Annual Progress Report (APR)

2025 Air Quality Annual Progress Report (APR) for Aberdeenshire Council

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

Local Air Quality Management

30 June, 2025

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Executive Summary: Air Quality in Our Area

Aberdeenshire enjoys good air quality with no exceedances of the national air quality objectives. The nitrogen dioxide level within Aberdeenshire is continuing its decreasing trend, apart from a slight increase in Peterhead. Even with the slight increase, the maximum annual mean value of nitrogen dioxide recorded in Aberdeenshire of 17µg/m^3 is less than half of the national air quality objective of 40µg/m^3. There are no air quality management areas (AQMAs) within Aberdeenshire.

Aberdeenshire is located on the north-east coast of Scotland and surrounds the Aberdeen City Council area. In terms of land area it is the fourth largest region in Scotland covering 6,313 square kilometres and is predominantly a rural area. It stretches from the Cairngorms in the west to the North Sea Coast in the east. Farming, Fishing, Forestry and Food as well as work in the Energy Sector are its main industries. The western part of the council area is dominated by the Grampian mountain range and includes large areas of forest and moorland. The northern, eastern and southern parts of the Council area are somewhat less mountainous with large expanses of agricultural land, coastal grassland and a greater density of small towns.

The population of Aberdeenshire continues to grow and ranks as the 6th highest populated council area in Scotland with approximately 264,320 people[1]. As this increase in population continues more housing developments have been proposed through the planning process.

Although predominately rural there are six towns with a population of over 10,000 people - Peterhead, Inverurie, Fraserburgh, Westhill, Stonehaven and Ellon with Peterhead having the highest population, just short of 20,000 people. A large proportion of the Aberdeenshire population is involved in the Energy Sector. Traditional industries such as farming, forestry, food and fishing also figure highly in Aberdeenshire with approximately

[1] Mid-2023 population estimates - National Records of Scotland (NRS)

one third of Scotland's agricultural produce originating in the region and Peterhead having one of the busiest white fish and processing ports in Europe.

The industrial and commercial areas are primarily located in the east of the Council area around Aberdeen, Peterhead, Fraserburgh, Ellon, Inverurie and Stonehaven.

A large section of the central region of Aberdeenshire is a commuter region for Aberdeen City and other larger towns with a significant proportion of the local population commuting on a regular basis. As transport plays a key role in air pollution encouraging the use of active, sustainable and public transport is important. A train service connects Aberdeen to Inverness which goes through the towns of Kintore, Inverurie, Insch and Huntly. Aberdeen is also connected to the South with train stations at Portlethen, Stonehaven and Laurencekirk within Aberdeenshire. The Buchan Sustainable Transport Study by Aberdeen & Grampian Chamber of Commerce and Campaign for North East Rail, assessing the feasibility of creating a new passenger and freight rail link between Aberdeen, Peterhead and Fraserburgh, was submitted to the Scottish Government in June 2024.

Travelling by road is the predominant mode of transport with Aberdeenshire Council maintaining 3,468 miles of roads. A review carried out in 2024 assessing the bus network across the North East of Scotland highlighted an increase in bus passengers of 13.7% in 2023 compared to 2022 with an estimated 10 million journeys being carried out by under 22's throughout 2022 and 2023 when free travel was introduced for this age group. Improvements have also been made to the bus fleet with electric and hydrogen buses being added to their fleet[2].

Aberdeenshire Council is part of NESTRANS – North East Scotland Transport Partnership. Their 2040 strategy follows six key priorities which set the tone and direction of the strategy. These are:

- Improved journey efficiencies to enhance connectivity
- Zero fatalities on the road network

[2] Microsoft Word - State of the Network - November 2024 FINAL

- Air quality that is cleaner than the World Health Organisation standards for emissions from transport
- Significantly reduced carbon emissions from transport to support net-zero by 2045
- Accessibility for all
- A step change in public transport and active travel enabling a 50:50 mode split between car driver and sustainable modes.

Aberdeenshire Council was one of the first councils to set a carbon budget and continues to work towards producing a 75 percent reduction over the 2010/2011 figures by 2030. The route map to 2030 and beyond was developed to further facilitate this.

Air Quality in Aberdeenshire

Aberdeenshire Council continues to work with internal and external partners to deliver the objectives of Cleaner Air for Scotland 2 – Towards a Better Place for Everyone (CAFS2).

Aberdeenshire enjoys good air quality with no exceedances of the national air quality objectives and latest nitrogen dioxide data shows the levels have continued to reduce and have decreased from last year's results by 5 to 17%, apart from Peterhead which increased slightly by 3 and 6%. The highest annual mean value obtained for nitrogen dioxide, 17µg/m^3, is less than half of the national air quality objective of 40µg/m^3. Consequently, there is no requirement for Aberdeenshire Council to declare any air quality management areas (AQMAs).

Actions to Improve Air Quality

Aberdeenshire enjoys good air quality with predominately reducing trends in nitrogen dioxide. The highest annual mean value of nitrogen dioxide was less than half the air quality objective. We have the following initiatives in place to improve air quality further:-

- Aberdeenshire Council, as part of the North East Transport Partnership and also the North East Bus Partnership is carrying out ongoing work to improve the impact of

transport on air quality through a variety of projects. Regional Transport Strategy | Nestrans.

