2025 Air Quality Annual Status Report (ASR)

In fulfilment of Part IV of the Environment Act 1995 Local Air Quality Management, as amended by the Environment Act 2021

Date: June, 2025

Information	City of York Council Details
Local Authority Officer	Andrew Gillah
Department	Public Protection
Address	City of York Council, Public Protection Hazel Court Eco Depot, James Street, York, YO10 3DS
Telephone	(01904) 551525
E-mail	public.protection@york.gov.uk
Report Reference Number	ASR2025
Date	June 2025

Local Responsibilities and Commitment

This ASR was prepared by the Public Protection Department of City of York Council with the support and agreement of the following departments: Transport Planning, Highways, Planning, Carbon Reduction, Fleet Services, Business Support and Public Health.

This ASR has been approved by Cllr Jenny Kent (Executive Member for Environment and Climate Change) and signed off by Peter Roderick, Director of Public Health and James Gilchrist, Director of Transport, Environment and Planning.

If you have any comments on this ASR please send them to Public Protection at:

Email: public.protection@york.gov.uk

Phone: 01904 551525

Write to: City of York Council, Public Protection (Air Quality), Hazel Court Eco Depot, James Street, York, YO10 3DS.

Executive Summary: Air Quality in Our Area

Air Quality in York

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

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

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

Table ES 1 - Description of Key Pollutants

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

Through monitoring of air quality across the city, City of York Council (CYC) has previously identified some areas of the city centre, around the inner ring road, where long term annual average nitrogen dioxide (NO_2) levels are above health based objective levels. These areas have been incorporated into an Air Quality Management Area (AQMA). Historically, AQMAs have also existed in Fulford (AQMA Order No.2) and on Salisbury Terrace (AQMA Order No.3). These AQMAs were revoked in 2020 and 2017 respectively

due to improvements in air quality in these areas of the city. Current and historical AQMAs declared by CYC can be viewed at List of York AQMAs and are discussed in CYC's previous Annual Status Reports.

CYC has a statutory duty to try to reduce NO_2 concentrations within the remaining city centre AQMA and additional obligations in relation to the protection of public health and reduction of greenhouse gas emissions. The main air pollutants of concern in York are NO_2 and particulate matter (PM). Typically, transport sources are responsible for around 50-70% of the total NO_2 at any particular location in the city, although the exact amount varies according to proximity to roads and other emission sources. Road transport is also a source of PM emissions, although its contribution is less than half that of domestic burning of solid fuels in closed stoves and open fires.

The latest air pollution monitoring data for 2024, summarised in this report, indicates that NO_2 concentrations in the AQMA have improved further since 2023. The highest concentration of NO_2 recorded at a location representative of long-term public exposure in 2024 was 32µg/m^3 on Blossom Street, near the junction with Queen Street (diffusion tube reference C27). This is within the health-based objective of 40µg/m^3 and reflects a significant improvement on 2023, where maximum NO_2 concentrations of 43µg/m^3 (above the objective) were monitored near the junction of Gillygate and Bootham.

Improvements in annual mean NO_2 monitored at roadside continuous monitoring sites were observed between 2023 and 2024 at Holgate Road (8% improvement), Nunnery Lane (8% improvement), Gillygate (22% improvement), Lawrence Street (2% improvement), Heworth Green (12% improvement) and Fulford Road (7% improvement). In contrast, annual mean NO_2 concentrations monitored at the Fishergate roadside monitoring site increased by 6% between 2023 and 2024.

Annual mean background concentrations of NO_2 monitored at Bootham Park Hospital (City of York Council's urban background monitoring site) also improved by 3% between 2023 and 2024.

Concentrations of NO_2 monitored at the vast majority of locations in York throughout 2024 continue the downward trend in NO_2 concentrations monitored in the city since 2012. Ongoing air quality monitoring across the city is considered fundamental to understanding the magnitude of any changes due to increased levels of walking and cycling, changes in public transport use, vehicle electrification and other ongoing air quality improvement initiatives as set out in the council's fourth Air Quality Action Plan (AQAP4).

With respect to the city centre AQMA, there were no monitoring locations that measured annual mean NO_2 concentrations of 40µg/m^3 or above in 2024. This is the first year since the pandemic (2020) that all CYC monitoring sites have achieved compliance with health-based objectives.

Maximum annual mean concentrations of NO_2 monitored at relevant locations across the current AQMA were 31.1µg/m^3 (Gillygate / Bootham), 28.5µg/m^3 (George Hudson St / Rougier St), 32.4µg/m^3 (Holgate / Blossom Street), 28.1µg/m^3 (Lawrence St), 25.4µg/m^3 (Fishergate / Paragon St), 24.8µg/m^3 (Prices Lane/Nunnery Lane) and 27.2µg/m^3 (Coppergate). Maximum concentrations of NO_2 decreased in all these areas between 2023 and 2024 and ranged from 3% lower around Prices Lane / Nunnery Lane to 27% lower around Gillygate / Bootham.

In line with DEFRA's LAQM guidance, before revoking an AQMA on the basis of measured pollutant concentrations, a local authority needs to be reasonably certain that any future exceedances of air quality objectives are unlikely. For this reason, it is expected that local authorities will need to consider measurements carried out over several years or more, national trends in emissions, as well as local factors that may affect the AQMA. Additionally, where NO_2 monitoring is undertaken using diffusion tubes, to allow for the uncertainty associated with the monitoring method, it is recommended that revocation of an AQMA should only be considered following three consecutive years of annual mean NO_2 concentrations being lower than 36µg/m^3 (i.e. within 10% of the annual mean NO_2 objective). Whilst some areas of CYC's AQMA have now experienced more than 3 consecutive years of concentrations being lower than 36µg/m^3 this is not the case for all areas of the AQMA, notably the areas around Holgate/Blossom Street, Gillygate/Bootham and Rougier Street / George Hudson Street. CYC will keep the AQMA boundary under review, taking into account DEFRA's guidelines. It may be appropriate to revoke some localised areas of the city centre AQMA in the near future.

Concentrations of NO_2 monitored in the former Fulford Road AQMA in 2024 continue to be well below the annual mean objective of 40µg/m^3. The highest recorded levels of NO_2 in this area were monitored on Fulford Main Street (Diffusion Tube C58) and were 23.9µg/m^3. This supports the decision to revoke the Fulford Road AQMA, as discussed in CYC's previous Annual Status Reports and implemented in February 2020.

Concentrations of NO_2 monitored in the former Salisbury Terrace / Leeman Road AQMA in 2024 were also all well below the annual mean objective of 40µg/m^3. The highest recorded levels of NO_2 in this area were monitored on Salisbury Terrace (Diffusion Tube 102) and

were 20.9µg/m^3. This confirms that the decision to revoke this AQMA in December 2017 was appropriate.

In December 2018, the boundary of the city centre AQMA was extended to include the full length of Coppergate and the buildings either side of the road, due to monitored concentrations of NO_2 above the annual mean objective for this pollutant. The highest annual mean concentrations of NO_2 monitored along Coppergate in 2024 was 27.2µg/m^3 at site D56 (Three Tuns Pub, 12 Coppergate) which is below the annual mean objective for this pollutant. This area of the AQMA has now experienced concentrations of NO_2 below 36µg/m^3 for 2 consecutive years (2023 and 2024) with maximum concentrations monitored in 2024 being 23% lower than 2023. This area of the city centre AQMA will be kept under review to establish longer term trends in pollution and to confirm that concentrations of NO_2 remain well within objective levels, prior to making any amendments to the AQMA boundary.

Revisions to the AQMA Order in 2018 also removed the reference to breaches of the short-term hourly objective along George Hudson Street / Rougier Street / Bridge Street based on monitoring results in this area. The latest 2024 monitoring results for this area of the city indicate that this short-term objective is still being met (all annual mean concentrations were less than 60µg/m^3 which, in line with DEFRA guidance, suggests that an exceedance of the 1-hour mean objective is unlikely).

CYC monitored particulate (PM_{10}) at three sites (Bootham, Fishergate and Plantation Drive) and fine particulate ($PM_{2.5}$) at four sites (Bootham, Fishergate, Gillygate and Holgate Road) in 2024. National health-based air quality objectives for PM_{10} and $PM_{2.5}$ are currently met in York. The highest annual mean levels of PM_{10} and $PM_{2.5}$ monitored in York during 2024 were 17.8µg/m^3 (at Plantation Drive) and 9.0µg/m^3 (at Gillygate) respectively. Along with many areas of the UK, these concentrations are above World Health Organisation (WHO) guidelines for these pollutants, which have been strengthened to 15µg/m^3 (PM_{10}) and 5µg/m^3 ($PM_{2.5}$). Maximum particulate concentrations monitored in 2024 are slightly above the maximum levels of 16.8µg/m^3 (PM_{10}) and 8.0µg/m^3 ($PM_{2.5}$) monitored in 2023.

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.

CYC previously produced two Air Quality Action Plans (AQAPs) in 2004 and 2006. These previous plans were primarily modal shift and congestion reduction based plans, with emphasis on reducing vehicle trips across the city.

Despite the introduction of two AQAPs, air quality in York continued to deteriorate between 2004 and 2010. In response, York adopted an overarching Low Emission Strategy (LES) in 2012 and produced a third AQAP in 2015 to deliver this strategy. The LES was the first of its kind in the UK and set out a new approach to local air quality management based on reducing emissions from all sources, including tailpipe emissions from individual vehicles and encouraging the uptake of alternative fuels and low emission vehicle technologies. The Low Emission Strategy has proved particularly effective at tackling emissions from essential service vehicles such as buses and taxis, which fall outside the scope of trip reduction based modal shift measures.

Modal shift and congestion reduction measures remain fundamental to the delivery of air quality improvement and emission reduction in York. The primary local delivery programmes for these measures are the Local Transport Plan and the iTravel York programme. Existing local programmes encourage the uptake of walking, cycling, and low emission public transport in the city. They are supported by planning policies that ensure that sustainable travel solutions are embedded into all new developments in York.

CYC consulted on an updated, fourth Air Quality Action Plan (AQAP4) between November 2023 and February 2024. AQAP4 aims to reduce levels of air pollution in the city beyond health-based National Air Quality Objectives, thereby improving the health and quality of life of residents and visitors to York. Over three quarters (79%) of respondents agreed that the council should continue to reduce air pollution, with between 67% and 87% of respondents indicated support for all priority actions. AQAP4 was adopted by CYC's Executive in July 2024. Updates on progress with measures in AQAP4 are provided in this report.

York has made notable progress in improving air quality throughout 2024, building on previous efforts and introducing new initiatives to tackle pollution and enhance public health. Key developments include:

- **Buses** - Following the introduction of the UK's first and only 'voluntary' Clean Air Zone (CAZ) for buses in 2020/21, CYC has worked in partnership with bus operators to introduce further zero emission electric buses to the York fleet, significantly reducing carbon, NOx and particulate emissions across the city. Our work bringing Government funding to the city has enabled national bus company First Bus to set up one of its first net zero emission bus operations in the city. The York depot is one of the first outside London to be fully electric, and the first in Yorkshire, and £10.2m funding of the £23m project was secured by CYC from the Department for Transport ZEBRA scheme. The depot has seen emissions reduce by 90% compared to 2020 with the total fleet of 86 all-electric buses saving around 5,000 tonnes of CO_2 a year. The current phase of CYC's bus electrification programme will involve nearly all of York's operators, which include small local companies as well as larger national operators and will cover less frequent services and those which are urban/rural in character. Through our Enhanced Partnership, CYC holds regular meetings with operators and stakeholders where feedback and participation from all bus user and disability groups is actively welcomed.

- **Taxis** - We provided financial support to taxi drivers through our DEFRA funded Low Emission Taxi Grant scheme until June 2024 (when all funding had been allocated). The project encouraged the transition to low emission taxis within York, via the use of incentives and awareness raising. The scheme provided £105k in grant funding and has supported 38 CYC licensed taxi drivers with either purchase or operational costs for low or zero-emission vehicles. At the end of December 2024, 40% of CYC licensed taxis were using low emission petrol hybrid or zero tailpipe emission electric vehicles. We also consulted with taxi users, members of the trade and other stakeholders between April and July 2024 on a new Taxi Licensing Policy that required vehicles to meet stricter emission standards to help improve air quality across the city. The new policy, approved in November 2024, also supports the supply of more wheelchair-accessible taxis and aims to increase awareness of and extend safeguarding standards among drivers and operators.

- **CYC Fleet** – following electrical infrastructure upgrades at the council's Hazel Court ECO depot site, we continued our phased EV fleet replacement programme for vehicles under 3.5t. At January 2025, 60% of CYC's operational van fleet were electric or plug-in hybrid electric vehicles by January 2025. A new multi-purpose mini electric vehicle, known as a Goupil, also went into service on 29 April 2024. The vehicle is helping frontline staff in the Public Realm team keep the city clean and tidy and is being used for removing fly tipped items or carrying sandbags, tools and other heavy items. Its small size means it can be used across the narrow streets of York, without contributing to local air pollution.

- **Anti-idling initiatives** - we continued to promote our 'Kick the Habit' anti-idling campaign on Clean Air Day and throughout 2024 and worked with partners including schools and businesses to reduce the incidence of vehicle idling across the city. The campaign sets out to encourage people to think about the importance of clean air and the impact that this has on them, their health and those around them. Work in 2024 reinforces action in previous years, including the erection of permanent anti-idling signage in all CYC owned car parks, at most city centre bus stops, taxi ranks and at other key locations across the city. Further information about the campaign can be found on CYC's Kick the Habit Webpage.

- **Electric Vehicle (EV) Charging Infrastructure** – we continued upgrade of our public electric vehicle charging network, consisting of 'fast', 'rapid' and 'ultra-rapid' charge points, as outlined in our existing Public Electric Vehicle Charging Strategy. Council officers held two workshops with the Energy Saving's Trust (EST) in 2024 as part of the development of our updated Public Charging Strategy, due in 2025. These sessions included a review of current options for on-street charging, for residents in terraced streets without off-street parking provision. Data published in January 2024 shows that York has 104 charge points per 100,000 people. This compares to a figure of 46 for the

Yorkshire region and 73 for the UK as a whole on average. A research study undertaken in March 2024, conducted by 'Independent Advisor Car Insurance', concluded that York is the 4th best city in the UK for EV's and was ranked number 1 in the North of England for EV ownership.

- **Planning and Development** – in line with CYC's Low Emission Planning Guidance, we continued to ensure that emissions and air quality impacts from new developments were appropriately assessed and mitigated, exposure to poor air quality was reduced via good design practices and that new private trips were minimised via the provision of sustainable transport opportunities. An overview of planning applications reviewed by Public Protection during 2024 is provided in this Annual Status Report.
- **Smoke Control Areas** - We adopted a new enforcement policy for smoke emissions in CYC's Smoke Control Area (SCA) in November 2024. The policy was developed in response to revisions to the Clean Air Act 1993 made through the Environment Act 2021. The policy will enable consistency in approach with other local authority areas and will act as a deterrent to burning non-authorised fuels (or using non-exempt appliances) in smoke control areas which contribute to air pollution and especially fine particulate concentrations across the city which impact human health. We re-launched our DEFRA funded 'Fuel for Thought' campaign across CYCs social media channels in October 2024; the campaign aims to raise awareness of the pollution caused by burning solid fuels and the dangers it can pose to health. CYC plan to consult on the expanding the Smoke Control Area in 2025 to ensure consistency in CYC's approach to dealing with smoke emissions across York and to ensure clarity for the public in terms of the rules for burning solid fuels.
- **Pollution Forecasting Service** - We launched a new DEFRA funded pollution forecasting and alert platform, York Air Alert, in July 2024. The new service sends free air pollution alerts and health advice to those most likely to be affected by air pollution to help them minimise their exposure when pollution episodes are forecast. Alerts give advanced warning of when air pollution is expected to be higher than usual, up to 3 days ahead. Subscribers can receive air quality alerts by text, email or voicemail for different areas of York, depending on where they live or work.
- **Local Transport Strategy** – The Executive approved a new Local Transport Strategy (LTS) in July 2024. The Local Transport Strategy sets out ambitions for York's

transport network and infrastructure until 2040. This follows the extensive Our Big Conversation programme of engagement throughout 2021 and 2022, which asked residents, businesses and communities for their thoughts on what they want York to look like in 10 years, as well as data analysis and modelling undertaken for the Local Plan Examination in Public in 2022. The Local Transport Strategy is rooted in the wider city strategies and their ambitions, and sets out a series of key policy themes to achieve a reduction of 71% in York's transport carbon emissions (required to reach net zero by 2030). An Implementation Plan for the first period of the new LTS was approved by CYC's Executive in November 2024. The Plan reaffirms York's commitment to the city's "transport modal hierarchy", which prioritises active modes and public transport and was supported by 73% of respondents to Our Big Transport Conversation. It specifies a set of schemes and measures, some funded and some for which funding will be sought, which will deliver towards meeting the priorities identified in the "Our Big Transport Conversation" consultation. The Implementation Plan provides an approach to city-wide transformation that will reduce air pollution and enable more physical and social activity through promotion and facilitation of active and sustainable modes of transport. This is aligned with priorities set out in CYC's Fourth Air Quality Action Plan (AQAP4).

- **Local Cycling and Walking Infrastructure Plan (LCWIP)** – this plan will develop more routes for active travel, enabling more people to choose to walk, wheel and cycle safely. The LCWIP is a strategic document which outlines an evidence-based, prioritised series of active travel zones and routes that can then be used to secure external funding, including developer contributions. The LCWIP was approved by CYC's Executive on 12 December 2024 but will be a 'living' document that can be updated based on changing circumstances and priorities in the city. The LCWIP will be responsive to key pieces of work such as the Movement and Place Plan, Local Plan and Local Transport Plan.
- **SAMHE (Schools Air quality Monitoring for Health and Education) Project** – CYC worked alongside the University of York to promote SAMHE amongst local schools. The project involves scientists from 6 institutions across the UK and is supported by the Department for Education (DfE). The project enables pupils to interact with real world data about their environment and brings together scientists, pupils and teachers. SAMHE is establishing a network of air quality monitors in schools across the UK, to generate an unparalleled dataset which will help researchers better understand

schools indoor air quality. There were 13 York schools that signed up to participate in the main project, with other local schools involved in the project co-design stages.

- **Gillygate Traffic Signal Trial** – in December 2024, CYC's Executive Member for Transport approved a traffic signal trial on Gillygate aimed at improving air quality in the Air Quality Management Area. The trial will be progressed throughout 2025 with support from local residents, businesses and partner organisations including York Civic Trust. The proposed trial is anticipated to reduce the number of queuing vehicles in Gillygate which, in addition to improving local air quality, will also create a safer environment for pedestrians, wheelchair users and cyclists. CYC will continue to work with residents of Gillygate and neighbouring streets to explore other options to improve air quality further in the local area.

Complementary air quality initiatives delivered in 2024 through CYC's transport and carbon reduction work programmes included:

- **Cycle to Work Day** – CYC supported the UK's biggest cycle commuting event on Thursday 1st August 2024. Cycle to Work Day aims to get more people to swap their cars for bikes and enjoy a healthier, more sustainable way to commute.
- **York Walking Festival** – our annual walking festival took place in September 2024 with a programme of ideas on how to explore the city on foot. The festival, organised by CYC's iTravel team, aims to encourage active travel and reduce vehicle emissions. A number of group walks were available over the week, such as the Bat Walk and the River Foss Wildlife and History Walk.

- **BetterPoints** - Residents of York were invited to celebrate York's Environment Weeks by walking or taking the bus around town and be in with the chance to win free bus travel. Since being set up in August 2021 York's BetterPoints programme has reduced CO2 output by 391,433 KG and allowed residents to travel 1,653,748 miles in a sustainable way (figures from Sept 2024)
- **Greet Streets** - Almost 2,500 new trees have been planted as part of the council's Green Streets project. Working with local schools, parish councils and other stakeholders, trees have been planted along Malton Road and at Melrosegate Park, Huntington Environment Park, Carr Infants School, Lakeside Primary Academy, Burton

Green Primary and seven other school sites. This first year of planting has been fully funded by grants totalling £168,000 from the White Rose Forest and Forestry Commission. The grants also provide for three years aftercare, helping the new trees thrive.

- **York Climate Commission (YCC)** was relaunched by CYC at an event on 11th January 2024, at Merchant Adventurers' Hall in York. Organisations, businesses and councillors met to discuss how they can best improve the future of York's climate impact. During the event, members of more than 80 organisations shared thoughts on challenges to York's progress to net zero.
- **Council wins Award for Energy Efficiency Scheme** - CYC and E.ON Energy Solutions Ltd won the Regional Large-scale Project of the Year award, at the Yorkshire Energy Efficiency Awards 2024 for the delivery of a Social Housing Decarbonisation Fund (SHDF) scheme. Staff from the Home Energy Efficiency Team in CYC's Healthy and Sustainable Homes service received the award for work to retrofit houses in York with energy efficiency measures. A variety of different measures in each home reduced carbon emissions by an average of 30% per property and included insulation - cavity wall, external wall, loft and flat roof – as well as solar photovoltaic panels, smart heating controls, hybrid air source heat pumps, new external doors and double-glazed windows. The award was given for 95 retrofit measures on 28 social housing properties at Danebury Court and Harington Avenue and a property at Carl Street. The work was funded by the Government's Department of Energy Security and Net Zero.
- **Cut carbon costs for businesses workshop** - CYC's partner Green Economy ran a Cut Carbon Cut Costs Online Workshop for businesses based in York in July 2024 with practical steps to reduce energy use and save money.
- **Energy grants for homes not heated by mains gas** – we continued to award funding to help households not using mains gas become more energy efficient through a Home Upgrade Grant. Grants were available for up to 60 households for energy-efficiency measures ranging from insulation upgrades to modern low-carbon heating systems or even photovoltaic (PV) panels.
- **Solar for Schools** - Our work with the Solar for Schools scheme, which gives schools and academies the opportunity to install solar panels for free, helped city schools cut costs and carbon emissions. Dringhouses Primary School was one of the schools to have solar panels fitted. 76 panels were installed at the school, which generated 3,385kWh of energy, saving 772kg of emissions over a two-month period. Solar for Schools has installed 2,468 panels across eight schools and academies in York and in

the last year over 530MWh of energy has been produced, saving over 121t of CO2 being released. That's enough to provide electricity for over three hundred homes for the same time period.

- **York Community Woodland opens to the public** - York Community Woodland is now open to the public after years of preparation work, another achievement which demonstrates to our commitment to Climate and Environment, the third commitment of the Council Plan, One City for all. Over the past five years, 190,000 trees have been planted across the 78-hectare site west of Knapton, an achievement made possible with the help of dedicated efforts from local volunteer groups. The project, developed by Forestry England in collaboration with CYC and the White Rose Forest, is a key component of Forestry England's ambitious goal to plant at least 2,000 hectares of new woodland across the country by 2026. York Community Woodland will play a crucial role in enhancing the wider landscape by creating vibrant habitats to boost biodiversity, improving air quality, and mitigating soil erosion and flooding. It also provides miles of walking paths winding through the woodland, providing opportunities for exercise, relaxation, and connecting with others.

- **York's two new micro woods sites are confirmed** - In September 2024, Councillors approved the locations of two new micro woods to be planted in the city through the Government's Coronation Living Heritage Fund. CYC's Green Streets team selected two sites from 50 locations using tools such as the Tree Equity Score to determine the most suitable location. The woods, each consisting of 600 trees, will be created in Rawcliffe and Holgate.
- **YorEnergy: Energy Solutions for Every York Home** – A new service to help residents achieve home energy efficiency and save on rising energy bills was launched in October 2024. YorEnergy offers a friendly all in one service to guide residents through the home upgrade process, including free advice on the best energy-saving options.

York already has much to celebrate in relation to reducing emissions and protecting and improving the health of its residents. However, with an increasing population and further development, preventing emission growth and improving air quality remain significant challenges.

CYC's updated Air Quality Action Plan (AQAP4) outlines the council's commitments to further improve air quality in York. AQAP4 is fully aligned to the Council Plan and reflects ambitions contained within our 10-Year Strategies covering climate, health and wellbeing and the economy.

Conclusions and Priorities

Key findings and conclusions from this year's Annual Status Report:

- The annual average air quality objective for NO_2 (40µg/m^3) was not exceeded anywhere within the current Air Quality Management Area (or indeed anywhere in York) in 2024. The highest concentration of NO_2 recorded in 2024 at a 'relevant location' was 32.4µg/m^3 near the junction of Blossom Street and Queen Street (Diffusion Tube C27).
- Improvements in annual mean NO_2 monitored at continuous monitoring stations were observed between 2023 and 2024 at Holgate Road (8% improvement), Nunnery Lane (8% improvement), Gillygate (22% improvement), Lawrence Street (2% improvement), Heworth Green (12% improvement), Fulford Road (7% improvement) and Bootham (3% improvement). Annual mean NO_2 concentrations monitored at Fishergate were 6% higher in 2024 than 2023. Co-located diffusion tubes at the Fishergate site also showed an increase of around 3% between 2023 and 2024; this is thought to due to construction vehicles and traffic management associated with a large-scale development immediately adjacent to the monitoring site.
- Maximum annual mean concentrations of NO_2 monitored at relevant locations across the current AQMA were 31.1µg/m^3 (Gillygate / Bootham), 28.5µg/m^3 (George Hudson St / Rougier St), 32.4µg/m^3 (Holgate / Blossom Street), 28.1µg/m^3 (Lawrence St), 25.4µg/m^3 (Fishergate / Paragon St), 24.8µg/m^3 (Prices Lane/Nunnery Lane) and 27.2µg/m^3 (Coppergate). Maximum concentrations of NO_2 decreased in all these areas between 2023 and 2024 and ranged from 3% lower around Prices Lane / Nunnery Lane to 27% lower around Gillygate / Bootham.
- Concentrations of NO_2 monitored at the majority of locations in York throughout 2024 continue the general downward trend in NO_2 concentrations monitored in the city since 2012. Concentrations of NO_2 have generally been lower in the years 2021 - 2024 than pre-pandemic levels in 2019, with the latest monitoring data suggesting that concentrations of NO_2 in 2024 have now fallen below those recorded during the pandemic in 2020.

- Maximum concentrations of NO_2 monitored in the former Fulford Road and Salisbury Terrace / Leeman Road AQMAs (now revoked) in 2024 continue to be well below the annual mean objective.
- The highest annual mean concentrations of NO_2 monitored along Coppergate in 2024 was 27.2µg/m^3 at site D56 (Three Tuns Pub, 12 Coppergate) which is below the annual mean objective for this pollutant. As concentrations of NO_2 have been variable at this site over the last few years and not yet consistently under 36µg/m^3 (within 10% of the objective) it is considered appropriate to keep this area of the city under observation prior to making any amendments to the AQMA boundary.
- Monitoring of NO_2 in 2024 has not indicated any potential breaches of the short-term hourly NO_2 objective in the city.
- National health-based air quality objectives for PM_{10} and $PM_{2.5}$ are currently met in York. The highest annual mean levels of PM_{10} and $PM_{2.5}$ monitored in York during 2024 were 17.8µg/m^3 and 9.0µg/m^3 respectively. Whilst there is a general downward trend in particulate matter concentrations in York over the last 10+ years, trends over the last 5 years are less pronounced.

CYC's updated AQAP4 (adopted July 2024) includes measures to further reduce nitrogen dioxide and particulates from all sources and supports and complements CYC's economic strategy, Local Plan, Local Transport Plan/Strategy and Climate Change Strategy.

City of York Council's priorities for the coming year are:

- **Progress development of York's future transport policies** – CYC's Local Transport Strategy (approved July 2024) sets out a vision for a healthier, more sustainable and better-connected city. Our Transport Implementation Plan (2024-2026) details the measures that will enable is to turn that vision into a reality and build the foundations for our forthcoming Movement and Place Plan (due by the end of 2025), which will map out connected networks for all modes of travel.
- **Explore opportunities to reduce freight emissions** – CYC's Local Transport Strategy and AQAP4 commit to exploring opportunities to improve freight and logistics to ensure that that York's businesses have efficient access for their supplies, goods and services, while at the same time reducing the impact of heavy lorries and light goods vehicles on carbon emissions, air pollution, safety and damage to heritage. In the short term we propose to designate a 'freight network' for medium (3.5T) and large (7.5T) vehicles and review powers to enforce such a network. We will also set up a

freight forum and invite industry partners and experts to advise and partner with us on developing a freight strategy and network for the city. We also propose to implement a scheme allowing cargo delivery cycles access to the city centre footstreets during footstreet hours. In 2021, CYC obtained funding from DEFRA to pilot a transhipment hub for the city, but this project has proved difficult to deliver to date, in part due to the challenge of attracting a commercial partner. We are actively seeking ways of delivering this project and are taking advice from other cities where successful similar pilots have been delivered in combination with commercial partners.

- **Continue to progress upgrades to bus services and infrastructure (including further electrification)** – presently there are around 14 million bus trips a year in York (nearly 40,000 a day). Electric buses now account for around 65% of all bus journeys in York. We will continue with our programme to electrify the bus network, aiming to completely electrify the network by 2028 (subject to funding). In the short term (2025-2026) we will deliver a 'city centre sustainable transport route' which will facilitate substantial reductions in through private traffic with active travel, public transport and essential journeys prioritised. This will not only improve bus service reliability and enhance air quality along the corridor but will provide safer walking and cycling routes into the heart of York city centre.
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children travelling to school are prioritised and will engage with the health sector on initiatives such as social prescribing of cycles and loan of e-bikes for health professionals. We will continue with our current Car Club initiative and over the coming year we will procure further Car Club packages to provide more extensive coverage across the city and out to villages, including access to a wider variety of vehicle types including vans. We will also develop a consistent and equitable strategy for parking across the city which balances the needs to provide access and to reduce levels of car use and will continue to investigate 'micro-mobility' schemes (with the intention of replacing the TEIR mobility scheme that came to an end in 2024).

- **Continue to address idling emissions** – CYC will continue to investigate complaints of idling and raise awareness of the links between idling emissions and health in line with CYC's existing 'Kick the Habit' anti-idling campaign. We will respond to complaints of idling though additional resources and signage where appropriate.
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- **Expansion of strategic EV charging network** – CYC will continue with our EV charging programme and actively monitor plug-in vehicle uptake in the city to ensure our charging network remains fit for purpose. York has a developing network of electric vehicle charging points positioned in car parks, Park & Ride sites and at dedicated Hyper Hub charging sites. Over the coming year we will complete the update of our 'EV Charging Strategy' and seek ways to bring widespread coverage, using our Parking Strategy to help us balance competing needs of highway space. We will

continue to explore technology advances, such as inductive charging and will trial charging in residential areas (and evaluate its success and scope for further installations in York).

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- **Further controls to address fine particulate emissions** – we will consider further opportunities to tackle fine particulate emissions. This will include implementation of a new Enforcement Protocol for smoke emissions within CYC's Smoke Control Area (SCA). We will also consult with the public on expansion our SCA to cover the whole of CYC's administrative area to improve air quality and health.

Challenges faced by City of York Council:

- The ability of current vehicle emission standards to deliver reductions in NO_x emissions, particularly the on-road performance of some Euro VI (and retrofitted) diesel vehicles. This extends to the remaining retrofitted Euro VI diesel buses operating in the city.
- Development related emissions through the cumulative impact of increased development in the city. CYC will endeavour to manage this through the application of local planning guidance, best practice emission mitigation measures and opportunities for sustainable transport. CYC's Transport Strategy sets a target of 20% reduction in vehicle miles travelled by 2030, which will need to be supported by significant increases in walking, cycling and use of public transport across York.
- Addressing air pollution from domestic solid fuel burning, especially during winter months, may present challenges as people turn to solid fuels to heat their homes in response to the energy and cost of living crisis. This may be further exacerbated in certain areas where fuel poverty may be a factor in the burning of non-certified wood products / waste wood or other materials. CYC has aimed to tackle this issue over the last couple of years through it's 'Fuel for Thought' educational campaign and is

currently seeking to expand the Smoke Control Area to cover the whole of CYC's administrative area.

- Uncertainties with respect to future travel behaviour and challenges in achieving required modal shift targets to sustainable modes.
- Continued unnecessary vehicle idling in the city, particularly amongst heavy diesel vehicles.

Despite longer term improvements seen in air quality across CYC's area in recent years, the above factors are anticipated to remain challenges for CYC in the future.

How to get Involved

CYC consulted with the public and other key stakeholders on an updated Air Quality Action Plan (AQAP4) between November 2023 and February 2024. AQAP4 aims to reduce levels of air pollution in the city beyond health-based National Air Quality Objectives, thereby improving the health and quality of life of residents and visitors to York. AQAP4 was adopted by CYC's Executive in July 2024. Updates on progress with measures in AQAP4 are provided in this report.

Further information about air quality and previous consultations can be obtained from the air quality pages of CYC's main website.

Residents, businesses and other interested parties are encouraged to participate in future consultations relating to air quality. These are advertised online at: City of York Council Consultations.

If you would like to see more done to improve air quality in your area, you can contact your local councillor or MP and share your concerns or ideas for improving air quality.

For more information on national campaigns to improve air quality you can visit the Global Action Plan website, the Client Earth website or the Friends of the Earth website.

City of York Council's continuous air quality monitoring data can be viewed at Air Quality England. Pollution forecasts for York and advice about how to protect yourself from the impacts of poor air quality can be found at York Air Alert.

You can help to further improve air quality in York by:

- Travelling sustainably and reducing private vehicle use, where possible. Walk and cycle those shorter trips and make the most of public transport and especially York's zero emission buses.

- If you own a car, consider using it less and the impact on the environment when the time comes to replace it. There are a huge range of electric and hybrid vehicles available to suit a variety of lifestyles which can offer lower emissions and reduced fuel and tax costs. CYC has an extensive public electric vehicle charging network across the city.
- Supporting our Kick the Habit campaign Switching off your vehicle engine when parked up and waiting. This is especially important outside schools and homes where children and residents and present.
- Being mindful of the rules for burning solid fuels if you live in a Smoke Control Area (SCA) in York. If you own a solid fuel burning appliance (e.g. wood burning stove), ensure it is regularly serviced and maintained in accordance the manufacturers guidelines.
- Recycle wherever possible and consider options other than burning for disposing garden waste, such as composting. Bonfires can cause a smoke nuisance to neighbours, preventing them from enjoying their gardens or opening windows.
- Consider low carbon options for domestic heating and energy efficiency upgrades. Find out about schemes the council currently has available on the council website.

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Figures

Tables

1 Local Air Quality Management

This report provides an overview of air quality in York during 2004. 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 City of York Council (CYC) to improve air quality and any progress that has been made.

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

2 Actions to Improve Air Quality

2.1 Air Quality Management Areas

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

A summary of AQMAs declared by City of York Council can be found in Table 2.1. The table presents a description of the AQMA that is currently designated within York. Appendix D: Map(s) of Monitoring Locations and AQMAs provides maps of the AQMA and also the air quality monitoring locations in relation to the AQMA. The air quality objectives pertinent to the current AQMA designation are as follows:

- NO_2 annual mean

Table 2.1 – Declared Air Quality Management Areas

AQMA Name	Date of Declaration	Pollutants and Air Quality Objectives	One Line Description	Is air quality in the AQMA influenced by roads controlled by Highways England?	Level of Exceedance: Declaration	Level of Exceedance: Current Year	Number of Years Compliant with Air Quality Objective	Name and Date of AQAP Publication	Web Link to AQAP
City Centre AQMA (AQMA Order No.5)	December 2018 (supercedes AQMA Order No. 4 declared Sept 2012)	NO_2 Annual Mean	Inner ring road and properties included within multiple areas of technical breach	NO	62	32	Compliance across whole AQMA demonstrated in 1 year (2024) with compliance also demonstrated in 2020	AQAP4 published July 2024	Link to CYC's Fourth Air Quality Action Plan (AQAP4)

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

☒ **City of York Council confirm that all current AQAPs have been submitted to Defra.**

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

DEFRA's appraisal of last year's ASR supported the outlined measures to improve air quality across the city and accepted the conclusions reached for all sources and pollutants. Comments received by DEFRA in 2024 to inform this year's report were as follows:

- It was recommended that the 'Local engagement and how to get involved' section of the ASR could be expanded. This has been addressed in the Executive Summary in this ASR.
- It was requested that new AQAP4 measures should be incorporated into this ASR. A full summary of AQAP4 measures and progress is provided in this ASR.
- It was requested that trends in air quality within and outside the AQMA were differentiated and that a clear statement of how many diffusion tubes are inside and outside the AQMA boundary. There are 105 tubes within the existing AQMA and 127 outside, with 1 blank tube (total 233 tubes). Indicators CAN027, CAN028 and CAN038 in Section 3.3 provide an indication of trends in nitrogen dioxide inside the AQMA. Table A.1 shows which of CYC's continuous monitoring sites are located within the AQMA and some additional labelling has a been added to the figures A.1-A.5 for clarity to distinguish sites inside/outside the AQMA.
- It was suggested that NO_x should be listed as NO_2 in table A.1 for clarity. This has been addressed in this ASR.
- It was requested to include a statement to confirm that the diffusion tube data had been uploaded to the Diffusion Tube data Entry System (DTDES). CYC confirms that this has been done for this ASR submission and all previous submissions.
- It was suggested that a screenshot of the bias adjustment factors spreadsheet could be included in the report. This has been included in Appendix C.

CYC has taken forward a number of direct measures during the current reporting year of 2024 in pursuit of improving local air quality. Details of all measures completed, in progress or planned are set out in Table 2.2. Twenty-nine (29) measures are included within Table 2.2, with the type of measure and the progress CYC have made during the reporting year of 2024 presented. Where there have been, or continue to be, barriers restricting the implementation of the measure, these are also presented within Table 2.2.

