



**BMT Cordah Limited**  
ENVIRONMENTAL CONSULTANCY  
AND INFORMATION SYSTEMS

## LAQM Progress Report 2005

### A Report for Moray Council

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## Glossary

AADT	Annual Average Daily Total
AQMA	Air Quality Management Area
CO	Carbon Monoxide
DMRB	Design Manual for Roads and Bridges Screening Model (v1.0g)
EAC	Effective Area Coverage
EAL	Environmental Assessment Level
GC/MS	Gas chromatography-mass spectrometry
HDV	Heavy Duty Vehicles (Includes Rigid & Articulated HGVs, Buses and Coaches)
IPPC	Integrated Pollution Prevention and Control
LAQM	Local Air Quality Management
LDV	Light duty vehicle
LT	Long Term
NAEI	National Atmospheric Emissions Inventory
NAQS	National Air Quality Strategy
NETCEN	National Environment Technology Centre (AEA Environmental Technology)
NO <sub>2</sub>	Nitrogen Dioxide
OTV	Odour Threshold Value
PM <sub>10</sub>	Particulate matter with an (equivalent aerodynamic) diameter of ten microns (10µm) or less
SEPA	Scottish Environment Protection Agency
SO <sub>2</sub>	Sulphur Dioxide
ST	Short Term
TLV	Threshold Limit Value
U&SA	Updating and Screening Assessment
VOC	Volatile Organic Compounds
Units	
m/s	Metres per second
ng	Nanogramme (1x10 <sup>-9</sup> grammes)
ppb	parts per billion
µg/m <sup>3</sup>	Microgramme per metre cubed (1x10 <sup>-6</sup> grammes per cubic metre)
mg/m <sup>3</sup>	Milligramme per metre cubed (1x10 <sup>-3</sup> grammes per cubic metre)

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## 1 INTRODUCTION

BMT Cordah Ltd has been commissioned by Moray Council to carry out the 2005 Local Air Quality Management (LAQM) Progress Report. The aim of the report is to provide a review and update on air quality issues within the Moray Council area since the previous review and assessment report. A map of the Moray Council area is provided in Figure 1 in Appendix 1.

### 1.1 LAQM Framework

The Environment Act 1995 and subsequent regulations require local authorities to conduct a Review and Assessment of air quality in their area to assess compliance with the standards and objectives set out in the *Air Quality Strategy for England, Scotland, Wales and Northern Ireland 2000* (Reference 1). For local authorities within Scotland further regulations are set out in the *Air Quality (Scotland) Regulations 2000* (Reference 2) and *Air Quality (Scotland) Amendment Regulations 2002* (Reference 3).

The pollutants contained within the National Air Quality Strategy (NAQS) and their relevant objectives for Scotland are shown in Table 1.

Table 1: Pollutant Objectives outlined in the NAQS

Pollutant	Air Quality Objective			Date to be achieved by
	Concentration	Measured as	Equivalent percentile	
Benzene	16.25 µg/m <sup>3</sup>	running annual mean	-	31 <sup>st</sup> December 2003
	3.25 µg/m <sup>3</sup>	running annual mean	-	31 <sup>st</sup> December 2010
1,3-Butadiene	2.25 µg/m <sup>3</sup>	running annual mean	-	31 <sup>st</sup> December 2003
Carbon monoxide (CO)	10 mg/m <sup>3</sup>	running 8 hour mean	-	31 <sup>st</sup> December 2003
Lead	0.5 µg/m <sup>3</sup>	annual mean	-	31 <sup>st</sup> December 2004
	0.25 µg/m <sup>3</sup>	annual mean	-	31 <sup>st</sup> December 2008
Nitrogen dioxide (NO <sub>2</sub> )	200 µg/m <sup>3</sup> not to be exceeded more than 18 times per year	1 hour mean	99.79 <sup>th</sup> percentile of 1 hour means	31 <sup>st</sup> December 2005
Particulate (PM <sub>10</sub> )	40 µg/m <sup>3</sup>	annual mean	-	31 <sup>st</sup> December 2005
	50 µg/m <sup>3</sup> not to be exceeded more than 35 times a year	24 hour mean	90.4 <sup>th</sup> percentile of 24 hour means	31 <sup>st</sup> December 2004
	40 µg/m <sup>3</sup>	annual mean	-	31 <sup>st</sup> December 2004
Sulphur dioxide (SO <sub>2</sub> )	50 µg/m <sup>3</sup> not to be exceeded more than 7 times a year	24 hour mean	98 <sup>th</sup> percentile of 24 hour means	31 <sup>st</sup> December 2010
	18 µg/m <sup>3</sup>	annual mean	-	31 <sup>st</sup> December 2010
	125 µg/m <sup>3</sup> not to be exceeded more than 3 times a year	24 hour mean	99 <sup>th</sup> percentile of 24 hour means	31 <sup>st</sup> December 2004
	350 µg/m <sup>3</sup> not to be exceeded more than 24 times a year	1 hour mean	99.7 <sup>th</sup> percentile of 1 hour means	31 <sup>st</sup> December 2004
	266 µg/m <sup>3</sup> not to be exceeded more than 35 times a year	15 minute mean	99.9 <sup>th</sup> percentile of 15 minute means	31 <sup>st</sup> December 2005

The framework of LAQM requires a Review and Assessment of air quality by local authorities on a regular basis.

