



2011 Air Quality Progress Report for Scottish Borders Council

In fulfillment of Part IV of the Environment Act 1995
Local Air Quality Management

Date May 2011

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Executive Summary

Scottish Borders Council undertakes a program of Air Quality Assessment in accordance with the Guidance produced by the UK Government and Devolved Administrations. Reports are produced annually on a rolling program. Earlier rounds of review and assessment have shown that the main industrial pollutants are unlikely to exceed the UK Air Quality Objectives at any location within the Council's area. And that only NO₂ from road traffic and PM₁₀ from domestic fuel consumption still required to be considered.

A Detailed Assessment of PM₁₀ levels was subsequently undertaken at a location agreed with the Scottish Government and Scottish Environmental Protection Agency as a worst possible case. This work has shown that no part of the Council's area was at risk of exceeding the Air Quality Objective for PM₁₀.

As part of the air quality monitoring programme, the Council monitored nitrogen dioxide (NO₂) using diffusion tubes at 19 different locations. The monitoring of NO₂ has shown no exceedences of the NO₂ Objectives, with levels on average decreasing annually. In 2010 the number of sites was reduced to 14 with the background sites at Peebles, Kelso and Melrose being discontinued.

Since November 2009 a new automatic air quality monitoring station has been operating in Peebles. This station is part of the AURN network. The pollutants monitored are NO_x and Ozone.

Previous rounds of Review and Assessment have indicated that there were no areas in the Borders at risk of exceeding any of the listed pollutants. The new data and information collected for this report confirms the conclusions of previous reports and that a Detailed Assessment is not required for any pollutant.

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1 Introduction

1.1 Description of Local Authority Area

The Scottish Borders is situated between Edinburgh and the Lothians to the north, and Dumfries & Galloway and England to the south. The Council's area extends westward from the North Sea to South Lanarkshire. Many of the neighbouring Local Authorities are predominantly rural and the prevailing winds over the Council's are south westerly.

A map showing the Council's area is included at the end of the Appendices to this Report.

Consultation responses from earlier rounds of the Review and Assessment process have revealed no major sources of pollution outwith the council's area that might affect air quality in the Borders. Similarly, no sources of pollution have been identified in the Borders that might affect neighbouring Local Authority areas.

The largest Borders towns are Hawick and Galashiels both of which are transected by the A7 from Carlisle to Edinburgh. The A7 through Hawick has been re-routed via Commercial Road, and the town centre area made one-way to improve traffic flow and air quality. A similar traffic relief scheme is currently underway for Galashiels. The A68 which links Newcastle to Edinburgh via the A696 passes through Jedburgh, St Boswells, Earlston and Lauder. The A7 and A696 are linked by the Melrose bypass which serves the Borders General Hospital. The principal east-west route through the area is the A72 which links Galashiels, Walkerburn, Innerleithen and Peebles to the A701 Moffat – Edinburgh Road. In the west the main north-south road is the A1 which runs through the Council's North Sea coastal area from Edinburgh to Berwick-upon-Tweed. The town of Eyemouth is the closest population centre to the A1.

The Borders rail network was closed and demolished in the 1960s, leaving the East Coast mainline as the only railway in the Council's area. However, work to reopen part of the former Waverley Line from Midlothian to Galashiels has been commenced and this development will be assessed when the operating details of the new line are finalised.

Many of the processes within the Council's area authorised by SEPA (Scottish Environmental Pollution Agency) involve quarrying and cement batching. These have the potential to contribute to local low level pollution, mainly by fugitive dust and other particulates. There are also a number of poultry operations in the area, which have now been brought within the assessment regime.

1.2 Purpose of Progress Report

Progress Reports are required in the intervening years between the three-yearly Updating and Screening Assessment reports. Their purpose is to maintain continuity in the Local Air Quality Management process.

They are not intended to be as detailed as Updating and Screening Assessment Reports, or to require as much effort. However, if the Progress Report identifies the risk of exceedence of an Air Quality Objective, the Local Authority (LA) should undertake a Detailed Assessment immediately, and not wait until the next round of Review and Assessment.

1.3 Air Quality Objectives

The air quality objectives applicable to LAQM in Scotland are set out in the Air Quality (Scotland) Regulations 2000 (Scottish SI 2000 No 97), the Air Quality (Scotland) (Amendment) Regulations 2002 (Scottish SI 2002 No 297), and are shown in Table 1.1. This table shows the objectives in units of micrograms per cubic metre, $\mu\text{g}/\text{m}^3$ (milligrams per cubic metre, mg/m^3 for carbon monoxide) with the number of exceedences in each year that are permitted (where applicable).

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Table 1.1 Air Quality Objectives included in Regulations for the purpose of Local Air Quality Management in Scotland.

Pollutant	Concentration	Measured as	Date to be achieved by
Benzene	16.25 $\mu\text{g}/\text{m}^3$	Running annual mean	31.12.2003
	3.25 $\mu\text{g}/\text{m}^3$	Running annual mean	31.12.2010
1,3-Butadiene	2.25 $\mu\text{g}/\text{m}^3$	Running annual mean	31.12.2003
Carbon monoxide	10.0 mg/m^3	Running 8-hour mean	31.12.2003
Lead	0.5 $\mu\text{g}/\text{m}^3$	Annual mean	31.12.2004
	0.25 $\mu\text{g}/\text{m}^3$	Annual mean	31.12.2008
Nitrogen dioxide	200 $\mu\text{g}/\text{m}^3$ not to be exceeded more than 18 times a year	1-hour mean	31.12.2005
	40 $\mu\text{g}/\text{m}^3$	Annual mean	31.12.2005
Particles (PM₁₀) (gravimetric)	50 $\mu\text{g}/\text{m}^3$, not to be exceeded more than 35 times a year	24-hour mean	31.12.2004
	50 $\mu\text{g}/\text{m}^3$, not to be exceeded more than 7 times a year	24-hour mean	31.12.2010
	40 $\mu\text{g}/\text{m}^3$	Annual mean	31.12.2004
	18 $\mu\text{g}/\text{m}^3$	Annual mean	31.12.2010
Sulphur dioxide	350 $\mu\text{g}/\text{m}^3$, not to be exceeded more than 24 times a year	1-hour mean	31.12.2004
	125 $\mu\text{g}/\text{m}^3$, not to be exceeded more than 3 times a year	24-hour mean	31.12.2004
	266 $\mu\text{g}/\text{m}^3$, not to be exceeded more than 35 times a year	15-minute mean	31.12.2005

1.4 Summary of Previous Review and Assessments

Scottish Borders Council has undertaken an Air Quality Assessment Programme in terms of the guidance on air quality management published by the Scottish Government¹.

