Annual Progress Report (APR)

THE CITY OF EDINBURGH COUNCIL

2025 Air Quality Annual Progress Report (APR) for The City of Edinburgh Council

In fulfilment of Part IV of the Environment Act 1995, as amended by the Environment Act 2021

Local Air Quality Management

October 2025

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Executive Summary: Air Quality in Our Area

Air Quality in the City of Edinburgh

The City of Edinburgh Council currently has five Air Quality Management Areas (AQMAs):

- Central AQMA, declared for exceedances of the Nitrogen Dioxide (NO_2) annual mean objective (annual mean of 40 $\mu g/m^3$) and the 1-hour mean objective (200 $\mu g/m^3$ not to be exceeded more than 18 times per year)
- St John's Road AQMA, declared for exceedances of the NO_2 annual mean objective
- Great Junction Street AQMA, declared for exceedances of the NO_2 annual mean objective
- Glasgow Road AQMA, declared for exceedances of the NO_2 annual mean objective
- Salamander Street AQMA, declared for exceedances of both the PM_{10} (Particulate Matter) annual mean objective (18 $\mu g/m^3$) and the 24-hour mean objective (50 $\mu g/m^3$ not to be exceeded more than 7 times a year).

An AQMA is required when a pollutant fails to meet air quality standards which are set by the Scottish Government. Road traffic is by far the greatest contributor to elevated concentrations of NO_2 in the city; however, the AQMA at Salamander Street declared for PM_{10} exceedances is due to other sources as well as traffic. Emissions from industrial and fugitive sources from operations in and around Leith Docks are a contributory factor.

This report presents historic air quality monitoring data and new data from 2024.

The Council received approval from the Scottish Government and SEPA to revoke the Inverleith Row AQMA and further details can be found in the 2024 APR. The revocation order came into force on 11th March 2024 and the Inverleith Row AQMA has now been revoked. All monitoring data in the Inverleith area continues to show compliance with the objectives.

The Council received approval from the Scottish Government and SEPA to amend the St John's Road AQMA and revoke the designation for the NO_2 1-hour mean objective, further

details of which can be found in the 2024 APR. The revocation order came into force on 11th March 2024 and the St John's Road AQMA has now been amended. The AQMA remains in place for the annual mean objective and monitoring data is reported in this APR.

Following an annual review, the Council monitored NO_2 concentrations at 129 locations in 2024. These were predominately passive diffusion tube sites, including four duplicate diffusion tube sites and six triplicate co-location sites at six of the eight automatic monitoring stations.

No location reported an annual mean NO_2 concentration exceeding the objective of 40 $\mu g/m^3$. Most sites had a lower concentration than in 2023 and there were no significant increases that were close to the 40 $\mu g/m^3$ objective in 2024.

No diffusion tube monitoring locations reported annual mean concentrations greater than 60$\mu g/m^3$, and none of the automatic monitoring stations recorded one-hour averages where concentrations exceeded 200 $\mu g/m^3$, therefore, it is unlikely that there is a risk of any exceedances of the NO_2 1-hour objective during 2024.

All monitoring locations within the Great Junction Street AQMA have maintained compliance with the annual average NO_2 objective for the past eight years and there has been no monitoring location with a concentration greater than 36 $\mu g/m^3$ (within 10% of the NO_2 objective and therefore at risk of exceedance) for the past six years. Both implementation of the Leith Connections project and commencement of tram operations in 2023 have not had any observable negative effects on NO_2 concentration in the area during 2024. All sites continue to show a decreasing trend in NO_2 concentration, with most sites now less than half the NO_2 objective. For these reasons, during 2025/26 the Council intends to proceed with implementing the procedure to revoke the Great Junction Street AQMA.

Whilst monitoring data from the immediate years following the COVID-19 pandemic should be taken with a degree of caution, the Council will consider reducing the boundary of the Central AQMA once the implications of the recently enforced (June 2024) Low Emission Zone (LEZ) are evident.

In October 2024 it was agreed that the temporary elements of the Corstorphine Connections project should be made permanent, but that the Manse Road bus gate should be removed. Monitoring evidence from the project evaluation suggests there will be

little effect on air quality in the St John's Road AQMA, which is part of the Corstorphine Connections project area; however, full consideration of any revocation will be considered once 2025 data is available, post permanent implementation of the project and removal of the bus gate (October 2024) and associated infrastructure.

NO_2 concentrations in the Glasgow Road AQMA decreased significantly in 2020 as a consequence of the traffic restrictions imposed during the Covid pandemic. They subsequently increased slightly then stabilized in subsequent years; however, 2024 data shows that NO_2 concentrations have decreased compared to 2023 and are now similar to those concentrations observed after the initial increase in 2020 and remain below pre-pandemic concentrations. There are plans in place to install a Westbound bus lane from Ingliston to the Newbridge roundabout (within the AQMA) in spring 2027 as part of the West Edinburgh Transport Improvement Programme (WETIP). An outline business case was agreed in June 2024. In 2025 an assessment of air quality impacts will be considered alongside other material to produce detailed designs for the project by spring 2026. Monitoring of air quality will continue and a decision on revocation will be made based on the final design and the findings of the project air quality assessment.

Long-term improvements in NO_2 pollution at urban background and roadside locations since the pandemic are likely a combination of lower traffic flows in specific areas and a cleaner fleet. Detailed traffic surveys have been undertaken before and after the implementation of the Low Emission Zone, and analysis of this and associated air dispersion modelling work, undertaken with SEPA, will provide further insight into these factors in the future.

PM_{10} and $PM_{2.5}$ monitoring data shows that for all locations in 2024, there were no exceedances of the annual mean objectives.

There were 13 exceedances of the PM_{10} 24-hour mean objective of 50 $\mu g/m^3$ in 2024 at the Tower Street monitoring station, the objective being 7 days or less exceedance. The Tower Street monitoring station is within the Salamander Street AQMA which is designated for PM_{10}. The exceedance is attributed to ongoing development at sites immediately to the east and south of the monitoring station involving demolition, groundworks and construction. A significant increase in the annual mean PM_{10} concentration was also observed in 2024 because of these developments, but it remained below the annual objective.

Monitoring will continue in the Salamander Street AQMA which was declared for exceedances of both the PM_{10} annual, and 24-hour mean objectives. The AQMA will remain in place while there is an exceedance or risk of exceedance of the objectives. An Air Quality Action Plan (AQAP) is being devised to reduce pollution and maintain lower concentrations.

The objective for the 15-minute mean concentration of sulphur dioxide (SO_2) was exceeded at St Leonard's, which is the only monitoring site for SO_2. There were 48 instances of SO_2 exceeding the 15-minute mean >266 µg/m^3 in 2024, the objective being 35 instances allowed per year. Exceedance of the objective was due to a plume of SO_2 which occurred throughout the UK at the end of May 2024. This SO_2 plume was caused by a volcanic eruption in Iceland which was a discrete external event and City of Edinburgh Council have no concerns about a previously unknown source of SO_2 in Edinburgh.

Actions to Improve Air Quality

The City of Edinburgh Council published an updated Air Quality Action Plan (AQAP) for Edinburgh (February 2024). Actions are set out under eight key themes mentioned below, with the top three actions also highlighted for 2025/26:

1. Low Emission Zone (LEZ)
2. Strategic Transport
3. Active Travel
4. Public Transport
5. Low Emission Vehicles
6. 2030 Climate Strategy
7. Integrated Policies and Guidance
8. Domestic Emissions.

Current top three actions:

- Continued enforcement and operation of the Low Emission Zone scheme, including development of a Mobile Enforcement Vehicle (MEV); and continued engagement with the Scottish Government, Transport Scotland and SEPA to monitor and evaluate the LEZ.
- Support improvements to public transport by undertaking the public consultation regarding the strategic business case for the trams network extension.

- Promote Clean Air Day and Clean Air Night national air quality and health campaigns, to educate and encourage action on sustainable choices for travel and home heating.

The AQAP focuses on locations where exceedances or risk of exceedances of the NO_2 objectives are identified, but it also includes strategic measures which will ensure concentrations of pollutants are reduced across Edinburgh, even below current statutory objectives. This precautionary approach to public health is supported by the Cleaner Air for Scotland 2 Strategy (2021) and assists in ensuring objectives continue to be met.

As a significant action within the AQAP, Edinburgh's Low Emission Zone became fully operational with enforcement commencing on 1st June 2024. This signalled a milestone in air pollution reduction in the city and shows the Council's commitment to delivering a greener and healthier city and supports the delivery of key targets, including becoming a net zero city by 2030. The Council is continuing to work in close partnership with the Scottish Environment Protection Agency (SEPA), Transport Scotland and the Scottish Government to help evaluate the impact of the LEZ, especially in respect to any contribution made towards the primary aims of the scheme: meeting the Air Quality Objectives and contributing towards reduction of emissions in fulfilment of Part 1 of the Climate Change (Scotland) Act 2009.

Within the current reporting year, the Council was also able to progress action in other areas including working with schools to promote air quality and publicising Clean Air Day, which focused on promoting sustainable travel and reducing engine idling.

The Council continues to support improvements to public transport, including integrated Lothian Buses and Trams network ticketing, consulting on the strategic business case for an extended tram line and providing support for bus decarbonisation where possible. Funding was awarded through the Bus Infrastructure Fund, which is the Scottish Government's primary fund for the development, design and construction of bus infrastructure in Scotland, to develop sustainable travel improvements and to deliver a trial to change bus lane operational hours.

The Council continues to support the ECO Stars freight recognition scheme. There are 347 members and 12,000 vehicles, of which only 338 vehicles are pre-Euro 6/VI (3%).

All three phases of the Whole House Retrofit low-rise pilots in the Council's housing stock will be complete in Autumn/Winter 2025/26 and the findings report on the pilot will inform the scope of schemes going forward.

New parking standards were embedded in the Council's revised non-statutory guidance (Edinburgh Design Guidance), approved in September 2025. The standards are aligned to public transport accessibility levels, controlled parking zones, and strategic development zones. Proposals for new off-street car-parking within highly accessible locations, such as the city centre and Low Emission Zone (LEZ), will not be supported. Sites in accessible locations close to amenities such as town centres are also expected to provide zero or very low levels of car parking. All parking spaces should include provision for electric vehicle charging infrastructure.

Salamander Street PM_{10}

Since the declaration of the Salamander Street AQMA the Council and partners, supported by the Scottish Government and SEPA, have been working collaboratively to improve air quality. Actions for a Draft Salamander Street AQAP were developed through effective partnership working and are presented under four themes:

- Industrial
- Roads and Transport
- Development Management
- Information to the Public

The Council's priorities for the Draft PM_{10} Air Quality Action Plan (AQAP) are:

- Strengthen relationships and practices between regulators and industry to further improve air quality.
- Set up a forum with the Council, housing developers, landowners, businesses and community groups within and in the vicinity of the AQMA to address the cumulative impact of development on environmental protection matters.
- Continue to deliver sustainable transport interventions in the area which will reduce traffic levels with associated air quality benefits.
- Ensure early work on the City Plan 2040 takes account of the need to improve air quality and review evidence for appropriate Place-based policies and strategies that address the juxtaposition of land uses in and around the Salamander Street AQMA.

- Promote information on local air pollution and provide advice to the public when pollution is high.

The Draft AQAP underwent a period of statutory consultation from 9th June to 7th September 2025. With the feedback analysis from the consultation process, a final AQAP will be produced and presented to the Council's Transport and Environment Committee for approval in early 2026.

The Draft Plan can be accessed from this link:
https://www.edinburgh.gov.uk/pollution/local-air-quality-management/1

Progress on the following actions has been slower than expected:

- Considering opportunities to promote zero-carbon city centres within the existing LEZs governance structure has not progressed. This action originates from a requirement within CAFS strategy, for local authorities to work with national agencies, however this strategy is currently under review. Scottish Government is engaging with stakeholders in 2025 and will undertake a public consultation in 2026, with a view to publishing a new air quality framework in 2026.
- Complete design work for improvements to St John's Road AQMA as part of the A8 Sustainable Transport Corridor programme has not progressed due to funding constraints. However, Transport Scotland announced a £212,000 funding award for design, transport modelling, options appraisal and stakeholder consultation as part of the 2025-26 Bus Infrastructure Fund Tier 2 Allocations to Local Authorities.

Local Priorities and Challenges

Continuing economic growth in the city and wider region presents a challenge for air quality. Population growth has inevitable demand for all modes of transport and supported infrastructure.

The Council is at the early stages of the preparation of City Plan 2040 which will be the next local development plan after City Plan 2030. It will be prepared under new legislation and guidance. The current evidence gathering stage will include the preparation of an Evidence Report and this will contain spatial information to support an understanding of places and their characteristics and needs, including the principal physical and environmental characteristics such as air quality.

Priorities for the forthcoming year are:

- Continued enforcement and operation of the Low Emission Zone scheme, including development of a Mobile Enforcement Vehicle (MEV); and continued engagement with the Scottish Government, Transport Scotland and SEPA to monitor and evaluate the LEZ.
- Consultation ongoing in respect to strategic business case for new tram lines, taking the trams from Granton to the Royal Infirmary of Edinburgh and the Bioquarter and beyond.
- Promote Clean Air Day and Clean Air Night national air quality and health campaigns, to educate and encourage action on sustainable choices for travel and home heating.
- Detailed design stage to be completed in spring 2026 for the new traffic management scheme in Glasgow Road AQMA – an outline business case has been agreed.
- Action in respect to annual measures - encouraging air quality education in schools, supporting sensors projects, assessment of traffic management schemes and public transport improvements - will also continue.

As part of action planning work in 2026, the Council will review complaints and gather information on solid fuel burning to see whether there are any ‘hotspot’ areas within the city and inform any interventions.

In terms of the Salamander Street AQAP, the Council will consider the feedback analysis from the consultation process and produce a Final Plan to be presented to the Council’s Transport and Environment Committee for approval in early 2026. New PM_{10} monitoring adjacent to the Salamander Street AQMA will be implemented.

There are several air quality policy areas that are outside of the direct control of the Council, such as vehicle emissions standards. The Council will therefore continue to work with regional and central government and key stakeholders on policies and issues beyond the Council’s direct influence, particularly where local evidence can be provided to support and influence change.

How to Get Involved

Further information on air quality in the City of Edinburgh can be found on the Air Quality in Scotland website. This provides information and data on air quality in Edinburgh and throughout Scotland and includes ways you can help improve air quality. You can also sign up to free alerts so that you can be advised when are pollution is high: http://www.scottishairquality.scot/what-can-i-do/

https://www.scottishairquality.scot/know-and-respond

Individual decisions can make a difference to improving air quality for example, rethinking your journey to lower your pollution footprint. Quiet Routes are Edinburgh's walking and cycling routes, which avoid the busy main roads. The link below directs you to the route maps:
http://www.edinburgh.gov.uk/info/20087/cycling_and_walking/1475/explore_quietroutes

Domestic burning, particularly the burning of wood and coal, has significant negative impacts on public health due to air pollution. Fine particulate matter pollution released during combustion can penetrate deep into the lungs and bloodstream, affecting every organ in the body, and leading to or exacerbating various health issues. Therefore, to reduce pollution and protect everyone's health, it is best to avoid the use of solid fuel particularly in urban areas.

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1 Local Air Quality Management

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

The LAQM process places an obligation on all local authorities to regularly review and assess air quality in their areas, and to determine whether 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 pursuit of the objectives. This Annual Progress Report (APR) summarises the work being undertaken by the City of Edinburgh Council to improve air quality and any progress that has been made.

Table 1.1 – Summary of Air Quality Objectives in Scotland

Pollutant	Air Quality Objective Concentration	Air Quality Objective Measured as	Date to be Achieved by
Nitrogen dioxide (NO_2)	200 µg/m^3 not to be exceeded more than 18 times a year	1-hour mean	31.12.2005
Nitrogen dioxide (NO_2)	40 µg/m^3	Annual mean	31.12.2005
Particulate Matter (PM_{10})	50 µg/m^3, not to be exceeded more than 7 times a year	24-hour mean	31.12.2010
Particulate Matter (PM_{10})	18 µg/m^3	Annual mean	31.12.2010
Particulate Matter ($PM_{2.5}$)	10 µg/m^3	Annual mean	31.12.2021
Sulphur dioxide (SO_2)	350 µg/m^3, not to be exceeded more than 24 times a year	1-hour mean	31.12.2004
Sulphur dioxide (SO_2)	125 µg/m^3, not to be exceeded more than 3 times a year	24-hour mean	31.12.2004
Sulphur dioxide (SO_2)	266 µg/m^3, not to be exceeded more than 35 times a year	15-minute mean	31.12.2005
Benzene	3.25 µg/m^3	Running annual mean	31.12.2010
1,3 Butadiene	2.25 µg/m^3	Running annual mean	31.12.2003
Carbon Monoxide	10.0 mg/m^3	Running 8-Hour mean	31.12.2003

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 must prepare publish and implement an Air Quality Action Plan (AQAP) within the shortest possible time and no later than 12 months of the date of AQMA Designation Order.

The AQAP must set out measures the local authority intends to put in place in pursuit of the objectives within the shortest possible time. Measures should be provided with milestones and a final date for completion. The action plan itself should have a timescale for completion and for revocation of the AQMA. Where measures to reduce air pollution may require a longer timescale, an action plan shall be reviewed and republished within five years of initial publication and then five-yearly thereafter.

A summary of AQMAs declared by the City of Edinburgh Council can be found in Table 2.1. Further information related to declared or revoked AQMAs, including maps of AQMA boundaries are available online at https://www.edinburgh.gov.uk/pollution/local-air-quality-management/1

The Inverleith Row AQMA was revoked in March 2024. The St John's Road AQMA was amended in March 2024 to revoke the designation for the NO_2 1-hour mean objective. The AQMA remains in place for the annual mean objective.

The Council proposes to revoke the Great Junction Street AQMA (see monitoring section).

Table 2.1 – Declared Air Quality Management Areas

AQMA Name	Pollutants and Air Quality Objectives	City / Town	Description	Action Plan
Central AQMA	NO_2 annual mean NO_2 1-hour mean (amended March 2009)	Edinburgh City Centre	City centre and main arterial routes. Extensions in: March 2009 to include West Port; April 2013 to include Gorgie Road, Chesser, Grassmarket, Cowgate and London	Air Quality Action Plan (Updated 2024)

AQMA Name	Pollutants and Air Quality Objectives	City / Town	Description	Action Plan
			Road, Easter Road; and September 2015 to include Angle Park Terrace and Clerk Street, Nicolson Street areas. Exceedances mostly in locations where there are street canyons, high percentage of bus movements and congested traffic. Residential properties at basement, ground, first, second, third, and fourth level, 2–4 metres from road edge. Busy shopping areas included as well as upwards road gradient at Leith Walk, North Bridge and West Port.	
St John's Road AQMA	NO_2 annual mean	Corstorphine, Edinburgh	Part of the A8 route at Corstorphine area. Residential properties at ground, first, second, third and fourth floor level within 2m of kerb edge. Street canyon effect in part. Busy shopping area. Congested flat road with high percentage of bus movements.	As above
Great Junction Street AQMA	NO_2 annual mean	Leith, Edinburgh	The full length of road to the depth of the building facades, including the Ferry Road Junction area. Residential properties at first, second, third and fourth floor level. Street canyon, congested traffic and busy shopping area. Receptors close to road edge. High percentage	As above

AQMA Name	Pollutants and Air Quality Objectives	City / Town	Description	Action Plan
			of bus movements. Extended April 2013 to include Bernard Street, Commercial Street and North Junction Street.	
Glasgow Road AQMA	NO_2 annual mean	West Edinburgh	Part length of A8, between Newbridge Roundabout and Ratho Station, to the depth of the building facades.	As above
Salamander Street AQMA	PM_{10} annual mean 24-hr mean	Leith, Edinburgh	A section of the A199 including Salamander Street, Baltic Street, Bernard Street, part of Seafield Road; an area to the north-east as far as the East Sands of Leith and south of Baltic Street, extending to Queen Charlotte Street and Links Place	Draft Plan consulted upon in 2025. Final Plan 2026.

2.2 Implementation of Air Quality Action Plan and/or measures to address air quality

The Council approved a revised Air Quality Action Plan (AQAP) for Edinburgh in February 2024. A copy is published here: Air Quality Action Plan 2024. The AQAP focuses on locations where there are risks of exceedances of the NO_2 objectives but also identifies strategic measures which will ensure concentrations of pollutants are reduced across Edinburgh, especially $PM_{2.5}$. This approach is supported by that set out in the Cleaner Air for Scotland 2 strategy (2021), which provides national policy support for a precautionary public health approach to air pollution, and which will assist in ensuring objectives continue to be met.

The AQAP complements the substantial amount of work which was undertaken in relation to the Low Emission Zone (LEZ) scheme development and implementation. The Cleaner Air for Scotland strategy introduced the National Low Emission Framework (NLEF) in 2019 to provide a methodology for local authorities to undertake assessments in relation to transport related actions to improve air quality, where transport is identified as the key

contributor to local air quality problems. It was designed to support and build on the work already being done through the LAQM regime and on completion of screening assessments (a component of the 2017/18 Programme for Government commitment) it was determined that Edinburgh and the three other biggest cities in Scotland would introduce LEZs. In May 2021, the regulations to give Scottish local authorities detailed powers under the Transport (Scotland) Act 2019 to create and enforce LEZs became law. Further guidance stipulated and supported the use of the National Modelling Framework (NMF) to assess and develop the LEZs in pursuit of meeting the objectives and reducing climate change emissions.

The AQAP actions were developed under eight broad themes:

1. Low Emission Zone (LEZ)
2. Strategic Transport
3. Behavioural Change to Active Travel
4. Public Transport
5. Low Emission Vehicles
6. 2030 Climate Strategy
7. Integrated Policies and Guidance
8. Domestic Solid Fuel Burning.

The Council has taken forward several measures within the AQAP during the current reporting year in pursuit of improving local air quality, meeting the air quality objectives within the shortest possible time and maintaining compliance with the objectives.

Details of all measures completed, in progress or planned are set out in Table 2.2.The top three key actions that the Council would like to raise awareness of amongst local communities are highlighted in yellow, bold boxes. These will also form the priorities for the forthcoming year. More detail on all the actions measures can be found in the 2024 AQAP.

Key completed measures for this reporting year are:

- Enforcement of the LEZ, which aims to reduce concentrations of nitrogen dioxide in central Edinburgh to achieve and maintain the Air Quality Objectives and Limit Values. The LEZ implementation has signalled a milestone in air pollution reduction action in the city and shows the Council’s commitment to delivering a greener and healthier city, supporting the delivery of key targets, including becoming a net zero

city by 2030. Over the last year, the average amount of Penalty Charge Notices (PCNs) issued for non-compliant vehicles entering the zone has been decreasing steadily. Between June 2024 and January 2025 alone the total number decreased by 56%. There is also evidence of lower numbers of second contraventions. Most vehicles entering the LEZ are compliant, over 95%. Around 3% of vehicles entering the LEZ are exempted classed. The Institute of Occupational Medicine (IOM) published a study indicating that active travel and public transport use increased within the LEZ during the first six months after LEZ enforcement.

The Council is continuing to work in close partnership with the Scottish Environment Protection Agency (SEPA), Transport Scotland and the Scottish Government to update the air dispersion model developed under the NMF to help evaluate the impact of the LEZ, especially in respect to any contribution made towards the primary aims of the scheme: meeting the Air Quality Objectives and contributing towards reduction of emissions in fulfilment of Part 1 of the Climate Change (Scotland) Act 2009. Traffic surveys were undertaken in Edinburgh in May 2025 to validate the model, post-enforcement. It is anticipated that data may also provide insight into traffic impacts and the wider impacts outside the LEZ boundary. To date, subjective analysis, including local knowledge of the road network and consideration of complaints and feedback from stakeholders, indicates that there have been no significant issues in respect to traffic displacement following the commencement of enforcement. SEPA will produce a report in respect to the traffic and air modelling analysis, details of which will be included in the 2026 Annual Progress Report.

Other completed measures for this reporting year are:

- Revised parking standards were approved within updated non-statutory planning guidance (Edinburgh Design Guidance) in September 2025. The standards are aligned to public transport accessibility levels, controlled parking zones and strategic development zones. Proposals for new off-street car-parking within highly accessible locations, such as the city centre and LEZ, will not be supported. Sites in accessible locations close to amenities such as town centres are also expected to provide zero or very low levels of car parking. All parking spaces should include provision for electric vehicle charging infrastructure
- The Council promoted Clean Air Day 2025 with issues around air quality and health, vehicle engine idling and sustainable travel choices through a digital

campaign video on social media (X and Facebook). The following campaign data was gathered:

X:	Facebook:
Views - 1,378	Views - 828
Impressions – 4,369	Impressions - 2,820
Engagements – 87	Engagements - 148

- The City Plan 2030 was adopted on 7th November 2024. To discourage the uptake and use of biomass in commercial settings, especially in the waste sector, the Plan states that heat generation from biomass is not supported. The City Plan also supports the transition to low and zero carbon technologies.
- The Council is at the early stages of the preparation of City Plan 2040 which will be the next local development plan after City Plan 2030. It will be prepared under new legislation and guidance. The current evidence gathering stage will include the preparation of an Evidence Report and this will contain spatial information to support an understanding of places and their characteristics and needs, including the principal physical and environmental characteristics such as air quality.
- A Capital Investment Programme (CIP) prioritisation process was undertaken as part of the City Mobility Plan (CMP), setting out mobility and transport priorities over the next 10 years. The CMP CIP covers key capital investment in pursuit of the aims and objectives of the CMP, especially new infrastructure and significant upgrades for bus priority, walking, wheeling, cycling and related on-street public realm. Criteria that assessed how each project contributes towards the objectives of the CMP included an assessment of the opportunity to improve air quality.
- The Council provided updated information on the delivery of actions in the 2021-2030 Climate Strategy which influences climate related citywide emissions. The sectors making the largest contribution continue to be energy consumption in buildings and transport, which account for 58% and 32% (respectively) of the city's total climate related emissions. The delivery of the CMP and Local Heat and Energy Efficiency Strategy will continue to be the focus for tackling these emissions.
- The development of heat networks is a key potential route to offering a non-polluting alternative to heat homes and buildings. Initial proposals for heat network delivery models as part of the Local Heat and Energy Efficiency Strategies were presented to Council Committee in May 2025. High-level design of pipe networks,

audit of heat sources, and appraisal of zones were completed and feasibility studies for Old Town and for Northeast Edinburgh are underway.