- Aberdeenshire Council is committed to promoting sustainable transport Sustainable travel - Aberdeenshire Council and promoting public transport - Public Transport - Aberdeenshire Council
- Aberdeenshire Council is committed to promoting active transport Walking and cycling - Aberdeenshire Council with Integrated Travel Towns - Aberdeenshire Council
- Aberdeenshire Council has a variety of initiatives relating to Climate change and sustainability - Aberdeenshire Council
- Aberdeenshire Council is committed to improving the digital connectivity throughout the area to enable people to work from home Digital Connectivity - Aberdeenshire Council
- Aberdeenshire Council is committed to improving Energy efficiency - Aberdeenshire Council and have just completed the fourth year of the housing improvement programme. Housing Improvement Programme - Aberdeenshire Council which is phase one of meeting the Social Housing Net Zero Standard Energy efficiency: council homes - Aberdeenshire Council. It is also committed to improving the local heat and energy efficiency throughout Aberdeenshire Local Heat and Energy Efficiency Strategy - Aberdeenshire Council
- Aberdeenshire Council is committed to ensuring through its planning policies that air quality is protected. Aberdeenshire Local development Plan - January 2023 - Introduction and Policies
- Aberdeenshire Council is committed to providing information on air quality Air quality in Aberdeenshire - Aberdeenshire Council

Local Priorities and Challenges

Aberdeenshire Council continues to promote policies and actions which positively impacts air quality.

The population of Aberdeenshire continues to grow in size. This trend has been reflected in the number of planning applications for new housing developments in 2024. Our planning policies consider air quality when assessing these developments.

There are a large number of energy infrastructure projects being proposed for Aberdeenshire which when operational will not significantly impact on air quality but could temporarily do so during the construction phase. Construction Environment Management Plans which are required to be submitted as part of the planning proposal should help reduce the impact through the identification and implementation of controls relating to vehicle movements and dust.

Even though the Nitrogen Dioxide levels are below half the air quality objective, Aberdeenshire Council is intending to consult with stakeholders around the Peterhead area to review the slight increase in these levels. This slight increase (3 to 6%) in annual nitrogen dioxide mean values is not in line with the continuing reducing trend (5 to 17%) shown in other areas.

Aberdeenshire Council will continue to review and assess local air quality in accordance with the statutory monitoring and reporting requirements.

How to Get Involved

For further information on Air Quality in Aberdeenshire, including information on how to get involved, obtain previous annual LAQM reports and a link to the Air Quality in Scotland website please visit the air quality section of our website, or follow our social media feeds:

Air quality in Aberdeenshire - Aberdeenshire Council

Facebook: Aberdeenshire Council | Aberdeen | Facebook

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1 Local Air Quality Management

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

The LAQM process places an obligation on all local authorities to regularly review and assess air quality in their areas, and to determine whether or not the air quality objectives are likely to be achieved. Where an exceedance is considered likely the local authority must declare an Air Quality Management Area (AQMA) and prepare an Air Quality Action Plan (AQAP) setting out the measures it intends to put in place in pursuit of the objectives. This Annual Progress Report (APR) summarises the work being undertaken by Aberdeenshire 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.

Aberdeenshire currently does not have any AQMAs and therefore no Air Quality Action Plan is required. It does however implement measures to reduce its impact on air quality.

2.3 Implementation of Air Quality Action Plan(s) and/or measures to address air quality

In order to ensure that local authorities implement the measures within an action plan by the timescales stated within that plan, the Scottish Government expects authorities to submit updates on progress through the APR process.

Aberdeenshire Council does not have an Air Quality Action Plan as it does not have any Air Quality Management Areas. The authority has however as a matter of good practice taken forward a number of measures during the current reporting year of 2024 which will positively impact on air quality.

Details of all measures completed, in progress or planned are set out in Table 2.1.

Key completed measures for this reporting year are:

1. Aberdeenshire Council undertook a review of passenger transport within Aberdeenshire by carrying out surveys, producing an action plan and Tickets and Fares analysis report.

This led to the Draft Passenger Transport Strategy and Action Plan being published which was formally adopted by the Council in April 2025.

2. As part of the Carbon budget measures in 2024, such as a Heating policy being agreed and implemented, Changing Streetlights to LED's, LAN network and fleet improvements, an expected 1472.5 tons of carbon dioxide equivalents has been saved.

3. To encourage active travel within schools Aberdeenshire Council runs a variety of programmes such as Bikeability, I Bike, WoW travel tracker, Junior Road Safety Officers and roll out of a project to close roads adjacent to the school gate across a number of sites during peak morning and afternoon periods; the first scheme is now permanent and others now in delivery. Funding is also available for bicycle shelters within schools and the Council is also delivering improved walk and cycle routes including pedestrian crossings to support less vehicular travel to school.

As well as ongoing projects to improve air quality Aberdeenshire Council expects the following measures to be completed over the course of the next reporting year:

- New Local Transport Strategy to be adopted.
- The delivery of 5 new town projects as part of the Integrated Travel Town (ITT) Strategy, building on the award winning ITT Masterplan approach which has seen delivery of cycle routes in Aberdeenshire's five most populated towns and accompanying behaviour change initiatives.
- Begin a project working collaboratively with three other neighbouring council areas to expand EV charging infrastructure by 570 charging points throughout the North East of Scotland.
- Continue reducing carbon emissions as per the carbon budget for 2025 with actions such as providing covers for quarry sites and starting phase 2 on modifications to council housing to further improve energy efficiency.
- Update the Aberdeenshire Council website to expand the information about air quality and what actions people can take to reduce their impact as well as promoting Clean Air Day.
- Consult with stakeholders in the Peterhead area regarding air quality.