The second round of the Review and Assessment commenced in 2003 and had two phases. The first stage of the second round of Review and Assessment was an Updating and Screening Assessment (U&SA). The U&SA considered any changes that had occurred and that may have affected air quality since the first round of Review and Assessment.

Where the U&SA identified a risk of exceedence of an air quality objective at a location with relevant public exposure a Detailed Assessment is required. The Detailed Assessment considers the risk of exceedence of an objective to greater depth in order to determine whether it is necessary to declare an Air Quality Management Area (AQMA).

During years when an U&SA is not conducted, local authorities are required to submit a Progress Report detailing ongoing air quality monitoring results and providing updated information on air quality issues within the local authority.

This report is the 2005 Progress Report of air quality within the Moray Council area and follows the guidance set out in the LAQM.TG(03) technical guidance (Reference 4) and LAQM.PRG(03) progress report guidance (Reference 5).

## **1.2 Summary of Local Air Quality Assessment in Moray Council**

Moray Council completed an Updating and Screening Assessment (U&SA) in April 2003 (Reference 6). The U&SA identified three road junctions at which there was potential for an exceedence of the 2010 annual mean NAQS objective for PM<sub>10</sub>. The U&SA concluded that it was unlikely that NAQS objectives for NO<sub>2</sub>, SO<sub>2</sub>, lead, CO, benzene or 1, 3-butadiene would be exceeded within the Moray Council area. A supplementary report to the U&SA (Reference 7) provided information on local receptors at each junction and it was concluded that a Detailed Assessment of PM<sub>10</sub> was required for the Queens Street Roundabout junction in Elgin. The Detailed Assessment will be submitted to the Scottish Executive following completion of monitoring in June 2005.

## **2 AIR QUALITY MONITORING**

Moray Council currently monitors NO<sub>2</sub> and PM<sub>10</sub> concentrations at hot-spot locations in the Council area. Previously Moray Council has also monitored SO<sub>2</sub> and other pollutants such as VOCs. Locations of the current monitoring sites are provided in Figure 2 in Appendix 1.

### **2.1 NO<sub>2</sub> Monitoring**

Moray Council operates a monitoring network of thirteen NO<sub>2</sub> diffusion tubes, eight of which have been in operation since 1998. Three additional sites were set up in 2003 following information gathered in the U&SA. The NO<sub>2</sub> monitoring results for 2004 are presented in Table 2.

#### **2.1.1 QA / QC Procedures**

The diffusion tubes are prepared and Analysed by Aberdeen City Council Public Analyst (ACCPA), a UKAS accredited laboratory. The diffusion tubes are prepared using 20% triethanolamine in water. The ACCPA laboratory carries out monthly co-location studies at various locations throughout Aberdeen City and Aberdeenshire. The available monthly bias factors for 2004 have been averaged to determine an annual bias correction factor for 2004. This method is used in the laboratory inter-comparison study to determine the overall bias factor for each laboratory for a given year. The bias correction factor is presented in Table 2.

*Table 2: NO<sub>2</sub> diffusion tube 2004 bias factor for Aberdeen City Council Public Analyst*

<b>Bias correction factor</b>	<b>Mean % bias</b>
0.80	26.28

The bias factor has been applied to all 2004 NO<sub>2</sub> monitoring results for Moray Council.

The results presented in Table 3 indicate that except for Fochabers 1, all sites recorded a 100% data capture rate during 2004. No exceedences of the 2005 annual mean NAQS objective for NO<sub>2</sub> were recorded during 2004. Using the conversion factors provided in LAQM.TG(03) technical guidance NO<sub>2</sub> results have been predicted forward to 2005 for comparison with the annual mean NAQS objective. The results in Table 3 indicate that it is unlikely that the NO<sub>2</sub> annual mean NAQS objective for 2005 will be exceeded.

NO<sub>2</sub> concentrations for Moray Council area from 1998 to 2004 are plotted in Chart 1. NO<sub>2</sub> concentrations within Moray Council do not follow predicted national trends set out in the technical guidance, which implies a decrease in NO<sub>2</sub> concentrations. Since 1998 NO<sub>2</sub> concentrations have increased by approximately 30%, with some sites, notably Fochabers 1, increasing by 55%. However, the pattern followed across the Council area shows a peak annual mean NO<sub>2</sub> concentration occurring in 2002 or 2003 with all sites showing a decrease in NO<sub>2</sub> in 2004.

