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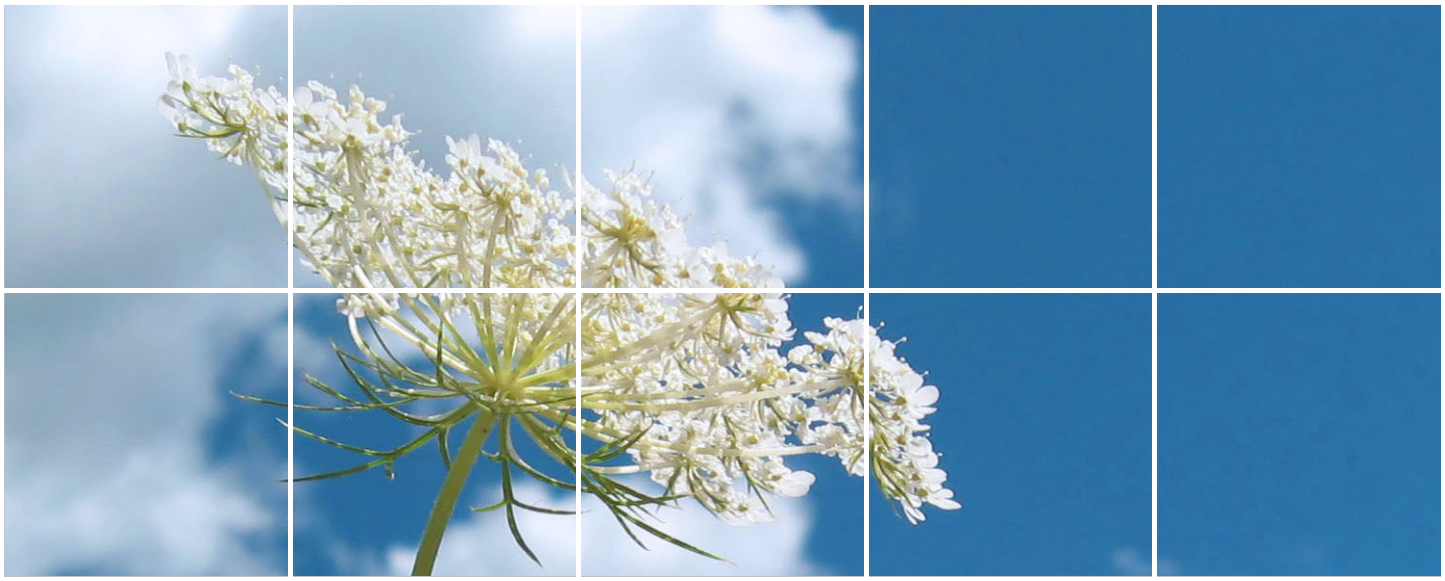

Air Quality Review and Assessment Progress Report for Scottish Borders Council 2007

Report to Scottish Borders Council

Unrestricted
AEAT/ENV/R/2460
Issue 1
August 2007

Scottish Borders COUNCIL

Title	Air Quality Review and Assessment Progress Report for Scottish Borders Council 2007
Customer	Scottish Borders Council
Customer reference	
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File reference	ED05507001
Reference number	AEAT/ENV/R/2460 Issue 1

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	Date	August 2007

Executive summary

Scottish Borders Council has undertaken an air quality assessment programme under the strategic policy framework for air quality management published by the Scottish Executive. Under this strategy each local authority has to undertake an Updating and Screening Assessment (USA) to determine the progress of their local air quality management to date. A USA has to be submitted to the Scottish Executive every three years and an annual progress report every other year until 2010.

Scottish Borders Councils USA 2007 concluded that the Air Quality Objectives for each of the pollutants were unlikely to be exceeded at any location in the district, and therefore a Detailed Assessment would not be required.

As part of their air quality monitoring programme, Scottish Borders Council monitors nitrogen dioxide (NO_2), using diffusion tubes. During 2006 there were 4 additional diffusion tube monitoring sites added to the 15 sites already located throughout the region. These sites were installed to assess the impact of the new A7 inner relief road project in Galashiels.

The new data and information confirms the conclusions of the previous reports that a Detailed Assessment is not required for any pollutant. However, in the case of NO_2, the additional monitoring data currently being collected will need to be reviewed in the next years Progress Report.

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1. Introduction

1.1 Description of the Scottish Borders Area

The Scottish Borders is located between Dumfries and Galloway in the west, South Lanarkshire and West Lothian in the north west, City of Edinburgh, East Lothian, Midlothian to the north; and the non-metropolitan counties of Northumberland and Cumbria in England to the south.

Geographically the region is hilly in the south, west and north, with the River Tweed flowing west to east through the region. The east of the region is primarily flat with isolated small groups of hills. The Tweed and its tributaries drain the entire region with the river flowing into the North Sea at Berwick-upon-Tweed, and forming the border with England for the last twenty miles or so of its length.

Parts of the area have historically been heavily industrialised, although much of this has now gone and the area as a whole is predominantly rural. The main routes through the area are the A1, A68, and A7, and the East Coast Mainline railway.

1.2 Purpose of the Progress Report

The provisions of Part IV of the Environment Act 1995[1] establish a national framework for air quality management, which requires all local authorities in England, Scotland and Wales to conduct local air quality reviews. Section 82 of the Act[1] requires these reviews to include an assessment of the current air quality in the area and the predicted air quality in future years. Should the reviews indicate that the standards prescribed in the National Air Quality Strategy (NAQS)[2] and the Addendum to the Strategy will not be met, the local authority is required to designate an Air Quality Management Area (AQMA). Action must then be taken at a local level to ensure that air quality in the area improves. This process is known as 'Local Air Quality Management' (LAQM).

The Review and Assessment process has a three year cycle with an Updating and Screening Assessment, followed by two Progress Reports. The annual Progress Report provides continuity of assessment between the 3-yearly Updating and Screening Assessments of local air quality.

This Progress Report has been prepared for Scottish Borders Council to comply with the LAQM system introduced in the Environment Act 1995. The report conforms to the Progress Report Guidance, LAQM.PRG(03)[3] the Policy Guidance, LAQM.PG(S)(03)[5] and Technical Guidance, LAQM TG(03)[4] issued under Section 88(1) of the Environment Act 1995. Pursuant to Section 88(2) of the Environment Act 1995 Scottish Borders Council and the author of this report have had due regard to the relevant guidance.

As outlined in LAQM.PRG(03), additional information should be included in the Progress Report, if relevant. This includes:

- Progress on implementation of action plans;
- an assessment of the monitoring data in relation to likely exceedences of the objectives;
- Progress on local air quality strategies
- a list of planning applications that have the potential to affect local air quality
- progress on implementing those elements of the local transport strategy that might affect air quality; and
- any relevant updates on planning policies that relate specifically to air quality

Scottish Borders Council have not implemented any action plans or air quality strategies and have no new planning policies or planning applications that relate specifically to air quality. Hence, though considered, these topics have not been included in this Progress Report.

1.3 Air Quality Strategy Objectives

The NAQS identifies eight ambient air pollutants that have the potential to cause harm to human health. These pollutants are associated with local air quality problems, with the exception of ozone, which is instead considered to be a regional problem.

The Air Quality Regulations set standards for the seven pollutants that are associated with local air quality. These objectives aim to reduce the health impacts of the pollutants to negligible levels.

Table 1: Objectives included in the Air Quality Regulations and Subsequent Amendments, for the purpose of Local Air Quality Management

Pollutant	Air Quality Objective		Date to be achieved by
	Concentration	Measured as	
Benzene			
All authorities	16.25 μg m^{-3}	running annual mean	31.12.2003
Authorities in England and Wales only	5.00 μg m^{-3}	annual mean	31.12.2010
Authorities in Scotland and Northern Ireland only	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			
Authorities in England, Wales and Northern Ireland only	10.0 mg m^{-3}	maximum daily running 8-hour mean	31.12.2003
Authorities in Scotland only	10.0 mg m^{-3}	running 8-hour mean	31.12.2003
Lead	0.5 μg m^{-3}	annual mean	31.12.2004
	0.25 μg m^{-3}	annual mean	31.12.2008
Nitrogen dioxide[a]	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
Particles (PM_{10}) (gravimetric)[b]	50 μg m^{-3} not to be exceeded more than 35 times a year	24 hour mean	31.12.2004
All authorities	40 μg m^{-3}	annual mean	31.12.2004
Authorities in Scotland only[c]	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
Sulphur dioxide	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

a. These objectives are provisional.
b. Measured using the European gravimetric transfer sampler or equivalent.
c. These 2010 Air Quality Objectives for PM_{10} apply in Scotland only, as set out in the Air Quality (Scotland) Amendment Regulations 2002.

In Scotland, the PM10 objectives for 2010 have been adopted into regulation and hence, assessment against these objectives is required. However, In England, Wales and Greater London the 2010 objectives for PM10 are not currently included in Regulations for the purpose of LAQM.

1.4 Summary of Conclusions of the 2006 Updating and Screening Assessment

The Scottish Borders Updating and Screening Assessment (USA) 2006[8] was performed for the seven UK criteria pollutants in the Scottish Borders District. The aim was to determine whether there was the potential for exceedences of any of the UK national air quality objectives (stated in Table 1).

Results from this USA indicated that a Detailed Assessment would not be required for any of the seven pollutants assessed. None of the UK air quality objectives were likely to be breached within Scottish Borders District. There are no Local Air Quality Management Areas within the Scottish Borders District.

2 Air Quality Monitoring

Prior to 2006 the air quality monitoring carried out by Scottish Borders consisted of 15 NO_2 Diffusion tubes situated around the district. The locations of these tubes can be seen in Table 2. During 2006 the number of NO_2 diffusion tubes locations was increased to 19, with the 4 new monitoring sites being introduced to assess the impact of the new A7 inner relief road at Galashiels. The locations of all sites are illustrated in Appendix 2.

The Diffusion Tubes used (which are 71mm long with an internal diameter of 11mm) are made up of two stainless steel gauzes at one end. These contain an absorbent to trap the pollutant to be measured, in the case of nitrogen dioxide the absorbent used is triethalamine, which converts the nitrogen dioxide to nitrate, and this is trapped in the steel gauze to be analysed later in the laboratory. The other end of the tube is left open to the atmosphere, facing down to earth to prevent any rain or dust entering the tube. To ensure that the tubes do not collect pollutant after leaving their site they are sealed before their journey to the laboratory.

The low cost of the tubes enables sampling at a number of points in an area of interest and this can be useful in highlighting 'hotspots' of high concentrations where more detailed studied may be required. However with the low running costs and simplistic nature, and in line with recent studies, diffusion tubes are found to be less accurate than the automated monitoring. To overcome this inaccuracy a Bias Adjustment factor is applied.

Short-term continuous automatic montoring of NO_2 in Galashiels and PM_{10} in Newcastleton were undertaken in the winter of 2004/5. From June 2007 to June 2008, continuous PM_{10} monitoring will be undertaken within the village of Newcastleton following the review of the Detailed Assessment.

The following NAQS pollutants are not monitored by Scottish Borders Council:

- Benzene
- 1,3 Butadiene
- Carbon Monoxide
- Lead
- Sulphur Dioxide

There are no existing or planned developments that are likely to result in any exceedences of these abovementioned pollutants. Furthermore, it was concludeed in the Scottish Borders USA[8] that it is unlikely that any exeedences of the NAQS objectives for any of these pollutants would occur and hence, no monitoring is required.

2.1 Quality Assurance and Quality Control

As outlined in Technical Guidance LAQM.TG(3)[4], it is important to employ adequate QA/QC procedures in order to ensure that the air quality monitoring data are reliable and credible. The following list outlines fundamental data requirements:

- Accuracy.
- Precision.
- Trace ability to national/international metrology standards.
- Long-term consistency.