Table 2.1 Progress on Measures to Improve Air Quality

Measure No.	Measure	Category	Expected/ Actual Completion year	Organisations Involved	Measure Status	Funding Status	Key Milestones	Progress	Barriers to implement ation
1	Review of passenger bus travel within Aberdeenshire leading to an updated Passenger Transport Strategy and Action Plan.	Alternatives to private vehicle use	2024/2025	Aberdeenshire Council	Completed	Aberdeenshire Council	Survey carried out 2024. Action Plan Draft report July 2024. Fares and Ticketing Strategy published. Passenger Transport Strategy submitted to Committee April 2025.	Draft Strategy published 2024. Adopted April 2025[3]	
2	Carbon Budget	Policy guidance and development control	Ongoing 75 percent reduction over the 2010/2011 figures by 2030	Aberdeenshire Council	In progress. 2024 reductions completed.	Aberdeenshire Council	2024 projects include *Heating Policy savings *LAN improvements *Vehicle Fleet Improvement *LED streetlights	Ongoing work Total. Reduction currently anticipated for 2024/2025 is 1472.5 (tCO2e)[4]	
3	Promoting and enabling Active Travel in schools and route delivery including crossings.	Promoting travel alternatives	Ongoing	Aberdeenshire Council, Transport Scotland and Nestrans	In progress	Transport Scotland Local Authority Direct Award, Nestrans People & Places,	Promote active travel in schools:- *WOW travel tracker *Bikeability and I Bike *Junior Road Safety Officers *Bike Shelter funding	Ongoing work	

[3] Passenger Transport Strategy 2025

[4] Appendix 1 CARBON BUDGET 2024-2025 FINAL UPDATE.pdf

						Aberdeenshire Council.	*Road closure trials at schools		
4	Promoting Active Travel and Behavioural Change	Promoting travel alternatives	Ongoing	Aberdeenshire Council	In progress	Aberdeenshire Council and Transport Scotland	Aberdeenshire Council has a wide variety of promotions for active travel *Walking routes *Cycling routes *Maps *Treasure Trails *Love to ride challenge *Bike Month *Pedometer Challenge *Winter Wheelers *E bike cycle scheme for staff and hire along Formartine Way	Ongoing work	
5	Publish new Local Transport Strategy 2025	Alternatives to private vehicle use	2025	Aberdeenshire Council	In progress	Aberdeenshire Council	To be Adopted at Committee in 2025	In progress	
6	**REGIONAL TRAVEL** Review and update the status of the bus network system within Aberdeenshire and Aberdeen.	Alternatives to private vehicle use	2024	North East Bus Alliance consisting of Nestrans, Aberdeen City Council, Aberdeenshire Council, Bains Coaches, First Aberdeen and	Complete	Scottish Government's Scottish Ultra-Low Emission Bus Scheme and Scottish Zero Emission Bus Challenge Fund (ScotZEB) to	Report shows *Increased bus usage in North East by 13.7% in 2023 compared to 2022 *Young Persons Under 22 Free Bus scheme resulted in an estimated 10 million journeys in North East in 2022 to end of 2023	Review published[5]	

[5] Microsoft Word - State of the Network - November 2024 FINAL

				Stagecoach Bluebird.		improve bus fleet	*Improvement in bus fleet in terms of hydrogen, electric and Euro VI compliance. Additional funding applied for electric vehicles traveling along Aberdeen to Inverness route.		
6a	Aberdeen Rapid Transit (ART)	Alternatives to private vehicle use	Ongoing	North East Bus Alliance consisting of Nestrans, Aberdeen City Council and Aberdeenshire Council.	In progress	Scottish Government Bus Partnership Fund – annual; 2024/25-2027/28 City Region Deal; Nestrans – annual/3-yearly)	Cross-city network of ART routes, linked to mobility hub and/or park and ride facilities, which connect people to the places they want to go with journey times competitive to the car and providing an attractive, accessible, and easy to use way of travel. Cross-city routes would operate to Blackdog, Craibstone Park and Ride, Portlethen and Westhill.	Draft Strategic Case to be delivered in June 2025	
6b	Expansion of EV charging infrastructure to include 570 new EV charging points in North East Scotland	Promoting low emission transport	2028	North of Scotland Partnership - Aberdeenshire, Aberdeen City, Moray and Highland Councils with EasyGo	In progress	Transport Scotland, Scottish Government	Finalised Installation of EV Charging points	Agreement reached in 2025 and implementation of project started .	
7	Designing sustainable places - Place strategy	Policy guidance and development control	Ongoing	Aberdeenshire Council	In progress	Aberdeenshire Council	Publication of Local Development Plan 2029 Place strategy published for Academy towns	In progress	

8	Integrated Travel Towns for Banff, McDuff Mintlaw, Turriff Stonehaven Westhill	Alternatives to private vehicle use Transport. Planning and infrastructure	Ongoing	Aberdeenshire Council	In progress	Aberdeenshire Council, Nestrans People & Places and Transport Scotland	Site audit, visit town, surveys and plan. Phase 1 complete - Huntly Inverurie Portlethen Fraserburgh Ellon	Phase 1 complete. Phase 2 due to commence 2025	
9	Increased awareness of air quality	Public information	2025	Aberdeenshire Council	In progress	Aberdeenshire Council	Website updated to improve awareness of idling vehicles, air quality and health. Also to promote a change in behaviour at events such as clean air day.	In progress	

3 Air Quality Monitoring Data and Comparison with Air Quality Objectives

3.1 Summary of Monitoring Undertaken

3.1.1 Automatic Monitoring Sites

Aberdeenshire Council does not undertake any automatic (continuous) monitoring within the authority's area.

3.1.2 Non-Automatic Monitoring Sites

Aberdeenshire Council undertook non-automatic (passive) monitoring of NO_2 at 11 sites during 2024. Table A.1 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.