With the exceptions of the Elgin 5 and Fochabers 2 sites the annual mean NO<sub>2</sub> concentrations at all sites over the five year monitoring period showed a significant positive correlation (>0.7) between year and annual mean NO<sub>2</sub> concentration ranging from 0.7 to 0.9. This indicates that there has been a definite increase in NO<sub>2</sub> concentrations at monitoring sites within the Moray Council area over the past 5 years.

The significant increase in NO<sub>2</sub> concentrations experienced between 2001 and 2002 is due in part to a change in the technique for preparation diffusion tube absorbent. The increase in recorded NO<sub>2</sub> concentrations was also noted by Aberdeen City Council. ACCPA have communicated that the current method of diffusion tube preparation is likely to be more accurate and that NO<sub>2</sub> concentrations measured prior to 2002 are under estimated. The actual increase in NO<sub>2</sub> concentrations within the Moray Council area since 1998 presented in Chart 1 is therefore likely to be less marked than the graph indicates.

Table 3: NO<sub>2</sub> Monitoring Results for 2004.

Site	Location	Grid reference	Site category	Annual mean (µg/m <sup>3</sup> )	Corrected annual mean (µg/m <sup>3</sup> )	Predicted 2005 Annual Mean (µg/m <sup>3</sup> )	Data capture rate (%)
Elgin 1	Lamp Post West Park Court	NJ212626	Kerbside	33.9	27.1	26.5	100
Elgin 2	Junction East & Maisondieu Rd	NJ224627	Kerbside	26.0	20.8	20.3	100
Elgin 3	99-101 Maisondieu Road	NJ223627	Roadside	13.2	10.5	10.3	100
Elgin 4	26-28 Priory Place	NJ223626	Urban Background	10.2	8.1	7.9	100
Elgin 5	Main Street, New Elgin	NJ223618	Kerbside	17.7	14.1	13.8	100
Elgin 6	Queens Street Roundabout	NJ221628	Kerbside	20.6	16.5	16.1	100
Fochabers 1	50A High Street	NJ345588	Roadside	34.0	27.2	26.5	83
Fochabers 2	Sunnadach George Street	NJ343587	Urban Background	5.8	4.7	4.6	100
Forres	Tolbooth, High Street	NJ034587	Roadside	17.7	14.1	13.8	100
Keith 1	106 Moss Street	NJ433507	Roadside	27.4	21.9	21.4	100
Keith 2	87 Moss Street	NJ432507	Kerbside	25.3	20.2	19.7	100
Lossie 1	1 Merryton Court	NJ224702	Kerbside	6.3	5.0	4.9	100
Lossie 2	27 James Street	NJ235709	Kerbside	7.2	5.7	5.6	100

