

Annual Progress Report (APR)



2020 Air Quality Annual Progress Report (APR) for
Scottish Borders Council

In fulfilment of Part IV of the
Environment Act 1995

Local Air Quality Management

June 2020

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Executive Summary: Air Quality in Our Area

Air Quality in the Scottish Borders

Scottish Borders Council undertakes a programme of air quality assessment in accordance with the Guidance produced by the UK Government and Devolved Administrations⁽¹⁾.

This report sets out the results of air quality monitoring carried out by Scottish Borders Council since the last Annual Progress Report and considers the potential impacts from a range of sources such as road traffic and other transport emissions, industrial processes, commercial and domestic fuel use and fugitive emission sources.

There are no existing significant air quality issues identified within the area. Earlier rounds of review and assessment have identified only NO₂ from road traffic requiring to be considered. The results of NO₂ monitoring carried out in 2019 has indicated trends are relatively stable at all sites and there is no evidence that the annual mean concentration of NO₂ may exceed the specific Air Quality Objectives.

Scottish Borders Council has found no evidence that the levels of any other relevant pollutants may exceed the specific Air Quality Objectives and therefore has not identified the need to designate any Air Quality Management Areas.

The comments from the Scottish Government's appraisal of the Annual Progress Report 2019 are addressed within this report. This report addresses an error identified in Annual Progress Report 2017 relating to the 1-Hour Mean NO₂ Monitoring Results. The Annual Progress Report 2017 suggests that the hourly objective for NO₂ at the continuous monitoring site was consistently above the objective of 18 exceedances per year. These results have been reviewed and it is confirmed that no exceedances of the objective are reported in years 2012-2016.

Actions to Improve Air Quality

Scottish Borders Council is not currently engaged in any active air quality initiatives other than ongoing monitoring.

Local Priorities and Challenges

Scottish Borders Council has no specific priorities or challenges for the coming year beyond the statutory monitoring and reporting requirements.

How to Get Involved

Members of the public can get involved in improving local air quality by taking alternative modes of transport where possible. This could include joining a cycle to work scheme, walking short distances instead of driving and when driving is unavoidable, taking part in car sharing schemes. Also, information on local transport can be obtained from the Scottish Borders Council [website](#).

The Local Access and Transport Strategy⁽²⁾ promotes the use of electric vehicles. In the Scottish Borders we currently have a growing network of charging points for electric vehicles that are located throughout the area. Further information is available on the Scottish Borders Council [website](#).

Further information can be obtained by contacting Environmental Health at: PLACEhealth@scotborders.gov.uk.

Table of Contents

Executive Summary: Air Quality in Our Area	iii
Air Quality in the Scottish Borders	iii
Actions to Improve Air Quality	iii
Local Priorities and Challenges	iii
How to Get Involved	iv
1. Local Air Quality Management	7
2. Actions to Improve Air Quality	8
2.1 Air Quality Management Areas	8
2.2 Cleaner Air for Scotland	8
2.2.1 Transport – Avoiding travel – T1	8
2.2.2 Climate Change – Effective co-ordination of climate change and air quality policies to deliver co-benefits – CC2	8
2.3 National Low Emission Framework (NLEF) Stage 1 Screening Appraisal for Scottish Borders Council	8
2.4 Local Development Plan	9
3. Air Quality Monitoring Data and Comparison with Air Quality Objectives	10
3.1 Summary of Monitoring Undertaken	10
3.1.1 Automatic Monitoring Sites	10
3.1.2 Non-Automatic Monitoring Sites	10
3.2 Individual pollutants	10
3.2.1 Nitrogen Dioxide (NO ₂)	11
3.2.2 Particulate Matter (PM ₁₀)	12
3.2.3 Particulate Matter (PM _{2.5})	12
3.2.4 Sulphur Dioxide (SO ₂)	12
3.2.5 Carbon Monoxide, Lead and 1,3-Butadiene	12
4. New Local Developments	13
4.1 Road Traffic Sources	13
4.2 Other Transport Sources	13
4.2 Industrial Sources	13
4.4 Commercial and Domestic Sources	13
4.5 New Developments with Fugitive or Uncontrolled Sources	13
5. Planning Applications	15
6. Conclusions and Proposed Actions	16
6.1 Conclusions from New Monitoring Data	16
6.2 Conclusions relating to New Local Developments	16