3.1.3 Other Monitoring Activities

Aberdeenshire Council did not carry out any other monitoring activities.

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.1 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. The results show a continuing reduction in values except for the Peterhead area which marginally increased. The highest value was below half the national objective. See Figures 1 and 2 in Appendix A.

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

3.2.2 Particulate Matter (PM_{10})

Aberdeenshire Council does not carry out any monitoring in respect of PM_{10} and has no plans to do so.

3.2.3 Particulate Matter ($PM_{2.5}$)

Aberdeenshire Council does not carry out any monitoring in respect of $PM_{2.5}$ and has no plans to do so.

3.2.4 Sulphur Dioxide (SO_2)

Aberdeenshire Council does not carry out any monitoring in respect of Sulphur Dioxide and has no plans to do so.

3.2.5 Carbon Monoxide, Lead and 1,3-Butadiene

Aberdeenshire Council does not carry out any monitoring in respect of Carbon Monoxide, Lead and 1,3-Butadiene and has no plans to do so.

4 New Local Developments

There are no newly identified developments in the area that would impact on the air quality and cause an exceedance.

4.1 Road Traffic Sources

There are no newly identified air pollutant sources attributable to the transport sources listed below:

- Narrow congested streets with residential properties close to the kerb.
- Busy streets where people may spend one hour or more close to traffic.
- Roads with a high flow of buses and/or HGVs.
- Junctions.
- New roads constructed or proposed
- Roads with significantly changed traffic flows.
- Roads with new/changed layout

4.2 Other Transport Sources

There are no new:

- Airports
- Locations where diesel or steam trains are regularly stationary for periods of 15 minutes or more, with potential for relevant exposure within 15m.
- Locations with a large number of movements of diesel locomotives, and potential long-term relevant exposure within 30m.
- Ports for shipping.

A planning application was approved for the formation of a small bus depot, yard, garage and office in Lumphanan. The impact of this on air quality was considered to be negligible.

4.3 Industrial Sources

Planning permission was approved for three new poultry farms in Aberdeenshire. One at a site near Uppermill, Turriff, another at Stoneyhill, Corse and the other near Sauchentree, New Aberdour. A fourth planning application for another poultry farm has also been submitted at Tophead, Rathen. Air quality was considered and did not meet the criteria required for an air quality impact assessment.

Planning Applications for a petrol station at Westhill and also at the A90 / A937 Junction At Laurencekirk were approved. Air quality was considered and did not meet the criteria required for an air quality impact assessment.

A planning application for a crematorium was submitted and air quality assessed but the planning application was subsequently refused for other reasons. The list of industrial sites which SEPA have authorised in 2024 are listed below.

Table 3 List of SEPA Authorisations in 2024

Application Type	Site	Authorisation Activity
New Licence	Lazyfold Farm, Duncanstone, Insch, Aberdeenshire, AB52 6YX	PPC(A) - Intensive Agriculture (Pig and Poultry)
New Licence	MCP, Fettercairn Distillery, Distillery Road, Laurencekirk, AB30 1YB	PPC(B) - Combustion of Fuels
New Licence	MCP Ellon Brewery, BrewDog PLC, Balmacassie Commercial Park, Ellon, Aberdeenshire, AB41 8BX	PPC(B) - Combustion of Fuels
Operator Technical (Substantial) Variation to existing Authorisation	Birchwood Decommissioning & Recycling Facility, Kinellar, Aberdeenshire, AB21 0SH	Waste - Other Waste Storage and Treatment Sites
New Licence	Taylors Environmental Village, Easter Hatton Farm, Balmedie, Aberdeenshire, AB23 8YY	Waste - Other Waste Storage and Treatment Sites
New Licence	Portlethen Petrol Station, Bankhead Drive, City South Office Park, Portlethen, Aberdeen, AB12 4XX	PPC(B) - Petrol Vapour Recovery

Operator Technical (Substantial) Variation to existing Authorisation	Ellon Waste Transfer Station, Balmacassie Commercial Park, Balmacassie Brae, Ellon, AB41 8BY	Waste - Other Waste Storage and Treatment Sites
Operator Technical (Substantial) Variation to existing Authorisation	New Deer Compost Facility, Hillhead of Auchreddie, New Deer, Aberdeenshire, AB53 6YH	PPC(A) - Animal By-product Processing
New Licence	Beattock Free Range Egg Unit, Ardfour, AB53 4JB	PPC(A) - Intensive Agriculture (Pig and Poultry)
New Licence	Mains of Gack Crematorium, Mains of Gack, Daviot, Inverurie, AB51 0JL	PPC(B) - Cremation of Human Remains
New Licence	Glen Dronach Distillery, Forgue-by Huntly, AB54 6DB	PPC(B) - Combustion of Fuels
New Licence	Allt a' Bhainne Distillery, Glenrinnes, Dufftown, Banffshire, AB55 4DB	PPC(B) - Combustion of Fuels
Operator Technical (Substantial) Variation to existing Authorisation	Stonehaven Waste Transfer Station & Household Recycling Centre, Redcloak, Slug Road, Stonehaven, AB39 3SR	Waste - Other Waste Storage and Treatment Sites

4.4 Commercial and Domestic Sources

There were 6 new or proposed biomass installations identified in 2024 through the planning system. Screening assessments and/or dispersion modelling was carried out. Work also continues to map those installations that are known, across Aberdeenshire with a view to identifying the spatial distribution of these installations and thus any areas which may require additional assessment in terms of cumulative impacts. Although there are a large number of biomass installations throughout Aberdeenshire, most of these relate to on-farm biomass (for agricultural purposes) where there is generally a low population density.