Chart 1: Annual Mean NO<sub>2</sub> Concentrations in Moray Council 1998 - 2004

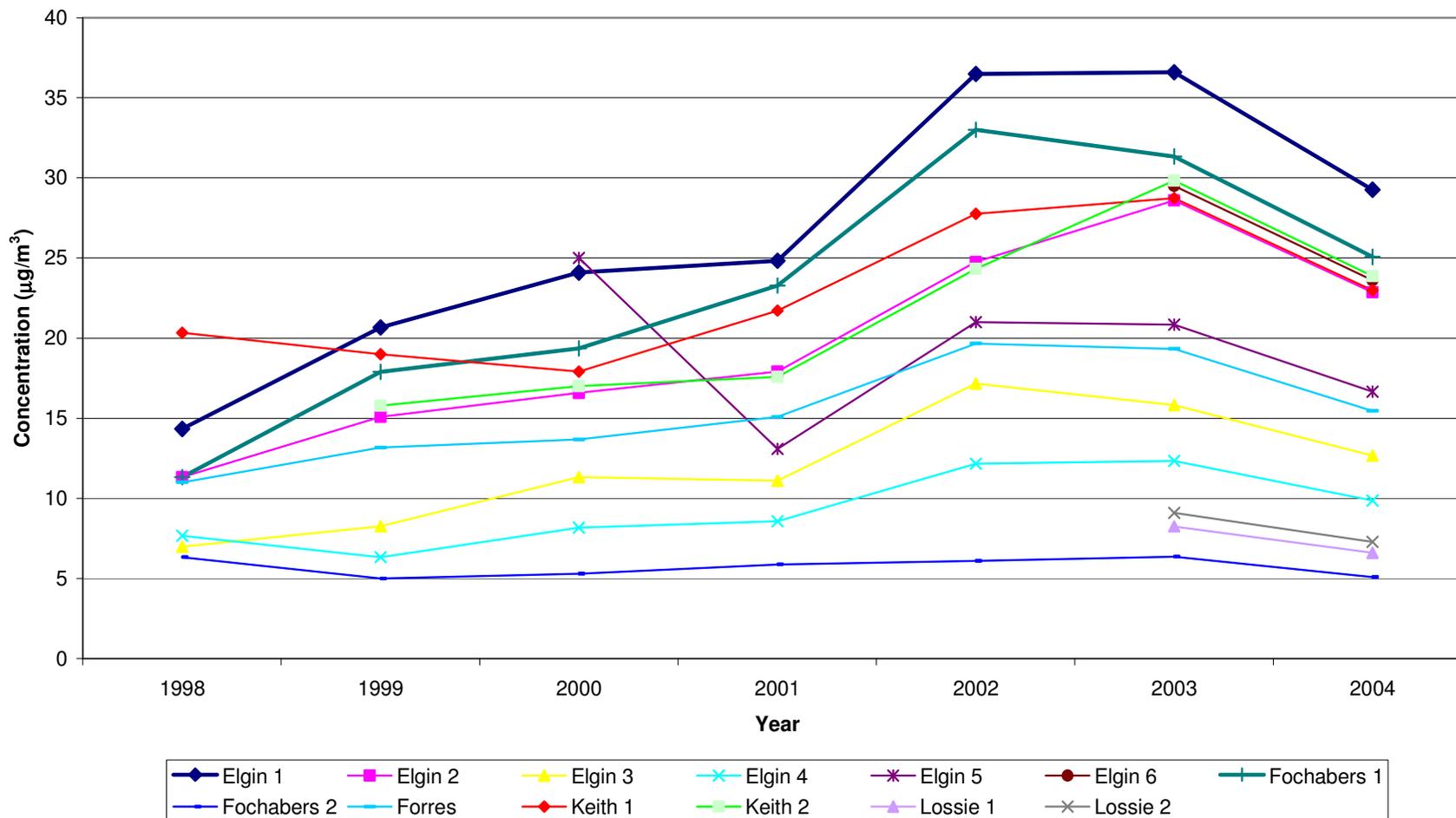
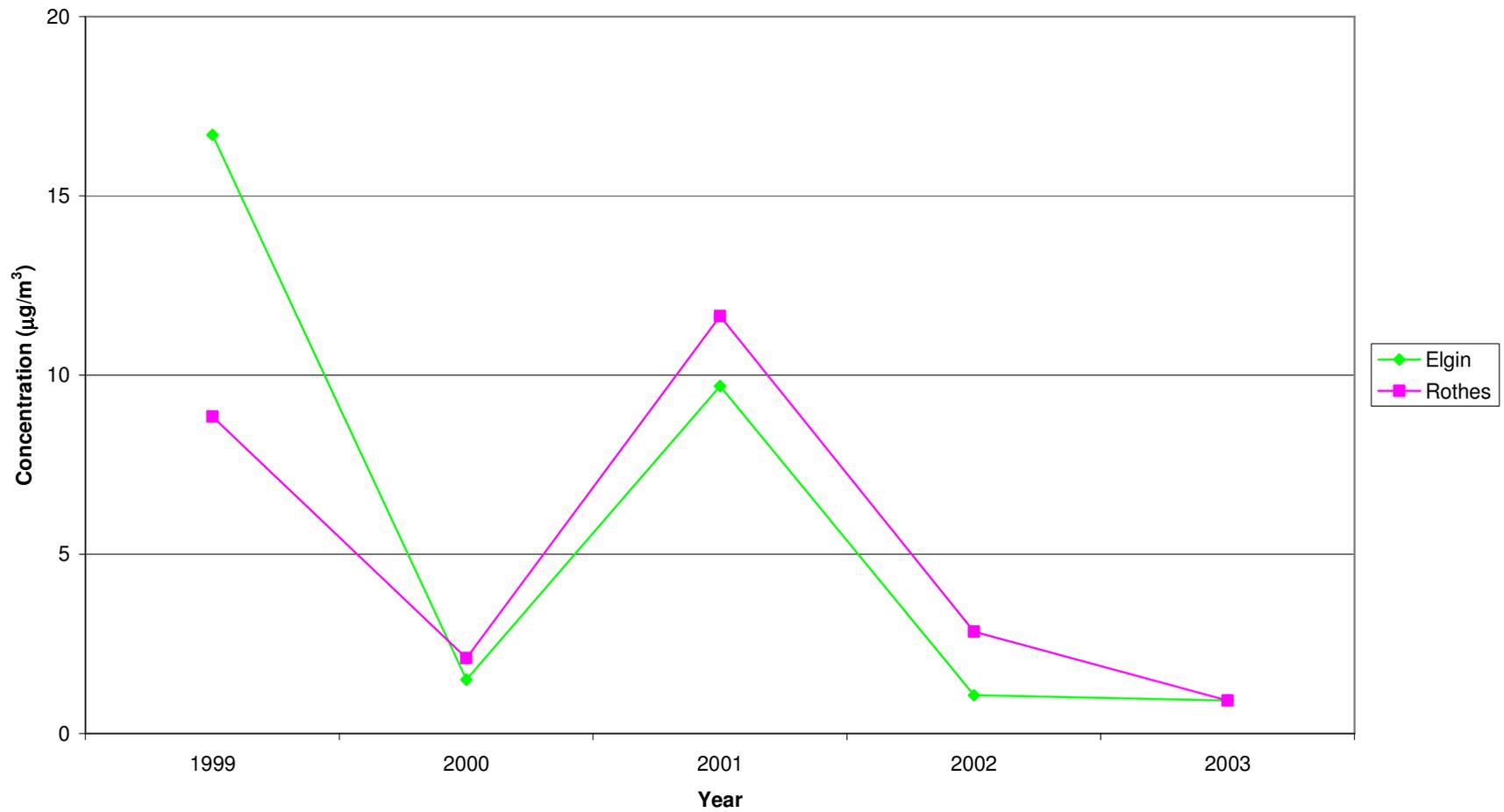