More detail on these measures can be found in their respective Action Plans – see Fourth Air Quality Action Plan (AQAP4).

Key completed measures are:

- **Bus service improvements** - CYC has worked in partnership with bus operators to introduce further zero emission electric buses to the York fleet, significantly reducing carbon, NO_x and particulate emissions across the city. Our work bringing Government funding to the city has enabled national bus company First Bus to set up one of its first net zero emission bus operations in the city. The York depot is one of the first outside London to be fully electric and the first in Yorkshire.
- **Reducing emissions from taxis** – We provided financial support to taxi drivers through our DEFRA funded Low Emission Taxi Grant scheme until June 2024 (when all funding had been allocated) so that at the end of December 2024, 40% of CYC licensed taxis were using petrol hybrid or zero tailpipe emission electric vehicles. The project encouraged the transition to low emission taxis within York, via the use of incentives and awareness raising. We also approved a new Taxi Licensing Policy in November 2024 that required vehicles to meet stricter emission standards to help improve air quality across the city.
- **Reduced CYC Fleet emissions** – we continued our phased EV fleet replacement programme for vehicles under 3.5t. At January 2025, 60% of CYC's operational van fleet were electric or plug-in hybrid electric vehicles.
- **Anti-idling initiatives** - we continued to promote our 'Kick the Habit' anti-idling campaign on Clean Air Day and throughout 2024 and worked with partners including schools and businesses to reduce the incidence of vehicle idling across the city. Further information about the campaign can be found on CYC's Kick the Habit Webpage.
- **Upgrades to Electric Vehicle (EV) charging facilities** – we continued to upgrade our public electric vehicle charging network throughout 2024, consisting of 'fast', 'rapid' and 'ultra-rapid' charge points, as outlined in our Public Electric Vehicle Charging Strategy. We also progressed two workshops with the Energy Saving's Trust (EST) as part of the development of our updated Public Charging Strategy, due in 2025. These sessions included a review of current options for on-street charging, for residents in terraced streets without off-street parking provision.
- **Low Emission Planning Guidance** - Throughout 2024, we continued to ensure that emissions and air quality impacts from new developments were appropriately assessed

and mitigated, exposure to poor air quality was reduced via good design practices and that new private trips were minimised via the provision of sustainable transport opportunities in line with our Low Emission Planning Guidance.

- **Smoke Control Areas / domestic solid fuel burning** – we adopted a new enforcement policy for smoke emissions in CYC's Smoke Control Area (SCA) in November 2024. The policy was developed in response to revisions to the Clean Air Act 1993 made through the Environment Act 2021. We also re-launched our DEFRA funded 'Fuel for Thought' campaign across CYCs social media channels in October 2024; the campaign aims to raise awareness of the pollution caused by burning solid fuels and the dangers it can pose to health. CYC plan to consult on the expanding the Smoke Control Area to the whole of York in 2025.
- **Air pollution forecasting and alert service** – we launched a new DEFRA funded pollution forecasting and alert platform, York Air Alert, in July 2024. The new service sends free air pollution alerts and health advice to those most likely to be affected by air pollution to help them minimise their exposure when pollution episodes are forecast.
- **Local Transport Strategy** - Executive Members approved a new Local Transport Strategy (LTS) in July 2024. The Local Transport Strategy sets out ambitions for York's transport network and infrastructure until 2040. An Implementation Plan for the first period of the new LTS was approved by CYC's Executive in November 2024. The Implementation Plan provides an approach to city-wide transformation that will reduce air pollution and enable more physical and social activity through promotion and facilitation of active and sustainable modes of transport. This is aligned with priorities set out in CYC's Fourth Air Quality Action Plan (AQAP4).
- **Local Cycling and Walking Infrastructure Plan (LCWIP)** – this plan will develop more routes for active travel, enabling more people to choose to walk, wheel and cycle safely. The LCWIP was approved by CYC's Executive on 12th December but will be a 'living' document that can be updated based on changing circumstances and priorities in the city.
- **Gillygate Traffic Signal Trial** – in December 2024, CYC's Executive Member for Transport approved a traffic signal trial on Gillygate aimed at improving air quality in the Air Quality Management Area. The trial will be progressed throughout 2025 with support from partner organisations including The Gillygate Air Quality Group and the York Civic Trust. The proposed trial is anticipated to reduce the number of queuing vehicles in Gillygate which, in addition to improving local air quality, will also create a safer environment for pedestrians, wheelchair users and cyclists.

Complementary air quality initiatives delivered in 2024 through CYC's transport and carbon reduction work programmes included:

- **Cycle to Work Day** – CYC supported the UK's biggest cycle commuting event on Thursday 1st August 2024. Cycle to Work Day aims to get more people to swap their cars for bikes and enjoy a healthier, more sustainable way to commute.
- **York Walking Festival** – our annual walking festival took place in September 2024 with a programme of ideas on how to explore the city on foot. The festival, organised by CYC's iTravel team, aims to encourage active travel and reduce vehicle emissions.
- **BetterPoints** - Residents of York were invited to celebrate York's Environment Weeks by walking or taking the bus around town and be in with the chance to win free bus travel. Since being set up in August 2021 York's BetterPoints programme has reduced CO_2 output by 391,433 KG and allowed residents to travel 1,653,748 miles in a sustainable way (figures from Sept 2024)
- **Greet Streets** - Almost 2,500 new trees have been planted as part of the council's Green Streets project. Working with local schools, parish councils and other stakeholders, trees have been planted along Malton Road and at Melrosegate Park, Huntington Environment Park, Carr Infants School, Lakeside Primary Academy, Burton Green Primary and seven other school sites.
- **York Climate Commission (YCC)** was relaunched by CYC at an event on 11th January 2024, at Merchant Adventurers' Hall in York. Organisations, businesses and councillors met to discuss how they can best improve the future of York's climate impact. During the event, members of more than 80 organisations shared thoughts on challenges to York's progress to net zero.
- **Council wins Award for Energy Efficiency Scheme** - CYC and E.ON Energy Solutions Ltd won the Regional Large-scale Project of the Year award, at the Yorkshire Energy Efficiency Awards 2024 for the delivery of a Social Housing Decarbonisation Fund (SHDF) scheme. Staff from the Home Energy Efficiency Team in CYC's Healthy and Sustainable Homes service received the award for work to retrofit houses in York with energy efficiency measures. A variety of different measures in each home reduced carbon emissions by an average of 30% per property and included insulation - cavity wall, external wall, loft and flat roof – as well as solar photovoltaic panels, smart heating controls, hybrid air source heat pumps, new external doors and double-glazed windows. The award was given for 95 retrofit measures on 28 social housing properties at Danebury Court and Harington Avenue and a property at Carl Street. The work was funded by the Government's Department of Energy Security and Net Zero.

- **Cut carbon costs for businesses workshop** - CYC's partner Green Economy ran a Cut Carbon Cut Costs Online Workshop for businesses based in York in July 2024 with practical steps to reduce energy use and save money.
- **Energy grants for homes not heated by mains gas** – we continued to award funding to help households not using mains gas become more energy efficient through a Home Upgrade Grant. Grants were available for up to 60 households for energy-efficiency measures ranging from insulation upgrades to modern low-carbon heating systems or even photovoltaic (PV) panels.
- **Solar for Schools** - Our work with the Solar for Schools scheme, which gives schools and academies the opportunity to install solar panels for free, helped city schools cut costs and carbon emissions. Dringhouses Primary School was one of the schools to have solar panels fitted. 76 panels were installed at the school, which generated 3,385kWh of energy, saving 772kg of emissions over a two-month period. Solar for Schools has installed 2,468 panels across eight schools and academies in York and in the last year over 530MWh of energy has been produced, saving over 121t of CO_2 being released.
- **York Community Woodland opens to the public** - York Community Woodland is now open to the public after years of preparation work, another achievement which demonstrates to our commitment to Climate and Environment, the third commitment of the Council Plan, One City for all. Over the past five years, 190,000 trees have been planted across the 78-hectare site west of Knapton, an achievement made possible with the help of dedicated efforts from local volunteer groups.
- **York's two new micro woods sites are confirmed** - In September 2024, Councillors approved the locations of two new micro woods to be planted in the city through the Government's Coronation Living Heritage Fund. CYC's Green Streets team selected two sites from 50 locations using tools such as the Tree Equity Score to determine the most suitable location. The woods, each consisting of 600 trees, will be created in Rawcliffe and Holgate.
- **YorEnergy: Energy Solutions for Every York Home** – A new service to help residents achieve home energy efficiency and save on rising energy bills was launched in October 2024. YorEnergy offers a friendly all in one service to guide residents through the home upgrade process, including free advice on the best energy-saving options.

City of York Council's priorities for the coming year and measures that we anticipate to progress are:

- **Progress development of York's future transport policies** – CYC's Local Transport Strategy (approved July 2024) sets out a vision for a healthier, more sustainable and better-connected city. Our Transport Implementation Plan (2024-2026) details the measures that will enable is to turn that vision into a reality and build the foundations for our forthcoming Movement and Place Plan (due by the end of 2025), which will map out connected networks for all modes of travel.
- **Explore opportunities to reduce freight emissions** – CYC's Local Transport Strategy and AQAP4 commit to exploring opportunities to improve freight and logistics to ensure that that York's businesses have efficient access for their supplies, goods and services, while at the same time reducing the impact of heavy lorries and light goods vehicles on carbon emissions, air pollution, safety and damage to heritage. In the short term we propose to designate a 'freight network' for medium (3.5T) and large (7.5T) vehicles and review powers to enforce such a network. We will also set up a freight forum and invite industry partners and experts to advise and partner with us on developing a freight strategy and network for the city. We also propose to implement a scheme allowing cargo delivery cycles access to the city centre footstreet during footstreet hours. In 2021, CYC obtained funding from DEFRA to pilot a transhipment hub for the city, but this project has proved difficult to deliver to date, in part due to the challenge of attracting a commercial partner. We are actively seeking ways of delivering this project and are taking advice from other cities where successful similar pilots have been delivered in combination with commercial partners. We also aim to continue investigating the potential for a Clean Air Zone applied to freight vehicles to further reduce emissions.
- **Continue to progress upgrades to bus services and infrastructure (including further electrification)** – presently there are around 14 million bus trips a year in York (nearly 40,000 a day). Electric buses now account for around 65% of all bus journeys in York. We will continue with our programme to electrify the bus network, aiming to completely electrify the network by 2028 (subject to funding). In the short term (2025-2026) we will deliver a 'city centre sustainable transport route' which will facilitate substantial reductions in through private traffic with active travel, public transport and essential journeys prioritised. This will not only improve bus service reliability and enhance air quality along the corridor but will provide safer walking and cycling routes into the heart of York city centre.

- **Traffic signal trials** – we will pursue initiatives in areas with poor air quality such as Gillygate (trial commenced January 2025 and is ongoing) by using traffic signals to mitigate the worst queuing in challenging areas of the network. We will embody the principles of the emerging Movement and Place Plan in how we manage our highway network. Potential interventions will be reallocation of highway space, traffic reduction, traffic filters and using signals to manage flows on some corridors. Wider gating strategies will also be considered to maximise efficiency of Park and Ride services and to improve air quality further in key areas of the city centre.
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CYC will continue to keep abreast of national grant opportunities for low emission taxis and provide advice to operators / drivers.

- **Reduce emissions from new development** – we will continue to work with developers to ensure development related emissions are appropriately assessed and mitigated, exposure to poor air quality is reduced via good design practices and that new private trips are minimised via provision of opportunities for sustainable transport. We will continue to encourage walking, cycling and low emission public transport use, which have co-benefits for health and wellbeing.
- **Expansion of strategic EV charging network** – CYC will continue with our EV charging programme and actively monitor plug-in vehicle uptake in the city to ensure our charging network remains fit for purpose. York has a developing network of electric vehicle charging points positioned in car parks, Park & Ride sites and at dedicated Hyper Hub charging sites. Over the coming year we will complete the update of our 'EV Charging Strategy' and seek ways to bring widespread coverage, using our Parking Strategy to help us balance competing needs of highway space. We will continue to explore technology advances, such as inductive charging and will trial charging in residential areas (and evaluate its success and scope for further installations in York).
- **Improving public awareness of air pollution** – we will promote our DEFRA funded air pollution forecasting and alert platform. The platform has been designed to ensure the most vulnerable residents have access to information that allows them to minimise exposure when pollution levels are high. We will seek to improve awareness of the links between all air pollution and health impacts generally to support CYC's ongoing LAQM and public health work. This will include raising public awareness of the links between domestic solid fuel burning, particulate emissions and health impacts.
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City of York Council worked to implement these measures in partnership with the following stakeholders during 2024:

- Departments across CYC including Public Health and Sustainable Transport
- Residents of York

- Local schools
- York and Scarborough Teaching Hospitals NHS Foundation Trust
- York Bus operators
- York Taxi Driver / Associations (and vehicle dealerships for taxi grants)
- Freight operators and local retailers
- York Civic Trust (YCT)
- University of York

The principal challenges and barriers to implementation that City of York Council anticipates facing are:

- The ability of current vehicle emission standards to deliver reductions in NO_x emissions, particularly the on-road performance of some Euro VI (and retrofitted) diesel vehicles. This extends to the remaining retrofitted Euro VI diesel buses operating in the city.
- Development related emissions through the cumulative impact of increased development in the city. CYC will endeavour to manage this through the application of local planning guidance, best practice emission mitigation measures and opportunities for sustainable transport. CYC's Transport Strategy sets a target of 20% reduction in vehicle miles travelled by 2030, which will need to be supported by significant increases in walking, cycling and use of public transport across York.
- Addressing air pollution from domestic solid fuel burning, especially during winter months, may present challenges as people turn to solid fuels to heat their homes in response to the energy and cost of living crisis. This may be further exacerbated in certain areas where fuel poverty may be a factor in the burning of non-certified wood products / waste wood or other materials. CYC has aimed to tackle this issue over the last couple of years through it's 'Fuel for Thought' educational campaign and is currently seeking to expand the Smoke Control Area to cover the whole of CYC's administrative area.
- Uncertainties with respect to future travel behaviour and challenges in achieving required modal shift targets to sustainable modes.
- Continued unnecessary vehicle idling in the city, particularly amongst heavy diesel vehicles.

Despite longer term improvements seen in air quality across CYC's area in recent years, the above factors are anticipated to remain challenges for CYC in the future.

Progress on the following measures has been slower than expected:

- **Pilot micro-consolidation centre (AQAP4 Measure 1b)** – CYC previously obtained funding from DEFRA to pilot a transhipment hub for the city, but this project has proved difficult to deliver to date due to withdrawal of the primary delivery partner at an advanced stage of the project and the ongoing challenge of attracting a new commercial partner. We are actively seeking ways of delivering this project and are taking advice from other cities where successful similar pilots have been delivered in combination with commercial partners. CYC is having ongoing discussions with DEFRA about this project. Whilst we aim to progress this pilot in 2025, this is subject to a new delivery partner being found. The pilot delivery hub will aim to maximise the efficiency of city centre deliveries, using e-cargo cycles and EVs, thereby minimising the need for large vehicles to enter the city centre.

CYC anticipates that the measures stated above and in Table 2.2 will achieve compliance in all areas of the city centre AQMA (Order No.5).

Table 2.2 – Progress on Measures to Improve Air Quality

The estimated efficacy of measures in terms of 'overall emission impact' is colour coded from **red** (least impact) - **amber** - **green** (most impact). Rows shaded in yellow will be published on UK-AIR

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
2b	Work in partnership with bus operators to pursue an all-electric, zero emission bus fleet for all services operating predominantly in the York urban area	Vehicle Fleet Efficiency	Promoting Low Emission Public Transport	2024	2025	CYC Sustainable Transport Bus operators Manufacturers of low emission buses Charging infrastructure providers	DfT Bus Operators (match funding)	Funded	>£10m	Implementation	Buses generally contribute less than 10% of traffic emissions on the majority of streets and are most significant on roads with proportionally less emissions, where bus flows form a larger proportion of the overall traffic. In areas like George Hudson Street and Blossom Street, between 10 - 25% of the total road NOx emissions are due to buses AQAP4 section 3.5 estimates that electrifying the remaining bus fleet would result in around 6% reduction in overall NOx emissions (for the area modelled). However, this is dependent upon bus frequency / the area of York. New buses will be used on First's routes 1, 4, 5 and 6, for the York Hospital shuttle bus and on Park&Ride route 2, reducing carbon emissions in York by 2,300 tonnes per year as well as reducing NO_x and PM emissions across the city. This adds to the current annual reduction of 1,600 tonnes achieved by the zero-emission Park and Ride fleet.	% Electric Bus within 'urban' bus fleet BSIP target to convert all bus services operating predominantly in the York urban area to electric vehicles by 2024/25. Enhanced Partnership Plan (Sept 2022) contains high level objective of At least 90% of bus services operating predominantly in the York urban area to be operated using electric vehicles by 2024/25.	CYC has adopted a four-phase transition to electric drive for buses Phase 1 saw conversion of York's Park & Ride fleet operated by First York. In this phase 33 electric buses were introduced to serve the 5 Park & Ride sites in York for which electric buses are practicable (completed late 2020). Phase 2 saw the roll out of an electric fleet to York's frequent, urban non-Park & Ride routes. This was supported by £10.2M of ZEBRA1 funding, which electrified all First York's remaining diesel fleet (53 vehicles) throughout 2023/24. First's depot also received a power upgrade to make it one of the first fully electric depots outside London. Phase 3 of the process (ongoing) seeks to convert non-frequent routes in York and those which are urban/rural in character. This phase of the electrification programme involves nearly all of York's operators. Phase 4 will convert the inter-urban routes. To date, no suitable vehicle has been marketed for this stage, but that is likely to change as battery technology develops. It is also possible that the Phase 4 conversions will rely on an alternative technology, such as hydrogen. CYC aim to completely electrify the network by 2028.	Additional benefits include reduction in carbon emissions, noise pollution and improved passenger (and driver) experience Opportunities to work with York tour bus operators to facilitate upgrades The positive conversion of York's largest operator, First, will be important in familiarising the other operators in the city with electric vehicles. Through our Enhanced Partnership (EP) CYC holds regular meetings with operators and stakeholders where feedback and participation from all bus user and disability groups is actively welcomed.

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6	Delivery of CYC Public EV Charging Strategy / roll-out of additional charge points / hubs	Promoting Low Emission Transport	Procuring alternate refuelling infrastructure to promote Low Emission Vehicles, EV Charging	2024	Ongoing – Current Strategy introduced 2020 and will run until 2025 with annual review	CYC Transport (EV Strategy) BP Pulse (access partner) EV Charge Point manufacturers	CYC	Funded	£1m - £10m	Implementation	Emission reduction dependent upon EV uptake. For every conventionally fuelled vehicle replaced local emissions of NO_x and tailpipe PM_{10} are eliminated. AQAP4 section 3.5 estimates that enabling 10% of cars and LGVs to switch to electric would result in around 9% reduction in overall NO_x emissions (for the area modelled).	Number of operational fast, rapid and ultra-rapid CYC charge points was 103 at Jan 2025 No. of charging episodes at CYC charge points: 2022 - 24,109 2023 – 36,219 2024 – 38,715	Extensive 'pay as you go' fast charge public electric vehicle recharging network consists of 103 chargers (Jan 2025) Two Hyperhub sites delivered and operational with two further Hyperhub sites in development Local Transport Strategy Implementation Plan commits to trialling charging in residential areas and evaluating its success and scope for further installations in the city. CYC officer workshops were progressed with independent expert body the Energy Saving Trust (EST) on 9th July and 18th November 2024 to consider options for on-street charging and policy/strategy options. Updated 'Public EV Charging Strategy' currently being developed and due for publication by the end of 2025.	Work programme agreed and funded CYC will monitor plug-in vehicle uptake in York and usage of CYC's network (at least annually) to assess if charge point provision meets demand.
9b	Air Quality Alert / Notification Service	Public Information	Via the Internet / Via other mechanisms	2024	2024	CYC Public Protection / Public Health External IT platform provider	DEFRA AQ Grant	Funded	£50k - £100k	Complete	Measure aimed at reducing exposure rather than pollution reduction per se	Ongoing platform usage (e.g. visitor stats and subscriptions to notification service), supplemented with registered platform user feedback	DEFRA AQ Grant obtained for Air Quality Forecasting and Alert Service in 2023. The York Air Alert service was launched in July 2024 and has been promoted across GP surgeries, hospitals and pharmacies across CYC's area. The service has also been extensively promoted across CYC's social media channels and via printed press. At January 2025 there were 153 registered users	Will result in improved knowledge and awareness of air pollution, links to health impacts, and means to reduce exposure to pollutants via lifestyle choices / travel route / modal choice We will also explore wider behaviour change messaging in response to high pollution episodes
1a	Explore opportunities / options for reducing freight emissions	Freight and Delivery Management	Delivery and Service Plans Freight Consolidation Centre Freight Partnerships for city centre deliveries	2024	2025/26	CYC Freight transport industry Local operators York Civic Trust Local Enterprise Partnership	DEFRA funding secured for feasibility study and pilot	Partially funded	£100k - £500k	Planning	Baseline emission assessment undertaken (2021) demonstrated that HGVs are a significant emission source on the majority of major roads, where they contribute 15 – 25% of total road NOx emissions and up to 55% in some areas. LGVs generally	Reduction in freight mileage / freight emissions	Initial feasibility study to address first/last mile delivery of light goods in York undertaken Oct/Nov 2021. Freight forum established 2021 A new Local Transport Strategy	Whilst the initial first/last mile feasibility study was funded, any permanent consolidation facilities would be subject to further costing and investment

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						York Business Improvement District (BID)					responsible for less than 10% of road traffic NOx emissions, but are more significant in certain areas such as the outer ring road and on key routes like Fulford Road, representing up to 25% of total road emissions. AQAP4 section 3.5 estimates that reducing HGV/LGV volumes by 25% would result in around 8% reduction in overall NOx emissions (for the area modelled).		(LTS) was approved in July 2024. The LTS sets out ambitions for York's transport network and infrastructure until 2040. An Implementation Plan for the first period of the new LTS was considered by CYC's Executive in November 2024. The Implementation Plan outlines medium term commitments to create an environment where pollution, noise and road wear and tear from freight vehicles is as low as possible, with operators using electric or other low pollution vehicles. CYC's is currently in the process of developing a Movement and Place Plan which will reallocate road-space to create safe and connected networks for walking, wheeling, cycling, public transport, cars and freight for residents, businesses and visitors alike. CYC's LTS commits to explore opportunities to improve freight and logistics to ensure that that York's businesses have efficient access for their supplies, goods and services, while at the same time reducing the impact of heavy lorries and light goods vehicles on carbon emissions, air pollution, safety and damage to heritage. Movement and Place Framework prepared by Phil Jones Associates (PJA) in July 2024.	
1b	Undertake pilot project to test 'micro-consolidation centre' for distribution of commercial light goods	Freight and Delivery Management	Freight Consolidation Centre	2024	2025/26	CYC Local delivery operators and support staff	DEFRA funding secured for pilot	Funded	£100k-£500k	Planning	Subject to evaluation of pilot and reduction in freight mileage AQAP4 section 3.5 estimates that reducing HGV/LGV volumes by 25% would result in around 8% reduction in overall	Completion / evaluation of pilot Reduction in freight mileage / freight emissions (as demonstrated through pilot)	Report to CYC Transport Board in June 2024 to consider options available following withdrawal of principal delivery partner in August 2023. The project was approved to continue by re-contacting other parcel carriers, who	Pilot funded through DEFRA Air Quality Grant Anticipated that the pilot will be supported by Blueberry Academy, who provide specialist support for young

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											NO_x emissions (for the area modelled).		had previously expressed interest in the project. In June 2024, CYC's Transport Board agreed to continue the project based on the Blueberry Academy / Greenlink Delivery Hub option.	people and adults with learning differences, autism, social, emotional and mental health needs and/or other disabilities. This project has been significantly delayed due to project management capacity at CYC
1c	Consider feasibility of extending Clean Air Zone to include freight vehicles	Promote Low Emission Transport	Clean Air Zone (CAZ)	2024	Currently unknown	CYC Freight transport industry Local operators York Civic Trust Local Enterprise Partnership York Business Improvement District (BID	Currently unknown	Not Funded	Currently unknown	Planning	Currently unknown	To be developed	CYC Council Plan 2023 – 2027 aspiration to consider extension of CAZ to freight vehicles Member briefing note produced in September 2024, which included a review of other CAZ schemes across the UK. Considered that the last mile delivery pilot (measure 1b) needs to successfully demonstrate that ultra-low or zero emission means of delivery can operate successfully in York in the first instance. Such initiatives have the potential to remove diesel HGV traffic from the network and therefore bring about air quality improvements in key areas.	Expansion of the CAZ to include HGVs is not being actively pursued at present due to the potentially considerable enforcement costs alongside increased costs and inconvenience to city centre businesses. A review of ANPR data also showed that there are a high proportion of Euro 6 HGV vehicles already in operation in the city, thereby weakening the potential effectiveness of a CAZ on AQ grounds alone.
2a	Upgrade (CAZ exempt) inter-urban and rural services to ultra-low emission (electric) vehicles	Promoting Low Emission Transport	Clean Air Zone (CAZ)	2024	2025	CYC Sustainable Transport Bus operators Manufacturers of low emission buses Charging infrastructure providers Emissions abatement equipment providers	DfT Bus operators (match funding)	Funded	TBA	Implementation	Buses generally contribute less than 10% of traffic emissions on the majority of streets and are most significant on roads with proportionally less emissions, where bus flows form a larger proportion of the overall traffic. In areas like George Hudson Street and Blossom Street, between 10 - 25% of the total road NO_x emissions are due to buses AQAP4 section 3.5 estimates that electrifying the remaining bus fleet would result in around 6% reduction in overall NO_x emissions (for	% inter-urban and rural services electric / Euro VI diesel BSIP target to convert all inter-urban and rural services to Euro VI diesel by 2024/25 (if it not practical to electrify the routes) Enhanced Partnership Plan (Sept 2022) contains high level objective of at least 95% of inter-urban and rural services to be operated using vehicles of Euro VI standard or better by 2024/25.	See update for associated measure 2b. Phases 3 and 4 of CYC's bus transition strategy cover inter-urban and rural services. Where it is not practical to electrify routes, all inter-urban and rural services will be upgraded to Euro VI	An advisory minimum emission standard applied to CAZ exempt vehicles of Euro IV by January 2020, increasing to Euro V from January 2022 and ULEB / Euro VI from January 2024

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											the area modelled). However, this is dependent upon bus frequency / the area of York.			
2c	Extend CAZ (for buses) to York Central	Promoting Low Emission Transport	Clean Air Zone (CAZ)	2024	2025	CYC Sustainable Transport Bus operators Traffic Commissioners Office	Currently unknown	Not funded	Currently unknown	Planning	-	Change to the Traffic Regulation Condition (TRC)	CYC Council Plan 2023 – 2027 aspiration to consider extension of CAZ area to York Central. Work to formalise the CAZ extension to York Central currently in progress.	Subject to discussions with the Traffic Commissioners Office and a change to the Traffic Regulation Condition
3a	Continued promotion of CYC 'Kick the Habit' campaign	Traffic Management Public Information	Anti-idling enforcement Via leaflets / the Internet / Other	2024	Ongoing	CYC Public Protection / Parking Services / Sustainable Transport. Bus companies, taxi companies, freight / delivery companies, local businesses. Promotion undertaken with partners such as York Hospital, University of York and local schools	CYC internal funding for ongoing promotion and development of resources to support the campaign	Funded	<£10k	Implementation	Previous feasibility work undertaken by CYC suggested at 5 busiest service bus locations, estimated savings of 1,526kg NO_x, 36kg PM_{10}, 46,555kg CO_2,and 17,949 litres of fuel per year could be made by addressing idling.	Estimate of idling time saved (mins)	Existing 'Kick the Habit' campaign Annual promotion on Clean Air Day Schools – 'Kick the Habit' anti-idling campaign in school newsletters for Clean Air Day 2024 Confederation for Passenger Transport (CPT) – CYC's Kick the Habit anti-idling campaign promoted in national newsletter which goes out to all CPT members, that features the latest news, views and compliance matters impacting on the industry Further promotion of 'Kick the Habit' in December 2024 with emphasis on minimising engine idling whilst defrosting vehicle windscreens during the winter period	Partnership working with schools, hospital and academic institutions Opportunities to roll-out campaign in other local authority areas Awareness raising with commercial operators
3b	Erect further signage / develop new anti-idling resources / review approach to anti-idling enforcement	Traffic Management	Anti-idling enforcement	2024	Ongoing	CYC Public Protection / Parking Services / Sustainable Transport	CYC	Partially funded	New resources <£10k Staff resource for enforcement subject to higher costs but opportunities to incorporate idling duties into other related posts.	Implementation	Difficult to quantify exact emission savings as measures aimed at preventing idling / education	N/A	Permanent signage in CYC car parks, at most city centre bus stops, multiple taxi ranks and at other key locations since scheme launch in 2019. Union Terrace Coach park signage was refreshed in 2024. Anti-idling leaflets produced for different target audiences (schools, taxi drivers, commercial vehicles etc) Additional permanent advisory anti-idling signage was erected along Gillygate and on	CYC only has powers to enforce unnecessary vehicle idling on the public highway and on CYC owned land. The regulations do not allow CYC to take action against motorists who are idling their engines whilst queueing in traffic / at traffic lights. CYC Parking Services undertake regular patrols across York and can enforce idling offences in CYC owned coach and car parks. CYC's Environmental Protection team

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													the surrounding roads in May/June 2024 to encourage motorists to switch off their engines whilst queuing. Anti-idling patrols were undertaken in response to public complaints of stationary idling on the public highway.	undertake patrols in response to persistent idling complaints and follow up all complaints of idling by commercial operators.
4a	Review and update of CYC Taxi Licensing Policy to accelerate uptake of ULEVs	Promoting Low Emission Transport	Taxi Licensing conditions	2024	2024	CYC Public Protection / Taxi Licensing	CYC	Funded	£10k - £50k	Complete	Air quality / emissions impacts realised as fleet replaced over time in line with policy revisions	Adoption of new Taxi Licensing Policy	Previous consultation with the taxi trade around vehicle standards in 2020 Consultation on updated Taxi Licensing Policy in June/July 2024. The revised policy was approved by Council in November 2024 requires vehicles to meet stricter emission standards to help improve air quality across the city. The policy also supports the supply of more wheelchair-accessible taxis and aims to increase awareness of and extend safeguarding standards among drivers and operators. From November 2024, the new policy requires all new private hire vehicle applications and all replacement hackney carriage / private hire vehicles to be a minimum of Euro 6 standard and less than 10 years old. The age limit does not apply to ULEVs (<75g/km CO_2) or Euro 6 wheelchair accessible vehicles. From November 2027, vehicle licences will not be renewed by CYC unless they meet these requirements (Euro 5 wheelchair accessible vehicles were granted an additional 3 years to November 2030).	CYC will also consider opportunities for addressing emissions associated with non-CYC registered taxis that operate in the city
4b	Seek further opportunities for CYC to support taxi drivers to upgrade vehicles to ULEVs	Promoting Low Emission Transport	Taxi emission incentives	2024	Ongoing	CYC Public Protection / Taxi Licensing Taxi Drivers	Will require external funding	Not funded	£500k - £1m	Planning	Converting the remaining taxi fleet to electric or petrol-hybrid technology can offer considerable emission savings	% low emission taxis (electric / PHEV / hybrid) across CYC licensed taxi fleet	CYC delivered a Low Emission Taxi Grant scheme between November 2020 and June 2024. The project encouraged the transition to low	CYC will also work alongside the taxi trade to understand requirements of charging infrastructure needs.

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											compared with older diesel technology	At January 2025 this was 40%	emission taxis within York, via the use of incentives and awareness raising. The scheme provided £105k in grant funding and has supported 38 CYC licensed taxi drivers with either purchase costs or operational costs for low or zero-emission vehicles.	
4c	Consider feasibility of extending the Clean Air Zone to include taxis	Promoting Low Emission Transport	Clean Air Zone (CAZ)	2024	Currently unknown	CYC Public Protection / Taxi Licensing Taxi Trade	Currently unknown	Not funded	Currently unknown	Planning	Currently unknown	To be developed	CYC Council Plan aspiration to consider extension of CAZ area to include taxis	Subject to further feasibility work
5a	Implement an EV fleet replacement programme for all vehicles under 3.5 tonnes	Promoting Low Emission Transport	Company Vehicle Procurement – Prioritising uptake of low emission vehicles	2024	2025	CYC Highways and Fleet	CYC	Funded	£1m - £10m Estimate of costs of upgrades to 153 vehicles over programme lifetime (capital and revenue costs)	Implementation	Fleet electrification will eliminate tailpipe emission of NO_x/PM	% of EVs in CYC Fleet <3.5T Jan 2025 figure was 60%	Phased fleet programme underway for vehicles under 3.5 tonnes Upgrades to power distribution at Hazel Court Depot finalised 2023/24 A new multi-purpose mini electric vehicle, known as a Goupil, went into service on 29 April 2024. At January 2025, 60% of CYC's operational van fleet were electric (87 vans) or plug-in hybrid electric vehicles (1 Van).	Phased vehicle upgrades as part of replacement programme will see gradual increase in EVs across all service areas
5b	Explore options for fleet vehicles over 3.5 tonnes to move away from diesel	Promoting Low Emission Transport	Company Vehicle Procurement – Prioritising uptake of low emission vehicles	2024	Ongoing	CYC Highways and Fleet	CYC	Partially funded	£1m - £10m	Implementation	CYC's 2020 vehicle fleet emitted 1763t of CO_2 every year (including HDVs). NO_x/PM reduction not estimated	% ULEV (over 3.5 tonnes) Jan 2025 figure was 4.7% (2 electric refuse vehicles and 1 electric pick-up)	Zero-emission 'eCollect' refuse collection vehicles (eRCVs) are used six days a week on commercial waste collections benefitting the city with zero emissions and quieter operations.	CYC will continue to arrange trials and evaluation of vehicles to assess suitability for core service areas.
5c	Maximise CYC journey efficiency (and minimise emissions) through use of telematics, training and sustainable travel options for staff	Vehicle Fleet Efficiency	Driver training and ECO driving aids	2024	Ongoing	CYC Highways and Fleet / Rethinking Travel	CYC	Funded	Dependent upon exact options progressed	Implementation	NO_x/PM reduction not estimated	Telematics feedback and evaluation Use of pool bikes, car club vehicles	ECO driver training previously undertaken Ongoing programme of training for HGV drivers e.g. Certificate of Professional Competence (CPC) Masternaut telematics system rolled out to all CYC vehicles Low and zero emission pool vehicles / Car Club vehicles available for staff use during working hours (7 dedicated vehicles across 4 locations).	-

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													30 CYC pool bikes available across 12 locations New portal in development with Enterprise Car Club for prioritisation of travel options for CYC staff	
7a	Review / update Low Emission Planning Guidance and ensure alignment with carbon reduction policies	Policy Guidance and Development Control	Air Quality Planning and Policy Guidance	2024	2025/26	CYC Public Protection / Planning / Integrated Strategy / Carbon Reduction	CYC	Funded	£10-£50k	Implementation	NO_x/PM reduction not estimated	Revision / adoption of updated low emission planning guidance	Draft guidance available and currently being actively used for development control purposes Update in progress	Cost anticipated mainly in relation to staff time and consultation CYC will ensure that local standards for EV charging infrastructure provision remain appropriate for current EV use (and anticipated future EV uptake) in the city and are aligned to CYC's vision as laid out in CYC's EV Charging Strategy. Consideration of energy efficiency with respect to commercial / domestic heating Consideration of low NO_x boiler technologies Aim to ensure that heating technologies in new developments achieve the lowest emissions possible, considering both local air quality and carbon reduction targets Consideration of emissions from Non-Road Mobile Machinery (NRMM) and local standards.
7b	Ensure development related emissions are appropriately assessed and mitigated in line with CYC guidance	Policy Guidance and Development Control	Air Quality Planning and Policy Guidance	2024	Ongoing	CYC Planning / Public Protection Developers	CYC	Funded	£50-£100k Staff time plus oncosts	Implementation	NO_x/PM reduction not estimated, but will be site specific dependent upon mitigation	Planning applications reviewed in terms of air quality	Ongoing assessment of planning applications Development of standard planning conditions for air quality issues Development of local standards for EV charging provision AQ Policy ENV1 developed as part of Local Plan	Cost anticipated mainly in relation to staff time for implementing guidance Assessment of air quality impacts will consider cumulative impacts from nearby sites to minimise 'emission creep' across the city. Standards for EV charging provision subject to annual review