The Updating and Screening Assessment 2003² concluded that Galashiels High Street was at risk of exceeding the Objective for Nitrogen Dioxide (NO₂) from traffic. A risk of exceedence for Sulphur Dioxide (SO₂) and PM₁₀ from domestic fuel use was also identified in Newcastleton. Detailed Assessments were therefore required for these pollutants.

A Detailed Assessment of NO₂ from Traffic in Galashiels³ was undertaken and no risk of exceedence was identified. Traffic flow through the High Street street - canyon will be reduced further on completion of the Galashiels A7 Traffic Relief Scheme.

A Detailed Assessment of SO₂ and PM₁₀ levels in Newcastleton⁴ took place over the winter and spring of 2004 - 2005. The report concluded that there was no risk of either pollutant exceeding the Air Quality Objectives. Doubt was subsequently raised as to whether or not the monitoring location was representative of the highest predicted concentrations for particulates.

The Council's Updating and Screening Assessment in 2006⁵ and Progress Report in 2007⁶ both concluded that the Air Quality Objectives for each of the pollutants were unlikely to be exceeded at any location in the Council's area, and therefore a Detailed Assessment would not be required for any pollutant.

Following a review of the data from the Newcastleton Detailed Assessment, it was felt that additional monitoring should take place at a different location. A further twelve-month PM₁₀ monitoring programme at the relevant location was therefore undertaken between June 2007 and May 2008⁷. The data obtained has shown concentrations to be below the Scottish Objectives for both annual and daily averages and that the Objectives are not likely to be exceeded.

The Progress Report in 2008⁸, which contained interim data from the Newcastleton PM₁₀ study, and the Updating and Screening Assessment Report in 2009⁹ both confirmed that the Air Quality Objectives were not likely to be exceeded at any location in the Scottish Borders.

These conclusions were confirmed in the Council's Progress Report in 2010¹⁰.

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2 New Monitoring Data

2.1 Summary of Monitoring Undertaken

2.1.1 Automatic Monitoring Sites

Since November 2009, an automatic monitoring station has been in operation in the grounds of the Council Offices at Rosetta Road, Peebles. This station is funded by DEFRA/Scottish Government as part of the Automatic Rural and Urban Network.

The station details and pollutants monitored are described in Table 2.1 and Figure 2.1 below.

Table 2.1 Details of Automatic Monitoring Sites

Site Name	Site Type	OS Grid Ref	Pollutants Monitored	Monitoring Technique	In AQMA ?	Relevant Exposure ? (Y/N with distance (m) to relevant exposure)	Dist. to kerb of nearest road (N/A if not applicable)	Worst-case exposure?
Peebles	AURN Suburban	324812 641083	O ₃ / NO _x	UV Absorption /Chemilumin.	N	N/A	N/A	N/A

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2.1.2 Non-Automatic Monitoring Sites

In previous years, Scottish Borders Council has carried out monitoring of Nitrogen Dioxide using diffusion tubes at nineteen sites.

These sites were selected to be representative of relevant exposure and the locations agreed with the Scottish Government and SEPA.

Seven sites were located in Galashiels, six in Hawick, two in Kelso, two in Peebles and one in Melrose.

In September 2010 it was decided to discontinue using the sites in Peebles, Kelso and Melrose.

The locations of the sites are summarised in Table 2.2 and maps are provided in Appendix C.

The tubes are analysed by Edinburgh Scientific Services using 50% TEA in Acetone.

The Council has not compared the diffusion tubes with the reference method in any co-location study and has used the bias adjustment factors provided by the Review and Assessment website.

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Table 2.2 Details of Non - Automatic Monitoring Sites

Site Name	Site Type	OS Grid Ref		Pollutants Monitored	In AQMA?	Relevant Exposure? (Y/N with distance (m) to relevant exposure)	Distance to kerb of nearest road (N/A if not applicable)	Worst-case Location?
Council Chamber, Galashiels	Kerbside	349298	635928	NO ₂	No	Y 1m	2m	Yes
Stanley / Meikle St., Galashiels	Urban Background	348587	636142	NO ₂	No	Y 1m	1m	Yes
High St., Galashiels	Kerbside	348953	636445	NO ₂	No	Y 1m	1.5m	Yes
Gladstone Pl., Peebles	Urban Background	324757	640643	NO ₂	No	Y 1m	1.5m	Yes
High St., Peebles	Kerbside	325085	640389	NO ₂	No	Y 1m	2m	Yes
Sandbed, Hawick	Kerbside	350106	614464	NO ₂	No	Y 1m	3m	Yes
High St., Hawick	Kerbside	350314	614631	NO ₂	No	Y 1m	1.5m	Yes
Renwick Ter., Hawick	Urban Background	349803	613961	NO ₂	No	Y 1m	1.5m	Yes
Silverbuthall Rd., Hawick	Urban Background	350526	615857	NO ₂	No	Y 1m	1.5m	Yes
Bourtree Pl., Hawick	Kerbside	350497	614888	NO ₂	No	Y 1m	1.5m	Yes
Mart St., Hawick	Kerbside	350501	615096	NO ₂	No	Y 1m	3m	Yes
Commercial Rd., Hawick	Kerbside	350222	614899	NO ₂	No	Y 1m	2m	Yes
Bridge St., Kelso	Kerbside	372771	633870	NO ₂	No	Y 1m	1.5m	Yes
Mercer's Ct., Kelso	Urban Background	372460	634923	NO ₂	No	Y 1m	1.5m	Yes
St. Dunstan's Park, Melrose	Urban Background	354548	634038	NO ₂	No	Y 1m	1m	Yes
Rogerson's High St, G.shiels	Kerbside	349063	636287	NO ₂	No	Y 1m	1.5m	Yes
Border Angling, High St, G.shiels	Kerbside	348976	636371	NO ₂	No	Y 1m	1.5m	Yes
Edingtons, High St, G.shiels	Kerbside	348982	636384	NO ₂	No	Y 1m	1.5m	Yes
Iceland, High St, G.shiels	Kerbside	349063	636272	NO ₂	No	Y 1m	1.5m	Yes

2.2 Comparison of Monitoring Results with Air Quality Objectives

Over the period covered by this report, Scottish Borders Council has carried out monitoring for Nitrogen Dioxide. A new real-time monitoring station for Nitrogen Dioxide and Ozone has also been operated as part of the AURN scheme.

The results of monitoring undertaken by Scottish Borders Council are given in Sections 2.2.1 to 2.2.6 below.

2.2.1 Nitrogen Dioxide

Throughout the year, no diffusion tube site has exceeded the 40 µg/m³ annual mean objective.

Throughout the year, there have been no exceedences detected of the one hour mean of 200 µg/m³.

Throughout the year, no exceedences of 60 µg/m³ were detected at any diffusion tube site.

Automatic Monitoring Data

The data for the Peebles AURN site are reproduced below.