- Designed to meet the requirements of the Curriculum for Excellence and endorsed by the Council, the Parents of Future Scotland ran a free air pollution programme to support teachers who are tasked with learning for sustainability. It also enabled children to explore the causes and effects of air pollution, and to call on those in power to tackle this public health issue. The programme also helped schools meet obligations under the UNCRC and UN Sustainable Development Goals and empowered parents and caregivers to call for action with their children against air pollution. The programme ran in ten schools and included lesson plans, parent talks and a celebration of pupils' work at Edinburgh City Chambers.
- Several air quality sensor projects are being supported. City infrastructure has been facilitated for SEPA and the University of Edinburgh research projects.
- Schools are participating in the Data Innovation Programme with University of Edinburgh IoT (Internet of Things) and contributing to Earth Monitoring SeNSES (Sensor Network for South-East Scotland. Prior to the summer, over 50 schools signed up as early adopters and received sensors and access to support/training resources. The programme includes working closely with university staff to support the project, including the creation and sharing of lesson plans, to augment those provided by the university. Further information can be found here: https://edinburghlearns.digital/internet-of-things-iot/
- The bus fleet in Edinburgh continues to decarbonise. Lothian Buses now have 41 electric double decker vehicles, another 62 are due for delivery throughout 2025. By the end of 2025 the bus fleet will be 15% electric. Lothian Buses are also installing charging infrastructure to support the new vehicle deliveries. In September 2025 Stagecoach East Scotland announced that six new Volvo BZL electric buses will operate on the JET747 service, connecting Fife to Edinburgh airport.
- The Council continues to support improvements to public transport, including the following actions:
    - In May 2025 Lothian Buses and Trams network integrated ticketing commenced.
    - The expanded tram network to Newhaven has supported over 12 million annual tram journeys in 2024 (up from nine million in 2023). Consultation has begun on the strategic business case for expanding the network between the north and south of the city and beyond.

  - The Bus Infrastructure Fund (BIF) is the Scottish Government's primary fund for the development, design and construction of bus infrastructure in Scotland. In 2025 funding was awarded to BIF Midlothian, East Lothian and Edinburgh Sustainable Transport Corridors to continue design development and business case/value for money work on the development of a series of sustainable travel improvements on the A701, A7, A772 and A1/A199.
  - BIF also awarded funding to deliver a trial to change bus lane operational hours along a key bus route. Hours of operation would change from current Peak Only Mon-Friday to 7am to 7pm, 7 days a week. Evidence collected during the trial would present the case for rollout of 7-7-7 along other key routes across the city/region.
- There are 347 members and 12,000 vehicles within the Edinburgh ECO Stars fleet recognition scheme. Only 338 vehicles are pre-Euro 6/VI which is just under 3%. In 2024/25 consultants completed 25 reassessments, which included 4 upgrades to star ratings, and engaged with a further 12 members on a rolling schedule throughout the year to date. Future activities will focus on providing consultancy services to existing members, giving them information and advice on the ever-changing transition to alternative fuels, use of emerging technologies, Low Emission Zone compliance and progressing their achievement levels within the scheme.
  - Future elements of the scheme are likely to consider decarbonisation of the sector and city logistics.
- All three phases of the Whole House Retrofit low-rise pilots in the Council's housing stock will be complete in Autumn 2025 and the findings report on the pilot will inform the scope of area-based schemes going forward. The Council trialled works on 9 archetypes, 46 homes in total. Evaluation of the work will include monitoring which is in place for 12 months after work is complete so a picture can be built up of thermal performance and heat retention over the winter period
- Local visual artist (Natasha Russell) worked with pupils at Preston Street Primary school to develop a design for the Nicolson Street air quality monitoring station that promoted understanding of air quality issues, it provides an enhancement to the public realm as well as establishes it as a local landmark. Called The Air We Breate project, two workshop sessions were undertaken with artist Natasha Russell to foster creativity and critical thinking around environmental issues, giving pupils the tools to express their ideas through creative exploration. A Climate Fresk workshop

was also undertaken to widen knowledge and understanding of the links between local air quality and global atmospheric pollution. The project was funded by the LAQM grant award.

Photo 1 – The Air We Breathe Project: Artist Natasha Russell and children from Preston Street PS in front of newly designed Nicolson Street monitoring station

Photo 2 – Nicolson Street monitoring station prior to The Air We Breathe Project re-design

Progress on the following actions has been slower than expected:

- Considering opportunities to promote zero-carbon city centres within the existing LEZs governance structure has not progressed. This action originates from a requirement within CAFS strategy for local authorities to work with national agencies; however, this strategy is currently under review. Scottish Government is engaging with stakeholders in 2025 and will undertake a public consultation in 2026, with a view to publishing a new air quality framework in 2026.
- Complete design work for improvements to St John's Road AQMA as part of the A8 Sustainable Transport Corridor programme has not progressed due to funding constraints. However, Transport Scotland announced a £212,000 funding award for design, transport modelling, options appraisal and stakeholder consultation as part of the 2025-26 Bus Infrastructure Fund Tier 2 Allocations to Local Authorities.

The Council expects the following measures to be completed over the course of the next APR reporting year:

- Continued operation and enforcement of the Low Emission Zone scheme, including:
    - operation/maintenance of the enforcement system including cameras and warning infrastructure and back-office systems
    - The Council is finalising the procurement of an innovative enforcement solution in the form of a Mobile Enforcement Vehicle (MEV). Since this will be the first of its type in the UK, it has been subject to greater scrutiny than anticipated for cameras and software systems to obtain the relevant certification. The Council is awaiting a decision on the latest application for certification.
    - Continue engagement with the Scottish Government, Transport Scotland and SEPA to monitor and evaluate the LEZ.
    - Continue to update the LEZ City Model developed under the National Modelling Framework to reflect changes to the road network and fleet information from traffic surveys to assist with the LEZ evaluation process.

- Detailed design stage to be completed in 2026 for the new traffic management scheme in Glasgow Road AQMA – an outline business case has been agreed.
- Consultation ongoing in respect to a strategic business case for new tram lines, taking the trams from Granton to the Royal Infirmary of Edinburgh and the Bioquarter and beyond.

- Action in respect to annual measures - Clean Air Day and Clean Air Night, encouraging air quality education in schools, supporting sensors projects, assessment of traffic management schemes and public transport improvements - will also continue.

There are several air quality policy areas that are outside of the direct control of the Council, such as vehicle emissions standards. The Council will therefore continue to work with regional and central government and key stakeholders on policies and issues beyond the Council's direct influence, particularly where local evidence can be provided to support and influence change.

In accordance with the requirements of the relevant legislation and policy guidance (PG(S)(23)) the City of Edinburgh Council expects that all NO_2 AQMAs within Edinburgh will be revoked by the end of the AQAP period (2028) and where possible, within a shorter timeframe.

Actions within the Salamander Street Air Quality Management Area

In June 2025 the Council published a Draft Salamander Street AQAP where emissions from industry, transport and fugitive sources, including port activities and construction sites, are addressed, as well as considering the future land uses in the area and the impact of domestic burning.

Since the declaration of Salamander Street AQMA the Council and partners, supported by Scottish Government and the Scottish Environment Protection agency (SEPA), have been working collaboratively to improve air quality. Actions for the plan were developed through effective partnership working and are presented under four themes:

- Industrial
- Roads and Transport
- Development Management
- Information to the Public.

The Council's priorities for the Draft PM_{10} Air Quality Action Plan (AQAP) are:

- Strengthen relationships and practices between regulators and industry to further improve air quality.

- Set up a forum with the Council, housing developers, landowners, businesses and community groups within and in the vicinity of the AQMA to address the cumulative impact of development on environmental protection matters.
- Continue to deliver sustainable transport interventions in the area which will reduce traffic levels with associated air quality benefits.
- Ensure early work on the City Plan 2040 takes account of the need to improve air quality and review evidence for appropriate Place-based policies and strategies that address the juxtaposition of land-uses in and around the Salamander Street AQMA.
- Promote information on local air pollution and provide advice to the public when pollution is high.

In the AQAP we outline how the Council and partners will act to effectively tackle air quality issues to meet and sustain statutory air quality objectives. Consideration is also given to the change of industry and land uses around the port and the introduction of new housing and sensitive receptors in and around the area.

The Draft AQAP underwent a period of focussed statutory consultation from 9th June to 7th September 2025. With the feedback analysis from the consultation process, a final AQAP will be produced and presented to the Council's Transport and Environment Committee for approval in early 2026.

The Draft Plan can be accessed from this link:
https://www.edinburgh.gov.uk/pollution/local-air-quality-management/1

Table 2.2 – Progress on Measures to Improve Air Quality

Action No.	Action	Completion Year	Measure Status	Funding Status	Key Milestone	Progress	Barriers to implementation	Notes / Comments
1.1	Implement the LEZ and key actions such as the road network mitigation, signage, enforcement system, communication plan and further development of the LEZ through continued working with Scottish Government to monitor and evaluate performance and maintain the City NMF model	2025	Ongoing	Development - partially funded Operational – self funded	Initial implementation on 31st May 2022 Enforcement started 1st June 2024	LEZ annual report to be laid in Scottish Parliament in 2025	Continued support from SEPA will be necessary to assist with the monitoring and evaluation of the scheme through the National Modelling Framework (NMF)	
1.2	Work with Transport Scotland and SEPA to look at opportunities to promote zero-carbon city centres within the existing LEZs governance structure	Ongoing	Planned	Funded (staff time)		The action originates from the CAFS2 national air quality strategy, which is currently under review.	Scottish Government is engaging with stakeholders in 2025 and will undertake a public consultation in 2026, with a view to a new air	

Action No.	Action	Completion Year	Measure Status	Funding Status	Key Milestone	Progress	Barriers to implementation	Notes / Comments
							quality framework in 2026.	
2.1	In the context of a strategic approach to traffic management that seeks to reduce motorised traffic and encourage public transport and active travel, seek to ensure that traffic management projects achieve positive impacts on air quality especially in locations in breach of, or at risk of breaching, air quality objectives, and include mitigations for negative impacts	Applicable to each scheme	In progress	Applicable to each scheme	Applicable to each individual scheme	Strategic Active Travel projects: **CCWEL** (City Centre West East Link). Mesh communications system being installed to improve traffic management operations and control idling vehicles within street canyon. Plan to link junction to crossings, to make efficient use of the traffic signal timings, responsive to traffic flows and connected to the Urban Traffic Control system **The Roseburn to Union Canal Link** crosses the Central AQMA. Although it is difficult to measure modal shift it is accepted that by		

Action No.	Action	Completion Year	Measure Status	Funding Status	Key Milestone	Progress	Barriers to implementation	Notes / Comments
						promoting alternative sustainable travel there will be a reduction in car vehicle use, which would have a positive impact on air quality Traffic management projects related to actions specific to other AQMAs are mentioned in 2.2 and 2.3 below		
2.2	Complete design work for improvements at St John's Road / Drumbrae Junction as part of the Circulation Plan's A8 Corridor programme and implement improvements	As per agreed delivery programme	Preliminary design and traffic modelling undertaken	Unfunded	Early detailed design work completed	Transport Scotland announced a £212,000 funding award for design, transport modelling, options appraisal and stakeholder consultation as part of the 2025-26 Bus Infrastructure Fund Tier 2 Allocations to Local Authorities		

Action No.	Action	Completion Year	Measure Status	Funding Status	Key Milestone	Progress	Barriers to implementation	Notes / Comments
2.3	Ensure that any new traffic management schemes within the Glasgow Road AQMA achieve improvements in local air quality and reduce exposure to pollutants	2028	Scheme currently under consideration	Partially Funded	Agree Outline Business Case 2024 2026 Final Business Case	Spring 2026 detail design to take account of air quality impact		
3.1	Engage in Clean Air Day on an annual basis **2026** Promote Clean Air Day and Clean Air Night national air quality and health campaigns, to educate and encourage action on sustainable choices for travel and home heating.	Annual	In progress	Unfunded	Consider sister campaign Clean Air Night 2025/26	Clean Air Day 2025 was promoted around issues of air quality and health, vehicle engine idling and sustainable travel choices; through a digital campaign video on social media (X and Facebook). The following campaign data was gathered: • X: Views - 1,378 Impressions – 4,369 Engagements – 87 • Facebook: Views - 828 Impressions - 2,820 Engagements - 148	End of June date for national campaign classes with end of Scottish school year National campaigns promotional material required in advance Funding remains a barrier	

Action No.	Action	Completion Year	Measure Status	Funding Status	Key Milestone	Progress	Barriers to implementation	Notes / Comments
3.2	Work with Council education officers and schools, to increase air quality awareness & make improvements across the school community	Annual	In progress	Unfunded	Work with schools on LEZ boundary	The Council carried out an Air we Breathe project with Preston Street Primary School which resulted in the Nicolson Street Air Quality Monitoring Station getting an external refurbishment. Fifty schools to date are participating in the Data Innovation Programme with University of Edinburgh IoT (Internet of Things) and contributing to Earth Monitoring SeNSES (Sensor Network for South-East Scotland. Parents of Future Scotland ran a free air pollution programme to support teachers who are tasked with		

Action No.	Action	Completion Year	Measure Status	Funding Status	Key Milestone	Progress	Barriers to implementation	Notes / Comments
						learning for sustainability and enabling children to explore the causes and effects of air pollution, and to call on those in power to tackle this public health issue. The programme ran in ten schools and included lesson plans, parent talks and a celebration of pupils' work at the City Chambers.		
3.3	Support citizen science and sensor projects looking at air quality to encourage behaviour change towards sustainable travel modes	Annual	Planned	Applicable to each scheme	Ad-hoc projects	Working with SEPA & University of Edinburgh to research sensor technology by facilitating monitoring capability at St John's Road monitoring station and street furniture / infrastructure		

Action No.	Action	Completion Year	Measure Status	Funding Status	Key Milestone	Progress	Barriers to implementation	Notes / Comments
4.1	Support improvements to public transport, including enhancing and expanding the bus / mass transit network, bus priority measures, regional interchanges and flexible and smart ticketing, as set out in the CMP Implementation Plan **2025/26** Support improvements to public transport by undertaking the public consultation regarding the strategic business case for the trams network extension.	Ongoing	In progress	Funding secured to enable significant progress	Review of committed actions in CMP Implementation Plan	The expanded tram network to Newhaven is supporting over 12 million annual tram journeys in 2024 (up from nine million in 2023). Consultation has begun on the strategic business case for further tram lines. Lothian Buses and Trams network commenced integrated ticket travel. Bus Infrastructure Funding awarded funds for development of design/business case for sustainable travel improvements and to deliver a trial to change bus lane operational hours.		

Action No.	Action	Completion Year	Measure Status	Funding Status	Key Milestone	Progress	Barriers to implementation	Notes / Comments
4.2	Support projects to decarbonise the Edinburgh bus fleet	Annual	In progress	Unfunded	Review of EV charging infrastructure and available technologies	Development of electric bus vehicle charging at Lothian Buses (LB) depots LB now have 41 electric double decker vehicles, another 62 are due delivery throughout 2025. By the end of 2025 the bus fleet will be 15% EV In September 2025 Stagecoach East Scotland announced that six new Volvo BZL electric buses will operate on the JET747 service, connecting Fife to Edinburgh airport.	Funding remains a challenge. Range of electric buses and lack of out-of-depot charge points remain a challenge on high mileage bus routes	
5.1	Continue the ECO Stars fleet recognition scheme	Annual	In Progress	Unfunded	Annual renewal of scheme	Edinburgh scheme has 347 members & 12,000 vehicles. 3% of fleet is pre-Euro 6/VI. 25 reassessments completed (4		Future of the scheme in doubt National procurement framework which Edinburgh

Action No.	Action	Completion Year	Measure Status	Funding Status	Key Milestone	Progress	Barriers to implementation	Notes / Comments
						upgrades to star ratings). Engagement with a further 12.		administered expired April 2026.
5.2	Update Edinburgh Planning Guidance to incorporate a greater provision of electric vehicle (EV) infrastructure in new developments	2024	Completed	Funded (staff time)	Publication of updated Guidance	Revised parking standards were concluded as part of non-statutory Planning guidance (Edinburgh Design Guidance) in September 2025.		
6.1	Discourage the uptake and use of biomass in commercial settings through Planning Policy to ensure no negative impacts on local air quality and to support the transition to low carbon technologies	2025	Completed	Funded (staff time)	Publication of updated Guidance	City Plan 2030, adopted in November 2024, discourages the uptake and use of biomass in commercial settings, especially in the waste sector. The City Plan also supports the transition to low and		

Action No.	Action	Completion Year	Measure Status	Funding Status	Key Milestone	Progress	Barriers to implementation	Notes / Comments
						zero carbon technologies		
7.1	Use UK APAS (Air Pollution Assessment Service) to investigate the impacts of City Plan development on air quality in the long term	2028	In progress	Funded (staff time)	Final development of the model at end of 2024	Completion year 2028 Consortium meeting in 2024 to continue to develop the model		The human health element of the APAS tool was considered in 2024. The next stage of the project is currently being considered by the steering group.
7.2	Lobby Scottish Government for an update of licensing laws to tackle concerns such as patio gas heaters and external solid fuel burning in licensed premises and use of petrol / diesel generators in street trading	2028	Planned	Funded (staff time)	Update in licensing laws	Not applicable (Completion year 2028)		
7.3	Continue to enforce against vehicle idling and expand awareness raising campaigns,	Ongoing	In progress	Funded (staff time)	Enforcement mechanism already in place.	Working practice established to raise awareness at EPOGs		

Action No.	Action	Completion Year	Measure Status	Funding Status	Key Milestone	Progress	Barriers to implementation	Notes / Comments
	including commercial fleet representatives at Events Planning and Oversight Group (EPOG) and consider the Council's own vehicle telematics data					Attended Scottish Government workshop on engine idling Oct 2024 Engine idling theme included in Clean Air Day 2025 Engine idling campaign to be planned		
7.4	Ensure Placemaking strategies and guidance including Place Briefs take account of air quality	2024	In progress	Funded (staff time)	Review of Edinburgh Design Guidance (EDG)	Edinburgh Design Guidance, non-statutory Planning guidance was published in September 2025. Other plans updated in 2025/26 (See also section 2.2 of report): • City Mobility Plan – Capital Investment Programme • City Plan 2030 & City Plan 2040 • Climate Strategy		

Action No.	Action	Completion Year	Measure Status	Funding Status	Key Milestone	Progress	Barriers to implementation	Notes / Comments
						• Local Heat and Energy Efficiency Strategy		
8.1	Local information campaigns to support the national (CAFS) message, e.g., communications from the Council in winter on energy needs to work in partnership with air quality messaging	2028	Planning phase	Unfunded	Scottish Government CAFS Public Engagement Framework published	A public communications campaign is ongoing in respect to the LEZ operation Consideration to be given to Clean Air Night campaign 2026		
8.2	8.2 Work with Scottish Government to review the Clean Air Act and encourage abolition of permitted development rights (PDRs) for flues for woodburning stoves and biomass boilers	2024	In progress	Funded (staff time)	Respond to formal Scottish Government consultation	July 2024 participated in Clean Air Act review workshop with Scottish Government		
8.3	Review complaints and gather information on solid fuel burning to see whether there are any 'hotspot' areas within the city to inform	2026	Planning phase	Unfunded	Delivery of a completed study	Not applicable (Completion year 2026)	Funding required	

Action No.	Action	Completion Year	Measure Status	Funding Status	Key Milestone	Progress	Barriers to implementation	Notes / Comments
	any targeted intervention							
8.4	Develop a Whole House Retrofit (WHR) delivery programme for retrofitting social housing across the city to energy efficiency standards, to reduce energy demand and tackle fuel poverty	Full completion of all retrofit beyond 2030	In Progress	Funded	Area Based Pilot complete 2024/25 Whole house Retrofit pilot completed 2025/26	WHR Phases 1 and 2 completed Phase 3 to be completed Autumn 2025.	Mixed Tenure blocks where the Council own properties, where owners do not agree works should proceed.	Evaluation report on the WHR pilot will inform the scope of area-based schemes going forward. Monitoring is undertaken over a 12-month period post works, to include a winter period.

Note for table: The top three key actions that the Council would like to raise awareness of amongst local communities are highlighted in yellow, bold boxes.

3 Air Quality Monitoring Data and Comparison with Air Quality Objectives

3.1 Summary of Monitoring Undertaken

The Council received approval from the Scottish Government and SEPA to revoke the Inverleith Row AQMA and further details can be found in the 2024 APR. The revocation order came into force on 11th March 2024 and the Inverleith Row AQMA has now been revoked. All monitoring data in the Inverleith area continues to show compliance with the objectives.

The Council received approval from the Scottish Government and SEPA to amend the St John's Road AQMA and revoke the designation for the NO_2 1-hour mean objective, further details of which can be found in the 2024 APR. The revocation order came into force on 11th March 2024 and the St John's Road AQMA has now been amended. The AQMA remains in place for the annual mean objective and monitoring data is reported in this APR.

3.1.1 Automatic Monitoring Sites

This section sets out what monitoring has taken place and how local concentrations of the main air pollutants compare with the objectives.

The City of Edinburgh Council undertook automatic (continuous) monitoring at 9 sites during 2024. Table A.1 in Appendix A shows the details of the sites. National monitoring results are available on the Scottish Air Quality 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.

Following decommissioning of the Glasgow Road air monitoring station at the end of 2023, a new site was established on the LEZ boundary at Drumsheugh Place. Funding was obtained from the Scottish Government LAQM grant to provide a new NOx analyser (T200) and housing unit, and the Fidas® particulate monitor was relocated from the old

Glasgow Road site. Due to issues with the site communications installation, data retrieval did not commence until February 2024; however, because of a calibration gas shortage in the UK and issues with the commissioning audit, valid NO_2 data was not produced until July 2024.

A Scottish Government grant also awarded funding to set up PM monitoring at new sensitive receptors (housing) to the west of the Salamander Street AQMA. A suitable location has been found and permissions for installation granted, and work is ongoing to establish the new site.

3.1.2 Non-Automatic Monitoring Sites

The City of Edinburgh Council undertook non-automatic (passive) monitoring of NO_2 at 121 sites during 2024. Table A.2 in Appendix A shows the details of the sites.

Maps showing the location of the monitoring sites are provided in Appendix D. Further details on Quality Assurance/Quality Control (QA/QC) and bias adjustment for the diffusion tubes are included in Appendix C.

During 2024, 18 monitoring sites were decommissioned and 4 new monitoring sites were installed. This is part of the Council's continual review and assessment of the network, whilst also taking account of the National Modelling Framework (NMF) by the Scottish Environment Protection Agency (SEPA). A summary of these sites is presented in Table 3.1 below.

Table 3.1 - Newly Commissioned/Decommissioned Diffusion Tube sites in 2024

Site ID	Site ID	Removed / New
56	Glasgow Road/Drumbrae	Removed
143a	Hamilton Place	Removed
63A	Queensferry Road 540	Removed
64a	Queensferry Road 552	Removed
1	St John's Road SB	Removed
80g	Gorgie Road No173	Removed
80h	Wardlaw Street No2	Removed
25e	Easter Road 198	Removed
18A	Ferry Road 203	Removed
69	London Rd/Wolseley Pl	Removed
48c	Cowgate/Blackfriars	Removed
97	Dumbiedykes Road	Removed
130	Market Street 6	Removed
136	Nicholson Street 92	Removed
33a	Queen Street/Albyn Pl	Removed

Site ID	Site ID	Removed / New
SH1	Shandwick Place Hostel	Removed
162	Viewcraig Gardens 19	Removed
28c	West Port Opp 50	Removed
22b	Roseburn Street PS	New
22	Roseburn Terrace No21	New
79	Fountainbridge/Tollcross	Reinstalled
23i	Abbey Mount No5	New

3.1.3 Other Monitoring Activities

The Council procured external consultants to undertake monitoring studies for the Liveable Neighbourhoods - previously Low Traffic Neighbourhoods - that were developed in Corstorphine and Leith, within the St John's Road and Great Junction Street AQMAs, respectively. It should be noted that data was collected for the purpose of assessing the projects only and therefore not suitable for a strict comparison against the LAQM air quality objectives.

The Corstorphine Connections project was implemented in May 2023 and air quality monitoring was undertaken both before and after implementation. NO_2 concentrations were measured using passive diffusion tubes at 25 sites throughout the neighbourhood to determine whether implementation has had any effect on air quality, and a post-12-month data collection report was published in September 2024. This has also been accompanied by traffic surveys. Details on the Corstorphine Connections project and interim reporting can be found at: https://www.edinburgh.gov.uk/cycling-walking-projects-1/corstorphine-connections.

The Leith Connections Liveable Neighbourhood was implemented in April 2023 and, similarly, air quality monitoring of NO_2 at 25 sites has been undertaken pre- and post-implementation, accompanied by traffic surveys. A post 6-month Data Collection Summary Report was published in September 2024 containing results of the NO_2 monitoring, details of which can be found at: https://www.edinburgh.gov.uk/cycling-walking-projects-1/leith-connections.

3.2 Individual Pollutants

The air quality monitoring results presented in this section are, where relevant, adjusted for annualisation and bias. Further details on adjustments are provided in Appendix C.

3.2.1 Nitrogen Dioxide (NO_2)

Table A.3 in Appendix A compares the ratified monitored NO_2 annual mean concentrations for the past five years with the air quality objective of 40 µg/m^3 at automatic monitoring sites.

Table A.4 in Appendix A compares the adjusted monitored NO_2 annual mean concentrations for the past five years with the air quality objective of 40 µg/m^3 at non-automatic monitoring sites.

For diffusion tubes, the full 2024 dataset of monthly mean values is provided in Appendix B.

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

Automatic monitoring

All NO_2 monitoring stations reported a data capture greater than 75% for 2024, apart from Currie and Drumsheugh Place. The annual mean NO_2 concentrations for Currie and Drumsheugh Place (Table A.3) have been annualised according to LAQM TG(22) and the relevant details reported in Table C.2.

No exceedances of the annual mean NO_2 objective of 40 µg/m^3 were observed during 2024.

For comparison against the short-term objectives there must be a data capture of 85% or greater throughout the calendar year. Six of the automatic monitoring stations showed data capture greater than 85%. There were no monitored one-hour averages where concentrations exceeded 200 µg/m^3. Where data capture was below 85% (Currie & Drumsheugh) the 99.8th percentile is provided (see Table A.5).

Non-automatic monitoring

No location reported an annual mean concentration exceeding the objective of 40 µg/m^3. One site was within 10% of the objective, highlighting a risk of exceedance: 28b, West Port which is situated in the Central AQMA; however, the concentration is exactly within 10% of the objective (36 µg/m^3) and was lower than in 2023.

No fall off with distance calculations were required in 2024.

No sites reported a concentration greater than 60 µg/m^3, which suggests that there have not been any exceedances of the hourly average objective for NO_2.

Most sites had a lower NO_2 concentration than in 2023 and there were no significant increases that were close to the 40 µg/m^3 objective in 2024.

Whilst 2020 and 2021 monitoring data should be taken with a degree of caution due to the changes that were noted with the COVID-19 pandemic, the Council will consider revoking or reducing the boundary of the Central AQMA once the implications of the recently implemented Low Emission Zone (LEZ) become evident. Enforcement of the LEZ started in June 2024.