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8	Continue to explore incentives and opportunities to encourage the wider uptake of low and zero emission vehicles	Promoting Low Emission Transport	Priority parking for LEV's Company Vehicle Procurement - Prioritising uptake of low emission vehicles Public Vehicle Procurement - Prioritising uptake of low emission vehicles	2024	Ongoing	CYC Transport / Public Protection / Parking Services / Transport Planning Partners may include infrastructure delivery partners, developers, micro-mobility solution providers	CYC	Not funded	Scheme dependent	Planning	AQAP4 section 3.5 estimates that enabling 10% of cars and LGVs to switch to electric would result in around 9% reduction in overall NO_x emissions (for the area modelled).	Number of low emission parking permits issued Further ULEV / ZEV / micro mobility trials undertaken	Parking incentives whilst use of rapid and ultra-rapid charge points Low emission discount offered on parking permits. We consulted with the public on levels of discount for low emission vehicles for residents parking and season tickets as part of our Big Budget Conversation in Nov/Dec 2024. Advice to businesses on EV transition and infrastructure The TIER e-scooter and e-bike trial ended on 31 May 2024. York's e-scooter rental scheme was part of the Department for Transport micro-mobility trial. Since the trial began nearly 60,000 e-scooter and e-bike users in York have covered more than 820,000 miles in over half a million journeys. CYC is exploring opportunities for trials of further micro-mobility modes.	CYC will explore further incentives to increase use of micro-mobility modes, such as E-Bikes / E-Scooters
9a	Improve public access to air quality information and advice	Public Information	Via the Internet	2024	Ongoing	CYC Public Protection / Public Health	CYC	Partially funded	<£10k Annual review and update of web content	Implementation	N/A	Web content subject to ongoing periodic review to consider topics of local significance and interest Availability of local, up to date, air quality monitoring data and annual summary reports	Air quality pages of CYC website updated as necessary throughout 2024 Real-time air quality data publicly available at Air Quality England. Communication equipment upgrades progressed at 2 continuous monitoring sites throughout 2024 (Gillygate and Holgate) to facilitate rapid data dissemination. Diffusion tube data publicly available on YorkView Promotion of smoke control area (SCA) requirements	Updates will assist with providing information to the public about the health impacts of air pollution and how behavioural change can reduce emissions and exposure. Updates will also cover issues such as the impacts of bonfire smoke
9c	Local promotion of 'Burn Better' campaign and rules around Smoke Control Areas (SCAs)	Public Information	Via the Internet / Via leaflets / Via other mechanisms	2024	Ongoing	CYC Public Protection / Public Health	CYC for ongoing local promotion of SCAs and existing campaigns	Funded	Local promotion of SCAs and existing campaigns <£10k	Implementation	NO_x/PM reduction not estimated but communications campaigns can increase awareness of air quality issues	Annual promotion undertaken Reduction in solid fuel burning / change in domestic heating	Promotion undertaken via CYC media channels Autumn/Winter 2024 Compliance checks across solid fuel	Promotion of 'Burn Better' campaign will help householders choose cleaner fuels and ensure they are aware of best practice

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							Particulate awareness and reduction campaign was funded through DEFRA AQ Grant		Fuel for Thought campaign £10k - £50k		and drive behavioural change	patterns, awareness of correct maintenance and efficient use of appliances and fuel certification schemes	distribution outlets were progressed throughout 2023/2024 to ensure that all solid fuels being sold were certified as 'Ready to Burn' DEFRA AQ Grant obtained for campaign work in relation to domestic solid fuel burning and links to air pollution and health. CYC's Fuel for Thought campaign was launched in November 2023 and was actively promoted throughout the Winter period. This campaign also raised awareness of smoke control area requirements.	in terms of maintenance of solid fuel burning appliances.
10a	Continue to promote sustainable travel in York	Promoting Travel Alternatives	Intensive active travel campaign & infrastructure Promotion of cycling Promotion of walking School Travel Plans Workplace Travel Planning	2024	Ongoing (funding dependent)	CYC Sustainable Transport CYC Marketing and Communications Schools Local businesses Sustrans	CYC DfT	Partially funded	£100k - £500k (annually) for engagement with businesses, schools and the general community	Implementation	Hard to precisely quantify but target to increase modal shift away from private car to walking / cycling and public transport use AQAP4 section 3.5 estimates that reducing car usage by 20% (in line with CYC's 2030 Transport Strategy target) would result in around 12% reduction in overall NO_x emissions (for the area modelled). This would be over and above any improvements delivered through vehicle emission technology.	Various KPIs reported as part of Local Transport Plan, such as: Cycle counts / cycle training delivered School travel plans delivered Businesses adopting sustainable travel modes Increase in bus patronage Increase in walking / cycling	Since 2021/22 CYC's I-Travel programme has delivered: E-cycle switch scheme E-cargo bike scheme. Supported Friends of St Nicholas Fields (St Nicks) switch to using E-Cargo bikes Delivery of active travel campaign 'Better Points' scheme 'Bikeability' training to all Primary and Secondary state schools Urban Cycle Skills training for adults and families York Walking Festival Production of cycle route videos and audio walking guides School Travel Planning Development of a Local Cycling and Walking Infrastructure Plan (LCWIP)	Existing I-Travel programme subject to ongoing funding Continued work with schools to promote sustainable travel choices, minimise idling events, deliver cycle training, produce school travel plans and facilitate events to promote Walk to School week / Clean Air Day etc Continued work with businesses to embed sustainable travel modes into current business models and encourage uptake Also see measure 10c for updates on CYC's LCWIP
10b	Delivery of Bus Service Improvement Plan (BSIP)	Transport Planning and Infrastructure	Bus route improvements Public transport improvements – interchanges, stations and services	2024	2025	CYC Sustainable Transport Bus companies Infrastructure providers	DfT	Funded	>£10m	Implementation	Bus emissions (post CAZ implementation) generally up to 10% of road traffic emissions on majority of network, but up to 25% in some areas of AQMA	Various KPIs outlined in BSIP, examples include: Passenger trips per year Bus punctuality /excess wait time Service frequency	Award of £8.4m through DfT's ZEBRA fund in March 2022 to fund 44 electric buses, with an additional award of £1.8m to increase the scope to co-fund a further 9 buses Award of £17m in April 2022 to support	See BSIP report to Executive Member for Transport

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												% Electric Bus BSIP Target of 20 million bus passenger trips a year by April 2025 (25% increase on the peak seen in 2017/18).	the development of key schemes and initiatives in line with York's Bus Service Improvement Plan, including wider electrification of the urban bus fleet, bus priority measures, improvements to stops, shelters and passenger information	
10c	Delivery of other LTP infrastructure measures	Transport Planning and Infrastructure	Other	2024	Ongoing	CYC Infrastructure providers	Scheme dependent	Scheme dependent	Scheme dependent	Implementation	Scheme specific York Outer Ring Road Air Quality Impact Assessment demonstrated a possible reduction in vehicle traffic (and air pollution emissions) in some areas of the city centre AQMA.	Scheme specific	Local Transport Strategy Implementation Plan published November 2024. The plan provides an approach to city-wide transformation that will reduce air pollution and enable more physical and social activity through promotion and facilitation of active and sustainable modes of transport. The Implementation Plan will next be refreshed in Spring 2026. The Local Cycling and Walking Infrastructure Plan (LCWIP) specifies priority networks for walking, wheeling and cycling. These will form the basis for future investment in the active travel network and will be reflected in the Movement and Place Plan, which will map out connected networks for all modes of travel. This is due to be complete by the end of 2025. Following CYC's planning committee on 19 March 2024, and referral to the Secretary of State, the YORR planning application has now been approved. Full details can be found on the Planning Access Portal, using the search reference 22/02020/FULM. Consideration of Gillygate specific measures in progress. A Gillygate working group was established in 2023 and progressed throughout 2024 to	Scoping report for CYC LCWIP

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
													consider specific air quality improvement measures on Gillygate to address remaining exceedances of health-based standards. CYC officers will continue to work with residents of Gillygate and neighbouring streets as part of this group to explore other options to improve air quality further in the local area. Traffic Signal Trial on Gillygate approved by Executive Member for Transport in December 2024 CYC plan to progress a study looking at options for altering traffic movements on the western side of York's Inner Ring Road – focussing on the quadrant bounded by Gillygate, Bootham, Wigginton Road, Clarence Street and Gillygate, with a focus on addressing poor air quality in this area. This is likely to form part of the Movement and Place Plan unless it can be funded separately.	
11a	Regulation and control of industrial emissions	Environmental Permits	Other	2024	Ongoing	CYC Public Protection	CYC	Funded	£10k - £50k	Implementation	NO_x / PM emission reduction not estimated but will prevent further deterioration in air pollution via regulation and control of existing processes	Scheduled CYC inspections completed per annum	Annual inspection programme ongoing	Scheduled inspections undertaken by CYC Public Protection staff. Work programme subject to maintaining existing staff resource
11b	Regulation and control of domestic emissions	Promoting Low Emission Plant	Other Policy	2024	Ongoing	CYC Public Protection	CYC	Funded	£10-£50k	Implementation	NOx / PM emission reduction not estimated	Review smoke control area boundaries and implementation of new legislation, including enforcement methods Reduction in complaints of smoke nuisance	Compliance checks across key solid fuel distribution outlets have been undertaken as part of other routine CYC operations.to ensure that all solid fuels being sold were certified as 'Ready to Burn' in line with the Air Quality (Domestic Solid Fuels Standards) (England) Regulations 2020. Adopted a new enforcement policy for smoke emissions in CYC's Smoke Control Area (SCA) in November 2024. See	Work programme subject to maintaining staff resource CYC continues to investigate sales of non-authorised solid fuels and complaints of non-compliance.

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
													Decision Session – Executive Member for Environment and Climate Emergency 19th November 2024 Consultation on revised SCA boundary planned for 2025	
11c	Provision / promotion of energy advice services and upgrade grants to domestic and business sectors	Promoting Low Emission Plant	Other Policy	2024	Ongoing	CYC Carbon Reduction	External grant funding	Funded	Scheme dependent	Implementation	Home upgrade energy efficiency grants and advice services to residents and businesses will complement wider emission reduction measures of AQAP4. Across York, domestic buildings are the largest sources of greenhouse gas emissions at 31.9%.	Grants awarded / energy savings / carbon reduction	Production of updated Climate Change Action Plan in November 2024, that sets out sets out the actions to be taken to reduce emissions and improve climate resilience in York. A full update for 2024 is provided the updated Action Plan. Measures include: Creation of a Retrofit One-Stop-Shop for York is underway through the Innovate UK funded Net Zero Living project. The retrofit One-Stop-Shop will facilitate retrofitting homes with low-carbon measures, improve the householder experience and contribute to better energy efficiency standards across the city. Rollout of Home Upgrade Grant (HUG2) that provide insulation for low-income households to reduce heating bills and carbon emissions Decarbonisation plans for 21 schools and 5 leisure centres, identifying opportunities to reduce energy consumption, providing both financial and carbon savings. Local Energy Advice Demonstrator (LEAD) Home Energy Advice Scheme for Conservation Area and Listed Property Owners	CYC gas consumption will be reduced through a range of initiatives including building efficiency improvements, transitioning to electrical heating and encouraging staff to take steps to reduce energy usage when working from home. CYC secured £175,980 grant funding from the Government's Low Carbon Skills Fund to create decarbonisation plans for 21 schools and 5 leisure centres in the City, identifying opportunities to reduce energy consumption, providing both financial and carbon savings. Building fabric upgrades (energy efficiency) and low carbon heating technology upgrades will contribute to improved local air quality and carbon reduction targets
12a	Maintain CYC's air quality monitoring network and respond to	-	-	2024	Ongoing	CYC Public Protection Academic Institutions (equipment trials)	CYC	Funded (routine operation	£10-£50k per annum	Implementation	No direct air quality impact but used to monitor impact of AQAP measures and complementary	Average and/or maximum concentrations of NO_2, PM_{10} and $PM_{2.5}$ across key	Established monitoring network including 9 real-time monitoring stations and 233 passive NO_2	Full details of CYC's up to date monitoring strategy and any changes are provided annually in CYC's

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
	changing monitoring priorities							of existing equipment) Future upgrades subject to additional funding			CYC strategies affecting traffic and local development	areas in the AQMA / the wider area of York	diffusion tubes across CYC area Communications upgrades (4G) at two of CYC's continuous monitoring sites completed in 2024 to facilitate real-time data availability Contracts negotiated for ongoing data management, audit and service for air quality sites for period 2025-2027	Annual Air Quality Status Reports New and upgraded monitoring equipment subject to internal / external funding and national standards
12b	Ensure AQ data is disseminated to the public and shared with local leads for air quality, public health and transport	Public Information	Via the Internet Other	2024	Ongoing	CYC Public Protection	CYC	Funded	£10-£50k per annum	Implementation	N/A	Publication of annual air quality summary / ASR Briefings to local leads for Air Quality Real-time air quality data publication on online portal	AQ data currently disseminated via Air Quality England website and CYC Annual Status Reports hosted on council website Diffusion tube data hosted on CYC's YorkView GIS platform Annual Air Quality Report to CYC's Executive in June 2024 Successful DEFRA AQ Grant bid for air quality alert / forecasting service that was launched in July 2024 Presentation on York's air quality initiatives to Association of the Directors of Public Health Yorkshire and the Humber Sector-led improvement conference on 8th November 2024	Costs relate to annual staff costs. Additional mechanisms to disseminate data subject to additional funding.

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

As detailed in Policy Guidance LAQM.PG22 (Chapter 8) and the Air Quality Strategy[1], 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 Public Health Outcomes Framework includes an indicator relating to the fraction of mortality attributable to particulate pollution. This indicator enables Directors of Public Health to prioritise action on air quality in their local area to help reduce the health burden from air pollution. Indicator D01 'Fraction of mortality attributable to particulate air pollution' is defined as the fraction of annual all-cause adult mortality attributable to particulate air pollution (measured as fine particulate matter, $PM_{2.5}$), expressed as the percentage of annual deaths from all causes in those aged 30+.

It is estimated that long-term exposure to air pollution (specifically, $PM_{2.5}$) was a contributory factor to the cause of death in 4.4% of deaths in York in 2023 (latest data available at the time of writing). This figure is less than the figure reported for the wider Yorkshire and Humber region in 2023 (5.1%) and less than the average figure reported for England in 2023 (5.2%).

It is widely accepted that fine particulate matter has a significant impact on both morbidity and mortality and diesel emissions have been classified as carcinogenic by the International Agency for Research on Cancer (part of the World Health Organisation). There is particular concern about the 'black carbon' fraction of particulate matter due to its health impacts, and its strong ability to absorb light energy and increase global warming. Black carbon emissions in urban environments arise predominantly from diesel transport, but are also a product of biomass combustion, used increasingly for energy production and space heating.

Emissions of oxides of nitrogen (NO_x) and man-made particulate must be reduced to meet the health based national air quality objectives in York and improve public health.

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

To date CYC has produced two trip reduction / modal shift based Air Quality Action Plans (AQAPs) and in 2015 adopted a third Action Plan (AQAP3) focussing on reducing vehicle tailpipe emissions from the remaining vehicle fleet through the use of low emission technologies. In 2024 CYC consulted on an updated Action Plan (AQAP4) that outlines the action CYC will take to further improve air quality in York over the next 5 years to go beyond health-based National Air Quality Objectives in all areas and work towards meeting World Health Organisation (WHO) Air Quality Guidelines. AQAP4 aims to reduce concentrations of air pollutants and exposure to air pollution, thereby improving the health and quality of life of residents and visitors to York. AQAP4 recognises that there are no 'safe' limits for particulate emissions, particularly $PM_{2.5}$. The maximum concentration of $PM_{2.5}$ monitored in York in 2024 was 9.0µg/m^3 at the Gillygate site.

CYC is demonstrating a commitment to addressing $PM_{2.5}$ through measures in its current (new) Air Quality Action Plan and wider associated strategies. Some specific items related directly to reducing fine particulate emissions (and indeed related to reducing exposure to such emissions) are described below:

- **Exposure Reduction through the Planning Process [See AQAP4 measures 7a and 7b]**

  Air quality staff routinely comment on planning applications to ensure that new developments are designed in a way which minimises exposure to air pollution and further emission growth. CYC's Low Emission Planning approach requires developers to calculate the damage costs of the additional development emissions and to mitigate these using a range of sustainable transport and low emission vehicle measures. Such measures must be considered reasonable and proportionate, relative to the damage costs associated with the development. Pre-planning advice is often provided on locations for key exposure sites (e.g. housing, schools, sports facilities, medical facilities etc.) and the use of biomass heating systems is generally discouraged in urban areas and near sensitive receptors.

- **Policy Led Exposure Reduction [Links to various AQAP4 measures]**

  CYC's Environmental Protection team work alongside other council departments and input into key council policies that can impact on air quality, exposure reduction and health. Examples of previous joint policies include the Local Transport Plan / Strategy, Local Plan, Climate Change Strategy, Low Emission Strategy, Air Quality Action Plan(s) and the Health and Wellbeing Strategy. In 2019, CYC announced a Climate Emergency and have since set an ambition for CYC to reduce its carbon emissions to

net zero by 2030. CYC recognise the threat of climate change at both a global and local scale, and are committed to delivering bold, local climate action to deliver economic and social benefits, such as new green jobs, economic savings, market opportunities and much improved well-being for York residents. Air quality improvement strategies in York complement the wider climate change/carbon reduction agenda and the two areas are well aligned to recognise synergies and prevent conflict.

- **Information Led Exposure Reduction [See AQAP4 measures 3a, 3b, 9a, 9b, 9c, 11c, 12b]**

  Acting as part of the Low Emission Partnership (alongside Bradford Metropolitan District Council and Lancaster City Council), CYC previously obtained DEFRA AQ Grant funding to develop a new Air Quality Knowledge Hub. Focused on information exchange between local authority professionals, the Hub features a range of content areas related to air quality improvement measures that local authorities can adopt, as well as more specific practitioner advice notes that focus on various aspects of local air quality management, planning, monitoring and enforcement. The Hub, now adopted by DEFRA as a national resource, also includes a growing library of relevant case studies and a forum to facilitate discussion and information exchange. Since taking over management of the Hub, DEFRA have also now added a dedicated resource area for hosting communication materials arising from Air Quality Grant funded Projects and a new 'Collaboration Map', designed to make it easier for local authorities to identify and contact other authorities who are implementing similar air quality measures.

  CYC undertakes promotional work in relation to the impact of vehicle idling (especially as part of Clean Air Day) focussed on raising awareness of the links between idling emissions, air quality and health impacts.

  CYC was awarded DEFRA Air Quality Grant funding to improve public awareness of domestic solid fuel burning practices, particulate emissions and associated health impacts. We undertook research via a online survey and hosted a number of focus groups with the local community to inform the creative route for the 'Fuel for Thought' campaign, which was initially launched in November 2023 and will be used for ongoing seasonal campaign work around solid fuel burning. A full evaluation of this campaign was provided to DEFRA in September 2024 and campaign materials have most recently been used to support national Clean Air Night in January 2025.

  CYC was awarded DEFRA funding to develop an online air pollution forecasting and notification service to allow residents and visitors to York to access information that

allows them to minimise their own exposure when pollution episodes are forecast. The York Air Alert service is of particular benefit to anyone who suffers from health conditions exacerbated by poor air quality. The service, launched in July 2024, provides a 3-day forecast of air pollution with 8 zones of York. The service is free to subscribe to and provides notifications via email, text and voicemail to users.

In addition, CYC provides information locally about air quality via dedicated air quality webpages and social media, including information about air quality and health, low emission vehicles and charging infrastructure and air quality improvement policies and measures. CYC also provides information about current air quality levels across the city via the Air Quality England portal, which includes a daily Air Quality Index for the city.

- **Low Emission Vehicle Upgrades including buses, taxis and CYC fleet [See AQAP4 measures 2a, 2b, 4a, 4b, 5a, 5b, 10b]**

  Following the introduction of the UK's first and only 'voluntary' Clean Air Zone (CAZ) for buses in 2020/21, CYC has worked in partnership with bus operators to introduce further zero emission electric buses to the York fleet, significantly reducing carbon, NO_x and particulate emissions across the city. Our work bringing Government funding to the city has enabled national bus company First Bus to set up one of its first net zero emission bus operations in the city. The York depot is one of the first outside London to be fully electric, and the first in Yorkshire, and £10.2m funding of the £23m project was secured by CYC from the Department for Transport ZEBRA scheme. The depot has seen emissions reduce by 90% compared to 2020 with the total fleet of 86 all-electric buses saving around 5,000 tonnes of CO_2 a year. The current phase of CYC's bus electrification programme will involve nearly all of York's operators, which include small local companies as well as larger national operators and will cover less frequent services and those which are urban/rural in character.

  York has previously pioneered a taxi grant scheme aimed at encouraging taxi drivers to move away from diesel/petrol to petrol hybrid and fully electric taxis. We also adopted a new Taxi Licensing Policy in October 2024 that required vehicles to meet stricter emission standards to help improve air quality across the city. Through the taxi incentive scheme and iterative changes to Taxi Licensing Policy over a number of years, the number of low emission (fully electric or electric hybrid) taxis in the York fleet has been increased to approximately 40% (figure correct as of end December 2024).

Traditional petrol hybrid, plug-in hybrid and electric cars produce significantly lower tailpipe emissions than diesel equivalents.

Following electrical infrastructure upgrades at the council's Hazel Court ECO depot site, we continued our phased EV fleet replacement programme for vehicles under 3.5t. At January 2025, 60% of CYC's operational van fleet were zero (tailpipe) emission capable vehicles, thereby reducing emissions associated with the council's operations.

- **Review scope of Clean Air Zone [AQAP4 measures 1c, 2c, 4c]**

  The existing Clean Air Zone (CAZ) for buses in the city centre was launched on 31st January 2020. Buses making 5 or more entrances to the CAZ per day are now required to be low emission (Euro VI diesel or electric). Low / zero emission buses will reduce the amount of fine particulate (as well as NO_x) emitted in the city. Measures in AQAP4 commit to reviewing the scope of the existing CAZ to consider including freight and taxis and extending the CAZ for buses to York Central.

- **Encourage the uptake of low and zero emission vehicles [AQAP4 measures 6, 8]**

  CYC has previously hosted low emission vehicle events for the public to showcase a variety of electric cars and bikes. CYC also manage an extensive public electric vehicle charging network, consisting of 'fast', 'rapid' and 'ultra-rapid' charge points, to facilitate the uptake of electric vehicles in the city. An updated 'Public EV Charging Strategy' is currently being developed and is due for publication by the end of 2025. CYC also currently offer a residents parking discount for owners of low emission vehicles.

- **Clean Air Act / Smoke Control Areas [AQAP4 measure 11b]**

  Under the requirements of the Clean Air Act, certain areas of York have been designated Smoke Control Areas (SCAs), where emissions of smoke from chimneys of buildings are prohibited. CYC continue to enforce existing smoke control areas to reduce particulate emissions and nuisance. In 2024, we developed a new Enforcement Protocol for civil penalties for smoke emissions within Smoke Control Areas (under the Clean Air Act 1993, as amended by the Environment Act 2021). In 2024 we issued 17 warning letters following smoke complaints (but were not required to issue any financial penalties). CYC also undertakes seasonal promotion of the rules around SCAs and issued advice and guidance to residents on the use of appropriate fuels and maintenance of appliances in line with the Government's national 'Burn Better' campaign. This promotional work accompanies compliance checks across

retailers within CYC's area to ensure that all solid fuels being sold are certified as 'Ready to Burn' in line with the Air Quality (Domestic Solid Fuels Standards) (England) Regulations 2020. As mentioned above, CYC has also previously launched a DEFRA funded campaign specifically aimed at improving public awareness of domestic solid fuel burning practices, particulate emissions and associated health impacts.

- **Reducing freight emissions [AQAP4 measures 1a, 1b, 1c]**

  CYC's Local Transport Strategy Implementation Plan outlines medium term commitments to create an environment where emissions, noise and road wear and tear from freight vehicles is as low as possible, with operators using electric or other low pollution vehicles. Various measures to tackle freight emissions are proposed as part of AQAP4.

Throughout 2024, CYC's Director of Public Health and colleagues in the Public Health team have been involved in in the development of AQAP4 and delivery of air quality improvement measures. CYC also maintain good contact within the sustainability team at the York and Scarborough NHS Trust and have previously worked with them to promote sustainable travel and raise awareness of National Clean Air Day.

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

This section sets out the monitoring undertaken within 2024 by City of York Council (CYC) and how it compares with the relevant air quality objectives. In addition, monitoring results are presented for a five-year period between 2020 and 2024 to allow monitoring trends to be identified and discussed.

3.1 Summary of Monitoring Undertaken

3.1.1 Automatic Monitoring Sites

CYC undertook automatic (continuous) monitoring at 9 sites during 2024. 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 England page presents automatic monitoring results for CYC's area, with automatic monitoring results also available through the UK-Air website .

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.

There have been no significant changes to CYC's overall automatic monitoring strategy (in terms of monitoring locations or pollutants) in the last 12 months.

3.1.2 Non-Automatic Monitoring Sites

CYC undertook non- automatic (i.e. passive) monitoring of NO_2 at 233 sites during 2024. There are 105 diffusion tubes within the existing AQMA and 127 tubes outside, with 1 blank tube. Table A.2 in Appendix A presents the details of the non-automatic sites.

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

3.2 Individual Pollutants

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

3.2.1 Nitrogen Dioxide (NO_2)

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

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

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

The highest concentration of NO_2 recorded at a location representative of long-term public exposure in 2024 was 32.4µg/m^3 on Blossom Street, near the junction with Queen Street (diffusion tube reference C27). This contrasts with 2023, where maximum NO_2 concentrations of 43µg/m^3 were monitored near the junction of Gillygate and Bootham.

Improvements in annual mean NO_2 monitored at roadside continuous monitoring sites were observed between 2023 and 2024 at Holgate Road (8% improvement), Nunnery Lane (8% improvement), Gillygate (22% improvement), Lawrence Street (2% improvement), Heworth Green (12% improvement) and Fulford Road (7% improvement). Annual mean NO_2 concentrations monitored at the Fishergate roadside monitoring site increased by 6% between 2023 and 2024. Co-located diffusion tubes at the Fishergate site also showed an increase of around 3% between 2023 and 2024; this is thought to due to construction vehicles and traffic management associated with a large-scale development immediately adjacent to the monitoring site.

Annual mean background concentrations of NO_2 monitored at Bootham Park Hospital (City of York Council's urban background continuous monitoring site) also improved by 3% between 2023 and 2024.

Concentrations of NO_2 monitored at the vast majority of locations in York throughout 2024 continue the general downward trend in NO_2 concentrations monitored in the city since 2012. Ongoing air quality monitoring across the city is considered fundamental to understanding the magnitude of any changes due to increased levels of walking and cycling, changes in public transport use, vehicle electrification and other ongoing air quality improvement initiatives as set out in the council's fourth Air Quality Action Plan (AQAP4).

With respect to the city centre AQMA, there were no monitoring locations that measured annual mean NO_2 concentrations of 40µg/m^3 or above in 2024. This is the first year since the pandemic (2020) that all CYC monitoring sites have achieved compliance with health-based objectives.

Maximum annual mean concentrations of NO_2 monitored at relevant locations across the current AQMA were 31.1µg/m^3 (Gillygate / Bootham), 28.5µg/m^3 (George Hudson St / Rougier St), 32.4µg/m^3 (Holgate / Blossom Street), 28.1µg/m^3 (Lawrence St), 25.4µg/m^3 (Fishergate / Paragon St), 24.8µg/m^3 (Prices Lane/Nunnery Lane) and 27.2µg/m^3 (Coppergate). Maximum concentrations of NO_2 decreased in all these areas between 2023 and 2024 and ranged from 3% lower around Prices Lane / Nunnery Lane to 27% lower around Gillygate / Bootham.

In line with DEFRA's LAQM guidance, before revoking an AQMA on the basis of measured pollutant concentrations, a local authority needs to be reasonably certain that any future exceedences of air quality objectives are unlikely. For this reason, it is expected that local authorities will need to consider measurements carried out over several years or more, national trends in emissions, as well as local factors that may affect the AQMA. Additionally, where NO_2 monitoring is undertaken using diffusion tubes, to allow for the uncertainty associated with the monitoring method, it is recommended that revocation of an AQMA should only be considered following three consecutive years of annual mean NO_2 concentrations being lower than 36µg/m^3 (i.e. within 10% of the annual mean NO_2 objective). Whilst some areas of CYC's AQMA have now seen more than 3 consecutive years of maximum concentrations being lower than 36µg/m^3 (see section 3.3.1) this is not the case for all areas of the AQMA, notably the areas around Holgate/Blossom Street, Gillygate/Bootham and Rougier Street / George Hudson Street. CYC will keep the AQMA

boundary under review, taking into account DEFRA's guidelines. It may be appropriate to revoke some localised areas of the city centre AQMA in the near future.

Concentrations of NO_2 monitored in the former Fulford Road AQMA in 2024 continue to be well below the annual mean objective of 40µg/m^3. The highest recorded levels of NO_2 in this area were monitored on Fulford Main Street (Diffusion Tube C58) and were 23.9µg/m^3. This supports the decision to revoke the Fulford Road AQMA, as discussed in CYC's previous Annual Status Reports and implemented in February 2020.

Concentrations of NO_2 monitored in the former Salisbury Terrace / Leeman Road AQMA in 2024 were also all well below the annual mean objective of 40µg/m^3. The highest recorded levels of NO_2 in this area were monitored on Salisbury Terrace (Diffusion Tube 102) and were 20.9µg/m^3. This confirms that the decision to revoke this AQMA in December 2017 was appropriate.

In December 2018, the boundary of the city centre AQMA was extended to include the full length of Coppergate and the buildings either side of the road, due to monitored concentrations of NO_2 above the annual mean objective for this pollutant. The highest annual mean concentrations of NO_2 monitored along Coppergate in 2024 was 27.2µg/m^3 at site D56 (Three Tuns Pub, 12 Coppergate) which is below the annual mean objective for this pollutant. This area of the AQMA has now experienced concentrations of NO_2 below 36µg/m^3 for 2 consecutive years (2023 and 2024) with maximum concentrations monitored in 2024 being 23% lower than 2023. This area of the city centre AQMA will be kept under review to establish longer term trends in pollution and to confirm that concentrations of NO_2 remain well within objective levels, prior to making any amendments to the AQMA boundary.

Revisions to the AQMA Order in December 2018 also removed the reference to breaches of the short-term hourly objective along George Hudson Street / Rougier Street / Bridge Street based on monitoring results in this area. The latest 2024 monitoring results for this area of the city indicate that this short-term objective is still being met (all annual mean concentrations were less than 60µg/m^3 which, in line with DEFRA guidance, suggests that an exceedance of the 1-hour mean objective is unlikely).

3.2.2 Particulate Matter (PM_{10})

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

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

CYC monitored particulate (PM_{10}) at 3 sites in 2024 (Bootham, Fishergate and Plantation Drive). National air quality objectives for PM_{10} are currently met in York; this has been the case since monitoring of PM_{10} was established in the city. The highest annual mean concentration of PM_{10} monitored in York in 2024 was 17.8µg/m^3 at the Plantation Drive monitoring site. Along with many areas of the UK, this concentration is above the World Health Organisation (WHO) guideline for this pollutant, which has been strengthened to 15µg/m^3. Annual mean concentrations of PM_{10} monitored in 2024 were above levels monitored in 2023 at all 3 CYC sites. Annual mean PM_{10} increased at Plantation Drive (roadside), Fishergate (roadside) and Bootham (background) by 15%, 12% and 8% respectively. Based on PM_{10} monitoring data over the last 5 years, there does not appear to be any clear trend in annual mean PM_{10} concentrations.

In 2024 there were less than 35 exceedences of the daily mean PM_{10} objective of 50µg/m^3 at all monitoring sites. Exceedences of 50µg/m^3 were recorded at the Fishergate site (on 2 days) and at the Plantation Drive site (on 1 day).

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.

Although not explicitly required under the Local Air Quality Management regulations, where Local Authorities undertake $PM_{2.5}$ monitoring they are encouraged to report it as part of the Annual Status Report. Fine-particulate, or $PM_{2.5}$, is the pollutant which has the biggest impact on public health and on which the Public Health Outcomes framework (PHOF) indicator is based.

CYC monitored $PM_{2.5}$ at four locations in the city in 2024, namely Bootham (urban background site), Fishergate, Gillygate and Holgate Road (roadside sites). Monitoring of $PM_{2.5}$ at Fishergate and Bootham is carried out as part of DEFRA's Automatic and Rural Monitoring Network (AURN). Monitoring at Gillygate and Holgate was established by CYC as a result of the growing concerns over the health impacts of $PM_{2.5}$.

National air quality objectives for $PM_{2.5}$ are currently met in York. The highest annual mean level of $PM_{2.5}$ monitored in York in 2024 was 9.0µg/m^3 at Gillygate. This compares

with a maximum level of 8.0µg/m^3 monitored in 2023, at Fishergate. All monitored concentrations in 2024 are within the current annual mean objective of 10µg/m^3. As with most areas of the UK, monitored concentrations of $PM_{2.5}$ in York are above the WHO Guideline value of 5µg/m^3 for this pollutant.

Between 2023 and 2024, annual mean concentrations of $PM_{2.5}$ decreased at Fishergate (7% improvement) but increased at all other sites (by 4%, 25%, and 8% at Bootham, Gillygate and Holgate respectively). Whilst there is a long-term downward trend in $PM_{2.5}$ in York (over the last 10+ years), concentrations over the last 5 years have been more variable, especially at roadside continuous monitoring sites.

3.3 Air Quality Indicators

3.3.1 Council Plan Air Quality Indicators

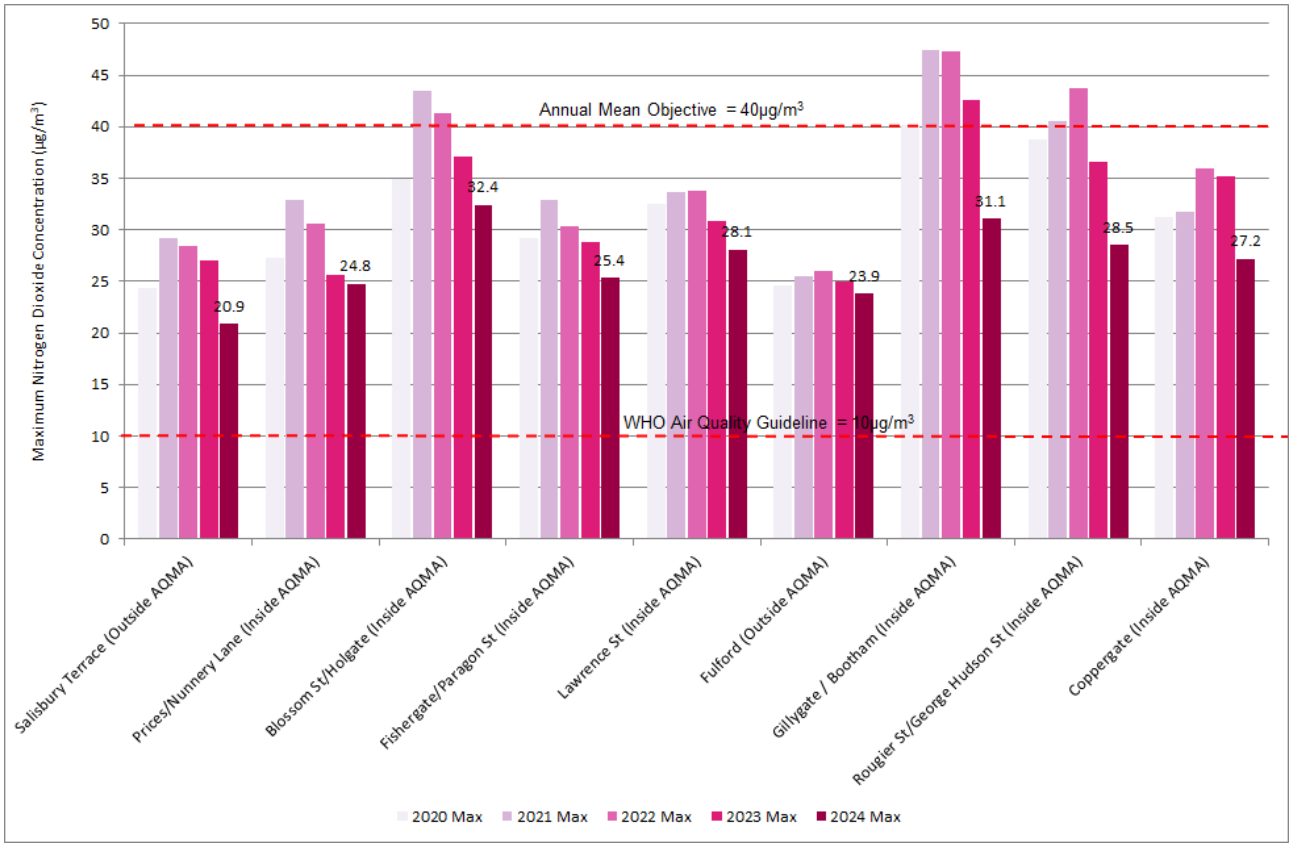
Three air quality indicators have been developed to look at trends in air quality across CYC's current AQMA and are as follows:

Indicator CAN027 – Average Annual Mean Nitrogen Dioxide Concentration in each area of technical breach. This indicator provides an average nitrogen dioxide concentration within areas of the AQMA where properties are included in the boundary and breaches of the annual mean objective have previously been monitored (historical AQMA areas such as Salisbury Terrace and Fulford Road, are also shown for information). Monitoring results include bias corrected diffusion tube data and data from continuous monitors (if applicable). Trends for CAN027 between 2020 and 2024 are shown below:

Average concentrations of NO_2 monitored in 2024 were lower than 2023 in all areas. Indicator CAN027 continues to suggest a steady downward trend in NO_2 concentrations over the last 10+ years.