4.5 New Developments with Fugitive or Uncontrolled Sources

Planning applications for a new quarry near Craig Farm in Rhynie, an extension to the quarry at Cross Stones, Ellon and an application to extend the timescale of the quarry at Teuchan Clay Quarry, Peterhead were submitted in 2024. An extension of use was granted to a landfill until the end of 2025 at Stoneyhill Quarry.

Planning consents for new or extended quarrying developments contain a requirement, through planning conditions, for dust suppression measures to be in place.

5 Planning Applications

Planning applications relating to new biomass, quarrying or extraction operations are discussed in Chapter 4.

Planning applications for various sizes of residential, commercial mixed use developments were received in 2024. Although these developments, in isolation, are not considered to have significant detrimental impact on local air quality they are recorded here should any potential cumulative impacts require consideration in future.

A notification of Initiation for the Energy from Waste Plant development in Inverurie was received in May 2024.

Planning Applications for various energy projects were submitted in 2024. These range from Offshore Windfarms with onshore infrastructure, Battery Energy Storage Sites to Hydrogen plants. The increase in infrastructure within Aberdeenshire in itself will lead to a temporary increase in nitrogen dioxide and particulate matter being produced initially during the construction phase due to HGV movements and construction activities although Construction Environmental Management Plans should minimise this.

6 Conclusions and Proposed Actions

6.1 Conclusions from New Monitoring Data

Aberdeenshire Council carried out diffusion tube monitoring at 11 sites across the local authority area. The diffusion tube monitoring data presented in this report demonstrates that concentrations of nitrogen dioxide in Aberdeenshire continue to remain well below the national air quality objectives. The highest annual mean result, 17 µg/m^3, being less than half the national air quality objective. Apart from the slight increase in the Peterhead area the level of nitrogen dioxide has reduced compared to the 2023 results.

No AQMAs have been declared in the Aberdeenshire Council area and no requirement for detailed assessment has been identified.

6.2 Conclusions relating to New Local Developments

There are no significant changes in sources since the previous Annual Report in 2024. There are no current or projected exceedances of relevant national air quality objectives.

6.3 Proposed Actions

The monitoring data continues to show a decrease in nitrogen dioxide levels within Aberdeenshire except for a slight increase at Peterhead. Aberdeenshire Council will consult with stakeholders around the Peterhead area to review the slight increase in levels.

A new nitrogen dioxide tube monitoring site to measure Urban Background levels in Inverurie has been found as the building it was located next to is being demolished.

Aberdeenshire Council will continue to review and assess local air quality in accordance with the statutory monitoring and reporting requirements.

Appendix A: Monitoring Results

Table A. 1 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
I/HS	377408	821583	Roadside	100.0	100.0	14.1	15.0	19.2	15.1	14.1
I/GH	376622	821476	Urban Background	100.0	100.0	4.0	4.0	5.4	5.2	5.3
I/MC	377624	821295	Roadside	100.0	100.0	13.6	17.0	15.2	14.9	12.7
I/BR	376382	821574	Roadside	100.0	92.5	11.9	12.0	11.9	11.5	10.8
I/TH	377512	821584	Roadside	100.0	100.0	10.7	13.0	13.6	12.1	10.0
W/AM	383526	806645	Roadside	100.0	92.5	11.3	14.0	13.7	12.7	11.5
W/SR	381837	806691	Roadside	100.0	100.0	9.4	11.0	9.3	9.0	8.1
E/SM	395750	830115	Kerbside	100.0	92.5	10.4	14.0	11.1	12.1	11.0
PH/BH	413379	845906	Roadside	100.0	100.0	14.1	17.0	16.6	16.5	17.0

Diffusion Tube ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Site Type	Valid Data Capture for Monitoring Period (%) (1)	Valid Data Capture 2024 (%) (2)	2020	2021	2022	2023	2024
PH/MS	413420	845918	Kerbside	100.0	100.0	11.9	15.0	15.0	14.8	15.7
FB/SS	399870	867168	Roadside	100.0	100.0	12.3	15.0	13.6	14.2	13.5

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.TG(22)