The following section outlines the QA/QC procedures employed by South Yorkshire Trading Standards, who supply NO_2. diffusion tubes to Scottish Borders Council.

2.2.1 Bias Adjustment Factor

When using Diffusion Tube monitoring, co-location studies with Chemiluminescence automatic NO_2 analysers are carried out to deternine how far out the Diffusion tubes are from the more accurate automate analysers. From these studies a Bias Adjustment Factor is calculated and used to adjust the diffusion tube results, to give a more representative concentration.

Scottish Borders do not carry out a co-location study and have in turn used the bias adjustment factor of **1.01** provided by the Air Quality Review and Assessment Helpdesk Website[6], for their diffusion tube suppliers South Yorkshire Trading Standard. The value of 1.01 is the mean result of co-location studies in Barnsley and Oxford and the AEA intercomparison sites in London.

The effect of the bias adjustment factor on the concentrations given is minimal and does not affect the figures (round up to the nearest μgm^{-3}) stated in Table 2.

2.2 Nitrogen Dioxide Monitoring

Table 2: Scottish Border Air Quality Sites NO_2 Concentrations

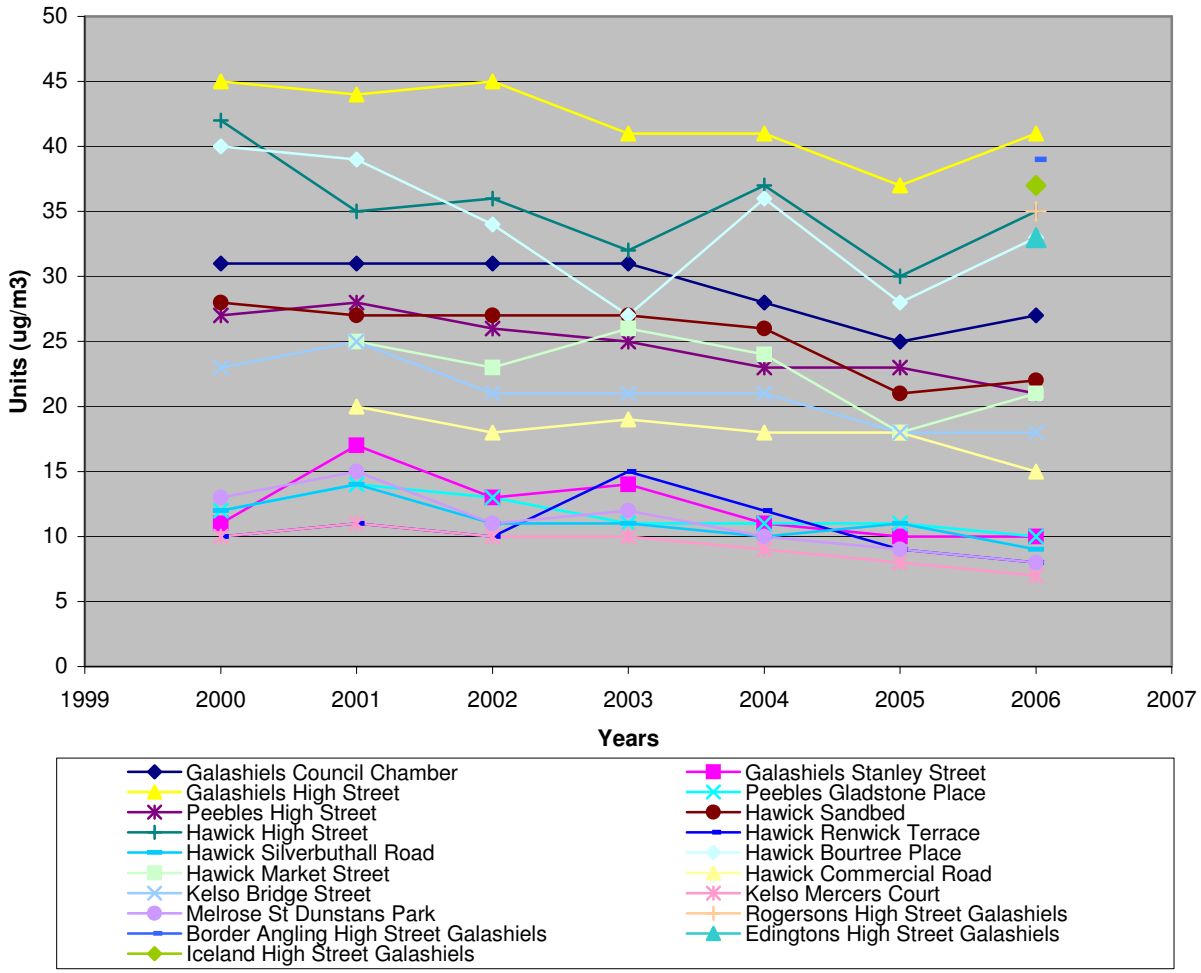
NO_2 Annual Mean Concentration (μgm^{-3})								
Site	**2002**	**2003**	**2004**	**2005**	**2006**	**% change between 2005 and 2006**	**2002 – 2006 mean**	**% change between 2002-2006 and 2006**
Galashiels City Chambers	31	31	28	25	27	8	28.4	5
Galashiels Stanley Street	13	14	11	10*	10*	0	11.6	16
Galashiels High Street	45	42	42	37	41	11	41.4	1
Peebles Gladstone Place	13	11	11	11	10	-9	11.2	12
Peebles High Street	27	27	25	23	21	-9	24.6	17
Hawick Sandbed	27	27	26	21	22	5	24.6	12
Hawick High Street	36	32	37	30	35	17	34	-3
Hawick Renwick Terrace	10	15	12	9	8	-11	11	38
Hawick Silverbuthall Road	11	11	10	11	9	-18	10.4	16
Hawick Bourtree Place	34	27	36	28	33	18	31.6	-4
Hawick Market Street	23	26	24	18	21	17	22.4	7
Hawick Commercial Road	18	19	18	18	15	-17	17.6	17
Kelso Bridge Street	21	21	21	18	18	0	19.8	10
Kelso Mercers Court	10	10	9	8	7	-13	8.8	26
Melrose St Dunstans Park	11	12	10	9	8	-11	10	25
Rogersons High Street Galashiels					35#			

NO_2 Annual Mean Concentration (μgm^{-3})								
Site	2002	2003	2004	2005	2006	% change between 2005 and 2006	2002 – 2006 mean	% change between 2002-2006 and 2006
Border Angling High Street Galashiels					39#			
Edingtons High Street Galashiels					33#			
Iceland, High Street Galashiels					37#			

** indicates only 6 months of Data collected for that site.*
 # indicates only 9 months of data colected at that site.

Analysing the the data obtained from the Scottish Borders sites it can be seen that there is a slight downward trend in concentration levels from 2000 to 2006. This is illustrated in Figure 1 below. This downward trend did not however continue for all sites between 2005 and 2006. At sites; Galashiels City Chambers, Galashiels High Street, Hawick Sandbed, Hawick High Streeet, Hawick Bourtree and Hawick Market Street, the average annual mean concentrations increased from the previous year.

Figure 1: Scottish Borders NO2 Annual Mean Concentrations

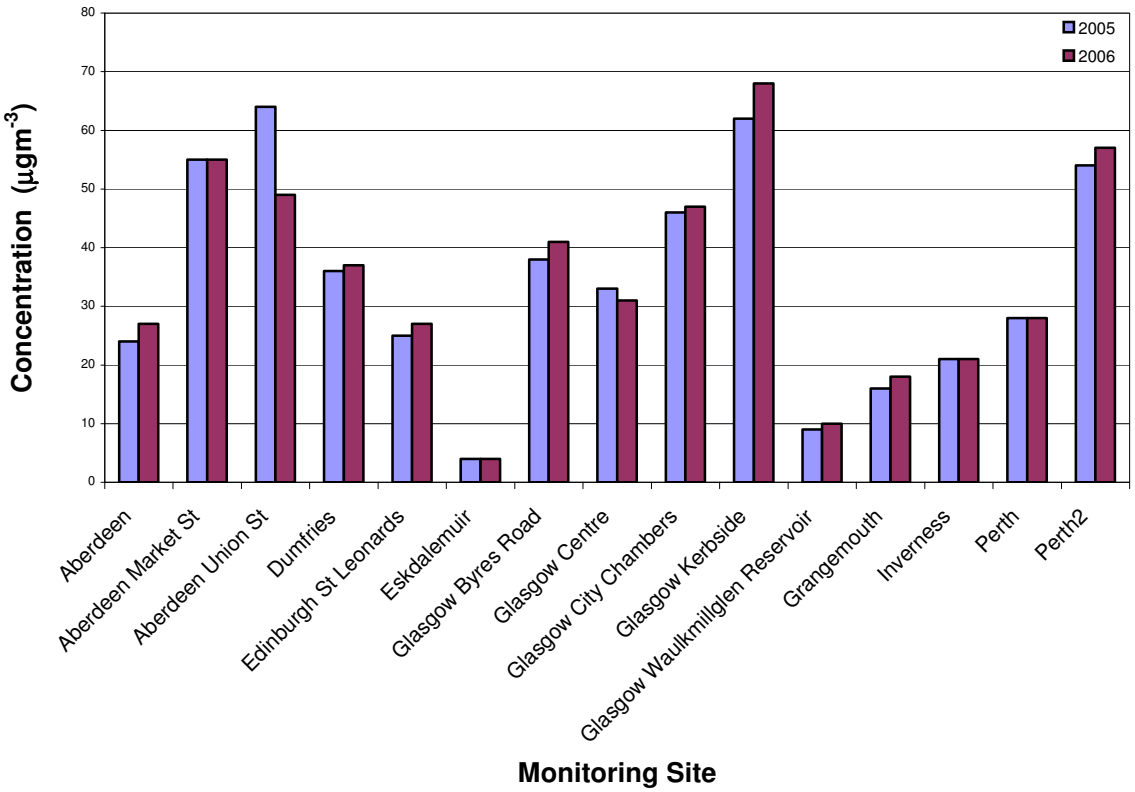


This increase in NO_2 concentrations, however was a trend seen at a number of locations across the Scotland, as can be seen in Figure 2. These results, taken from the Air Quality in Scotland website[9], indicate that the increase in NO_2 levels was a widespread event, not isolated to the Scottish Border sites. On average across all the Scottish Borders sites there was a 1% decrease in NO_2 concentrations from 2005 levels.

The Galashiels High street site is the only site that continues to be over the NAQS annual average objective for NO_2 of 40µgm^{-3}. However, the annual average concentration at this site in 2006 was 41µgm^{-3} and concentrations have decreased since 2000. Further decreases are anticipated in the future with a reduction in traffic in the High Street due to the development of the Inner Relief Road (refer to section 3.2) In addition, continuous automatic monitoring during the winter of 2004/5 showed no exceedance of the objective at this location.

Due to the measured concentration at this location it is recommended that monitoring at Galashiels High Street should continue. The additional diffusion tube monitoring will also aid in assessing the impact of the new inner relief road on the trafffic flow through Galashiels High Street, and in turn the anitcipated decrease in NO_2 concentrations.

Figure 2: Annual Mean NO_2 Concentrations From a Range of Monitoring Sites in Scotland, 2005 and 2006



3 New Developments

The LAQM.PRG(03)[5] progress report guidance lists three categories of new developments that may affect air quality and thus should be assessed in the progress report. The three categories are:

- new industrial developments (PPC Part A, or Part B processes);
- new commercial, residential, transport or amenity developments likely to have an impact on air quality which have been granted planning permission; and
- new landfill or quarry locations with relevant public exposure.