Indicator CAN028 - Maximum Nitrogen Dioxide Concentration (at relevant location) in each area of Technical Breach. This indicator provides a maximum recorded annual mean nitrogen dioxide concentration within areas of the AQMA where properties are included in the boundary and breaches of the annual mean objective have previously been

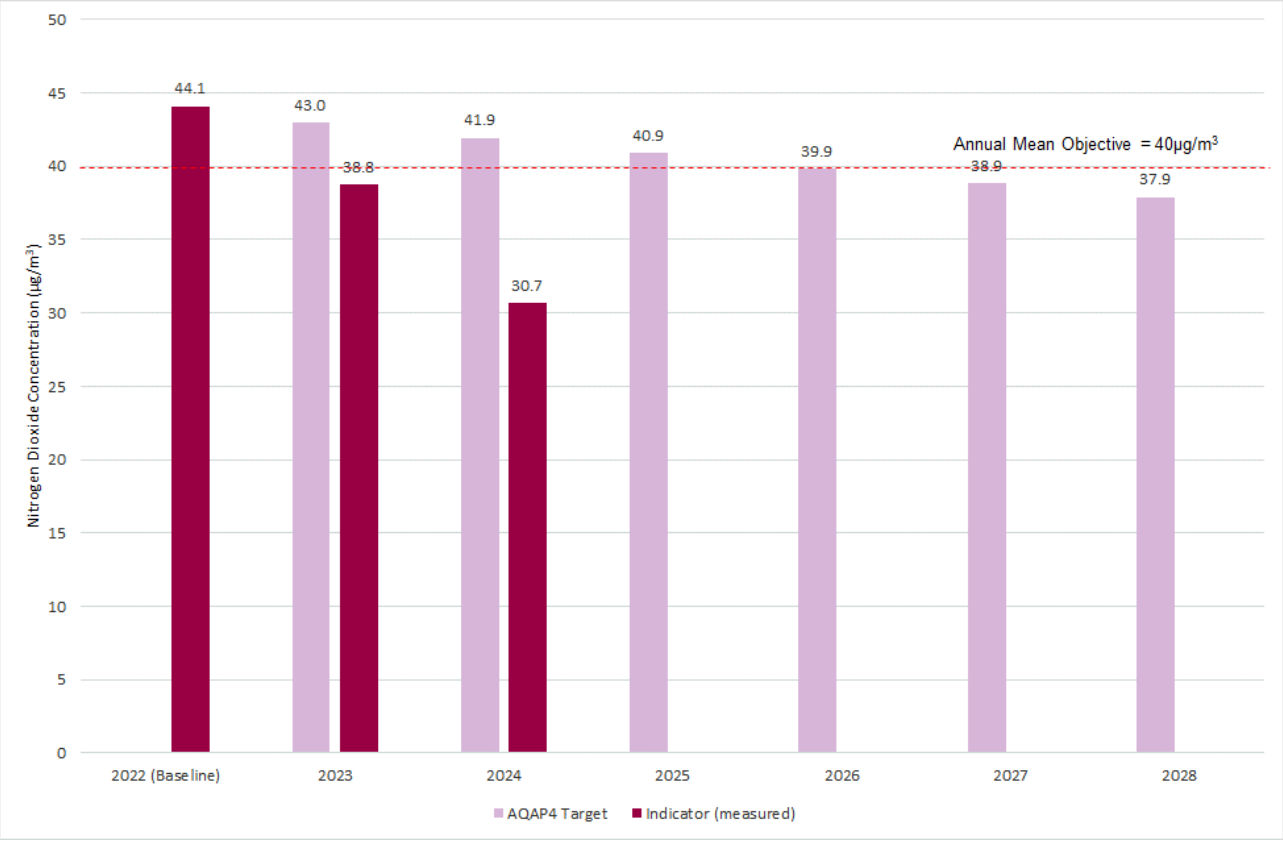
monitored (historical AQMA areas, such as Salisbury Terrace and Fulford Road, are also shown for information). This only considers monitoring at relevant locations and is therefore useful to look at the validity of existing AQMA boundaries year to year. Trends between 2020 and 2024 are shown below:



The maximum annual mean NO_2 concentration monitored at a relevant location in 2024 was 32.4µg/m^3 (Diffusion tube C27 on Blossom Street, near the junction with Queen Street). Maximum concentrations of NO_2 across all areas of the AQMA in 2024 were below the annual mean NO_2 objective and decreased between 2023 and 2024. The greatest improvement was observed in the Gillygate area, where maximum concentrations of NO_2 improved by 27% between 2023 and 2024. Maximum concentrations of NO_2 monitored across all areas are the lowest recorded in 15 years of monitoring.

Indicator CAN038: Average of maximum annual mean nitrogen dioxide concentrations recorded across three areas of technical breach (at points of relevant public exposure). With the exception of 2023/2024 (and 2020 during the pandemic), CYC's air quality monitoring network has previously demonstrated sustained exceedances of the NO_2 objective of 40µg/m^3 in 3 areas of the city, namely Gillygate/Lord Mayor's Walk, Blossom Street/Holgate Road, and Rougier Street / George Hudson Street. These are referred to as 'technical breach areas' and fall within CYC's AQMA. Whilst not all monitoring points within these areas are exceeding health-based standards, there has

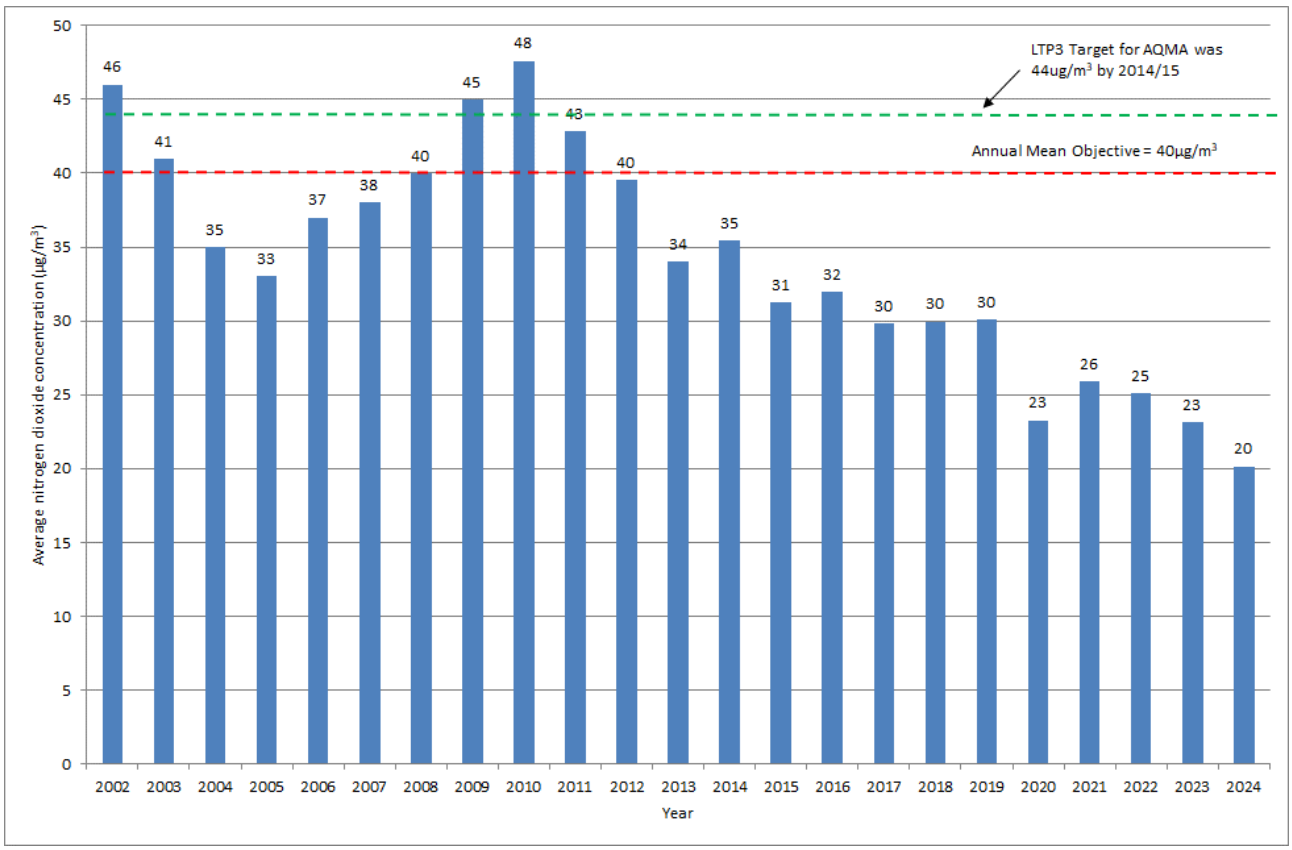
previously been at least one monitor at a point of relevant public exposure within each area that is above the annual mean objective of 40µg/m^3. Indicator CAN038 considers an average of the maximum annual mean concentrations of NO_2 in these three areas (specific values for the 3 respective areas are shown in indicator CAN028 above).



As can be seen from the graph above, the AQAP4 target was met in 2024 and the indicator is well within the 40µg/m^3 objective. Projections undertaken for AQAP4 suggested that it may take until 2026 for this indicator to fall below 40µg/m^3. The rate of improvement observed in York between 2022 - 2024 has significantly exceeded that observed in earlier years from 2012 – 2022 (which was around 2.5% improvement a year over 10 years).

3.3.2 Local Transport Plan Air Quality Indicator

For the purpose of monitoring the impact of York's Local Transport Plan a local air quality indicator was established and has been reported over the last 20+ years. This indicator measures the mean of annual average results obtained from 36 diffusion tubes located within CYC's city centre AQMA. Trends in this indicator between 2002 and 2024 are shown below:



This indicator suggests that NO_2 concentrations across the city were in general decline between 2002 and 2005. This was followed by a steady increase in concentrations between 2006 and 2010. There has been an ongoing downward trend in NO_2 concentrations across the city centre AQMA over the last 14 years. The figure of 20µg/m^3 recorded in 2024 is the lowest recorded value since the indicator was established in 2002 and was lower than that monitored in 2020 during the pandemic (a result of significantly lower traffic levels and associated emissions in the city as a result of the Covid-19 lockdowns). This reinforces trends seen with other council air quality indicators described above.

Appendix A: Monitoring Results

Table A.1 – Details of Automatic Monitoring Sites

Site ID	Site Name	Site Type	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Pollutants Monitored	In AQMA?	Which AQMA? (1)	Monitoring Technique	Distance to Relevant Exposure (m) (2)	Distance to kerb of nearest road (m) (1)	Inlet Height (m)
CM1	Bootham	Urban Background	460022	452777	NO_2, PM_{10}, $PM_{2.5}$	No	N/A	Chemiluminescent, BAM	60.0	49.6	3.0
CM2	Fishergate	Roadside	460746	451038	NO_2, PM_{10}, $PM_{2.5}$	Yes	AQMA No.5	Chemiluminescent, BAM	10.0	3.2	2.7
CM3	Holgate	Roadside	459512	451282	NO_2, $PM_{2.5}$	Yes	AQMA No.5	Chemiluminescent, TEOM 1405	12.0	2.5	1.7
CM4	Nunnery Lane	Roadside	460068	451199	NO_2	Yes	AQMA No.5	Chemiluminescent	4.0	1.7	1.7
CM5	Gillygate	Roadside	460147	452345	NO_2, $PM_{2.5}$	Yes	AQMA No.5	Chemiluminescent, TEOM 1405	3.0	2.1	2.5
CM6	Lawrence Street	Roadside	461256	451340	NO_2	Yes	AQMA No.5	Chemiluminescent	5.0	3.2	1.7
CM7	Heworth Green	Roadside	461126	452602	NO_2	No	N/A	Chemiluminescent	3.0	1.2	1.5
CM8	Plantation Drive	Roadside	457428	452620	PM_{10}	No	N/A	TEOM	17.0	1.0	1.7
CM9	Fulford Road	Roadside	460937	449464	NO_2	No	N/A	Chemiluminescent	19.0	5.0	1.7

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)
5	Lamp post 15 Forge Close, Jockey Lane	Roadside	462040	454883	NO_2	NO	16.9	1.9	N	~2.75
6	Lamp post top of Nunnery Lane Car Park	Roadside	459777	451406	NO_2	YES	7.7	2.8	N	~2.75
7	Gillygate opposite Portland Street	Roadside	460217	452421	NO_2	YES	2.3	0.3	N	~2.75
8	Portland Street - triplicate	Urban Background	460163	452468	NO_2	NO	3.7	1.8	N	~2.75
9	Portland Street - triplicate	Urban Background	460163	452468	NO_2	NO	3.7	1.8	N	~2.75
11	Holly Bank	Urban Background	458846	450946	NO_2	NO	7.7	0.7	N	~2.75
13	Papillion hotel, Gillygate	Roadside	460176	452377	NO_2	YES	0.1	1.5	N	~2.75
14	Gillygate Surgery	Roadside	460167	452347	NO_2	YES	0.2	2.3	N	~2.75
15	Foss Islands Rd	Roadside	461105	451458	NO_2	YES	1.9	1.9	N	~2.75
16	Prices Lane	Roadside	460160	451152	NO_2	YES	2.5	1.2	N	~2.75
17	Drainpipe of house 18 Queen St	Roadside	459646	451500	NO_2	YES	0.2	1.3	N	~2.75
18	Lamp post 4 Haxby Road	Roadside	460457	452903	NO_2	YES	3.3	1.9	N	~2.75
25	Heworth Road - Lamp post 6	Roadside	461721	452709	NO_2	NO	7.2	1.4	N	~2.75
26	Haleys Terrace (previously Longwood Road)	Roadside	460829	453524	NO_2	NO	8.5	0.4	N	~2.75
33	Haxby Road (nr Whitecross Rd)	Roadside	460598	453227	NO_2	NO	14.5	1.7	N	~2.75
35	Carr Lane	Roadside	457603	451492	NO_2	NO	6.2	2.9	N	~2.75
37	Jarvis Abbey Park	Roadside	459522	451187	NO_2	YES	21.6	2.7	N	~2.75
44	Lamp post 8 Monkgate Cloisters	Roadside	460679	452326	NO_2	YES	2	1.6	N	~2.75

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)
45	Clarence St	Roadside	460319	452754	NO_2	YES	3.6	2	N	~2.75
47	Strensall Road	Roadside	462009	456996	NO_2	NO	19.2	0.8	N	~2.75
50	BLANK	N/A	N/A	N/A	NO_2	N/A	N	N/A	N	N/A
60	First Lamp post on Navigation Road	Roadside	461017	451781	NO_2	YES	13	0.2	N	~2.75
78	Gillygate Monitoring Station - triplicate	Roadside	460149	452342	NO_2	YES	3.4	2.3	Y	~2.75
79	Gillygate Monitoring Station - triplicate	Roadside	460149	452342	NO_2	YES	3.4	2.3	Y	~2.75
80	Gillygate Monitoring Station - triplicate	Roadside	460149	452342	NO_2	YES	3.4	2.3	Y	~2.75
83	Drainpipe 6 Stockton Lane - nr Heworth Rd roundabout	Urban Background	461597	452830	NO_2	NO	0.1	8.8	N	~2.75
88	Lamp post 1 Yew Tree Mews Osbaldwick Village	Urban Background	463354	451972	NO_2	NO	4.9	0.6	N	~2.75
90	Lamp post Opposite Montaque Street on Cambleshon Road	Roadside	459997	450109	NO_2	NO	19.8	1	N	~2.75
96	Heslington Lane	Roadside	460978	449452	NO_2	NO	1.5	2.5	N	~2.75
100	House Near A59 Ringroad Roundabout	Roadside	456228	453312	NO_2	NO	0.2	15	N	~2.75
101	Wiggington Road near the ring road roundabout	Roadside	459746	455897	NO_2	NO	15	0.5	N	~2.75
102	Signpost between houses 252 & 254 on Salisbury Terrace - triplicate	Roadside	458703	452429	NO_2	NO	0.2	1	N	~2.75
103	Signpost between houses 252 & 254	Roadside	458703	452429	NO_2	NO	0.1	1.4	N	~2.75

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)
	on Salisbury Terrace - triplicate									
104	Signpost between houses 252 & 254 on Salisbury Terrace - triplicate	Roadside	458703	452429	NO_2	NO	0.1	1.4	N	~2.75
107	Inbetween corner shop & betting office	Roadside	458779	452387	NO_2	NO	3	3.8	N	~2.75
108	On signpost opposite side of road from 200 Salisbury Terrace	Roadside	458814	452373	NO_2	NO	0.2	1.5	N	~2.75
109	Signpost outside 16 Rougier Street	Roadside	459924	451833	NO_2	YES	0.2	2.5	N	~2.75
110	Signpost inbetween Club Salvation & 31 George Hudson Street	Roadside	459985	451727	NO_2	YES	0.2	2.3	N	~2.75
111	Lamp post at side of Cedar Court opposite entrance to Multi-storey Car Park on Tanner Row	Roadside	459917	451728	NO_2	NO	26	2.6	N	~2.75
112	Lamp post outside St Gregorys Mews, opposite Council HQ Toft Green	Roadside	459873	451684	NO_2	NO	1	2.3	N	~2.75
114	Bus Stop outside Society bar/cafe Rougier Street	Roadside	459981	451778	NO_2	YES	3.5	2.7	N	~2.75
116	111 Poppleton Road, drainpipe	Roadside	458212	452037	NO_2	NO	0.1	5.3	N	~2.75

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)
125	Osbaldwick Derwenthorpe	Roadside	463194	451967	NO_2	NO	20	1.6	N	~2.75
126	New Tube (Osbalwick Parish Council) nr Bridge	Roadside	463482	451896	NO_2	NO	17.5	0.9	N	~2.75
127	Lamp post to left of 102 Layerthorpe (flats)	Roadside	461108	452313	NO_2	NO	3.3	1.8	N	~2.75
128	Drainpipe between 7-9 Livingstone Street	Roadside	458686	452369	NO_2	NO	0.1	1.6	N	~2.75
129	Drainpipe to front of 88 Station Road	Roadside	455968	453397	NO_2	NO	0.1	14.5	N	~2.75
2a	Fishergate Monitoring station - triplicate	Roadside	460746	451034	NO_2	YES	16.3	3.5	Y	~2.75
2b	Fishergate Monitoring station - triplicate	Roadside	460746	451034	NO_2	YES	16.3	3.5	Y	~2.75
2c	Fishergate Monitoring station - triplicate	Roadside	460746	451034	NO_2	YES	16.3	3.5	Y	~2.75
3a	Bootham Monitoring Station - triplicate	Urban Background	460024	452767	NO_2	NO	39	49.6	Y	~2.75
3b	Bootham Monitoring Station - triplicate	Urban Background	460024	452767	NO_2	NO	39	49.6	Y	~2.75
3c	Bootham Monitoring Station - triplicate	Urban Background	460024	452767	NO_2	NO	39	49.6	Y	~2.75
95a	Fulford Monitoring Station - triplicate	Roadside	460938	449465	NO_2	NO	19	6.5	Y	~2.75
95b	Fulford Monitoring Station - triplicate	Roadside	460938	449465	NO_2	NO	19	6.5	Y	~2.75
95c	Fulford Monitoring Station - triplicate	Roadside	460938	449465	NO_2	NO	19	6.5	Y	~2.75

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)
9a	Portland Street - triplicate	Urban Background	460163	452468	NO_2	NO	3.7	1.8	N	~2.75
A1	Bootham traffic light outside dance shop	Roadside	460088	452263	NO_2	YES	0.2	2.3	N	~2.75
A11	Traffic lights end of Water Lane	Roadside	459341	453042	NO_2	YES	13.6	0.4	N	~2.75
A12	Lamp post 7 Clifton Green	Roadside	459251	453008	NO_2	YES	12.9	2.2	N	~2.75
A13	Lamp post 1 Clifton Dale - triplicate	Urban Background	459335	452931	NO_2	NO	2.7	1.6	N	~2.75
A14	Lamp post 1 Clifton Dale - triplicate	Urban Background	459335	452931	NO_2	NO	2.7	1.6	N	~2.75
A14a	Lamp post 1 Clifton Dale - triplicate	Urban Background	459335	452931	NO_2	NO	2.7	1.6	N	~2.75
A17	Sailsbury Road	Roadside	458578	452472	NO_2	NO	8.7	1.5	N	~2.75
A19	17 Sailsbury Terrace - triplicate	Roadside	458713	452414	NO_2	NO	0.2	1.3	N	~2.75
A19a	17 Sailsbury Terrace - triplicate	Roadside	458713	452414	NO_2	NO	0.2	1.3	N	~2.75
A19b	17 Sailsbury Terrace - triplicate	Roadside	458713	452414	NO_2	NO	0.2	1.3	N	~2.75
A2	Drainpipe on front of registry office	Roadside	459917	452405	NO_2	YES	0.2	3.4	N	~2.75
A20	224 Sailsbury Terrace - triplicate	Roadside	458760	452404	NO_2	NO	0.2	1.1	N	~2.75
A20a	224 Sailsbury Terrace - triplicate	Roadside	458760	452404	NO_2	NO	0.2	1.1	N	~2.75
A20b	224 Sailsbury Terrace - triplicate	Roadside	458760	452404	NO_2	NO	0.2	1.1	N	~2.75
A21	Kingsland Terrace	Urban Background	458806	452326	NO_2	NO	0.2	1.4	N	~2.75
A22	Kingsland Terrace	Urban Background	458792	452242	NO_2	NO	0.2	23.8	N	~2.75
A25	Garfield Terrace	Roadside	458706	452225	NO_2	NO	0.2	1.5	N	~2.75

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)
A29	Low Poppleton Lane	Urban Background	456939	453013	NO_2	NO	23.6	1.1	N	~2.75
A3	WRVS building - Bootham	Roadside	459822	452492	NO_2	YES	0.2	2.6	N	~2.75
A30	Boroughbridge Road	Urban Background	457060	452888	NO_2	NO	8.3	6.2	N	~2.75
A36	Boroughbridge Road	Urban Background	457625	452446	NO_2	NO	0.2	9.4	N	~2.75
A38	Boroughbridge Road	Urban Background	457857	452334	NO_2	NO	0.2	10.3	N	~2.75
A4	St Olaves Road	Urban Background	459699	452638	NO_2	YES	5.8	0.7	N	~2.75
A40	Poppleton Road School	Urban Background	458109	452196	NO_2	NO	0.2	7.9	N	~2.75
A41	140 Poppleton Road	Roadside	458172	452108	NO_2	NO	0.2	5.3	N	~2.75
A45	Grantham Drive	Urban Background	458384	451817	NO_2	NO	0.2	10.5	N	~2.75
A98	8 Poppleton Road	Roadside	458666	451468	NO_2	NO	0.2	4.9	N	~2.75
A50	Outside Fox pub - Holgate Rd	Roadside	458732	451393	NO_2	YES	16.1	0.3	N	~2.75
A51	Thrall entrance	Urban Background	458827	451348	NO_2	YES	18	2.2	N	~2.75
A52	Holgate Road (corner of Hamilton Dr East)	Roadside	458945	451254	NO_2	YES	10.9	2	N	~2.75
A53	Holgate Road	Roadside	459066	451239	NO_2	YES	7.9	2.7	N	~2.75
A54	Dalton Terrace	Roadside	459254	451223	NO_2	YES	17.1	3.3	N	~2.75
A55	Holgate Road	Roadside	459351	451221	NO_2	YES	5.5	0.2	N	~2.75
A56	Holgate Road	Urban Background	459470	451268	NO_2	YES	0.2	10.2	N	~2.75
A57	Hairdressers Holgate Road	Roadside	459533	451280	NO_2	YES	0.2	2.8	N	~2.75
A6	Clifton Bingo Hall	Roadside	459536	452811	NO_2	YES	6.2	3	N	~2.75

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)
A60	Shipton Road	Urban Background	458906	453276	NO_2	NO	0.2	21.5	N	~2.75
A62	42 Shipton Road	Urban Background	458806	453483	NO_2	NO	0.2	15.7	N	~2.75
A64	Lamp post outside Charlie Browns	Roadside	460030	452327	NO_2	YES	2.4	0.6	N	~2.75
A66	70 Shipton Road	Urban Background	458672	453685	NO_2	NO	0.2	18.4	N	~2.75
A69	6 South Cottages	Urban Background	458375	453958	NO_2	NO	0.2	10	N	~2.75
A7	51 Clifton	Roadside	459441	452892	NO_2	YES	3.3	2.1	N	~2.75
A70	120 Shipton Road	Urban Background	458299	454070	NO_2	NO	0.2	13	N	~2.75
A71	154 Shipton road	Urban Background	458121	454254	NO_2	NO	0.2	9.6	N	~2.75
A74	176 Shipton Road	Urban Background	458041	454371	NO_2	NO	0.2	7.1	N	~2.75
A77	Lamp post outside 206 Shipton Road	Urban Background	457929	454537	NO_2	NO	6.1	1.7	N	~2.75
A81	Lamp post outside 276 Shipton Rd	Urban Background	457733	454805	NO_2	NO	0.2	8.4	N	~2.75
A85	Drainpipe front of Greenside guest house	Urban Background	459364	453009	NO_2	NO	0.2	11.5	N	~2.75
A88	111 Boroughbridge Road, Drainpipe nearest Garage at side of the door	Urban Background	457470	452550	NO_2	NO	0.2	12.9	N	~2.75
A9	Lime Tree House	Roadside	459295	453067	NO_2	YES	12.6	1.7	N	~2.75
A90	Lamp post 25 Shipton Rd	Roadside	459238	453157	NO_2	YES	8.2	1.9	N	~2.75
A94	5 Salisbury Road	Roadside	458651	452426	NO_2	NO	0.2	13.7	N	~2.75
A96	Ouseclife Gardens signpost, outside 31 Water End	Roadside	459038	452850	NO_2	NO	10	0.6	N	~2.75

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)
A97	Lamp post next to Air Quality Monitoring Station on Plantation Drive	Roadside	457431	452616	NO_2	NO	18.7	2.2	N	~2.75
B1	Lamp post 1 Lowther Street opposite Riverside House Flats	Roadside	460848	452582	NO_2	YES	0.2	1.3	N	~2.75
B15	Lamp post 99 Huntington Road	Roadside	461294	455305	NO_2	NO	28	1.6	N	~2.75
B19	Lamp post 5 outside Huntington Primary School	Roadside	461891	455876	NO_2	NO	17.2	1.6	N	~2.75
B2	Lamp post 7 Huntington Road opposite Park Grove	Roadside	460924	452697	NO_2	YES	2.5	1.3	N	~2.75
B29	Eastern Terrace	Roadside	461453	452750	NO_2	NO	0.3	1	N	~2.75
B3	Lamp post 11 Huntington Road outside no 70	Roadside	460952	452826	NO_2	NO	2.9	1.4	N	~2.75
B36	Lamp post 60 Malton Road - triplicate	Urban Background	462565	454194	NO_2	NO	16.9	0.6	N	~2.75
B37	Lamp post 60 Malton Road - triplicate	Urban Background	462565	454194	NO_2	NO	16.9	0.6	N	~2.75
B37a	Lamp post 60 Malton Road - triplicate	Urban Background	462565	454194	NO_2	NO	16.9	0.6	N	~2.75
B38	482 Malton Road	Urban Background	463757	455155	NO_2	NO	0.2	11.7	N	~2.75
B41	76 Lawrence Street	Urban Background	461326	451330	NO_2	YES	0.2	6.5	N	~2.75

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)
B42	83 Lawrence Street	Urban Background	461430	451348	NO_2	YES	0.2	7.2	N	~2.75
B43	117 Lawrence Street	Urban Background	461557	451343	NO_2	YES	0.2	7.9	N	~2.75
B44	Outside nursing home, Lawrence Street	Roadside	461643	451343	NO_2	YES	8.6	1.9	N	~2.75
B45	Pedestrian crossing Traffic Light Melrosegate Crossroads	Roadside	461849	451284	NO_2	YES	17.3	0.5	N	~2.75
B47	47 Hull Road	Urban Background	462019	451289	NO_2	NO	0.2	12.2	N	~2.75
B48	61 Hull Road	Urban Background	462122	451289	NO_2	NO	0.2	12.8	N	~2.75
B50	134 Hull Road	Roadside	462291	451269	NO_2	NO	0.2	3.7	N	~2.75
B51	117 Hull Road	Urban Background	462384	451298	NO_2	NO	0.2	13.2	N	~2.75
B56	Lamp post 40 Hull Road	Roadside	462888	451289	NO_2	NO	14.4	2.3	N	~2.75
B58	231 Hull Road	Urban Background	462970	451300	NO_2	NO	0.2	14	N	~2.75
B60	Lamp post 1 Nursery Gardens	Urban Background	463234	451339	NO_2	NO	10.7	1.3	N	~2.75
B63	Lamp post 54 Tang Hall Lane	Roadside	462704	451300	NO_2	NO	13.2	0.9	N	~2.75
B72	Front of York Cycleworks	Roadside	461122	451374	NO_2	YES	10	2.9	N	~2.75
B74	Heworth Court Hotel sign outside Sutherland House on side of house on drainpipe.	Urban Background	461371	452708	NO_2	NO	5.2	17.8	N	~2.75

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)
B80	On drainpipe on front of Heworth Surgery.	Urban Background	461185	452663	NO_2	NO	24.5	13.4	N	~2.75
B82	Lamp post Dalguise Grove	Urban Background	460974	452563	NO_2	NO	3.1	1.1	N	~2.75
B83	Lamp post 24 Outside No.55 Heworth Green	Roadside	461285	452695	NO_2	NO	11.3	1	N	~2.75
B84	Drainpipe to the left of the front door on 167 Hull Road	Urban Background	462654	451293	NO_2	NO	0.2	13.4	N	~2.75
B85	Lamp post 7 Outside St Lawrences Working Mens Club	Roadside	461227	451368	NO_2	YES	18.8	5.6	N	~2.75
B86	Lamp post 16 Heworth Green, next to Air Quality Station	Roadside	461116	452602	NO_2	NO	5	0.7	N	~2.75
B88	Telegraph Pole 381 Hull Road	Roadside	462799	451291	NO_2	NO	10	6.8	N	~2.75
B90	11 Lawrence Street	Roadside	461133	451394	NO_2	YES	0.1	4.4	N	~2.75
B91	Lamp post 4 outside flats, opposite Rose and Crown Pub	Roadside	461143	451364	NO_2	YES	0.9	3.1	N	~2.75
C12	Lamp post 1 Ainsty Grove	Urban Background	458825	449928	NO_2	NO	10.8	0.3	N	~2.75
C17	248 Tadcaster Rd	Urban Background	459085	450544	NO_2	NO	0.2	20.6	N	~2.75
C18	196 Mount Vale	Urban Background	459204	450772	NO_2	YES	0.2	9.2	N	~2.75
C19	Trentholme Dr	Urban Background	459271	450819	NO_2	YES	7.7	0.4	N	~2.75

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)
C2	Lamp post 66 Tesco roundabout	Roadside	458333	448974	NO_2	NO	16.9	1.1	N	~2.75
C20	Elmbank hotel	Urban Background	459280	450923	NO_2	YES	21.4	0.5	N	~2.75
C21	Dalton Terrace	Roadside	459410	451040	NO_2	YES	3.8	3.5	N	~2.75
C22	Park Street	Urban Background	459570	451195	NO_2	YES	14.4	1.1	N	~2.75
C23	The Mount	Roadside	459553	451252	NO_2	YES	0.2	3	N	~2.75
C26	Outside Odean	Roadside	459639	451334	NO_2	YES	12.9	0.8	N	~2.75
C27	Windmill Pub	Roadside	459717	451433	NO_2	YES	0.2	3.2	N	~2.75
C28	House top of Selby Rd	Urban Background	461201	448386	NO_2	NO	0.2	15.3	N	~2.75
C29	Lamp post 34 Selby Road	Roadside	461196	448426	NO_2	NO	21.7	0.5	N	~2.75
C30	Lamp post 2 Selby Rd	Roadside	461185	448462	NO_2	NO	13.1	1.2	N	~2.75
C31	2 Selby Rd	Urban Background	461193	448473	NO_2	NO	0.2	14.1	N	~2.75
C32	Fordlands Rd	Urban Background	461128	448823	NO_2	NO	5.4	6.8	N	~2.75
C33	124 Main St	Urban Background	461085	448933	NO_2	NO	1	11.2	N	~2.75
C34	103 Main St	Roadside	461085	449067	NO_2	NO	0.2	3.5	N	~2.75
C36	50 Main St	Roadside	461052	449146	NO_2	NO	0.2	3.7	N	~2.75
C37	59 Main St	Urban Background	461045	449223	NO_2	NO	0.2	6.7	N	~2.75
C38	Lamp post 8 Main St	Roadside	461038	449225	NO_2	NO	6	0.4	N	~2.75
C39	18 Main St	Roadside	460974	449336	NO_2	NO	0.2	2.4	N	~2.75
C4	147 Tadcaster Rd	Urban Background	458470	449126	NO_2	NO	0.2	14.3	N	~2.75
C40	Adams House B&B	Urban Background	460910	449628	NO_2	NO	0.2	8.7	N	~2.75

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)
C42	300 Fulford Rd	Urban Background	460857	449748	NO_2	NO	0.2	10	N	~2.75
C43	Lamp post 39 Fulford Rd - triplicate	Roadside	460869	449730	NO_2	NO	8.7	0.3	N	~2.75
C43a	Lamp post 39 Fulford Rd - triplicate	Roadside	460869	449730	NO_2	NO	8.7	0.3	N	~2.75
C44	Lamp post 39 Fulford Rd - triplicate	Roadside	460869	449730	NO_2	NO	8.7	0.3	N	~2.75
C49	Alma terrace	Urban Background	460860	450530	NO_2	YES	6	0.9	N	~2.75
C51	Conservative Club	Roadside	460871	450727	NO_2	YES	9.8	1	N	~2.75
C52	Howard St	Roadside	460853	450781	NO_2	YES	9.9	1.4	N	~2.75
C53	Winterscale St	Roadside	460766	450924	NO_2	YES	14.7	2.1	N	~2.75
C54	Escrick St	Roadside	460762	451069	NO_2	YES	1.7	3.2	N	~2.75
C56	Pedestrian crossing on junction of Scarcroft Road/The Mount	Roadside	459484	451141	NO_2	YES	25.1	1.3	N	~2.75
C57	Lamp post 1 Nelson's Lane	Urban Background	458912	450111	NO_2	NO	5.9	1.3	N	~2.75
C58	Drainpipe of 4 Main Street Fulford	Roadside	460926	449429	NO_2	NO	0.2	3.6	N	~2.75
C59	Drainpipe of 34 Tadcaster Road	Roadside	458735	449713	NO_2	NO	0.2	3.6	N	~2.75
C62	East Mount Road	Roadside	459579	451251	NO_2	YES	0.1	1	N	~2.75
C63	1 St Edwards Close	Roadside	458790	449740	NO_2	NO	0.1	15.6	N	~2.75
C7	Slingsby Grove	Roadside	458611	449477	NO_2	NO	1.4	2.6	N	~2.75
D10	Daisy Taylors Card Shop, Kings Square	Urban Background	460443	451927	NO_2	NO	0.2	0.9	N	~2.75
D12	On signpost outside 26 Fossgate	Roadside	460567	451740	NO_2	YES	0.2	1.6	N	~2.75

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)
D13	Lamp post 4 Skeldergate, opposite City Mills	Roadside	460271	451358	NO_2	YES	1.6	1.6	N	~2.75
D14	Lamp post 3 Barbican Road outside No.7	Roadside	461077	451354	NO_2	YES	1.9	0.2	N	~2.75
D16	Lamp post 1 , Paragon St	Roadside	460708	451231	NO_2	YES	0.2	3	N	~2.75
D17	Piccadilly/ Merchantgate junction	Roadside	460575	451616	NO_2	YES	19.3	0.3	N	~2.75
D18	Lamp post 6 Clifford St opposite Peckitt Street	Roadside	460395	451502	NO_2	YES	0.4	1.8	N	~2.75
D19	Bridge St/ Micklegate Junction	Roadside	460038	451626	NO_2	YES	1.7	0.2	N	~2.75
D20	Low Ousegate / Clifford St junction, outside Waterstones	Roadside	460323	451685	NO_2	YES	13	0.5	N	~2.75
D22	Outside Museum Gardens	Roadside	460035	452010	NO_2	YES	7.9	2.1	N	~2.75
D24	Priory St sign Micklegate	Roadside	459805	451543	NO_2	NO	3.4	0.5	N	~2.75
D25	Bus Stop E outside Royal York Hotel	Roadside	459693	451750	NO_2	YES	169.3	0.4	N	~2.75
D26	Lamp post 14 Piccadilly (near Travellodge)	Roadside	460671	451400	NO_2	YES	15.5	2.1	N	~2.75
D27	Lamp post 2 St Deny's Road - outside hotel	Roadside	460734	451563	NO_2	NO	11.7	1.5	N	~2.75
D28	Lamp post 4 outside The Garden	Roadside	460764	451185	NO_2	YES	23.6	2.4	N	~2.75

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)
	of India restaurant on Fawcett Street									
D30	Lamp post outside Barbican Centre	Roadside	460834	451252	NO_2	YES	35.5	0.1	N	~2.75
D31	Lamp post 9 Barbican road outside No.24	Roadside	461002	451229	NO_2	YES	2	0.3	N	~2.75
D32	Lamp post 3 Bishopgate Street - next to bench	Roadside	460258	451208	NO_2	YES	22.2	1.9	N	~2.75
D33	Lamp post 17 Nunnery Lane outside 81	Roadside	460075	451174	NO_2	YES	3.9	0.2	N	~2.75
D35	Drainpipe of house 22, Prices Lane	Roadside	460134	451170	NO_2	YES	0.2	1.6	N	~2.75
D36	Lamp post 7 Bishopthorpe Road, opposite entrance to Charlton St	Roadside	460135	450884	NO_2	YES	6.1	0.2	N	~2.75
D37	Lamp post 3, Bishopthorpe Road, outside house 26	Roadside	460157	450988	NO_2	YES	2	2	N	~2.75
D38	Lamp post 2 Scarcroft Rd	Roadside	460088	450929	NO_2	YES	2.7	1.6	N	~2.75
D39	Lamp post 1 Bishopthorpe Road	Roadside	460185	451055	NO_2	YES	1.5	0.5	N	~2.75
D4	Lamp post 11 Lord Mayor's Walk - opposite bike shop	Roadside	460560	452300	NO_2	YES	25.1	2.3	N	~2.75
D40	Lamp post 16 Nunnery Lane	Roadside	460069	451196	NO_2	YES	3.3	1.6	N	~2.75
D41	Drainpipe of 55 Lord Mayor's Walk	Roadside	460286	452487	NO_2	YES	0.2	3.8	N	~2.75
D43	Rougier Street Signpost 1, has	Roadside	459920	451834	NO_2	YES	3	0.3	N	~2.75

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)
	"Except for Access" sign on it.									
D45	Lamp post 6 The Stonebow Opposite Windsors World of Shoes	Roadside	460673	451869	NO_2	YES	15.6	1	N	~2.75
D47	Lamp post 8 Jewbury	Roadside	460682	452187	NO_2	YES	0.6	2.4	N	~2.75
D48	Outside De Grey House right hand side of side entrance gate post	Roadside	460103	452180	NO_2	YES	33.6	2.3	N	~2.75
D49	Lamp post 1 Fishergate	Roadside	460656	451269	NO_2	YES	0.2	2.8	N	~2.75
D50	Drainpipe side of Cardshop Coppergate	Roadside	460371	451682	NO_2	YES	0.2	1.9	N	~2.75
D51	Inside Taxi Rank @ York Railway Station	Roadside	459640	451722	NO_2	NO	N	40	N	~2.75
D52	Lamp post 3 Kent Street at side of car park	Roadside	460887	451140	NO_2	NO	2	2	N	~2.75
D53	58 Nunnery Lane	Roadside	460115	451146	NO_2	YES	0.1	3.6	N	~2.75
D54	76 Nunnery Lane	Roadside	460146	451116	NO_2	YES	0.1	5.5	N	~2.75
D55	Museum Street - Opposite Thomas's Pub	Roadside	460087	452065	NO_2	YES	1.8	2.2	N	~2.75
D6	Margaret Phillipson Court, Aldwalk	Urban Background	460570	452177	NO_2	NO	0.2	2.6	N	~2.75
D8	Lamp post 2, The Stonebow - Jorvick café	Roadside	460553	451843	NO_2	NO	27.3	0.5	N	~2.75

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)
D9	Lamp post 8, Lord Mayor's Walk outside no 34	Roadside	460483	452357	NO_2	YES	1.8	0.1	N	~2.75
D56	Three Tuns Pub, 12 Coppergate	Roadside	460400	451685	NO_2	YES	0.1	1.6	N	~2.75
D57	Lamp post 4, Pedestrian Crossing, Coppergate	Roadside	460416	451708	NO_2	YES	11.9	2.4	N	~2.75
D58	Traffic lights, opposite Duttons, Coppergate	Roadside	460435	451732	NO_2	YES	8	0.1	N	~2.75
D59	Bus Stop outside 8/9 SLP	Roadside	460087	452156	NO_2	YES	1.8	2.7	N	~2.75
D60	No entry sign outside 'Schuh' Shoe Shop	Roadside	460294	451883	NO_2	NO	N	1.7	N	~2.75
130	Outside 81 Low Mill Close	Roadside	463663	451054	NO_2	NO	13.6	1.1	N	~2.75
115	Inside Bus Stop (opposite side of road from tube 114) Rougier Street	Roadside	459962	451771	NO_2	YES	47	1.5	N	~2.75

Notes:

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

(2) N/A if not applicable.