6.3 Proposed Actions	16
Appendix A: Monitoring Results	17
Appendix B: Full Diffusion Tube Results for 2019.....	22
Appendix C: Supporting Technical Information / Air Quality Monitoring	
Data QA/QC	23
Glossary of Terms	28
References	29

List of Tables

Table 1.1 – Summary of Air Quality Objectives in Scotland.....	7
Table A.1 – Details of Automatic Monitoring Sites	17
Table A.2 – Details of Non-Automatic Monitoring Sites	18
Table A.3 – Annual Mean NO ₂ Monitoring Results	19
Table A.4 – 1-Hour Mean NO ₂ Monitoring Results	20
Table A.5 – Correction to Table A.4 of Annual Progress Report 2017 - 1-Hour Mean NO ₂ Monitoring Results.....	21
Table B.1 – NO ₂ Monthly Diffusion Tube Results for 2019	22
Table B.2 – NO ₂ diffusion tube monitoring periods 2019.....	23
Table C.1 – Annualising NO ₂ tube monitoring data.....	25

List of Figures

Figure A.1 – Trend in diffusion tube measured annual mean 2015-2019 (all sites)...	21
Figure D.1 – Map of automatic monitoring site (AURN).....	27
Figure D.2 – Map of diffusion tube monitoring sites.....	28

1. Local Air Quality Management

This report provides an overview of air quality in the Scottish Borders Council area during 2019. It fulfils the requirements of Local Air Quality Management (LAQM) as set out in Part IV of the Environment Act (1995) 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 Scottish Borders 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		Date to be achieved by
	Concentration	Measured as	
Nitrogen dioxide (NO₂)	200 µg/m ³ not to be exceeded more than 18 times a year	1-hour mean	31.12.2005
	40 µg/m ³	Annual mean	31.12.2005
Particulate Matter (PM₁₀)	50 µg/m ³ , not to be exceeded more than 7 times a year	24-hour mean	31.12.2010
	18 µg/m ³	Annual mean	31.12.2010
Particulate Matter (PM_{2.5})	10 µg/m ³	Annual mean	31.12.2020
Sulphur dioxide (SO₂)	350 µg/m ³ , not to be exceeded more than 24 times a year	1-hour mean	31.12.2004
	125 µg/m ³ , not to be exceeded more than 3 times a year	24-hour mean	31.12.2004
	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
Lead	0.25 µg/m ³	Annual Mean	31.12.2008

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 an Air Quality Action Plan (AQAP) within 12 months, setting out measures it intends to put in place in pursuit of the objectives.

Scottish Borders Council currently does not have any AQMAs.

2.2 Cleaner Air for Scotland

Cleaner Air for Scotland – The Road to a Healthier Future (CAFS) is a national cross-government strategy that sets out how the Scottish Government and its partner organisations propose to reduce air pollution further to protect human health and fulfil Scotland's legal responsibilities as soon as possible. A series of actions across a range of policy areas are outlined, a summary of which is available at <https://www.gov.scot/Publications/2015/11/5671/17>. Progress by Scottish Borders Council against relevant actions within this strategy is demonstrated below.

2.2.1 Transport – Avoiding travel – T1

All local authorities should ensure that they have a corporate travel plan (perhaps within a carbon management plan) which is consistent with any local air quality action plan. Scottish Borders Council has produced a Local Access and Transport Strategy which is available on the Scottish Borders Council [website](#).

2.2.2 Climate Change – Effective co-ordination of climate change and air quality policies to deliver co-benefits – CC2

Scottish Government expects any Scottish local authority which has or is currently developing a Sustainable Energy Action Plan to ensure that air quality considerations are covered. Scottish Borders Council has produced a Low Carbon Strategy which is available on the Scottish Borders Council [website](#).

2.3 National Low Emission Framework (NLEF) Stage 1 Screening Appraisal for Scottish Borders Council

Scottish Borders Council currently does not have any AQMAs, and therefore a Stage 1 Screening Appraisal has not been undertaken.

2.4 Local Development Plan

The Scottish Borders Council Local Development Plan⁽³⁾ recognises the area's good air quality and our aim to maintain this standard. Policies apply not only to commercial and industrial development but also to other land uses that, through the generation of traffic, for example, could impact on air quality.

