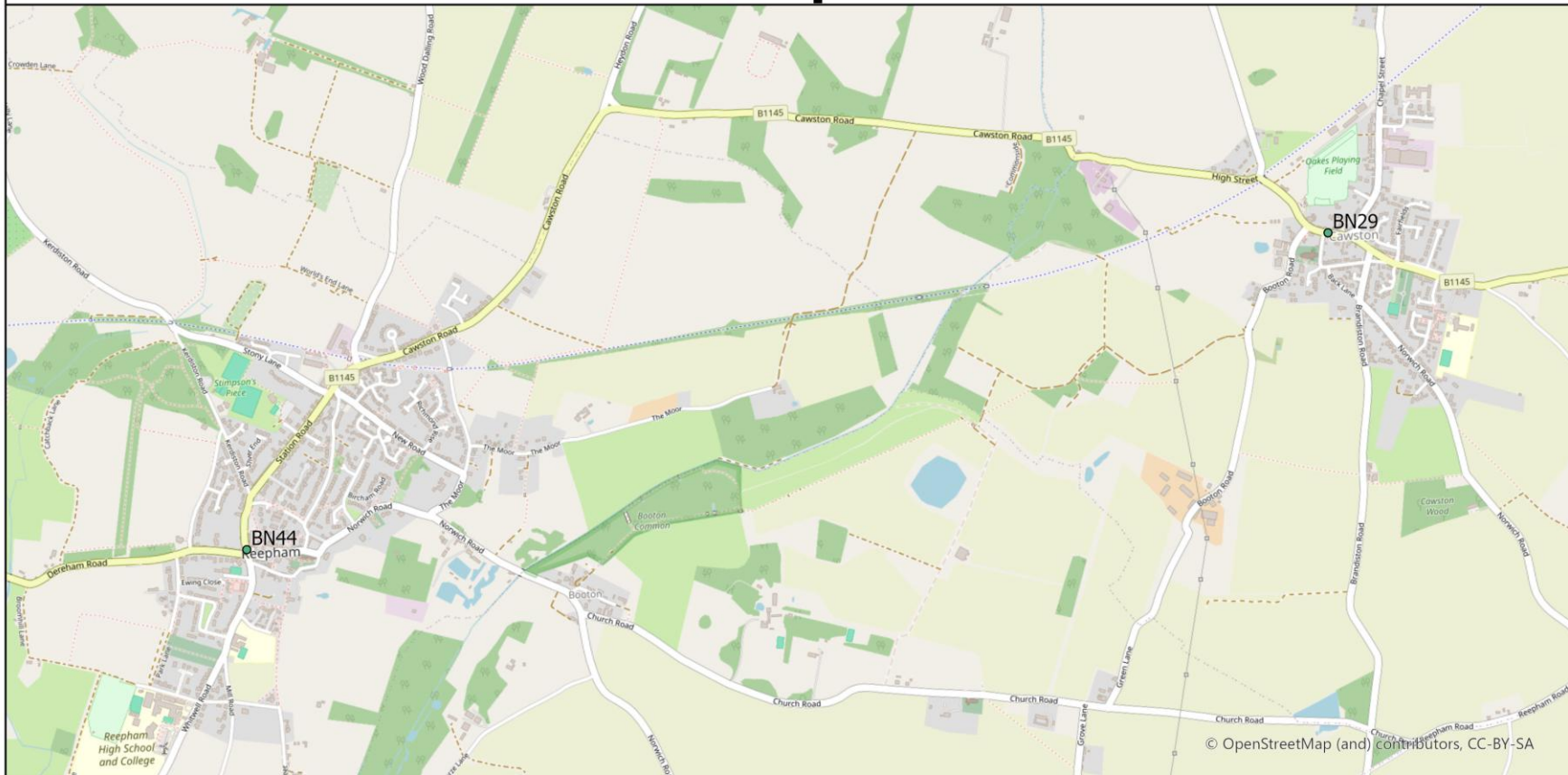


0 0.2 0.4 0.8 Kilometers



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Cawston and Reepham

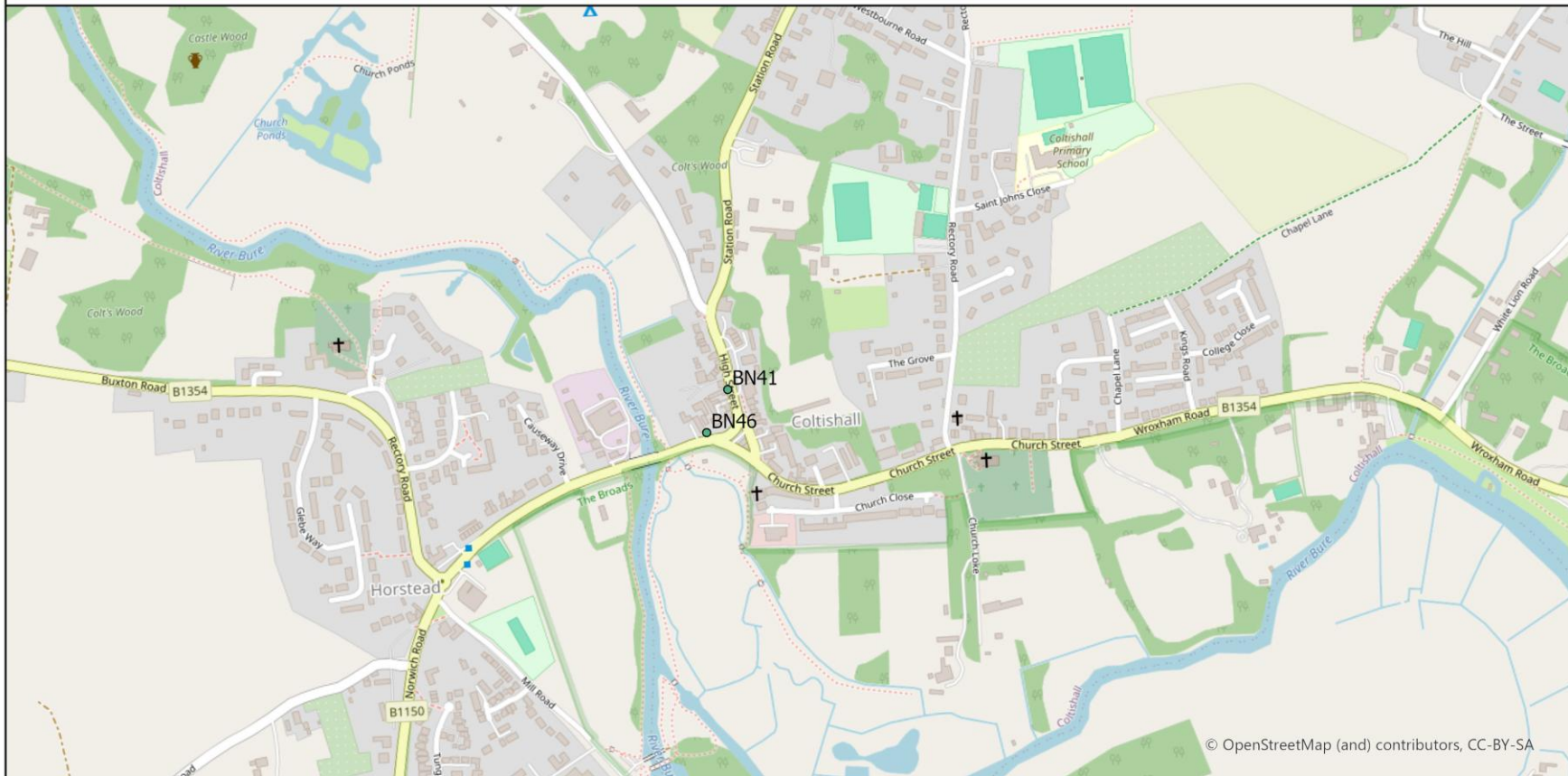


0 0.33 0.65 1.3 Kilometers