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

Site ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Site Type	Valid Data Capture for Monitoring Period (%) (1)	Valid Data Capture 2024 (%) (2)	2020	2021	2022	2023	2024
Bootham	460022	452777	Urban Background	98.8	98.8	12.9	12.7	12.6	11.8	11.5
Fishergate	460746	451038	Roadside	99.0	99.0	18.8	19.8	19.2	17.3	18.4
Holgate	459512	451282	Roadside	94.7	94.7	20.7	23.6	21.1	21.4	19.6
Nunnery Lane	460068	451199	Roadside	99.5	99.5	16.7	19.8	19.1	17.8	16.4
Gillygate	460147	452345	Roadside	97.3	97.3	23.5	25.5	27.1	25.3	19.8
Lawrence Street	461256	451340	Roadside	93.9	93.9	19.5	21.3	20.0	18.4	18.0
Heworth Green	461126	452602	Roadside	97.1	97.1	19.5	20.3	20.4	17.7	15.5
Fulford Road	460937	449464	Roadside	77.8	77.8	16.6	17.3	16.8	17.0	15.8

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

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

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

Notes:

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

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

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

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

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

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

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

Diffusion Tube ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Site Type	Valid Data Capture for Monitoring Period (%) (1)	Valid Data Capture 2024 (%) (2)	2020	2021	2022	2023	2024
5	462040	454883	Roadside	100.0	100.0	14.3	12.1	12.1	11.7	10.1
6	459777	451406	Roadside	91.7	91.7	29.1	33.9	31.1	28.3	25.2
7	460217	452421	Roadside	91.7	91.7	38.2	46.2	49.5	41.7	28.2
8	460163	452468	Urban Background	100.0	100.0	12.5	12.7	13.4	13.6	10.5
9	460163	452468	Urban Background	100.0	100.0	12.3	12.6	13.6	13.2	11.1
11	458846	450946	Urban Background	91.7	91.7	12.5	13.2	13.6	12.6	11.9
13	460176	452377	Roadside	91.7	91.7	38.0	46.5	45.5	39.8	28.5
14	460167	452347	Roadside	100.0	100.0	40.2	47.5	47.3	39.9 (estimate)	27.7
15	461105	451458	Roadside	100.0	100.0	28.7	30.7	29.5	27.8	25.7
16	460160	451152	Roadside	100.0	100.0	26.2	30.4	29.1	24.1	20.7
17	459646	451500	Roadside	100.0	100.0	25.0	26.0	27.4	22.5	26.4
18	460457	452903	Roadside	91.7	91.7	24.0	30.3	29.7	25.4	20.4
25	461721	452709	Roadside	100.0	100.0	17.1	18.8	18.0	17.6	15.3
26	460829	453524	Roadside	100.0	100.0	21.0	26.4	25.8	24.0	22.4
33	460598	453227	Roadside	91.7	91.7	20.0	22.5	21.8	19.4	15.9
35	457603	451492	Roadside	91.7	91.7	18.4	19.7	18.8	17.6	16.6
37	459522	451187	Roadside	100.0	100.0	22.6	23.2	23.1	21.0	18.4
44	460679	452326	Roadside	100.0	100.0	18.4	18.9	17.8	16.2	15.3
45	460319	452754	Roadside	91.7	91.7	25.7	28.9	29.5	25.1	18.7
47	462009	456996	Roadside	100.0	100.0	21.0	22.1	22.6	21.8	19.5
60	461017	451781	Roadside	100.0	100.0	17.2	17.2	15.0	15.3	14.5
78	460149	452342	Roadside	100.0	100.0	23.9	27.2	27.1	23.1	18.6
79	460149	452342	Roadside	100.0	100.0	24.3	26.2	26.7	24.4	19.9
80	460149	452342	Roadside	100.0	100.0	24.8	29.4	26.5	23.7	20.7

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 2024 (%) (2)	2020	2021	2022	2023	2024
83	461597	452830	Urban Background	100.0	100.0	13.8	14.9	14.6	13.8	12.8
88	463354	451972	Urban Background	91.7	91.7	9.9	9.3	10.4	9.2	8.5
90	459997	450109	Roadside	100.0	100.0	10.9	11.0	11.4	10.1	10.0
96	460978	449452	Roadside	100.0	100.0	14.4	15.2	14.8	14.2	12.6
100	456228	453312	Roadside	100.0	100.0	13.2	14.3	14.1	11.2	12.0
101	459746	455897	Roadside	100.0	100.0	23.0	24.5	22.5	22.3	20.6
102	458703	452429	Roadside	91.7	91.7	23.7	28.8	25.4	25.9	20.9
103	458703	452429	Roadside	91.7	91.7	21.7	29.1	28.5	26.3	20.3
104	458703	452429	Roadside	91.7	91.7	24.4	29.2	28.4	27.0	20.0
107	458779	452387	Roadside	91.7	91.7	14.0	15.9	15.5	14.1	12.3
108	458814	452373	Roadside	100.0	100.0	18.8	20.1	20.6	19.3	15.4
109	459924	451833	Roadside	100.0	100.0	38.8	39.3	43.7	36.6	28.5
110	459985	451727	Roadside	83.3	83.3	34.4	39.3	37.2	31.6	25.3
111	459917	451728	Roadside	100.0	100.0	19.8	20.6	17.8	19.6 (estimate)	16.9
112	459873	451684	Roadside	100.0	100.0	17.7	17.3	17.0	16.3	14.7
114	459981	451778	Roadside	100.0	100.0	29.0	33.8	34.4	30.0	22.0
116	458212	452037	Roadside	100.0	100.0	19.4	22.5	21.6	20.6	17.1
125	463194	451967	Roadside	100.0	100.0	12.0	10.6	11.5	11.3	8.3
126	463482	451896	Roadside	100.0	100.0	13.9	13.9	13.0	11.9	9.9
127	461108	452313	Roadside	100.0	100.0	17.6	18.3	20.1	16.9	16.8
128	458686	452369	Roadside	91.7	91.7	13.5	14.9	15.1	13.8	13.1
129	455968	453397	Roadside	75.0	75.0	11.2	12.7	12.4	11.2	10.0
2a	460746	451034	Roadside	100.0	100.0	17.6	18.7	17.9	16.4	17.2
2b	460746	451034	Roadside	100.0	100.0	18.1	18.4	18.1	16.9	18.1
2c	460746	451034	Roadside	91.7	91.7	18.0	18.8	18.4	17.8	17.1
3a	460024	452767	Urban Background	83.3	83.3	12.3	12.0	12.0	11.8	10.9

Diffusion Tube ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Site Type	Valid Data Capture for Monitoring Period (%) (1)	Valid Data Capture 2024 (%) (2)	2020	2021	2022	2023	2024
3b	460024	452767	Urban Background	91.7	91.7	11.6	12.5	11.7	10.8	10.5
3c	460024	452767	Urban Background	100.0	100.0	11.9	13.8	12.5	11.7	8.8
95a	460938	449465	Roadside	91.7	91.7	16.8	16.9	16.4	15.9	15.5
95b	460938	449465	Roadside	91.7	91.7	16.6	16.3	17.3	16.8	15.6
95c	460938	449465	Roadside	91.7	91.7	16.5	16.5	16.6	17.1	15.3
9a	460163	452468	Urban Background	100.0	100.0	12.4	12.6	13.3	13.3	11.2
A1	460088	452263	Roadside	100.0	100.0	36.4	43.6	44.1	42.6	31.1
A11	459341	453042	Roadside	91.7	91.7	23.6	25.8	24.8	25.6	23.3
A12	459251	453008	Roadside	100.0	100.0	20.1	22.4	22.6	22.3	19.7
A13	459335	452931	Urban Background	100.0	100.0	12.9	13.8	13.0	12.4	11.0
A14	459335	452931	Urban Background	100.0	100.0	13.0	13.6	12.4	13.3	11.9
A14a	459335	452931	Urban Background	100.0	100.0	12.3	13.5	12.8	12.9	10.8
A17	458578	452472	Roadside	100.0	100.0	21.5	24.7	23.0	22.9	18.7
A19	458713	452414	Roadside	100.0	100.0	21.7	22.7	23.6	22.5	17.1
A19a	458713	452414	Roadside	100.0	100.0	20.9	23.3	23.1	21.9	18.0
A19b	458713	452414	Roadside	100.0	100.0	21.3	22.7	22.7	21.7	18.7
A2	459917	452405	Roadside	100.0	100.0	23.8	25.7	26.1	23.7	21.5
A20	458760	452404	Roadside	100.0	100.0	23.5	27.2	25.4	26.1	18.6
A20a	458760	452404	Roadside	100.0	100.0	22.5	28.6	25.4	25.8	19.7
A20b	458760	452404	Roadside	100.0	100.0	23.7	28.9	26.6	26.3	19.6
A21	458806	452326	Urban Background	100.0	100.0	15.5	14.9	16.6	15.1	13.5
A22	458792	452242	Urban Background	100.0	100.0	14.5	15.8	16.9	16.2	15.0
A25	458706	452225	Roadside	100.0	100.0	15.0	18.0	18.2	17.5	15.5

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 2024 (%) (2)	2020	2021	2022	2023	2024
A29	456939	453013	Urban Background	91.7	91.7	12.9	15.2	17.0	15.1	13.8
A3	459822	452492	Roadside	91.7	91.7	21.7	23.4	22.2	22.4	20.9
A30	457060	452888	Urban Background	100.0	100.0	13.3	15.8	15.1	14.8	11.9
A36	457625	452446	Urban Background	66.7	66.7	11.4 (estimate)	13.7 (estimate)	14.1 (estimate)	11.8	10.8 (estimate)
A38	457857	452334	Urban Background	100.0	100.0	11.8	12.6	13.0	12.1	11.0
A4	459699	452638	Urban Background	91.7	91.7	13.9	14.5	15.6	15.5	14.5
A40	458109	452196	Urban Background	100.0	100.0	14.0	16.3	16.1	15.3	13.2
A41	458172	452108	Roadside	100.0	100.0	15.3	18.1	16.8	15.6	14.5
A45	458384	451817	Urban Background	100.0	100.0	10.6	12.0	12.5	12.2	10.6
A50	458732	451393	Roadside	100.0	100.0	21.4	22.5	23.8	21.0	16.7
A51	458827	451348	Urban Background	100.0	100.0	15.4	17.9	18.4	16.7	13.0
A52	458945	451254	Roadside	100.0	100.0	24.6	27.9	26.6	25.3	21.7
A53	459066	451239	Roadside	100.0	100.0	23.4	28.1	27.5	24.2	20.6
A54	459254	451223	Roadside	66.7	66.7	25.1	30.9	27.9	28.5 (estimate)	26.0 (estimate)
A55	459351	451221	Roadside	100.0	100.0	24.2	28.0	26.8	24.6	19.6
A56	459470	451268	Urban Background	50.0	50.0	19.8	21.7	22.3	22.0	17.2 (estimate)
A57	459533	451280	Roadside	100.0	100.0	33.7	43.5	38.1	35.9	29.6
A6	459536	452811	Roadside	100.0	100.0	17.9	18.5	18.9	17.5	16.9
A60	458906	453276	Urban Background	91.7	91.7	9.7	10.7	11.2	10.9	10.2
A62	458806	453483	Urban Background	75.0	75.0	10.1	11.2	11.9	11.5	8.7
A64	460030	452327	Roadside	100.0	100.0	20.8	24.8	23.7	23.8	20.9

Diffusion Tube ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Site Type	Valid Data Capture for Monitoring Period (%) (1)	Valid Data Capture 2024 (%) (2)	2020	2021	2022	2023	2024
A66	458672	453685	Urban Background	83.3	83.3	10.6	12.0	12.7	11.8	9.9
A69	458375	453958	Urban Background	91.7	91.7	9.7	11.7	11.7	10.4	9.1
A7	459441	452892	Roadside	100.0	100.0	18.8	20.8	19.4	18.7	16.7
A70	458299	454070	Urban Background	100.0	100.0	11.5	13.6	13.7	13.2	11.8
A71	458121	454254	Urban Background	100.0	100.0	10.0	10.5	10.4	10.6	9.4
A74	458041	454371	Urban Background	91.7	91.7	9.7	10.8	11.5	9.8	9.4
A77	457929	454537	Urban Background	100.0	100.0	13.4	13.9	15.7	14.6	11.7
A81	457733	454805	Urban Background	83.3	83.3	12.3	12.0	12.8	12.5	11.0
A85	459364	453009	Urban Background	100.0	100.0	14.5	16.1	17.3	16.1	13.8
A88	457470	452550	Urban Background	100.0	100.0	11.4	12.9	13.5	13.0	11.3
A9	459295	453067	Roadside	100.0	100.0	22.8	25.7	25.2	23.7	17.8
A90	459238	453157	Roadside	100.0	100.0	25.6	32.7	30.3	31.7	22.8
A94	458651	452426	Roadside	100.0	100.0	20.1	23.2	18.3	19.2	24.3
A96	459038	452850	Roadside	91.7	91.7	21.5	25.7	25.0	24.1	19.6
A97	457431	452616	Roadside	100.0	100.0	14.3	16.0	16.7	14.9	13.4
A98	458666	451468	Roadside	100.0	100.0	17.0	19.4	18.5	16.8	13.2
B1	460848	452582	Roadside	91.7	91.7	18.2	15.9	15.2	15.1	13.2
B15	461294	455305	Roadside	100.0	100.0	15.1	15.5	15.2	14.4	11.6
B19	461891	455876	Roadside	91.7	91.7	16.2	15.4	15.9	15.0	11.3
B2	460924	452697	Roadside	100.0	100.0	17.9	19.4	18.7	17.3	16.7
B29	461453	452750	Roadside	91.7	91.7	15.6	15.7	14.6	14.7	12.9
B3	460952	452826	Roadside	91.7	91.7	15.9	17.7	16.8	16.0	14.3

Diffusion Tube ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Site Type	Valid Data Capture for Monitoring Period (%) (1)	Valid Data Capture 2024 (%) (2)	2020	2021	2022	2023	2024
B36	462565	454194	Urban Background	100.0	100.0	10.4	10.9	9.9	10.8	9.5
B37	462565	454194	Urban Background	75.0	75.0	9.6	9.8	10.4	10.4	9.4
B37a	462565	454194	Urban Background	83.3	83.3	10.5	10.2	10.9	10.1	8.8
B38	463757	455155	Urban Background	100.0	100.0	11.9	12.5	12.7	12.0	12.5
B41	461326	451330	Urban Background	91.7	91.7	20.0	23.7	23.2	21.8	18.3
B42	461430	451348	Urban Background	100.0	100.0	15.5	18.4	17.3	15.7	13.8
B43	461557	451343	Urban Background	91.7	91.7	14.3	15.9	15.7	14.4	12.7
B44	461643	451343	Roadside	100.0	100.0	23.1	25.3	23.6	21.5	17.8
B45	461849	451284	Roadside	91.7	91.7	18.7	22.4	21.1	18.2	17.0
B47	462019	451289	Urban Background	100.0	100.0	11.2	11.8	11.7	10.2	10.0
B48	462122	451289	Urban Background	83.3	83.3	11.8	14.5	14.5	13.7	11.4
B50	462291	451269	Roadside	91.7	91.7	15.8	17.1	17.1	15.7	13.7
B51	462384	451298	Urban Background	100.0	100.0	12.8	13.0	12.9	12.4	10.2
B56	462888	451289	Roadside	100.0	100.0	20.8	22.7	21.3	21.1	18.5
B58	462970	451300	Urban Background	91.7	91.7	12.7	12.6	13.8	13.0	11.0
B60	463234	451339	Urban Background	100.0	100.0	12.1	13.7	13.4	13.6	11.8
B63	462704	451300	Roadside	100.0	100.0	22.4	23.2	22.4	22.2	19.6
B72	461122	451374	Roadside	66.7	66.7	32.5	33.7	33.8	30.9	28.1 (estimate)
B74	461371	452708	Urban Background	100.0	100.0	13.7	13.4	14.1 (estimate)	12.5	11.6

Diffusion Tube ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Site Type	Valid Data Capture for Monitoring Period (%) (1)	Valid Data Capture 2024 (%) (2)	2020	2021	2022	2023	2024
B80	461185	452663	Urban Background	100.0	100.0	12.2	12.5	11.8	12.4	9.6
B82	460974	452563	Urban Background	100.0	100.0	17.4	17.3	19.7	17.5	14.3
B83	461285	452695	Roadside	100.0	100.0	21.1	20.7	19.1	20.5	18.5
B84	462654	451293	Urban Background	100.0	100.0	15.1	16.9	17.1	16.8	14.2
B85	461227	451368	Roadside	91.7	91.7	20.8	24.9	22.8	20.6	19.4
B86	461116	452602	Roadside	100.0	100.0	18.6	21.1	17.3	16.8	15.4
B88	462799	451291	Roadside	91.7	91.7	19.9	20.4	20.9	18.7	16.9
B90	461133	451394	Roadside	100.0	100.0	27.5	28.5	25.1	24.3	21.1
B91	461142	451365	Roadside	100.0	100.0	-	-	28.8	27.7	24.0
C12	458825	449928	Urban Background	83.3	83.3	12.1	13.1	13.0	12.3	11.6
C17	459085	450544	Urban Background	91.7	91.7	11.4	12.1	12.8	12.0	10.5
C18	459204	450772	Urban Background	100.0	100.0	17.0	16.8	16.6	21.6	15.0
C19	459271	450819	Urban Background	100.0	100.0	11.7	12.8	12.8	13.2	11.1
C2	458333	448974	Roadside	100.0	100.0	24.4	25.8	25.8	21.7	18.3
C20	459280	450923	Urban Background	100.0	100.0	14.9	14.1	16.4	16.1	12.2
C21	459410	451040	Roadside	100.0	100.0	20.6	18.7	18.4	18.1	14.3
C22	459570	451195	Urban Background	91.7	91.7	15.2	15.4	15.4	14.9	14.1
C23	459553	451252	Roadside	91.7	91.7	29.5	28.9	30.4	27.3	21.9
C26	459639	451334	Roadside	100.0	100.0	31.2	34.1	31.7	30.6	22.7
C27	459717	451433	Roadside	91.7	91.7	35.0	40.7	41.3	37.1	32.4
C28	461201	448386	Urban Background	91.7	91.7	10.8	11.1	11.3	10.4	9.5
C29	461196	448426	Roadside	100.0	100.0	19.6	20.3	20.6	20.7	17.9

Diffusion Tube ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Site Type	Valid Data Capture for Monitoring Period (%) (1)	Valid Data Capture 2024 (%) (2)	2020	2021	2022	2023	2024
C30	461185	448462	Roadside	100.0	100.0	22.7	23.7	21.5	21.7	20.3
C31	461193	448473	Urban Background	100.0	100.0	12.0	12.7	13.0	13.2	11.5
C32	461128	448823	Urban Background	83.3	83.3	15.0	15.8	17.1	17.5	15.3
C33	461085	448933	Urban Background	100.0	100.0	10.5	11.0	11.5	10.8	10.4
C34	461085	449067	Roadside	100.0	100.0	16.2	17.3	17.2	17.3	15.0
C36	461052	449146	Roadside	100.0	100.0	19.7	20.1	20.6	19.7	18.9
C37	461045	449223	Urban Background	91.7	91.7	14.2	15.7	16.1	15.1	14.1
C38	461038	449225	Roadside	100.0	100.0	17.1	18.2	18.1	18.7	15.7
C39	460974	449336	Roadside	100.0	100.0	22.9	22.8	22.2	24.9	22.1
C4	458470	449126	Urban Background	100.0	100.0	12.5	12.5	12.9	12.0	10.7
C40	460910	449628	Urban Background	100.0	100.0	12.6	12.9	13.7	13.4	13.3
C42	460857	449748	Urban Background	100.0	100.0	14.3	15.2	15.9	16.5	14.2
C43	460869	449730	Roadside	100.0	100.0	18.4	19.3	19.7	20.0	18.5
C43a	460869	449730	Roadside	91.7	91.7	19.3	20.2	20.6	20.9	19.3
C44	460869	449730	Roadside	100.0	100.0	19.6	19.7	20.6	20.1	18.6
C49	460860	450530	Urban Background	91.7	91.7	13.0	14.3	14.2	13.1	11.8
C51	460871	450727	Roadside	91.7	91.7	17.9	19.3	18.1	18.9 (estimate)	15.9
C52	460853	450781	Roadside	100.0	100.0	17.8	17.2	18.1	16.3	14.1
C53	460766	450924	Roadside	16.7	16.7	15.2 (estimate)	16.0 (estimate)	16.5 (estimate)	16.7 (estimate)	15.8
C54	460762	451069	Roadside	100.0	100.0	18.4	21.3	20.0	19.7	18.6
C56	459484	451141	Roadside	83.3	83.3	21.8	25.0	24.8	22.4	18.0
C57	458912	450111	Urban Background	100.0	100.0	14.4	14.4	15.3	14.4	12.2

Diffusion Tube ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Site Type	Valid Data Capture for Monitoring Period (%) (1)	Valid Data Capture 2024 (%) (2)	2020	2021	2022	2023	2024
C58	460926	449429	Roadside	100.0	100.0	24.6	25.4	26.0	25.0	23.9
C59	458735	449713	Roadside	100.0	100.0	22.3	23.3	25.0	21.7	17.6
C62	459579	451251	Roadside	91.7	91.7	20.1	20.8	21.3	19.1	16.6
C63	458790	449740	Roadside	100.0	100.0	13.3	13.8	12.0	12.1	10.7
C7	458611	449477	Roadside	91.7	91.7	14.9	15.4	13.1	13.3	12.1
D10	460443	451927	Urban Background	91.7	91.7	11.3	12.5	13.3	12.6	12.4
D12	460567	451740	Roadside	91.7	91.7	15.7	14.3	14.2	12.9	11.1
D13	460271	451358	Roadside	100.0	100.0	20.4	17.6	18.4	16.7	13.3
D14	461077	451354	Roadside	100.0	100.0	28.2	30.8	28.0	28.4	25.9
D16	460708	451231	Roadside	100.0	100.0	29.2	32.9	30.4	28.8	25.4
D17	460575	451616	Roadside	91.7	91.7	23.7	28.5	30.9	24.7	20.4
D18	460395	451502	Roadside	75.0	75.0	23.1	24.2	22.7	20.4	18.2
D19	460038	451626	Roadside	100.0	100.0	34.8	40.5	38.2	32.4	23.8
D20	460323	451685	Roadside	100.0	100.0	30.1	33.4	36.6	31.2	21.3
D22	460035	452010	Roadside	83.3	83.3	27.2	32.3	30.7	28.9 (estimate)	21.4
D24	459805	451543	Roadside	100.0	100.0	18.9	20.5	19.6	18.0	18.0
D25	459693	451750	Roadside	100.0	100.0	29.0	33.0	34.7	31.9	28.6
D26	460671	451400	Roadside	91.7	91.7	20.2	25.1	23.6	20.7	17.2
D27	460734	451563	Roadside	100.0	100.0	19.5	20.8	19.0	15.9	13.2
D28	460764	451185	Roadside	91.7	91.7	25.0	27.4	26.1	23.5	24.1
D30	460834	451252	Roadside	91.7	91.7	18.6	20.4	18.4	18.0	15.9
D31	461002	451229	Roadside	91.7	91.7	20.6	24.4	22.9	22.2	20.3
D32	460258	451208	Roadside	91.7	91.7	26.4	29.1	27.9	25.0	22.7
D33	460075	451174	Roadside	100.0	100.0	20.7	24.4	24.4	24.4	21.0
D35	460134	451170	Roadside	75.0	75.0	27.2	32.8	30.6	25.7	24.8
D36	460135	450884	Roadside	100.0	100.0	22.8	25.2	24.9	22.8	20.7
D37	460157	450988	Roadside	91.7	91.7	18.7	22.6	20.9	19.7	20.7

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 2024 (%) (2)	2020	2021	2022	2023	2024
D38	460088	450929	Roadside	83.3	83.3	16.8	18.2	16.6	15.8	15.5
D39	460185	451055	Roadside	91.7	91.7	20.4	23.5	23.8	20.7	19.8
D4	460560	452300	Roadside	91.7	91.7	19.2	22.2	21.1	19.6	18.4
D40	460069	451196	Roadside	100.0	100.0	18.9	21.7	19.2	17.4	17.2
D41	460286	452487	Roadside	100.0	100.0	27.9	30.8	31.9	30.8	25.5
D43	459920	451834	Roadside	91.7	91.7	34.2	36.9	39.3	30.7	25.3
D45	460673	451869	Roadside	100.0	100.0	17.7	18.7	17.9	16.1	14.9
D47	460682	452187	Roadside	83.3	83.3	20.8	19.3	18.0	18.7	16.3
D48	460103	452180	Roadside	100.0	100.0	28.0	35.1	35.4 (estimate)	30.4	21.7
D49	460656	451269	Roadside	100.0	100.0	24.4	30.0	29.8	25.7	24.2
D50	460371	451682	Roadside	83.3	83.3	27.2	29.1	29.4	27.0	20.7
D51	459640	451722	Roadside	91.7	91.7	34.4	35.9	41.4	40.4	35.5
D52	460887	451140	Roadside	91.7	91.7	17.4	19.3	19.4	13.9	14.4
D53	460115	451146	Roadside	91.7	91.7	19.6	21.9	19.8	17.8	16.7
D54	460146	451116	Roadside	91.7	91.7	18.5	20.6	19.3	18.1	16.4
D55	460087	452065	Roadside	91.7	91.7	33.5	44.9	39.2	37.1	24.5
D6	460570	452177	Urban Background	100.0	100.0	13.5	16.2	14.8	13.3	11.8
D8	460553	451843	Roadside	100.0	100.0	28.4	32.2	33.0	30.4	20.1
D9	460483	452357	Roadside	100.0	100.0	25.3	27.7	31.0	28.4	24.2
D56	460400	451685	Roadside	100.0	100.0	31.2	31.8	35.9	35.1	27.2
D57	460416	451708	Roadside	91.7	91.7	25.0	26.1	24.9	22.7	16.9
D58	460435	451732	Roadside	91.7	91.7	26.1	29.5	31.2	29.5	22.2
D59	460087	452156	Roadside	100.0	100.0	35.4	43.2	44.7	37.5	25.0
D60	460294	451883	Roadside	91.7	91.7	15.6	14.2	15.7	14.4	13.5
130	463663	451054	Roadside	75.0	75.0	10.5	10.1	10.5 (estimate)	9.8 (estimate)	7.1
115	459962	451771	Roadside	100.0	100.0	48.8	44.7	50.9	45.0	28.0

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

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

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

Notes:

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

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

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

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

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

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

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

Figure A.1 – Trends in Annual Mean NO_2 Concentrations

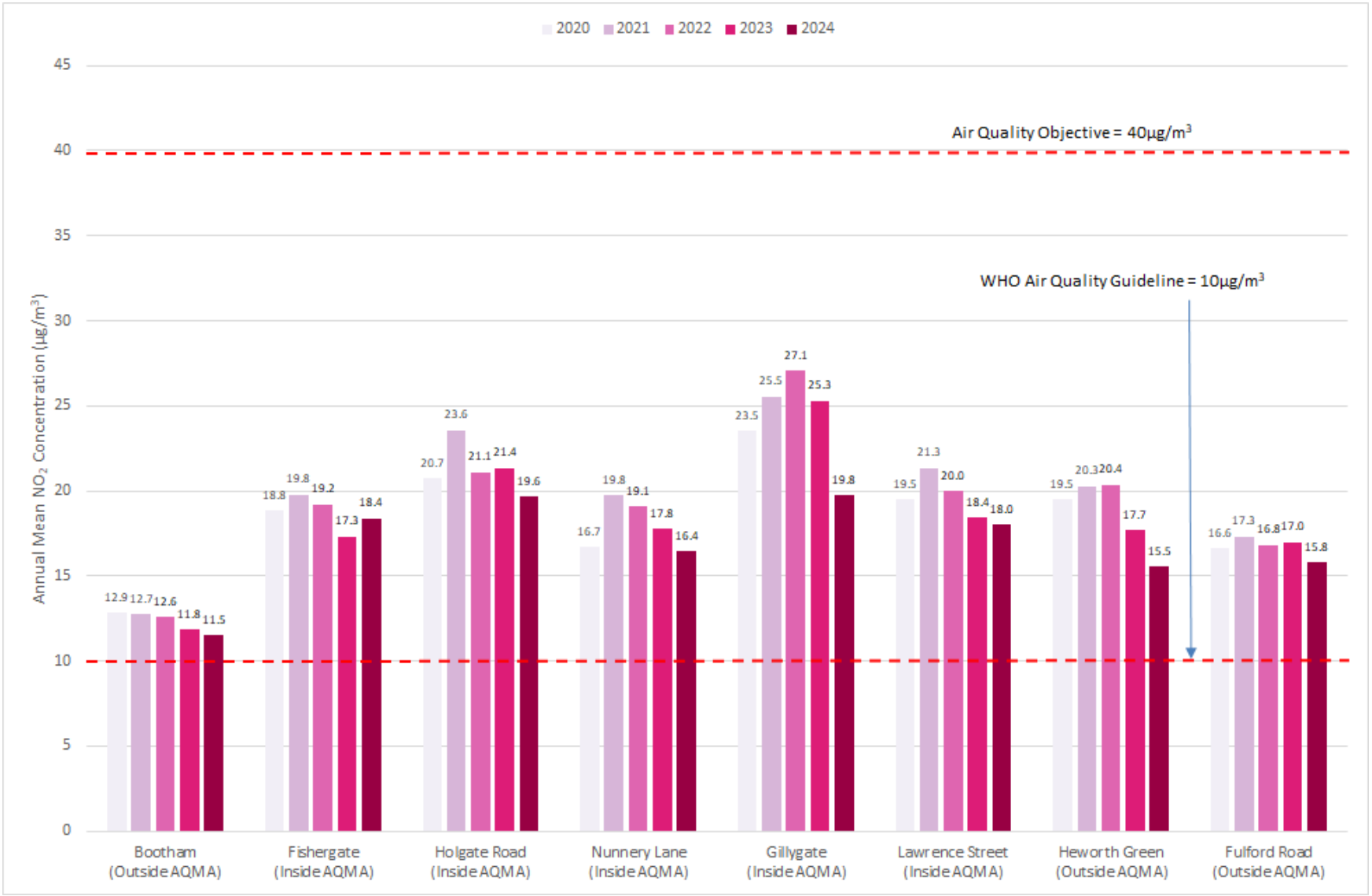


Table A.5 – 1-Hour Mean NO_2 Monitoring Results, Number of 1-Hour Means > 200µg/m^3

Site ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Site Type	Valid Data Capture for Monitoring Period (%) (1)	Valid Data Capture 2024 (%) (2)	2020	2021	2022	2023	2024
Bootham	460022	452777	Urban Background	98.8	98.8	0	0	0	0	0
Fishergate	460746	451038	Roadside	99.0	99.0	0	0	0	0	0
Holgate	459512	451282	Roadside	94.7	94.7	0	0	0	0	0
Nunnery Lane	460068	451199	Roadside	99.5	99.5	0	0	0	0	0
Gillygate	460147	452345	Roadside	97.3	97.3	0	0	0	0	0
Lawrence Street	461256	451340	Roadside	93.9	93.9	0	0	0	0	0
Heworth Green	461126	452602	Roadside	97.1	97.1	0	0	0	0	0
Fulford Road	460937	449464	Roadside	77.8	77.8	0	0	0	0	0 (65.9)

Notes:

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

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

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

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

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

Figure A.2 – Trends in Number of NO_2 1-Hour Means > 200µg/m^3

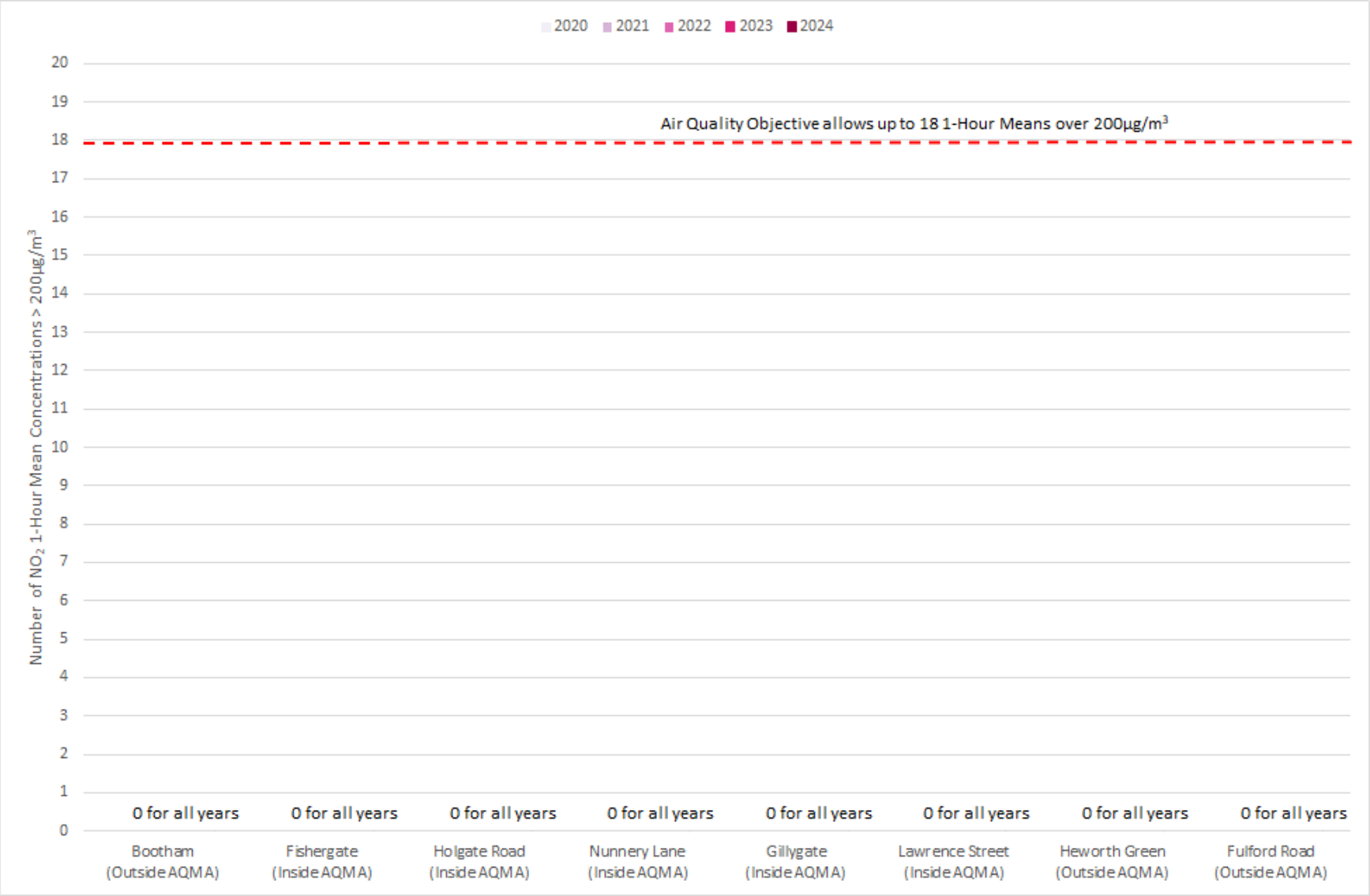


Table A.6 – Annual Mean PM_{10} Monitoring Results ($\mu g/m^3$)