The site only came online in November 2009. Accordingly no measurements have been quoted for that year.

Table 2.3a Results of Automatic Monitoring for Nitrogen Dioxide: Comparison with Annual Mean Objective

Site ID	Location	Within AQMA ?	Relevant public exposure? Y/N	Data Capture for monitoring period ^a %	Data Capture for full calendar year 2010 ^b %	Annual mean concentrations (µg/m ³)		
						2008 ^{c, d}	2009 ^{c, d}	2010 ^c
Peebles	Council Offices	N	Y	N/A	98	No Data	No Data	9.0

^a i.e. data capture for the monitoring period, in cases where monitoring was only carried out for part of the year.

^b i.e. data capture for the full calendar year (e.g. if monitoring was carried out for six months the maximum data capture for the full calendar year would be 50%.)

^c Means should be “annualised” as in Box 3.2 of TG(09), if monitoring was not carried out for the full year.

^d Annual mean concentrations for previous years are optional

Figure 2.3 Trends in Annual Mean Nitrogen Dioxide Concentration Measured at Automatic Monitoring Sites.

The Peebles site has only one full year’s data so no trend information is available.

Table 2.3b Results of Automatic Monitoring for Nitrogen Dioxide: Comparison with 1- hour Mean Objective

Site ID	Location	Within AQMA?	Relevant public exposure? Y/N	Data Capture for monitoring period ^a %	Data Capture for full calendar year 2010 ^b %	Number of Exceedences of hourly mean (200 µg/m ³) If the period of valid data is less than 90% of a full year, include the 99.8 th percentile of hourly means in brackets.		
						2008 ^c	2009 ^c	2010
Peebles	Council Offices	N	Y	N/A	98	No Data	No Data	0 (Zero)

^a i.e. data capture for the monitoring period, in cases where monitoring was only carried out for part of the year.

^b i.e. data capture for the full calendar year (e.g. if monitoring was carried out for six months the maximum data capture for the full calendar year would be 50%.)

^c Numbers of exceedences for previous years are optional.

Diffusion Tube Monitoring Data

As mentioned above, in previous years Scottish Borders Council has carried out monitoring of Nitrogen Dioxide using diffusion tubes at nineteen sites. The site locations were selected in consultation with the Scottish Government and SEPA to be representative of relevant public exposure.

Part-year monitoring

The diffusion tube situated on Commercial Road, Hawick was inaccessible for much of 2010 as it lay within the boundary of the construction site for the new Sainsbury Supermarket.

The diffusion tubes in Peebles, Kelso and Melrose have consistently returned results well below the Annual Mean concentration so in September 2010 it was decided to discontinue sites. The data gathered during the early part of the year is reported below (adjusted for laboratory bias₁₃). As these sites have had a long history of consistent measurements, it is not considered necessary to “annualise” the data.

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Table 2.4 Results of Nitrogen Dioxide Diffusion Tubes

Site ID	Location	Within AQMA?	Relevant public exposure? Y/N	Data Capture for monitoring period ^a %	Data Capture for full calendar year 2010 ^b %	Annual mean concentrations ($\mu\text{g}/\text{m}^3$)		
						2008 ^{c, d}	2009 ^{c, d}	2010 ^c
A1	1 Example Site	N	Y	95	95	30.1	25.1	26.2
1	Council Chamber, Galashiels	No	Y		100	23	18	17
2	Stanley / Meikle St., Galashiels	No	Y		100	10	10	12
3	High St., Galashiels	No	Y		100	37	35	38
4	Gladstone Pl., Peebles	No	Y	100 For 9 mths	75	9	9	10
5	High St., Peebles	No	Y	100 For 9 mths	75	23	21	24
6	Sandbed, Hawick	No	Y		91.66	23	20	24
7	High St., Hawick	No	Y		100	23	23	26
8	Renwick Ter., Hawick	No	Y		100	7	7	11
9	Silverbuthall Rd., Hawick	No	Y		75	8	9	11
10	Bourtree Pl., Hawick	No	Y		100	25	22	22
11	Mart St., Hawick	No	Y		100	20	20	23
12	Commercial Rd., Hawick	No	Y	100 For 7 mths	58	17	17	22
13	Bridge St., Kelso	No	Y	100 For 9 mths	75	16	17	19
14	Mercer's Ct., Kelso	No	Y	88.9 For 9 mths	66.67	6	6	8
15	St. Dunstan's Park, Melrose	No	Y	100 For 9 mths	75	7	10	8
16	Rogerson's High St Galashiels	No	Y		100	No Data	33	32
17	Border Angling, High St, Galashiels	No	Y		100	35	36	38
18	Edingtons, High St, Galashiels	No	Y		100	29	28	35
19	Iceland, High St, Galashiels	No	Y		91.66	35	33	35

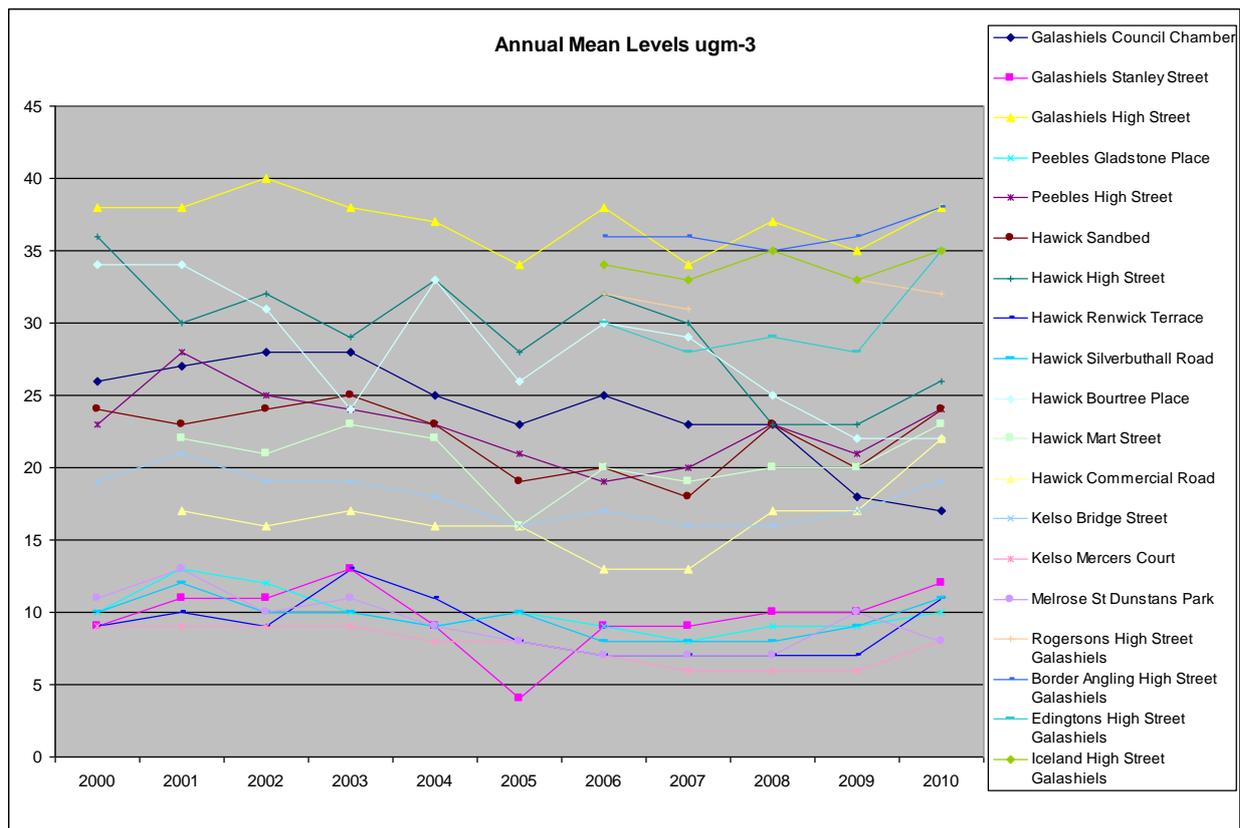
^a i.e. data capture for the monitoring period, in cases where monitoring was only carried out for part of the year.