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Coltishall



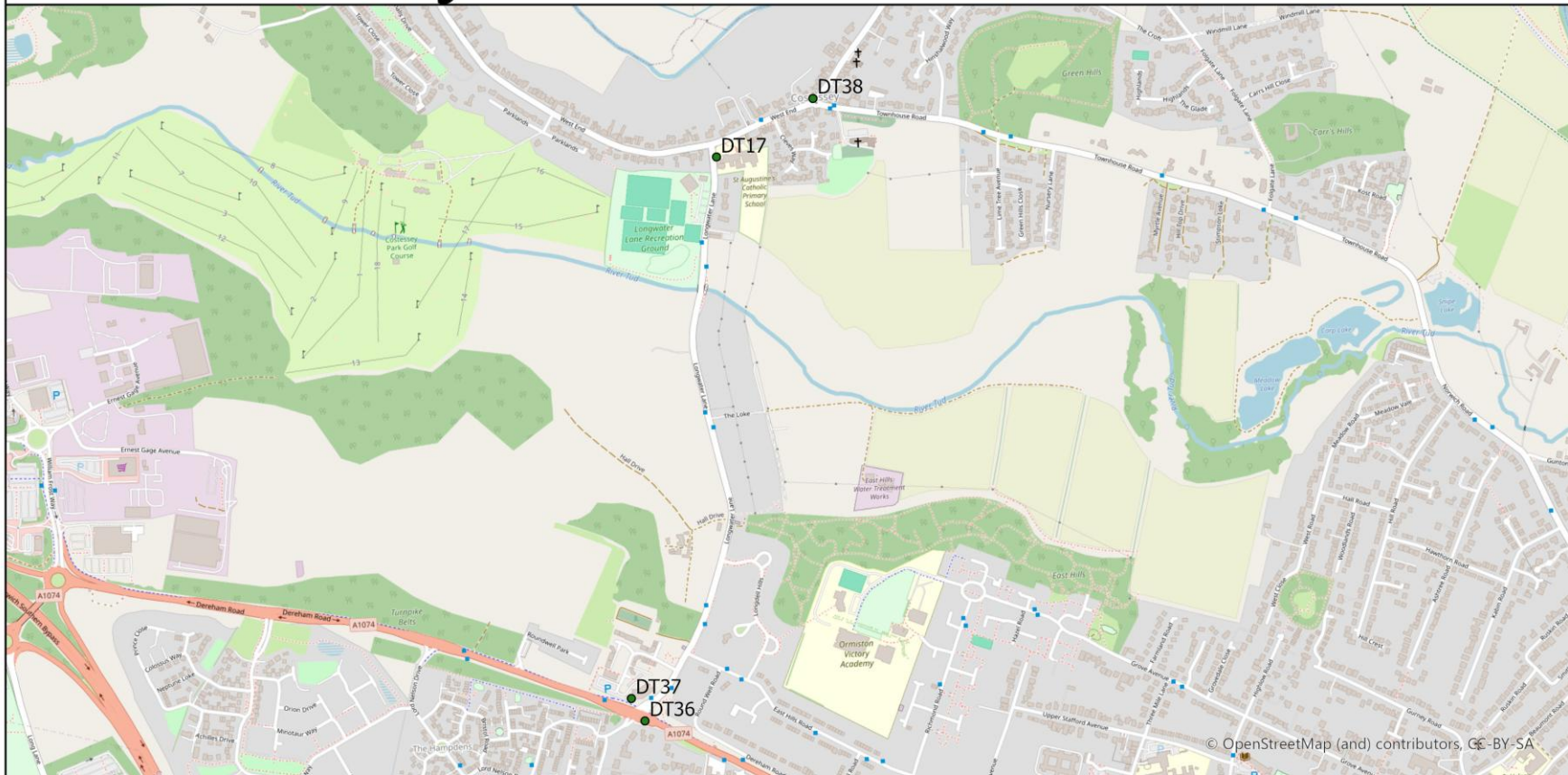
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0 0.13 0.25 0.5 Kilometers