The NSCA (National Society for Clean Air) provides further guidance on the type of new commercial, residential, transport or amenity developments that are likely to cause significant impacts on local air quality. NSCA guidance suggests that developments that should be considered for air quality impacts are those resulting in:

- increased congestion;
- a > 5% change in traffic flow;
- a >10kph change in vehicle speed;
- any road with greater than 10,000 vehicles per day;
- altering traffic composition (e.g. bus stations , HGV parks or increased delivery traffic from a retail distribution centre);
- new car parking facilities (>300 spaces), lorry or coach parks; and
- developments located close to sensitive ecological sites or within areas known to be of poor air quality. (Examples include construction of new residential properties close to a major road
  or within an AQMA, or developments within or near to designated environmental sites e.g. SSSIs).

3.1 New Industrial Developments

The following industrial developments have taken place within the Scottish Borders District:

Ahlstrom a global manufacturer of specialty papers and non-wovens, situated in Berwickshire, have made several changes to their stacks. These changes, carried out in October 2006, are likely to reduce ground levels of SO_2 concentrations.

These changes included: -

- Stack A3 (viscose press) which was 16.7m high and 0.46m wide, is no longer used and now vents via stack A7, which is 20.7m high, and 1.75m wide

- Stack A4 (NO_2 drier exhaust) was 16.7m high and 0.76m wide is no longer in use and vents via stack A7, as above

- Stack A5 (catox exhaust) was increased from 17.4m to 24.1m high and the stack diameter was reduced from 1.2m to 0.9m.

- Stack A6 (wet scrubber) was increased from 17.4m to 21.4m in height and the stack diameter was increased from 0.9m to 1.1m wide.

Ahlstrom are also proposing to install a new paper machine, but this will not be operational until September 2008.

Dalkia, a company that provides facility and energy management services, were due to burn off their remaining stock of gas oil in March of this year (157,000 litres in total) so that they could replace this with a low sulphur fuel. This is a one-off occurrence and the impact of this activity will be captured in the Scottish Pollutant Release Inventory return for 2007.

3.2 New Transport, Commercial and Residential Developments.

Construction started on an inner relief road for the A7, around Galashiels in January 2006. The target completion date is the end of February 08, with further work to the old road taking place by February 2009. To monitor the impact of this development an additional 4 NO_2 diffusion tube monitoring locations were set up (for illustrations of these locations refer to Appendix 2). Monitoring at these site started in March 2006. Locations of these sites are given below:-

- **Rogersons, High Street Galashiels**
- **Border Angling, High Street Galashiels**
- **Edingtons, High Street Galashiels**
- **Iceland, High Street Galashiels.**

When all the new construction work is completed additional NO_2 monitoring will be taken along the new road. These new monitoring locations will be sited in consultation with SEPA and will run in parallel with the existing tubes within the High Street area.

The Inner relief road is part of a £12 million road scheme looking to reduce congestion within Galashiels town centre. The construction will be carried out over 4 separate schemes as shown below. (Data taken from Scottish Borders Council web page[7]). Appendix 1 shows a map of the proposed development.

Scheme 1:
Scheme 1 will be carried out in three phases, as shown below:

Phase one - 18 weeks
- Build a three-lane road bridge over Gala Water
- Build a new roundabout at Currie Road
- Provide a new, free, long-stay car park at the east end of Currie Road.

Phase two - 2 weeks
- Provide access to the Health Centre from the new road and roundabout formed in Phase One.

Phase three - 20 weeks
- Demolish Station Brae.
- Build a new Station Brae roundabout.
- Connect the roundabout to Melrose Road with a new road.
- Build a new bridge over the line of the proposed Waverley railway. Build a new, controlled pedestrian crossing to link Market Street to the Health Centre and the proposed Asda superstore.

Scheme 2: Development of Paton Street to Albert Place, scheduled to take place in 2006/7.

Scheme 3: Development of Ladhope Vale to Bridge Place, scheduled to take place in 2006/7.

Scheme 4: Town Centre Traffic Management will take place in 2007/8.The transport 'interchange' is linked with the Waverly rail project, with work proposed to take place in 2008/9.

The Tesco development in Galashiels is now complete and work on the Lochcarron site is more than 50% complete. The two-way traffic flow along Ladhope Vale has yet to be set up, however, when this is completed, the only traffic using the old High Street route will be for local services only. All other traffic will be sent along Ladhope Vale.

3.3 New Quarry and Landfill Developments

There are no new quarry developments. However there have been significant extensions to two existing quarries. These extensions at Dolphinton Sand Quarry and Shiphorns Quarry (situated north of Peebles) should have no significant impact on local air quality as one relates to an increase in area quarried rather than output, and the other the relocation of Office facilities. There is also a third non-regulated hard rock quarry near Peebles, which has re-opened.

4 Conclusion

Scottish Borders Council USA 2006 concluded that the national air quality objectives for each of the pollutants were unlikely to be exceeded at any location in the district, and therefore a Detailed Assessment would not be required.

Diffusion tube monitoring of NO_2 in 2006, at all sites except one site in Galashiels High Street, shows that there is no exceedance of the NO_2 Objectives.

At Galashiels High Street diffusion tube monitoring in 2006 shows that concentrations of NO_2 may have exceeded the objective for this pollutant. However, concentrations at this site are decreasing and expected to decrease further with the construction of the inner relief road. Also additional NO_2 diffusion tube monitoring at other location on Galashiels High Street does not show an exceedence and continuous automatic monitoring in the winter of 2004/5 indicated no exceedence was likely. Hence, no action is required but it is recommended that monitoring should continues as at present to observe any future changes.

The main new developments within the district are the commencement of the new road scheme within Galashiels. It is predicted that this work will alleviate traffic congestion within the town centre, especially the High Street area. No other proposed development is likely to significantly affect pollutant concentrations.

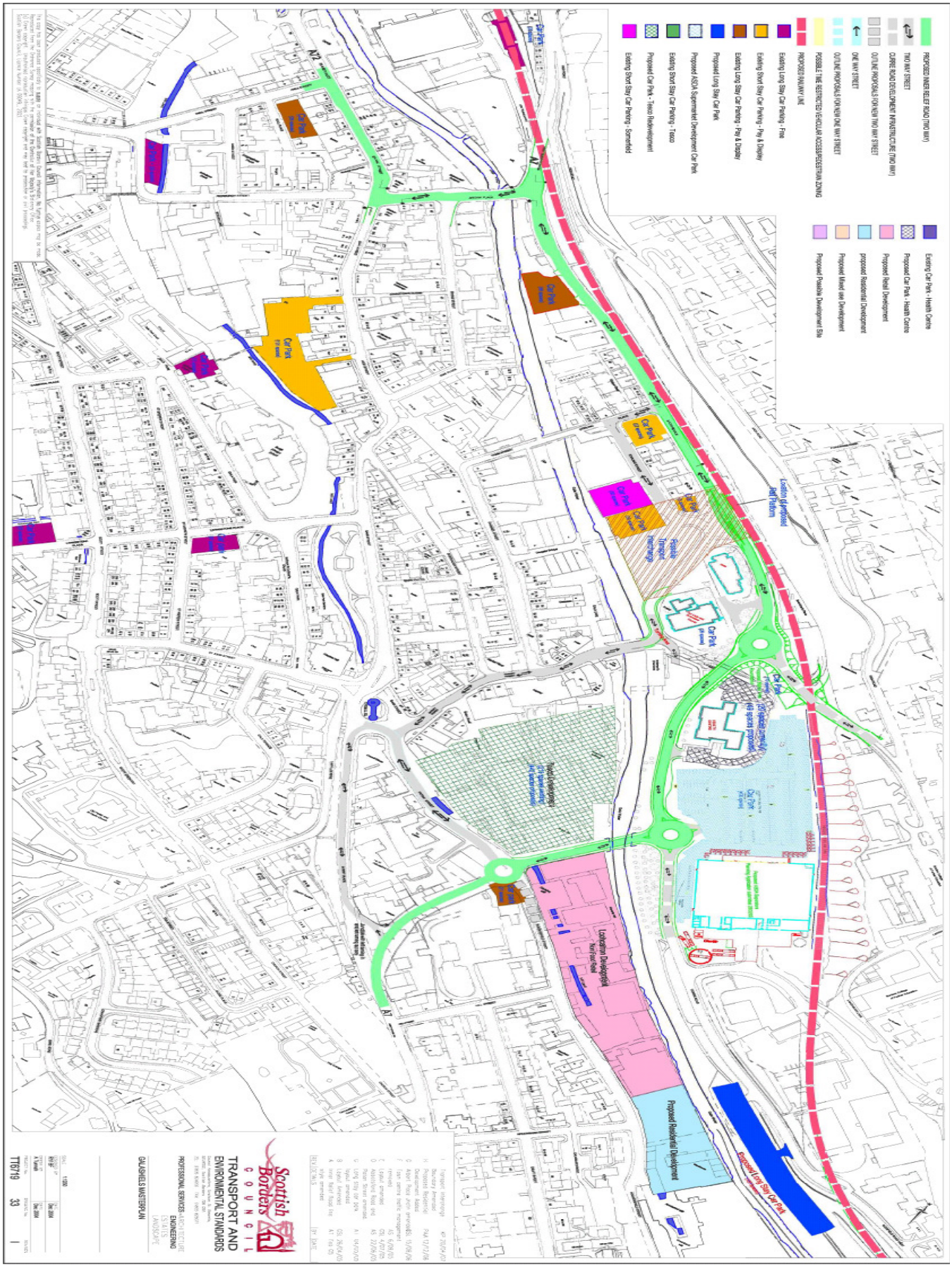
Hence it is concluded that the Scottish Borders Council do not need to proceed to a Detailed Assessment for any pollutant.

Scottish Borders Council accepts the above conclusions and will implement the recommendations.

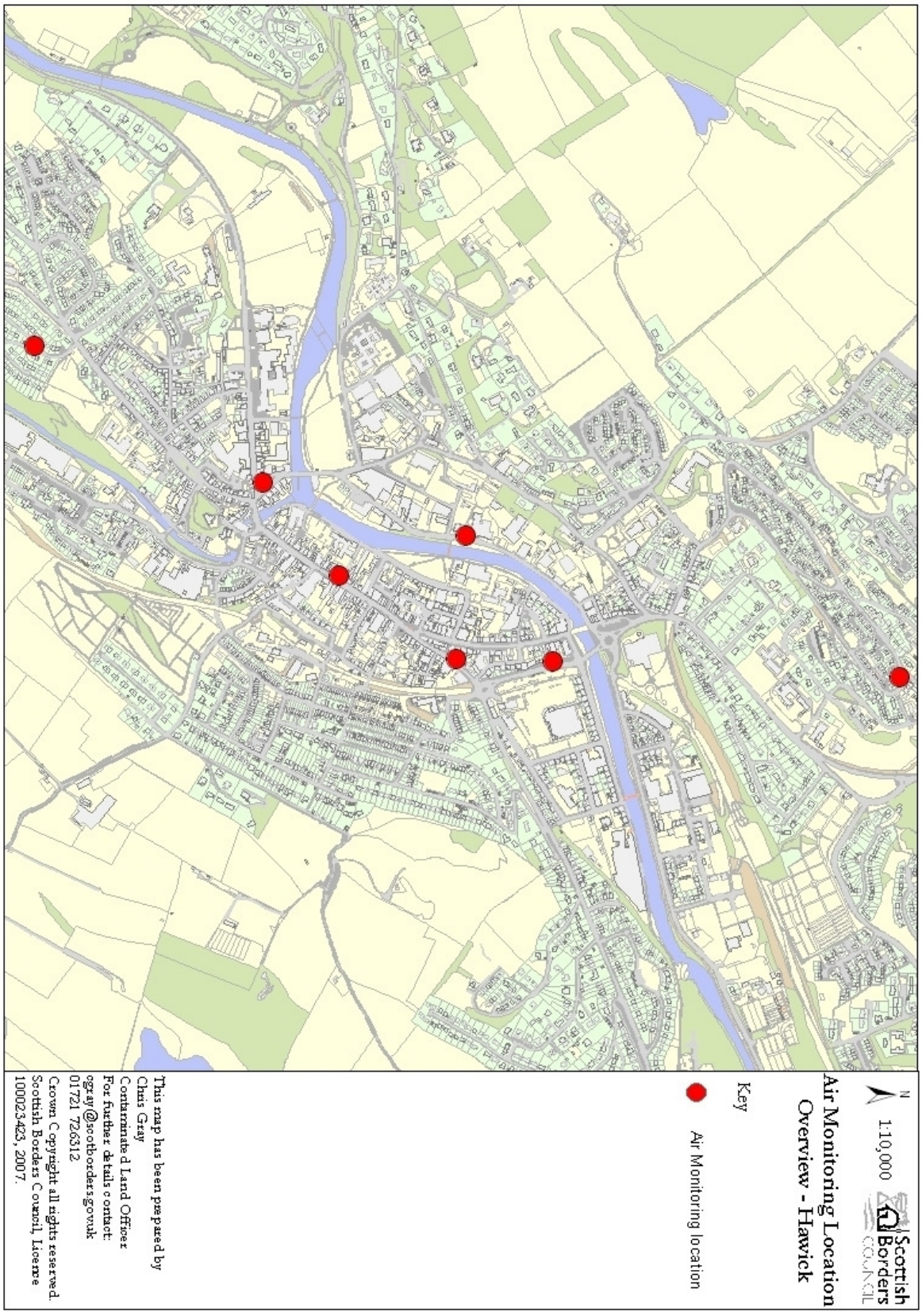
5 References:

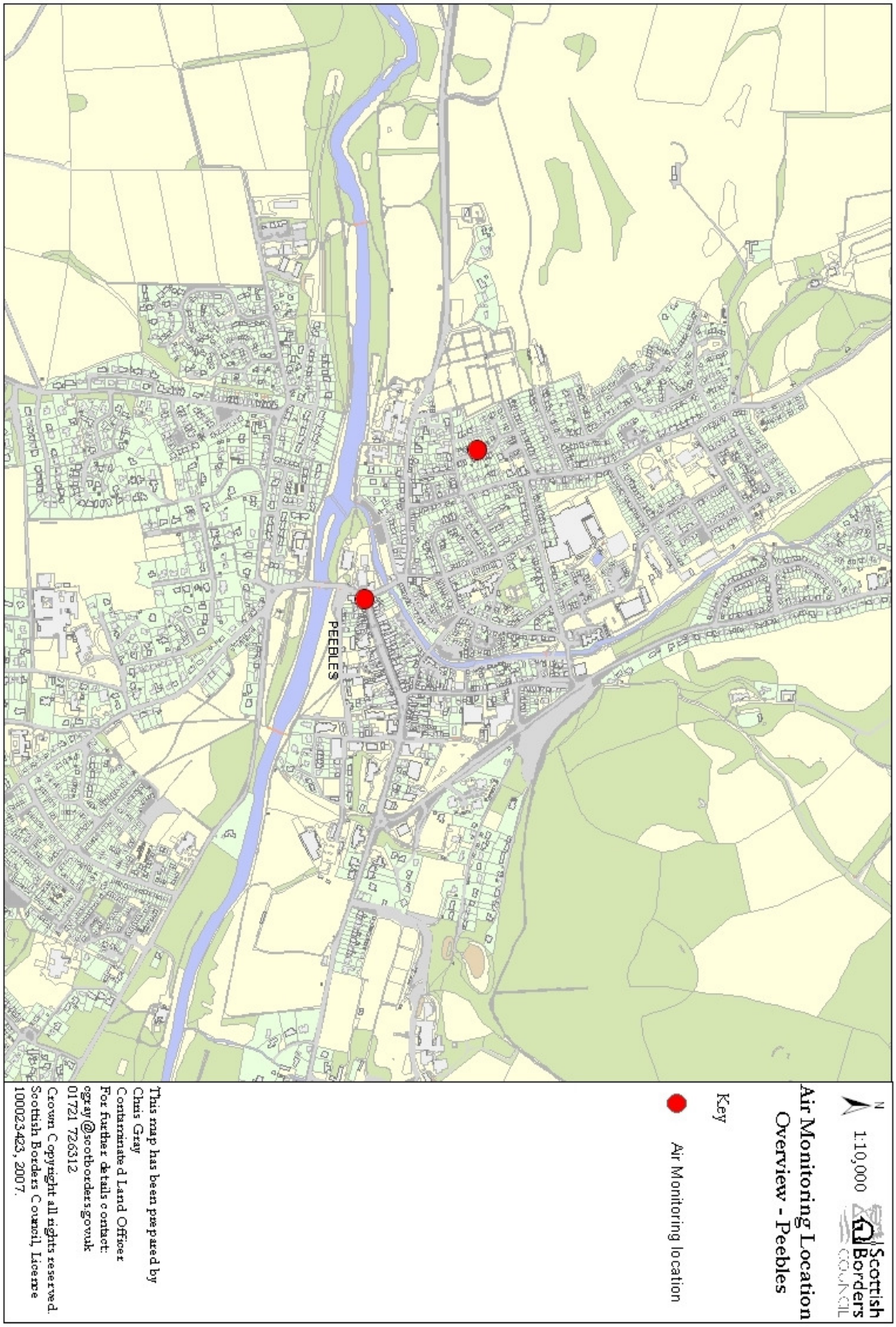
1. Part IV of the Environment Act 1995, Section 82
2. UK National Air Quality Strategy, DEFRA 2000
3. Local Air Quality management, Progress Report Guidance LAQM PRG(03), DEFRA 2003
4. Local Air Quality Management. Technical Guidance LAQM TG(03), DEFRA 2003
5. Local Air Quality Management. Policy Guidance, LAGM PG(S)(03), DEFRA 2003
6. Review and Assessment Helpdesk Diffusion Tube Bias Adjustment Spreadsheet – v03/07 www.uwe.ac.uk/aqm/review/diffusiontube300307.xls
7. Scottish Borders Website: www.scotsborders.gov.uk
8. Scottish Borders Updating and Screening Assessment (USA), 2006
9. Air Quality in Scotland www.scottishairquality.co.uk

Appendix 1: Galashiels Road Scheme Map: Masterplan



Appendix 2: Air Quality Monitoring Locations:




PEEBLES
Air Monitoring Location
Overview - Peebles
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Scottish Borders
COUNCIL
Key
Air Monitoring location
This map has been prepared by
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Contaminated Land Officer
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cgray@scotborders.gov.uk
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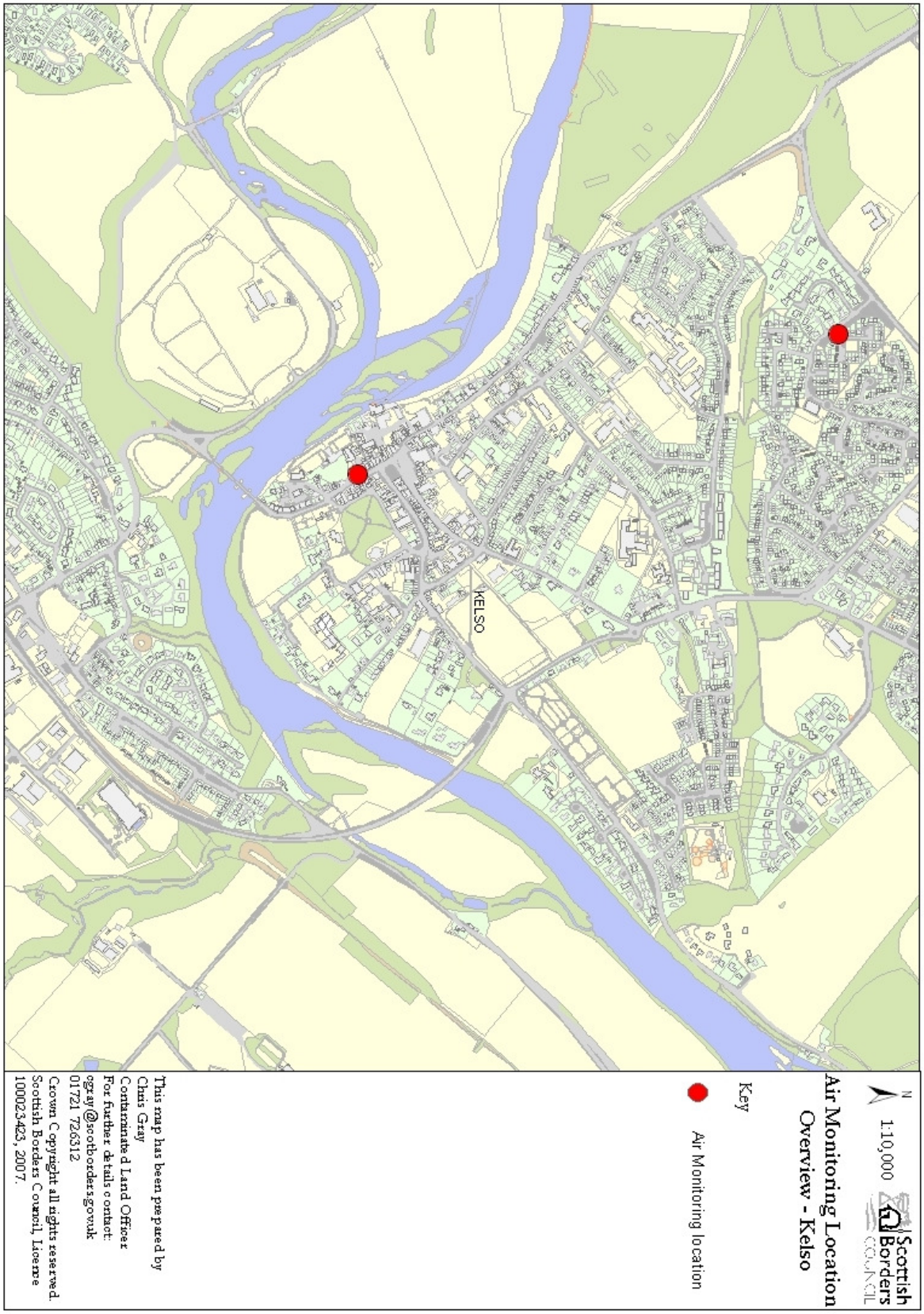
KELSO
Air Monitoring Location
Overview - Kelso
Key
Air Monitoring location
1:10,000
Scottish Borders Council
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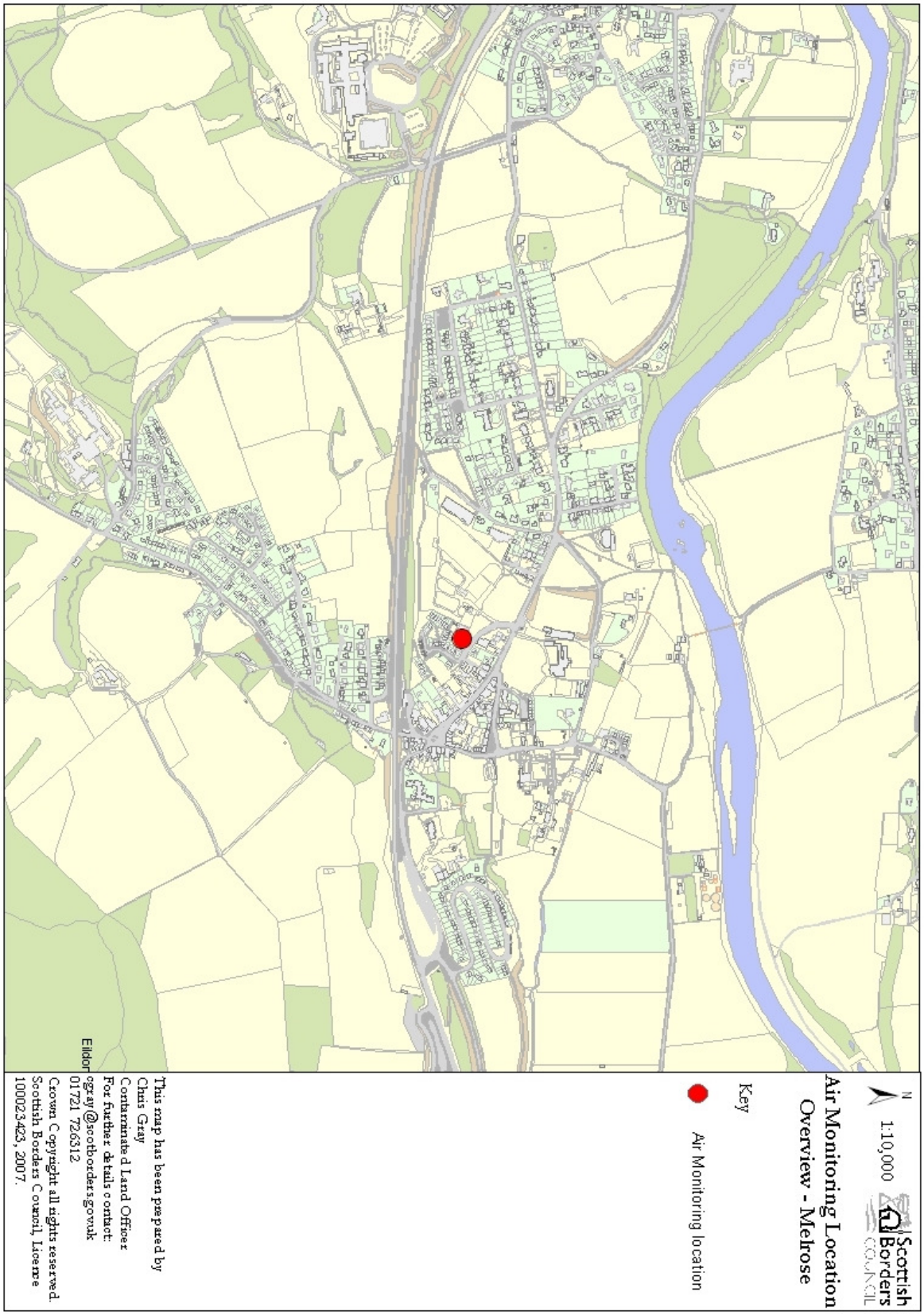
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1:10,000
Scottish Borders Council
Air Monitoring Location
Overview - Melrose
Key
Air Monitoring location
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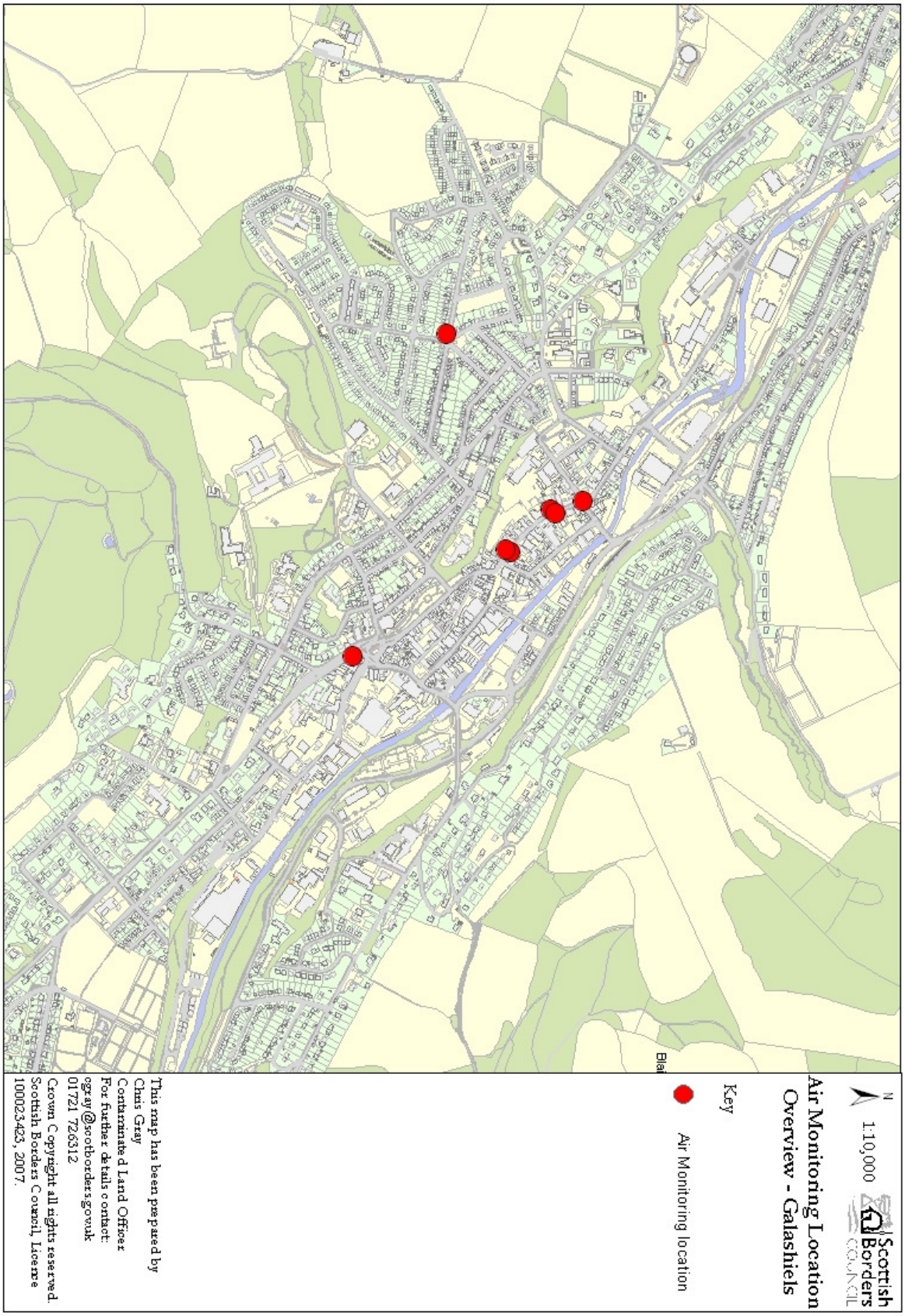
Air Monitoring Location
Overview - Galashiels
Key
Air Monitoring location
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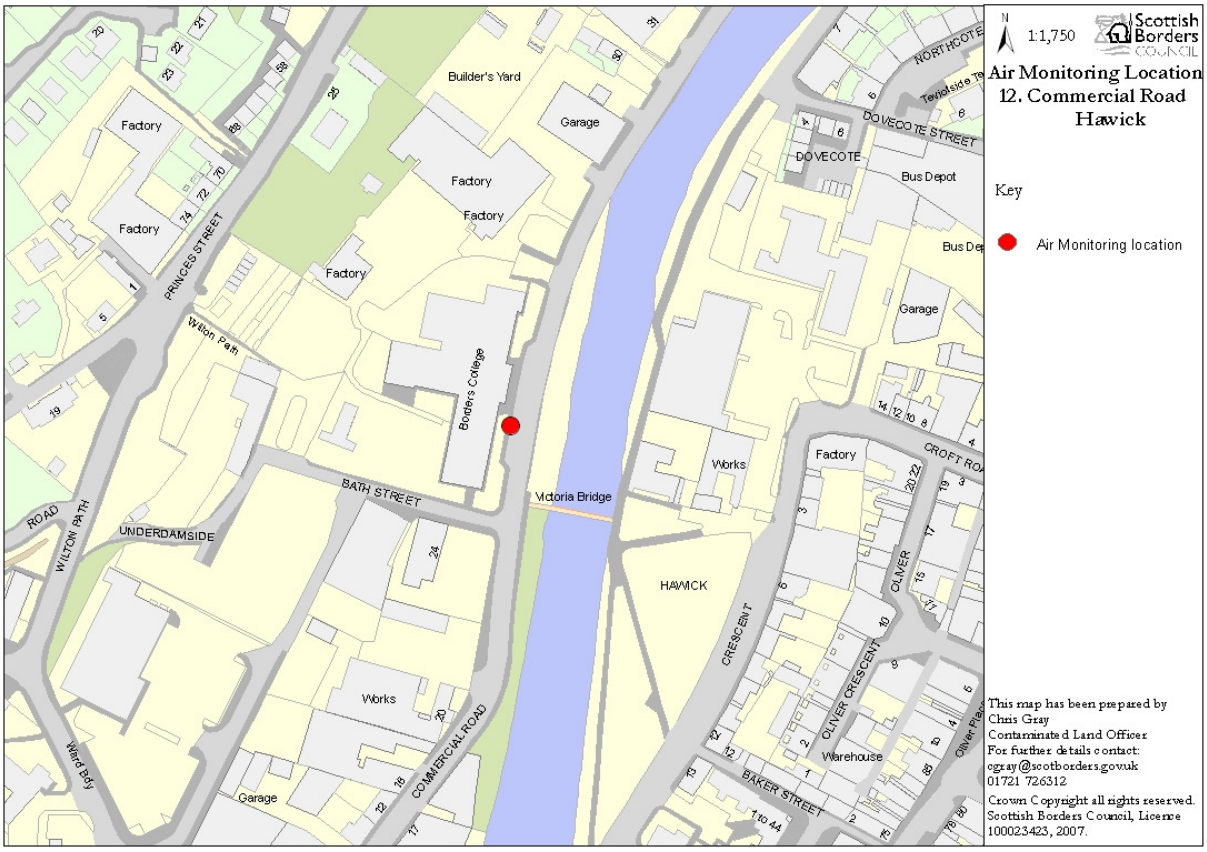
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Air Monitoring Location
12. Commercial Road
Hawick
Key
Air Monitoring location
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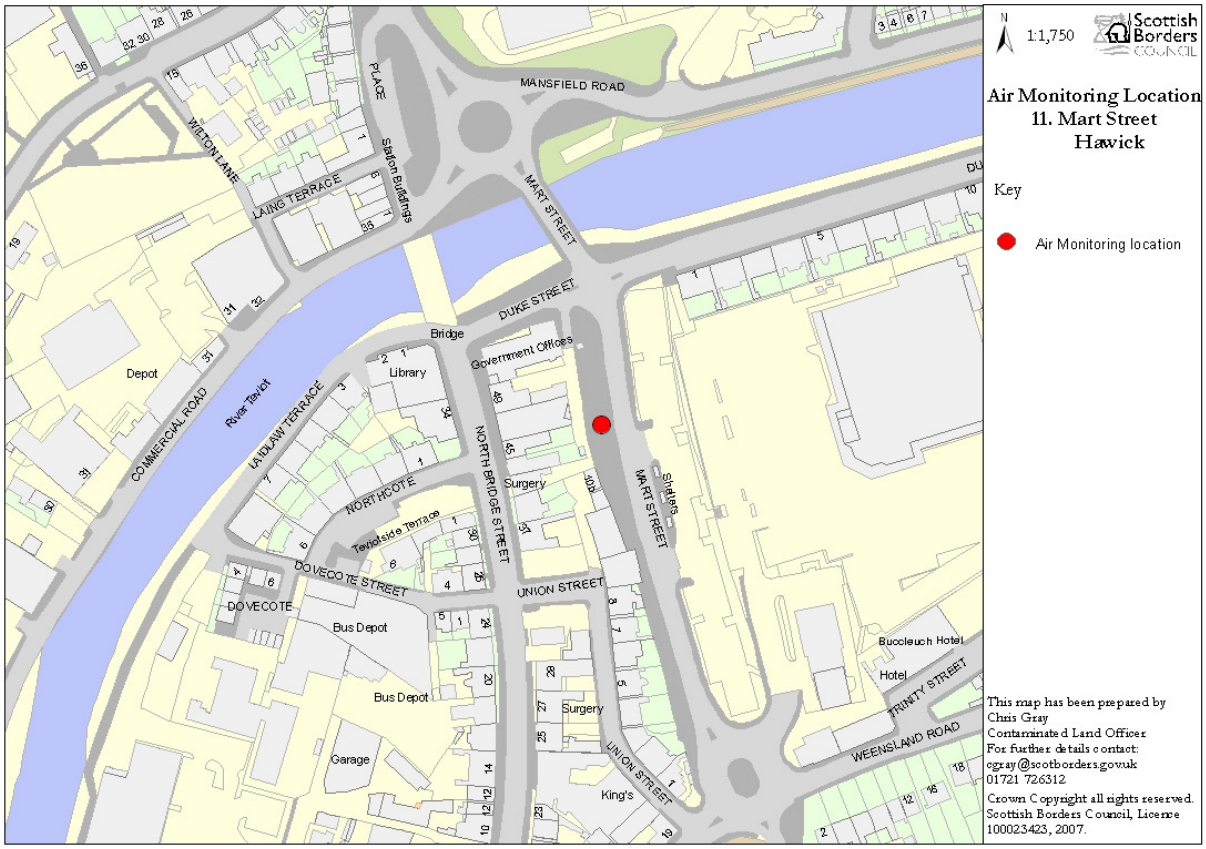
Builder's Yard
Garage
Factory
Factory
Factory
Factory
Factory
PRINCES STREET
Wilton Path
Borders College
BATH STREET
Victoria Bridge
ROAD
WILTON PATH
UNDERDAMSIDE
Ward Boy
Works
Garage
COMMERCIAL ROAD
HAWICK
Works
Factory
CROFT RO
CRESCENT
OLIVER
OLIVER CRESCENT
Warehouse
BAKER STREET
1 to 44
DOVECOTE STREET
DOVECOTE
Bus Depot
Bus Dep
Garage
NORTHCOTE