The Plan is founded on the premise of supporting and encouraging sustainable development in accordance with the Council's Environmental Strategy and the need for action on climate change. In determining planning applications and preparing document briefs, the Council has regard to sustainability principles, including the preservation of air quality, which underpin all the Plan's policies and which developers will be expected to incorporate into their developments.

The Scottish Borders is a largely rural area with significant remoteness, resulting in a high number of households that have access to a car. Transport policies seek to promote the most sustainable means of travel, giving priority to walking and cycling for local journeys, and to public transport in preference to travel by car.

The Local Development Plan is available on the Scottish Borders Council [website](#).

3. Air Quality Monitoring Data and Comparison with Air Quality Objectives

3.1 Summary of Monitoring Undertaken

During 2019, no changes took place to the air quality monitoring carried out by Scottish Borders Council. Automatic monitoring for NO₂ and O₃ was carried out as part of the Automatic Urban and Rural Network (AURN). Non-automatic monitoring was also carried out for NO₂.

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.

Automatic (continuous) monitoring was carried out at 1 site within the Scottish Borders during 2019 as part of the Automatic Urban and Rural Network (AURN). Table A.1 in Appendix A shows the details of the site. National monitoring results are available at <http://www.scottishairquality.scot/>.

A map showing the location of the monitoring site is provided in Appendix D. Further details on how the monitor is calibrated and how the data has been adjusted are included in Appendix C.

3.1.2 Non-Automatic Monitoring Sites

Scottish Borders Council undertook non-automatic (passive) monitoring of NO₂ at 4 sites during 2019. Table A.2 in Appendix A shows the details of the sites.

A map showing the location of the monitoring sites is 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.

3.2 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 (NO₂)

Table A.3 in Appendix A compares the ratified and adjusted monitored NO₂ annual mean concentrations for the past 5 years with the air quality objective of 40µg/m³.

The 2019 annual mean concentrations of NO₂ at all monitoring locations are shown to be well within the annual air quality objective, with the highest concentration recorded being 21µg/m³ at location DT14. No significant increase or decrease in concentrations were identified in 2019, although a reduction of 5µg/m³ was recorded at location DT14 compared to the 2018 concentration. One possible explanation is a minor change to the monitoring location. Circulation around the tube may have been affected by its proximity to a road sign, however as a result of a new bracket being fitted in 2019 this is no longer the case. No other specific explanation could be established to explain this decrease.

The annual mean concentration for the continuous monitoring site (CM1) has been very stable over the past 5 years, ranging from 5-6µg/m³. The trend in annual mean concentrations for all diffusion tube monitoring sites is also shown to be relatively stable, with variations of 0-2 µg/m³ when comparing 2015 and 2019 annual mean concentrations. Figure A.1 in Appendix A shows the trend in annual mean concentrations from 2015-2019.

For diffusion tubes, the full 2019 dataset of monthly mean values is provided in Appendix B. Due to an insufficient data capture for diffusion tube monitoring location DT12, it has been necessary to adjust the results for annualisation. Further details on adjustments are provided in Appendix C.

Table A.4 in Appendix A compares the ratified continuous monitored NO₂ hourly mean concentrations for the past 5 years with the air quality objective of 200µg/m³, not to be exceeded more than 18 times per year. No exceedences have been identified.

Measurement of NO₂ will continue using the diffusion tube method to monitor the ongoing trends in NO₂ concentrations.

An error has been identified in Annual Progress Report 2017 relating to the 1-Hour Mean NO₂ Monitoring Results for monitoring location CM1. The Annual Progress Report 2017 suggests that the hourly objective for NO₂ was consistently above the objective of 18 exceedances per year. These results have been reviewed and it is

confirmed that no exceedances of the objective are reported in years 2012-2016. It is noted that the data capture for 2013 was 50.7% and the 99.8th percentile of 1-hour means is not available to report. Table A.5 in Appendix A includes the correct comparison of the ratified continuous monitored NO₂ hourly mean concentrations for the period 2012-2016 with the air quality objective of 200µg/m³.

3.2.2 Particulate Matter (PM₁₀)

Previous rounds of Review and Assessment have indicated that no site in the Scottish Borders is at risk of exceeding the air quality objectives for particulate matter.