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Costessey

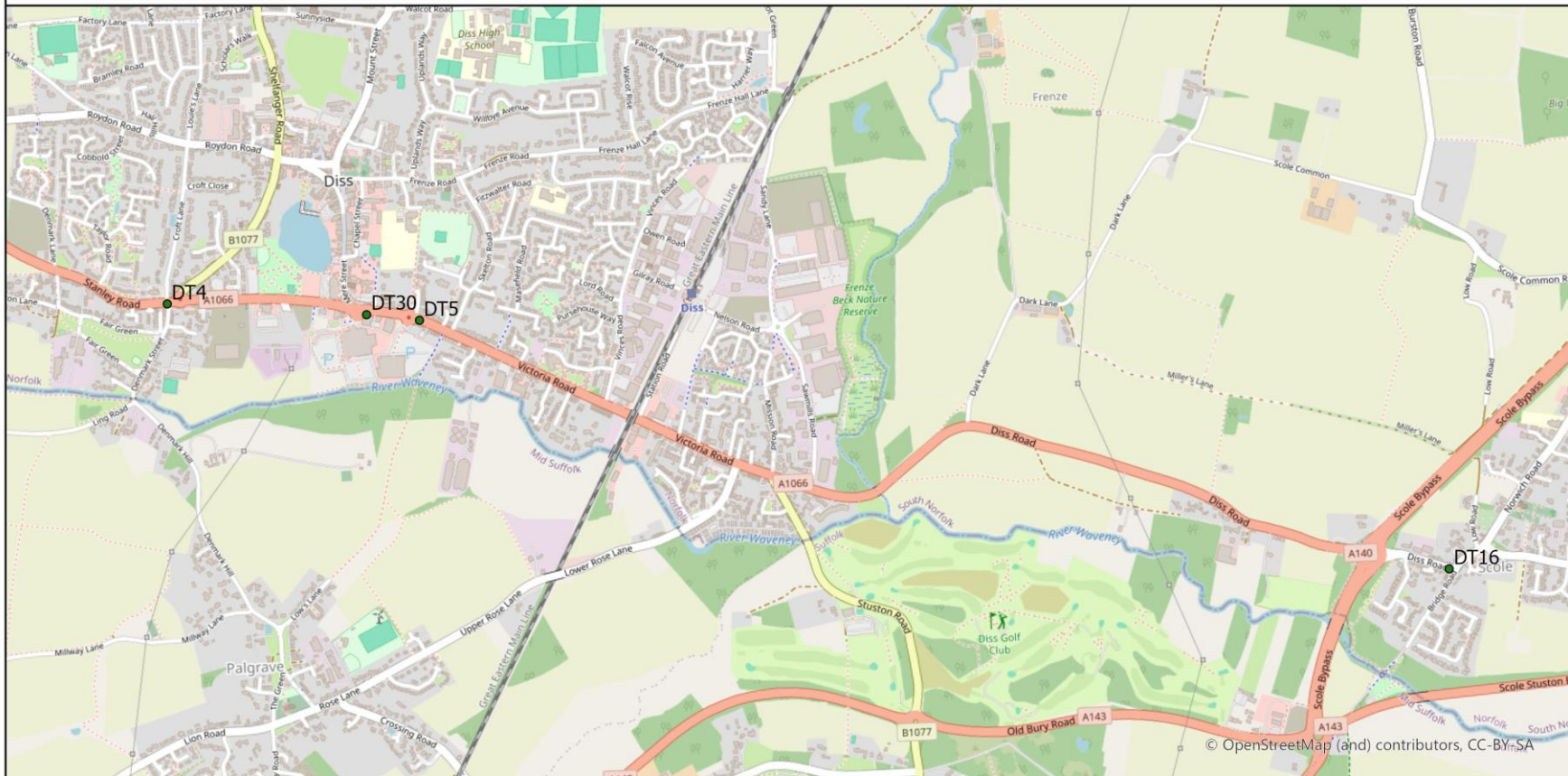


0 0.2 0.4 0.8 Kilometers