N
1:1,750
Scottish Borders Council
Air Monitoring Location
11. Mart Street
Hawick
Key
Air Monitoring location
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Chris Gray
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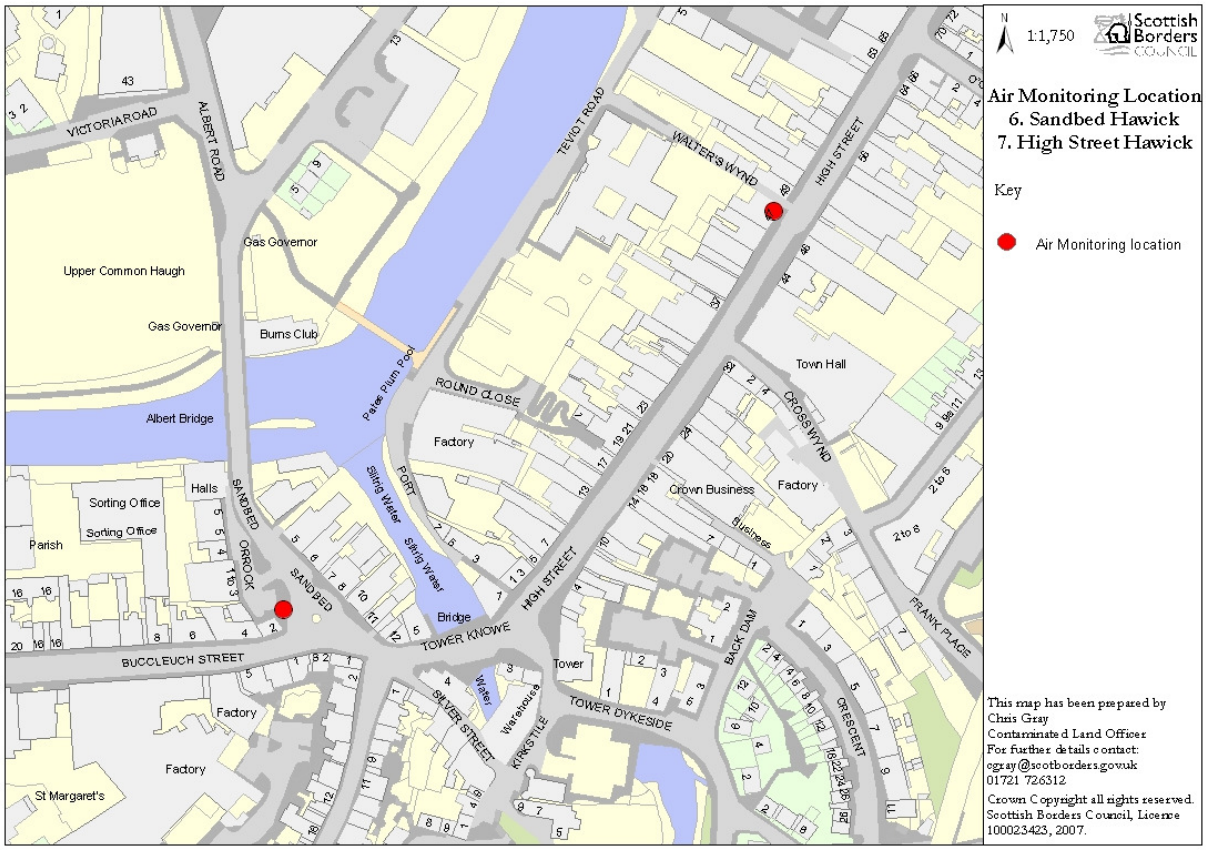
MANSFIELD ROAD
WELTON LANE
LAING TERRACE
Station Buildings
MART STREET
DUKE STREET
Bridge
Government Offices
Library
Depot
River Teviot
COMMERCIAL ROAD
LANDLAW TERRACE
NORTH BRIDGE STREET
Surgery
NORTHCOTE
Teviotside Terrace
DOVECOTE STREET
DOVECOTE
Bus Depot
Bus Depot
Garage
UNION STREET
Surgery
Shelters
Buccleuch Hotel
Hotel
TRINITY STREET
WEENSLAND ROAD
King's