Figure 1 - Graph showing Nitrogen Dioxide levels from 2016 to 2024

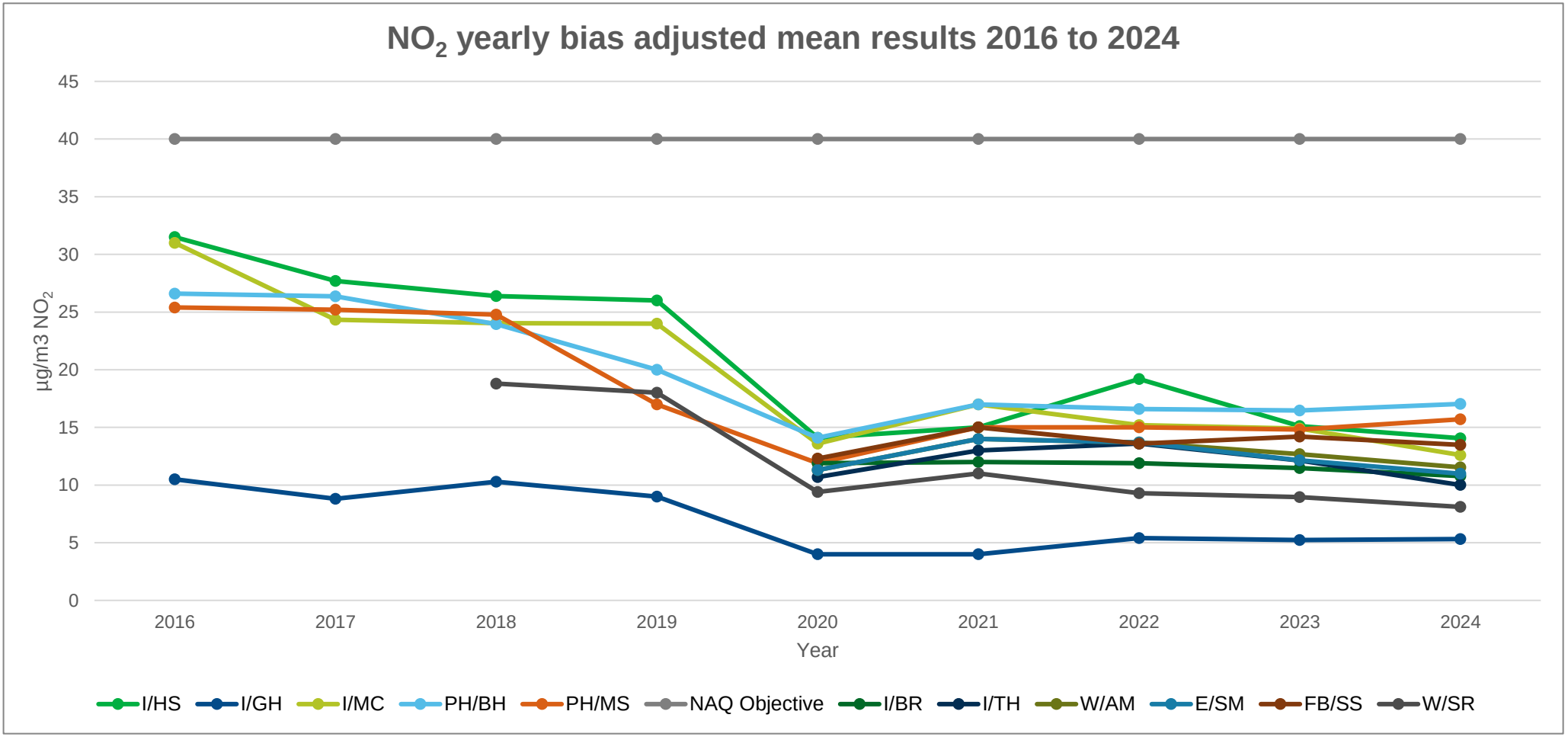
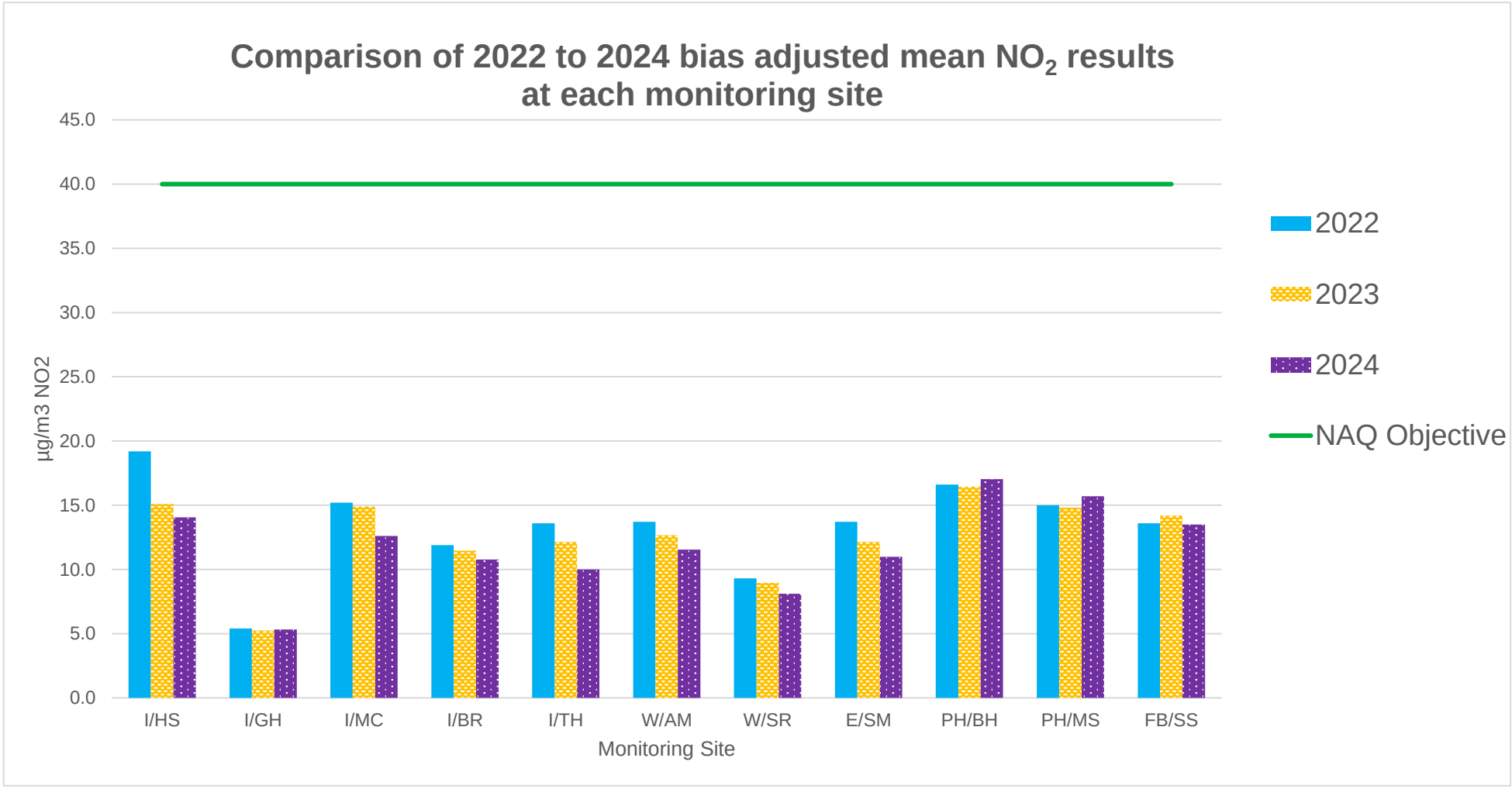