All monitoring locations within the Great Junction Street AQMA have maintained compliance with the annual average NO_2 objective for the past eight years and there has been no monitoring location with a concentration greater than 36 µg/m^3 (within 10% of the NO_2 objective and therefore at risk of exceedance) for the past six years. Data collected as part of the Leith Connections monitoring regime (October 2024 versus baseline data in March 2023) at key junctions on the neighbourhood boundary and on roads within the AQMA shows changes in traffic levels of between minus 7.4% and plus 9.1%. Both implementation of the Leith Connections Project and commencement of tram operations in 2023 have not had any observable negative effects on NO_2 concentration in the area during 2024 – even where traffic levels have increased slightly. All sites continue to show a decreasing trend in NO_2 concentration, with most sites now less than half the NO_2 objective. For these reasons, during 2025/26 the Council intends to proceed with implementing the procedure to revoke the Great Junction Street AQMA.

The designation for the NO_2 1-hour mean objective in the St John's Road AQMA was revoked in March 2024, but the AQMA remains in place for the annual mean objective. In October 2024 it was agreed that the temporary elements of the Corstorphine Connections project should be made permanent, but that the Manse Road bus gate should be removed. Monitoring evidence from the project evaluation suggests there will be little

effect on air quality in the St John's Road AQMA; however, full consideration of any revocation will be considered once 2025 data is available, post permanent implementation of the project and removal of the bus gate (October 2024) and associated infrastructure.

NO_2 concentrations in the Glasgow Road AQMA decreased significantly in 2020 as a consequence of the traffic restrictions imposed during the Covid pandemic. They subsequently increased slightly then stabilized in subsequent years; however, 2024 data shows that NO_2 concentrations have decreased compared to 2023 and are now similar to those concentrations observed after the intial increase in 2020, and remain below pre-pandemic concentrations (Figure A.2). There are plans in place to install a Westbound bus lane from Ingliston to the Newbridge roundabout (within the AQMA) in spring 2027 as part of the West Edinburgh Transport Improvement Programme (WETIP). An outline business case was agreed in June 2024. In 2025 an assessment of air quality impacts will be considered alongside other material to produce detailed designs for the project by spring 2026. Monitoring of air quality will continue and a decision on revocation will be made based on the final design and the findings of the project air quality assessment.

Trends

Automatic

NO_2 concentration trends for the continuous monitoring locations are presented in Appendix A: Monitoring Results

At all automatic monitoring stations there was a noticeable decrease in NO_2 in 2020, which was to be expected after the implementation of travel restrictions during the COVID-19 pandemic. In subsequent years, concentrations have remained below those observed pre-pandemic in 2019 and have remained roughly the same as, or lower than, those observed in 2020 (See Figure A.1).

Non-automatic

NO_2 concentration trends for AQMAs where the passive diffusion tube locations have been in place for at least five years are presented in Table A.6 toTable A.9. Data was corrected using the relevant bias adjustment factor for each year and taken from the point of measurement (not distance corrected). Where diffusion tube monitoring locations have been decommissioned, these have been removed from inclusion in the trend graphs (see Figure A.2).

In all AQMAs there was a noticeable decrease in NO_2 in 2020, which was to be expected after the implementation of travel restrictions during the COVID-19 pandemic. In subsequent years, concentrations have remained below those observed pre-pandemic in 2019 and have remained roughly the same as those observed in 2020 in the City Centre and St John's Road AQMAs. In the Glasgow Road AQMA there was a noticeable increase in concentration after 2020 - Glasgow Road being one of the main thoroughfares into and out of Western Edinburgh - however, 2024 data shows that NO_2 concentrations have decreased compared to 2023 and are now similar to those observed in 2020. After a small increase in NO_2 from 2020 to 2021, all subsequent years have shown a decrease in concentration in the Great Junction Street AQMA.

3.2.2 Particulate Matter (PM_{10})

Table A.10 in Appendix A compares the ratified and adjusted monitored PM_{10} annual mean concentrations for the past five years with the air quality objective of 18 µg/m^3.

Table A.11 in Appendix A compares the ratified continuous monitored PM_{10} daily mean concentrations for the past five years with the air quality objective of 50 µg/m^3, not to be exceeded more than seven times per year.

During 2024, all automatic monitoring sites had annual data capture greater than 75%. Annualisation was not required at any automatic monitoring site.

All monitoring locations reported concentrations below the annual mean objective for PM_{10} (18 µg/m^3) in 2023.

There were 13 days where the 24-hour mean of 50 µg/m^3 was exceeded in 2024 at the Tower Street monitoring station, the objective being 7 days or less exceedance (Table A.11).

Development at sites immediately to the east and south of the Tower Street monitoring station were ongoing in 2024 involving demolition, groundworks and construction. The monitoring station is bounded on two sides by these sites. High concentrations of PM_{10} were observed throughout the year and this is reflected in the large increase in the annual mean PM_{10} for 2024 (see Figure A.3), though PM_{10} concentration did remain below the annual objective. Council officer site visits and the fact that no exceedances were observed at the Salamander Street station shows that the exceedance of the 24-hour objective at Tower Street is likely due to the developments.

Although there continues to be no exceedances of the objectives at the Salamander Street station, there was marginal compliance with the 24-hour objective in 2022. Monitoring will continue in the AQMA which was declared for exceedances of both the PM_{10} annual, and 24-hour mean objectives. The AQMA will remain in place while there is an exceedance, or risk of exceedance of the objectives. An AQAP is being devised to reduce pollution and maintain lower concentrations.

Trends

Trends in PM_{10} concentration have been assessed where five or more years of data is available and are shown in Figure A.3.

Overall, long-term trends show a reduction in PM_{10} concentration at Queensferry Road, St Leonard's and Salamander Street. Since installation in 2019, the Tower Street site has shown a small decrease in PM_{10} but a large spike in concentration occurred in 2024, the reasons for which are discussed above. Both Tower Street and Salamander Street are situated in an AQMA which is declared for PM_{10}. At St John's Road, Currie and Nicolson Street there have been flucuations, but over their entire respective monitoring periods there is little change in PM_{10} concentration.

It should be noted that the PM_{10} concentrations recorded in 2020 were during the COVID-19 pandemic and therefore lower than the concentrations observed pre-pandemic in 2019 at all sites.

3.2.3 Particulate Matter ($PM_{2.5}$)

Table A.12 in Appendix A compares the ratified and adjusted monitored $PM_{2.5}$ annual mean concentrations for the past five years with the air quality objective of 10 µg/m^3.

During 2024, all monitoring sites had annual data capture greater than 75%. Annualisation was not required at any site.

At all sites, annual mean concentrations of $PM_{2.5}$ were below the objective of 10µg/m^3.

Trends

Five sites had five years or more data available and the concentration trends are shown in Figure A.4. Where data were available for 2019 and earlier – St John's Road, St Leonard's and Tower Street – there was a noticeable reduction in $PM_{2.5}$ concentration in 2020,

presumably due to COVID-19 travel and industrial restrictions. St Leonard's has shown a significant overall reduction in $PM_{2.5}$ since measurements began in 2009, whilst at all sites $PM_{2.5}$ concentration has remained relatively stable since a small increase from 2020 to 2021, though there was a small increase at all sites in 2024 compared to 2023.

3.2.4 Sulphur Dioxide (SO_2)

SO_2 was measured only at the AURN urban background site at St Leonard's and data capture was greater than 75% in 2024.Table A.13 in Appendix A compares the ratified continuous monitored SO_2 concentrations for 2024 with the air quality objectives for SO_2.

There were 9 instances above the 1-hour mean measurement and 1 instance above the 24-hour mean measurement, but there were no exceedances of both these objectives: 24 instances allowed of 1-hour mean >350 µg/m^3 and 3 instances allowed of 24-hour mean >125 µg/m^3.

The objective for the 15-minute mean concentration of SO_2 was exceeded at St Leonard's, which is outside any AQMA. There were 48 instances of SO_2 exceeding the 15-minute mean >266 µg/m^3, the objective being 35 instances allowed per year. Exceedance of the objective was due to a plume of SO_2 which occurred throughout the UK and peaked in Scotland's Central Belt on 31st May 2024. This SO_2 plume was caused by a volcanic eruption in Iceland, as reported by the UK centre for Ecology and Hydrology.

3.2.5 Carbon Monoxide, Lead and 1,3-Butadiene

Carbon monoxide was measured only at the AURN urban background site at St Leonard's in 2024. This is not required as part of the LAQM regime in Edinburgh but is used in UK-wide monitoring. The objective is >10 mg m^{-3} as an 8-hour running mean. No exceedances were reported.

Lead and 1,3-Butadiene are not measured at any site in Edinburgh.

3.2.6 Other Pollutants Monitored

The following pollutants were also monitored in the City of Edinburgh at the AURN urban background site at St Leonard's in 2024. The data is presented in Appendix A. These are not required as part of the LAQM regime but are part of specific UK-wide monitoring and

compliance networks. The UK and Scottish Governments and Devolved Administrations are responsible for the review and assessment of these pollutants.

Ozone (O_3)

Table A.14 shows the continuous monitored ozone concentration in 2024. The objective is the daily maximum 8-hour running mean is not to exceed 100 µg/m^3 on more than 10 days per year. The objective was not exceeded.

Polycyclic Aromatic Hydrocarbons (PAHs)

There are many different PAHs, but benzo(a)pyrene (BaP) is used a marker to assess against the National Air Quality Objective. The concentration monitored in 2024 at St Leonard's complies with the UK Objective. Monitoring is undertaken using a Digitel sampler. Concentrations since 2009 are shown in Table A.15.

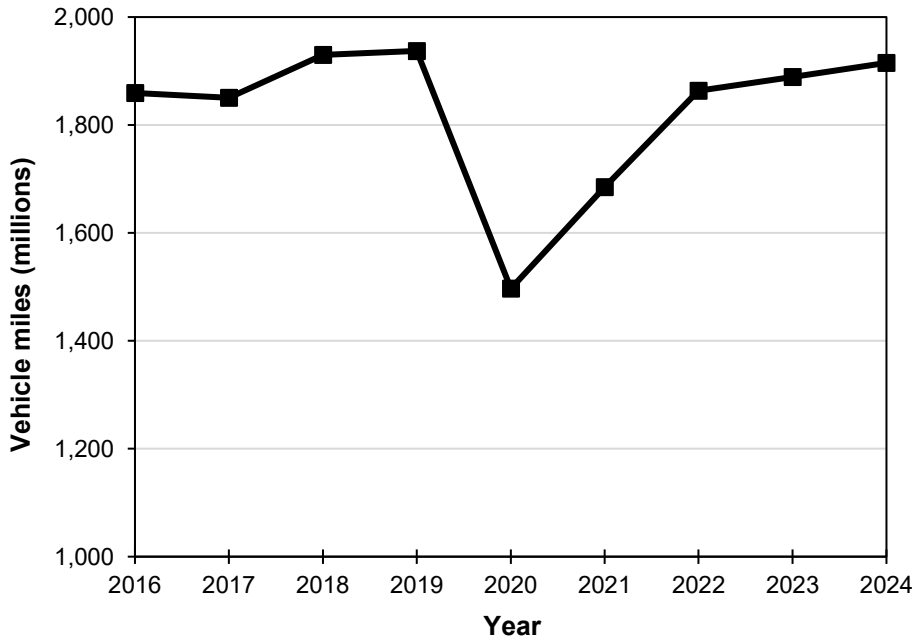
4 New Local Developments

4.1 Road Traffic Sources

In October 2024 it was agreed that the temporary elements of the Corstorphine Connections project should be made permanent but that the Manse Road bus gate should be removed, and work commenced soon after to do so. Monitoring evidence from the project evaluation suggests there will be little effect on air quality in the St John's Road AQMA.

Department for Transport traffic statistics provides data on every junction-to-junction link on the motorway and 'A' road network and for some minor roads. These data are estimated from manual counts and automatic traffic counters. The Department for Transport do note that data at the local scale may be less robust than that at the regional scale, but they still give a strong indication of the traffic trend in Edinburgh. Estimated vehicle miles within the City of Edinburgh boundary are shown in Figure 4.1.

Figure 4.1 – Annual Traffic in City of Edinburgh



The data shows that after a substantial decrease in 2020 caused by the restrictions imposed during the COVID-19 pandemic, vehicle miles increased significantly through

2021 and 2022 then increased more slowly thereafter. Vehicle miles in 2024 were 1.1% below those pre-pandemic in 2019 for all vehicles. The fact that traffic levels are nearly back to those observed in 2019, yet NO_2 concentrations mostly remain below those observed in 2019, suggests that improvements in the fleet emissions have made a contribution to lowering NO_2 concentrations in Edinburgh.

4.2 Other Transport Sources

There are no new airports or locations where diesel or steam trains are regularly stationary or locations with a large number of movements of diesel locomotives.

There is a new riverside berth at Port of Leith which can accommodate offshore wind installation shipping vessels and large cruise ships. At this stage it is not known whether new operations with the freeport status will fundamentally change vessel numbers other than traffic to the new outer berth at Leith, which may be larger. It is proposed that the berth will be *shore power ready*, so able to offer a “plug in” option to vessels. However, the Council has received complaints in relation to odour and emissions coming from shipping vehicles and is considering what action might be possible with colleagues in Transport Scotland and the Maritime and Coastguard Agency. Under the International Convention for the Prevention of Pollution from Ships, MARPOL the International Maritime Organisation were responsible for emissions and implementation in the United Kingdom by the Maritime and Coastguard Agency.

4.3 Industrial Sources

In 2024, SEPA’s records showed there were three new Pollution Preventions Control (PPC) permits relating to a Part B Process - Combustion of Fuels, as follows:

- MCP Shawfair Energy Centre, Whitehill Road, Millerhill
- Western General hospital, main boiler house, Crew Road South
- MCP Dundas House, 20 Brandon Street

There were no new or substantial changes to Waste Management Licences in the local authority area within the last year.

There were no existing industrial installations where emissions have increased substantially or new relevant exposure has been introduced, and there were no new or

proposed industrial installations for which an air quality impact assessment has been carried out. There were no new petrol stations, fuel storage depots or poultry farms.

4.4 Commercial and Domestic Sources

In relation to SEPAs records mentioned above, medium combustion plants have been installed in the city centre at Dundas House and Shawfair, Edinburgh.

As part of the Council action planning work in 2026, the Council will review complaints and gather information on solid fuel burning to see whether there are any ‘hotspot’ areas within the city and inform any targeted interventions.

4.5 New Developments with Fugitive or Uncontrolled Sources

There were no new landfill sites, quarries or other similar potential sources of fugitive particulate matter emissions.

The number of construction sites and planned construction is of some concern to the Council. Careful management of activity will be required especially within the Salamander Street AQMA and the City Centre where population exposure is significant. Through the planning process developers are expected to manage dust during this phase of development.

Also, with the development of the Forth Green Freeport (FGF) in part of the Salamander Street AQMA and adjacent to the Great Junction Street AQMA, it will be necessary to consider relevant air quality impacts as detailed plans continue to develop. FGF aims to drive a transition to net zero by 2045 with a focus on renewables manufacturing, alternative fuels, carbon capture utilisation and storage and shipbuilding. A consortium of private and public sector partners have produced a Full Business Case (FBC) for the venture which was agreed by Council. The Scottish and UK Governments have also now agreed the business case, which will release seed capital funding in 2026.

Scottish Government grant funding has been obtained to install new particulate matter monitoring capability adjacent to the existing Salamander Street AQMA, which was identified due to emissions from industrial and fugitive sources from operations in and around Leith Docks, as well as traffic. The adjacent area was not included in the original assessment as there were no relevant receptors. However, now, there are newly constructed residential properties and other residential and commercial properties under

construction. A suitable location has been found and permission granted, and work is ongoing to establish the new site.

5 Planning Applications

Local Development Plan

City Plan 2030 was adopted on 7 November 2024 and replaces Edinburgh Local Development Plan 2016. A local development plan sets a strategy for future development proposals and policies which are used to determine planning applications in the City.

The aims of City Plan 2030 are to direct development to, and maximise the use of, brownfield land rather than greenfield land; delivering a network of 20-minute neighbourhoods and embedding a place-based approach to the creation of high-density, mixed-use communities linked better by active travel and public transport. The strategy supports the strong direction of policy required by the Climate Change Act, the National Transport Strategy, Housing for 2040 and the National Planning Framework 4. Alignment with local air quality management and developing local and national air quality strategies will be crucial to ensuring a sustainable economic growth.

Following adoption, there has been work on the delivery of City Plan 2030 with the approval of a range of supplementary guidance including Developer Contributions and Infrastructure Delivery, Student Accommodation, Edinburgh Design Guidance, along with a new style Delivery Programme replacing the previous Action Programme.

Planning is at the early stages of the preparation of City Plan 2040 which will be the next local development plan after City Plan 2030. It will be prepared under new legislation and guidance. The current evidence gathering stage will include the preparation of an Evidence Report and this will contain spatial information to support an understanding of places and their characteristics and needs, including the principal physical and environmental characteristics. The Evidence Report will be informed, for example, by studies on transport infrastructure capacity, transport planning, energy developments, greenhouse gas emissions and climate risks; and will require engagement with key agencies and stakeholders. The Evidence Report will subject to a Gate Check assessment by a government appointed Reporter.

The Developer Contributions and Infrastructure Delivery planning guidance was approved in September 2025. It sets out the Council’s approach to the assessment of infrastructure

requirements associated with new development and a framework for the collection of developer contributions. The transport improvements identified by the studies and set out in the Delivery Programme include:

- tram
- bus infrastructure
- active travel
- shared mobility: car clubs and mobility hubs

The guidance aimed to ensure developers make a fair and realistic contribution to the delivery of necessary infrastructure provision and improvement associated with development.

Planning applications

In terms of planning applications for new developments, summaries of relevant submissions that included an air quality impact assessment (AQIA) are detailed below. Full details can be found on the Council's Planning Portal here: https://www.edinburgh.gov.uk/planningcomments using the planning reference numbers in square brackets below.

An application [24/02048/FUL] for partial demolition and residential development at the former Caledonian Brewery site, 40 Slateford Road was granted for 168 residential units. Supporting information provided evidence that priority has been given to sustainable travel including pedestrians, cyclists and public transport, with zero car parking (except for two accessible spaces). A number of heat and power sustainable measures were also included within the development including air source heat pumps. Although considered a major application, in this case there was no AQIA undertaken due to the likelihood of low/zero impact on local air quality.

An application [24/01341/PPP] for residential and commercial development and associated infrastructure on land northwest of 26 Bath Road is currently being considered. An AQIA was undertaken to demonstrate compliance with air quality objectives. The assessment states it was undertaken to consider the potential for the proposed development to have an impact on local air quality at identified existing human and ecological receptor locations, during construction and operation. The suitability of the site for the proposed uses was also considered. During construction, it recommended that if

site specific dust mitigation measures were implemented there would be no residual impacts of construction in accordance with the Institute of Air Quality Management (IAQM) guidance. The Council has however identified the cumulative impact of construction in the area an issue as part of the Salamander Street AQAP and further detailed assessment, and mitigation measures may be necessary. A road traffic emissions dispersion modelling assessment was undertaken to consider the impact of operational phase development-generated vehicles on identified receptor locations within the study area. Annual mean concentrations of NO_2, $PM_{2.5}$ and PM_{10} were predicted to be below the relevant air quality objectives at all locations. Impacts were predicted to be negligible at all receptors, and overall impacts were predicted to be not significant. Based on the impact of traffic-related emissions generated by the proposed development on local air quality, no mitigation measures have been proposed as part of the proposal to offset the likely air quality impacts. This is particularly concerning considering the proposal sits within an air quality management area. Whilst the AQIA may conclude that the impacts may be “negligible” and unlikely to cause a breach of any air quality objectives, this is not the only determining factor in terms of human health. Supporting information with the planning application also advised that local air quality is likely to be detrimentally affected by this proposal. The site is also within an AQMA which will be further impacted should this proposal be granted. The cumulative impact of air quality issues from industrial sources and shipping vessel emissions was not suitably considered within the assessment. Overall, there are concerns about the application from an air quality perspective and exposure of sensitive future occupants.

An adjacent site at land 170 Metres west of 31 Bath Road [25/00394/FUL] was granted permission (subject to legal agreement) for business and general industrial use (storage or distribution, training facility) with ancillary retail and food and drink uses. An AQIA submitted in support of the application defined the sensitivity of the area and the risk of the construction of the development to cause dust impacts. The residual effect as a result of impacts from construction activities were considered to be not significant in accordance with IAQM guidance. Notwithstanding, the AQIA recommended that a Construction Environmental Management Plan (CEMP) be implemented by the developer in order to prevent or minimise the release of dust during periods of construction. An informative was added to planning permission recommending that a CEMP be implemented.

A major application [24/00523/PPP] for mixed use development including commercial floorspace, non-residential institutions (including a school), residential and associated

infrastructure on land to the south-west of Meadowfield Farm, Turnhouse Road is being considered. An AQIA was submitted as part of a wider Environmental Impact Assessment (EIA) in support of the application. The assessment indicated that there was very little risk of introducing new sensitive human receptors into an area of existing poor air quality and in a worst-case approach to calculating vehicle emissions, no annual mean concentrations in excess of each respective NO_2, PM_{10} or $PM_{2.5}$ air quality objective were predicted at any receptor location. SEPA commented that the proposal is in an area where nearby air quality in AQMAs at St John's Road and Glasgow Road have exceeded national air quality objectives for nitrogen dioxide, and highlights that reduced exposure for future occupants should be achieved through planning policies that discourage use of private vehicles and encourage active travel with greater interconnectivity with public transport. The Council's Environmental Protection team raised concerns in relation to air quality and recommended that the development should be car free with very limited or no parking. The EIA Report noted that proposed mitigation measures at the site will be promoted through a Framework Travel Plan and rely mainly on sustainable travel measures including delivery of public transport links, minimising parking, promoting use of the City Car Club, including electric vehicle charging points, use of rapid chargers for taxis, and provision of a comprehensive active travel network and infrastructure. Construction mitigation includes managing dust and other temporary emissions effects through a CEMP and best practice measures. Consideration of cumulative effects in the EIA Report (Chapter P) identified that negligible and not significant effects are predicted on air quality from operational traffic. Local development plan policy only supports development where significant adverse effects on health and air quality are addressed through design and layout. It was considered that the applicant had demonstrated that the site has been designed around 20-minute neighbourhood principles, reduced vehicle dependence and low parking, and sustainable travel options are embedded into the proposed layout, while buffers between new receptors and pollutant sources are introduced. Details of these mitigation measures were recommended to be secured by condition and/or legal agreement as appropriate. The Council Planning Committee (Development Management Sub-Committee) agreed to grant planning permission in principle subject to the conclusion of a legal agreement.

Another major application [24/00132/PPP] for a residential-led mixed use development including housing, student housing, business space, hotels and leisure uses on land 500 metres north-east of Ingliston Park & Ride, Eastfield Road was approved (subject to legal agreement) by the Council. The supporting EIA Report included an AQIA that assessed

the potential effects of construction and operational phase on air quality at identified receptor locations. Sensitive receptors included surrounding residential areas and properties, ecological receptors, and the nearby St. John's Road and Glasgow Road AQMAs, both declared for exceedances of the NO_2 objectives. During demolition and construction, it was recommended that if site specific dust mitigation measures were implemented as part of a Construction Management Plan the risk of dust impacts on the local environment would be not significant. At the operational stage, and after embedded mitigation measures are considered, the AQIA concluded that there will be a moderate adverse effect on air quality for sensitive receptors, linked to the exceedances of PM_{10} at both the site and wider area. The report highlights that a conservative approach is taken in the assessment in line with the precautionary principle. The Council's Environmental Protection team raised concerns in relation to this and recommended that the development should be car free with very limited or no parking. SEPA agreed with the EIA Report conclusions on air quality matters and highlighted that the Council should seek to achieve significant mitigation measures to reduce overall traffic levels in accordance with the Council's commitment to Net Zero, City Mobility Plan, and other strategies. The assessment asserted that there will be a deterioration in air quality which cannot be reconciled with the level of development allocated in the local development plan, without predicted adverse effects. The report states that some exceedances for PM_{10} are predicted even without the proposal and that the road network is particularly sensitive to changes in traffic. Planning Policy (Env 34) only supports development where significant adverse effects on health and air quality are addressed through design and layout. However, the Council noted that the applicant demonstrated that the site has been designed around 20-minute neighbourhood principles, reduced vehicle dependence and low parking, and sustainable travel options are embedded into the proposed layout, while buffers between new receptors and pollutant sources are introduced. Scheme 2 introduced a greater set-back of development from the A8 to ensure a better air quality environment will be achieved at this frontage of the site, which is to include ground floor mixed-uses with residential properties above, with the set-back of buildings to be at least 20 metres. The proposal included embedded mitigation measures, some of which are to be secured by condition and/or legal agreement and which underpin its allocation for housing-led development of the scale supported by the local development plan. The opportunity remains to mitigate air quality effects through low carbon energy and heat recovery, which will be better understood at the next stage of the process (and informed by Scottish Building Standards). The predicted adverse effect on air quality presents a

tension with the local development plan and national planning policy, however, the Council concluded that the impacts did not outweigh the proposal's merits in respect of its compliance with the rest of the local development plan. In respect to air quality, the Council will continue to monitor NO_2 in the nearby AQMAs. Monitoring of PM_{10} and $PM_{2.5}$ is undertaken in the St John's Road AQMA, and this will also continue. Monitoring of PM_{10} ceased on the Glasgow Road in 2019 following continued low results and a rationalisation of the monitoring network. The annual air quality review and assessment process will be utilised to consider whether any detailed assessments are required in future years and/or whether any other appropriate action should be taken.

An application [24/02971/FUL] for the demolition of existing office buildings and redevelopment of site for mixed-use development comprising purpose-built student accommodation at 595 & 597 Calder Road adjacent to the Edinburgh Bypass (A702) was considered by the Council. An air quality impact assessment was submitted in support of the application. The assessment states it was undertaken to demonstrate compliance with air quality objectives. Detailed dispersion modelling using the ADMS-Roads modelling software was undertaken to predict the concentrations of NO_2, PM_{10} and $PM_{2.5}$ due to emissions from road traffic, in conjunction with existing background concentrations at the proposed development's façades. The maximum predicted annual mean concentrations of NO_2, PM_{10} and $PM_{2.5}$ are below the AQOs where they are applicable on each façade and each floor of the development. The short-term mean concentrations, which are relevant for the duration of exposure of members of public within the Proposed Development, comply with the relevant air quality objectives for NO_2. In summary, the proposed development based on the proposed layout is considered suitable for its proposed use. The application was however refused by the Planning (sub) Committee.

The existing quarry operations at Ravelrig Quarry were extended by granting of planning permission [24/06106/FUL] to allow further extraction of hard rock. The AQIA submitted in support of the application used IAQM guidance to predict that it is unlikely that any significant decrease in local air quality will occur due to the proposed future works, although at some receptors the magnitude of effect was 'slight adverse'. However, it was noted that any dust occurrence event will be limited and of short duration and will be minimised by implementation of the dust control recommendations. Therefore, planning conditions were attached to the permission in respect to dust controls. The AQIA also states that predictions of annual mean concentration of PM_{10} and $PM_{2.5}$ during future

working at Ravelrig Quarry (2027 and 2030) would not exceed the Air Quality Objectives (approximately 10-11 µg/m^3).