Chart 2: Annual Mean SO<sub>2</sub> Concentrations in Moray Council 1999 - 2003



## 2.2 SO<sub>2</sub> Monitoring

Moray Council carried out monitoring of SO<sub>2</sub> between 1999 and 2003. Monitoring was conducted at Spey Drive (Rothes) and Priory Place (Elgin), using passive diffusion tubes. The monitoring ceased in 2004 because annual mean concentrations had been continuously low over the five year period and the monitoring technique was not suitable for the assessment of 24-hour, 1-hour or 15-minute mean concentrations. The trends in annual mean SO<sub>2</sub> concentrations over the five year monitoring period showed an approximate 92% decrease in annual mean concentrations between 1999 and 2003.

Statistical analysis of the SO<sub>2</sub> concentrations identified a significant negative correlation (<-0.7) between year and annual mean SO<sub>2</sub> concentration at Priory Place, Elgin (-0.72) and a weak negative correlation at Spey Drive (-0.51). This indicates that there is a significant trend of decreasing SO<sub>2</sub> concentrations within the Moray Council area, notably in Elgin. SO<sub>2</sub> concentrations for Moray Council from 1999 to 2003 are plotted in Chart 2.

## 2.3 PM<sub>10</sub> Monitoring

Moray Council installed a partisol monitor at Queens Street Roundabout as part of the 2004 LAQM Detailed Assessment for particulates. Delays in obtaining power supplies and equipment has meant the monitoring did not commence until the beginning of March 2005. The analysis of samples is being carried out by Casella, a UKAS accredited laboratory. The partisol monitor will be in operation for 3 months covering the three spring months of 2005. The monitor is located to the south-east of Queen Street Roundabout at a kerbside location on a traffic island. Available monitoring data is presented in Table 4. A full analysis of PM<sub>10</sub> monitoring data will be provided in the Detailed Assessment following completion of the 3 month monitoring period.

Table 4: PM<sub>10</sub> Monitoring Results for 2005

Period	Period Mean (µg/m <sup>3</sup> )	Maximum 24-hour Mean (µg/m <sup>3</sup> )	No. of Exceedences of 50 µg/m <sup>3</sup>
04/03/05 – 31/03/05	25.53	51.67	1

The monitoring results available for March indicate that levels at the site are elevated with a monthly mean concentration of 25.5µg/m<sup>3</sup>. This is above the annual mean PM<sub>10</sub> NAQS objective for 2010. However, the site is at a kerbside location between 5m and 10m from the nearest sensitive receptor and it is expected that concentrations at the nearest receptor will be below those recorded at the partisol monitor. Monitoring will continue at the site until the end of May and a full assessment of PM<sub>10</sub> concentrations will be provided in the Detailed Assessment of particulates, which will be submitted to the Scottish Executive upon completion of the monitoring. The monitoring data will be used to validate the modelling of road traffic emissions at the junction and determine if there is a requirement for an AQMA.

## 2.4 Other Pollutants

Following odour complaints from the public relating to the two RAF bases in Moray Council area, Moray Council commissioned an air quality and odour assessment of pollutants within the vicinity of the two bases (Reference 8). Monitoring was undertaken over a 6-month period during which NO<sub>2</sub> and various VOCs were sampled using passive diffusion tubes at six locations. Monitoring also included 24-hour dust sampling at ten sites, and 24-hour NO<sub>2</sub> and VOC monitoring for short-term exceedences at two additional sites within Lossiemouth. The study compared the individual VOC concentrations with relevant NAQS objectives, long and short term Environmental Assessment Levels (EALs) and odour criteria. VOCs detected included benzene and 1, 3-butadiene.

Six month mean concentrations of NO<sub>2</sub>, benzene and 1, 3-butadiene were shown to be below the annual mean NAQS objectives. All detected pollutants recorded 6 month mean concentrations below the relevant long term EALs. The odour assessment indicated that odour threshold values (OTVs) for acetic acid and 1-butanol were exceeded during one month, providing evidence to verify odour complaints within the vicinity of RAF Lossiemouth. Results from the dust sampling revealed that the highest concentrations were found at sites influenced by road traffic, but that all recorded dust levels were below typical levels that would result in dust complaints.