Scottish Borders Council do not monitor PM₁₀. There are no plans to undertake monitoring for this pollutant.

3.2.3 Particulate Matter (PM_{2.5})

Scottish Borders Council do not monitor PM_{2.5}. There are no plans to undertake monitoring for this pollutant.

3.2.4 Sulphur Dioxide (SO₂)

Previous rounds of Review and Assessment have indicated that no site in the Scottish Borders is at risk of exceeding the air quality objectives for SO₂. Scottish Borders Council do not monitor SO₂.

3.2.5 Carbon Monoxide, Lead and 1,3-Butadiene

Previous rounds of Review and Assessment have indicated that no site in the Scottish Borders is at risk of exceeding the air quality objectives for Carbon Monoxide, Lead and 1,3-Butadiene. No monitoring has been undertaken for these pollutants, and no changes have occurred in their status since submission of the Annual Progress Report 2019.

4. New Local Developments

No new developments which might impact on local air quality have been identified.

4.1 Road Traffic Sources

No new road traffic sources have been identified.

4.2 Other Transport Sources

No new other traffic sources have been identified.

4.2 Industrial Sources

Scottish Borders Council consulted SEPA in order to identify any new industrial installations, or any existing installations where emissions have increased substantially. Information was provided by SEPA on 2 new Pollution Prevention and Control permits issued to poultry farms in the area, however these farms fall well below the screening criteria for further investigation. No other new, or substantially changed, industrial sources which might impact on local air quality have been identified.

4.4 Commercial and Domestic Sources

During 2019 there were a number of Planning Applications in respect of new biomass stoves and boilers. These are routinely screened using the approved Screening Tool and no installations have been identified as impacting adversely on local air quality.

4.5 New Developments with Fugitive or Uncontrolled Sources

The Annual Progress Report 2019 provided details of a proposed waste transfer station at Easter Langlee, Galashiels. The site is now operational and replaces the existing landfill facility with waste being directed to the proposed site for sorting, before being distributed to and disposed of at landfill sites or recycling facilities elsewhere. The report concluded that further screening may be required once the plant becomes operational. The Local Air Quality Management Technical Guidance (TG16) details the methodology used to screen fugitive sources of PM₁₀. As there is no relevant exposure within 200m of the site (background PM₁₀ is <17µg/m³), and no complaints have been received regarding fugitive emissions from the site, no further assessment is required.

No other new potential sources of fugitive or uncontrolled particulate matter have been identified.

5. Planning Applications

Scottish Borders Council has received an application (reference: 19/00210/PPP) requesting Planning Permission in Principle for the redevelopment of land at Auction Mart, Newtown St Boswells, TD6 0PP. The proposal is classed as a 'Major' development as the area of the development site exceeds 2 hectares. The proposal comprises of a significant mixed use development in the centre of the town and forms part of a greater masterplan for the re-development of the town centre.

In accordance with the Local Development Plan, the potential impact on air quality will be required to be assessed as part of the planning process.

No other major Planning Applications have been identified which may impact on local air quality.

6. Conclusions and Proposed Actions

6.1 Conclusions from New Monitoring Data

The monitoring undertaken by Scottish Borders Council has not identified any potential or actual exceedances of the Air Quality Objectives at any relevant locations. Analysis of NO₂ concentrations between 2015 and 2019 show NO₂ concentrations follow a relatively stable trend.

6.2 Conclusions relating to New Local Developments

A review has identified no new developments which might impact on local air quality.

6.3 Proposed Actions

- 1) Measurement of nitrogen dioxide will continue using the diffusion tube method to monitor the ongoing trends in NO₂ concentrations. However, monitoring locations have not been formally reviewed since 2016, when the number of locations monitored from 2017 onwards was reduced. A wider review will be undertaken in consultation with SEPA and Scottish Government.
- 2) During 2020 diffusion tubes will be exposed in accordance with the monitoring periods stated on the published Diffusion Tube Calendar.
- 3) Scottish Borders Council will continue to carefully consider future planning applications which may have the potential to impact air quality.
- 4) The results of air quality monitoring and other air quality work will be included in the next Annual Progress Report due to be submitted by June 2021.