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Diss and Scole

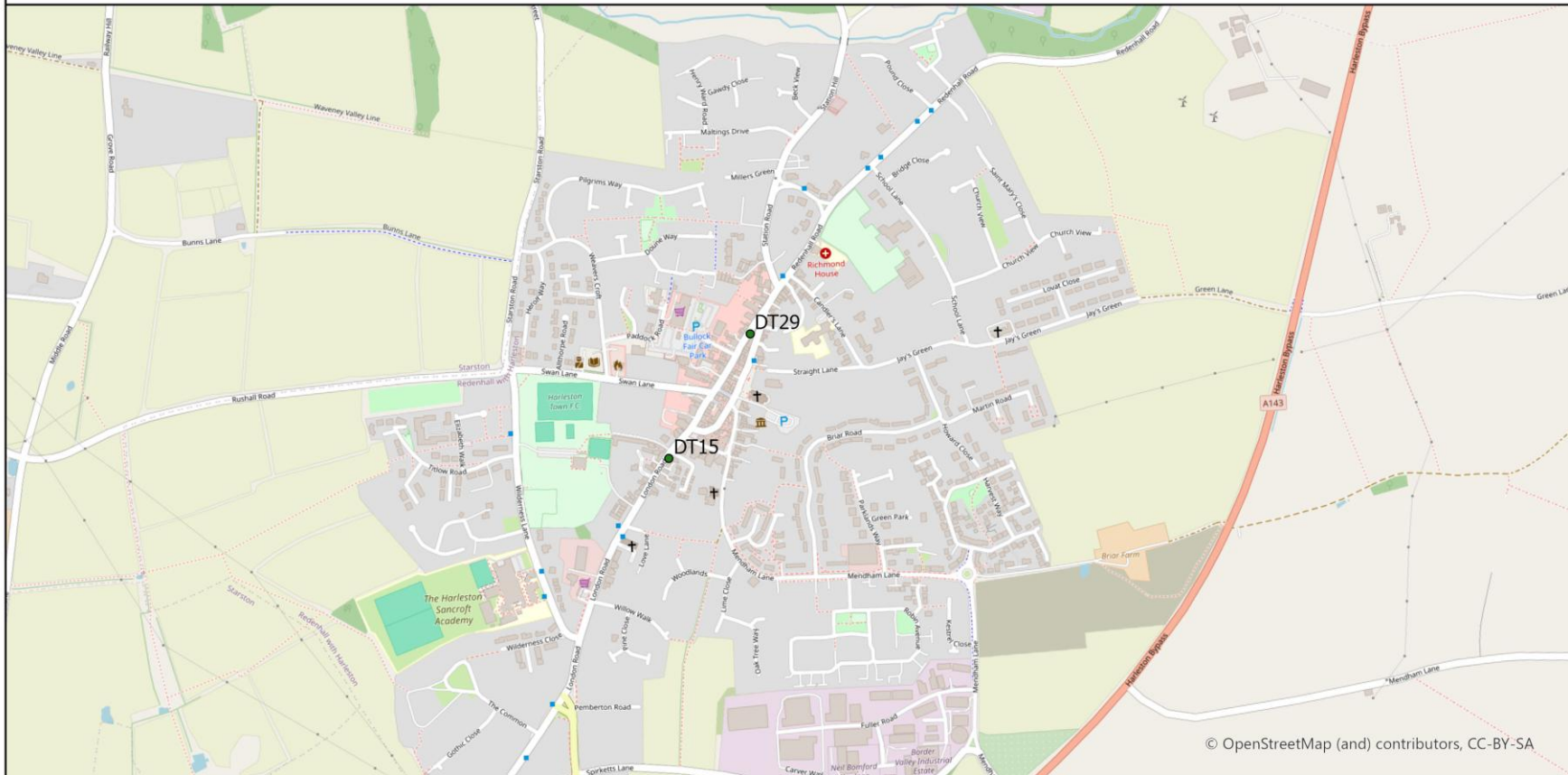


0 0.3 0.6 1.2 Kilometers



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