An application for demolition of existing building and erection of a purpose-built student accommodation development with commercial ground floor units is being considered by the Council at a site on Bangor Road [25/01214/FUL], adjacent to the Great Junction Street AQMA. An AQIA screening report submitted in support of the application stated that any traffic associated with the Proposed Development would potentially impact the traffic flows within the AQMA. However, it also states that as the Proposed Development makes provision for one accessible parking space and any other vehicle trips generated by the development are expected to be minimal and limited to service and delivery vehicles, the impact on the AQMA is expected to be negligible. The precise energy strategy for the Proposed Development is not finalised however the report also states that it is assumed that the energy needs will be met using fully electric sources with no combustion sources present.

6 Conclusions and Proposed Actions

The Council received approval from the Scottish Government and SEPA to revoke the Inverleith Row AQMA and further details can be found in the 2024 APR. The revocation order came into force on 11th March 2024 and the Inverleith Row AQMA has now been revoked. All monitoring data in the Inverleith area continues to show compliance with the objectives.

The Council received approval from the Scottish Government and SEPA to amend the St John's Road AQMA and revoke the designation for the NO_2 1-hour mean objective, further details of which can be found in the 2024 APR. The revocation order came into force on 11th March 2024 and the St John's Road AQMA has now been amended. The AQMA remains in place for the annual mean objective and monitoring data is reported in this APR.

6.1 Conclusions from New Monitoring Data

Nitrogen Dioxide

No location reported an annual mean concentration exceeding the objective of 40 µg/m^3. One site was within 10% below the objective, highlighting a risk of exceedance: 28b, West Port which is situated in the Central AQMA; however, the concentration is exactly within 10% of the objective (36.0 µg/m^3) and was lower than in 2023.

Overall, most sites had a lower NO_2 concentration than in 2023 and there were no significant increases that were close to the 40 µg/m^3 objective.

It is notable that concentrations remain below those observed in 2019 before the travel restrictions imposed during the pandemic. Long-term improvements in NO_2 pollution at urban background and roadside locations since the pandemic are likely a combination of lower traffic flows in specific areas and a cleaner fleet. Detailed traffic surveys have been undertaken before and after the implementation of the Low Emission Zone, and analysis of this and associated air dispersion modelling work, undertaken with SEPA, will provide further insight into these factors in the future.

Whilst 2020 and 2021 monitoring data should be taken with a degree of caution, due to the COVID-19 pandemic, the Council will consider revoking or reducing the boundary of the Central AQMA once the implications of the recently implemented Low Emission Zone (LEZ) become evident. Enforcement of the LEZ started in June 2024.

All monitoring locations within the Great Junction Street AQMA have maintained compliance with the annual average NO_2 objective for the past eight years and there has been no monitoring location with a concentration greater than 36 µg/m^3 (within 10% of the NO_2 objective and therefore a risk of exceedance) for the past six years. Implementation of the Leith Connections project and commencement of tram operations, both in 2023, have not had any observable negative effects on NO_2 concentration in the area. All sites continue to show a decreasing trend in NO_2, with most sites now less than half the objective. For these reasons, the Council will proceed in 2025/26 with implementing the procedure to revoke the Great Junction Street AQMA.

The designation for the NO_2 1-hour mean objective in the St John's Road AQMA was revoked in March 2024, but the AQMA remains in place for the annual mean objective. In October 2024 it was agreed that the temporary elements of the Corstorphine Connections project should be made permanent, but that the Manse Road bus gate should be removed. Monitoring evidence from the project evaluation suggests there will be little effect on air quality in the St John's Road AQMA; however, full consideration of any revocation will be considered once 2025 data is available, post permanent implementation of the project and removal of the bus gate (October 2024) and associated infrastructure.

NO_2 concentrations in the Glasgow Road AQMA decreased significantly in 2020 as a consequence of the traffic restrictions imposed during the Covid pandemic. They subsequently increased slightly then stabilized in subsequent years; however, 2024 data shows that NO_2 concentrations have decreased compared to 2023 and are our now similar to those concentrations observed after the intial increase in 2020, and remain below pre-pandemic concentrations (Figure A.2). There are plans in place to install a Westbound bus lane from Ingliston to the Newbridge roundabout (within the AQMA) in spring 2027 as part of the West Edinburgh Transport Improvement Programme (WETIP). An outline business case was agreed in June 2024. In 2025 an assessment of air quality impacts will be considered alongside other material to produce detailed designs for the project by spring 2026. Monitoring of air quality will continue and a decision on revocation will be made based on the final design and the findings of the project air quality assessment.

No diffusion tube monitoring locations reported an annual mean concentration in excess of 60 µg/m^3 during 2024, suggesting that there have not been any exceedances of the hourly mean objective. There were no hourly concentrations reported in excess of 200 µg/m^3 at any of the automatic monitoring locations.

PM_{10} and $PM_{2.5}$

PM_{10} and $PM_{2.5}$ monitoring data shows that for all locations in 2024, there were no exceedances of the annual mean objectives.

There were 13 exceedances of the PM_{10} 24-hour mean objective of 50 µg/m^3 in 2024 at the Tower Street monitoring station, the objective being 7 days or less exceedance. The Tower Street monitoring station is within the Salamander Street AQMA which is designated for PM_{10}. The exceedance is attributed to ongoing development at sites immediately to the east and south of the monitoring station involving demolition, groundworks and construction. A significant increase in the annual mean PM_{10} concentration was also observed in 2024 because of these developments, but it remained below the annual objective.

Monitoring will continue in the Salamander Street AQMA which was declared for exceedances of both the PM_{10} annual, and 24-hour mean objectives. The AQMA will remain in place while there is an exceedance, or risk of exceedance of the objectives. An AQAP is being devised to reduce pollution and maintain lower concentrations.

Sulphur Dioxide

The objective for the 15-minute mean concentration of SO_2 was exceeded at St Leonard's, which is outside any AQMA. There were 48 instances of SO_2 exceeding the 15-minute mean >266 µg/m^3 in 2024, the objective being 35 instances allowed per year. The 1-hour mean and 24-hour mean objectives were not exceeded.

Exceedance of the 15-minute mean objective was due to a plume of SO_2 which occurred throughout the UK at the end of May 2024. This SO_2 plume was caused by a volcanic eruption in Iceland which was a discrete external event and City of Edinburgh Council have no concerns about a previously unknown source of SO_2 in Edinburgh.

6.2 Conclusions relating to New Local Developments

With part of the Forth Green Freeport being within the Salamander Street AQMA and adjacent to the Great Junction Street AQMA, it will be necessary to consider relevant air quality impacts as detailed plans continue to develop.

A detailed traffic survey in Edinburgh has been undertaken in association with the implementation of the Low Emission Zone. Analysis of this data is ongoing in conjunction with SEPA.

The number of construction sites and planned construction is of some concern to the Council. Careful management of activity will be required especially within the Salamander Street and City Centre where population exposure is significant. Through the Planning process developers are expected to manage dust during this phase of development.

Scottish Government grant funding has been obtained to install new particulate matter monitoring capability adjacent to the existing Salamander Street AQMA, which was identified due to emissions from industrial and fugitive sources from operations in and around Leith Docks, as well as traffic. A suitable location has been found and permissions for installation granted, and work is ongoing to establish the new site.

As part of action planning work in 2026, the Council will review complaints and gather information on solid fuel burning to see whether there are any ‘hotspot’ areas within the city and inform any targeted interventions.

6.3 Proposed Actions

Due to continuing declining concentrations and compliance with the NO2 objective, in 2025/26 the Council intends to proceed with implementing the procedure to revoke the Great Junction Street AQMA

The Council also expects the following measures to be completed over the course of the next APR reporting year:

- Continued operation and enforcement of the Low Emission Zone scheme, including:
    - operation/maintenance of the enforcement system including cameras and warning infrastructure and back-office systems

    - The Council is finalising the procurement of an innovative enforcement solution in the form of a Mobile Enforcement Vehicle (MEV). Since this will be the first of its type in the UK, it has been subject to greater scrutiny than anticipated for cameras and software systems to obtain the relevant certification. The Council is awaiting a decision on the latest application for certification.
    - Continue engagement with the Scottish Government, Transport Scotland and the Scottish Environmental Protection Agency (SEPA) to monitor and evaluate the LEZ.
    - Continue to update the LEZ City Model developed under the National Modelling Framework to reflect changes to the road network and fleet information from traffic surveys to assist with the LEZ evaluation process.
- Detailed design stage to be completed in spring 2026 for the new traffic management scheme in Glasgow Road AQMA – an outline business case has been agreed.
- Consultation ongoing in respect to strategic business case for new tram lines, taking the trams from Granton to the Royal Infirmary of Edinburgh and the Bioquarter and beyond.
- Action in respect to annual measures - Clean Air Day, encouraging air quality education in schools, supporting sensors projects, assessment of traffic management schemes and public transport improvements - will also continue.
- As part of action planning work in 2026, the Council will review complaints and gather information on solid fuel burning to see whether there are any ‘hotspot’ areas within the city and inform any targeted interventions.
- In terms of the Salamander Street AQAP, the Council will consider the feedback analysis from the consultation process and produce a Final Plan to be presented to the Council’s Transport and Environment Committee for approval in early 2026.
- New PM_{10} monitoring adjacent to the Salamander Street AQMA will be implemented.

There are several air quality policy areas that are outside of the direct control of the Council, such as vehicle emissions standards. The Council will therefore continue to work with regional and central government and key stakeholders on policies and issues beyond the Council’s direct influence, particularly where local evidence can be provided to support and influence change.

Appendix A: Monitoring Results

Table A.1 - Details of Automatic Monitoring Sites

Site ID	Site Name	Site Type	X OS Grid Ref	Y OS Grid Ref	Pollutants Monitored	In AQMA?	Which AQMA?	Monitoring Technique	Distance to Relevant Exposure (m) (1)	Distance to kerb of nearest road (m) (2)	Inlet Height (m)
ID4	Gorgie Road	Roadside	323121	672314	NO_2	Yes	Central	Chemiluminescent	0	2.5	2.63
ID5	St. John's Road	Kerbside	320101	672907	NO_2; PM_{10}; $PM_{2.5}$	Yes	St. John's Road	Chemiluminescent; FIDAS® 200	0	0.5	1.98
ID6	Currie High School	Suburban	317595	667909	NO_2; PM_{10}; $PM_{2.5}$	No	-	Chemiluminescent; TEOM; FIDAS® 200	N/A	N/A	3.59 – NO_2; 3.24 – PM_{10}
ID7	St. Leonard's	Urban Background (AURN)	326265	673129	NO_2; PM_{10}; $PM_{2.5}$; O_3; CO; SO_2; PAH	No	-	Chemiluminescent; FIDAS® 200; UV Adsorption; IR Adsorption; Digitel sampler	N/A	35	3.4 – NO_2, O_3, CO, SO_2, PAH; 3.2 – PM_{10}; 3.1 – $PM_{2.5}$
ID8	Salamander Street	Roadside	327616	676343	NO_2; PM_{10}; $PM_{2.5}$	Yes	Salamander Street	Chemiluminescent; TEOM; FIDAS® 200	0	2.13	2.86

Site ID	Site Name	Site Type	X OS Grid Ref	Y OS Grid Ref	Pollutants Monitored	In AQMA?	Which AQMA?	Monitoring Technique	Distance to Relevant Exposure (m) (1)	Distance to kerb of nearest road (m) (2)	Inlet Height (m)
ID9	Queensferry Road	Roadside	318736	674930	NO_2; PM_{10}; $PM_{2.5}$	No	-	Chemiluminescent; FIDAS® 200	6.5	1.7	2.96
EDNS	Nicolson Street	Roadside	326151	673041	NO_2; PM_{10}; $PM_{2.5}$	Yes	Central	Chemiluminescent; FIDAS® 200	2.2	2.9 (3)	2
ED012	Tower Street	Urban Industrial	327467	676537	PM_{10}; $PM_{2.5}$	Yes	Salamander Street	FIDAS® 200	0	N/A	2
ED011	Drumsheugh Place	Roadside	324407	673843	NO_2; PM_{10}; $PM_{2.5}$	No	-	Chemiluminescent; FIDAS® 200	0	1.0	2.0

Notes:

(1) 0 m 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.

(3) Distance to nominal kerb, due to parking bay/parking restrictions/cycle lane in front of monitoring location.

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

Site ID	Site Name	Site Type	X OS Grid Ref	Y OS Grid Ref	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)
NORTH WEST LOCALITY										
13a	Deanhaugh Street	Roadside	324533	674655	NO2	No	0.0	2.0	No	2.0
16	Glasgow Road 68/adj	Roadside	313028	672633	NO2	Yes - Glasgow Road	4.4	1.8	No	2.0
15a	Glasgow Road Facade/9	Roadside	312711	672674	NO2	Yes - Glasgow Road	0.0	7.5	No	2.0
58i, 58ii	Glasgow Rd Newbridge	Roadside	312693	672670	NO2	Yes - Glasgow Road	5.2	2.8	No	2.0
15	Glasgow Rd Newbridge	Roadside	312664	672672	NO2	Yes - Glasgow Road	3.8	4.0	No	2.0
41	Hillview Terrace	Urban Background	320081	673232	NO2	No		1.0	No	2.0
55i, 55ii	Inverleith Row/Ferry Rd	Roadside	324638	675993	NO2	No	0.0	4.7	No	2.0
64	Queensferry Road 550	Roadside	318698	674955	NO2	No	9.2	1.5	No	2.0
64b	Queensferry Road 550F	Roadside	318701	674964	NO2	No	0.0	11.0	No	2.0
69J	Queensferry Road 554	Roadside	318682	674957	NO2	No	8.6	1.4	No	2.0
69I	Queensferry Rd/Lyle Ct	Roadside	318616	674968	NO2	No	7.5	2.0	No	2.0
40	Queensferry Rd/Hillhouse	Roadside	322144	674497	NO2	No	0.0	2.0	No	2.0
22b	Roseburn Street PS	Roadside	322891	672958	NO2	No	0.0	2.0	No	2.0
23	Roseburn Terrace	Kerbside	323007	673198	NO2	Yes - City Centre	2.3	3.0	No	2.0
22a	Roseburn Terrace (W)	Kerbside	322984	673189	NO2	Yes - City Centre	1.7	2.3	No	2.0
22	Roseburn Terrace No21	Roadside	323008	673182	NO2	No	0.0	1.8	No	2.0

Site ID	Site Name	Site Type	X OS Grid Ref	Y OS Grid Ref	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)
1d	St John's Road 131	Roadside	320096	672907	NO2	Yes - St John's Road	0.0	2.1	No	2.0
1b	St John's Road IR	Roadside	320136	672914	NO2	Yes - St John's Road	0.0	2.0	No	2.0
39	St John's/Victor Park Terr	Roadside	319677	672991	NO2	Yes - St John's Road	4.2	4.8	No	2.0
SOUTH WEST LOCALITY										
76b	Angle Park Terrace 74	Roadside	323527	672285	NO2	Yes - City Centre	0.0	2.1	No	2.0
78a	14 Appin Street	Other	322783	671530	NO2	No	0.0	65.0	No	2.0
80e	Balgreen Rd/Library	Roadside	322110	672268	NO2	No	0.0	2.0	No	2.0
4a	Calder Road	Roadside	318894	670493	NO2	No	5.0	12.0	No	2.0
145	1 Corstorphine High St	Roadside	319990	672707	NO2	No	0.0	1.4	No	2.0
145a	Corstorphine P. School	Roadside	319834	672678	NO2	No	0.0	2.7	No	2.0
79d	Dundee St/Yeaman Pl	Roadside	323926	672550	NO2	Yes - City Centre	0.0	2.3	No	2.0
79	Fountainbridge/Tollcross	Roadside	324682	672939	NO2	No	0.0	3.3	No	2.0
79B	Fountainbridge 158	Roadside	324451	672864	NO2	No	0.0	2.0	No	2.0
80	Gorgie Road - Delhaigh	Roadside	321967	671666	NO2	Yes - City Centre	0.0	2.6	No	2.0
80f	Gorgie Road No160	Roadside	323141	672345	NO2	Yes - City Centre	0.0	3.2	No	2.0
5	Gorgie Rd/Murieston Rd	Kerbside	323484	672478	NO2	Yes - City Centre	4.9	0.3	No	2.0
11	Lanark Road 610	Roadside	319527	668420	NO2	No	3.7	1.5	No	2.0
77b	Slateford Road 93/95	Roadside	322999	671876	NO2	Yes - City Centre	0.0	2.6	No	2.0

Site ID	Site Name	Site Type	X OS Grid Ref	Y OS Grid Ref	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)
NOTH EAST LOCALITY										
23i	Abbey Mount No5	Roadside	326928	674301	NO2	No	0.0	2.0	No	2.0
29a	Bernard Street	Roadside	327137	676529	NO2	Yes - Great Junction Street	0.0	2.1	No	2.0
29ci, 29cii	Bernard Street/PS	Roadside	327135	676515	NO2	Yes - Great Junction Street	0.0	2.1	No	2.0
29	Bernard Street	Roadside	327148	676507	NO2	Yes - Great Junction Street	0.0	2.2	No	2.0
119	Bonnington Rd/GJ St	Roadside	326723	676136	NO2	No	0.0	1.4	No	2.0
9d	Commercial Street	Roadside	326477	676759	NO2	Yes - Great Junction Street	0.0	2.6	No	2.0
9	Commercial Street 88	Roadside	326879	676626	NO2	Yes - Great Junction Street	0.0	2.6	No	2.0
9a	Commercial /Portland Pl	Roadside	326430	676754	NO2	Yes - Great Junction Street	3.9	1.5	No	2.0
30f	Duke Street	Roadside	327106	675816	NO2	No	0.0	2.2	No	2.0
25c	Easter Road 105/109	Roadside	326958	674770	NO2	Yes - City Centre	0.0	3.3	No	2.0
20a	East London Street	Roadside	325956	674725	NO2	No	0.0	8.0	No	2.0
25	Easter Road/CH shop	Roadside	326934	674503	NO2	Yes - City Centre	0.0	2.3	No	2.0

Site ID	Site Name	Site Type	X OS Grid Ref	Y OS Grid Ref	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)
25b	Easter Rd/Rossie Place	Roadside	326950	674624	NO2	Yes - City Centre	0.0	3.3	No	2.0
53	Ferry Road/ 6 Bowhill Ter	Roadside	324726	676004	NO2	No	1.6	4.6	No	2.0
45b	Ferry Road/1 Madeira St	Roadside	326359	676420	NO2	No	0.0	8.6	No	2.0
45d	Ferry Road/N.Junction St	Roadside	326503	676436	NO2	Yes- Great Junction Street	0.0	3.1	No	2.0
30b	Great Junction Street 137	Roadside	326740	676138	NO2	Yes - Great Junction Street	0.0	2.9	No	2.0
30c	Great Junction Street 14	Roadside	326925	675949	NO2	Yes - Great Junction Street	0.0	2.8	No	2.0
30e	Great Junction/ Pirrie St	Roadside	326845	676015	NO2	Yes - Great Junction Street	0.0	2.7	No	2.0
30	Great Junction Street/FV	Roadside	326884	675997	NO2	Yes - Great Junction Street	0.0	2.8	No	2.0
20	Leith Walk/McDonald Rd	Roadside	326370	674881	NO2	Yes - City Centre	6.5	1.0	No	2.0
67	London Road/Earlston Pl	Roadside	327190	674433	NO2	Yes - City Centre	0.0	2.7	No	2.0
81	London Rd/East Norton P	Roadside	326980	674446	NO2	Yes - City Centre	0.0	2.5	No	2.0
116	London Rd/Jocks Lodge	Roadside	328245	674166	NO2	Yes - City Centre	0.0	2.3	No	2.0

Site ID	Site Name	Site Type	X OS Grid Ref	Y OS Grid Ref	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)
46	London Rd/Easter Road	Roadside	326944	674472	NO2	Yes - City Centre	0.0	5.6	No	2.0
70	London Rd/Wolseley Terr	Roadside	328337	674129	NO2	Yes - City Centre	0.0	4.6	No	2.0
32	Niddrie Mains Road 28	Kerbside	328889	671649	NO2	No	4.7	2.6	No	2.0
71	Portobello High Street	Roadside	330533	673850	NO2	No	0.0	3.0	No	2.0
30X	Rodney Street 31	Roadside	325443	674969	NO2	No	0.0	2.4	No	2.0
51c	Salamander St/Baltic St	Roadside	327476	676418	NO2	No	0.0	2.3	No	2.0
90F	Southfield Place	Roadside	330123	673554	NO2	No	0.0	5.0	No	2.0
SOUTH EAST LOCALITY										
10B	Bank Street	Roadside	325598	673616	NO2	No	0.0	2.7	No	2.0
98	Bernard Terrace	Roadside	326383	672622	NO2	No	1.7	3.3	No	2.0
44	Broughton Street	Roadside	325918	674430	NO2	No	0.0	3.4	No	2.0
8A	Brougham Street 9	Roadside	324967	672916	NO2	No	0.0	3.7	No	2.0
6a	Bruntsfield Place 210	Roadside	324495	672035	NO2	No	0.0	2.8	No	2.0
48G	Cannongate	Roadside	326173	673700	NO2	No	0.0	2.6	No	2.0
48h	Canongate 206	Roadside	326271	673722	NO2	No	0.0	2.8	No	2.0
94	Chester Street 29	Roadside	324071	673608	NO2	No	0.0	6.9	No	2.0
138	Clerk Street 15	Roadside	326229	672789	NO2	No	0.0	4.4	No	2.0
151	Comiston Road No.116	Roadside	324367	670473	NO2	No	0.0	2.7	No	2.0
48f	Cowgate/St Mary's St	Roadside	326198	673587	NO2	No	0.0	2.6	No	2.0
48a	Cowgate/Blair Street	Roadside	325929	673490	NO2	Yes - City Centre	0.0	3.2	No	2.0
48e	Cowgatehead 2	Roadside	325537	673405	NO2	Yes - City Centre	0.0	1.9	No	2.0
123	Dalkeith Road 16/PS	Roadside	326629	672524	NO2	No	0.0	2.2	No	2.0

Site ID	Site Name	Site Type	X OS Grid Ref	Y OS Grid Ref	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)
93	Drumsheugh Gardens 20	Roadside	324326	673815	NO2	No	0.0	8.9	No	2.0
128	Dundas Street 9	Roadside	325253	674362	NO2	No	7.4	2.2	No	2.0
8C	Earl Grey Street 22	Roadside	324864	673008	NO2	Yes - City Centre	0.0	3.4	No	2.0
124	East Preston/Dalkeith Rd	Roadside	326645	672481	NO2	No	0.0	2.1	No	2.0
126	East Preston Street 32	Roadside	326588	672461	NO2	No	0.0	6.4	No	2.0
74f	George Street 112	Roadside	324880	673891	NO2	Yes - City Centre	0.0	6.8	No	2.0
37ai, 37aii	Grassmarket 41	Roadside	325401	673340	NO2	Yes - City Centre	0.0	3.4	No	2.0
37b	Grassmarket 75	Roadside	325471	673369	NO2	Yes - City Centre	0.0	5.0	No	2.0
37c	Grassmarket/Thomsons Ct	Urban Background	325397	673377	NO2	No	0.0	22.8	No	2.0
75e	Gt Stuart Street 9	Roadside	324476	673967	NO2	No	0.0	9.4	No	2.0
HT1	Haymarket Terrace (N)	Roadside	323985	673219	NO2	Yes - City Centre	0.0	3.7	No	2.0
HT2	Haymarket Terrace (S)	Kerbside	323787	673212	NO2	Yes - City Centre	1.8	0.5	No	2.0
10	Home Street/Tollcross	Roadside	324904	672906	NO2	No	0.0	2.0	No	2.0
140	Hope Park Terr/Clerk St	Roadside	326323	672596	NO2	Yes-City Centre	3.5	1.3	No	2.0
34	India Street	Urban Background	324790	674341	NO2	No		2.5	No	2.0
8B	Lauriston Place	Roadside	324989	673016	NO2	No	0.0	4.9	No	2.0
74g	Leith Street	Roadside	325897	674051	NO2	Yes - City Centre	0.0	3.7	No	2.0

Site ID	Site Name	Site Type	X OS Grid Ref	Y OS Grid Ref	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)
62A	Lothian Road 45	Roadside	324777	673425	NO2	Yes - City Centre	0.0	4.1	No	2.0
62B	Lothian Road 139	Roadside	324827	673138	NO2	No	3.2	3.5	No	2.0
62X	Lothian Road/Rutland St	Roadside	324711	673635	NO2	Yes - City Centre	0.0	4.8	No	2.0
38	Melville Drive	Roadside	325141	672733	NO2	No	10.0	2.8	No	2.0
42	Midmar Drive	Urban Background	325105	670511	NO2	No		1.4	No	2.0
79E	Morrison Crescent	Roadside	324170	672919	NO2	No	0.0	15.0	No	2.0
62C	Morrison Street 91	Roadside	324541	673183	NO2	Yes - City Centre	0.0	2.4	No	2.0
49	Morrison Street	Roadside	324186	673248	NO2	Yes - City Centre	0.5	6.6	No	2.0
135b	Nicholson Street 59-61	Roadside	326099	673140	NO2	Yes – City Centre	0.0	2.8	No	2.0
95	Palmerston/Lansdowne	Kerbside	324105	673457	NO2	No	5.0	0.8	No	2.0
96	Palmerston Place 7	Roadside	324190	673380	NO2	No	0.0	6.3	No	2.0
27	North Bridge South	Roadside	325944	673670	NO2	Yes - City Centre	0.0	3.5	No	2.0
47	Princes Street (EB)	Roadside	325049	673791	NO2	Yes - City Centre	6.5	9.0	No	2.0
24	Princes Street/Mound	Kerbside	325397	673869	NO2	Yes - City Centre	10.2	1.0	No	2.0
33	Queen St/North David St	Roadside	325467	674229	NO2	Yes - City Centre	0.0	6.5	No	2.0
144	South Bridge 59	Roadside	326020	673370	NO2	Yes- City Centre	0.0	2.3	No	2.0
141	South Clerk Street 84	Roadside	326383	672472	NO2	Yes-City Centre	0.0	2.6	No	2.0

Site ID	Site Name	Site Type	X OS Grid Ref	Y OS Grid Ref	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)
75d	St Colme Street/4	Roadside	324646	674025	NO2	No	0.0	6.2	No	2.0
28e	St Leonards Street 145a	Roadside	326559	672610	NO2	No	0.0	3.4	No	2.0
3b	Torphichen Place 1	Roadside	324277	673309	NO2	Yes - City Centre	0.0	4.8	No	2.0
3	Torphichen Place	Roadside	324258	673295	NO2	Yes - City Centre	0.0	2.3	No	2.0
2	W.Maitland/Palmerston	Kerbside	324193	673346	NO2	No	5.2	0.5	No	2.0
28d	West Port 42	Roadside	325203	673250	NO2	Yes - City Centre	0.0	2.7	No	2.0
28b	West Port 62	Roadside	325166	673242	NO2	Yes - City Centre	0.0	1.4	No	2.0
91	West Preston Street 40	Roadside	326309	672397	NO2	No	0.0	4.0	No	2.0
36	York Place	Roadside	325828	674362	NO2	No	2.7	5.5	No	2.0
CO-LOCATED TUBES										
CL1, CL2, CL3	Queensferry Road	Roadside	318736	674930	NO2	No	6.5	1.7	Yes	2.0
CL4, CL5, CL6	Gorgie Road	Roadside	323121	672314	NO2	Yes - City Centre	0.0	6.0	Yes	2.4
CL7, CL8, CL9	Salamander Street	Roadside	327616	676343	NO2	No	0.0	2.1	Yes	2.4
CL13, CL14, CL15	St Johns Road	Kerbside	320101	672907	NO2	Yes - St John's Road	0.0	0.5	Yes	1.8

Site ID	Site Name	Site Type	X OS Grid Ref	Y OS Grid Ref	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)
CL16, CL17, CL18	Nicolson Street	Roadside	326151	673041	NO2	Yes - City Centre	2.2	2.9	Yes	1.8
CL19, CL20, CL21	Drumsheugh	Roadside	324407	673843	NO2	No	0.0	1.0	Yes	2.0

Notes:

(1) 0m if the monitoring site is at a location of exposure (e.g. installed on/adjacent to 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
ID4 Gorgie	323121	672314	Roadside	-	98.2	18.4	18.2	17.4	17.7	15.7
ID5 St John's	320101	672907	Kerbside	-	88.6	25.6	28.7	29.2	29.8	28.8
ID6 Currie	317595	667909	Suburban	-	57.7	5.3	5.1	4.8	5.3	4.8
ID7 St Leonard's	326265	673129	Background	-	85.0	13.7	13.7	13.0	11.4	11.7
ID8 Salamander	327616	676343	Roadside	-	86.7	19.5	22.1	17.8	16.5	15.7
ID9 Queensferry	318736	674930	Roadside	-	99.5	25.8	29.2	25.9	26.0	23.9
EDNS Nicolson	326151	673041	Roadside	-	99.4	27.2	28.5	23.8	25.1	21.8
ED011 Drumsheugh	324407	673843	Roadside	-	47.2	-	-	-	-	18.8

Notes:

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

NO_2 annual means exceeding 60 µg/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.