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?	Monitoring Technique	Distance to Relevant Exposure (m) ⁽¹⁾	Distance to kerb of nearest road (m) ⁽²⁾	Inlet Height (m)
CM1	Peebles	Urban background	324812	641083	O ₃ / NO ₂	N	UV Absorption/ Chemiluminescent	5	N/A	2.8

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

(2) N/A if not applicable.

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

Site ID	Site Name	Site Type	X OS Grid Ref	Y OS Grid Ref	Pollutants Monitored	In AQMA?	Distance to Relevant Exposure (m) ⁽¹⁾	Distance to kerb of nearest road (m) ⁽²⁾	Tube collocated with a Continuous Analyser?
DT11	Rogerson's, High St, Galashiels	Kerbside	349063	636287	NO ₂	N	1	1.5	N
DT12	Border Angling, High St, Galashiels	Kerbside	348976	636371	NO ₂	N	1	1.5	N
DT13	Edingtons, High St, Galashiels	Kerbside	348982	636384	NO ₂	N	1	1.5	N
DT14	Iceland, High St, Galashiels	Kerbside	349063	636272	NO ₂	N	1	1.5	N

(1) 0 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 NO₂ Monitoring Results

Site ID	Site Type	Monitoring Type	Valid Data Capture for Monitoring Period (%) ⁽¹⁾	Valid Data Capture 2019 (%) ⁽²⁾	NO ₂ Annual Mean Concentration (µg/m ³) ⁽³⁾				
					2015	2016	2017	2018	2019
CM1	Urban Background	Automatic	-	99	6	6	5	6	6
DT11	Kerbside	Diffusion Tube	-	100	17	19	17	18	17
DT12	Kerbside	Diffusion Tube	-	62	22	23	22	19	20
DT13	Kerbside	Diffusion Tube	-	100	20	22	18	22	19
DT14	Kerbside	Diffusion Tube	-	100	23	23	24	26	21

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

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

(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%).

(3) Means for diffusion tubes have been corrected for bias. All means have been “annualised” as per LAQM.TG(16) if valid data capture for the full calendar year is less than 75%. See Appendix C for details.

Table A.4 – 1-Hour Mean NO₂ Monitoring Results

Site ID	Site Type	Monitoring Type	Valid Data Capture for Monitoring Period (%) ⁽¹⁾	Valid Data Capture 2019 (%) ⁽²⁾	NO ₂ 1-Hour Means > 200µg/m ³ ⁽³⁾				
					2015	2016	2017	2018	2019
CM1	Urban Background	Automatic	N/A	99	0	0	0	0	0

Notes: Exceedances of the NO₂ 1-hour mean objective (200µg/m³ not to be exceeded more than 18 times/year) are shown in **bold**.

(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%).

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

Table A.5 – Correction to Table A.4 of Annual Progress Report 2017 - 1-Hour Mean NO₂ Monitoring Results

Site ID	Site Type	Monitoring Type	Valid Data Capture for Monitoring Period (%) ⁽¹⁾	Valid Data Capture 2016 (%) ⁽²⁾	NO ₂ 1-Hour Means > 200µg/m ³ ⁽³⁾				
					2012	2013	2014	2015	2016
CM1	Urban Background	Automatic	N/A	98.82	0	No Data	0	0	0

Notes: Exceedances of the NO₂ 1-hour mean objective (200µg/m³ not to be exceeded more than 18 times/year) are shown in **bold**.

(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%).