N
1:1,750
Scottish Borders Council
Air Monitoring Location
6. Sandbed Hawick
7. High Street Hawick
Key
Air Monitoring location
VICTORIA ROAD
ALBERT ROAD
Gas Governor
Upper Common Haugh
Gas Governor
Burns Club
Albert Bridge
Peter Plum Pool
TEVIOT ROAD
WALTERS WYND
HIGH STREET
ROUND CLOSE
Factory
Town Hall
CROSS WYND
Crown Business
Factory
Halls
Sorting Office
Sorting Office
Parish
SANDBED
ORROCK
SANDBED
Sitting Water
Sitting Water
PORT
Bridge
TOWER KNOWE
HIGH STREET
BUCCLEUCH STREET
Factory
Factory
St Margaret's
Water
Warehouses
SILVER STREET
KIRKSTILE
Tower
TOWER DYKESIDE
BACK DAM
CRESCENT
FRANK PLACE
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N
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Scottish Borders Council
Air Monitoring Location
8. Renwick Terrace
Hawick
Key
Air Monitoring location
LOAN
Primary School
CRESCENT
Moat Park
WEST
END
LONGCROFT ROAD
CRUMHAUGHHILL ROAD
ROSEBANK
RENWICK
Ward Bdy
Ward Bdy
Ward Bdy
Moat Park
Ward Bdy
Moat Crescent
RENWICK TERRACE
RAMSAY ROAD
Roadhouse
ROSEBANK ROAD
Factory
Lynn Wood
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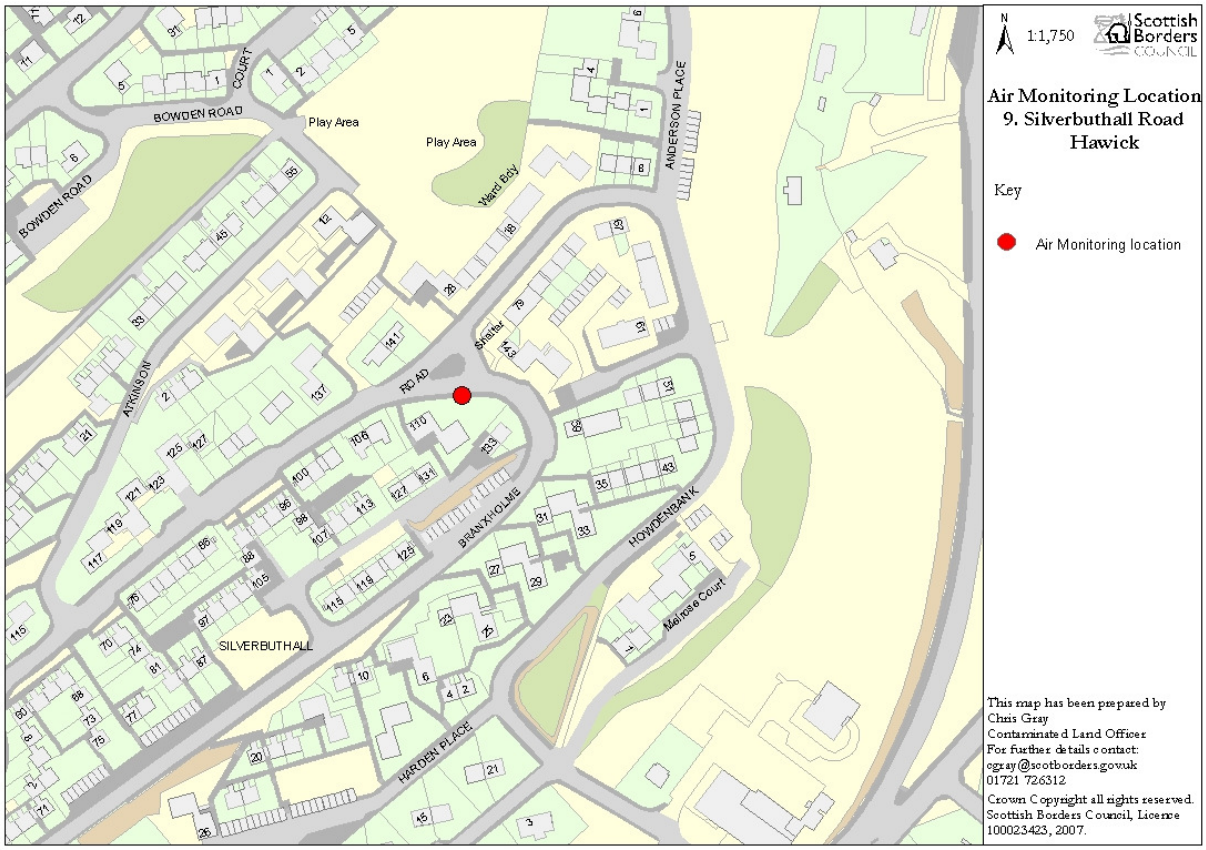
N
1:1,750
Scottish Borders Council
Air Monitoring Location
9. Silverbuthall Road
Hawick
Key
Air Monitoring location
BOWDEN ROAD
Play Area
ANDERSON PLACE
Ward Bdy
BOWDEN ROAD
ATKINSON
ROAD
Stratter
BRANKHOLME
HOWDENBANK
Melrose Court
SILVERBUTHALL
HARDEN PLACE
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N
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Scottish Borders Council
Air Monitoring Location
10. Bourtree Place
Hawick
Key
Air Monitoring location
Garage
DOVECOTE STREET
DOVECOTE
Bus Depot
Bus Depot
UNION STREET
Surgery
Garage
King's
Buccleuch Hotel
Hotel
TRINITY STREET
WEENSLAND ROAD
UNION STREET
BOURTREE PLACE
Church
Eskdaill
LINDEN
Works
Factory
CROFT ROAD
NORTH
Church
HAWICK
CRESCENT
OLIVER CRESCENT
Oliver Place
BOURTREE PLACE
BOURTREE TERRACE
Dismantled Railway
Douglas Haig Court
LINDEN TERRACE
BANK
Warehouse
BAKER STREET
Ward Bdy
BROUGHAM PLACE
Church
Trinity
St Marys
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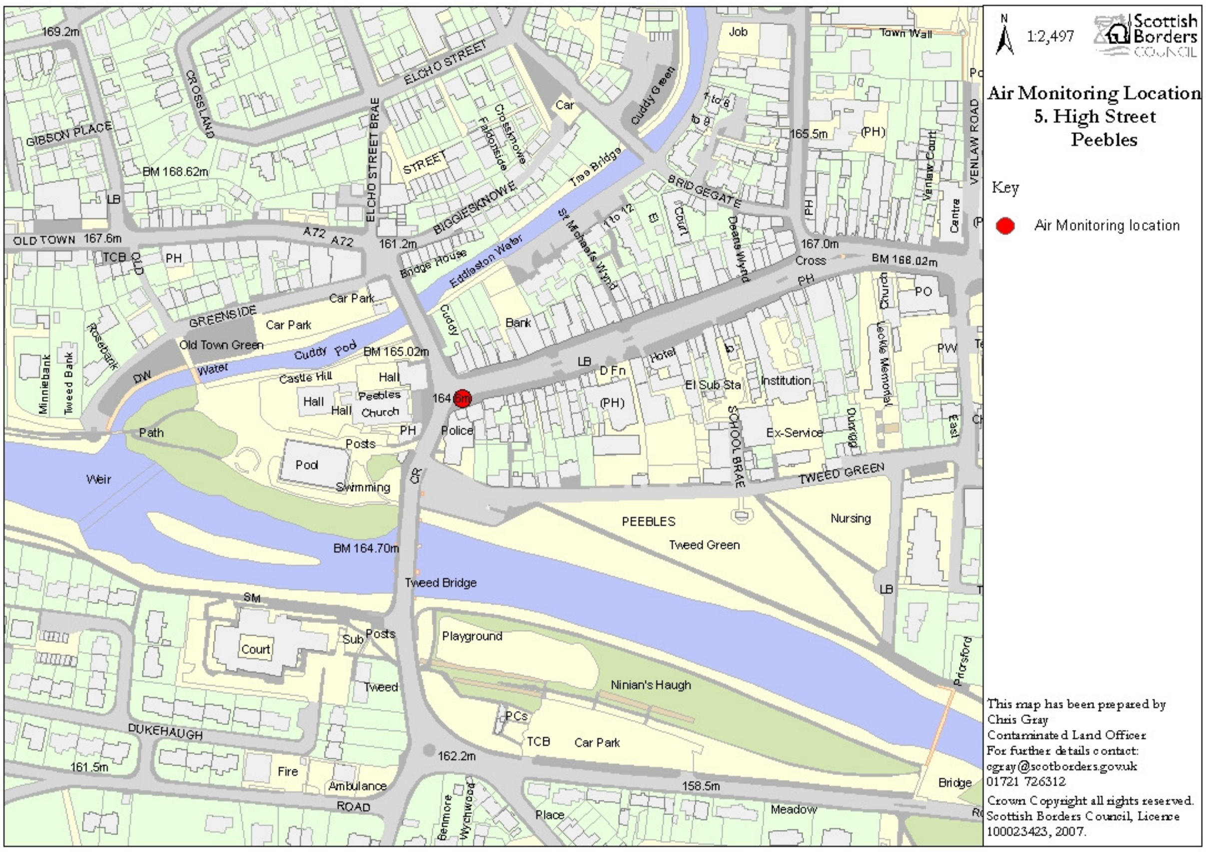
1:2,497
Scottish Borders Council
Air Monitoring Location
5. High Street
Peebles
Key
Air Monitoring location
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ELCHO STREET
GIBSON PLACE
OLD TOWN
GREENSIDE
BRIDGEGATE
TWEED GREEN
SCHOOL BRAE
VENLAW ROAD
DUKEHAUGH
Tweed Bridge
Eddleston Water
Cuddy Green
Peebles
Tweed Green
Ninian's Haugh
Playground
Car Park
Swimming Pool
Police
Cross
Weir
Court
Fire
Ambulance


1:1,750
Scottish Borders Council
Air Monitoring Location
4. Gladstone Place
Peebles
Key
Air Monitoring location
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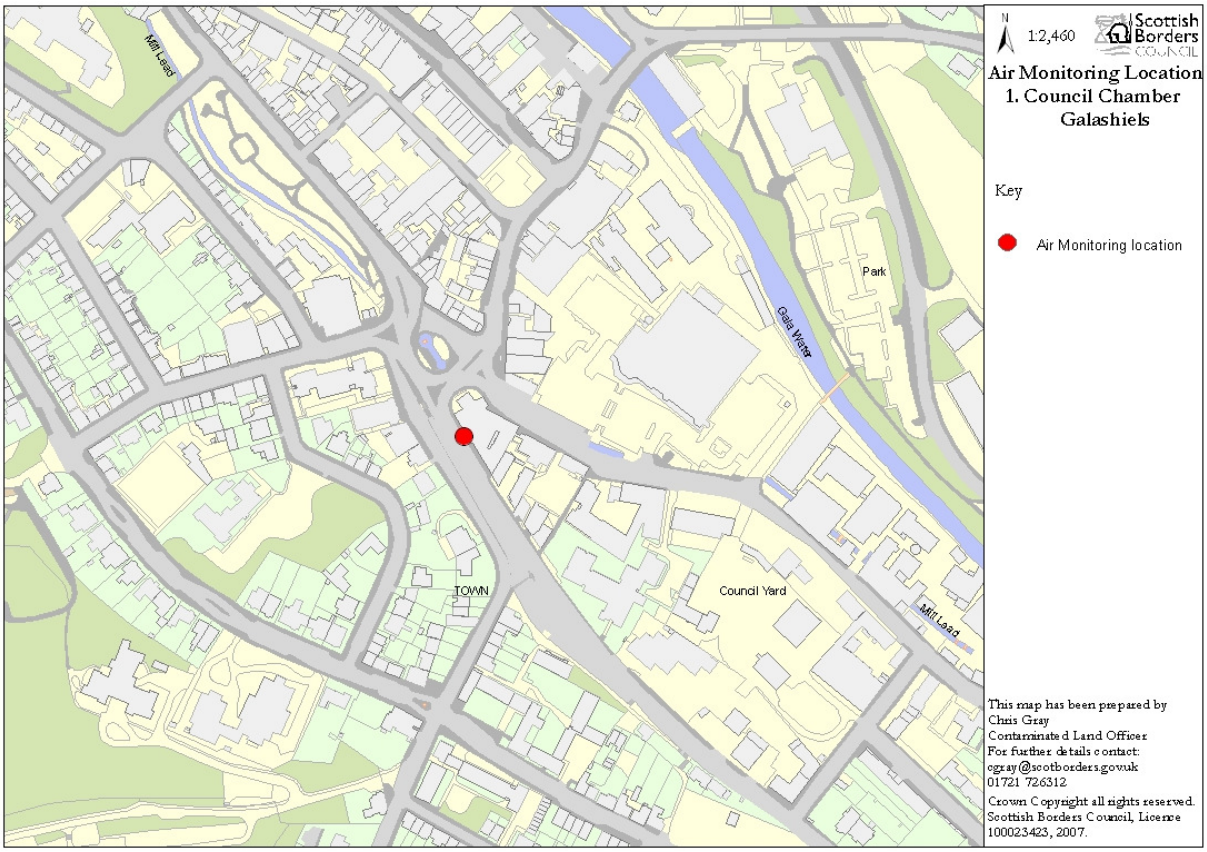
KIRKLAND STREET
MARCH STREET
WEMYSS PLACE
GLADSTONE PLACE
ST ANDREW'S PLACE
ST ANDREW'S ROAD
GRAHAM STREET
GIBSON PLACE
CLARK PLACE
CROSS ROAD
CROSSLAND
OLD TOWN
Cemetery
St Andrews
(remains of)
Hay Lodge Cottages
Stranger's
Roundhay
Glenburn
St Josephs