Site ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Site Type	Valid Data Capture for Monitoring Period (%) (1)	Valid Data Capture 2024 (%) (2)	2020	2021	2022	2023	2024
Bootham	460022	452777	Urban Background	94.8	94.8	15.2	13.4	15.2	11.6	12.6
Fishergate	460746	451038	Roadside	95.4	95.4	19.2	15.8	16.8	13.7	15.4
Plantation Drive	457428	452620	Roadside	89.5	89.5	15.8	16.0	16.3	15.4	17.8

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

Notes:

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

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

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

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

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

Figure A.3 – Trends in Annual Mean PM_{10} Concentrations

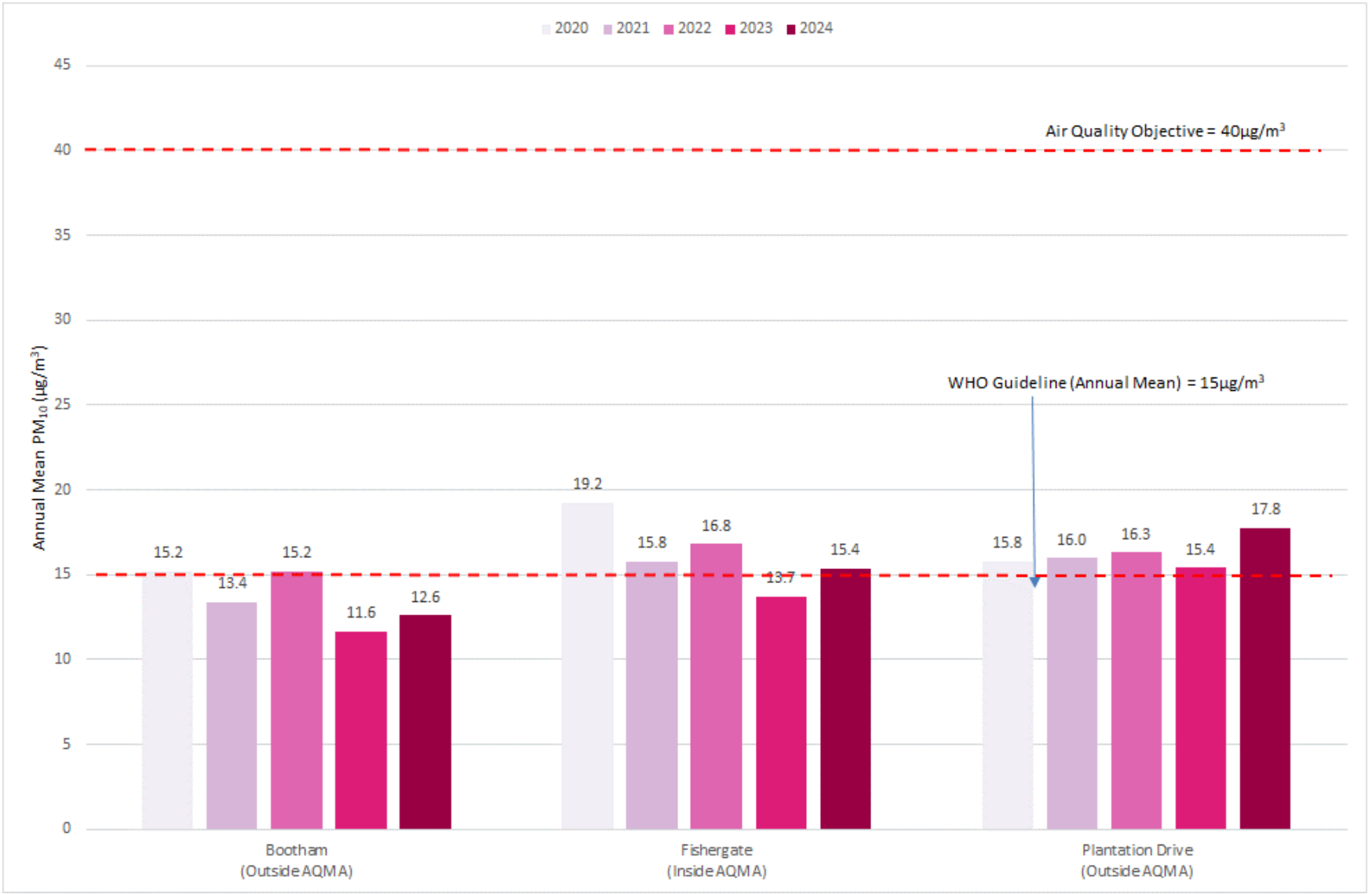


Table A.7 – 24-Hour Mean PM_{10} Monitoring Results, Number of PM_{10} 24-Hour Means > 50µg/m^3

Site ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Site Type	Valid Data Capture for Monitoring Period (%) (1)	Valid Data Capture 2024 (%) (2)	2020	2021	2022	2023	2024
Bootham	460022	452777	Urban Background	94.8	94.8	2	0	3	0	0
Fishergate	460746	451038	Roadside	95.4	95.4	1	0	6	0	2
Plantation Drive	457428	452620	Roadside	89.5	89.5	1	0	0	0	1

Notes:

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

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

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

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

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

Figure A.4 – Trends in Number of 24-Hour Mean PM_{10} Results > 50µg/m³

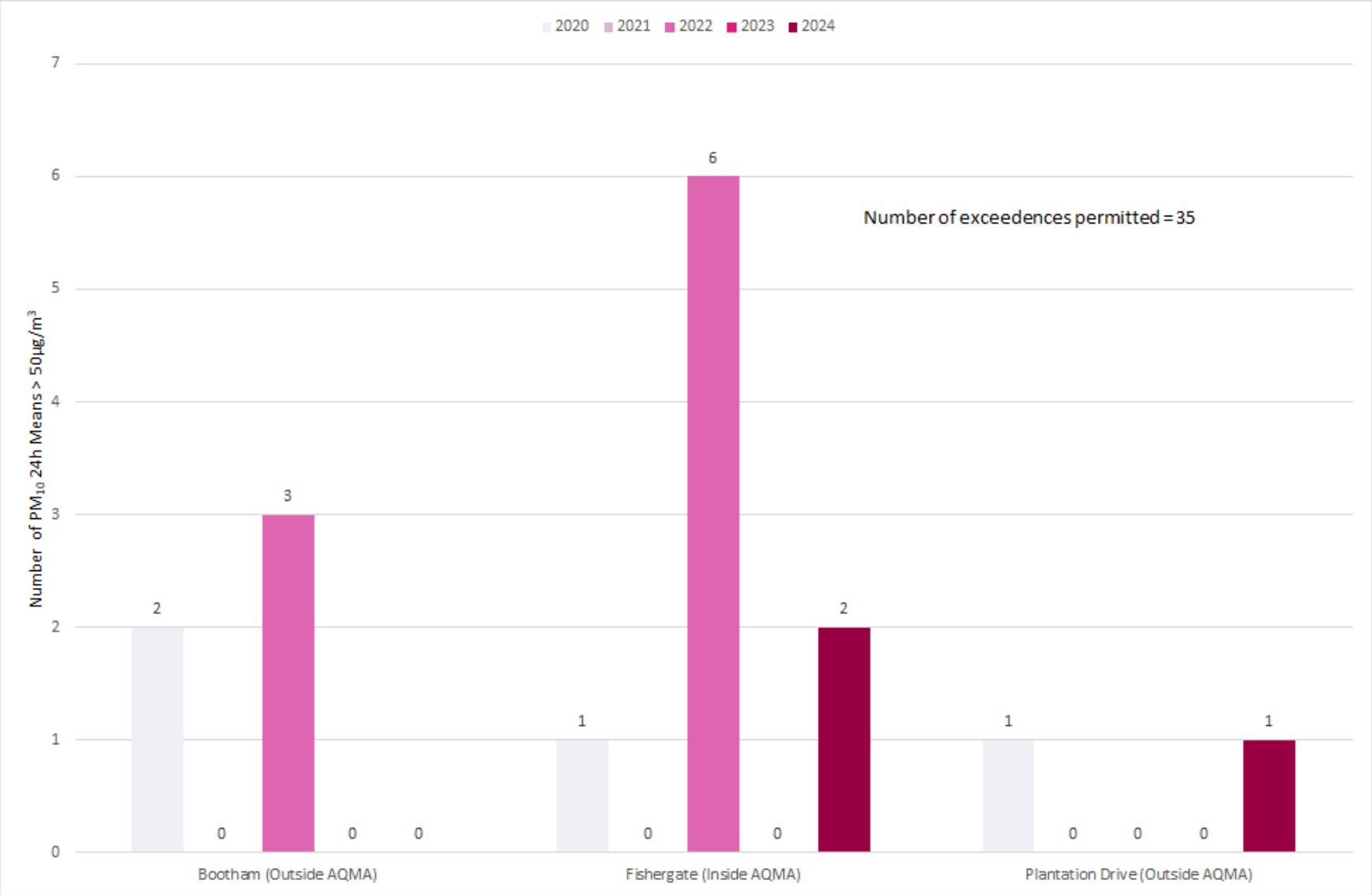


Table A.8 – Annual Mean $PM_{2.5}$ Monitoring Results ($\mu g/m^3$)

Site ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Site Type	Valid Data Capture for Monitoring Period (%) (1)	Valid Data Capture 2024 (%) (2)	2020	2021	2022	2023	2024
Bootham	460022	452777	Urban Background	96.5	96.5	8.6	8.4	8.2	7.4	7.7
Fishergate	460746	451038	Roadside	90.3	90.3	7.6	7.9	8.8	8.0	7.5
Gillygate	460147	452345	Roadside	86.0	86.0	7.1	6.1	7.2	7.2	9.0
Holgate Road	459512	451282	Roadside	37.2	37.2	-	-	-	7.8	7.6

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

Notes:

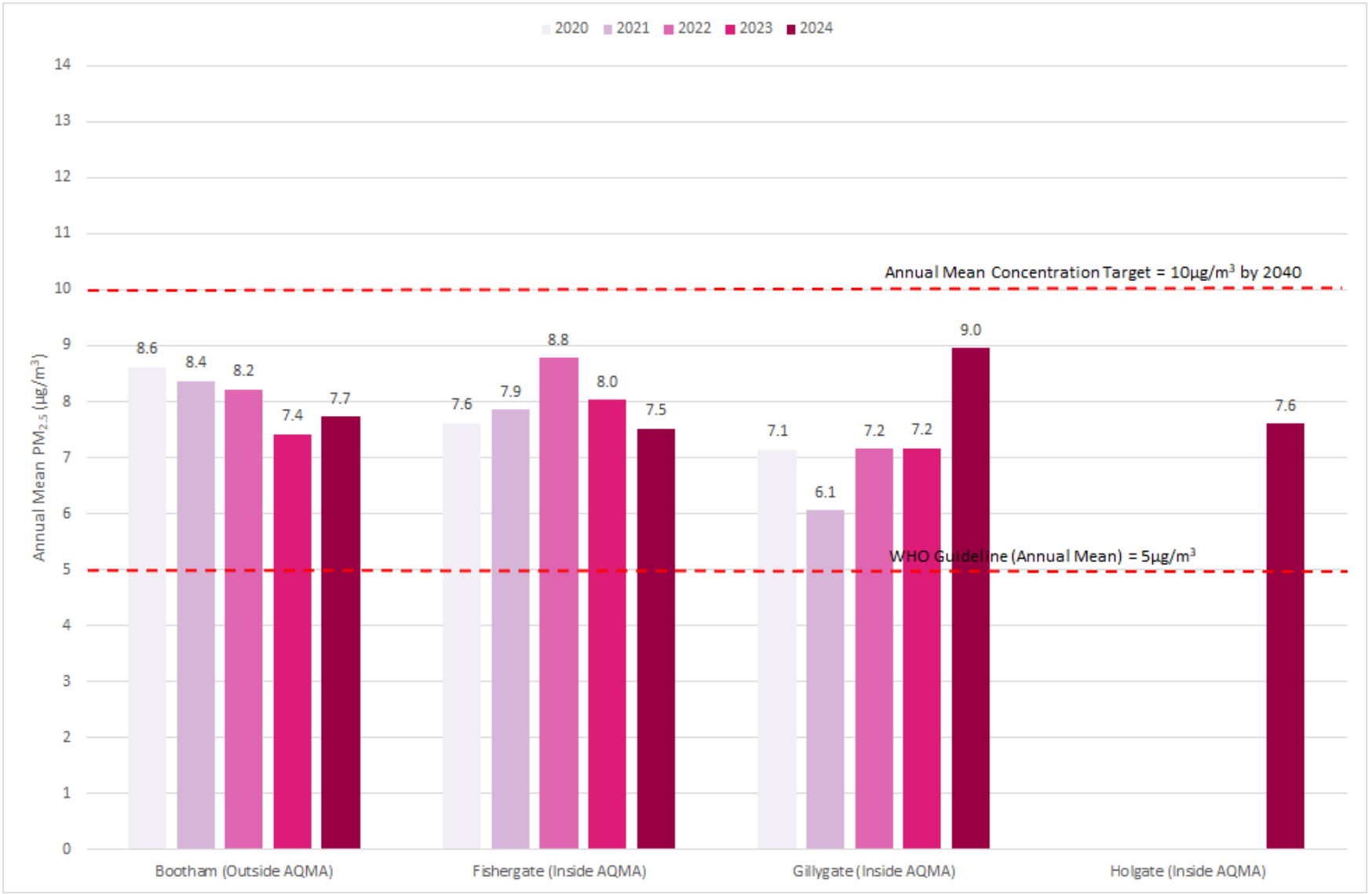
The annual mean concentrations are presented as $\mu g/m^3$.

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

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

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

Figure A.5 – Trends in Annual Mean $PM_{2.5}$ Concentrations



Appendix B: Full Monthly Diffusion Tube Results for 2024

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

DT ID	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
5	462040	454883	16.5	14.5	14.0	9.6	10.3	10.7	10.3	10.2	9.6	16.6	21.3	8.1	12.6	10.1	-	
6	459777	451406	44.8	34.9	29.0	34.9	30.2	27.3	30.3		34.4	30.3	38.8	12.1	31.5	25.2	-	
7	460217	452421	43.1	42.3	37.6	33.2	36.7		31.8	28.5	34.9	35.9	35.5	27.9	35.2	28.2	-	
8	460163	452468	19.7	22.1	15.0	12.3	11.9	10.1	9.3	10.7	9.9	18.8	13.2	4.9	13.2	10.5	-	Part of triplicate set - see bottom of table for triplicate average
9	460163	452468	19.0	22.7	15.5	10.8	11.5	8.8	9.3	10.4	8.7	18	19.7	12.7	13.9	11.1	-	Part of triplicate set - see bottom of table for triplicate average
11	458846	450946	19.3	18.4	19.5	12.2	13.6	10.0	11.4	10.4		16.9	16	15.7	14.9	11.9	-	
13	460176	452377		41.1	36.0	30.3	33.6	33.4	32.6	31.5	36.5	40.3	41.6	34.4	35.6	28.5	-	
14	460167	452347	44.3	33.9	46.8	32.8	38.3	31.1	33.8	34.1	33.4	42.6	31.8	13.2	34.7	27.7	-	
15	461105	451458	43.8	38.9	40.5	30.1	31.6	23.6	27.6	28.0	24.8	38.1	32.4	25.7	32.1	25.7	-	
16	460160	451152	39.8	36.7	22.7	24.1	26.4	23.1	23.6	24.4	30.3	15.8	23.8	19.7	25.9	20.7	-	
17	459646	451500	23.4	32.0	30.3	29.8	36.5	35.4	38.6	31.7	29.7	37.3	46.7	24.2	33.0	26.4	-	
18	460457	452903	33.7	34.7	25.0	23.3		21.8	21.2	22.4	11.9	28.7	31.9	25.6	25.5	20.4	-	
25	461721	452709	28.6	25.9	19.6	13.7	18.1	16.1	17.1	14.7	13.7	19.4	28.3	14	19.1	15.3	-	
26	460829	453524	35.2	40.6	29.0	25.0	25.4	28.0	25.2	25.1	21.8	22.8	32.9	25.1	28.0	22.4	-	
33	460598	453227	26.8	28.1	21.8	17.6	17.3	14.9	16.5		14.4	21.1	27.3	12.6	19.9	15.9	-	
35	457603	451492	23.1	29.6	21.6	15.7	19.1	17.4		15.9	17.0	20.5	27.5	20.3	20.7	16.6	-	
37	459522	451187	29.5	31.8	32.2	21.5	22.6	18.6	21.3	16.9	27.2	22.6	11.7	20.8	23.1	18.4	-	
44	460679	452326	22.3	28.9	21.9	20.5	19.6	15.5	15.6	16.6	17.4	21.8	25.2	4.6	19.2	15.3	-	
45	460319	452754	32.3	33.6	21.0	19.9	18.4	19.1	19.7	18.7	18.2	26.2	29.8		23.4	18.7	-	
47	462009	456996	30.2	28.6	28.5	22.8	21.8	20.5	21.1	21.8	15.9	28.5	29.1	23.2	24.3	19.5	-	
60	461017	451781	18.3	25.0	20.0	14.7	15.7	13.2	13.5	13.9	14.9	21.8	26.9	18.9	18.1	14.5	-	
78	460149	452342	30.2	32.3	26.2	24.8	24.6	21.0	22.1	19.6	19.1	26.9	9.6	22.9	23.3	18.6	-	Part of triplicate set - see bottom of table for triplicate average
79	460149	452342	33.3	34.4	29.4	23.5	25.4	20.3	21.1	19.5	24.3	26.9	29.7	10.8	24.9	19.9	-	Part of triplicate set - see bottom of table for triplicate average
80	460149	452342	32.6	35.0	24.6	23.6	25.0	21.3	21.3	20.4	24.3	30.6	30.3	22.2	25.9	20.7	-	Part of triplicate set - see bottom of table for triplicate average
83	461597	452830	22.5	22.3	15.2	11.8	14.0	14.0	13.1	11.1	12.8	18.3	22.7	14.8	16.1	12.8	-	
88	463354	451972	14.7	15.5	11.4	7.8	8.0	6.0	6.5		4.3	13.3	17.2	12.7	10.7	8.5	-	
90	459997	450109	16.8	15.0	12.1	9.0	10.8	8.3	10.9	8.9	12.0	14.2	17.7	14.8	12.5	10.0	-	
96	460978	449452	22.0	19.5	18.6	13.7	13.0	12.1	11.9	11.9	10.5	18.9	22.5	13.9	15.7	12.6	-	
100	456228	453312	17.4	21.2	17.2	10.9	13.7	10.2	12.3	13.3	9.0	19.8	21	13.9	15.0	12.0	-	
101	459746	455897	33.3	27.2	26.2	20.3	26.8	24.9	26.7	26.3	19.0	31.1	31.4	16	25.8	20.6	-	

DT ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual Mean: Raw Data	Annual Mean: Annualised and Bias Adjusted (0.8)	Annual Mean: Distance Corrected to Nearest Exposure	Comment
102	458703	452429	37.1	35.6	31.2	23.5	24.6	17.4	19.7	17.1	21.9	25.9	33.3		26.1	20.9	-	Part of triplicate set - see bottom of table for triplicate average
103	458703	452429	38.5	37.2	30.4	21.1	22.7	17.3	18.3	17.1	11.3	32.5	33		25.4	20.3	-	Part of triplicate set - see bottom of table for triplicate average
104	458703	452429	37.4	36.8	31.2	22.9	23.2	16.3	19.5	17.6	9.9	29.9	30.7		25.0	20.0	-	Part of triplicate set - see bottom of table for triplicate average
107	458779	452387	21.8	20.6	19.4	11.6		10.3	12.2	11.6	8.9	20.8	23.8	8.4	15.4	12.3	-	
108	458814	452373	28.7	28.3	21.8	15.1	15.4	13.2	15.5	15.9	11.9	23.3	27.4	13.9	19.2	15.4	-	
109	459924	451833	45.8	47.4	39.7	29.2	33.1	26.0	31.0	30.7	28.8	37.3	38.6	39.7	35.6	28.5	-	
110	459985	451727		46.4	37.2	29.0	28.9	31.5	29.4	28.1	24.5	35.9	25.1		31.6	25.3	-	
111	459917	451728	30.8	30.4	21.9	19.1	18.0	17.0	14.8	15.7	18.4	23.7	26.6	17.6	21.2	16.9	-	
112	459873	451684	23.4	26.6	18.6	15.9	16.1	16.2	15.8	14.0	14.0	22.8	26.9	9.7	18.3	14.7	-	
114	459981	451778	34.6	33.6	30.2	24.3	27.1	23.5	22.7	17.2	18.7	29.7	36.5	32.6	27.6	22.0	-	
115	459962	451771	54.5	56.3	48.7	27.8	26.4	29.8	27.4	28.4	22.0	32.4	33.3	32.4	35.0	28.0	-	
116	458212	452037	26.9	30.7	21.4	13.4	20.8	18.9	20.9	16.2	16.5	25.6	31.9	13.5	21.4	17.1	-	
125	463194	451967	16.5	18.4	11.2	8.7	8.4	7.1	6.0	8.7	4.8	13.9	8.3	12.8	10.4	8.3	-	
126	463482	451896	18.6	21.1	12.6	11.5	9.8	7.3	7.5	8.3	6.1	14.7	19.8	11.4	12.4	9.9	-	
127	461108	452313	28.7	31.7	22.9	17.2	16.8	18.5	16.8	17.6	13.2	22.8	29.2	17.2	21.1	16.8	-	
128	458686	452369	21.2	19.7	19.5	12.4	14.3	9.5	12.5		7.7	22.3	24.2	16.7	16.4	13.1	-	
129	455968	453397		18.3			10.6	8.5	10.3	11.4	6.5	16.5	18.3	12.1	12.5	10.0	-	
130	463663	451054	12.7			8.1		5.8	6.1	7.2	6.0	13	17.1	3.4	8.8	7.1	-	
2a	460746	451034	22.8	29.1	19.9	18.7	20.7	16.3	16.5	15.5	19.0	24.9	31.8	23.3	21.5	17.2	-	Part of triplicate set - see bottom of table for triplicate average
2b	460746	451034	28.3	28.8	23.1	18.2	20.7	16.4	16.5	14.6	23.5	27.6	31.7	21.7	22.6	18.1	-	Part of triplicate set - see bottom of table for triplicate average
2c	460746	451034	28.1	30.7	23.7	15.4	22.6	15.9	16.8	15.9	22.1	27.6		16.6	21.4	17.1	-	Part of triplicate set - see bottom of table for triplicate average
3a	460024	452767	21.6	20.3	11.7	9.9	9.4	9.0		10.6	8.5	12	23.3		13.6	10.9	-	Part of triplicate set - see bottom of table for triplicate average
3b	460024	452767	16.3	21.4	14.3	10.5	10.1	9.0		8.7	5.3	17.3	23.7	8.1	13.2	10.5	-	Part of triplicate set - see bottom of table for triplicate average
3c	460024	452767	14.5	19.1	13.5	9.8	9.5	9.3	8.6	11.7	6.4	16.7	8	5.3	11.0	8.8	-	Part of triplicate set - see bottom of table for triplicate average
95a	460938	449465	21.5	24.4	18.1	17.3	16.7	16.7	15.0	15.7	18.0	22	28.1		19.4	15.5	-	Part of triplicate set - see bottom of table for triplicate average
95b	460938	449465	22.6	20.9	16.3	17.7	17.6	17.5	16.5		17.2	21	28.6	18.3	19.5	15.6	-	Part of triplicate set - see bottom of table for triplicate average
95c	460938	449465	24.2	22.8	18.3	18.7	17.1	17.4	14.4	14.7	14.9	21.5	26.3		19.1	15.3	-	Part of triplicate set - see bottom of table for triplicate average

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
9a	460163	452468	18.5	22.9	16.0	9.9	11.5	9.4	9.9	10.7	8.3	18	18.7	14.2	14.0	11.2	-	Part of triplicate set - see bottom of table for triplicate average
A1	460088	452263	38.3	50.3	41.1	41.9	42.6	24.3	39.2	36.4	38.0	36	40.7	37.6	38.9	31.1	-	
A11	459341	453042	39.8		30.4	28.7	27.1	27.6	26.0	25.2	23.4	33.5	37.2	21	29.1	23.3	-	
A12	459251	453008	34.5	29.5	24.9	21.4	23.1	20.4	21.5	22.8	21.3	21.4	30	24.3	24.6	19.7	-	
A13	459335	452931	18.4	22.6	14.4	11.9	11.8	9.0	10.2	8.9	10.8	18.8	15.3	12.8	13.7	11.0	-	Part of triplicate set - see bottom of table for triplicate average
A14	459335	452931	21.0	22.0	14.4	12.5	12.2	8.6	10.3	10.3	9.5	16.8	23.7	16.7	14.8	11.9	-	Part of triplicate set - see bottom of table for triplicate average
A14a	459335	452931	20.1	23.4	12.9	12.9	14.1	8.7	10.6	12.1	9.4	7.3	19.6	10.2	13.4	10.8	-	Part of triplicate set - see bottom of table for triplicate average
A17	458578	452472	19.3	36.5	29.0	18.8	22.1	15.7	20.4	18.7	18.3	27.6	29.9	23.6	23.3	18.7	-	
A19	458713	452414	29.5	31.4	25.9	16.0	19.3	16.1	18.6	13.4	13.5	24.9	29.2	18.8	21.4	17.1	-	Part of triplicate set - see bottom of table for triplicate average
A19a	458713	452414	32.9	32.3	26.1	19.4	19.5	17.2	17.6	18.0	12.8	27.1	28.5	18.7	22.5	18.0	-	Part of triplicate set - see bottom of table for triplicate average
A19b	458713	452414	34.6	34.0	26.7	19.8	21.3	17.1	17.7	17.4	13.5	28.4	28.7	21.9	23.4	18.7	-	Part of triplicate set - see bottom of table for triplicate average
A2	459917	452405	29.5	37.2	27.5	20.7	23.9	27.3	25.8	22.7	14.6	31.6	34.1	28.3	26.9	21.5	-	
A20	458760	452404	38.5	30.6	28.5	20.4	23.8	16.7	18.3	15.6	21.3	26.3	28.7	11	23.3	18.6	-	Part of triplicate set - see bottom of table for triplicate average
A20a	458760	452404	35.5	31.2	25.3	21.7	23.4	17.0	18.6	15.1	20.0	29.3	33.1	24.8	24.6	19.7	-	Part of triplicate set - see bottom of table for triplicate average
A20b	458760	452404	39.6	33.0	26.7	21.1	23.8	16.8	18.4	16.6	16.3	28.2	31	23.1	24.6	19.6	-	Part of triplicate set - see bottom of table for triplicate average
A21	458806	452326	23.5	17.2	20.2	13.2	15.0	12.7	13.4	15.4	7.7	26.5	23.5	13.9	16.9	13.5	-	
A22	458792	452242	24.8	24.4	21.8	15.9	16.6	15.1	15.8	17.8	10.5	23.9	26.1	12.4	18.8	15.0	-	
A25	458706	452225	25.8	21.1	22.1	16.9	19.9	14.9	15.9	12.0	14.4	27.5	27.8	14.3	19.4	15.5	-	
A29	456939	453013	19.9	25.7	19.7	14.4	15.8	12.6	12.7	12.3		20.5	21.8	14.3	17.2	13.8	-	
A3	459822	452492	32.2	32.9	20.0	22.7	25.6	21.4	23.4	22.4	19.2	33.6	34.2		26.1	20.9	-	
A30	457060	452888	22.2	20.2	17.7	12.9	16.3	9.1	12.2	8.6	3.8	18.9	22.7	13.7	14.9	11.9	-	
A36	457625	452446	17.7	19.9				8.3	10.7	9.9	9.7	19	17.4		14.1	10.8	-	Annualised value
A38	457857	452334	20.9	20.9	15.5	11.6	12.6	9.4	10.1	9.2	9.3	16.7	14.5	13.7	13.7	11.0	-	
A4	459699	452638	23.7	25.3	16.3	12.9	13.5	13.2	14.6	17.9		21.9	22.6	16.9	18.1	14.5	-	
A40	458109	452196	20.5	22.2	20.4	13.2	17.9	11.5	13.1	12.6	9.0	22.2	22.2	13	16.5	13.2	-	
A41	458172	452108	24.2	23.2	20.8	15.2	19.4	11.9	13.7	10.2	14.6	22.1	24.3	18.3	18.2	14.5	-	
A45	458384	451817	18.5	19.5	13.8	10.1	11.6	7.8	8.8	8.9	8.9	19.1	20.5	12.2	13.3	10.6	-	
A50	458732	451393	29.5	28.8	19.9	17.7	19.7	17.3	18.1	16.9	19.2	22.7	18.4	22.9	20.9	16.7	-	
A51	458827	451348	21.4	28.8	11.3	13.3	13.8	15.1	13.0	13.7	12.5	23.7	21.6	6.8	16.3	13.0	-	
A52	458945	451254	36.6	37.4	33.1	23.5	23.7	20.2	19.8	22.3	8.4	32.9	37.4	29.7	27.1	21.7	-	

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
A53	459066	451239	30.1	36.6	28.2	23.1	21.0	22.2	21.8	23.8	18.6	29.4	33.2	21.6	25.8	20.6	-	
A54	459254	451223			27.3	24.1	27.9	32.0	26.7	24.4	30.1		36.9		28.7	26.0	-	Annualised value
A55	459351	451221	32.1	36.0	25.8	22.5	19.9	20.9	21.9	19.5	20.7	29.3	31.8	14.1	24.5	19.6	-	
A56	459470	451268	31.0	27.6	21.7	19.4		15.6	17.7						22.2	17.2	-	Annualised value
A57	459533	451280	38.6	40.4	40.5	34.3	37.5	30.8	33.4	25.2	42.0	41.6	46	33.5	37.0	29.6	-	
A6	459536	452811	29.2	30.4	17.8	15.6	14.8	19.0	17.3	20.5	13.1	26.2	30.5	19.5	21.2	16.9	-	
A60	458906	453276	17.3	18.1	13.2	10.1	12.0	8.4		7.5	9.5	14.1	18.5	11.9	12.8	10.2	-	
A62	458806	453483			11.9		9.0	8.4	9.7	10.4	5.6	14.6	20	8.8	10.9	8.7	-	
A64	460030	452327	34.0	31.5	28.1	27.0	28.1	20.6	23.4	19.5	27.9	30	23.2	20.5	26.2	20.9	-	
A66	458672	453685		19.2	15.3	9.1	9.9	8.9	9.4	9.4	6.9	15.8	19.4		12.3	9.9	-	
A69	458375	453958	18.1	13.0	14.2	8.0	10.4	5.9	9.3	8.8	6.4		18.4	12.5	11.4	9.1	-	
A7	459441	452892	27.1	30.1	23.5	19.2	17.2	19.4	18.2	19.2	12.7	27.2	21.6	15.4	20.9	16.7	-	
A70	458299	454070	19.9	19.7	14.2	12.0	10.9	11.3	10.4	11.0	9.9	18.4	21.2	17.8	14.7	11.8	-	
A71	458121	454254	16.5	18.2	11.8	8.4	8.9	7.2	8.0	9.1	6.1	15.5	17.2	13.6	11.7	9.4	-	
A74	458041	454371	16.3	18.4	11.2	7.7	9.4		7.9	9.5	5.6	12.5	18.7	11.6	11.7	9.4	-	
A77	457929	454537	15.7	21.3	13.6	11.8	11.7	9.7	12.7	11.8	8.9	17.6	23.8	16.4	14.6	11.7	-	
A81	457733	454805	19.6	19.2		10.8	9.8		11.0	10.2	8.5	16.2	22	10.6	13.8	11.0	-	
A85	459364	453009	23.9	23.1	17.2	12.7	14.5	15.2	15.9	14.0	6.8	20.9	24.8	17.6	17.2	13.8	-	
A88	457470	452550	18.8	22.8	16.5	11.2	12.7	9.8	10.0	9.3	8.5	16.1	20	13.6	14.1	11.3	-	
A9	459295	453067	8.1	33.0	25.2	17.7	24.3	21.2	20.4	19.0	20.4	23.8	30.9	22.4	22.2	17.8	-	
A90	459238	453157	39.5	35.2	27.8	27.5	24.5	24.4	24.8	26.8	20.1	29.5	32.7	29.3	28.5	22.8	-	
A94	458651	452426	45.0	35.2	29.8	22.5	29.7	18.1	26.8	17.8	28.2	37.9	42	31.3	30.4	24.3	-	
A96	459038	452850	30.7	27.2	25.6	22.8	22.8		17.8	19.4	23.6	27.2	33.1	19	24.5	19.6	-	
A97	457431	452616	22.2	20.9	18.3	11.8	14.9	10.4	12.1	12.3	11.2	22.3	25.2	19.3	16.7	13.4	-	
A98	458666	451468	2.1	27.9	20.6	15.9	16.0	13.8	14.8	14.1	11.8	23.5	16.9	20.2	16.5	13.2	-	
B1	460848	452582		25.8	17.1	15.1	14.0	10.5	14.0	13.8	9.6	20.9	23.4	17.7	16.5	13.2	-	
B15	461294	455305	20.5	17.7	14.3	12.2	11.9	12.4	11.6	12.4	8.7	16.6	21.8	14.1	14.5	11.6	-	
B19	461891	455876		22.1	15.1	13.8	12.9	11.7	12.3	11.8	10.2	9.1	20.8	15.7	14.1	11.3	-	
B2	460924	452697	28.5	28.6	21.7	15.7	17.9	14.7	13.5	14.3	14.5	25.1	32.1	24.5	20.9	16.7	-	
B29	461453	452750	22.2	23.2	15.9	12.7	13.3		10.1	13.5	10.0	19.7	24.5	12.1	16.1	12.9	-	
B3	460952	452826	24.7	26.8	22.4	13.2	16.6	12.9	14.7	14.1	13.9		27.5	10.1	17.9	14.3	-	
B36	462565	454194	17.5	17.9	11.7	9.8	9.0	8.8	8.6	8.4	4.9	12	16.5	17.4	11.9	9.5	-	Part of triplicate set - see bottom of table for triplicate average
B37	462565	454194	16.5	14.0	10.2		9.8		8.4	7.3	6.6		18	15	11.8	9.4	-	Part of triplicate set - see bottom of table for triplicate average
B37a	462565	454194		17.8	10.3	9.4	9.6	8.4	8.7	9.7	6.9	13.4	16.3		11.1	8.8	-	Part of triplicate set - see bottom of table for triplicate average
B38	463757	455155	17.3	19.8	15.7	12.9	11.7	9.1	10.4	9.0	10.3	36.6	18.2	15.8	15.6	12.5	-	
B41	461326	451330		33.4	23.8	21.3	21.1	20.9	19.0	18.8	16.0	25.1	29	23.3	22.9	18.3	-	
B42	461430	451348	23.9	23.7	17.3	16.0	16.7	13.5	12.8	11.7	16.6	19.2	22	13.4	17.2	13.8	-	
B43	461557	451343	19.2	19.8	16.5	13.9	16.7	11.4	12.0	9.2		19.3	20.2	16.8	15.9	12.7	-	
B44	461643	451343	24.9	27.9	24.2	21.4	22.9	19.5	18.5	17.6	20.5	24	24.4	21.8	22.3	17.8	-	
B45	461849	451284	30.0	28.8	22.4	19.7	19.7	16.6	18.5	14.9	16.5	21	25.6		21.2	17.0	-	