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

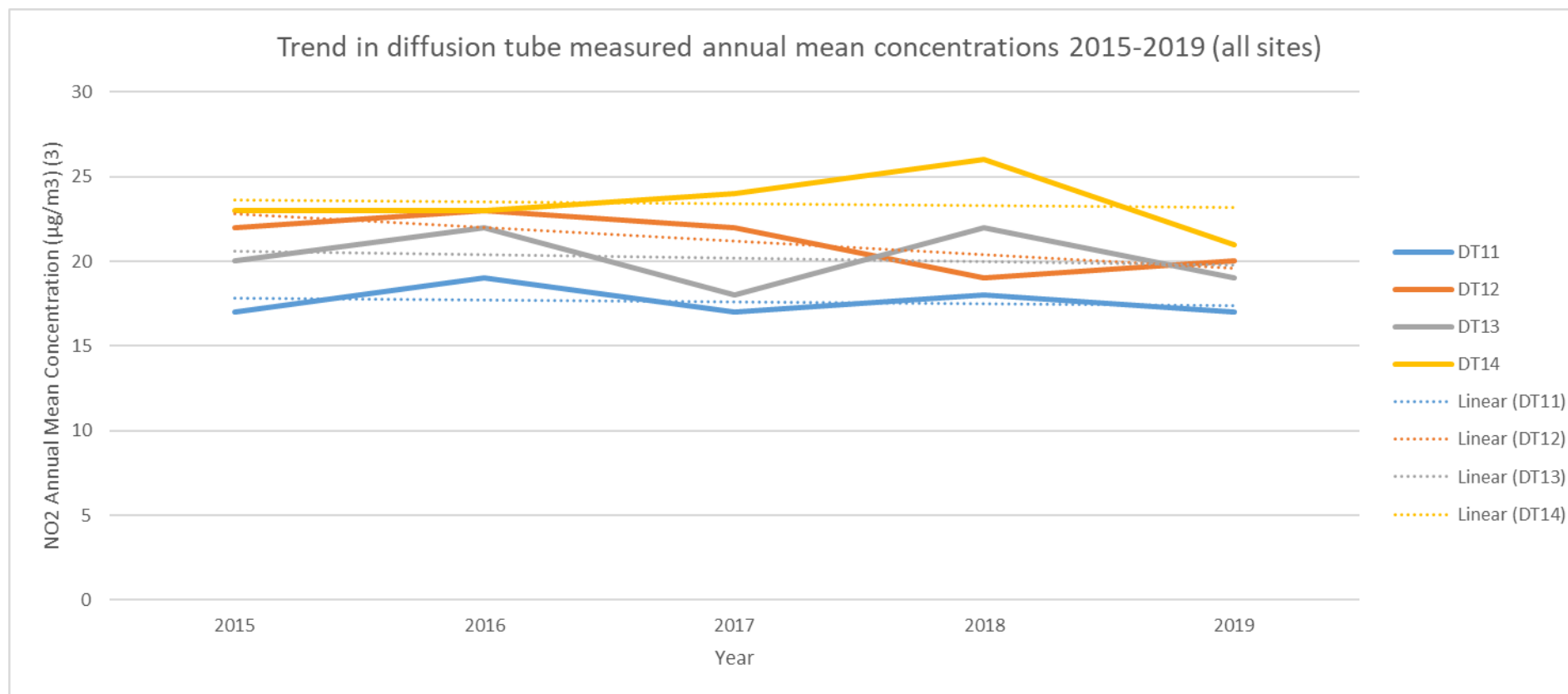


Figure A.1 - Trend in diffusion tube measured annual mean 2015-2019 (all sites)

Appendix B: Full Diffusion Tube Results for 2019

Table B.1 – NO₂ Diffusion Tube Results for 2019

Site ID	NO ₂ Mean Concentrations (µg/m ³) ⁽²⁾													Annual Mean	
	1	2	3	4	5	6	7	8	9	10	11	12	13	Raw Data	Bias Adjusted ⁽¹⁾
DT11	22.1	20.6	16.5	18.2	19.5	11.1	12.6	15.1	13.4	20.5	20.9	28.5	27.8	19	17
DT12	26.4	30.8	21.3	22.7	24.1	17.9	18.5	18.2	-	-	-	-	-	23.4	19
DT13	26.9	25.2	18.8	24.5	28.5	16.9	18.5	19.4	15.4	20.7	25.8	30	20.2	22.4	20
DT14	28.1	28.3	23.4	24.9	24.3	20.1	19	22.2	18.9	27.2	28.2	32.7	24.2	24.7	21

(1) See Appendix C for details on bias adjustment

(2) Numbers '1-13' refer to monitoring periods detailed in Table B.2

(-) Data not available, see Appendix C for details on annualisation adjustment

Table B.2 – NO₂ diffusion tube monitoring periods 2019

Monitoring Period	Exposure dates	Monitoring Period	Exposure dates	Monitoring Period	Exposure dates
1	03/01/19 - 30/01/19	6	22/05/19 - 20/06/19	11	09/10/19 - 07/11/19
2	30/01/19 - 28/02/19	7	20/06/19 - 18/07/19	12	07/11/19 - 05/12/19
3	28/02/19 - 28/03/19	8	18/07/19 - 14/08/19	13	05/12/19 - 03/01/20
4	28/03/19 - 23/04/19	9	14/08/19 - 16/09/19		
5	23/04/19 - 22/05/19	10	16/09/19 - 10/10/19		

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

QA/QC of Automatic Monitoring Station

The QA/QC work on the Peebles site is carried out under the auspices of the Automatic Urban and Rural Network (AURN) system. Routine calibrations are undertaken every four weeks by Council Staff as Local Site Operatives.