Harleston



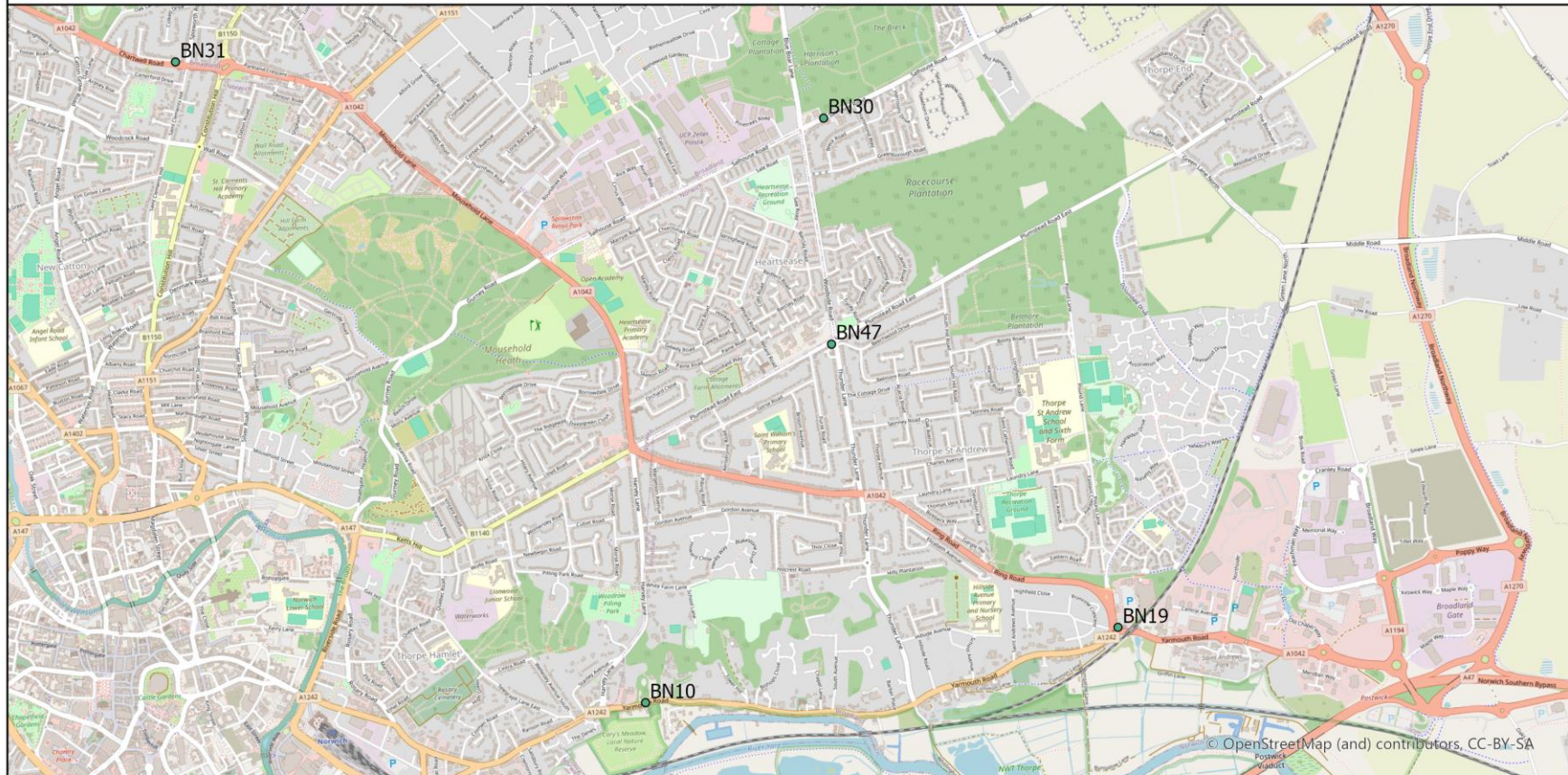
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0 0.17 0.35 0.7 Kilometers