^b i.e. data capture for the full calendar year (e.g. if monitoring was carried out for six months the maximum data capture for the full calendar year would be 50%.)

^c Means should be “annualised” as in Box 3.2 of TG(09), if monitoring was not carried out for the full year.

^d Annual mean concentrations for previous years are optional.

Figure 2.4 Trends in Annual Mean Nitrogen Dioxide Concentration Measured at Diffusion Tube Monitoring Sites.



2.2.2 PM₁₀

Previous Review and Assessment work has indicated that there are no areas within the Borders that are at risk of exceeding the Air Quality Objective for PM₁₀.

The estimated background maps for the Council’s area, produced by the Review and Assessment Helpdesk¹¹ indicate that PM₁₀ levels will not be exceeded at any location within the Council’s area.

2.2.3 Sulphur Dioxide

Previous Review and Assessment work has indicated that there are no areas within the Borders that are at risk of exceeding the Air Quality Objective for Sulphur Dioxide.

The SO₂ mass emissions from Ahlstrom in Chirnside have been reported by SEPA as having increased significantly in 2010 compared with previous years. This increase is being investigated by SEPA and the Company at present. The mass emissions are calculated using the results of a spot sample multiplied the flow rate of the exhaust gases and hours of production. The analytical results from the spot sample had an unusually high SO₂ concentration which when multiplied by hours of production results in a very high mass emission.

There is no clear explanation for this increase although Ahlstrom contend that the spot sample result represents the upper range of concentrations emitted by the process and this has skewed the mass emission result.

Air emissions testing in Jan 2011 indicated that SO₂ concentrations have now returned to more normal concentrations and SEPA will be carrying out further monitoring.

The assessment work undertaken for the production of this report has not revealed any new sources or increased emissions from existing sources.

2.2.4 Benzene

Previous Review and Assessment work has indicated that there are no areas within the Borders that are at risk of exceeding the Air Quality Objective for Benzene.

The assessment work undertaken for the production of this report has not revealed any new sources or increased emissions from existing sources.

2.2.5 Other pollutants monitored

As mentioned above however, the AURN station at Peebles carries out monitoring for Ozone. This station has been operating since November 2009 and a summary of results is provided below¹².

Annual Statistics for 2010 (Ratified Data):

Annual Hourly Mean	51	µgm ⁻³	96% Data Capture
Max Daily Mean	95	µgm ⁻³	
Max Hourly Mean	132	µgm ⁻³	

Exceedence Statistics for 2010:

Air Quality Strategy Objectives

Air Quality Strategy Objective for 2005 (O3) Daily maximum 8-hour running mean > 100 micrograms per metre cubed on more than 10 days

No of Exceedences: **0**

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Air Quality Strategy Standards

Air Quality Standard (O3) 8-hour running mean > 100 micrograms per metre cubed
No of Exceedences: **40**

Air Quality Strategy Standard for 2005 (O3) daily maximum 8-hour running mean > 100 micrograms per metre cubed
No of Exceedences: **7**

EC Limit Values

EC Population Information Threshold (O3) 1-hour mean > 180 micrograms per metre cubed
No of Exceedences: **0**

EC Population Warning Value (O3) 1-hour mean > 240 micrograms per metre cubed
No of Exceedences: **0**

EC Health Protection Target Value (O3) daily maximum 8-hour running mean > 120 micrograms per metre cubed on more than 25 days
No of Exceedences: **0**

EC Health Protection long-term objective (O3) daily maximum 8-hour running mean > 120 micrograms per metre cubed
No of Exceedences: **2**

The assessment work undertaken for the production of this report has not revealed any new sources or increased emissions from existing sources.

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Summary of Compliance with AQS Objectives

Scottish Borders Council has examined the results from monitoring in the Council's area. Concentrations are all below the objectives, therefore there is no need to proceed to a Detailed Assessment.

Delete box if not applicable. Otherwise add local authority name, amend the text as appropriate and leave box in the report.

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3 New Local Developments

3.1 Road Traffic Sources

None.

3.2 Other Transport Sources

None.

3.3 Industrial Sources

Two new supermarket petrol outlets have recently opened, one in Galashiels and one in Hawick. Air quality assessments undertaken during the Planning process did not indicate that local air quality would be adversely affected and both these developments will be looked at again in the Council's next Updating and Screening Assessment report.

Planning Applications have been made for several quarrying operations in respect of which air quality assessments have been requested. To date these Applications are still pending approval by the Council.

3.4 Commercial and Domestic Sources

The Council's Planning and Building Standards Lists are reviewed weekly to identify applications which may involve biomass combustion.

During 2010 approximately one hundred Applications were identified that involved the installation of biomass/multifuel heating equipment.

No areas were identified where the combined impact of biomass combustion sources might be relevant to local air quality.

No new areas were identified where domestic solid fuel use may be relevant.

3.5 New Developments with Fugitive or Uncontrolled Sources

Scottish Borders Council confirms that there are no new or newly identified local developments which may have an impact on air quality within the Local Authority area.

Scottish Borders Council confirms that all the following have been considered –

- **Road traffic sources**
- **Other transport sources**
- **Industrial sources**
- **Commercial and domestic sources**
- **New developments with fugitive or uncontrolled sources.**

Delete box if not applicable. Otherwise add local authority name and leave in.

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4 Local / Regional Air Quality Strategy

At the time of writing Scottish Borders Council has not identified any areas that are close to the Air Quality objectives.