Figure 2 - Graph showing Nitrogen Dioxide levels from 2022 to 2024



Appendix B: Full Monthly Diffusion Tube Results for 2024

Table B.1 – NO_2 2024 Monthly Diffusion Tube Results (µg/m^3)

DT ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual Mean: Raw Data	Annual Mean: Annualised and Bias Adjusted 0.76	Annual Mean: Distance Corrected to Nearest Exposure	Comment
I/HS	377408	821583	22.0	28.0	18.0	14.0	14.0	12.0	12.0	14.0	16.0	26.0	22.0	24.0	18.5	14.1	N/a	
I/GH	376622	821476	9.0	10.0	6.0	5.0	5.0	5.0	5.0	5.0	6.0	7.0	11.0	10.0	7.0	5.3	N/a	
I/MC	377624	821295	19.0	22.0	20.0	16.0	18.0	12.0	12.0	11.0	15.0	17.0	20.0	18.0	16.7	12.7	N/a	
I/BR	376382	821574	17.0	21.0	14.0	-	12.0	11.0	9.0	8.0	13.0	15.0	18.0	18.0	14.2	10.8	N/a	
I/TH	377512	821584	15.0	20.0	15.0	10.0	12.0	9.0	8.0	10.0	11.0	16.0	18.0	14.0	13.2	10.0	N/a	
W/AM	383526	806645	13.0	21.0	20.0	10.0	18.0	-	9.0	12.0	14.0	17.0	17.0	16.0	15.2	11.5	N/a	
W/SR	381837	806691	10.0	15.0	13.0	8.0	12.0	8.0	7.0	6.0	11.0	11.0	13.0	14.0	10.7	8.1	N/a	
E/SM	395750	830115	12.0	20.0	15.0	13.0	17.0	12.0	12.0	12.0	14.0	18.0	-	14.0	14.5	11.0	N/a	
PH/BH	413379	845906	35.0	25.0	22.0	13.0	22.0	18.0	20.0	32.0	19.0	28.0	20.0	15.0	22.4	17.0	N/a	
PH/MS	413420	845918	35.0	23.0	18.0	12.0	18.0	14.0	18.0	34.0	17.0	27.0	17.0	15.0	20.7	15.7	N/a	

DT ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual Mean: Raw Data	Annual Mean: Annualised and Bias Adjusted 0.76	Annual Mean: Distance Corrected to Nearest Exposure	Comment
FB/SS	399870	867168	14.0	21.0	22.0	17.0	24.0	14.0	16.0	16.0	22.0	17.0	12.0	18.0	17.8	13.5	N/a	

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**.

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 Aberdeenshire During 2024

Aberdeenshire Council has not identified any new sources relating to air quality within the reporting year of 2024.

Additional Air Quality Works Undertaken by Aberdeenshire Council During 2024

Aberdeenshire Council has not completed any additional works within the reporting year of 2024.

QA/QC of Diffusion Tube Monitoring

Aberdeenshire Council diffusion tubes are analysed by Aberdeen Scientific Services within Aberdeen City Council. They use the 20% TEA in water preparation method.

Analysis of nitrogen dioxide tubes is part of the laboratories fixed scope of accreditation to ISO17025:2017 with UKAS.

The laboratory participates in the Laboratory of the Government Chemist (LGC) AIR PT scheme. During 2024 the Laboratory participated in all available rounds and all results submitted were satisfactory (z-score < ±2).

The laboratory also participates in the nitrogen dioxide "inter comparison" exercise, managed by the National Physical Laboratory. During 2024, the Laboratory participated in all available rounds, with results classified as "Good" throughout 2024.

The monitoring of NO_2 was completed in adherence with the Diffusion Tube Monitoring Calendar.

Diffusion Tube Annualisation

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

Diffusion Tube Bias Adjustment Factors

.Aberdeenshire Council have applied a national bias adjustment factor of 0.76 to the 2024 monitoring data. The national bias adjustment factor is used rather than a local bias adjustment factor as there are no co-located automatic nitrogen dioxide monitoring sites which would allow the local bias factor to be calculated. The National Bias Adjustment Factor has been used from Spreadsheet Version Number 04/25 [Database_Diffusion_Tube_Bias_Factors_v04_25.xlsx]

Figure 3 - National Bias Adjustment Factor version 04/25

National Diffusion Tube Bias Adjustment Factor Spreadsheet — Spreadsheet Version Number: 04/25

Follow the steps below **in the correct order** to show the results of **relevant** co-location studies
Data only apply to tubes exposed monthly and are not suitable for correcting individual short-term monitoring periods
Whenever presenting adjusted data, you should state the adjustment factor used and the version of the spreadsheet
This spreadsheet will be updated every few months: the factors may therefore be subject to change. This should not discourage their immediate use.

This spreadsheet will be updated at the end of June 2025
LAQM Helpdesk Website

The LAQM Helpdesk is operated on behalf of Defra and the Devolved Administrations by Bureau Veritas, in conjunction with contract partners AECOM and the National Physical Laboratory.