(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
13a	324533	674655	Roadside	92.5	92.5	15.4	16.3	15.7	15.6	14.5
16	313028	672633	Roadside	100.0	100.0	26.7	27.9	27.7	32.0	27.4
15a	312711	672674	Roadside	100.0	100.0	17.3	21.5	25.3	26.0	19.8
58i, 58ii	312693	672670	Roadside	100.0	100.0	29.2	30.7	34.8	31.2	27.1
15	312664	672672	Roadside	100.0	100.0	24.3	26.6	31.8	27.7	23.9
41	320081	673232	Urban Background	100.0	100.0	11.3	12.9	10.9	13.7	10.7
55i, 55ii	324638	675993	Roadside	100.0	100.0	26.2	27.3	26.2	25.7	21.7
64	318698	674955	Roadside	100.0	100.0	38.4	38.1	**41.3**	**42.2**	33.6
64b	318701	674964	Roadside	100.0	100.0	20.9	20.7	21.2	18.9	17.2
69J	318682	674957	Roadside	100.0	100.0	35.0	38.5	37.3	38.7	32.9
69I	318616	674968	Roadside	100.0	100.0	28.2	31.6	31.4	32.5	28.3
40	322144	674497	Roadside	75.0	75.0	19.1	17.4	18.9	16.7	16.5
22b	322891	672958	Roadside	90.6	90.6					13.8
23	323007	673198	Kerbside	90.6	90.6	21.0	24.9	21.6	20.4	21.2
22a	322984	673189	Kerbside	92.5	92.5	23.1	25.9	23.9	23.9	27.2
22	323008	673182	Roadside	81.1	81.1					33.1
1d	320096	672907	Roadside	92.5	92.5	28.8	29.1	29.3	28.5	28.2
1b	320136	672914	Roadside	90.6	90.6	17.4	20.8	19.2	19.5	18.9
39	319677	672991	Roadside	100.0	100.0	19.1	21.6	21.0	18.9	20.7
76b	323527	672285	Roadside	92.5	92.5	25.6	24.3	21.1	21.3	18.5
78a	322783	671530	Other	100.0	100.0			9.4	9.9	8.1
80e	322110	672268	Roadside	100.0	100.0	18.5	20.7	19.5	18.8	17.1
4a	318894	670493	Roadside	75.0	75.0	15.4	16.5	13.0	16.1	13.7
145	319990	672707	Roadside	100.0	100.0			16.7	15.6	14.2
145a	319834	672678	Roadside	92.5	92.5			13.6	12.2	11.1
79d	323926	672550	Roadside	90.6	90.6	24.4	22.7	22.6	22.6	18.8
79	324682	672939	Roadside	90.6	90.6	18.6	17.7	17.5		17.8
79B	324451	672864	Roadside	90.6	90.6		20.3	17.6	19.0	16.9
80	321967	671666	Roadside	92.5	92.5	20.7	26.3	24.0	23.6	20.1
80f	323141	672345	Roadside	92.5	92.5	20.0	22.3	20.5	20.1	18.3
5	323484	672478	Kerbside	100.0	100.0	25.6	23.7	20.8	24.3	19.3
11	319527	668420	Roadside	100.0	100.0	13.7	13.7	10.7	12.9	10.3
77b	322999	671876	Roadside	100.0	100.0	27.2	23.1	20.3	20.2	18.6
23i	326928	674301	Roadside	100.0	100.0					24.7
29a	327137	676529	Roadside	100.0	100.0	25.0	23.9	20.8	20.7	17.7

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
29ci, 29cii	327135	676515	Roadside	100.0	100.0	28.4	28.5	26.7	24.2	18.8
29	327148	676507	Roadside	100.0	100.0	21.7	21.2	20.9	20.7	15.1
119	326723	676136	Roadside	100.0	100.0	18.2	20.8	18.7	18.4	16.0
9d	326477	676759	Roadside	100.0	100.0	28.3	28.2	24.9	24.8	21.0
9	326879	676626	Roadside	100.0	100.0	20.6	25.3	21.0	20.8	17.1
9a	326430	676754	Roadside	92.5	92.5	29.2	27.6	26.5	23.0	20.9
30f	327106	675816	Roadside	92.5	92.5	26.9	28.0	21.6	22.3	18.6
25c	326958	674770	Roadside	100.0	100.0	27.0	32.1	28.0	30.1	23.4
20a	325956	674725	Roadside	92.5	92.5				13.8	11.8
25	326934	674503	Roadside	100.0	100.0	25.8	29.1	25.5	23.5	19.2
25b	326950	674624	Roadside	81.1	81.1	21.5	24.9	21.6	19.5	17.6
53	324726	676004	Roadside	100.0	100.0	22.2	22.5	22.3	22.7	20.5
45b	326359	676420	Roadside	92.5	92.5	19.5	20.6	22.0	27.7	20.0
45d	326503	676436	Roadside	100.0	100.0	25.9	25.7	24.7	23.0	20.3
30b	326740	676138	Roadside	92.5	92.5	19.7	24.2	23.5	21.8	19.9
30c	326925	675949	Roadside	83.0	83.0	22.7	25.1	22.6	24.2	19.0
30e	326845	676015	Roadside	100.0	100.0	20.2	28.0	21.1	21.8	19.3
30	326884	675997	Roadside	100.0	100.0	23.8	28.1	23.9	23.3	18.3
20	326370	674881	Roadside	100.0	100.0			23.2	22.4	21.3
67	327190	674433	Roadside	100.0	100.0	25.5	30.1	27.4	29.0	25.0
81	326980	674446	Roadside	100.0	100.0	**44.0**	**40.6**	29.9	25.0	21.7
116	328245	674166	Roadside	90.6	90.6	21.6	31.0	25.4	25.6	22.1
46	326944	674472	Roadside	92.5	92.5	22.8	27.1	22.6	24.3	20.2
70	328337	674129	Roadside	100.0	100.0	32.3	32.6	34.1	28.3	27.6
32	328889	671649	Kerbside	100.0	100.0	20.5	20.6	21.9	20.6	16.9
71	330533	673850	Roadside	50.9	50.9	27.1	22.6	21.6	18.8	16.9
30X	325443	674969	Roadside	84.9	84.9	18.0	19.7	16.2	17.9	15.9
51c	327476	676418	Roadside	100.0	100.0	22.4	21.4	23.5	19.9	15.2
90F	330123	673554	Roadside	92.5	92.5		21.4	19.3	18.1	16.4
10B	325598	673616	Roadside	92.5	92.5	24.1	28.0	30.8	25.7	22.2
98	326383	672622	Roadside	92.5	92.5			18.2	16.5	13.8
44	325918	674430	Roadside	90.6	90.6	23.3	23.8	19.5	23.5	16.9
8A	324967	672916	Roadside	100.0	100.0	26.7	23.4	25.1	19.7	18.7
6a	324495	672035	Roadside	90.6	90.6	17.4	18.4	15.6	15.7	14.5
48G	326173	673700	Roadside	90.6	90.6	28.0	29.2	27.2	28.9	23.1
48h	326271	673722	Roadside	100.0	100.0		23.9	28.2	29.8	30.4

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
94	324071	673608	Roadside	92.5	92.5	19.6	18.1	18.7	15.7	15.2
138	326229	672789	Roadside	90.6	90.6	27.3	23.7	20.4	24.3	19.0
151	324367	670473	Roadside	100.0	100.0	17.3	15.8	15.7	16.2	14.1
48f	326198	673587	Roadside	92.5	92.5	24.0	25.1	23.1	24.1	19.8
48a	325929	673490	Roadside	0.0	0.0	21.5	22.7	20.9	21.1	-
48e	325537	673405	Roadside	90.6	90.6	23.6	26.1	24.5	25.9	21.3
123	326629	672524	Roadside	83.0	83.0	13.8	13.9	16.6	15.8	12.8
93	324326	673815	Roadside	100.0	100.0	18.1	17.9	14.9	15.7	12.7
128	325253	674362	Roadside	100.0	100.0	20.4	18.9	18.3	19.4	16.2
8C	324864	673008	Roadside	84.9	84.9		24.0	22.4	22.7	20.6
124	326645	672481	Roadside	92.5	92.5	18.4	15.9	17.0	15.7	12.7
126	326588	672461	Roadside	100.0	100.0	14.6	14.9	13.8	15.7	12.4
74f	324880	673891	Roadside	100.0	100.0	19.5	21.3	19.1	20.8	16.8
37ai, 37aii	325401	673340	Roadside	75.0	75.0	33.4	23.4	25.0	24.5	21.9
37b	325471	673369	Roadside	90.6	90.6	21.7	21.1	22.2	23.2	22.0
37c	325397	673377	Urban Background	92.5	92.5	17.9	15.9	16.2	18.6	15.6
75e	324476	673967	Roadside	100.0	100.0	15.3	15.0	15.1	16.8	12.4
HT1	323985	673219	Roadside	92.5	92.5	22.7	25.1	24.7	24.9	26.8
HT2	323787	673212	Kerbside	100.0	100.0	22.9	26.2	29.3	29.5	31.2
10	324904	672906	Roadside	90.6	90.6	24.5	21.2	19.1	22.6	19.2
140	326323	672596	Roadside	83.0	83.0	24.7	22.7	20.5	18.9	17.1
34	324790	674341	Urban Background	100.0	100.0	13.8	13.5	13.2	13.0	11.2
8B	324989	673016	Roadside	75.0	75.0	24.1	24.4	21.8	22.9	24.2
74g	325897	674051	Roadside	92.5	92.5	27.3	31.2	26.8	33.3	27.3
62A	324777	673425	Roadside	90.6	90.6	31.3	33.9	24.2	36.5	30.5
62B	324827	673138	Roadside	83.0	83.0	26.3	30.7	29.3	34.7	26.5
62X	324711	673635	Roadside	92.5	92.5	30.6	30.5	35.1	31.5	28.7
38	325141	672733	Roadside	100.0	100.0	18.6	15.8	17.4	15.5	12.1
42	325105	670511	Urban Background	100.0	100.0	8.1	9.5	8.4	9.0	7.1
79E	324170	672919	Roadside	100.0	100.0		18.7	15.6	17.6	16.1
62C	324541	673183	Roadside	90.6	90.6	29.4	25.0	23.5	28.2	23.5
49	324186	673248	Roadside	83.0	83.0	26.1	27.0	23.2	25.1	23.6
135b	326099	673140	Roadside	100.0	100.0	36.9	34.4	28.5	29.2	25.4
95	324105	673457	Kerbside	75.0	75.0	19.1	19.0	17.5	18.7	17.1
96	324190	673380	Roadside	100.0	100.0	24.9	26.1	22.5	24.0	20.1
27	325944	673670	Roadside	92.5	92.5	23.0	28.8	23.9	31.0	23.1

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
47	325049	673791	Roadside	100.0	100.0	26.4	26.0	25.2	27.4	24.0
24	325397	673869	Kerbside	100.0	100.0	29.1	34.4	36.4	39.4	35.9
33	325467	674229	Roadside	100.0	100.0	27.5	23.5	26.7	24.4	19.9
144	326020	673370	Roadside	100.0	100.0	27.0	28.1	27.6	29.5	24.9
141	326383	672472	Roadside	100.0	100.0	22.9	22.9	20.6	22.2	17.8
75d	324646	674025	Roadside	90.6	90.6	17.5	19.5	16.7	18.1	14.8
28e	326559	672610	Roadside	100.0	100.0			19.5	16.8	13.1
3b	324277	673309	Roadside	100.0	100.0	30.0	28.9	29.7	30.2	25.8
3	324258	673295	Roadside	92.5	92.5	29.1	31.1	33.3	32.3	26.5
2	324193	673346	Kerbside	100.0	100.0	34.2	35.4	35.6	35.4	34.1
28d	325203	673250	Roadside	100.0	100.0	24.5	23.6	26.9	32.1	27.5
28b	325166	673242	Roadside	100.0	100.0	24.8	23.0	26.0	38.9	36.0
91	326309	672397	Roadside	90.6	90.6	13.7	16.2	17.0	14.7	12.1
36	325828	674362	Roadside	100.0	100.0	20.9	23.9	20.7	19.8	18.1
CL1, CL2, CL3	318736	674930	Roadside	100.0	100.0	27.5	28.3	25.9	27.3	24.3
CL4, CL5, CL6	323121	672314	Roadside	100.0	100.0	20.1	18.2	16.1	17.8	15.3
CL7, CL8, CL9	327616	676343	Roadside	100.0	100.0	20.7	20.7	19.2	17.6	15.2
CL13, CL14, CL15	320101	672907	Kerbside	100.0	100.0	25.9	27.2	28.9	27.7	29.1
CL16, CL17, CL18	326151	673041	Roadside	100.0	100.0	30.3	26.7	23.2	25.4	21.9
CL19, CL20, CL21	324407	673843	Roadside	100.0	100.0					17.8

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

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

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

Notes:

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

Means for diffusion tubes have been corrected for bias. All means have been "annualised" as per LAQM.TG(22) if valid data capture for the full calendar year is less than 75%. See Appendix C for details.

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

(4) 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.5 - 1-Hour Mean NO_2 Monitoring Results, Number of 1-Hour Means > 200 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
ID4 Gorgie	323121	672314	Roadside	-	98.2	0	0	0 (74.0)	0	0
ID5 St John's	320101	672907	Kerbside	-	88.6	0	0	0	0	0
ID6 Currie	317595	667909	Suburban	-	57.7	0 (32.0)	0	0	0	0 (40)
ID7 St Leonard's	326265	673129	Background	-	85.0	0	0 (66.1)	0	0	0
ID8 Salamander	327616	676343	Roadside	-	86.7	0 (90.8)	0	0	0	0
ID9 Queensferry	318736	674930	Roadside	-	99.5	0	0	0	0	0
EDNS Nicolson	326151	673041	Roadside	-	99.4	0 (100.6)	0 (102.6)	0	0	0
ED011 Drumsheugh	324407	673843	Roadside	-	47.2	-	-	-	-	0 (85)

Notes:

Exceedances of the NO_2 1-hour mean objective (200 µg/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.1 - NO_2 concentration trends at continuous monitoring locations

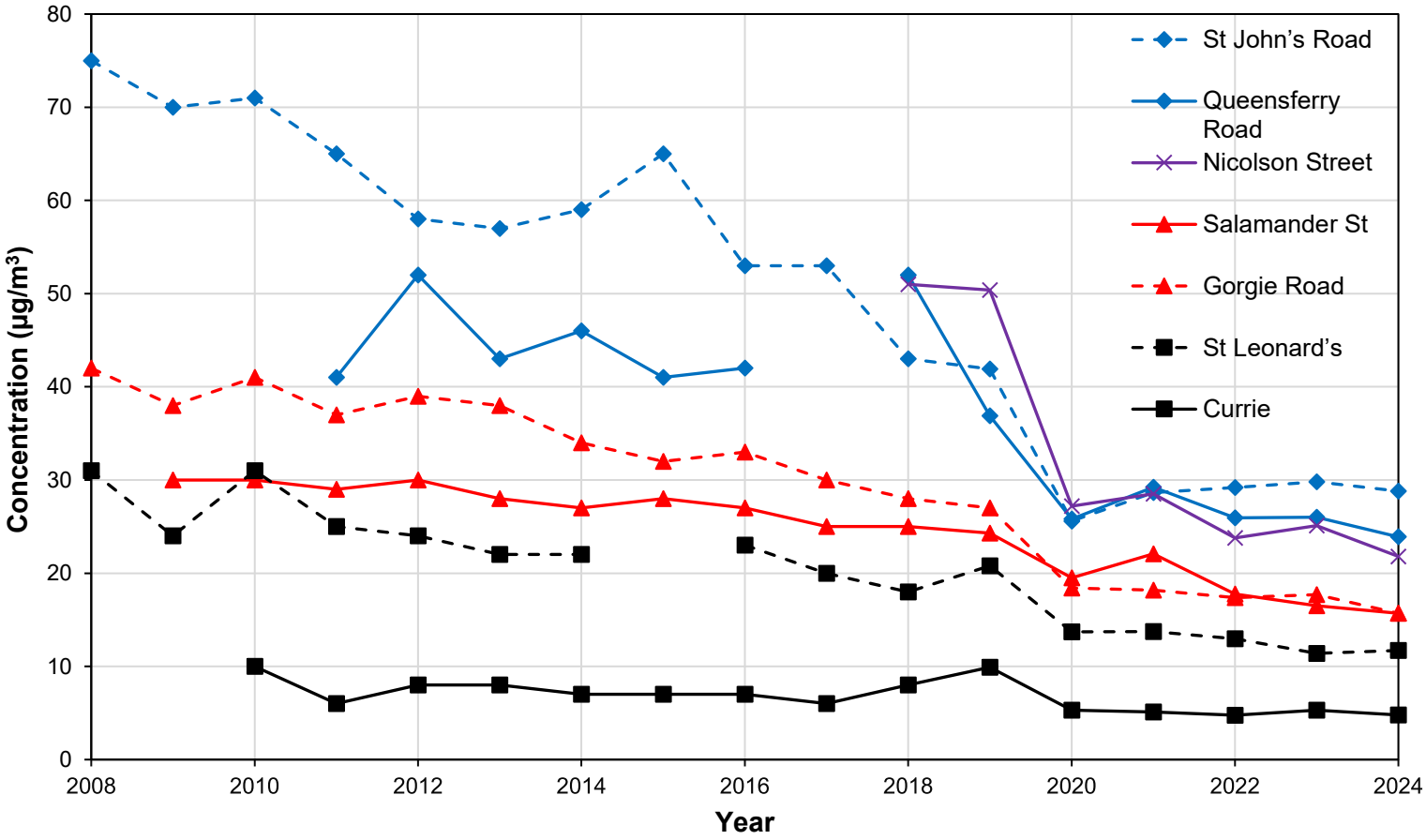


Figure A.2 – NO_2 concentration trends at passive diffusion tube monitoring locations

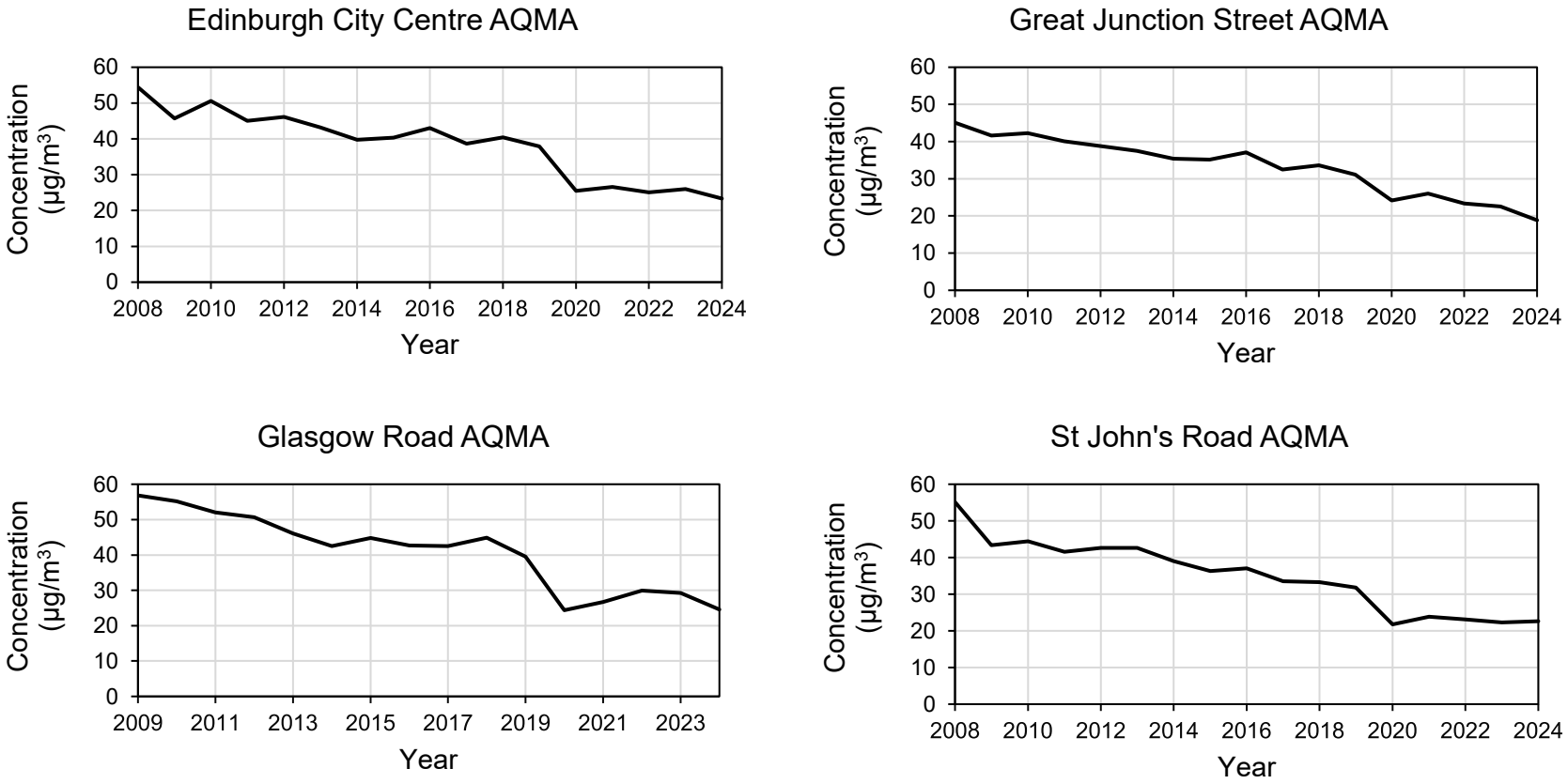


Table A.6 - Data used to establish the trend of annual mean concentrations of nitrogen dioxide at passive diffusion tube sites within the City Centre AQMA (µg/m^3)

Site ID	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
3	58.2	26.3	55.6	55.1	48.0	43.0	43.0	45.0	49.6	41.8	43.2	40.5	29.1	31.1	33.3	32.3	26.5
3b	N/A	N/A	N/A	N/A	N/A	N/A	45.0	42.0	44.0	41.0	43.0	40.0	30.0	28.9	29.7	30.2	25.8
5	N/A	58.2	60.1	54.3	51.9	48.5	43.3	42.0	44.0	42.7	42.0	33.3	25.6	23.7	20.8	24.3	19.3
20	53.1	36.8	38.1	N/A	35.0	34.0	32.0	33.0	39.7	N/A	45.3	37.9	-	-	23.2	22.4	21.3
23	N/A	47.5	58.2	41.4	45.1	41.2	45.7	37.0	39.7	34.3	37.1	35.3	21.0	24.9	21.6	20.4	21.2
24	N/A	46.2	73.0	N/A	49.7	59.9	N/A	54.0	56.7	54.2	52.7	53.2	29.1	34.4	36.4	39.4	35.9
25	58.2	50.8	49.7	43.6	45.0	41.0	39.0	40.0	45.7	37.9	37.1	33.2	25.8	29.1	25.5	23.6	19.2
27	52.3	48.4	49.4	48.7	52.0	47.0	48.0	N/A	53.0	37.4	40.4	40.6	23.0	28.8	23.9	31.0	23.1
46	52.3	43.4	46.2	40.4	46.0	38.0	38.0	37.0	39.3	39.7	37.4	34.9	22.8	27.1	22.6	24.3	20.2
47	N/A	31.6	47.5	39.0	N/A	41.0	41.1	38.0	40.8	38.1	35.5	36.2	26.4	26.0	25.2	27.4	24.0
49	N/A	48.2	54.5	53.5	50.8	46.8	39.3	36.0	41.7	38.1	37.0	37.2	26.1	27.0	23.2	25.1	23.6
67	N/A	47.9	51.3	45.5	46.0	46.0	39.0	42.0	40.5	42.1	41.7	36.9	25.5	30.1	27.4	29.0	25.0
70	N/A	47.3	46.1	42.4	41.0	44.0	38.0	44.0	40.0	38.2	40.1	37.6	32.3	32.6	34.1	28.3	27.6
80	N/A	N/A	47.4	42.2	42.0	44.0	37.0	33.0	38.0	34.2	36.5	33.3	20.7	26.3	24.0	23.6	20.1
81	N/A	N/A	N/A	51.2	46.0	44.0	43.0	50.0	56.7	40.9	42.6	50.0	44.0	40.6	29.9	25.0	21.7
22a	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	35.0	42.0	36.5	23.1	25.9	23.9	23.9	27.2
25b	44.9	38.8	39.1	35.8	35.0	34.0	31.0	31.0	34.7	29.9	31.8	30.1	21.5	24.9	21.6	19.5	17.6
25c	43.8	38.0	37.7	41.0	41.0	37.0	29.0	31.0	33.1	30.5	32.6	33.2	27.0	32.1	28.0	30.1	23.4
28b	72.5	66.7	62.4	57.0	61.0	52.0	56.0	58.0	58.9	N/A	64.9	54.2	24.8	23.0	26.0	38.9	36.0
28d	66.6	60.2	54.9	55.2	60.0	58.0	51.0	52.0	50.8	46.9	51.4	44.0	24.5	23.6	26.9	32.1	27.5
37ai, 37aii	42.3	40.5	60.0	42.0	43.0	44.0	40.0	42.0	54.1	56.5	56.3	52.5	33.4	23.4	25.0	24.5	21.9
37b	N/A	N/A	N/A	37.1	39.0	37.0	35.0	36.0	36.7	34.1	37.1	38.8	21.7	21.1	22.2	23.2	22.0
48a	N/A	N/A	37.7	31.4	40.0	35.0	36.0	34.0	37.4	27.6	35.6	38.2	21.5	22.7	20.9	21.1	N/A
48e	N/A	N/A	N/A	N/A	N/A	39.0	35.0	44.0	41.0	48.0	37.0	29.6	23.6	26.1	24.5	25.9	21.3
74f	N/A	N/A	43.4	44.7	47.0	34.0	30.0	26.0	30.8	30.4	30.3	25.7	19.5	21.3	19.1	20.8	16.8
76b	N/A	N/A	N/A	N/A	51.0	46.0	41.0	46.0	44.0	39.0	40.0	33.8	25.6	24.3	21.1	21.3	18.5
77b	N/A	N/A	N/A	N/A	46.0	42.0	38.0	38.0	36.0	33.0	36.0	34.2	27.2	23.1	20.3	20.2	18.6