The Council does not have a Local Air Quality Strategy but the need to produce a Strategy will be reviewed annually on the production of our Air Quality Reports.

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5 Planning Applications

Details of planning applications received are posted on the Council's web-based Public Access system.

The Planning and Building Standards Lists are reviewed weekly to identify applications which may impact on local air quality.

Any applications which may have an impact of local air quality are identified and if the impact is likely to be significant, the Applicants are required to produce an Air Quality Impact Assessment for their proposal.

In the case of smaller or individual developments, advice letters detailing steps to be taken to avoid pollution problems are issued to all Planning Applicants.

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6 Air Quality Planning Policies

Scottish Borders Council has no specific Air Quality Planning Policy.

However a major restructuring review of the Council's Planning and Development and Technical Services Departments has taken place resulting in the Environmental Health and Planning functions being under one Directorate.

It is envisioned that formalising an Air Quality Planning Policy will be addressed once the new structure is fully operational.

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7 Local Transport Plans and Strategies

Scottish Borders Council produced their first Local Transport Strategy in 2001. The most recent version was produced in 2008.

The Council has been progressing work to re-establish the Waverley Rail Line to the central Borders and since the publication of the last Report, work is now underway. The Council has initiated more frequent bus services to and from Edinburgh and have introduced an element of demand responsive travel in some of the more rural areas.

Road transport continues to play an important role in the Council area. It is therefore vital that the Council continues to improve the road network and adequately maintain this asset so that locals and visitors can travel easily and more safely on their chosen routes.

There have been upgrades to certain sections of road to improve traffic flow and thus reduce vehicle emissions. In particular, the final phase of the Galashiels A7 traffic relief scheme is scheduled to commence over the summer. The work involves reinstating two-way traffic along Ladhope Vale, thus diverting all through traffic on the A7 trunk road away from the street canyon on Galashiels High Street.

The Council is aware of the environmental issues associated with the promotion of the private car and is keen to introduce more sustainable means of transport where possible. It is noted that the introduction of more advanced technology such as faster broadband delivery and more flexible working could also significantly reduce the need to travel in the future.

Cycling and walking are also important elements within the Policy and the Council has continued to promote off-road cycling routes and to develop the Core Path Network throughout the area so that the people of the Scottish Borders to have a healthier and more environmentally conscious lifestyle.

Progress is also being made in promoting healthier travel options, through the Safer Routes to School Policy by encouraging more children to walk and cycle to school.

There is a great deal of work still to be done. The existence of the Strategy however, helps identify where Council funding priorities should be in the future and highlight the schemes and proposals that will help to achieve these transport related goals.

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8 Climate Change Strategies

Scottish Borders Council is at present working with the Carbon Trust with a view to preparing a Climate Change Strategy. It is intended that this work will be completed over the summer months.

Details of any Strategies/Policies and their impacts on Local Air Quality work will be made available in future reports.

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9 Implementation of Action Plans

At the time of writing, Scottish Borders Council has no Action Plans in place.

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10 Conclusions and Proposed Actions

10.1 Conclusions from New Monitoring Data

The monitoring undertaken by Scottish Borders Council has not identified any potential or actual exceedences of the Air Quality Objectives at any relevant locations.

Accordingly a Detailed Assessment is not required for any pollutant.

10.2 Conclusions relating to New Local Developments

Scottish Borders Council has not identified any new local developments that require more detailed consideration in the next Updating and Screening Assessment.

The Planning Applications mentioned in Section 3.3 above will be monitored and re-assessed during production of the Council's Updating and Screening Assessment report in 2012.

10.3 Other Conclusions

None.

10.4 Proposed Actions

The new monitoring data collected by Scottish Borders Council during the year has not identified the need to proceed to a Detailed Assessment for any pollutant.

At the time of writing, the Council has not identified the need to undertake any additional monitoring. The traffic flow patterns on the new A7 Relief Road will be reviewed to establish whether or not any additional monitoring is required.

The Council has not identified the need to relocate any of the existing monitoring sites.

Review and assessment work will continue towards production of the Council's Updating and Screening Assessment report in 2012.

(END OF PAGE)

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- 11). Background NOx, NO2, PM10 and PM2.5 Maps for LAQM and DRMB
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Appendices

Appendix A: QA/QC Data

Appendix B: 2010 NO₂ Monthly Mean Dataset

Appendix C: Maps of Diffusion Tube Sites

Map of Scottish Borders Council

(END OF PAGE)

Appendix A: QA:QC Data

Diffusion Tube Bias Adjustment Factors

Bias and precision factors have been obtained from the spreadsheet tool on the Review and Assessment website.

Edinburgh Scientific Services was the laboratory used for the supply and analysis of the Councils diffusion tubes during the year. The tubes are prepared using 50% TEA in Acetone.

A bias adjustment figure of 1.02 has been used for the results from this laboratory¹³.

Factor from Local Co-location Studies

Scottish Borders Council does not take place in any co-location studies.

Discussion of Choice of Factor to Use

Not applicable.

PM Monitoring Adjustment

Not applicable.

Short-term to Long-term Data adjustment

Not applicable.

QA/QC of automatic monitoring

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.

To date, no issues have been identified.

QA/QC of diffusion tube monitoring

Over the year Edinburgh Scientific Services participated in two co-location studies. Tube precision as given on the spreadsheet was rated as "Good" for both of these studies.