Spreadsheet maintained by the National Physical Laboratory. Original compiled by Air Quality Consultants Ltd.

Step 1:	Step 2:	Step 3:	Step 4:
Select the Laboratory that Analyses Your Tubes from the Drop-Down List	Select a Preparation Method from the Drop-Down List	Select a Year from the Drop-Down List	Where there is only one study for a chosen combination, you should use the adjustment factor shown with caution. Where there is more than one study, use the overall factor3 shown in blue at the foot of the final column.
If a laboratory is not shown, we have no data for this laboratory.	If a preparation method is not shown, we have no data for this method at this laboratory.	If a year is not shown, we have no data2	If you have your own co-location study then see footnote4. If uncertain what to do then contact the Local Air Quality Management Helpdesk at LAQMHelpdesk@bureauveritas.com or 0800 0327953

Analysed By1	ethod	r2	Site Type	Local Authority	Length of Study (months)	Diffusion Tube Mean Conc. (Dm) (µg/m3)	Automatic Monitor Mean Conc. (Cm) (µg/m3)	Bias (B)	Tube Precision5	Bias Adjustment Factor (A) (Cm/Dm)
Aberdeen Scientific Services	20% TEA in water	2024	UB	Aberdeen City	13	19	14	37.3%	G	0.73
Aberdeen Scientific Services	20% TEA in water	2024	R	Aberdeen City	13	17	14	20.7%	G	0.83
Aberdeen Scientific Services	20% TEA in water	2024	R	Aberdeen City	13	32	22	43.8%	G	0.70
Aberdeen Scientific Services	20% TEA in water	2024	R	Aberdeen City	13	31	23	32.6%	G	0.75
Aberdeen Scientific Services	20% TEA in water	2024	R	Aberdeen City	13	32	25	30.7%	G	0.77
Aberdeen Scientific Services	20% TEA in water	2024	KS	Marylebone Road Intercomparison	11	46	36	28.2%	G	0.78
Aberdeen Scientific Services	20% TEA in water	2024		Overall Factor3 (6 studies)				Use		0.76

A summary of bias adjustment factors used by Aberdeenshire Council over the past five years is presented in Table C.1.

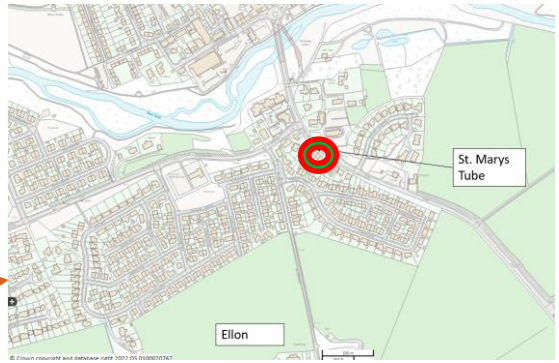
Table C.1 – Bias Adjustment Factor

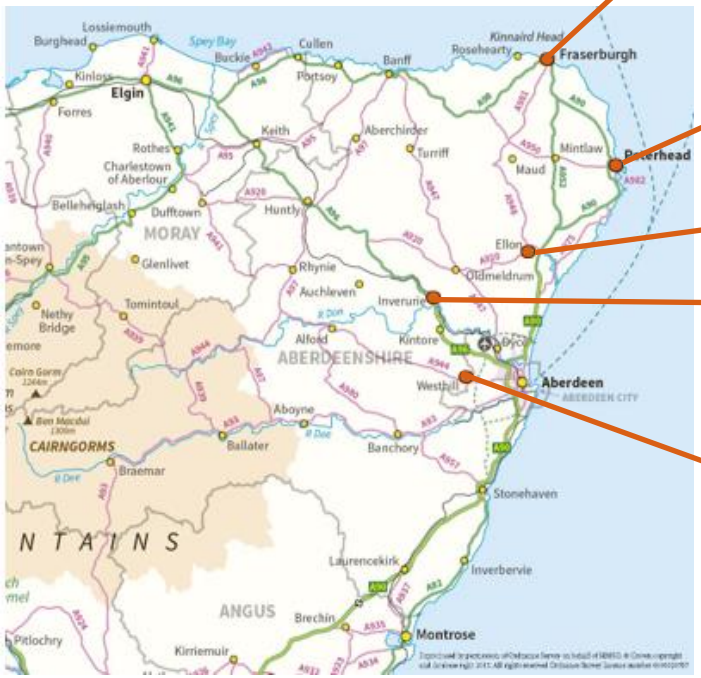
Year	Local or National	If National, Version of National Spreadsheet	Adjustment Factor
2024	National	04/25	0.76
2023	National	03/24	0.73
2022	National	03/23	0.76
2021	National	06/22	0.77
2020	National	03/21	0.77

NO_2 Fall-off with Distance from the Road

No diffusion tube NO_2 monitoring locations within Aberdeenshire required distance correction during 2024.

Appendix D: Diffusion Tube Monitoring Sites





Glossary of Terms

Abbreviation	Description
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'
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
APR	Annual Progress Report
AURN	Automatic Urban and Rural Network (UK air quality monitoring network)
Defra	Department for Environment, Food and Rural Affairs
DMRB	Design Manual for Roads and Bridges – Air quality screening tool produced by Highways England
DT	Diffusion Tube
FDMS	Filter Dynamics Measurement System
LAQM	Local Air Quality Management
NO_2	Nitrogen Dioxide
NO_X	Nitrogen Oxides
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
SO_2	Sulphur Dioxide

References

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