Site ID	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
79d	N/A	N/A	N/A	N/A	N/A	46.0	41.0	42.0	39.0	38.0	40.0	34.5	24.4	22.7	22.6	22.6	18.8
80f	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	35.0	32.5	20.0	22.3	20.5	20.1	18.3
HT1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	37.0	42.0	41.0	31.0	36.5	22.7	25.1	24.7	24.9	26.8
HT2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	39.0	39.0	33.0	41.0	40.8	22.9	26.2	29.3	29.5	31.2
Mean	**54.4**	**45.7**	**50.6**	**45.1**	**46.2**	**43.2**	**39.8**	**40.3**	**43.0**	**38.7**	**40.4**	**37.9**	**25.5**	**26.6**	**25.1**	**26.0**	**23.3**

Table A.7 - Data used to establish the trend of annual mean concentrations of NO_2 at passive diffusion tube sites within the Glasgow Road AQMA (µg/m^3)

Site ID	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
16	57.3	54.7	50.9	54.8	44.9	45.6	46.0	44.8	39.6	46.0	40.9	26.7	27.9	27.7	32.0	27.4
15a	N/A	N/A	N/A	N/A	N/A	34.0	39.0	33.0	35.0	38.0	32.0	17.3	21.5	25.3	26.0	19.8
58i, 58ii	61.8	65.0	59.3	54.8	52.0	51.9	51.3	49.0	50.9	52.0	46.0	29.2	30.7	34.8	31.2	27.1
15	51.4	45.7	45.9	42.5	41.4	38.6	42.8	44.0	44.4	43.7	39.2	24.3	26.6	31.8	27.7	23.9
Mean	**56.8**	**55.1**	**52.0**	**50.7**	**46.1**	**45.4**	**46.7**	**45.9**	**45.0**	**47.2**	**42.0**	**26.7**	**28.4**	**29.9**	**29.2**	**24.6**

Table A.8 - Data used to establish the trend of annual mean concentrations of nitrogen dioxide at passive diffusion tube sites within the Great Junction Street AQMA (µg/m^3)

Site ID	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
29	45.3	45.1	43.7	38.9	37.0	36.0	31.0	32.0	33.2	32.1	29.8	25.9	21.7	21.2	20.9	20.7	15.1
29a	48.0	42.0	44.6	41.9	40.0	38.0	34.0	34.0	37.2	27.4	31.1	27.1	25.0	23.9	20.8	20.7	17.7
29ci, 29cii	53.4	48.2	49.4	44.6	44.0	42.0	39.0	40.0	41.6	35.9	36.5	35.4	28.4	28.5	26.7	24.2	18.8
9	40.4	31.6	36.7	31.2	35.0	32.0	30.0	29.0	32.0	26.3	29.1	26.3	20.6	25.3	21.0	20.8	17.1
9a	-	-	45.5	46.2	44.0	41.0	41.0	42.0	39.8	35.1	36.5	32.8	29.2	27.6	26.5	23.0	20.9
9d	N/A	N/A	N/A	N/A	N/A	N/A	42.0	36.0	42.0	36.0	35.0	33.6	28.3	28.2	24.9	24.8	21.0
45d	42.4	40.9	38.3	39.6	37.0	34.0	34.0	37.0	33.2	33.2	32.0	31.2	25.9	25.7	24.7	23.0	20.3

Site ID	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
30b	38.4	38.5	39.9	40.0	38.0	36.0	33.0	38.0	32.8	32.8	31.7	30.8	19.7	24.2	23.5	21.8	19.9
30c	50.2	42.6	44.1	38.4	38.0	39.0	37.0	34.0	40.3	34.2	37.1	33.1	22.7	25.1	22.6	24.2	19.0
30e	43.1	41.9	38.7	41.2	37.0	36.0	33.0	32.0	34.0	-	33.9	33.3	20.2	28.0	21.1	21.8	19.3
30	44.6	44.1	41.8	39.1	38.0	41.0	-	33.0	42.1	31.7	36.9	32.8	23.8	28.1	23.9	23.3	18.3
Mean	**45.1**	**41.7**	**42.3**	**40.1**	**38.8**	**37.5**	**34.7**	**35.1**	**36.6**	**32.1**	**33.5**	**30.9**	**23.7**	**25.8**	**23.1**	**22.6**	**18.9**

Table A.9 - Data used to establish the trend of annual mean concentrations of NO_2 at passive diffusion tube sites within the St John's Road AQMA (µg/m^3)

Site ID	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
1b	48.8	44.2	43.5	38.4	44.0	41.0	37.0	33.0	36.1	28.5	27.7	27.3	17.4	20.8	19.2	19.5	18.9
1d	84.9	57.8	58.8	56.3	52.0	52.0	48.0	46.0	45.1	42.0	40.1	37.7	28.8	29.1	29.3	28.5	28.2
39	31.7	28.2	31.1	30.0	32.0	35.0	32.0	30.0	30.0	30.0	32.0	30.4	19.1	21.6	21.0	18.9	20.7
Mean	**55.1**	**43.4**	**44.5**	**41.6**	**42.7**	**42.7**	**39.0**	**36.3**	**37.1**	**33.5**	**33.3**	**31.8**	**21.8**	**23.8**	**23.1**	**22.3**	**22.6**

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

Site ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Site Type	Valid Data Capture for Monitoring Period (%) (1)	Valid Data Capture 2024 (%) (2)	2020	2021	2022	2023	2024
ID5 St John's	320101	672907	Kerbside	-	100	9.9	11.0	14.3	11.1	11.3
						10.9	12.1	15.7	12.2	12.4
ID6 Currie	317595	667909	Suburban	-	100	8.6	7.3	8.6	7.7	8.0
						N/A	8.0	9.4	8.5	8.8
ID7 St Leonard's	326265	673129	Background	-	85	8.1	8.5	9.2	8.6	9.3
						8.9	9.3	10.1	9.4	10.2
ID8 Salamander	327616	676343	Roadside	-	99	14.8	15.4	14.3	*12.7	12.9
						N/A	17.0	15.7	*14.0	14.2
ID9 Queensferry	318736	674930	Roadside	-	100	11.2	12.0	13.1	11.5	12.4
						12.3	13.2	14.4	12.6	13.6
ED012 Tower	327467	676537	Urban Industrial	-	100	8.6	9.9	10.0	9.2	14.4
						9.5	10.9	11.0	10.1	15.9
EDNS Nicolson	326151	673041	Roadside	-	100	9.5	10.1	12.1	10.9	10.6
						10.5	11.1	13.3	12.0	11.6
ED011 Drumsheugh	324407	673843	Roadside	-	87					11.4
										12.5

Notes:

Exceedances of the PM_{10} annual mean objective of 18 µg/m^3 are shown in bold.

All means have been “annualised” as per LAQM.TG(22), valid data capture for the full calendar year is less than 75%. See Appendix C for details.

Data in grey coloured cells is corrected FIDAS® data under terms of the LAQM Scottish Guidance Note, May 2023.

*At Salamander Street different figures for 2023 were mistakenly printed in the 2024 Annual Progress Report

(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.11 - 24-Hour Mean PM_{10} Monitoring Results, Number of PM_{10} 24-Hour Means > 50 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
ID5 St John's	320101	672907	Kerbside	-	100	0	0	**12**	0	0
						0	1	**12**	0	0
ID6 Currie	317595	667909	Suburban	-	100	0	1	2	0	0
						N/A	0	2	0	0
ID7 St Leonard's	326265	673129	Background	-	85	0	0	1	0	0
						0	0	2	0	0
ID8 Salamander	327616	676343	Roadside	-	99	2 (51.2)	3	5	0	0
						N/A	6	6	0	0
ID9 Queensferry	318736	674930	Roadside	-	100	2	0	3	0 (26.2)	1
						2	0	3	0 (28.8)	2
ED012 Tower	327467	676537	Urban Industrial	-	100	0	0	1	2	**8**
						0	0	3	3	**13**
EDNS Nicolson	326151	673041	Roadside	-	100	0	0	2	0	0
						0	0	3	0	0
ED011 Drumsheugh	324407	673843	Roadside	-	86					0
										0

Notes:

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

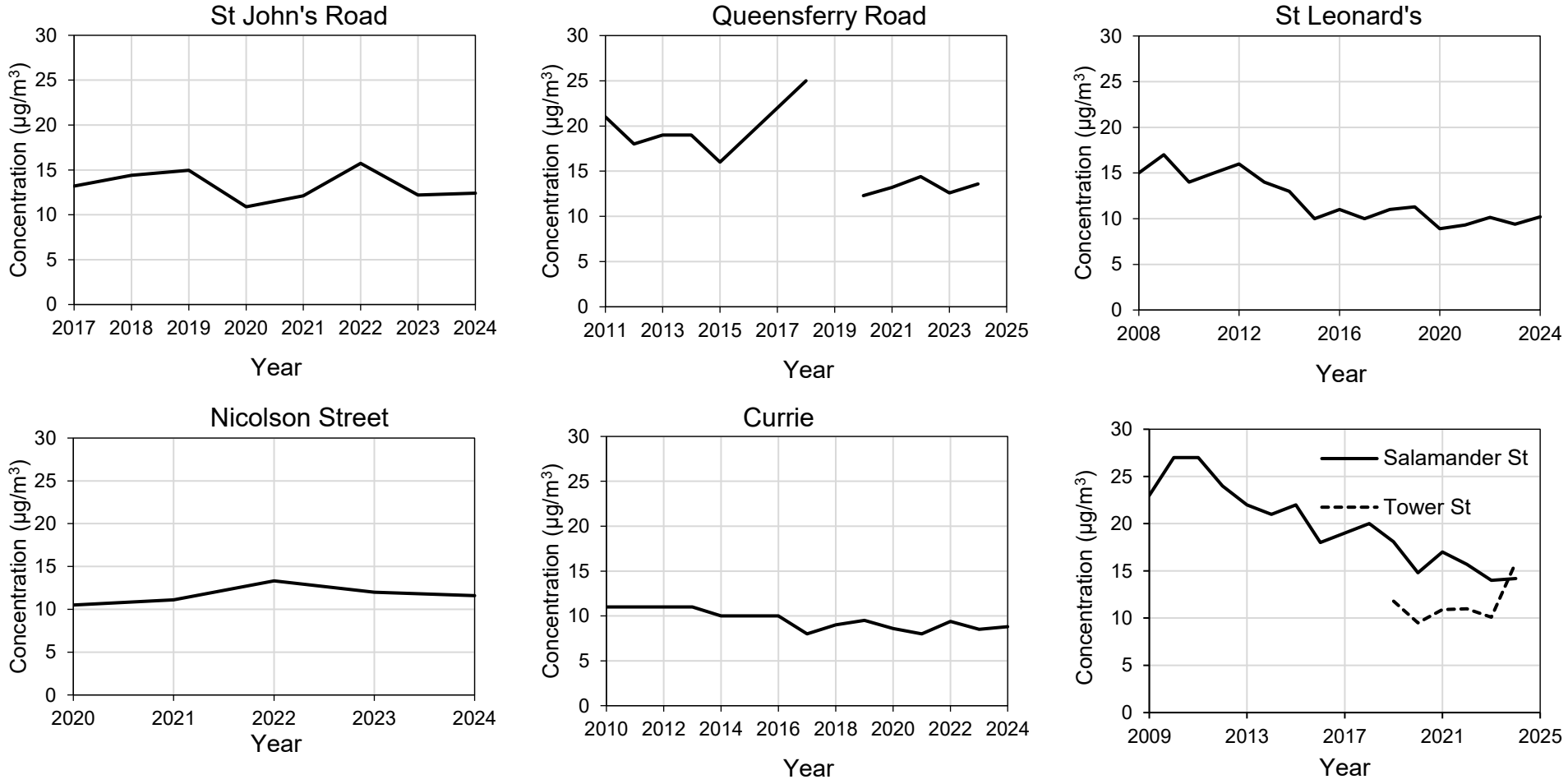
If the period of valid data is less than 85%, the 98.1st percentile of 24-hour means is provided in brackets.

Data in grey coloured cells is corrected FIDAS® data under terms of the LAQM Scottish Guidance Note, May 2023.

(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 - PM_{10} concentration trends at continuous monitoring locations



- Salamander Street and Tower Street grouped together since both in the same AQMA for PM_{10}. Tower Street did not start data collection until 2019
- Gap in data at Queensferry Road in 2019 due to instrument breakdown and no data collection

Table A.12 - Annual Mean $PM_{2.5}$ Monitoring Results (µg/m^3)

Site ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Site Type	Valid Data Capture for Monitoring Period (%) [1]	Valid Data Capture 2024 (%) [2]	2020	2021	2022	2023	2024
ID5 St John's	320101	672907	Kerbside	-	100	4.9	5.5	6.0	5.4	6.0
						5.2	5.8	6.4	5.8	6.4
ID6 Currie	317595	667909	Suburban	-	100	-	4.3	4.7	4.2	4.6
						-	4.6	5.0	4.5	4.8
ID7 St Leonard's	326265	673129	Background	-	85	4.4	4.8	5.1	4.6	5.4
						4.7	5.1	5.4	4.9	5.7
ID8 Salamander	327616	676343	Roadside	-	99	-	5.9	6.3	5.5	6.1
						-	6.3	6.7	5.8	6.5
ID9 Queensferry	318736	674930	Roadside	-	100	5.2	5.5	5.9	5.3	5.9
						5.5	5.8	6.3	5.6	6.2
ED012 Tower	327467	676537	Urban Industrial	-	100	4.2	4.7	4.9	4.3	5.5
						4.5	5.0	5.2	4.5	5.8
EDNS Nicolson	326151	673041	Roadside	-	100	5.0	5.4	6.3	5.6	5.8
						5.3	5.8	6.7	5.9	6.1
ED011 Drumsheugh	324407	673843	Roadside	-	86					5.9
										6.3

Notes:

Exceedances of the $PM_{2.5}$ annual mean objective of 10 µg/m^3 are shown in bold.

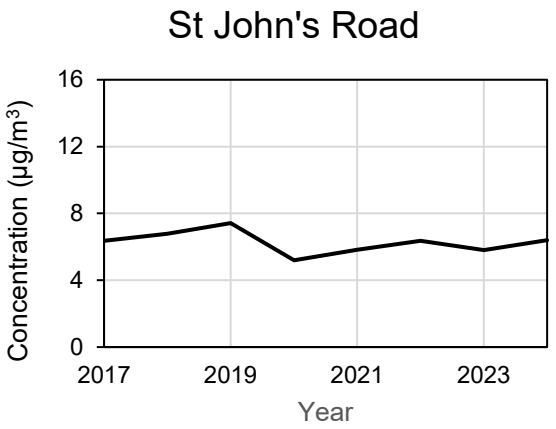
All means have been "annualised" as per LAQM.TG(22), valid data capture for the full calendar year is less than 75%. See Appendix C for details.

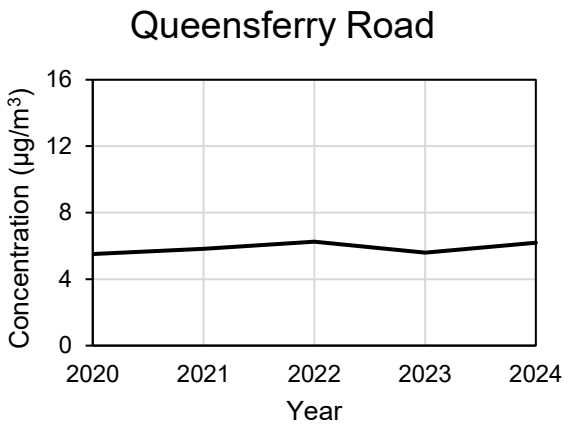
Data in grey coloured cells is corrected FIDAS® data under terms of the LAQM Scottish Guidance Note, May 2023.

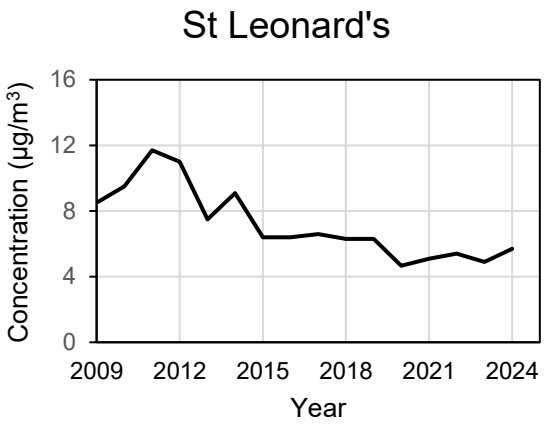
(1) Data capture for the monitoring period, in cases where monitoring was only carried out for part of the year.

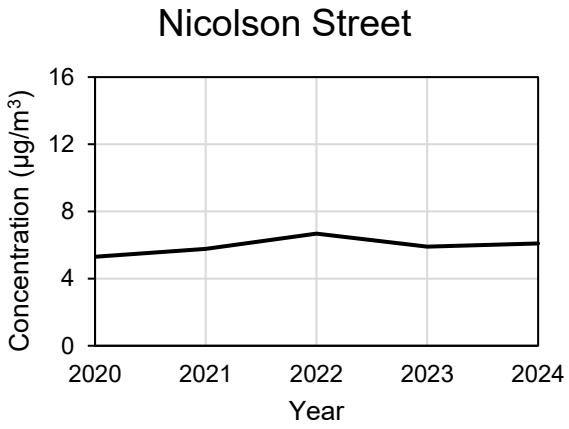
(2) Data capture for the full calendar year (e.g. if monitoring was carried out for 6 months, the maximum data capture for the full calendar year is 50%).

Figure A.4 - $PM_{2.5}$ concentration trends at continuous monitoring locations









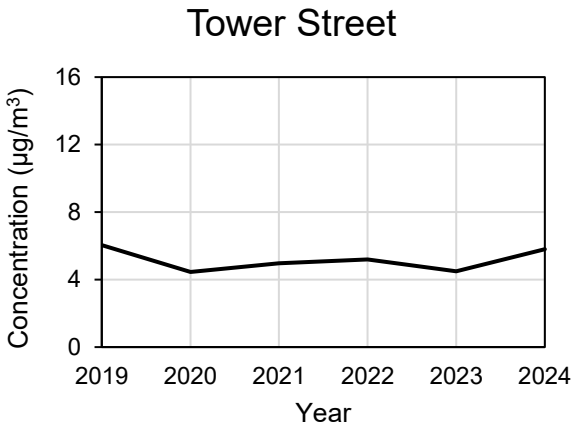


Table A.13 - SO_2 2024 Monitoring Results, Number of Relevant Instances

Site ID	Site Type	Valid Data Capture for monitoring Period (%) (1)	Valid Data Capture 2024 (%) (2)	Number of 15-minute Means > 266 µg/m³	Number of 1-hour Means > 350 µg/m³	Number of 24-hour Means > 125 µg/m³
ID7 St Leonard's	Urban Background	-	82	**48** (545)	9 (18)	1 (5)

Notes:

Exceedances of the SO_2 objectives are shown in **bold** (15-min mean = 35 allowed a year, 1-hour mean = 24 allowed a year, 24-hour mean = 3 allowed a year)

If the period of valid data is less than 85%, the relevant percentiles are provided in brackets (15-Minute means: 99.9th percentile, 1-hour means: 99.7th percentile, 24-hour means: 99.2nd percentile).

(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.14 - Number of ozone exceedances

Site ID	Site Type	Valid Data Capture for monitoring Period (%) (1)	Valid Data Capture 2024 (%) (2)	Number of 8-hour Means > 100 µg/m
ID7 St Leonard's	Urban Background	-	84	0

(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.15 - PAH (B(a)P) Monitoring at St Leonard's

St Leonard's Urban Background	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Annual mean concentration (ng/m^3)	0.131	0.129	0.099	0.109	0.084	0.056	0.073	0.077	0.047	0.055	0.061	0.037	0.049	0.061	0.047	0.030

Appendix B: Full Monthly Diffusion Tube Results for 2024

Table B.1 - NO_2 2024 Monthly 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	Annual Mean: Distance Corrected to Nearest Exposure	Comment
13a	324533	674655	20.6	15.9	16.9		17.9	12.1	10.2	10.6	18.4	17.0	27.7	18.5	16.9	14.5		
16	313028	672633	31.1	29.9	54.6	32.7	35.1	23.1	31.7	29.0	20.4	34.8	36.3	24.9	32.0	27.4		
15a	312711	672674	25.3	24.7	19.4	18.3	21.1	20.1	25.3	24.2	25.2	28.7	17.0	28.2	23.1	19.8		
58i	312693	672670	27.0	32.4	27.6	28.2	31.4	22.9	35.9	25.7	26.3	37.9	41.7	33.1	-	-		Duplicate Site with 58i and 58ii - Annual data provided for 58ii only
58ii	312693	672670	30.8	31.5	26.3	26.8	34.7	26.8	41.0	32.4		34.7	40.7	38.3	31.7	27.1		Duplicate Site with 58i and 58ii - Annual data provided for 58ii only
15	312664	672672	27.7	24.5	27.5	23.2	28.7	25.4	34.1	27.0	33.2	32.0	20.4	31.7	28.0	23.9		
41	320081	673232	17.5	11.5	9.9	8.8	13.6	8.4	8.5	9.4	11.6	13.5	22.4	15.2	12.5	10.7		
55i	324638	675993	32.0	19.4	26.2	13.7	28.6	23.5	20.7	21.6	26.8	28.1	36.7	36.9	-	-		Duplicate Site with 55i and 55ii - Annual data provided for 55ii only
55ii	324638	675993	27.2	16.4	26.6	10.6	25.6	20.3	24.4	19.8	24.5	28.6	33.7	35.4	25.3	21.7		Duplicate Site with 55i and 55ii - Annual data provided for 55ii only
64	318698	674955	43.7	36.7	32.8	24.2	38.1	37.7	41.5	40.3	43.7	44.0	50.6	37.6	39.2	33.6		
64b	318701	674964	24.8	23.7	15.6	11.0	15.4	13.7	19.9	20.3	17.0	26.2	28.5	24.9	20.1	17.2		
69J	318682	674957	47.2	43.9	26.2	28.2	34.3	34.1	43.5	38.4	41.2	46.3	43.8	33.7	38.4	32.9		
69I	318616	674968	33.7	33.5	33.0	27.9	38.8	26.1	34.3	27.3	35.2	31.0	40.6	35.1	33.0	28.3		
40	322144	674497	23.3	19.4		15.4		14.2	18.0	15.3	21.3		24.3	22.3	19.3	16.5		
22b	322891	672958	19.0	21.6	15.7	13.5	16.4	11.1	10.6	9.7	16.6		19.8	23.5	16.1	13.8		
23	323007	673198	31.0		29.6	22.0	31.8	17.4	20.5	15.0	29.6	18.9	31.9	24.4	24.7	21.2		
22a	322984	673189	32.0	31.6	23.4		36.7	25.9	28.2	26.0	33.5	37.2	38.3	36.4	31.7	27.2		
22	323008	673182	40.4	39.1	38.3	27.7		28.6	34.9		43.6	47.1	46.8	40.5	38.7	33.1		
1d	320096	672907	32.7	32.1		29.0	32.6	36.1	26.8	26.6	26.3	35.1	43.5	40.9	32.9	28.2		
1b	320136	672914	31.2	19.2	22.4	16.9	25.9	19.2	16.9	17.0	25.7	23.7	24.8		22.1	18.9		
39	319677	672991	30.8	26.7	21.0	14.2	21.6	22.0	16.5	18.2	25.6	21.9	35.0	36.1	24.1	20.7		
76b	323527	672285	24.6	24.0	23.1	16.6	24.7		23.5	17.4	23.7	19.0	18.2	22.8	21.6	18.5		
78a	322783	671530	16.0	9.9	4.7	6.8	9.3	5.7	8.0	6.9	7.0	12.0	14.8	13.0	9.5	8.1		
80e	322110	672268	23.9	20.0	24.2	15.3	18.4	17.5	16.9	14.2	17.8	19.7	32.0	19.7	20.0	17.1		
4a	318894	670493	18.6				17.0	11.9	16.3	10.4	19.9	18.1	22.3	9.3	16.0	13.7		
145	319990	672707	24.2	16.5	13.1	14.8	13.5	12.9	11.5	11.6	14.4	18.5	24.3	23.2	16.5	14.2		
145a	319834	672678		13.3	9.2	9.8	15.1	9.8	9.5	9.2	15.1	14.5	21.6	15.7	13.0	11.1		