N
1:2,460
Scottish Borders Council
Air Monitoring Location
1. Council Chamber
Galashiels
Key
Air Monitoring location
Mill Lead
Park
Gala Water
TOWN
Council Yard
Mill Land
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N
1:1,750
Scottish Borders Council
Air Monitoring Location
2. Stanley Street/
Meigle Street
Galashiels
Key
Air Monitoring location
DEAN STREET
EILDON STREET
THISTLE STREET
VICTORIA STREET
STANLEY STREET
UNTHANK STREET
GALA PARK
MEIGLE STREET
FOREST GARDENS
FOREST AVENUE
BALMORAL
CRES
FOREST CRESCENT
FOREST PLACE
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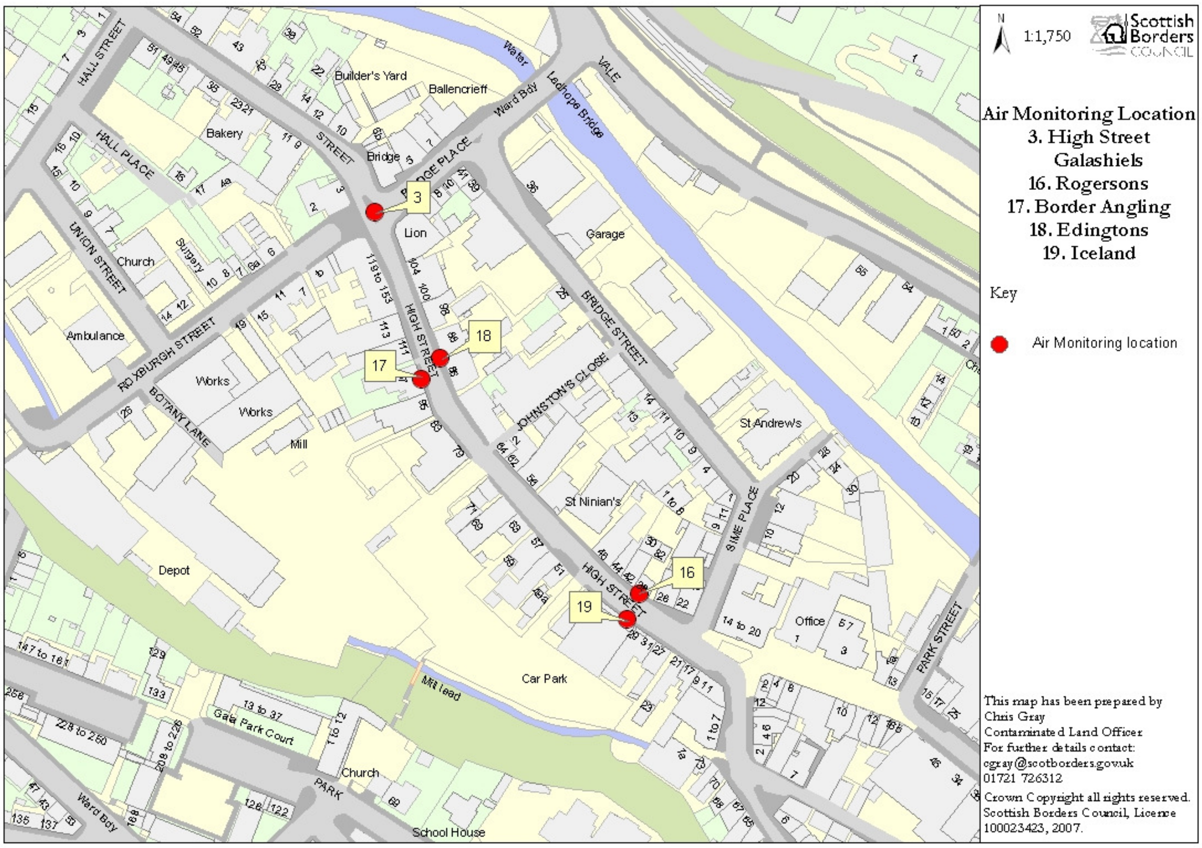
1:1,750
Scottish Borders Council
Air Monitoring Location
3. High Street
Galashiels
16. Rogersons
17. Border Angling
18. Edingtons
19. Iceland
Key
Air Monitoring location
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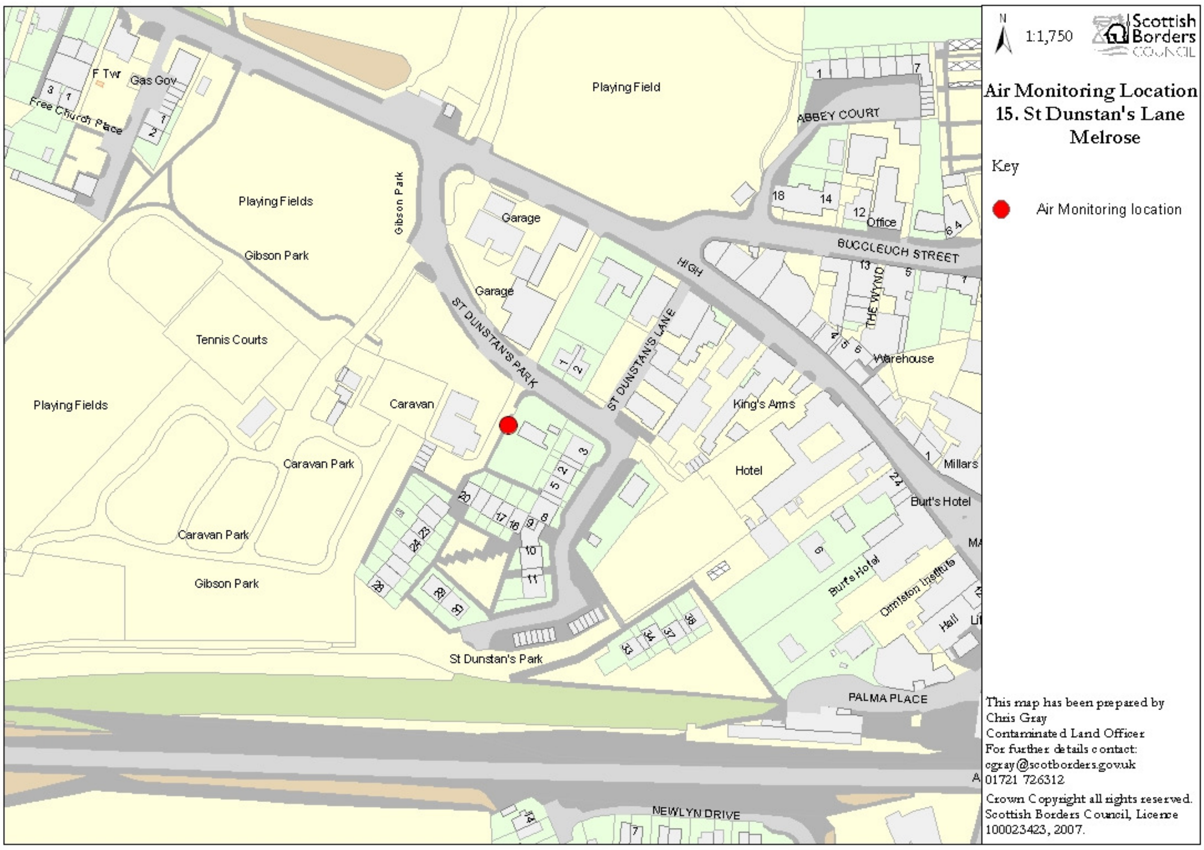
1:1,750
Scottish Borders Council
Air Monitoring Location
15. St Dunstan's Lane
Melrose
Key
Air Monitoring location
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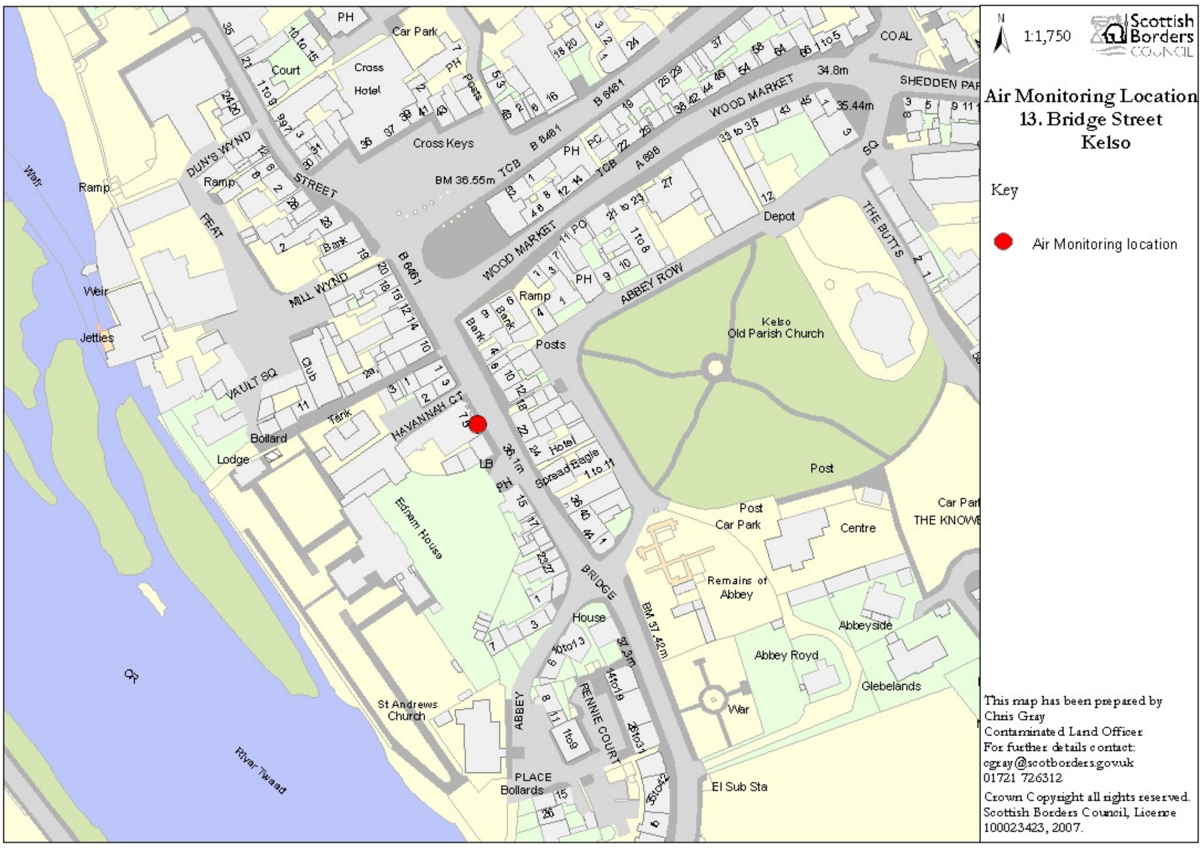
1:1,750
Scottish Borders Council
Air Monitoring Location
13. Bridge Street
Kelso
Key
Air Monitoring location
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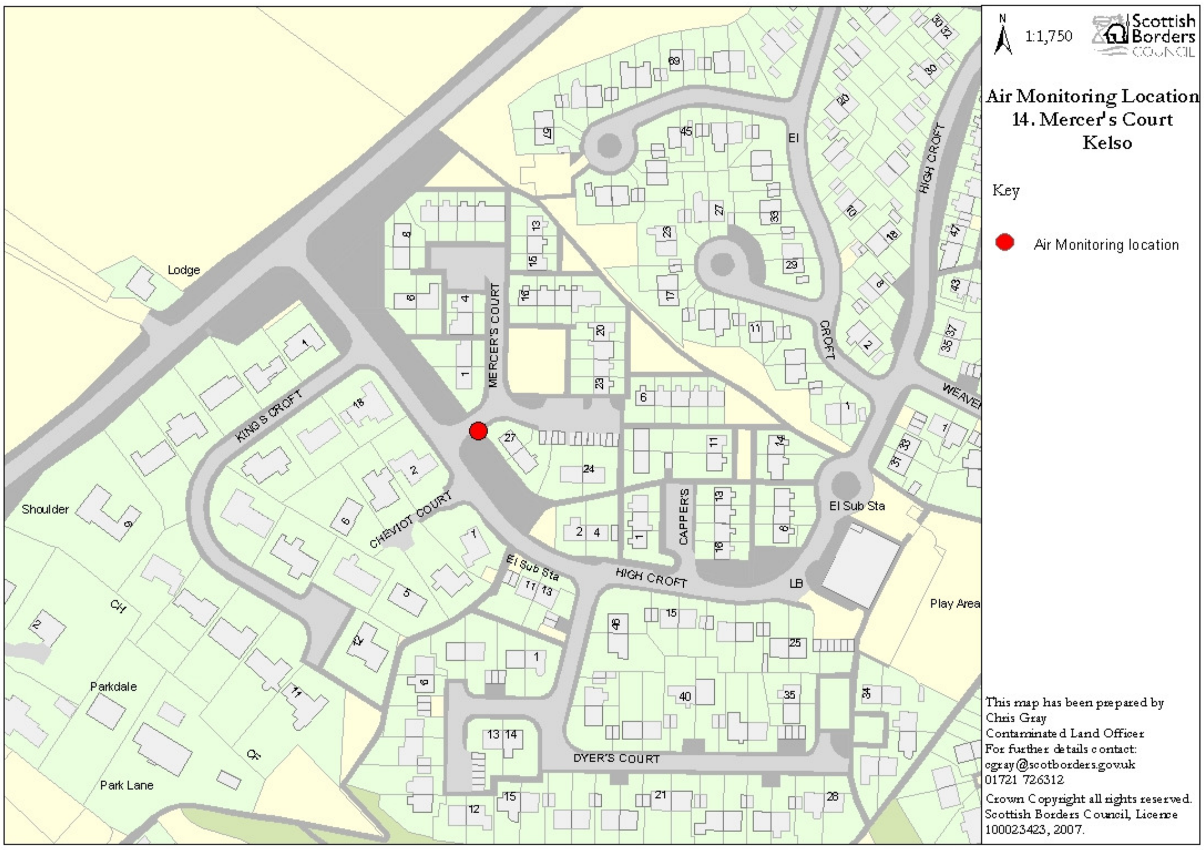
1:1,750
Scottish Borders Council
Air Monitoring Location
14. Mercer's Court
Kelso
Key
Air Monitoring location
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