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Heartsease and Thorpe St Andrew



Hellesdon and Mile Cross



Horsford

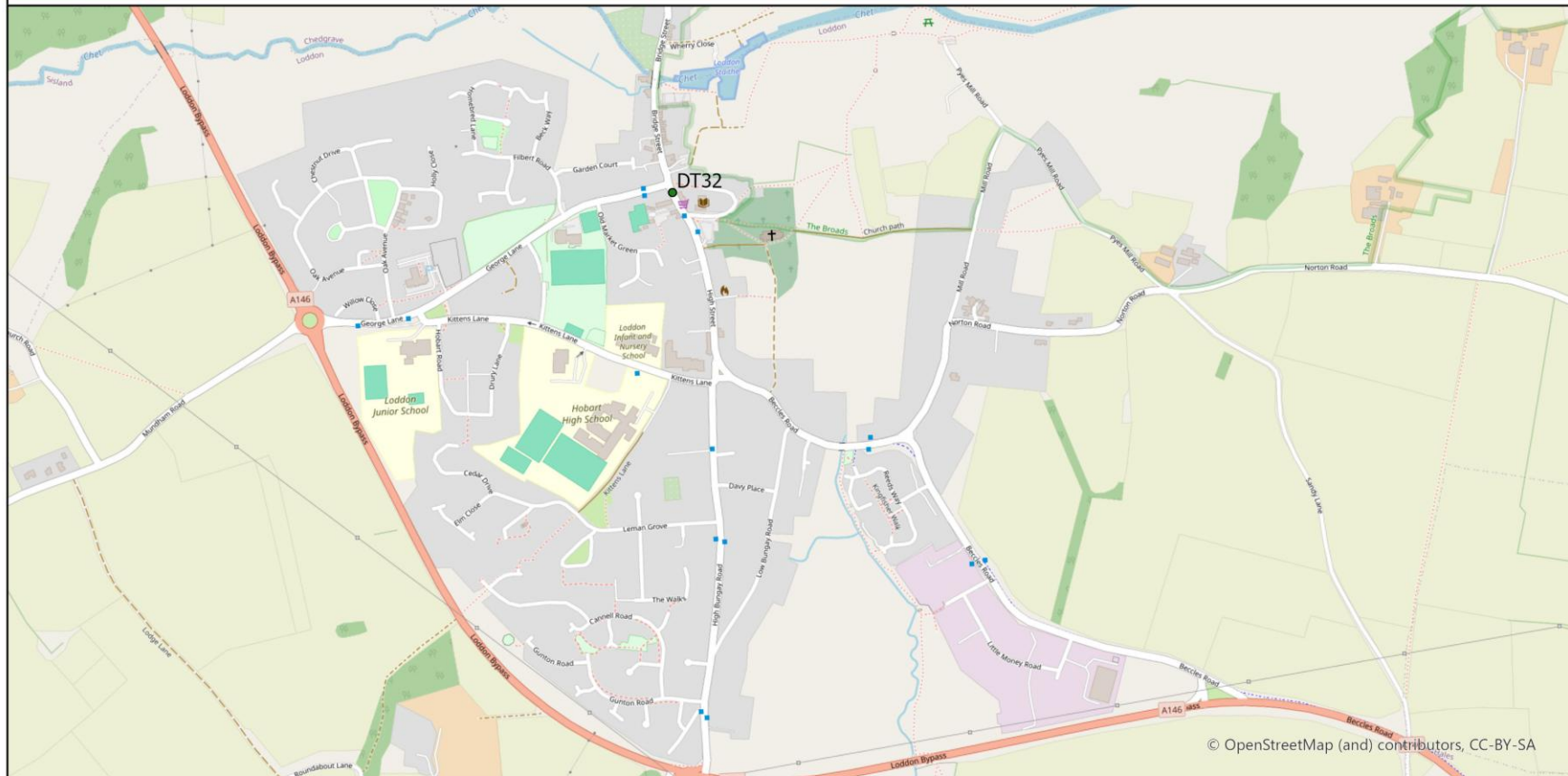


0 0.17 0.35 0.7 Kilometers