### 3 NEW DEVELOPMENTS

The LAQM.PRG(03) 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 (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 provides further guidance (Reference 9) on the type of new 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 road traffic congestion;
- a change in traffic flow greater than 5%;
- a change in vehicle speed greater than 10kph;
- 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 (more than 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).

The criteria provided by NSCA have been used to assess developments with air quality impacts that have been granted planning permission by Moray Council since the U&SA.

#### 3.1 Industrial Developments

SEPA was contacted regarding new industrial developments within the Moray Council area. There have been two new developments and no significant changes to existing industrial processes since the Updating and Screening Assessment 2003. The new developments are:

- a petrol station in the west of Elgin; and
- a mixed commercial and municipal waste centre in Nether Dallachy.

Petrol stations are generally associated with fugitive emissions of benzene and therefore a screening assessment for benzene is required for new petrol stations. The LAQM.TG(03) technical guidance

advises there is no need for further consideration of a site if the nearest receptors are further than 10m from the petrol pumps. There are no sensitive receptors within 30m of the new petrol station therefore no further assessment of the petrol station is required.

The waste centre operated by Grays Recycling Services Ltd is located on the disused airfield at Nether Dallachy. The main recycling process takes place at a site in Aberdeenshire, with the Nether Dallachy site being used for storage and sorting of waste. Atmospheric emissions from the site are likely to be dust and PM<sub>10</sub>. The LAQM.TG(03) technical guidance provides a screening method dependent upon nearest receptor distances and background PM<sub>10</sub> concentrations to determine the requirement for a Detailed Assessment of a site. The predicted 2010 background PM<sub>10</sub> concentration at Nether Dallachy is <16µg/m<sup>3</sup>. For a 2010 background PM<sub>10</sub> concentration <16µg/m<sup>3</sup> further assessment of PM<sub>10</sub> is required if there are receptors within 200m of the site. The nearest receptors to the site are residential properties in Nether Dallachy (800m) and Lower Auchencroft (550m), therefore there is no requirement for further assessment.

### 3.2 Transport, Residential and Commercial Developments

There have been five proposed transport, residential and commercial developments within Moray Council area which have been granted planning permission and meet the criteria provided by the NSCA guidance.

- A development of 66 residential properties at Bilbohall, Elgin is expected to increase road traffic across the railway bridge between New Elgin and Elgin.
- The new Tesco Supermarket in Keith is expected to increase road traffic along the A96 in the vicinity of Keith.
- An extension to the ASDA store in Elgin is expected to result in an increase in road traffic of more than 5% along Edgar Road and New Elgin Rd.
- A commercial site in Elgin is predicted to result in an increase in road traffic within Elgin.

The LAQM.TG(03) technical guidance provides screening criteria for the assessment NO<sub>2</sub> and PM<sub>10</sub> due to busy roads or roads with a significant change in HGV proportion based upon the Annual Average Daily Total (AADT) traffic. The screening criteria advises that roads or busy junctions with an AADT of 10,000 or greater should be assessed using the DMRB screening model to determine any potential for exceedence of the NAQS objectives. The traffic increases noted by the Moray Council Planning and Road Departments will not lead to an AADT greater than 10,000, along affected roads. It is therefore unlikely that there will be potential for exceedence of the NAQS objectives for NO<sub>2</sub> and PM<sub>10</sub> due to the proposed increases in road traffic.

The 2003 U&SA highlighted the possible air quality impact of the Mosstodoch / Fochabers bypass. The proposed bypass was subject to a Public Inquiry held in 2003. The air quality assessment of the proposed bypass indicated that in general the bypass would have a positive effect on local air quality around Fochabers. However, some properties to the north of Fochabers are expected to experience slight elevations in pollutant concentrations from road traffic but that all concentrations were predicted to be below relevant NAQS objectives (Reference 10). The proposed route passes north of Fochabers and south of Mosstodoch stretching approximately 5km. The trunk road orders have been made by the Scottish executive and confirmed on 1<sup>st</sup> April 2005 and construction is anticipated to commence in late 2006 with completion of works due in 2008.

### 3.3 Quarries and Landfills

A new quarry operation in Forres has been granted planning permission since the 2003 U&SA.

The LAQM.TG(03) technical guidance provides a screening method dependent upon nearest receptor distances and background PM<sub>10</sub> concentrations to determine the requirement for a Detailed Assessment of a site. The predicted 2010 background PM<sub>10</sub> concentration at Forres is <16µg/m<sup>3</sup>. For a 2010 background PM<sub>10</sub> concentration <16µg/m<sup>3</sup> further assessment of PM<sub>10</sub> is required if there are receptors within 200m of the site. The nearest receptors to the site are residential properties at Cathay (400m) and Mains of Blervie (480m). It is therefore considered unlikely that the new quarry operation will result in the exceedence of NAQS objectives for PM<sub>10</sub>. Therefore there is no requirement for further assessment of the new quarry.