Data validation and ratification is undertaken by Bureau Veritas, Contractors appointed by DEFRA/Scottish Government.

Site audits are undertaken at regular intervals by AEA Technology and to date, and other than poor data capture in 2013, no overall issues have been identified.

QA/QC of non-automatic monitoring

QA/QC of diffusion tube monitoring

All diffusion tubes used by the Council are mounted and handled in accordance with the guidance contained in LAQM (TG16). Sites have been selected in consultation with the Scottish Government and SEPA to be representative of human exposure.

The Laboratory used for the analysis of the Council's diffusion tubes was Edinburgh Scientific Services. The laboratory is United Kingdom Accreditation Service (UKAS) accredited and is listed as 'satisfactory' in the AIR NO₂ Proficiency Testing Scheme. The analytical method of 50% TEA in Acetone is used.

During 2019 the tubes were not exposed for periods in accordance with the published Diffusion Tube Calendar. This is further discussed in relation to Short-term to Long-term Data adjustment. The monitoring periods are detailed in Appendix B Table B.2.

Diffusion Tube Bias Adjustment Factors

The national diffusion tube bias adjustment factor spreadsheet (Version March 2020) was used to calculate the bias adjustment factor applied to the NO₂ diffusion tube data. Over the year, Edinburgh Scientific Services participated in one co-location study. The national diffusion tube bias adjustment factor for Edinburgh Scientific Services in 2019 is 0.87. This factor has been applied to all 2019 diffusion tube data.

Short-term to Long-term Data adjustment

Where passive diffusion tubes have less than 75% data capture for the annual period, an annualisation calculation is required to be undertaken in accordance with LAQM Technical Guidance (TG16). Annualisation was carried out for one site, DM12, due to building work impacting on access.

Two nearby, long-term, continuous monitoring sites, forming part of the national network were chosen in order to calculate the annualisation factor. The chosen sites had a data capture of over 85% and were within a 50 mile radius. Table C.1 includes details of these sites.

It has been identified that the diffusion tube calendar was not adhered to during 2019 which resulted in 13 monitoring periods, rather than 12. Advice was taken from the LAQM Helpdesk and a time-weighted average was used when calculating the annual and period means.

Table C.1 – Annualising NO₂ tube monitoring data

Site name	Type	Data capture (%)	Annual mean (AM) µg/m ³	Period mean (AM) µg/m ³	Ratio AM/PM
Peebles	Suburban	99.0	5.66	4.98	1.14
Eskdalemuir	Rural	96.5	1.96	2.11	0.93
Average ratio					1.04

Factor from Local Co-location Studies (if available)

Scottish Borders Council has not carried out any co-location studies.

Discussion of Choice of Factor to Use

Not Applicable.

PM Monitoring Adjustment

Not Applicable.

Distance correction

Paragraph 7.78 of LAQM TG16 details the procedure to estimate the concentration at the nearest receptor when measured at a monitoring site which is not representative of public exposure. It recommends that as a minimum the distance correction should be applied to all monitoring locations that record an annual mean concentration that is above the NO₂ annual objective of 40µg/m³. Consideration may also be given to applying the calculation to monitoring locations that record an annual mean concentration that is within 10% of the NO₂ annual objective of 40µg/m³ (i.e. 36µg/m³) to account for the inherent uncertainty in diffusion tube monitoring concentration data. A distance correction has not been applied to the data collected by Scottish Borders Council as it is not deemed to be required.