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
B47	462019	451289	16.0	18.9	10.8	9.6	10.1	9.2	8.4	9.3	6.0	15.6	21.1	14.6	12.5	10.0	-	
B48	462122	451289		21.2	14.2	12.5	13.5	11.1	10.4	10.5	9.0	18.4	21.8		14.3	11.4	-	
B50	462291	451269	20.2	24.1	20.1	15.4	15.1	12.4	13.2	12.2	10.7	20.5	24.4		17.1	13.7	-	
B51	462384	451298	16.9	15.4	13.7	10.0	10.7	8.9	9.5	10.7	5.3	17	21.6	12.9	12.7	10.2	-	
B56	462888	451289	29.2	26.3	23.3	27.1	21.8	19.8	19.5	15.3	19.0	25.4	32.2	18.1	23.1	18.5	-	
B58	462970	451300	19.5	20.1	12.0	14.3		10.3	11.0	10.1	10.1	17.9	19.7	5.8	13.7	11.0	-	
B60	463234	451339	19.4	25.4	14.7	10.6	10.8	10.8	10.9	11.1	6.0	17.8	23.2	16.5	14.8	11.8	-	
B63	462704	451300	30.3	31.3	26.2	25.3	21.8	21.3	23.3	19.3	15.3	26.5	29.8	23.3	24.5	19.6	-	
B72	461122	451374		53.2	37.0	33.0		34.8		33.6		39.7	42	20.2	36.7	28.1	-	Annualised value
B74	461371	452708	19.4	22.6	15.0	11.7	13.9	12.5	10.5	11.7	10.5	18.1	21.2	7.1	14.5	11.6	-	
B80	461185	452663	17.9	18.1	12.9	10.7	10.7	10.0	10.6	11.8	8.1	16.3	13.2	4.4	12.1	9.6	-	
B82	460974	452563	16.9	26.7	17.3	13.7	16.3	17.0	17.5	15.6	10.1	19.7	26.3	17.5	17.9	14.3	-	
B83	461285	452695	26.8	34.7	23.5	20.2	21.5	17.5	18.7	17.6	17.2	24.4	32.3	23.5	23.2	18.5	-	
B84	462654	451293	20.8	26.4	19.8	16.9	16.6	15.5	14.3	15.5	9.2	21.9	19.6	16.6	17.8	14.2	-	
B85	461227	451368	32.7	33.1	26.0	22.9	25.0	18.0	21.3		18.8	26.8	28.1	13.7	24.2	19.4	-	
B86	461116	452602	26.4	27.9	18.9	15.7	14.7	14.0	16.1	15.0	13.0	20.9	28.4	20.3	19.3	15.4	-	
B88	462799	451291		34.8	22.2	21.2	19.0	15.7	17.1	13.9	16.1	23.9	27.1	22	21.2	16.9	-	
B91	461142	451365	36.9	41.9	32.1	28.0	26.7	29.1	28.6	29.0	22.1	22.8	37	26.3	30.0	24.0	-	
B90	461133	451394	36.1	31.4	25.7	27.3	27.5	22.8	21.7	21.0	27.6	26.6	32.6	16	26.4	21.1	-	
C12	458825	449928	19.1	21.0	14.9	12.2	11.7		8.8	10.0	9.8	16.3	21.2		14.5	11.6	-	
C17	459085	450544	19.2	18.4	11.8	10.7	11.5	9.5		6.3	8.7	15.3	20.2	13.1	13.2	10.5	-	
C18	459204	450772	24.7	25.7	16.5	16.1	16.0	14.6	15.1	14.6	14.8	23.1	25	18.6	18.7	15.0	-	
C19	459271	450819	20.8	19.0	10.6	12.0	12.5	11.2	11.8	10.5	13.1	16.7	17.5	10.2	13.8	11.1	-	
C2	458333	448974	30.9	32.9	23.9	20.3	21.7	22.5	22.6	19.9	20.1	19.1	23.1	17.8	22.9	18.3	-	
C20	459280	450923	21.7	22.0	16.0	13.8	15.7	12.5	14.5	12.7	14.0	14.4	13.7	12.1	15.3	12.2	-	
C21	459410	451040	28.3	7.7	15.6	20.0	18.3	17.8	16.3	15.1	18.9	21.9	19.3	15.6	17.9	14.3	-	
C22	459570	451195	25.3	18.3	13.9	16.1	15.9	13.1	13.6	13.5		17.5	26.5	20.3	17.6	14.1	-	
C23	459553	451252		31.6	24.6	28.8	28.9	26.5	25.1	21.4	30.2	30.5	37.9	15.3	27.3	21.9	-	
C26	459639	451334	40.3	38.4	31.7	27.8	29.1	25.7	26.1	24.7	28.2	29.7	29.2	9.7	28.4	22.7	-	
C27	459717	451433	45.8	50.0	37.9	39.1	40.8	38.7	36.0	31.9		40.7	44.8	40	40.5	32.4	-	
C28	461201	448386	14.3	17.9	12.1	9.5	11.1	8.3	7.0	10.2	8.6	12.5	19.1		11.9	9.5	-	
C29	461196	448426	22.1	28.0	24.1	19.3	18.4	16.0	19.0	20.8	18.4	30	30	21.9	22.3	17.9	-	
C30	461185	448462	25.5	35.1	28.2	23.2	26.0	22.4	21.9	19.6	22.7	24.7	35.7	19	25.3	20.3	-	
C31	461193	448473	19.1	17.9	16.1	12.2	12.4	12.4	13.4	14.3	8.1	19.1	22.9	5.2	14.4	11.5	-	
C32	461128	448823	25.6	23.0	19.6	18.2	16.6		13.7	13.6	15.6		30	15.5	19.1	15.3	-	
C33	461085	448933	16.1	18.6	14.7	10.7	12.2	8.5	7.9	9.2	8.0	16.9	18.5	15.2	13.0	10.4	-	
C34	461085	449067	22.2	24.1	25.9	16.5	18.6	12.6	15.0	10.3	20.7	22.3	20.1	16.2	18.7	15.0	-	
C36	461052	449146	28.2	28.1	23.9	21.9	19.7	20.7	18.7	20.4	18.4	27.6	30	25.9	23.6	18.9	-	
C37	461045	449223	19.6	24.6	19.5	15.8	16.1	12.2	11.5	12.4	12.8	22.8	27		17.7	14.1	-	
C38	461038	449225	24.0	28.7	25.0	18.0	18.3	14.2	14.3	11.6	15.1	19.9	28.6	17.9	19.6	15.7	-	
C39	460974	449336	36.3	38.2	25.0	21.3	24.0	22.3	22.6	18.4	23.2	34.2	38.3	27.1	27.6	22.1	-	
C4	458470	449126	19.0	17.6	12.8	11.3	11.3	10.0	9.5	10.3	10.1	14.2	19.8	15.1	13.4	10.7	-	
C40	460910	449628	21.3	22.8	17.7	12.7	14.6	13.3	13.6	13.6	12.5	21.4	24.2	11.1	16.6	13.3	-	
C42	460857	449748	23.9	25.2	17.5	16.5	14.8	17.0	11.2	14.5	13.3	15.9	24	19.9	17.8	14.2	-	

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
C43	460869	449730	27.5	31.3	24.3	20.2	19.2	20.8	20.9	19.9	21.9	13.4	33.7	24.5	23.1	18.5	-	Part of triplicate set - see bottom of table for triplicate average
C43a	460869	449730	31.9	30.3	23.4	19.6	18.6		19.0	17.9	20.3	28	33	23.3	24.1	19.3	-	Part of triplicate set - see bottom of table for triplicate average
C44	460869	449730	31.6	16.5	26.0	22.0	21.7	20.8	17.0	16.2	20.1	27.3	32.7	27.4	23.3	18.6	-	Part of triplicate set - see bottom of table for triplicate average
C49	460860	450530		22.5	17.5	13.2	14.3	8.2	10.2	8.1	13.5	18.4	20.8	15.1	14.7	11.8	-	
C51	460871	450727		28.1	25.0	16.7	16.1	13.2	15.4	14.9	24.3	25.4	28.8	10.3	19.8	15.9	-	
C52	460853	450781	26.0	25.6	21.4	13.2	13.3	12.9	13.4	12.6	13.1	24.4	30.9	4.3	17.6	14.1	-	
C53	460766	450924			16.1								23.5		19.8	15.8	-	
C54	460762	451069	30.2	33.2	22.0	19.4	23.6	16.8	19.0	16.4	26.9	27.9	33.3	10.5	23.3	18.6	-	
C56	459484	451141		33.6	25.3	22.9	22.0	19.2	20.1	16.9		19.2	33.6	12.8	22.6	18.0	-	
C57	458912	450111	21.3	22.5	16.7	13.2	14.1	11.8	13.2	13.1	10.4	19.9	23.5	3.7	15.3	12.2	-	
C58	460926	449429	37.0	39.2	27.6	22.4	25.9	29.5	26.4	25.2	24.7	30.6	39.2	30.2	29.8	23.9	-	
C59	458735	449713	29.4	28.4	22.9	19.0	21.2	18.8	19.6	18.6	16.2	26.7	29.3	13.7	22.0	17.6	-	
C62	459579	451251		28.2	19.7	17.3	20.7	18.3	16.0	17.4	21.3	20.9	28.8	20.1	20.8	16.6	-	
C63	458790	449740	20.2	20.3	12.6	12.9	12.1	10.8	9.3	11.1	11.9	14.4	10.6	13.8	13.3	10.7	-	
C7	458611	449477	20.0	20.6	14.4	12.2	13.6	10.6	10.6	11.2	10.8	19.1	22.8		15.1	12.1	-	
D10	460443	451927	19.5	19.3	14.4	10.8	12.0	10.2	11.9		8.8	19.2	24	20.7	15.5	12.4	-	
D12	460567	451740	9.9	21.0	14.0	9.3	11.9		10.5	9.8	9.8	16.2	22.1	18.6	13.9	11.1	-	
D13	460271	451358	24.4	9.8	18.4	15.7	14.4	13.4	13.7	12.0	13.6	22.8	25.4	15.2	16.6	13.3	-	
D14	461077	451354	34.8	38.0	37.0	27.3	34.4	28.7	28.9	28.5	29.9	38.9	30.1	32.1	32.4	25.9	-	
D16	460708	451231	40.8	34.0	36.6	26.3	36.0	25.4	27.1	22.4	38.8	39	38	16.1	31.7	25.4	-	
D17	460575	451616	36.0	37.3	29.0	22.2		21.5	20.6	20.5	17.4	28.4	22.5	25.1	25.5	20.4	-	
D18	460395	451502	35.2			19.5	19.0	16.2	16.4	15.8		24.9	33.9	23.9	22.8	18.2	-	
D19	460038	451626	36.9	41.6	34.8	28.0	29.1	25.8	24.8	24.5	27.6	35.1	18.4	30.8	29.8	23.8	-	
D20	460323	451685	40.5	16.7	36.0	21.1	27.7	23.3	23.6	22.3	23.9	28.7	35.2	20.8	26.7	21.3	-	
D22	460035	452010		31.0	29.3	22.4	26.3	24.8	22.9	22.0	25.2	31.5	31.5		26.7	21.4	-	
D24	459805	451543	28.1	28.5	20.5	22.1	17.7	19.2	19.9	18.6	19.3	22.4	30	24.4	22.6	18.0	-	
D25	459693	451750	42.8	46.3	30.0	34.0	35.1	36.0	32.2	32.0	34.9	35.4	40.9	28.7	35.7	28.6	-	
D26	460671	451400	31.4	31.0	24.0	16.5	19.4	16.3		17.5	17.7	26.1	26	10.9	21.5	17.2	-	
D27	460734	451563	20.3	25.1	17.3	13.4	16.0	13.1	10.7	9.4	10.7	20.5	24.2	16.9	16.5	13.2	-	
D28	460764	451185	34.8	39.3	30.0	26.1		29.2	27.9	25.2	26.8	29.8	31.8	31	30.2	24.1	-	
D30	460834	451252	27.2	28.1	22.2	17.9		16.2	16.3	13.2	19.1	20.3	21.6	16	19.8	15.9	-	
D31	461002	451229		32.4	30.3	18.9	24.6	19.7	22.0	20.3	24.8	32.2	32.5	21.6	25.4	20.3	-	
D32	460258	451208	34.3	28.3	29.1	30.1	28.8	24.3		19.7	30.3	30.9	32.8	23.9	28.4	22.7	-	
D33	460075	451174	28.6	33.1	26.1	22.1	24.2	20.5	22.1	17.8	24.7	30.1	38.4	27.9	26.3	21.0	-	
D35	460134	451170	35.8	32.9	27.9	30.4			29.6	21.1	32.6	36	32.5		31.0	24.8	-	
D36	460135	450884	30.1	31.3	17.8	27.8	24.4	20.6	23.5	22.0	26.3	28.9	25.8	31.4	25.8	20.7	-	
D37	460157	450988	31.2	31.5	28.8	25.2	25.6	17.6	19.1		18.8	27.7	33.5	25.3	25.8	20.7	-	
D38	460088	450929	29.5		19.9	14.9	17.6	13.6	14.2	12.4	21.4	21.4	28.4		19.3	15.5	-	
D39	460185	451055	34.3	32.7	24.5	24.4	23.0	19.6	20.2	20.1	22.8		32.5	18.3	24.8	19.8	-	
D4	460560	452300	30.4	32.7	19.5	20.7	19.8	18.3	17.6	17.5	17.7	26.3	32.2		23.0	18.4	-	

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
D40	460069	451196	29.7	27.0	23.7	18.9	22.1	13.9	17.0	14.0	24.7	23	22.7	21	21.5	17.2	-	
D41	460286	452487	37.7	35.8	33.0	32.1	32.4	31.1	32.6	29.5	25.5	31.9	39	21.6	31.9	25.5	-	
D43	459920	451834	40.5	42.2	35.4	26.2	31.1	27.5	27.2	24.4	26.8	31.2	35.9		31.7	25.3	-	
D45	460673	451869	27.2	23.1	13.4	16.3	16.3	14.2	16.1	15.4	17.9	22.7	21.9	18.9	18.6	14.9	-	
D47	460682	452187		28.5	24.3	14.1	21.2	16.5	13.0	16.0	16.5	26.3	27.4		20.4	16.3	-	
D48	460103	452180	36.0	32.7	29.4	20.8	28.1	19.1	21.5	23.2	27.3	30.2	30.2	27.3	27.2	21.7	-	
D49	460656	451269	39.4	46.2	35.8	24.7	31.6	25.2	27.0	26.3	26.8	36.5	36.2	7.2	30.2	24.2	-	
D50	460371	451682	35.7	31.6	27.5		26.1	19.1	21.7	21.1	21.0	30.5	23.9		25.8	20.7	-	
D51	459640	451722	46.4	57.6	49.0	54.7	51.1	53.8	38.9	50.7		51.1	10.3	24.7	44.4	35.5	-	
D52	460887	451140	22.5	24.5	19.2	15.6		14.2	13.6	14.4	16.5	19.1	19.8	18	17.9	14.4	-	
D53	460115	451146		25.9	22.4	22.9	26.0	16.2	18.1	13.4	15.9	21.6	26.5	21.4	20.9	16.7	-	
D54	460146	451116		24.8	22.2	20.7	23.4	16.1	17.5	12.1	23.7	20.4	25.9	18.6	20.5	16.4	-	
D55	460087	452065	35.2	38.1	31.4	28.7	31.5	27.3		24.0	36.4	34.5	32.6	16.9	30.6	24.5	-	
D56	460400	451685	39.2	48.8	37.5	40.8	31.9	28.2	25.5	23.7	30.7	35.8	38	28.5	34.1	27.2	-	
D57	460416	451708		31.9	22.8	20.1	18.0	20.3	18.8	21.8	18.1	26.5	28.1	5.6	21.1	16.9	-	
D58	460435	451732	30.3	36.9	26.5	21.9	22.9	21.1	23.5		23.4	31.7	41.2	25.9	27.8	22.2	-	
D59	460087	452156	43.1	42.0	31.1	27.9	25.5	29.5	29.9	25.7	25.4	33.3	31.5	30.4	31.3	25.0	-	
D6	460570	452177	15.6	21.1	15.3	12.5	12.4	10.9	9.5	12.4	10.1	16.3	22.6	17.7	14.7	11.8	-	
D60	460294	451883	22.6	25.4	16.9	11.9	13.6	14.3	10.1	12.6	10.9		27.7	19.7	16.9	13.5	-	
D8	460553	451843	38.8	30.9	27.0	25.0	27.0	22.3	24.1	16.6	29.5	30.7	21.9	7.2	25.1	20.1	-	
D9	460483	452357	16.7	37.0	34.9	27.8	38.2	26.8	29.5	27.0	33.2	36.5	33.6	22.3	30.3	24.2	-	
8, 9, 9a	460163	452468	19.1	22.6	15.5	11.0	11.6	9.4	9.5	10.6	9.0	18.3	17.2	10.6	13.7	11.0	-	Triplicate Average for sites 8, 9 and 9a (Portland Street)
A13, A14, A14a	459335	452931	19.8	22.7	13.9	12.4	12.7	8.8	10.4	10.4	9.9	14.3	19.5	13.2	14.0	11.2	-	Triplicate Average for sites A13, A14 and A14a (Clifton Dale)
78, 79, 80	460149	452342	32.0	33.9	26.7	24.0	25.0	20.9	21.5	19.8	22.6	28.1	23.2	18.6	24.7	19.8	-	Triplicate Average for sites 78, 79 and 80 (Gillygate)
102, 103, 104	458703	452429	37.7	36.5	30.9	22.5	23.5	17.0	19.2	17.3	14.4	29.4	32.3		25.5	20.4	-	Triplicate Average for sites 102, 103 and 104 (Salisbury Terrace)
2a, 2b, 2c	460746	451034	26.4	29.5	22.2	17.4	21.3	16.2	16.6	15.3	21.5	26.7	31.8	20.5	22.1	17.7	-	Triplicate Average for sites 2a, 2b and 2c (Fishergate)
3a, 3b, 3c	460024	452767	17.5	20.3	13.2	10.1	9.7	9.1	8.6	10.3	6.7	15.3	18.3	6.7	12.1	9.7	-	Triplicate Average for sites 3a, 3b and 3c (Bootham)
95a, 95b, 95c	460938	449465	22.8	22.7	17.6	17.9	17.1	17.2	15.3	15.2	16.7	21.5	27.7	18.3	19.2	15.3	-	Triplicate Average for sites 95a, 95b and 95c (Fulford)
A19, A19a, A19b	458713	452414	32.3	32.6	26.2	18.4	20.0	16.8	18.0	16.3	13.3	26.8	28.8	19.8	22.4	18.0	-	Triplicate Average for sites A19, A19a and A19b (Salisbury Terrace)
A20, A20a, A20b	458760	452404	37.9	31.6	26.8	21.1	23.7	16.8	18.4	15.8	19.2	27.9	30.9	19.6	24.1	19.3	-	Triplicate Average for sites A20, A20a and A20b (Salisbury Terrace)
B36, B37, B37a	462565	454194	17.0	16.6	10.7	9.6	9.5	8.6	8.6	8.5	6.1	12.7	16.9	16.2	11.7	9.4	-	Triplicate Average for sites B36, B37 and B37a (Malton Road)
C43, C43a, C44	460869	449730	30.3	26.0	24.6	20.6	19.8	20.8	19.0	18.0	20.8	22.9	33.1	25.1	23.4	18.7	-	Triplicate Average for sites C43, C43a and C44 (Fulford Road)

☒ **All erroneous data has been removed from the NO_2 diffusion tube dataset presented in Table B.1.**

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

☒ **Local bias adjustment factor used.**

☐ **National bias adjustment factor used.**

☒ **Where applicable, data has been distance corrected for relevant exposure in the final column.**

☒ **City of York Council confirm that all 2024 diffusion tube data has been uploaded to the Diffusion Tube Data Entry System.**

Notes:

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

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

See Appendix C for details on bias adjustment and annualisation.

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

New or Changed Sources Identified Within York During 2024

CYC regularly reviews planning applications with respect to potential air quality and other environmental impacts. The main sources identified include road traffic emissions associated with new developments. Developments are required to assess their impacts on air quality where necessary in line with CYC's Low Emission Planning Guidance.

The table below provides an overview of planning applications (including discharge of condition applications) that have been considered in relation to air quality by CYC's Public Protection team during 2024. A formal air quality impact assessment has been requested for some of these applications.

The Annual Status Report provides an opportunity to keep a record of such applications to provide a picture of where changes in air quality may occur in the future. The information presented is also useful to identify where combined impacts of several developments may become important.

Comments on all planning applications processed by CYC are available by searching the planning reference number at Search Planning Applications received by City of York Council. The table below excludes pre-application advice provided by CYC.

Planning Reference	Description
AOD/23/00351	Condition 11 (EV Charging) of 22/00918/FUL. Haxby Hall, York Road, Haxby, York
24/00129/FULM	Erection of 114no. dwellings with access, open space, landscaping and sustainable drainage. Land To The South Of Sim Balk Lane, York
AOD/24/00049	Condition 14 (EV Charging) of 22/01315/FULM. 11 The Village, Wigginton York, YO32 2PL
23/00160/OUTM	Outline application with all matters reserved except for access for circa 800 dwellings, provision of open space including cemetery expansion, primary school, sports and recreational facilities, flood storage measures, landscaping and associated infrastructure (revised description). Land To

Planning Reference	Description
	The South Of Rose Cottage Farm And The Lodge, Moor Lane, Haxby, York
AOD/24/00118	Condition 6 (EV Charging) of 22/00707/FULM. York Manor Care Home, Bluebeck Drive, York, YO30 5RA
24/00851/FUL	Provision of an additional car parking area located to the south of the existing temporary car park on Bootham Park Court (retrospective). York District Hospital, Wigginton Road, York, YO31 8HE
24/00898/FUL	Installation of electric vehicle (EV) charging points with canopy and associated sub-station and LV enclosures, and single storey extension to fuel sales building. Morrisons Petrol Filling Station, Foss Islands Road, York, YO31 7UL
24/01077/FULM	Demolition of existing car showroom (sui generis) and erection of a purpose-built student accommodation (sui generis) with associated hard and soft landscaping and cycle and car parking. Turnbull Mazda 17 - 27 Layerthorpe, York, YO31 7UZ
24/01273/ERC	Change of use from Commercial, Business and Service (use class E) to 3no. Dwellinghouses (use class C3) under The Town and Country Planning (General Permitted Development) Order 2015 (as amended) - Schedule 2, Part 3, Class MA. G.M.B General Union, 75 Gillygate, York YO31 7EA
AOD/24/00256	Condition 19 (EV Charging) of 21/00305/OUTM. Huntington South Moor New Lane, Huntington, York
24/01617/ERC	Change of use from Commercial, Business and Service (use class E) to 2no. Flats (use class C3). G M B General Union, 75 Gillygate, York, YO31 7EA
24/01378/LBC	Internal and external alterations to facilitate change of use of offices (use class E) to purpose-built student accommodation, including extensions, rooflight, air vents and associated external works. 5 Main Street, Heslington, York, YO10 5EA

Planning Reference	Description
AOD/24/00282	Condition 13 (EV charging) of 22/00801/FUL. Beverley Court, Shipton Road, Clifton, York
AOD/24/00336	Condition 5 (EV charging) of 19/02193/LIC3. 1A Carey Street, York, YO10 4DN
24/01382/FULM	Residential development comprising of 64no. dwellings (Use Class C3) with new access off North Lane, landscaping, open space and associated infrastructure. Greengales, 11A North Lane, Wheldrake, York YO19 6AY
24/01918/FULM	Change of use of offices (use class E) to 32no. bed purpose-built student accommodation, installation of solar panels and mechanical plant to roof, and rooflights to front, rear and side roof slopes with associated cycle parking. Rougier House, 5 Rougier Street, York
24/01982/EIASN	Screening opinion in respect of proposed mixed-use development comprising purpose-built student accommodation (c 1450 beds) (sui generis use), co-living accommodation (circa 175 beds) (sui generis use) and commercial use (c 500sqm) (use class e); public open space and landscaping, following demolition of existing retail buildings. Sainsbury's, Foss Bank, York, YO31 7JB
24/02021/FULM	Erection of hotel comprising 140no. rooms including external terraces with associated car parking and vehicular drop off area, landscaping and highways works to existing access following demolition of existing building. Northern House, 1 - 9 Rougier Street, York
24/01946/FUL	Construction of a data centre facility and associated plant and enclosure. Better York Leisure Centre, Kathryn Avenue, Huntington, York, YO32 9AF
AOD/24/00370	Condition 21 (EV charging) of 21/01605/FULM. Mecca Bingo, 68 Fishergate, York

Additional Air Quality Works Undertaken by City of York Council During 2024

Additional work carried out in 2024 to support the development of AQAP measures includes:

- **Electric Vehicle (EV) Charging Infrastructure** – CYC progressed two workshops with the Energy Saving's Trust (EST) in 2024 as part of the development of our updated Public Charging Strategy, due in 2025. These sessions included a review of current options for on-street charging, for residents in terraced streets without off-street parking provision.
- **Smoke Control Areas** – we undertook further research in CYC's historical Smoke Control Orders, collating the required evidence base, and consulted with CYC Legal Services about potential expansion of CYC Smoke Control Area to cover the whole of CYC's administrative area. CYC's Executive Member for Environment and Climate Emergency approved a public consultation on this issue in March 2025.
- **Gillygate Air Quality Working Group** – A Gillygate Working Group, consisting of CYC officers / members, local residents and York Civic Trust (YCT) met at regular intervals throughout 2024 to consider specific air quality improvement measures on Gillygate in response to continued exceedances of health-based standards. The Gillygate gating trial (as discussed elsewhere in this Annual Status Report) was an initiative that resulted from the work of this group. A full evaluation will follow the trial, which commenced in January 2025 and will run for 12 months.
- **Fourth Air Quality Action Plan (AQAP4)** - We consulted on our updated, fourth Air Quality Action Plan (AQAP4) between November 2023 and February 2024. AQAP4 aims to reduce levels of air pollution in the city beyond health-based National Air Quality Objectives, thereby improving the health and quality of life of residents and visitors to York. Over three quarters (79%) of respondents agreed that the council should continue to reduce air pollution, with between 67% and 87% of respondents indicated support for all priority actions. AQAP4 was adopted by CYC's Executive in July 2024. Updates on progress with measures in AQAP4 are provided in this report.

QA/QC of Diffusion Tube Monitoring

Diffusion tubes used by CYC in 2024 were supplied and analysed by SOCOTEC (Didcot), Unit 12 Moorbrook, Southmead Industrial Park, Didcot, Oxfordshire, OX11 7HP. The preparation method used for the diffusion tubes was 50% TEA in Acetone.

Diffusion tube monitoring was completed in line with the 2024 Diffusion Tube Monitoring Calendar as available on DEFRA's LAQM webpage.

AIR is an independent analytical proficiency-testing (PT) scheme, operated by LGC Standards and supported by the Health and Safety Laboratory (HSL). AIR PT is a new scheme, started in April 2014, which combines two long running PT schemes: LGC Standards STACKS PT scheme and HSL WASP PT scheme. AIR offers a number of test samples designed to test the proficiency of laboratories undertaking analysis of chemical pollutants in ambient indoor, stack and workplace air. For the 2024 period, the percentage of results submitted by SOCTEC that were deemed to be satisfactory was 100% for all rounds reported at the time of writing (rounds AR062 [Jan – Feb 2024] and AR063 [Apr – June 2024]). Further information about this scheme is available on the DEFRA webpage.

Diffusion Tube Annualisation

Annualisation is required for any diffusion tube monitoring site with data capture less than 75% but greater than 25%. The process of annualisation scales the available monitoring data to provide an estimate of the annual mean nitrogen dioxide concentration. This can then be compared with health-based Air Quality Objectives.

CYC undertook background diffusion tube monitoring of nitrogen dioxide at a number of background locations during 2024. Of these sites, 40 diffusion tubes had 12 months data available and have been used to derive the period to annual ratios required for the annualisation. This methodology has previously been agreed with the LAQM Helpdesk and is in line with the methodology used in all CYC's previous Annual Status Reports. The following steps were used:

- **Step 1** - Calculate the period mean for the diffusion tube sample requiring annualisation
- **Step 2** - Calculate the corresponding period means and annual means for each of the 40 background diffusion tube locations. Use these two figures to calculate the period mean to annual mean ratio for each of the 40 background diffusion tube sites.

- **Step 3** – Calculate the average ratio across the 40 background monitoring sites (i.e. n = 40)
- **Step 4** – Use the ratio in Step 3 to adjust the period mean (Step 1) to provide an estimate of the annual diffusion tube mean (non-bias adjusted)
- **Step 5** – Bias correct the value calculated in step 4 using the appropriate bias correction factor.

Four diffusion tube sites required annualisation, namely A36, A54, A56 and B72. Site C53 had only two months of data available and therefore was not suitable for annualisation as data capture was only 16.7%. The calculations and annualisation factors are provided in Table C.1. All annualised diffusion tube results are below the annual mean objective for nitrogen dioxide.

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

Site ID	Average Annualisation Factor	Raw Data Annual Mean	Annualised Annual Mean	Bias Corrected Annualised Annual Mean (µg/m^3)
A36	0.956	14.1	13.5	10.8
A54	1.135	28.7	32.6	26.0
A56	0.972	22.2	21.5	17.2
B72	0.956	36.7	35.1	28.1

Diffusion Tube Bias Adjustment Factors

The diffusion tube data presented within the 2024 ASR have been corrected for bias using an adjustment factor. Bias represents the overall tendency of the diffusion tubes to under or over-read relative to the reference chemiluminescence analyser. LAQM.TG22 provides guidance regarding 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.

City of York Council have applied a local bias adjustment factor of 0.80 to the 2024 monitoring data. A summary of bias adjustment factors used by City of York Council over the past five years is presented in Table C.2.

AEA's Precision and Accuracy spreadsheet has been used to consider co-location studies at 3 York roadside locations (Fishergate, Gillygate and Fulford Road) and one York urban-background location (Bootham). Whilst in previous years, separate local bias adjustment factors have been calculated for diffusion tubes located at roadside and urban background locations respectively, due to the similarity of these factors over the last 3 years (within approximately 1%) a single combined factor has been used for the 2024 data. This is also the approach used when local authorities rely on a national bias adjustment factor.

Data capture and tube precision for 2024 was shown to be 'good' at all 3 roadside sites but precision was 'poor' at the Bootham urban background site. The resultant combined/average bias factor across the 4 sites (following methodology in TG22 para 7.222) was 0.80. Use of a single local bias factor based on 4 local colocation studies has to some extent mitigated the impact of the poor precision observed Bootham. It should be noted that had the Bootham site bias factor been excluded and only the three roadside sites been used in the calculation, the resultant combined/average bias factor using 3 sites would also have been 0.8. A factor of 0.8 has been used to correct diffusion tube results in 2024. The methodology used to derive the combined factor was:

- **Step 1** - Average of Bias Factor B's = (20+32+22+23)/4= 24.25
- **Step 2** - Express as a factor = 0.2425
- **Step 3** - Add 1 to this value = 0.2425 + 1 = 1.2425
- **Step 4** - Take the inverse to give the bias adjustment factor = 1/1.2425 = 0.80

Screenshots of the Precision and Accuracy spreadsheets are provided below for all colocation studies.

Colocation at Fishergate

Checking Precision and Accuracy of Triplicate Tubes

AEA Energy & Environment
From the AEA group

Diffusion Tubes Measurements										Automatic Method		Data Quality Check	
Period	Start Date dd/mm/yyyy	End Date dd/mm/yyyy	Tube 1 μgm^{-3}	Tube 2 μgm^{-3}	Tube 3 μgm^{-3}	Triplicate Mean	Standard Deviation	Coefficient of Variation (CV)	95% CI of mean	Period Mean	Data Capture (% DC)	Tubes Precision Check	Automatic Monitor Data
1	03/01/2024	29/01/2024	22.8	28.3	28.1	26	3.1	12	7.7	23.8	99.4	Good	Good
2	29/01/2024	05/03/2024	29.1	28.8	30.7	30	1.0	3	2.5	22.6	96.6	Good	Good
3	05/03/2024	02/04/2024	19.9	23.1	23.7	22	2.0	9	5.1	17.3	99.9	Good	Good
4	02/04/2024	30/04/2024	18.7	18.2	15.4	17	1.8	10	4.4	13.9	99.7	Good	Good
5	30/04/2024	04/06/2024	20.7	20.7	22.6	21	1.1	5	2.7	14.4	99.6	Good	Good
6	04/06/2024	02/07/2024	16.3	16.4	15.9	16	0.3	2	0.7	11.8	99.7	Good	Good
7	02/07/2024	01/08/2024	16.5	16.5	16.8	17	0.2	1	0.4	11.8	95.6	Good	Good
8	01/08/2024	02/09/2024	15.5	14.6	15.9	15	0.7	4	1.7	11.5	99.7	Good	Good
9	02/09/2024	01/10/2024	19.0	23.5	22.1	22	2.3	11	5.7	19.2	99.7	Good	Good
10	01/10/2024	04/11/2024	24.9	27.6	27.6	27	1.6	6	3.9	23.2	99.6	Good	Good
11	04/11/2024	03/12/2024	31.8	31.7		32	0.1	0	0.6	29.8	99.4	Good	Good
12	03/12/2024	06/01/2025	23.3	21.7	16.6	21	3.5	17	8.7	21.2	99.8	Good	Good
13													

It is necessary to have results for at least two tubes in order to calculate the precision of the measurements

Overall survey --> Good precision | Good Overall DC

(Check average CV & DC from Accuracy calculations)

Site Name/ ID: Fishergate

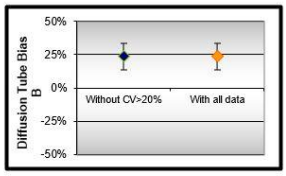
Precision: 12 out of 12 periods have a CV smaller than 20%

Accuracy (with 95% confidence interval) without periods with CV larger than 20%

Bias calculated using 12 periods of data
Bias factor A: 0.83 (0.77 - 0.91)
Bias B: 20% (10% - 30%)
Diffusion Tubes Mean: 22 μgm^{-3}
Mean CV (Precision): 7
Automatic Mean: 18 μgm^{-3}
Data Capture for periods used: 99%
Adjusted Tubes Mean: 18 (17 - 20) μgm^{-3}

Accuracy (with 95% confidence interval) WITH ALL DATA

Bias calculated using 12 periods of data
Bias factor A: 0.83 (0.77 - 0.91)
Bias B: 20% (10% - 30%)
Diffusion Tubes Mean: 22 μgm^{-3}
Mean CV (Precision): 7
Automatic Mean: 18 μgm^{-3}
Data Capture for periods used: 99%
Adjusted Tubes Mean: 18 (17 - 20) μgm^{-3}



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Version 04 - February 2011

Colocation at Gillygate

Checking Precision and Accuracy of Triplicate Tubes

AEA Energy & Environment
From the AEA group

Diffusion Tubes Measurements										Automatic Method		Data Quality Check	
Period	Start Date dd/mm/yyyy	End Date dd/mm/yyyy	Tube 1 μgm^{-3}	Tube 2 μgm^{-3}	Tube 3 μgm^{-3}	Triplicate Mean	Standard Deviation	Coefficient of Variation (CV)	95% CI of mean	Period Mean	Data Capture (% DC)	Tubes Precision Check	Automatic Monitor Data
1	02/01/2024	30/01/2024	30.2	33.3	32.6	32	1.6	5	4.0	28.1	97.8	Good	Good
2	30/01/2024	04/03/2024	32.3	34.4	35.0	34	1.4	4	3.5	25.5	95.0	Good	Good
3	04/03/2024	03/04/2024	26.2	29.4	24.6	27	2.4	9	6.1	20.1	99.4	Good	Good
4	03/04/2024	29/04/2024	24.8	23.5	23.6	24	0.7	3	1.8	16.3	99.4	Good	Good
5	29/04/2024	03/06/2024	24.6	25.4	25.0	25	0.4	2	1.0	16.9	99.5	Good	Good
6	03/06/2024	01/07/2024	21.0	20.3	21.3	21	0.5	2	1.3	13.8	99.4	Good	Good
7	01/07/2024	31/07/2024	22.1	21.1	21.3	22	0.5	2	1.3	13.9	92.3	Good	Good
8	31/07/2024	04/09/2024	19.6	19.5	20.4	20	0.5	2	1.2	14.8	95.1	Good	Good
9	04/09/2024	30/09/2024	19.1	24.3	24.3	23	3.0	13	7.5	19.3	95.0	Good	Good
10	30/09/2024	06/11/2024	26.9	26.9	30.6	28	2.1	8	5.3	23.8	98.7	Good	Good
11	06/11/2024	02/12/2024	9.6	29.7	30.3	23	11.8	51	29.3	24.9	99.5	Poor Precision	Good
12	02/12/2024	08/01/2025	22.9	10.8	22.2	19	6.8	36	16.9	20.1	97.5	Poor Precision	Good
13													

It is necessary to have results for at least two tubes in order to calculate the precision of the measurements

Overall survey --> Good precision | Good Overall DC

(Check average CV & DC from Accuracy calculations)

Site Name/ ID: Gillygate

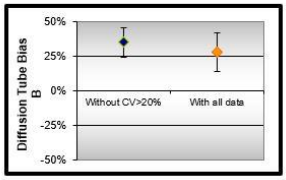
Precision: 10 out of 12 periods have a CV smaller than 20%

Accuracy (with 95% confidence interval) without periods with CV larger than 20%

Bias calculated using 10 periods of data
Bias factor A: 0.76 (0.7 - 0.82)
Bias B: 32% (22% - 43%)
Diffusion Tubes Mean: 25 μgm^{-3}
Mean CV (Precision): 5
Automatic Mean: 19 μgm^{-3}
Data Capture for periods used: 97%
Adjusted Tubes Mean: 19 (18 - 21) μgm^{-3}

Accuracy (with 95% confidence interval) WITH ALL DATA

Bias calculated using 12 periods of data
Bias factor A: 0.8 (0.72 - 0.9)
Bias B: 25% (11% - 39%)
Diffusion Tubes Mean: 25 μgm^{-3}
Mean CV (Precision): 12 caution
Automatic Mean: 20 μgm^{-3}
Data Capture for periods used: 97%
Adjusted Tubes Mean: 20 (18 - 22) μgm^{-3}