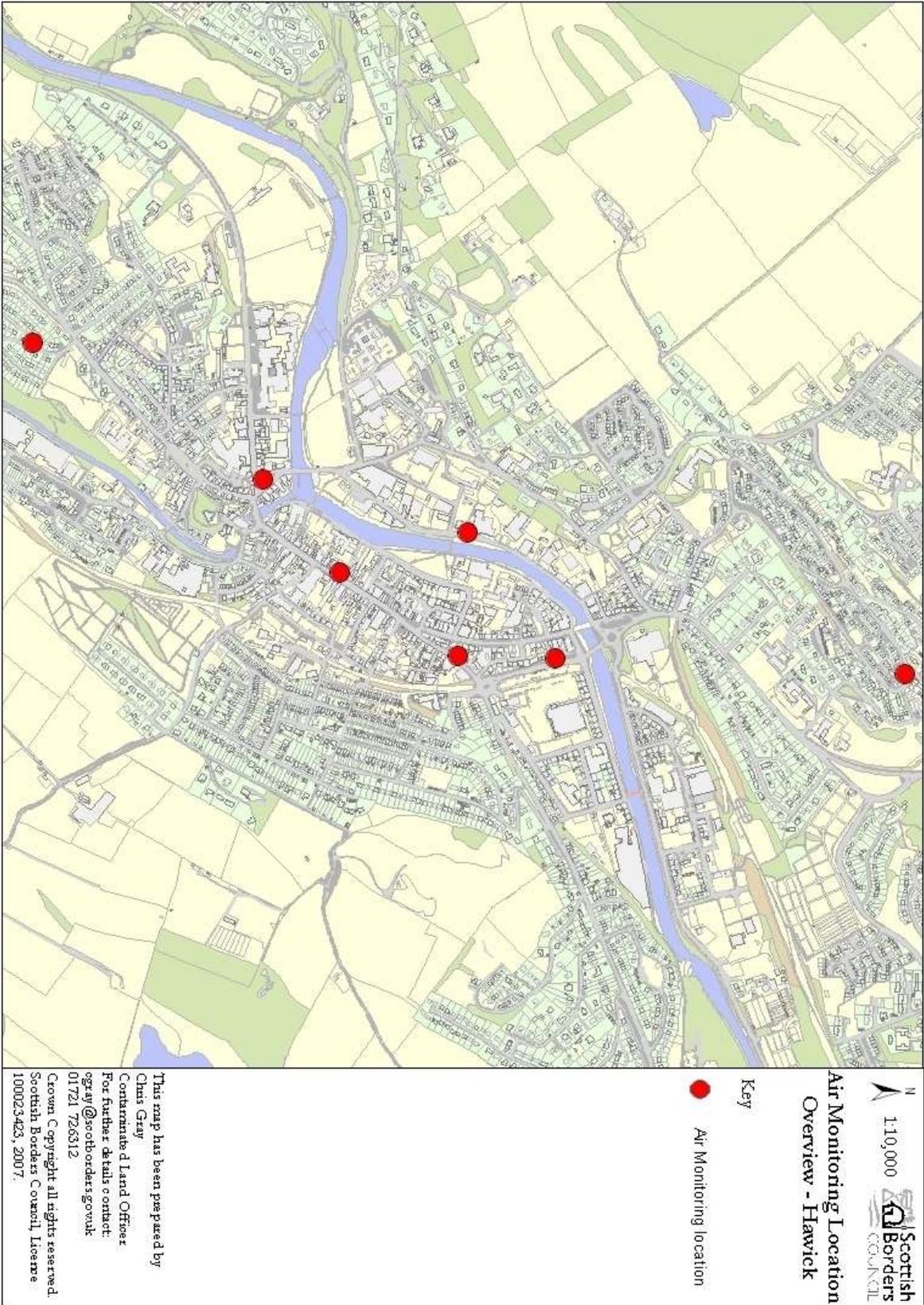
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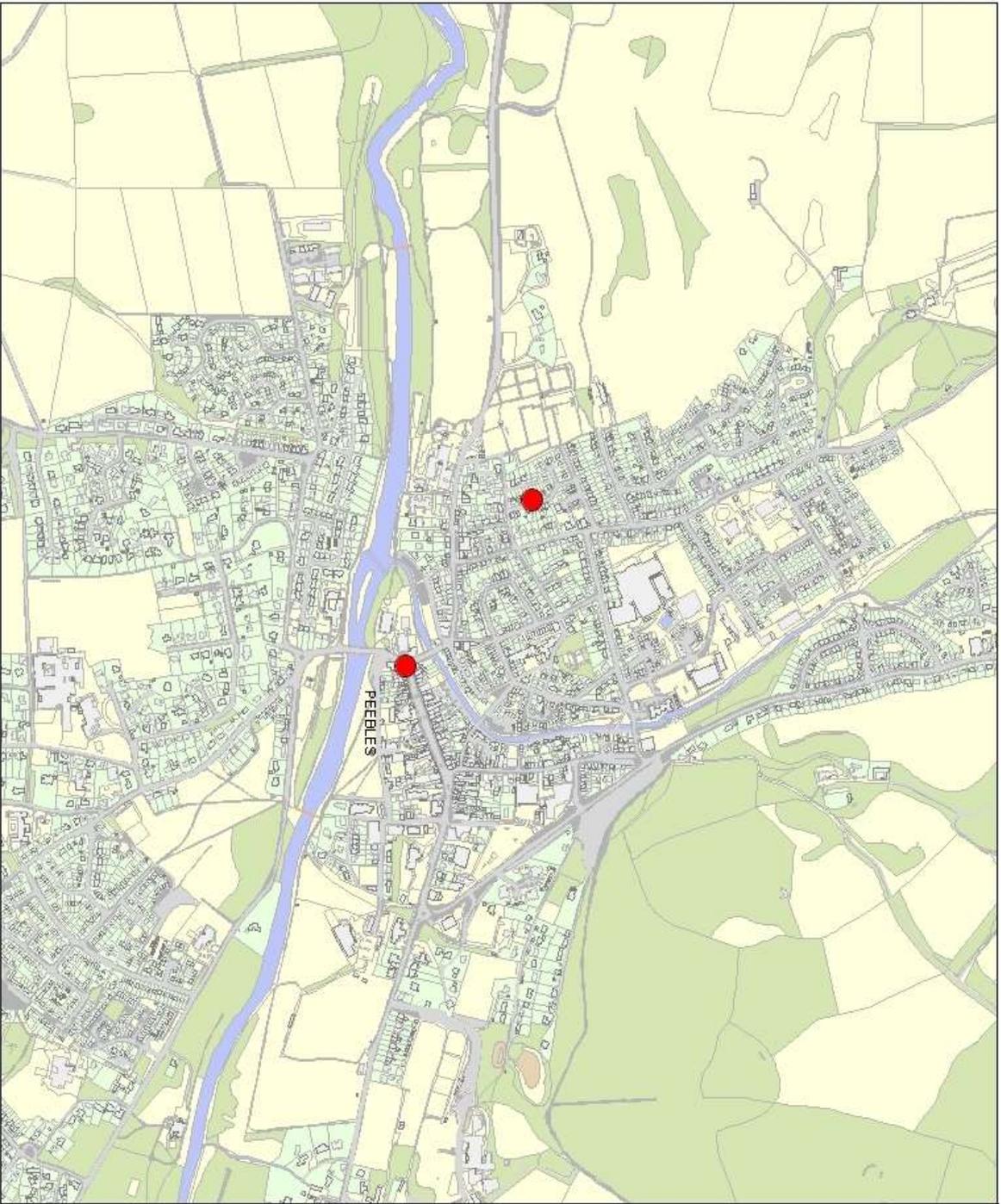
Appendix B: NO₂ Monthly Mean Dataset 2010