Appendix D: Location of monitoring sites

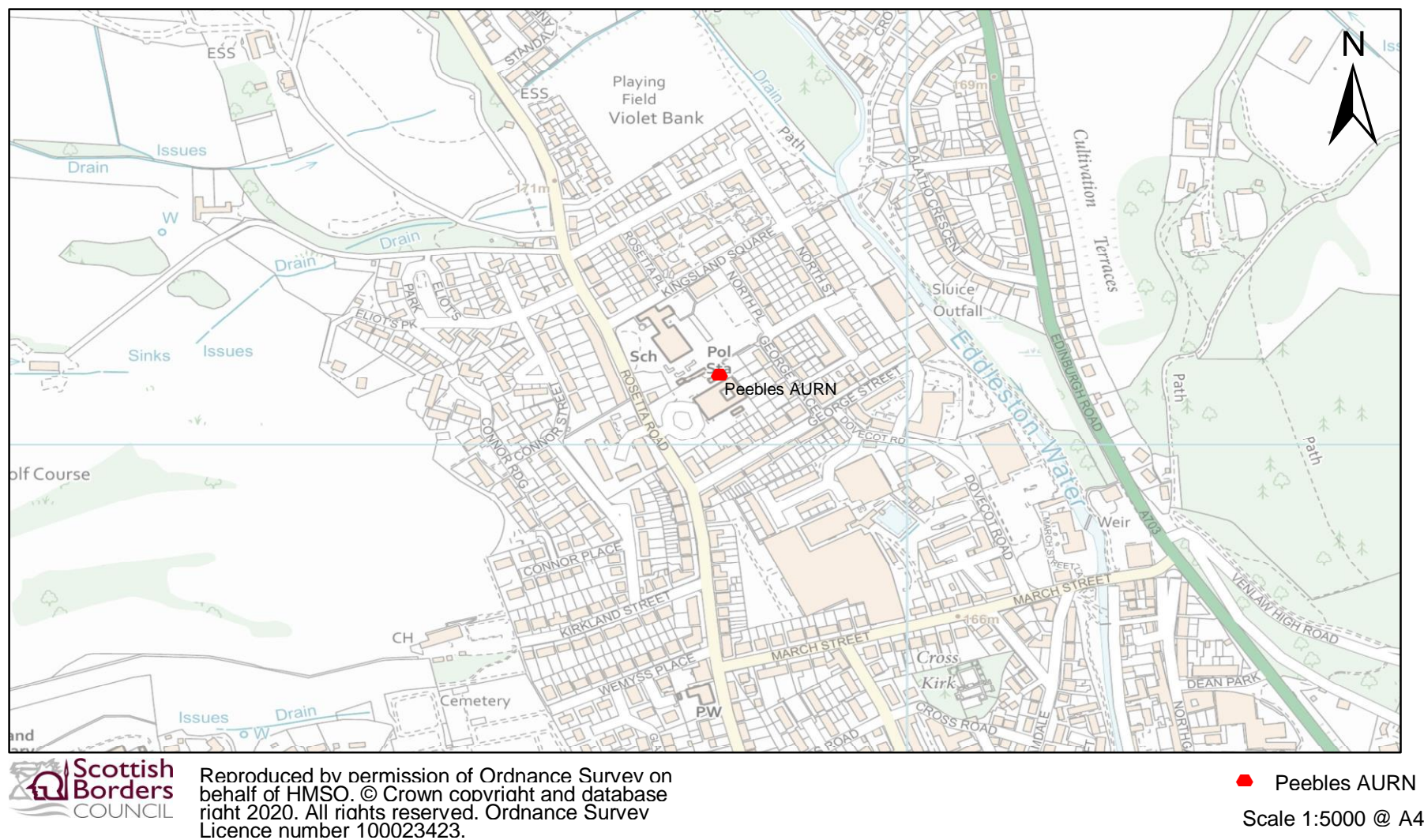


Figure D.1 – Map showing location of automatic monitoring site (AURN)



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• NO2 Diffusion Tube Monitoring Location

Scale 1:5000 @ A4

Figure D.2 – Map showing location of 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	Air quality Annual Progress Report
AURN	Automatic Urban and Rural Network (UK air quality monitoring network)
Defra	Department for Environment, Food and Rural Affairs
LAQM	Local Air Quality Management
NO ₂	Nitrogen Dioxide
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 Environmental Protection Agency
SO ₂	Sulphur Dioxide

References

- 1) Local Air Quality Management Technical Guidance LAQM (TG16)
- 2) Scottish Borders Council Local Access and Transport Strategy 2015
- 3) Scottish Borders Local Development Plan 2016