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Loddon



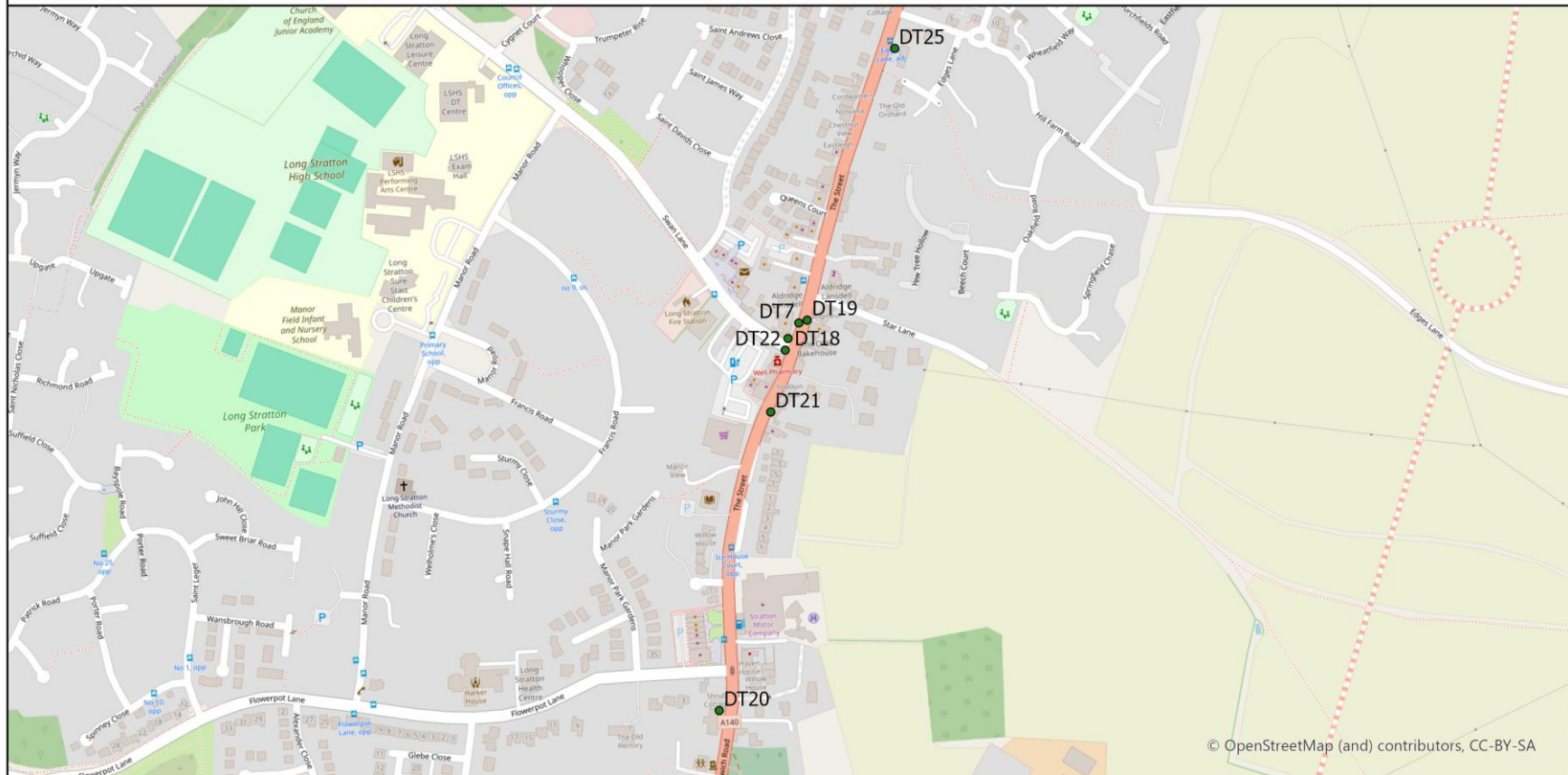
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0 0.17 0.35 0.7 Kilometers