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	Annual Mean: Distance Corrected to Nearest Exposure	Comment
79d	323926	672550	29.4	24.8	25.0	20.5	27.2	14.1	19.3	15.8	23.4	24.4	17.2		21.9	18.8		
79	324682	672939	21.2	21.8	19.2	15.2	19.6	13.0	17.7		20.7	24.6	29.1	26.3	20.8	17.8		
79B	324451	672864	24.6	23.0	20.5	17.5		12.8	18.7	12.5	18.9	18.8	29.6	20.3	19.7	16.9		
80	321967	671666	25.3	28.1	24.0		28.0	19.8	19.7	19.5	22.1	20.9	29.3	21.0	23.4	20.1		
80f	323141	672345	25.9	19.1		17.5	27.0	17.7	16.0	14.5	26.9	18.9	29.3	22.1	21.4	18.3		
5	323484	672478	28.3	22.9	22.2	18.1	28.8	18.9	15.2	17.0	29.5	16.2	34.6	19.1	22.6	19.3		
11	319527	668420	13.2	11.1	13.2	8.3	12.5	8.1	11.1	7.9	15.2	14.3	17.6	11.2	12.0	10.3		
77b	322999	671876	26.7	22.0	18.6	20.0	26.5	14.8	19.9	15.4	21.1	21.5	32.2	21.2	21.7	18.6		
23i	326928	674301	33.9	26.2	31.6	24.4	36.9	18.2	28.9	18.7	36.0	29.9	37.8	23.9	28.9	24.7		
29a	327137	676529	25.9	21.5	21.2	8.6	23.4	15.8	14.2	15.1	19.3	24.3	29.6	29.5	20.7	17.7		
29ci	327135	676515	30.9			16.2	33.4	20.2	15.3	20.7	21.3		31.7	25.1	-	-		Duplicate Site with 29ci and 29cii - Annual data provided for 29cii only
29cii	327135	676515	30.0	11.8	21.9	15.9	18.9	18.0	16.9	17.6	21.0	25.2	31.7	24.4	22.0	18.8		Duplicate Site with 29ci and 29cii - Annual data provided for 29cii only
29	327148	676507	19.6	11.6	17.0	6.6	16.5	17.3	19.7	10.2	17.9	22.0	29.9	22.9	17.6	15.1		
119	326723	676136	21.7	16.9	24.5	9.2	24.7	13.5	14.4	12.1	19.7	21.0	23.4	23.3	18.7	16.0		
9d	326477	676759	27.4	13.2	32.5	8.7	31.8	22.8	22.5	18.6	28.6	26.1	28.8	32.9	24.5	21.0		
9	326879	676626	29.5	10.3	23.5	10.7	26.8	15.5	7.0	12.7	23.0	23.7	29.9	27.6	20.0	17.1		
9a	326430	676754	33.2	12.0	29.9	16.2	23.1	21.5		18.6	22.5	29.8	31.0	30.9	24.4	20.9		
30f	327106	675816	33.2	25.3		19.3	19.6	18.8	16.0	17.1	20.6	22.9	34.9	11.0	21.7	18.6		
25c	326958	674770	33.9	39.8	35.5	17.6	21.2	15.6	19.1	17.4	31.8	25.4	33.7	36.5	27.3	23.4		
20a	325956	674725	22.5	15.8	14.7	5.1	14.2	9.4	10.4	11.7	13.5	13.7		20.3	13.8	11.8		
25	326934	674503	24.9	26.0	25.9	20.1	29.3	15.6	22.4	16.5	22.6	23.2	20.6	21.3	22.4	19.2		
25b	326950	674624	21.1		21.1	16.5	21.3	14.0	17.9		21.3	19.6	31.3	21.4	20.6	17.6		
53	324726	676004	41.0	18.5	21.4	10.2	18.4	18.0	19.5	24.6	18.7	27.4	33.7	35.4	23.9	20.5		
45b	326359	676420	30.9	21.0	28.3	10.0	20.1		12.2	13.1	21.7	39.6	31.1	29.2	23.4	20.0		
45d	326503	676436	40.0	19.0	20.4	9.0	23.7	26.5	18.5	20.8	21.6	27.8	28.6	28.9	23.7	20.3		
30b	326740	676138		18.2	26.7	10.4	20.6	20.6	18.1	25.6	21.7	25.3	32.4	36.0	23.2	19.9		
30c	326925	675949	30.0	13.9	24.2	13.4	31.3	21.2	19.7	14.9	25.4	27.6			22.2	19.0		
30e	326845	676015	31.7	14.1	24.6	10.3	22.7	22.4	11.6	19.5	26.2	22.7	34.7	29.3	22.5	19.3		
30	326884	675997	24.8	9.1	31.1	14.4	33.6	19.6	14.2	16.5	26.5	24.7	14.6	27.3	21.4	18.3		
20	326370	674881	32.1	25.5	24.4	15.2	23.1	21.2	19.9	22.2	28.3	26.5	32.4	27.4	24.9	21.3		
67	327190	674433	29.8	31.2	29.5	27.0	33.8	20.5	31.1	21.2	37.0	27.4	29.8	31.7	29.2	25.0		
81	326980	674446	35.3	28.7	21.6	19.2	20.7	19.2	26.7	21.4	19.1	26.5	31.5	34.3	25.4	21.7		
116	328245	674166	28.7	28.6	24.6	21.9	29.8	18.0	25.8		29.1	24.1	30.6	22.6	25.8	22.1		
46	326944	674472	26.2	23.8	20.3		25.5	16.8	22.9	15.9	26.6	26.6	28.5	25.8	23.5	20.2		
70	328337	674129	36.7	30.6	33.2	19.5	26.8	18.9	26.6	23.6	45.3	48.1	39.4	37.6	32.2	27.6		
32	328889	671649	24.4	20.0	20.5	12.2	18.8	15.2	20.1	15.8	19.5	23.0	27.3	20.6	19.8	16.9		
71	330533	673850	24.2	23.7	14.5	14.0				20.3				21.6	19.7	16.9		
30X	325443	674969	21.7	19.5	14.8		18.4	12.3	11.4	13.0		20.6	28.0	25.6	18.5	15.9		
51c	327476	676418	28.6	14.2	22.9	9.0	14.8	18.6	13.4	13.7	11.9	19.8	27.1	19.5	17.8	15.2		

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	Annual Mean: Distance Corrected to Nearest Exposure	Comment
90F	330123	673554	24.8	25.4		17.1	19.9	12.9	16.8	11.3	20.3	19.5	23.3	19.0	19.1	16.4		
10B	325598	673616	32.0	43.8	23.0	9.6	23.0	22.5		23.9	21.7	24.6	31.2	29.5	25.9	22.2		
98	326383	672622	21.3	17.8	16.2	15.9	13.4	10.0		12.2	13.7	14.9	28.1	14.3	16.2	13.8		
44	325918	674430	26.8	19.8	28.4	9.2		14.1	14.7	15.8	20.7	19.2	25.9	22.1	19.7	16.9		
8A	324967	672916	23.2	21.8	16.4	18.0	18.6	15.5	19.0	16.0	22.4	27.4	28.7	34.3	21.8	18.7		
6a	324495	672035	18.6	16.3	16.0	12.9		11.4	18.0	12.5	19.9	18.4	24.5	17.8	16.9	14.5		
48G	326173	673700	28.9	29.5	31.1	21.9		21.4	29.3	20.2	27.5	29.3	31.7	25.8	27.0	23.1		
48h	326271	673722	36.6	58.5	51.5	21.7	34.9	26.8	26.6	24.4	24.0	43.0	36.4	41.7	35.5	30.4		
94	324071	673608	23.5	20.0	17.4	7.6	17.0	12.2		12.2	22.8	19.5	22.8	20.5	17.8	15.2		
138	326229	672789	23.9		22.9	18.6	20.5	16.5	17.9	17.2	21.9	25.8	32.6	26.3	22.2	19.0		
151	324367	670473	19.2	18.2	15.5	10.8	15.3	11.7	14.6	12.2	15.0	20.2	26.4	17.8	16.4	14.1		
48f	326198	673587	25.3	23.0	27.5		26.1	17.0	17.5	17.1	24.6	21.4	30.9	23.6	23.1	19.8		
48a	325929	673490														-		
48e	325537	673405	28.6	30.0	28.9	19.7	27.6	18.9	21.9	19.4	25.0	23.6	30.5		24.9	21.3		
123	326629	672524	18.6	12.6	15.5	12.5			13.2	12.3	13.2	12.7	22.7	16.0	14.9	12.8		
93	324326	673815	20.4	19.9	18.4	5.5	16.7	9.2	9.1	8.8	16.6	15.2	22.3	15.6	14.8	12.7		
128	325253	674362	26.8	20.3	26.5	6.0	22.3	14.1	11.9	13.1	17.4	21.6	27.3	19.2	18.9	16.2		
8C	324864	673008	26.2	25.4	19.8		25.6	22.3	23.3	16.3		27.8	28.4	25.6	24.1	20.6		
124	326645	672481	20.6	16.1	14.5	12.4	15.0	11.1	13.9	13.4	16.8	10.4		19.0	14.8	12.7		
126	326588	672461	17.8	16.7	13.6	12.6	15.7	9.0	12.4	8.7	16.5	13.9	21.5	15.8	14.5	12.4		
74f	324880	673891	26.7	18.8	22.5	13.4	15.1	12.3	16.2	14.4	22.0	22.6	27.6	23.1	19.6	16.8		
37ai	325401	673340	33.1	23.7	21.1	23.9	27.0	19.1	24.4	36.0			32.3	31.4	-	-		Duplicate Site with 37ai and 37aii - Annual data provided for 37aii only
37aii	325401	673340	27.5	27.2	23.0	15.5	22.9		17.6		21.0	24.1	31.3		25.6	21.9		Duplicate Site with 37ai and 37aii - Annual data provided for 37aii only
37b	325471	673369	25.4	26.5	32.5	19.9	26.0	20.0	23.6	17.4	27.0		32.6	31.3	25.7	22.0		
37c	325397	673377		24.9	20.1	14.3	13.4	13.3	16.8	11.8	19.4	16.1	24.7	26.0	18.3	15.6		
75e	324476	673967	19.6	15.7	13.4	8.3	11.6	11.8	10.4	8.6	12.9	14.8	24.7	22.1	14.5	12.4		
HT1	323985	673219	42.5	27.8	25.8	24.5	40.5	26.9		21.4	39.8	26.0	38.7	30.9	31.3	26.8		
HT2	323787	673212	44.5	44.0	37.2	33.2	33.4	26.8	32.2	30.9	36.7	33.6	46.1	38.2	36.4	31.2		
10	324904	672906	21.3	33.2	25.8	17.4	20.4	13.1	16.4		21.4	21.6	28.8	27.0	22.4	19.2		
140	326323	672596	21.8	23.4	17.6	17.8	19.6	13.1			20.4	22.7	25.5	17.7	20.0	17.1		
34	324790	674341	21.3	16.1	15.0	4.6	13.0	8.2	4.8	7.7	9.7	15.2	22.2	18.7	13.0	11.2		
8B	324989	673016	25.5		22.6	22.9	31.2	23.5			28.9	27.1	38.6	34.0	28.3	24.2		
74g	325897	674051	36.6	29.3	38.2	36.0	45.1	25.0	24.4	26.1	34.2	28.0		27.6	31.9	27.3		
62A	324777	673425	31.1	41.1	41.0	37.6		19.7	31.7	25.6	40.4	43.1	45.7	34.3	35.6	30.5		
62B	324827	673138	29.7	27.1	34.4	31.3	37.9	23.8	33.2	23.4	35.0	33.8			31.0	26.5		
62X	324711	673635	35.9	39.5	35.4	23.8	25.4		24.7	24.6	36.7	36.7	43.1	43.3	33.6	28.7		
38	325141	672733	18.4	15.3	12.5	10.5	13.1	10.9	14.7	6.6	12.4	16.6	22.6	16.0	14.1	12.1		
42	325105	670511	11.0	5.9	8.1	6.6	9.2	5.7	7.6	4.5	3.6	10.6	14.7	11.9	8.3	7.1		
79E	324170	672919	25.8	22.6	19.0	14.7	18.5	13.4	13.6	12.9	17.1	15.8	26.8	25.6	18.8	16.1		

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	Annual Mean: Distance Corrected to Nearest Exposure	Comment
62C	324541	673183	30.4	25.1	17.6	20.5	35.9	23.7	22.1		28.8	27.5	33.1	37.5	27.5	23.5		
49	324186	673248	41.5	19.0	28.4	18.4	29.9	24.2	19.2			23.2	36.3	35.8	27.6	23.6		
135b	326099	673140	33.1	27.5	30.7	25.6	27.6	22.9	31.0	30.0	29.5	29.0	43.2	26.1	29.7	25.4		
95	324105	673457	25.2	20.9	14.6	13.5			20.1		19.0	14.2	31.1	20.7	19.9	17.1		
96	324190	673380	25.9	27.9	25.3	13.9	29.5	14.4	14.8	13.5	33.2	24.8	31.4	27.0	23.5	20.1		
27	325944	673670		23.8	30.7	18.0	40.5	20.1	21.6	22.3	31.1	27.7	34.5	25.8	26.9	23.1		
47	325049	673791	35.6	27.1	22.9	23.0	29.7	22.1	27.7	20.4	34.1	23.8	39.1	31.0	28.0	24.0		
24	325397	673869	41.2	44.6	38.6	32.0	37.9	38.0	37.7	45.5	49.0	38.9	51.9	47.0	41.9	35.9		
33	325467	674229	27.8	27.7	19.4	18.7	21.8	12.7	20.9	20.1	20.5	29.2	31.0	28.5	23.2	19.9		
144	326020	673370	24.4	30.6	28.7	24.0	32.6	23.7	32.1	26.6	31.8	32.1	39.4	22.5	29.0	24.9		
141	326383	672472	22.4	24.1	18.1	19.9	19.8	14.5	21.5	16.5	19.3	21.3	32.2	19.7	20.8	17.8		
75d	324646	674025	21.1	17.7	20.8	13.9		13.0	11.1	11.0	19.0	18.4	25.7	18.5	17.3	14.8		
28e	326559	672610	20.1	17.4	13.0	9.9	14.6	11.5	13.7	13.4	14.6	15.6	23.5	16.9	15.4	13.1		
3b	324277	673309	35.4	33.4	26.4	13.2	28.3	23.5	20.7	25.6	57.5	26.4	37.1	33.4	30.1	25.8		
3	324258	673295	37.0	35.5	31.3	12.3	29.3		24.0	28.2	37.7	31.3	36.7	37.2	31.0	26.5		
2	324193	673346	52.5	43.6	42.1	18.1	38.2	39.6	33.4	40.7	48.7	25.3	46.4	49.0	39.8	34.1		
28d	325203	673250	39.8	39.4	31.2	25.8	31.8	23.8	32.9	25.8	30.4	36.2	35.7	32.9	32.1	27.5		
28b	325166	673242	43.1	40.4	38.4	37.4	36.5	31.7	33.3	35.7	42.4	38.5	54.4	72.5	42.0	36.0		
91	326309	672397	17.0	14.9	12.9	11.6	15.4	8.7	12.7	8.8	15.2		23.4	14.7	14.1	12.1		
36	325828	674362	31.1	23.1	23.5	16.7	17.9	15.6	14.6	16.3	22.5	18.1	29.5	24.2	21.1	18.1		
CL1	318736	674930		29.9	30.4	16.9	36.3	23.3	26.4	23.9	33.8	30.4	33.8	26.7	-	-		Triplicate Site with CL1, CL2 and CL3 - Annual data provided for CL3 only
CL2	318736	674930	28.1	24.1	27.9	23.3	35.3	24.9	26.9	26.7	33.8	33.5	33.3	28.4	-	-		Triplicate Site with CL1, CL2 and CL3 - Annual data provided for CL3 only
CL3	318736	674930	32.8	26.3	27.9	22.3	31.7	21.3	22.2	24.6	33.1	29.4	34.9	27.5	28.4	24.3		Triplicate Site with CL1, CL2 and CL3 - Annual data provided for CL3 only
CL4	323121	672314	23.1	18.7	17.6	14.8	23.3	12.2	8.2	13.7	17.9	14.6	27.6	21.5	-	-		Triplicate Site with CL4, CL5 and CL6 - Annual data provided for CL6 only
CL5	323121	672314	24.2	21.6	22.2	15.2	24.2	13.1	11.9	11.5	17.3	15.5	26.0	21.4	-	-		Triplicate Site with CL4, CL5 and CL6 - Annual data provided for CL6 only

DT ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual Mean: Raw Data	Annual Mean: Annualised and Bias Adjusted	Annual Mean: Distance Corrected to Nearest Exposure	Comment
CL6	323121	672314	22.5	16.8		12.5	23.5	12.1	6.6	13.2	17.4	15.2	24.1	20.7	17.8	15.3		Triplicate Site with CL4, CL5 and CL6 - Annual data provided for CL6 only
CL7	327616	676343	31.3	14.2	13.1	13.2	18.0	13.4	12.6	15.6	18.9	18.9	23.6	24.0	-	-		Triplicate Site with CL7, CL8 and CL9 - Annual data provided for CL9 only
CL8	327616	676343			17.7	16.0	14.2	14.5	14.8	13.6	15.5	18.4	19.5	20.4	-	-		Triplicate Site with CL7, CL8 and CL9 - Annual data provided for CL9 only
CL9	327616	676343	23.9	17.3	18.1	10.1	16.0	15.2	12.1	16.7	16.7	21.4	26.1	21.4	17.8	15.2		Triplicate Site with CL7, CL8 and CL9 - Annual data provided for CL9 only
CL13	320101	672907	41.9	37.7	27.9	26.0	28.5	30.9	30.4	32.7	25.2	35.4	44.8	42.4	-	-		Triplicate Site with CL13, CL14 and CL15 - Annual data provided for CL15 only
CL14	320101	672907	50.2	38.2	33.9	25.6	29.1	32.6	26.1	25.2	36.0	35.7	43.2	35.1	-	-		Triplicate Site with CL13, CL14 and CL15 - Annual data provided for CL15 only
CL15	320101	672907	41.5	35.3	31.8	24.6	27.5	31.7	33.6	32.8	30.3	38.7	43.4	37.2	34.0	29.1		Triplicate Site with CL13, CL14 and CL15 - Annual data provided for CL15 only
CL16	326151	673041	28.4	26.4	24.3	22.2	27.2	20.5	23.3	23.2	24.3	26.0	33.6	22.3	-	-		Triplicate Site with CL16, CL17 and CL18 - Annual data provided for CL18 only
CL17	326151	673041	28.8	26.3	22.0	21.3	25.8	23.6	27.9	21.9	21.6	29.2	38.2	23.5	-	-		Triplicate Site with CL16, CL17 and CL18 - Annual data provided for CL18 only

DT ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual Mean: Raw Data	Annual Mean: Annualised and Bias Adjusted	Annual Mean: Distance Corrected to Nearest Exposure	Comment
CL18	326151	673041	32.0	22.0	21.1	24.8	23.3	22.4	25.1	21.2	25.5	27.0	36.0	27.8	25.6	21.9		Triplicate Site with CL16, CL17 and CL18 - Annual data provided for CL18 only
CL19	324407	673843	21.2	21.2	20.0	14.2	19.7	15.8	13.2	14.4	21.0	24.4	31.0	29.9	-	-		Triplicate Site with CL19, CL20 and CL21 - Annual data provided for CL21 only
CL20	324407	673843	18.4	32.7	23.8	9.1	22.7	14.8	13.6	20.1	21.8	25.1	30.5	16.7	-	-		Triplicate Site with CL19, CL20 and CL21 - Annual data provided for CL21 only
CL21	324407	673843	25.3	24.3	22.5	7.2	20.5	14.4	13.3	19.3	22.2	27.8	30.5	26.7	20.8	17.8		Triplicate Site with CL19, CL20 and CL21 - Annual data provided for CL21 only

☒ **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 **Edinburgh 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 40 µg/m^3 are shown in **bold**.

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 the City of Edinburgh Council During 2024

New sources within the local authority area that have been identified with a potential to impact air quality are detailed within Section 4 of the report.

Additional Air Quality Works Undertaken by The City of Edinburgh Council During 2024

The City of Edinburgh Council completed source apportionment work in respect to the development of the PM_{10} Salamander Street Air Quality Action Plan. This has been published in draft form here; https://www.edinburgh.gov.uk/downloads/file/37323/draft-salamander-street-air-quality-action-plan

The Council is considering findings from the consultation process undertaken for the Salamander Street Draft AQAP in 2025 and will produce a Final AQAP in 2026.

QA/QC of Diffusion Tube Monitoring

City of Edinburgh Council's diffusion tubes in 2024 were supplied and analysed by Edinburgh Scientific Services (ESS), using the 50% Triethanolamine (TEA) in acetone preparation method. ESS's laboratory is UKAS accredited, participating in the AIR-PT Scheme for NO_2 tube analysis and the Annual Field Inter-Comparison Exercise. These provide strict performance criteria for participating laboratories to meet, thereby ensuring NO_2 concentrations reported are of a high caliber. In the AIR-PT results available for 2024, AIR PT AR062 (January – February 2024), AIR PT AR063 (April – June 2024), AIR PT AR065 (July – August 2024) and AIR PT AR066 (September - October 2024) ESS scored 100% in every round. The percentage score reflects the results deemed to be satisfactory based upon the z-score of $< \pm 2$.

The Council currently operate six co-location studies, one of which – Drumsheugh Place – was not used in 2024 due to it being a new site with low automatic data capture (see

3.1.1). Four of the remaining five sites were rated as 'good' in 2024, as shown by the precision summary results. This precision reflects the laboratory's performance and consistency in preparing and analysing the tubes, as well as the subsequent handling of the tubes in the field. Tubes are considered to have a "good" precision where the coefficient of variation of duplicate or triplicate diffusion tubes for eight or more monitoring periods during a year is less than 20% and the average CV of all monitoring periods is less than 10%. The co-located PDTs at the Salamander Street monitoring station had "poor" precision due to the average CV for the whole of 2024 being >10%. Data from the Salamander Street co-located PDTs was not used in the bias adjustment calculations.

Monitoring in 2024 was completed in adherence with the 2024 Diffusion Tube Monitoring Calendar, whereby changeovers were completed within ±2 days of the specified date.

Diffusion Tube Annualisation

Annualisation is required for any site with data capture less than 75% but greater than 25%; consequently, 1 site required annualisation in 2024. This was conducted using the latest version of the Diffusion Tube Data Processing Tool utilising data from the three nearest automatic background monitoring sites with at least 85% data capture in 2024: Edinburgh St Leonards, Bush Estate and Peebles (all AURN). These sites, alongside the details of the calculation method undertaken, are provided in Table C.2.

Diffusion Tube Bias Adjustment Factors

City of Edinburgh Council have applied a local bias adjustment factor of 0.86 to the 2024 monitoring data. A summary of bias adjustment factors used by the City of Edinburgh Council over the past five years is presented in Table C.1.The bias adjustment factor is an estimate of the difference between diffusion tube concentration and automatic continuous monitoring.

Edinburgh co-locates triplicate tubes on the sampler head cages at roadside and kerbside monitoring stations: Gorgie Road, Queensferry Road, Salamander Street, St John's Road, Nicolson Street and Drumsheugh Place (new for 2024). Due to low automatic monitoring data capture at the Drumsheugh Place station and poor precision (Annual CV >10%) at the Salamander Street station, these co-located tubes were not considered in the calculation of the local bias adjustment factor. Only data from the remaining four co-

location sites were considered, and the local bias adjustment factor calculation was performed using the Diffusion Tube Data Processing Tool (see Table C.3).

The national bias adjustment factor for Edinburgh Scientific Services (ESS) in 2024, obtained from the national bias adjustment spreadsheet (v04/25) is 0.83 (based on 2 studies).

The Council chose to use the local factor based on prior experience and guidance in Defra LAQM.TG(22):

- It is recommended by Defra LAQM.TG(22) and the LAQM Helpdesk that the local bias adjustment factor should be used where available and relevant
- The LAQM (TG22) considers that a local bias adjustment factor may be more representative where the national bias adjustment spreadsheet contains fewer than five other studies using the same laboratory and preparation method. Only two studies were available for ESS in 2024 and one of these, the Marylebone intercomparison site, showed “poor” precision.
- All four local sites in the co-location study used high quality chemiluminescence results with instruments and data maintained to AURN standards in the Scottish Air Quality Network.
- All four sites showed “good” precision with regards to the diffusion tubes
- The automatic monitoring sites are located in areas where a number of diffusion tubes are sited and, thus, a local factor is more relevant to the local conditions
- The higher local bias adjustment factor takes a more precautionary approach to analysing the passive diffusion tube data.

The bias adjustment factor for 2024 remains commensurable with historical factors used in Edinburgh (see Table C.1)

Table C.1 - Bias Adjustment Factor

Year	Local or National	If National, Version of National Spreadsheet	Adjustment Factor
2024	Local	-	0.86
2023	Local	-	0.88
2022	Combined	-	0.82
2021	Combined	-	0.84

Year	Local or National	If National, Version of National Spreadsheet	Adjustment Factor
2020	Combined	-	0.84
NB - combined factor was calculated using Edinburgh's local factor combined with data from the national study site at Marylebone Road			

NO_2 Fall-off with Distance from the Road

No diffusion tube NO_2 monitoring locations within City of Edinburgh Council required distance correction during 2024.

QA/QC of Automatic Monitoring

All monitoring stations are subject to an independent audit and stringent QA/QC procedures which are undertaken by Ricardo Energy & Environment on behalf of the Scottish Government. This agreement commenced in 2007 (2013 for Currie, 2024 for Drumsheugh Place). In addition, all data, including calibration data, are scrutinised daily by the Council (Monday to Friday) by visual examination, to check for any unusual measurements. Any suspicious data (e.g. large spikes) are flagged to undergo further checks. All data presented in this report have been ratified by Ricardo Energy & Environment to the relevant standards. Near real-time data is made available via the Air Quality in Scotland website.

Staff competence

Council officers are trained as local site operators in relation to the management of the stations and undertake the necessary calibrations and basic maintenance. Shadow training is carried out where appropriate during half yearly audits (performed by Ricardo E&E).

Calibration procedures

All sites are visited fortnightly to perform calibration checks, apart from the National Network site at St Leonards which is managed externally as part of the AURN and is visited monthly. Manual calibration checks are performed using a zero-air scrubber and certified nitric oxide gas at approximately 450 ppb. Certified gas is supplied by BOC.

Servicing

All instruments are serviced and recalibrated every six months by an appropriate supplier. The service contracts include a support package for software and replacement parts, plus any necessary call outs to the sites. Filters are changed on the Fidas® (particulate measurement) instruments every six months. Servicing follows half-yearly audits completed by Ricardo E&E.

During all visits to the monitoring stations, actions taken and activities noted adjacent to the site are recorded in the site logbook.

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

Eight monitoring sites in Edinburgh currently use the Fidas® 200 instrument to measure particulate matter. Following Scottish Government Guidance Note (May 2023) in relation to the measurement of ambient Particulate Matter (PM_{10} and $PM_{2.5}$) and the LAQM reporting of measured concentrations, correction factors are applied to data monitored by the Fidas® 200 instrument. The following correction factors have been applied to Fidas® data:

- Fidas® 200 PM_{10} data collected within the SAQD should be corrected by dividing ratified data (provided by the Air Quality in Scotland website) by 0.909
- Fidas® 200 $PM_{2.5}$ data collected within the SAQD should be corrected by multiplying ratified data (provided by the Air Quality in Scotland website) by 1.06

Automatic Monitoring Annualisation

Two automatic monitoring sites - Currie & Drumsheugh - required annualisation for NO_2 since data capture was less than 75% but greater than 25%. The annualisation data is shown in Table C.2.