Jan	27	20	53	17	32	29.7	25	14	20	28	30	27	28	16	17	36	58	48	45
Feb	22	16	45	18	32	30.2	30	3	14	35	29	30	24	12	15	43	45	46	38
Mar	14	10	31	8	22	24.1	25	21	11	23	21	18	16	7	7	30	38	34	
Apr	14	9	20	8	22	20.1	25	8	8	<1	17	18	15	6	5	26	32	30	34
May	15	7	33	7	20	18.2	20	7		20	17	19	17	6	6	28	28	30	26
Jun	13	8	33	6	22		23	<1	6	23	18	25	16	6	6	26	34	29	30
Jul	8	5	29	4	16	15.3	18	4	4	16	15	16	14	3	3	19	27	18	29
Aug	13	7	33	7	22	17	23	6		23	19		18	5	7	29	36	25	31
Sept	14	12	38	10	25	22.5	25	8	8	22	22		18		8	32	41	32	33
Oct	17	10	39			24.8	35	27	7	11	25					23	23	42	30
Nov	25	15	50			27.2	34	14		32	30					41	45	41	38
Dec	19	16	49			29.9	28	17	16	31	30					39	41	34	41
Site	Galashiels Council Chamber	Galashiels Stanley Street	Galashiels High Street	Peebles Gladstone Place	Peebles High Street	Hawick Sandbed	Hawick High Street	Hawick Renwick Terrace	Hawick Silverbuthall Road	Hawick Bourtree Place	Hawick Mart Street	Hawick Commercial Road	Kelso Bridge Street	Kelso Mercers Court	Melrose St Dunstan's Park	Galashiels High Street Rogerson's	Galashiels High Street Borders Angling	Galashiels High street Edingtons	Galashiels High Street Iceland

The values in Appendix B are quoted to the nearest whole number, with decimal values of 5 or more being rounded up.

Appendix C: Maps of Diffusion Tube Sites





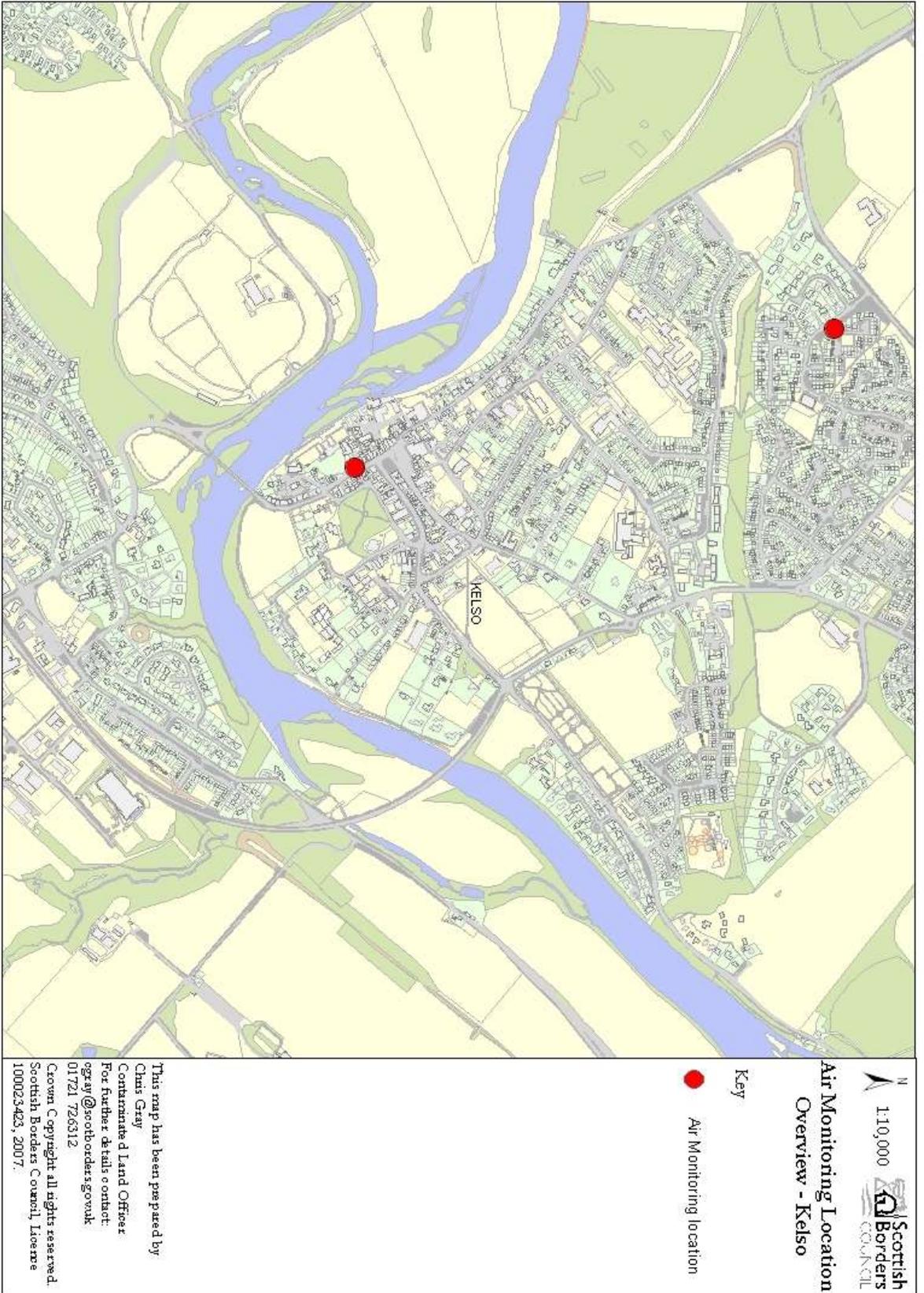
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Scottish Borders
COUNCIL