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Colocation at Fulford Road

Checking Precision and Accuracy of Triplicate Tubes

AEA Energy & Environment
From the AEA group

Diffusion Tubes Measurements

Period	Start Date dd/mm/yyyy	End Date dd/mm/yyyy	Tube 1 μgm^{-3}	Tube 2 μgm^{-3}	Tube 3 μgm^{-3}	Triplicate Mean	Standard Deviation	Coefficient of Variation (CV)	95% CI of mean
1	03/01/2024	29/01/2024	21.5	22.6	24.2	23	1.4	6	3.4
2	29/01/2024	05/03/2024	24.4	20.9	22.8	23	1.8	8	4.4
3	05/03/2024	02/04/2024	18.1	16.3	18.3	18	1.1	6	2.7
4	02/04/2024	30/04/2024	17.3	17.7	18.7	18	0.7	4	1.8
5	30/04/2024	04/06/2024	16.7	17.6	17.1	17	0.5	3	1.1
6	04/06/2024	02/07/2024	16.7	17.5	17.4	17	0.4	3	1.1
7	02/07/2024	01/08/2024	15.0	16.5	14.4	15	1.1	7	2.7
8	01/08/2024	02/09/2024	15.7		14.7	15	0.7	5	6.4
9	02/09/2024	01/10/2024	18.0	17.2	14.9	17	1.6	10	4.0
10	01/10/2024	04/11/2024	22.0	21.0	21.5	22	0.5	2	1.2
11	04/11/2024	03/12/2024	28.1	28.6	26.3	28	1.2	4	3.0
12	03/12/2024	06/01/2025		18.3					
13									

It is necessary to have results for at least two tubes in order to calculate the precision of the measurements

Automatic Method		Data Quality Check	
Period Mean	Data Capture (% DC)	Tubes Precision Check	Automatic Monitor Data
20.2	99.2	Good	Good
18.1	75.5	Good	Good
	0.0	Good	or Data Capture
	0.0	Good	or Data Capture
11.6	57.3	Good	or Data Capture
10.5	99.1	Good	Good
13.0	97.6	Good	Good
11.8	99.7	Good	Good
15.4	99.7	Good	Good
17.3	99.8	Good	Good
23.6	99.7	Good	Good
16.5	99.6		Good
Overall survey -->		Good precision	Good Overall DC

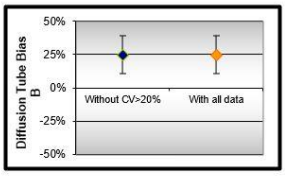
(Check average CV & DC from Accuracy calculations)

Site Name/ ID: Fulford Road

Precision: 11 out of 11 periods have a CV smaller than 20%

Accuracy (with 95% confidence interval) without periods with CV larger than 20%
Bias calculated using 8 periods of data
Bias factor A: 0.82 (0.73 - 0.92)
Bias B: 22% (8% - 37%)
Diffusion Tubes Mean: 20 μgm^{-3}
Mean CV (Precision): 6
Automatic Mean: 16 μgm^{-3}
Data Capture for periods used: 96%
Adjusted Tubes Mean: 16 (15 - 18) μgm^{-3}

Accuracy (with 95% confidence interval) WITH ALL DATA
Bias calculated using 8 periods of data
Bias factor A: 0.82 (0.73 - 0.92)
Bias B: 22% (8% - 37%)
Diffusion Tubes Mean: 20 μgm^{-3}
Mean CV (Precision): 6
Automatic Mean: 16 μgm^{-3}
Data Capture for periods used: 96%
Adjusted Tubes Mean: 16 (15 - 18) μgm^{-3}



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Colocation at Bootham

Checking Precision and Accuracy of Triplicate Tubes

AEA Energy & Environment
From the AEA group

Diffusion Tubes Measurements

Period	Start Date dd/mm/yyyy	End Date dd/mm/yyyy	Tube 1 μgm^{-3}	Tube 2 μgm^{-3}	Tube 3 μgm^{-3}	Triplicate Mean	Standard Deviation	Coefficient of Variation (CV)	95% CI of mean
1	04/01/2024	01/02/2024	21.6	16.3	14.5	17	3.7	21	9.2
2	01/02/2024	07/03/2024	20.3	21.4	19.1	20	1.2	6	2.9
3	07/03/2024	04/04/2024	11.7	14.3	13.5	13	1.3	10	3.3
4	04/04/2024	02/05/2024	9.9	10.5	9.8	10	0.4	4	0.9
5	02/05/2024	05/06/2024	9.4	10.1	9.5	10	0.4	4	0.9
6	05/06/2024	03/07/2024	9.0	9.0	9.3	9	0.2	2	0.4
7	03/07/2024	02/08/2024			8.6				
8	02/08/2024	05/09/2024	10.6	8.7	11.7	10	1.5	15	3.8
9	05/09/2024	02/10/2024	8.5	5.3	6.4	7	1.6	24	4.0
10	02/10/2024	05/11/2024	12.0	17.3	16.7	15	2.9	19	7.2
11	05/11/2024	04/12/2024	23.3	23.7	8.0	18	9.0	49	22.2
12	04/12/2024	07/01/2025		8.1	5.3	7	2.0	30	17.8
13									

It is necessary to have results for at least two tubes in order to calculate the precision of the measurements

Automatic Method		Data Quality Check	
Period Mean	Data Capture (% DC)	Tubes Precision Check	Automatic Monitor Data
15.9	99.6	Poor Precision	Good
16.5	96.9	Good	Good
9.8	99.6	Good	Good
7.6	99.4	Good	Good
7.5	99.8	Good	Good
7.1	99.6	Good	Good
7.3	96.2		Good
8.3	99.8	Good	Good
9.3	100.0	Poor Precision	Good
14.5	99.8	Good	Good
20.5	95.4	Poor Precision	Good
13.2	99.9	Poor Precision	Good
Overall survey -->		Poor precision	Good Overall DC

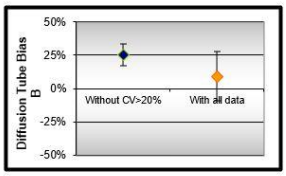
(Check average CV & DC from Accuracy calculations)

Site Name/ ID: Bootham

Precision: 7 out of 11 periods have a CV smaller than 20%

Accuracy (with 95% confidence interval) without periods with CV larger than 20%
Bias calculated using 7 periods of data
Bias factor A: 0.81 (0.76 - 0.87)
Bias B: 23% (15% - 31%)
Diffusion Tubes Mean: 13 μgm^{-3}
Mean CV (Precision): 8
Automatic Mean: 10 μgm^{-3}
Data Capture for periods used: 99%
Adjusted Tubes Mean: 10 (10 - 11) μgm^{-3}

Accuracy (with 95% confidence interval) WITH ALL DATA
Bias calculated using 11 periods of data
Bias factor A: 0.95 (0.81 - 1.15)
Bias B: 5% (-13% - 24%)
Diffusion Tubes Mean: 12 μgm^{-3}
Mean CV (Precision): 17 caution
Automatic Mean: 12 μgm^{-3}
Data Capture for periods used: 99%
Adjusted Tubes Mean: 12 (10 - 14) μgm^{-3}



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Comparison with national bias adjustment factor

The overall 2024 bias correction factor from the national diffusion tube bias adjustment factor spreadsheet (version 03/25) for SOCOTEC Didcot [preparation method 50% TEA in acetone] from 33 studies was 0.80 *(note: this was updated to 0.78 in version 04/25 of the spreadsheet).* This is the suggested figure to use for all site types in the absence of any local colocation data. Historically, locally derived bias correction factors have always been used for the correction of CYC's diffusion tube data; although in 2024 this would not have significantly affected the results as the locally derived bias correction factor was comparable to the national figure. The local bias factor for 2024 is also very similar to the local bias factors calculated in previous years and reported in historical Annual Status Reports, shown in Table C.2.

Table C.2 – Bias Adjustment Factor

Monitoring Year	Local or National	If National, Version of National Spreadsheet	Adjustment Factor
2024	Local	-	All tubes 0.80
2023	Local	-	Background tubes 0.78 Roadside tubes 0.77
2022	Local	-	Background tubes 0.73 Roadside tubes 0.73
2021	Local	-	Background tubes 0.72 Roadside tubes 0.75
2020	Local	-	Background tubes 0.68 Roadside tubes 0.74

Table C.3 – Local Bias Adjustment Calculation

	Local Bias Adjustment Input 1 – Bootham (Urban Background)	Local Bias Adjustment Input 2 – Fishergate (Roadside)	Local Bias Adjustment Input 3 – Gillygate (Roadside)	Local Bias Adjustment Input 4 – Fulford Rd (Roadside)
Periods used to calculate bias	7	12	10	8
Bias Factor A	0.81 (0.76 - 0.87)	0.83 (0.77 – 0.91)	0.76 (0.70 – 0.82)	0.82 (0.73 – 0.92)
Bias Factor B	23% (15% - 31%)	20% (10% - 30%)	32% (22% - 43%)	22% (8% - 37%)
Diffusion Tube Mean (µg/m^3)	13	22	25	20

	Local Bias Adjustment Input 1 – Bootham (Urban Background)	Local Bias Adjustment Input 2 – Fishergate (Roadside)	Local Bias Adjustment Input 3 – Gillygate (Roadside)	Local Bias Adjustment Input 4 – Fulford Rd (Roadside)
Mean CV (Precision)	8	7	5	6
Automatic Mean (µg/m^3)	10	18	19	16
Data Capture	99%	99%	97%	96%
Adjusted Tube Mean (µg/m^3)	10 (10 – 11)	18 (17 – 20)	19 (18 – 21)	16 (15 – 18)

Notes:

A combined local bias adjustment factor of 0.80 has been used to bias adjust the 2024 diffusion tube results.

NO_2 Fall-off with Distance from the Road

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

However, no diffusion tube NO_2 monitoring locations within York required distance correction during 2024.

QA/QC of Automatic Monitoring

To ensure that the air quality data collected by CYC fully complies with the requirements of the Review and Assessment process, a comprehensive set of QA/QC procedures are in place. The aims of the QA/QC programme were fully detailed in 'Technical Annex 2: Air Pollution Monitoring in York' which was submitted with the Second and Third Stage Review and Assessment of Air Quality in York.

All roadside automatic monitoring sites are calibrated fortnightly by CYC's Public Protection Team. The Bootham urban background monitoring site is calibrated 4-weekly in line with AURN requirements. Sites are serviced by the equipment suppliers every 6 months and independently audited every 12 months. The annual audit also provides an independent check of site cylinder concentrations against reference standards. The latest round of station audits was carried out in January 2025 by Ricardo-AEA.

CYC's continuous monitoring sites are currently serviced and maintained by 'Matt's Monitors'. Data management is currently undertaken by Ricardo-AEA with all results being published to the Air Quality England website. This website displays live and historical data for all automatic monitoring sites in York. All data presented in this ASR is fully ratified, including all data used for annualisation of Holgate Road $PM_{2.5}$.

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

For Plantation Drive TEOM (PM_{10}) data in 2024 a correction factor of 1.3 has been applied (INDIC.GRAV) due to lack of nearby TEOM-FDMS data for VCM correction.

Gillygate and Holgate Road $PM_{2.5}$ data was collected throughout 2024 as TEOM-FDMS. No correction has been undertaken as this is equivalent to the reference method.

No correction factors have been applied to the BAM data presented in this report (Bootham and Fishergate) as this is this monitoring method also provides reference method equivalent data.

Automatic Monitoring Annualisation

Table C.4 – Automatic $PM_{2.5}$ Annualisation Summary (concentrations presented in $\mu g/m^3$)

Background Site	Annual Data Capture (%)	Annual Mean (A_m)	Holgate Road	
			Period Mean (P_m)	Ratio (A_m / P_m)
York Bootham (AURN)	96.5	7.7	8.4	0.917
High Muffles (AURN)	96.8	4.7	5.0	0.927
Leeds Centre (AURN)	94.4	7.7	8.6	0.891
Average (R_a)			0.911	
Raw Data Annual Mean (M)			8.4	
Annualised Annual Mean (M x R_a)			7.6	

NO_2 Fall-off with Distance from the Road

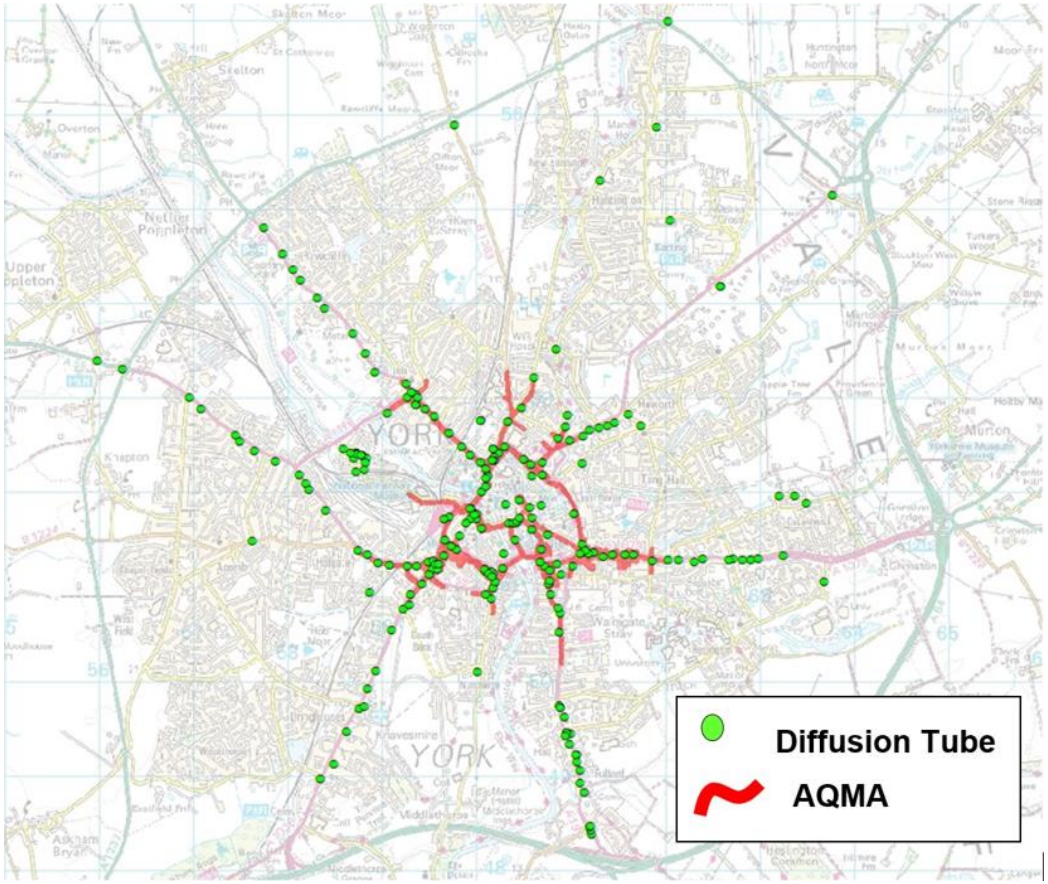
Wherever possible, monitoring locations are representative of exposure. However, where this is not possible, the NO_2 concentration at the nearest location relevant for exposure has been estimated using the NO_2 fall-off with distance calculator available on the LAQM

Support website. Where appropriate, automatic annual mean NO_2 concentrations corrected for distance are presented in Table A.3. However, no automatic NO_2 monitoring locations within CYC's area required distance correction during 2024.

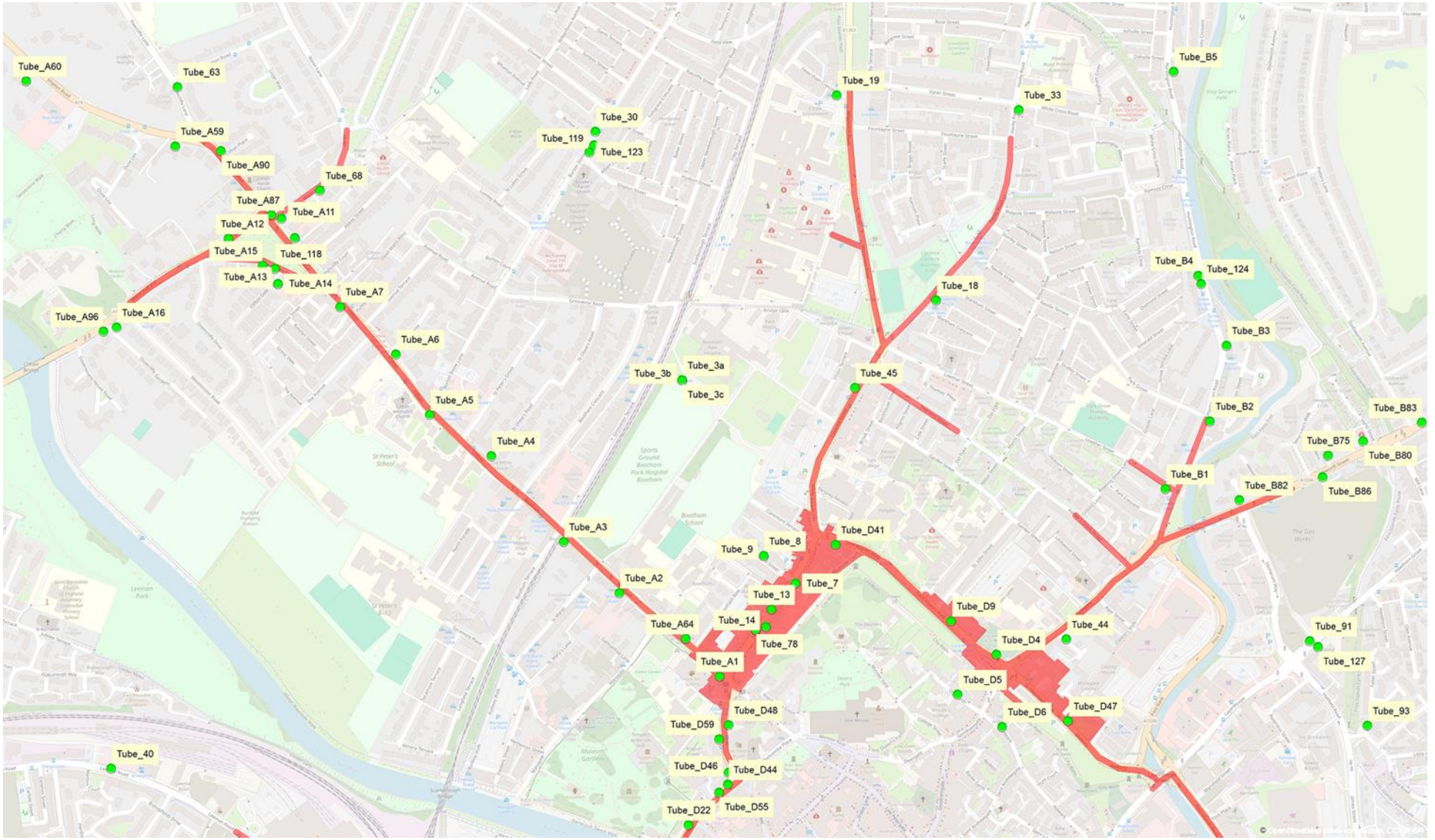
Appendix D: Map(s) of Monitoring Locations and AQMAs

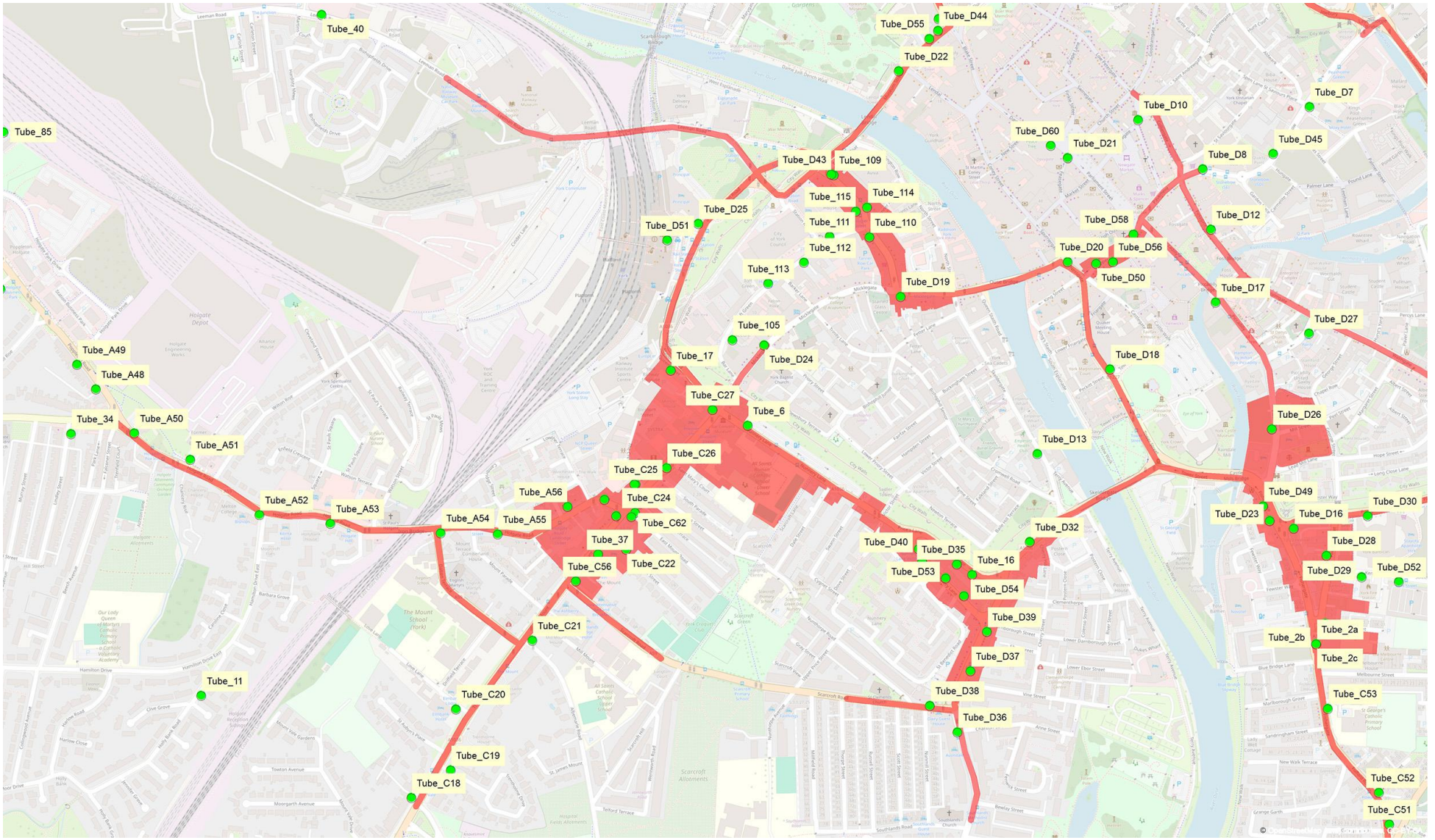
Figure D.1 – Map of Non-Automatic Monitoring Site

Due to the number of tubes operated by City of York Council, an interactive diffusion tube map showing tube reference numbers has been made available online to accompany the 2025 ASR. View interactive diffusion tube map here. Expanded views showing diffusion tube locations across all areas of the AQMA are shown on the following pages.



Expanded views of diffusion tube locations in relation to the AQMA boundary:




Tube_40
Tube_85
Tube_55
Tube_44
Tube_22
Tube_D7
Tube_D10
Tube_D60
Tube_D21
Tube_D45
Tube_D8
Tube_43
Tube_109
Tube_115
Tube_114
Tube_D25
Tube_D12
Tube_D51
Tube_111
Tube_110
Tube_D58
Tube_112
Tube_D20
Tube_D56
Tube_113
Tube_D50
Tube_D19
Tube_D17
Tube_105
Tube_D27
Tube_A49
Tube_17
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Tube_D18
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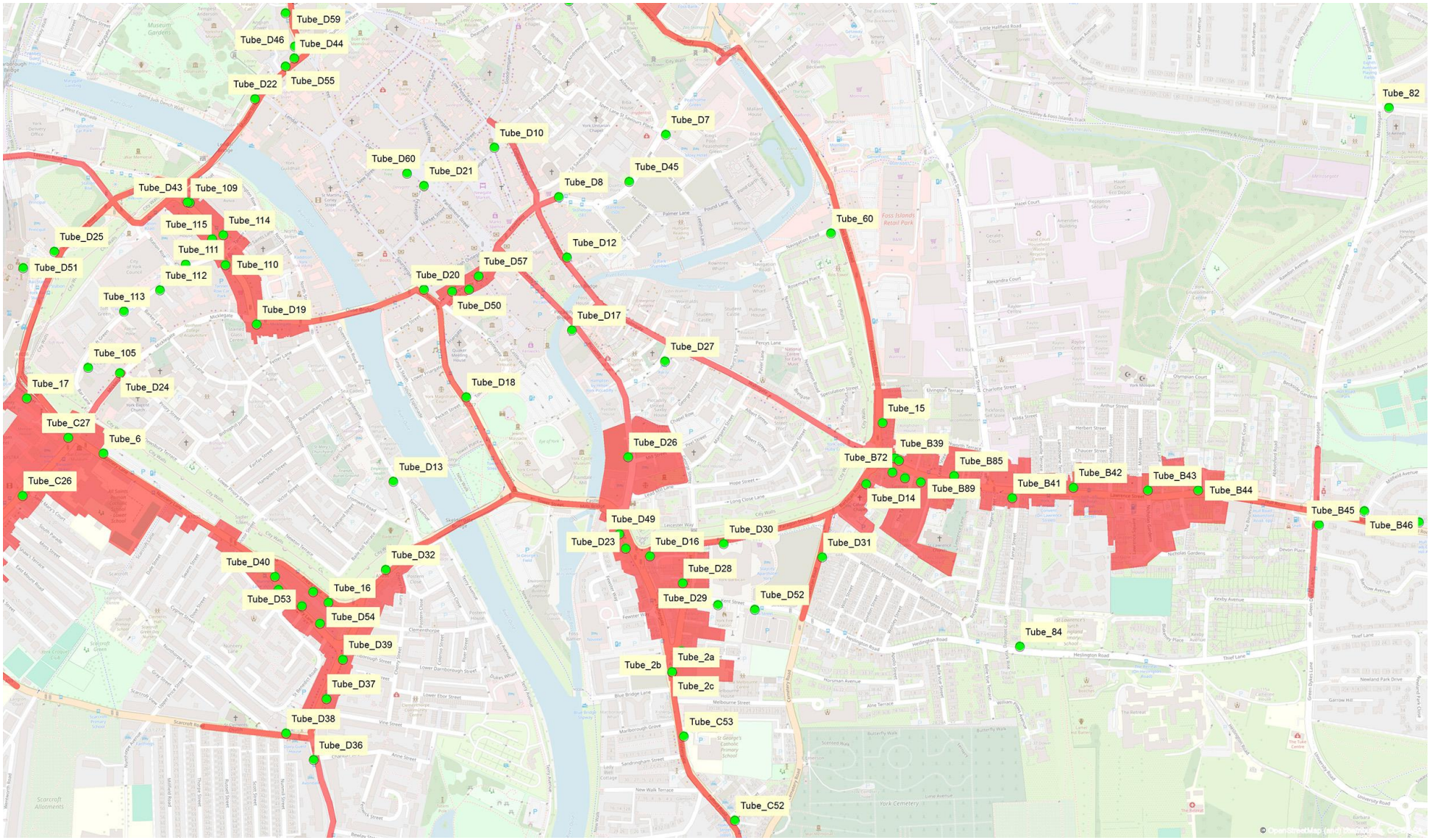
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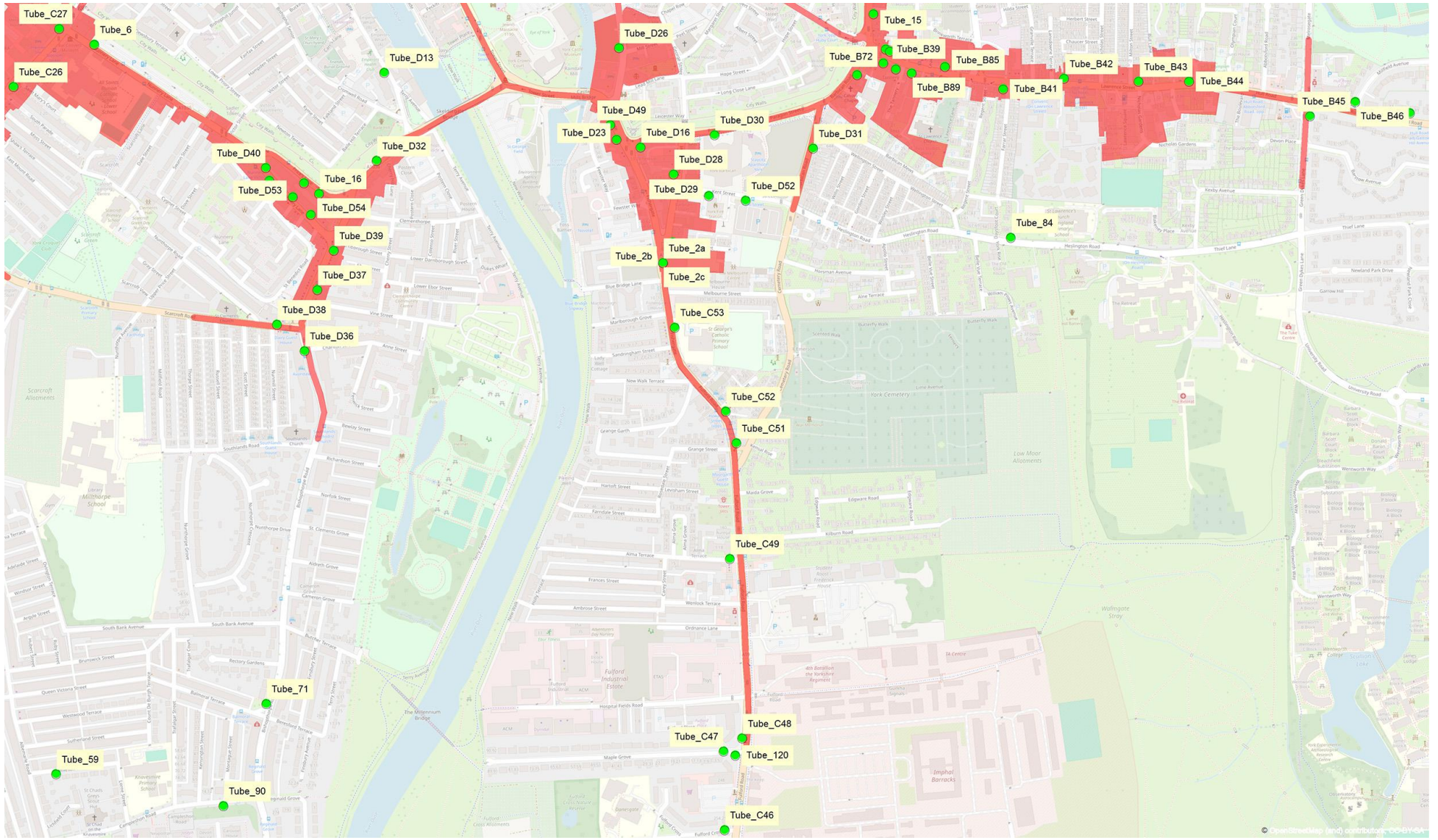
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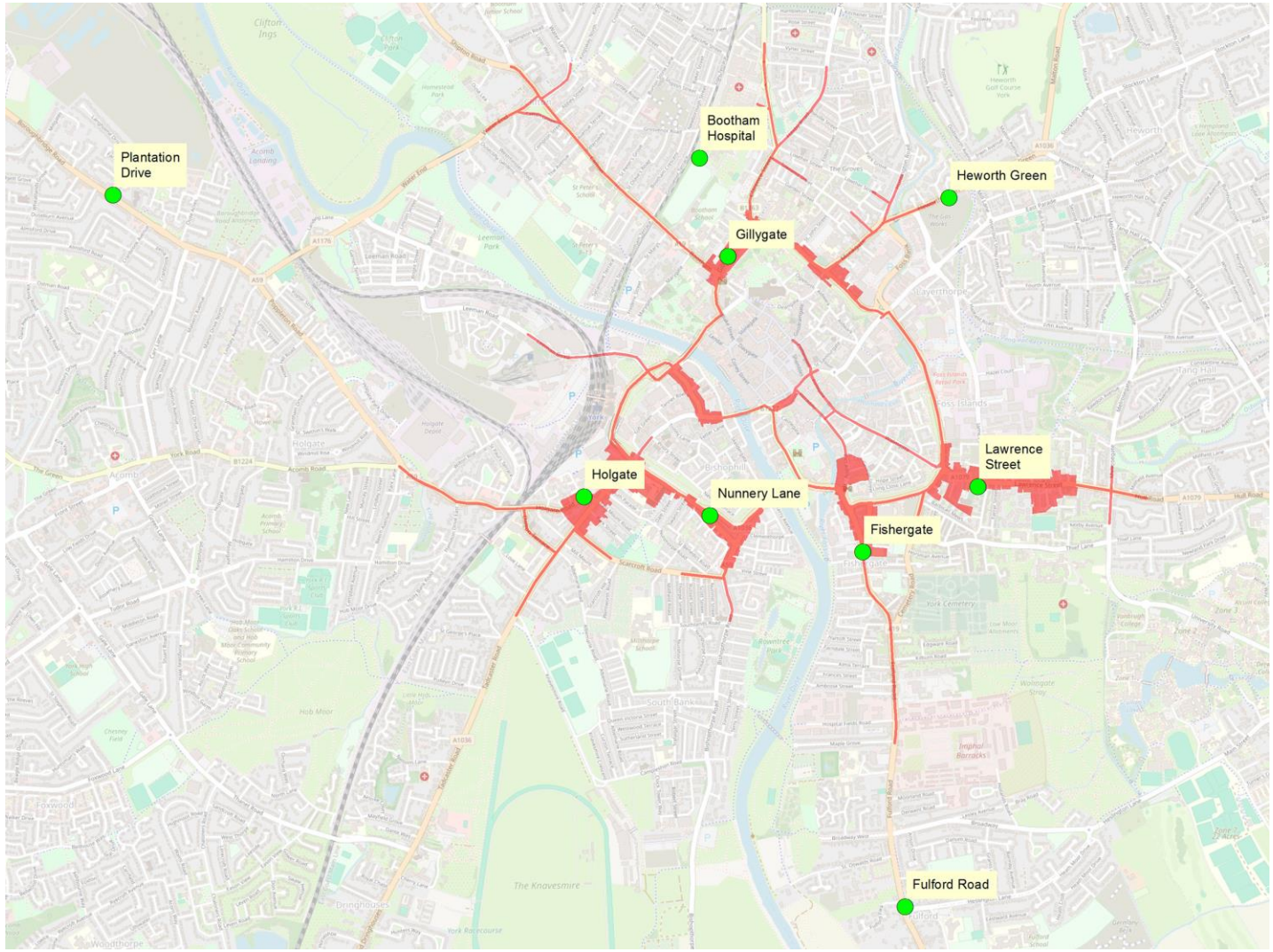
Figure D.2 - Map of Automatic Monitoring Sites in relation to AQMA

Air Quality Management Area (AQMA) shown in red. Precise locations of automatic monitors are shown online at the Air Quality England website.



Appendix E: Summary of Air Quality Objectives in England

Table E.1 – Air Quality Objectives in England[2]

Pollutant	Air Quality Objective: Concentration	Air Quality Objective: Measured as
Nitrogen Dioxide (NO_2)	200µg/m^3 not to be exceeded more than 18 times a year	1-hour mean
Nitrogen Dioxide (NO_2)	40µg/m^3	Annual mean
Particulate Matter (PM_{10})	50µg/m^3, not to be exceeded more than 35 times a year	24-hour mean
Particulate Matter (PM_{10})	40µg/m^3	Annual mean
Sulphur Dioxide (SO_2)	350µg/m^3, not to be exceeded more than 24 times a year	1-hour mean
Sulphur Dioxide (SO_2)	125µg/m^3, not to be exceeded more than 3 times a year	24-hour mean
Sulphur Dioxide (SO_2)	266µg/m^3, not to be exceeded more than 35 times a year	15-minute mean

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

Glossary of Terms

Abbreviation	Description
AQAP	Air Quality Action Plan - A detailed description of measures, outcomes, achievement dates and implementation methods, showing how the local authority intends to achieve air quality limit values'
AQMA	Air Quality Management Area – An area where air pollutant concentrations exceed / are likely to exceed the relevant air quality objectives. AQMAs are declared for specific pollutants and objectives
ASR	Annual Status Report
Defra	Department for Environment, Food and Rural Affairs
DMRB	Design Manual for Roads and Bridges – Air quality screening tool produced by National Highways
LAQM	Local Air Quality Management
NO_2	Nitrogen Dioxide
NO_x	Nitrogen Oxides
PM_{10}	Airborne particulate matter with an aerodynamic diameter of 10µm or less
$PM_{2.5}$	Airborne particulate matter with an aerodynamic diameter of 2.5µm or less
QA/QC	Quality Assurance and Quality Control
SO_2	Sulphur Dioxide

References

- Local Air Quality Management Technical Guidance LAQM.TG22. August 2022. Published by Defra in partnership with the Scottish Government, Welsh Assembly Government and Department of the Environment Northern Ireland.
- Local Air Quality Management Policy Guidance LAQM.PG22. August 2022. Published by Defra in partnership with the Scottish Government, Welsh Assembly Government and Department of the Environment Northern Ireland.
- Chemical hazards and poisons report: Issue 28. June 2022. Published by UK Health Security Agency
- Air Quality Strategy – Framework for Local Authority Delivery. August 2023. Published by Defra.
- City of York Council's previous LAQM Review and Assessment reports can be found on City of York Council's website.