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Long Stratton



0 0.1 0.2 0.4 Kilometers



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Wroxham

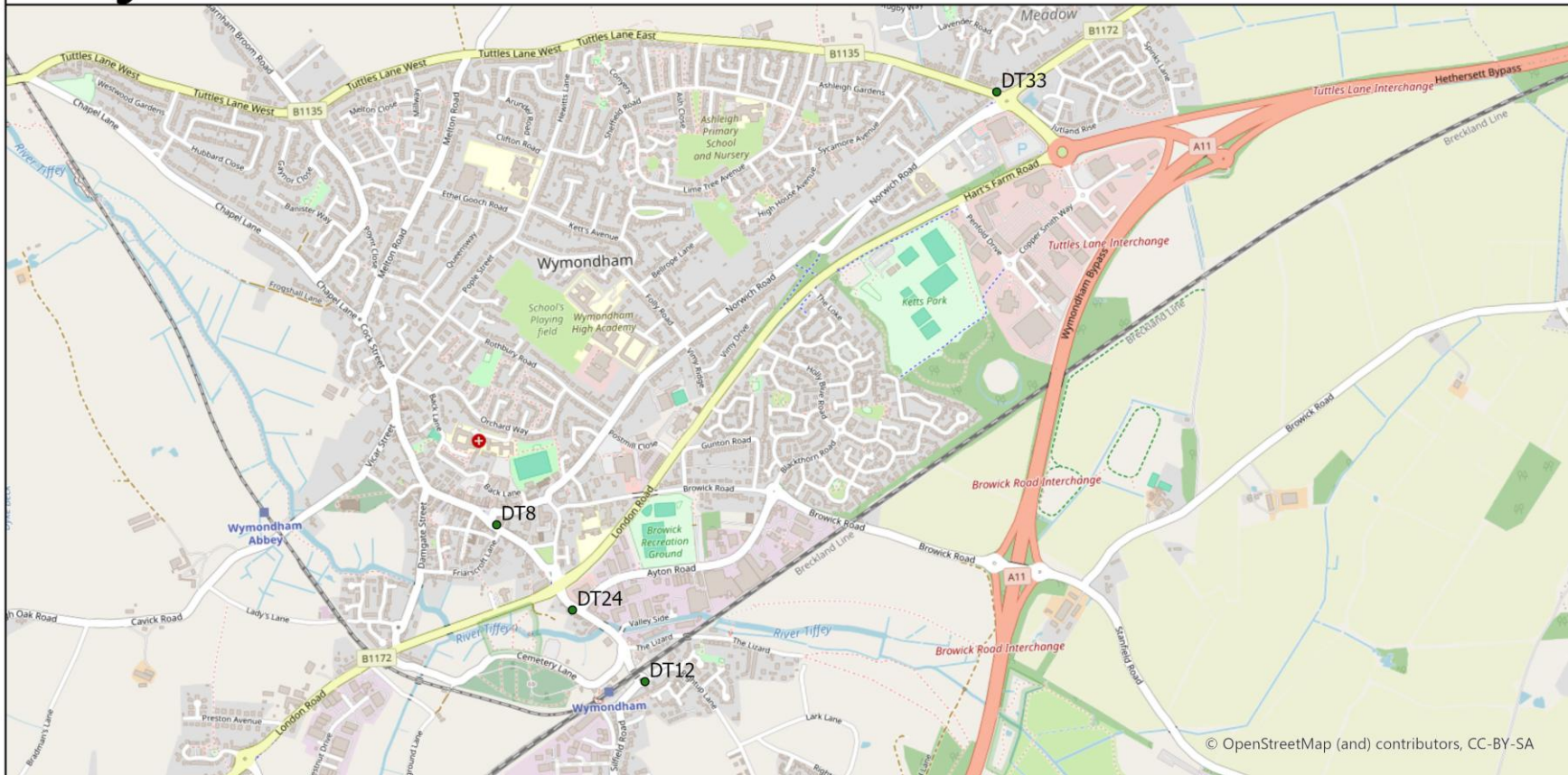


0 0.17 0.35 0.7 Kilometers



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Wymondham



0 0.3 0.6 1.2 Kilometers



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Appendix E: Summary of Air Quality Objectives in England

Table E.1 – Air Quality Objectives in England⁴

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

⁴ The units are in microgrammes of pollutant per cubic metre of air (µg/m³).

Glossary of Terms

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

References

- Local Air Quality Management Technical Guidance LAQM.TG22. August 2022.
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- Local Air Quality Management Policy Guidance LAQM.PG22. August 2022.
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- Chemical hazards and poisons report: Issue 28. June 2022. Published by UK Health Security Agency
- Air Quality Strategy – Framework for Local Authority Delivery. August 2023.
Published by Defra.