For PM_{10} and $PM_{2.5}$ all the automatic monitoring locations within the City of Edinburgh Council recorded data capture of greater than 75%, therefore it was not required to annualise any monitoring data.

NO_2 Fall-off with Distance from the Road

No automatic NO_2 monitoring locations within City of Edinburgh Council required distance correction during 2024.

Table C.2 - Annualisation Summary (NO_2 concentrations presented in µg/m^3)

Site ID	Annualisation Factor Bush Estate	Annualisation Factor Peebles	Annualisation Factor St Leonard's	Average Annualisation Factor	Raw Data Annual Mean	Annualised Annual Mean	Comments
Diffusion Tubes							
71	1.0131	0.9460	1.0351	0.9981	19.7	19.7	
Automatic							
ID5 (Currie)	0.973	1.053	1.024	1.017	4.7	4.8	
ED011 (Drumsheugh)	1.098	0.993	0.985	1.025	18.3	18.8	

Table C.3 - Local Bias Adjustment Calculations

	Local Bias Adjustment Queensferry Road	Local Bias Adjustment Gorgie Road	Local Bias Adjustment St Johns Road	Local Bias Adjustment Nicolson Street	Local Bias Adjustment Input 5
Periods used to calculate bias	12	10	10	12	-
Bias Factor A	0.84 (0.78 - 0.91)	0.88 (0.81 - 0.97)	0.86 (0.8 - 0.93)	0.85 (0.79 - 0.93)	-
Bias Factor B	19% (10% - 28%)	14% (3% - 24%)	17% (8% - 26%)	17% (8% - 26%)	-
Diffusion Tube Mean (µg/m^3)	28.4	18.4	32.6	25.6	-
Mean CV (Precision)	7.3%	7.0%	8.3%	7.8%	-
Automatic Mean (µg/m^3)	23.9	16.2	27.9	21.8	-

	Local Bias Adjustment Queensferry Road	Local Bias Adjustment Gorgie Road	Local Bias Adjustment St Johns Road	Local Bias Adjustment Nicolson Street	Local Bias Adjustment Input 5
Data Capture (for periods used to calculate bias)	99%	99%	100%	99%	-
Adjusted Tube Mean (µg/m^3)	24 (22 - 26)	16 (15 - 18)	28 (26 - 30)	22 (20 - 24)	-

Notes:

A combined local bias adjustment factor of 0.86 has been used to bias adjust the 2024 diffusion tube results.

Appendix D: Maps of Monitoring Sites

Figure D.1 – Automatic Monitoring Locations

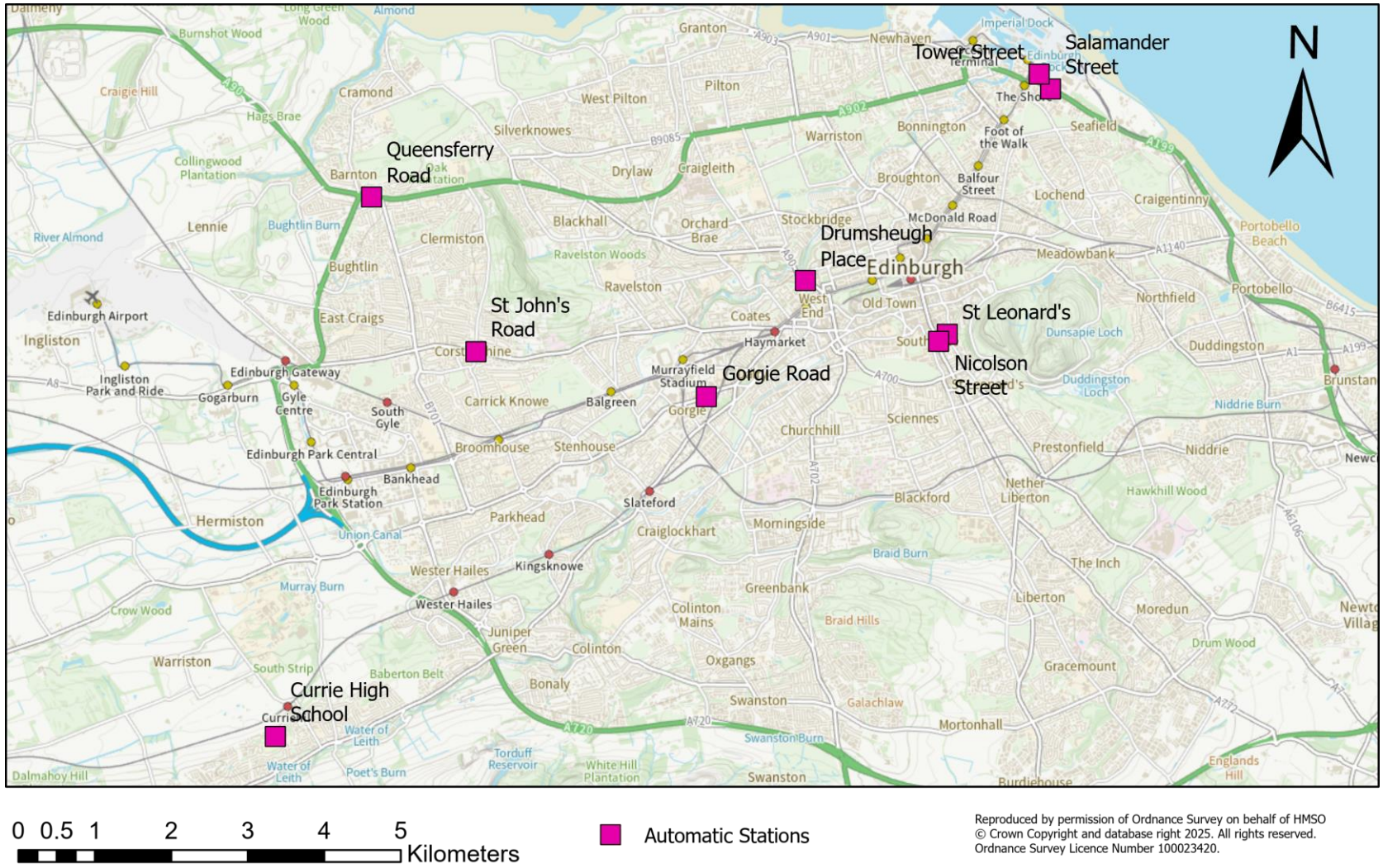


Figure D.2 - Diffusion Tube Locations: City Centre AQMA

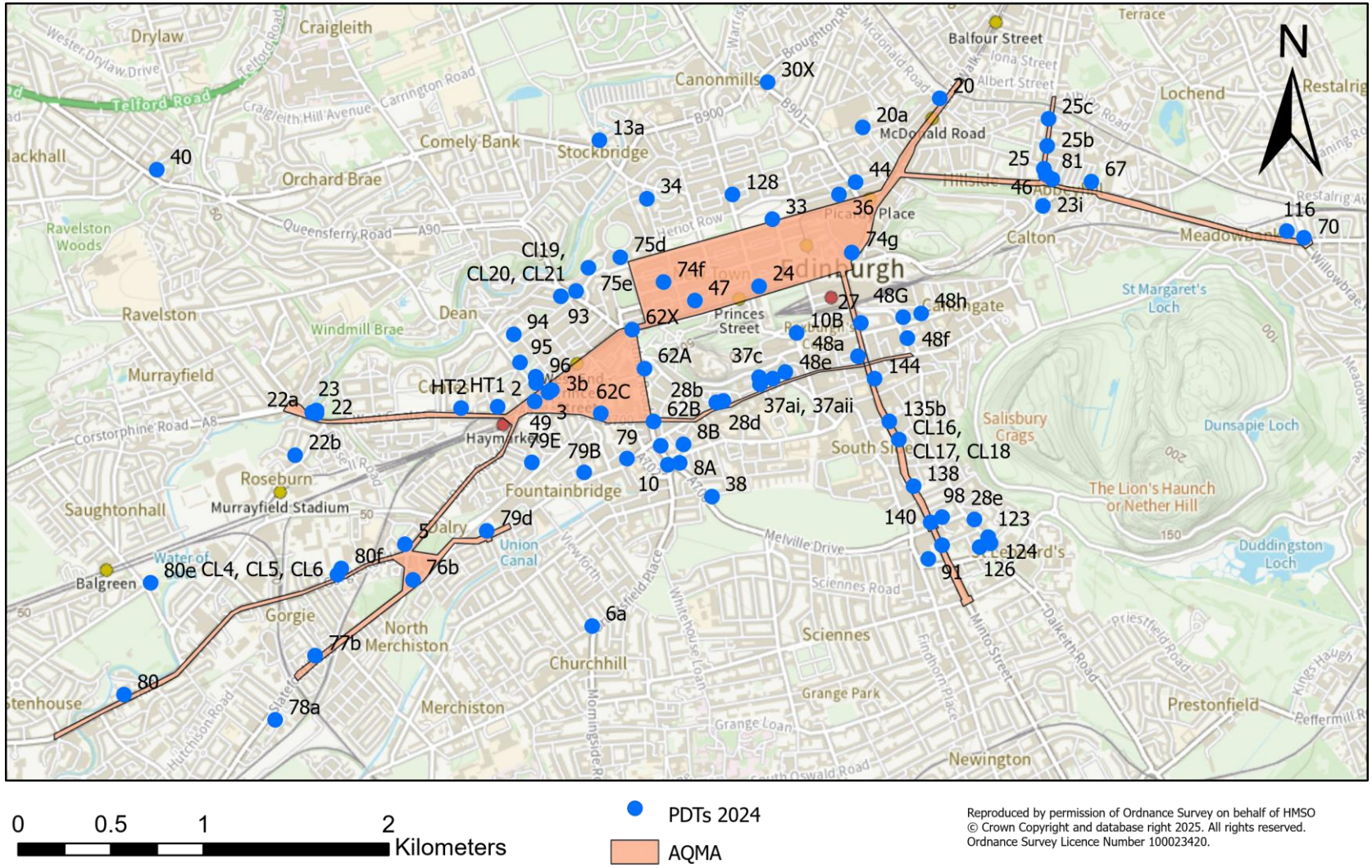


Figure D.3 - Diffusion Tube Locations: St John's Road AQMA

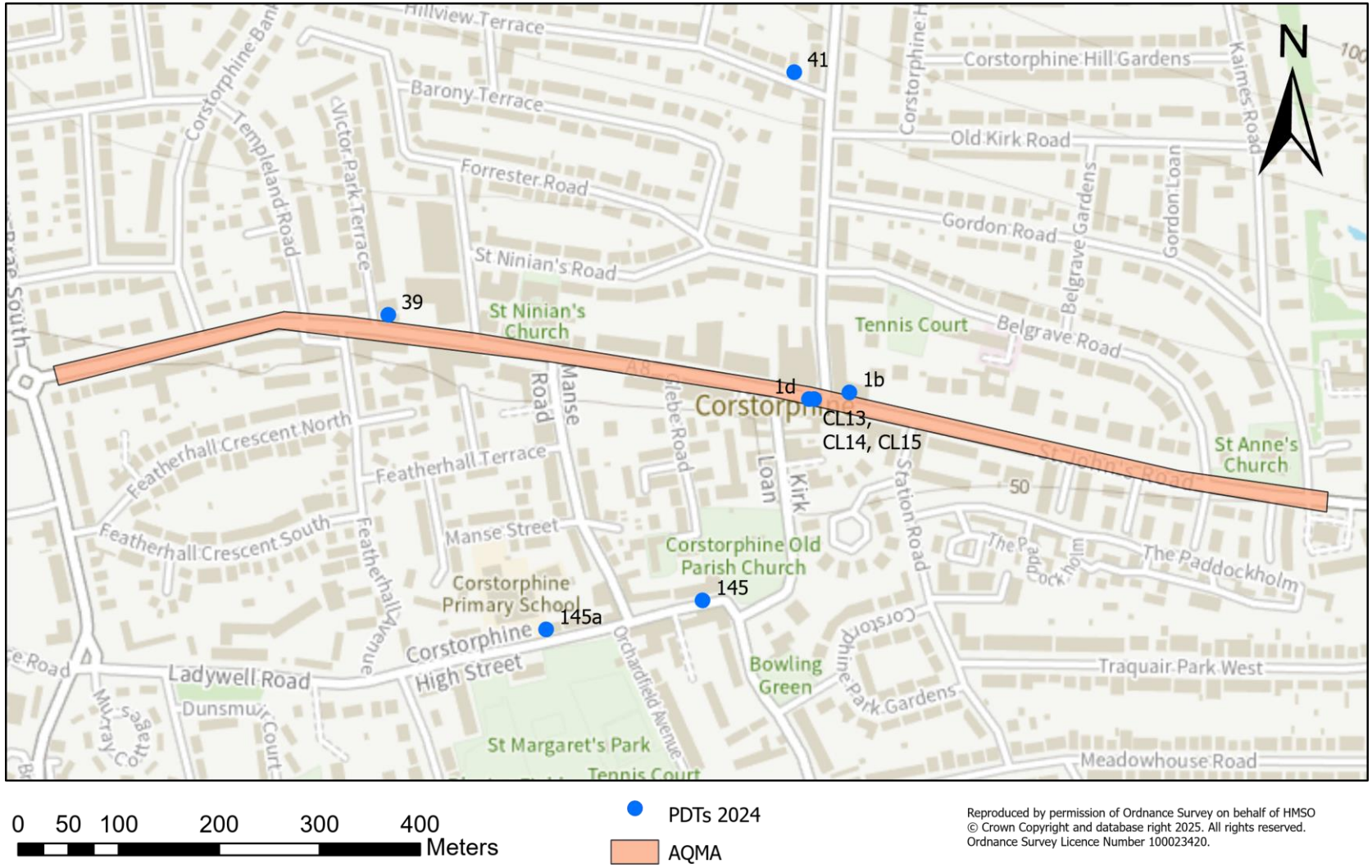


Figure D.4 - Diffusion Tube Locations: Great Junction Street and Salamander Street AQMA

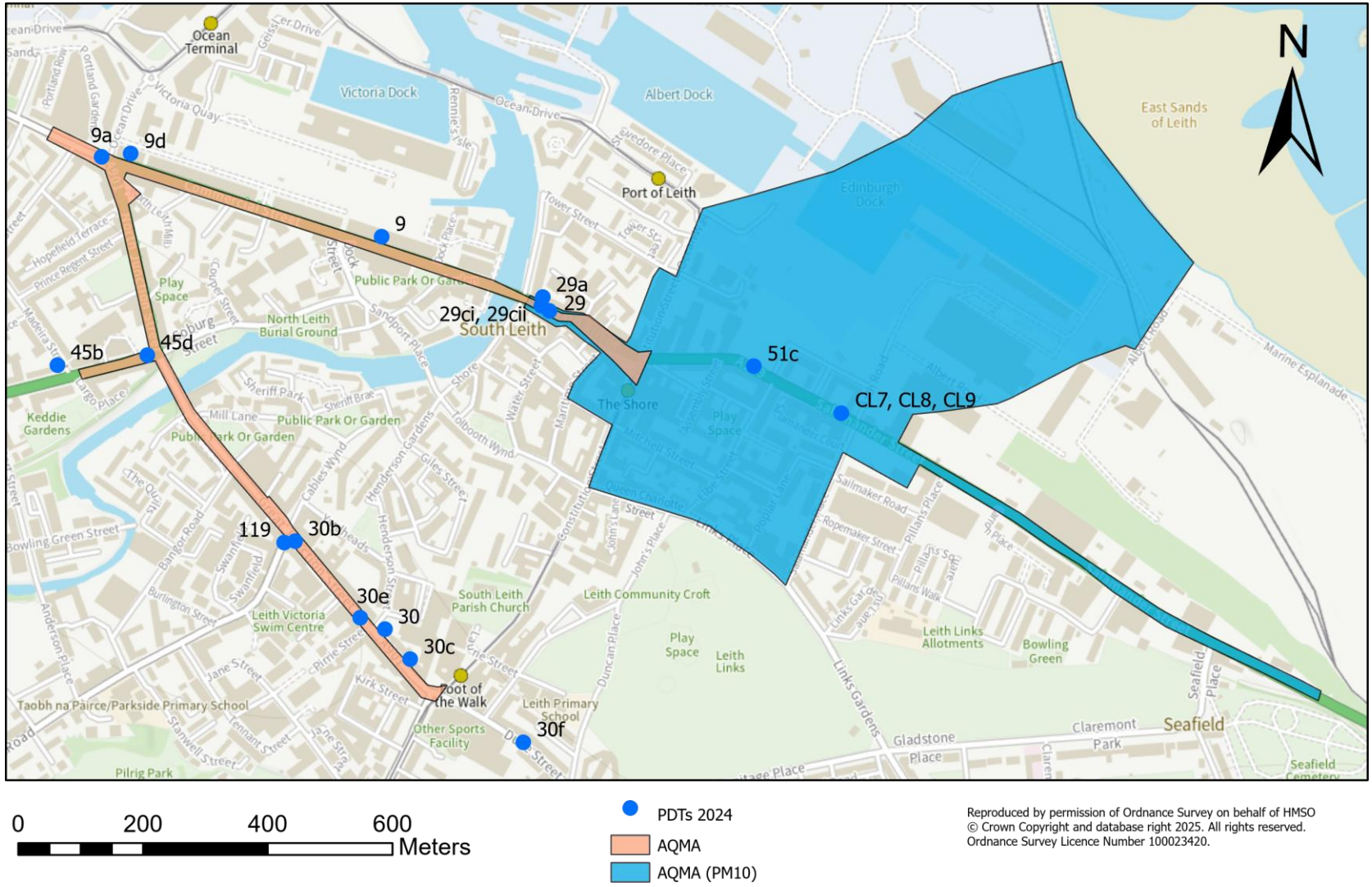


Figure D.5 - Diffusion Tube Locations: Low Emission Zone

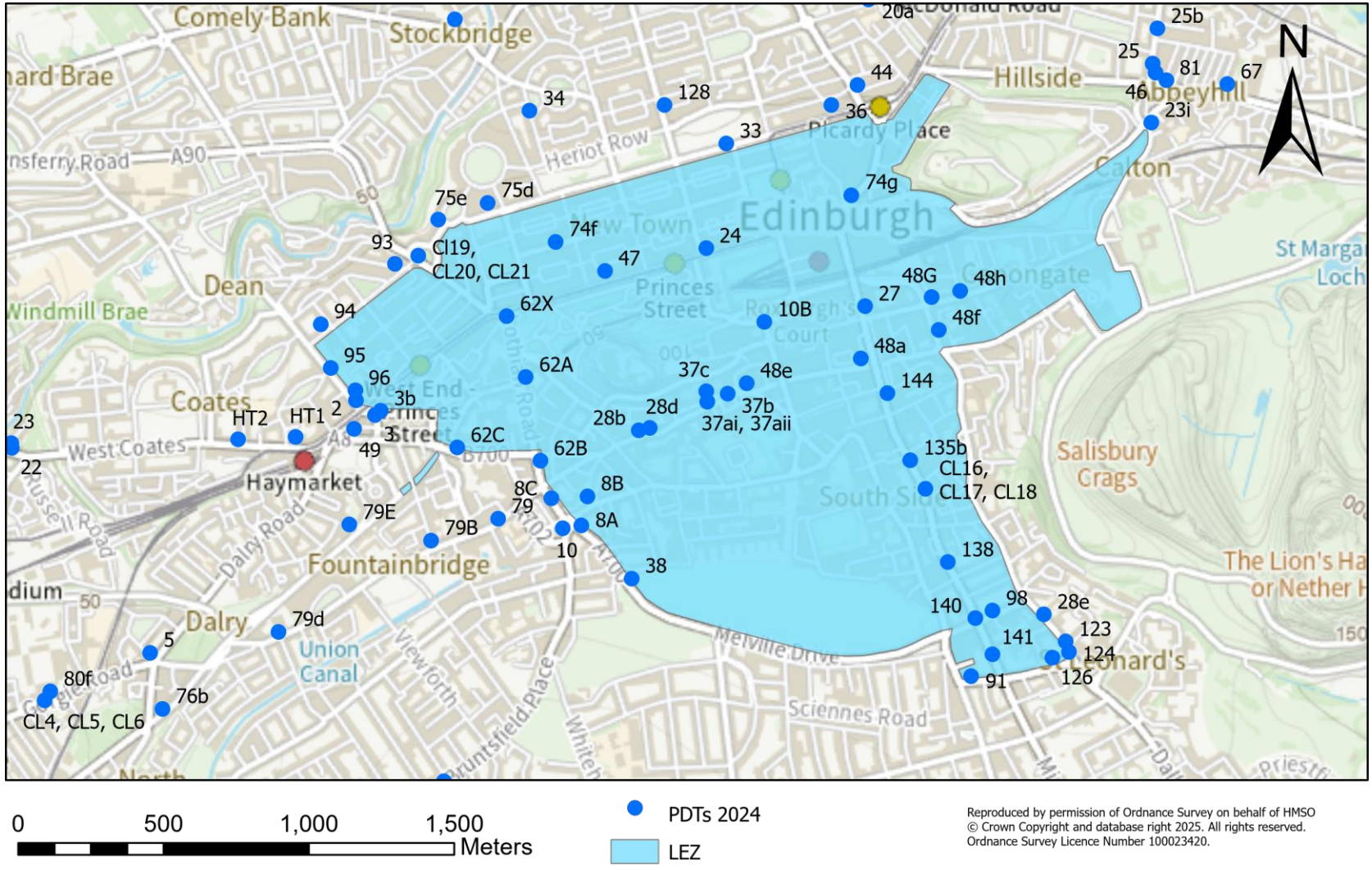
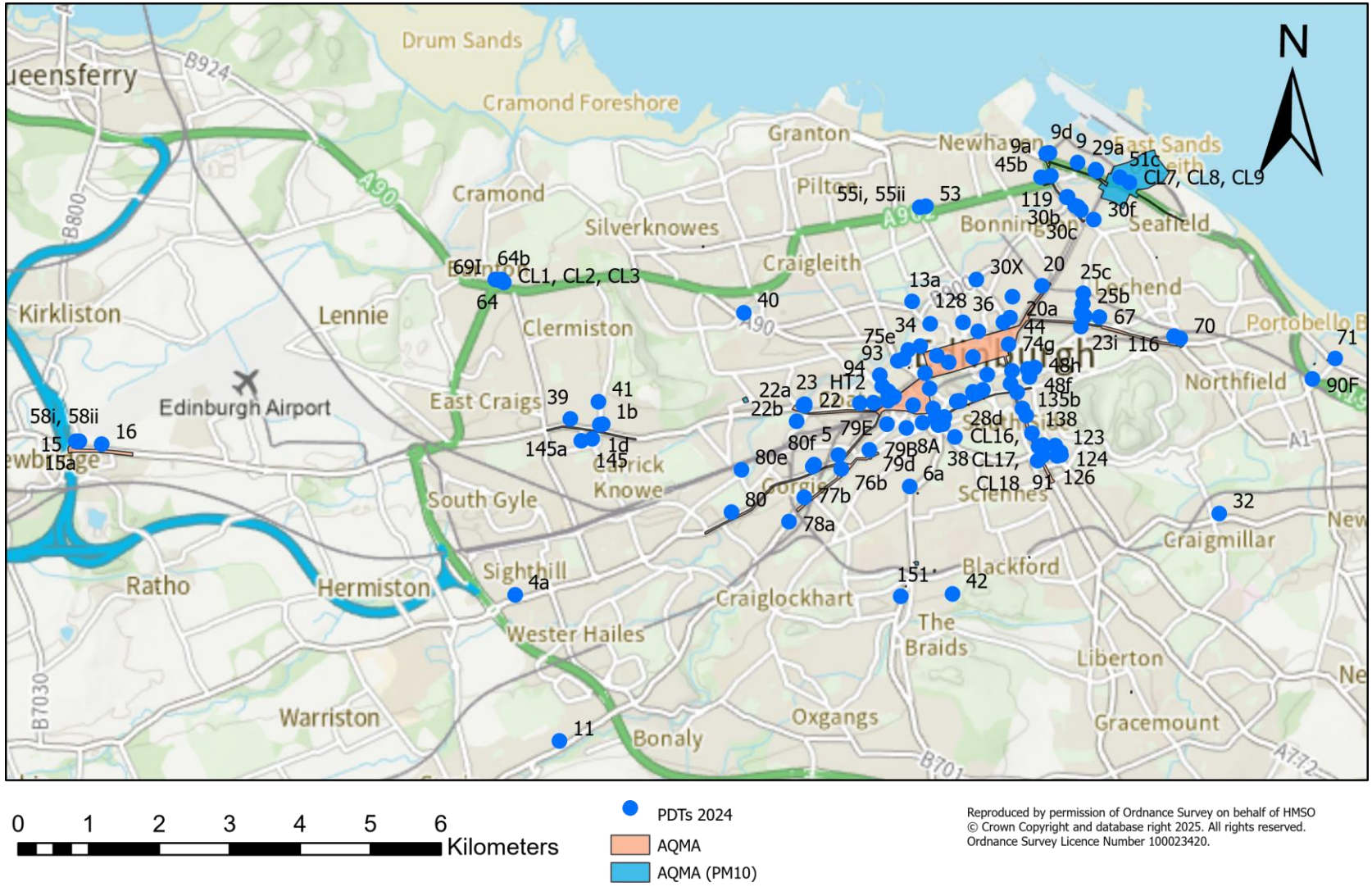


Figure D.6 – Diffusion Tube Locations: Overview



Glossary of Terms

Abbreviation	Description
APR	Annual Progress Report
AQAP	Air Quality Action Plan - A detailed description of measures, outcomes, achievement dates and implementation methods, showing how the LA intends to achieve air quality limit values'
AQIA	Air Quality Impact Assessment
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
AURN	Automatic Urban and Rural Network (UK air quality monitoring network)
BIF	Bus Infrastructure Fund
CAFS	Cleaner Air for Scotland
CMP	City Mobility Plan (Local Transport Strategy)
Defra	Department for Environment, Food and Rural Affairs
IAQM	Institute of Air Quality Management
LAQM	Local Air Quality Management
NMF	National Modelling Framework
NO_2	Nitrogen Dioxide
NO_X	Nitrogen Oxides
PDT	Passive Diffusion Tube
PM_{10}	Airborne particulate matter with an aerodynamic diameter of 10µm (micrometres or microns) or less
$PM_{2.5}$	Airborne particulate matter with an aerodynamic diameter of 2.5µm or less
QA/QC	Quality Assurance and Quality Control
SEPA	Scottish Environment Protection Agency

SO_2	Sulphur Dioxide
WETIP	West Edinburgh Transport Improvement Programme