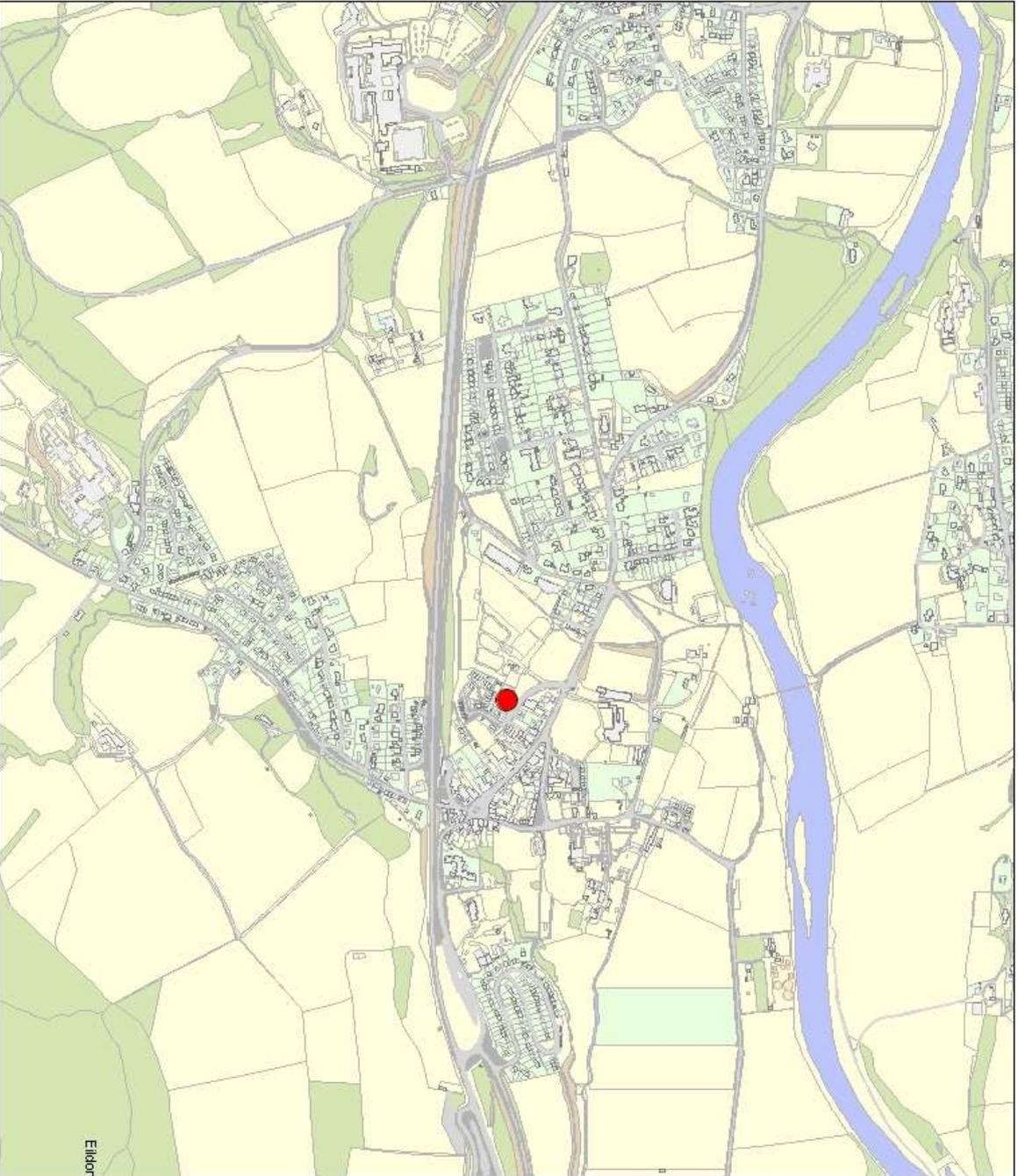
Air Monitoring Location Overview - Peebles

Key

- Air Monitoring location

This map has been prepared by
Chas Gray
Cartographer & Land Officer
For further details contact:
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**Air Monitoring Location
 Overview - Melrose**

Key

- Air Monitoring location

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 Contracted Land Officer
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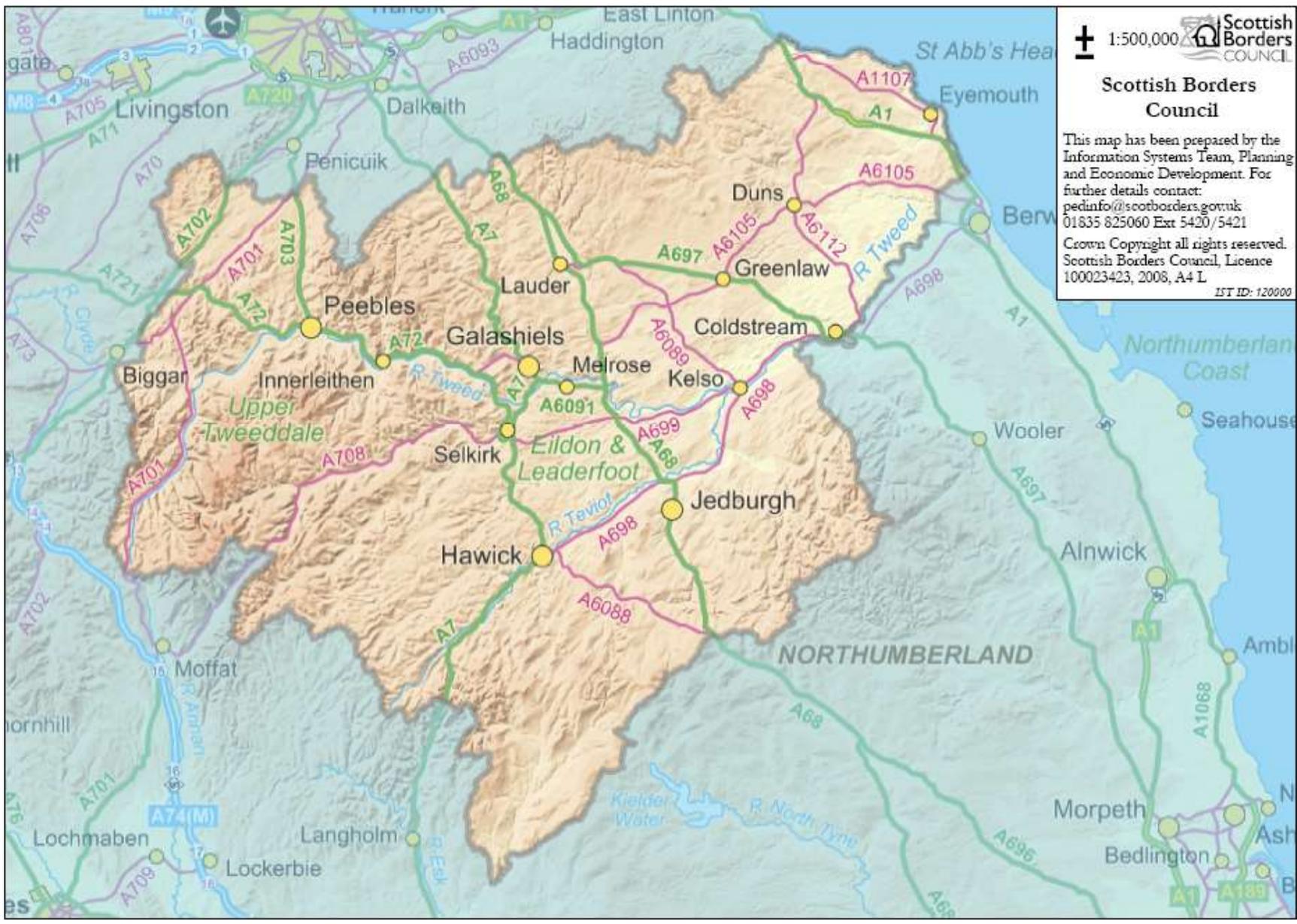
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Air Monitoring Location Overview - Galashiels

Key

- Air Monitoring location

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