## 4 PLANNING APPLICATIONS

All planning applications are made available to Environmental Health Section prior to planning permission being granted. Any air quality issues are raised in consultation with Development Control and the developer.

Currently there are two planning proposals meeting the NSCA criteria. Expansions of two non-food retail distribution sites in Elgin are expected to increase retail related road traffic such as HGVs.

## 5 CONCLUSIONS AND RECOMMENDATIONS

Moray Council's U&SA concluded that it was unlikely that NAQS objectives for benzene, 1, 3-butadiene, carbon monoxide, lead, NO<sub>2</sub>, SO<sub>2</sub> or PM<sub>10</sub> in 2004 will be exceeded. The reports also identified the potential for exceedence of the PM<sub>10</sub> NAQS objectives in 2010 at Queen St Roundabout in Elgin.

Monitoring data obtained within Moray in 2004 for NO<sub>2</sub> indicate that the conclusions of the U&SA with respect to NO<sub>2</sub> remain valid. PM<sub>10</sub> monitoring available for one month indicates that PM<sub>10</sub> concentrations are currently above the annual mean NAQS objective for 2010. Monitoring of PM<sub>10</sub> will continue until the end of May 2005, a Detailed Assessment of particulates will provide full analysis of the PM<sub>10</sub> monitoring and determine if there is a requirement for an AQMA. The Detailed Assessment will be submitted to the Scottish Executive upon completion of 3 months monitoring.

There are no new developments within the Moray Council area which are likely to result in an exceedence of NAQS objectives.

No monitoring data are available within Moray Council area for the remaining pollutants however no new emission sources have been identified since the 2003 U&SA. The conclusions of the U&SA that it is unlikely that there will be any exceedences of NAQS objectives for benzene, 1, 3-butadiene, carbon monoxide, lead, NO<sub>2</sub> and SO<sub>2</sub> remain valid.

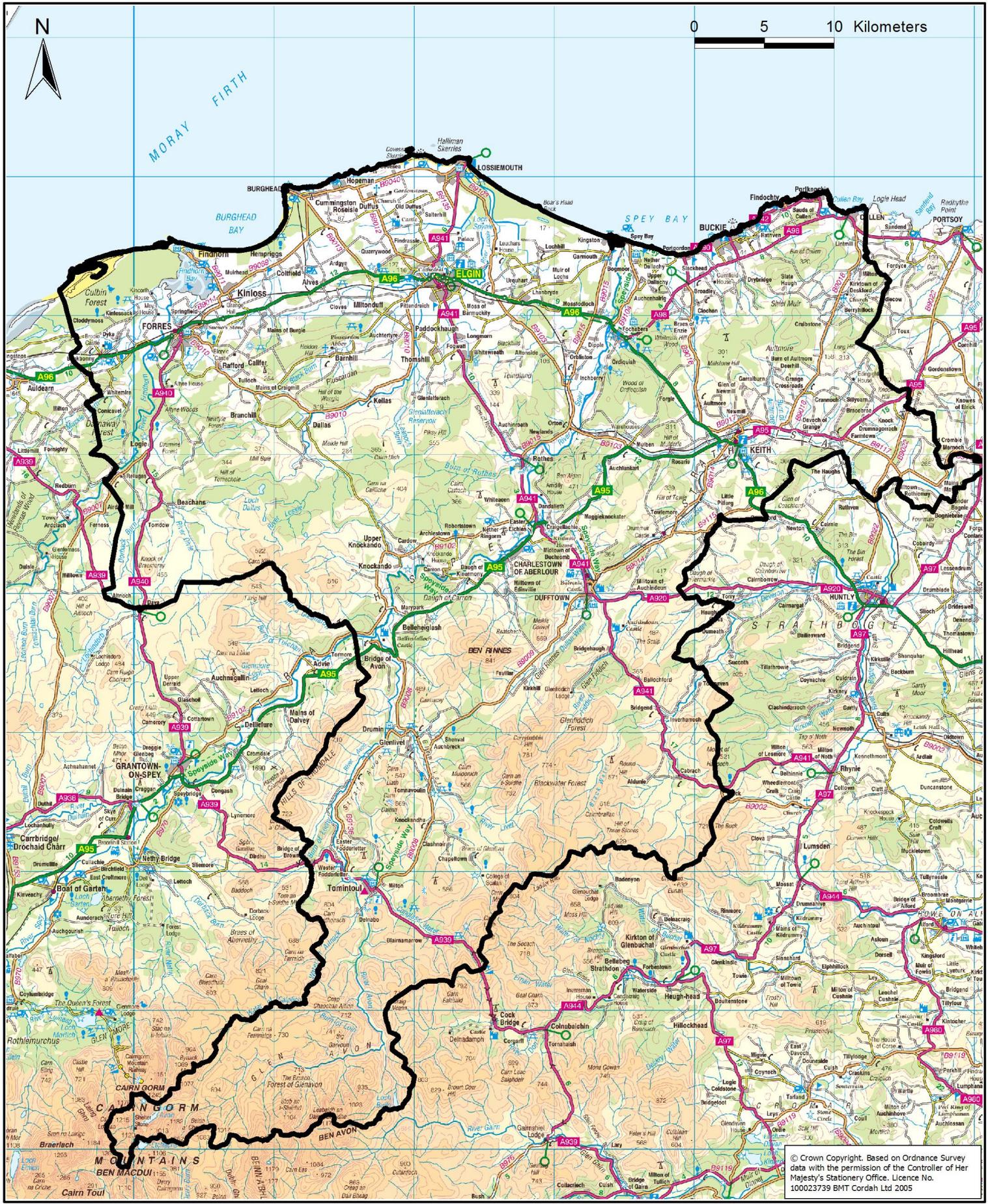
It is also concluded that there is potential for exceedence of the 2010 NAQS objectives for PM<sub>10</sub>. The Detailed Assessment for particulates will provide a full assessment of the potential exceedence and will be submitted to the Scottish Executive upon completion of 3 month monitoring at Queen St Roundabout in Elgin.

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## 6 REFERENCES

- Reference 1 UK National Air Quality Strategy for England, Wales, Scotland and Northern Ireland, Department of Environment, Food and Rural Affairs, January 2000
- Reference 2 Air Quality (Scotland) Amendment Regulations 2000
- Reference 3 Air Quality (Scotland) Amendment Regulations 2002
- Reference 4 Part IV of the Environment Act 1995 Local Air Quality Management Technical Guidance, LAQM.TG(03), DEFRA, January 2003
- Reference 5 Part IV of the Environment Act 1995 Local Air Quality Management Progress Report Guidance, LAQM.PRG(03), DEFRA, December 2003
- Reference 6 LAQM Updating and Screening Assessment for Moray Council, BMT Cordah report Ref. MOR.005, April 2003
- Reference 7 LAQM Updating and Screening Assessment Supplementary Report for Moray Council, BMT Cordah report Ref. MOR.006, October 2003
- Reference 8 Air Quality Study in the Vicinity of RAF Lossiemouth and RAF Kinloss, BMT Cordah Report Ref: MOR.007, October 2004.
- Reference 9 Provisional A96 Fochabers and Mosstodoch Bypass, Precognition by Dr Owen Harrop, BMT Cordah Ltd Report SCW.018, 2003
- Reference 10 Development Control: Planning for Air Quality, NSCA, November 2004

## **Appendix 1: Figures**



 **The Moray Council**

Date	28th April 2005
Scale	refer to scalebar
Project title	LAQM Progress Report 2005

**Legend**

 Moray Council Boundary

Figure no. 1

Figure title:  
Moray Council Area

BMT Cordah Limited  
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 **BMT CORDAH Ltd**



**Legend**

-  SO2 monitoring sites
-  NO2 monitoring sites
-  PM10 monitoring site
-  Moray Council Boundary

S1: Priory Pl, Elgin  
S2: Spey Dr, Rothes

N1: Elgin 1, Queens St RBT  
N2: Elgin 2, Queens St RBT  
N3: Elgin 3, Main St  
N4: Elgin 4, Priory Pl  
N5: Elgin 5, Main St, New Elgin  
N6: Fochabers 1, High St  
N7: Fochabers 2, Sundach  
N8: Forres 1, Tollboth, Huntly  
N9: Keith 1, 106 Moss St  
N10: Keith 2, 87 Moss St  
N11: Lossie 1, 1 Merryton Court  
N12: Lossie 2, 27 James St

Date	28th April 2005
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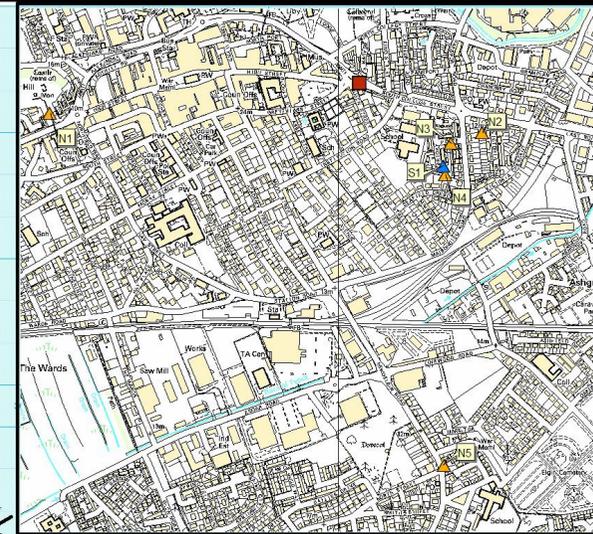
Scale	refer to scalebar
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Project title  
LAQM Progress Report 2005

Figure no. 2

Figure title  
Location of monitoring sites in  
Moray Council

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Doherty Building  
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Website: <http://www.bmtcordah.com>  
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