



2009 Air Quality Updating and Screening Assessment (including Action Plan Progress Report) for South Lakeland District Council

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

July 2009

South Lakeland District Council - England

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Executive Summary

This is the Updating and Screening Assessment for 2009 for South Lakeland District Council. It looks at sources of the pollutants prescribed by the Government in order to identify significant changes since the last round of Review and Assessment. It also shows monitoring data for 2008. Exceedences of the Government objectives are identified and proposed actions detailed.

Air quality in South Lakeland generally remains below the national air quality objectives for the seven prescribed pollutants, with the exception of some locations in Kendal Town centre.

Levels of Nitrogen Dioxide are at, or above, the annual average objective of $40\mu\text{g}/\text{m}^3$ on Lowther Street, Blackhall Road, Kirkland, Longpool and Beezon Road. There were no exceedences of the hourly Nitrogen Dioxide objective of $200\mu\text{g}/\text{m}^3$ in 2008.

Lowther Street is an Air Quality Management Area (AQMA) and will remain unchanged. A Detailed Assessment is being carried out to cover the other locations of concern. This will include modelling the area to predict more accurately the area of exceedence and to enable the Council to consider fully the declaration new AQMA's. The Detailed Assessment will be published following consultation in the summer of 2009.

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1 Introduction

1.1 Description of Local Authority Area

South Lakeland District Council (SLDC) is one of the six non-metropolitan councils forming the county of Cumbria in North West England. SLDC covers an area of 600 square miles. The district encompasses countryside that includes population centres such as Kendal, Ulverston, Ambleside and Windermere, as well as large areas of mountains, lakes, grazing land and coastline. Large parts of the district fall within two National Parks, the Lake District National Park and the Yorkshire Dales National Park. The resident population is about 103,200, but this is substantially increased by tourism – 4.7 million tourists visited the district in 2008. There are some major industrial premises in the district, but the only significant source of pollution identified in previous reports is road traffic.

1.2 Purpose of Report

This report fulfils the requirements of the Local Air Quality Management process as set out in Part IV of the Environment Act (1995), the Air Quality Strategy for England, Scotland, Wales and Northern Ireland 2007 and the relevant Policy and Technical Guidance documents. The LAQM process places an obligation on all local authorities to regularly review and assess air quality in their areas, and to determine whether or not the air quality objectives are likely to be achieved. Where exceedences are considered likely, the local authority must then declare an Air Quality Management Area (AQMA) and prepare an Air Quality Action Plan (AQAP) setting out the measures it intends to put in place in pursuit of the objectives.

1.3 Air Quality Objectives

The air quality objectives applicable to LAQM in England are set out in the Air Quality (England) Regulations 2000 (SI 928), The Air Quality (England) (Amendment) Regulations 2002 (SI 3043), and are shown in Table 1.1. This table shows the objectives in units of microgrammes per cubic metre $\mu\text{g}/\text{m}^3$ (milligrammes 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 England.

Pollutant	Air Quality Objective		Date to be achieved by
	Concentration	Measured as	
Benzene	16.25 $\mu\text{g}/\text{m}^3$	Running annual mean	31.12.2003
	5.00 $\mu\text{g}/\text{m}^3$	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
	40 $\mu\text{g}/\text{m}^3$	Annual mean	31.12.2004
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

South Lakeland District Council has to date produced the following reports as part of the Review and Assessment process:

- Stage I Review & Assessment (1998)
- Stage II & III Review & Assessment (2000)
- Stage IV Review & Assessment & Lowther Street Air Quality Action Plan (2002)
- Stage IV Review & Assessment Sandside AQMA (2003)
- Updating and Screening Assessment 2003
- Progress Report 2004
- Progress Report 2005
- Updating and Screening Report 2006
- Progress Report 2007
- Progress Report 2008

The Stage II & III Assessment identified predicted exceedence of the annual mean objective for Nitrogen Dioxide caused by road traffic on Lowther Street in Kendal and of the annual maximum permitted PM₁₀ exceedences near a limestone quarry at Sandside, Milnthorpe. Air Quality Management Areas (AQMA's) were declared for both areas in 2000 and 2002 respectively. Further assessment resulted in revocation of the Sandside AQMA, as measurement of PM₁₀ levels showed the objective would be met. The Lowther Street AQMA remains in place and a plan of the area is shown in Appendix A.

The 2008 Progress Report identified a general increase in Nitrogen Dioxide levels across South Lakeland in 2007, with levels in Kendal town centre being of particular concern. Using the 2007 measured exceedences it was predicted that 5 new town centre locations outside the existing AQMA would be very close to the annual mean Nitrogen Dioxide objective in 2010. Levels within the AQMA were still predicted to be above the objective. Each of these areas has relevant public exposure. A Detailed Assessment has been commissioned to model Nitrogen Dioxide levels in the problem areas in order to gauge more exactly the extent of the exceedences and aid a decision on possible further AQMA declarations.

2 New Monitoring Data

2.1 Summary of Monitoring Undertaken

2.1.1 Automatic Monitoring Sites

Only one automatic monitoring site runs in South Lakeland. It is not intended that any further stations be installed.

The automatic monitor is located in the basement of a Council building on the windward side of Lowther Street, within the current AQMA. The opposite (leeward) side of the road would be the worst case location according to a Detailed Assessment recently carried out, but the Council has no access to a monitoring location on that side of the road. The street is a narrow street canyon, with very narrow pavements.

The site automatically calibrates itself every 3 days and one hour and is monitored weekly by the Local Authority. Invalid data is removed from the data set. It is serviced and calibrated by the supplier every 6 months. Analyser details and calibration data are shown in Appendix B.

Table 2.1 Details of Automatic Monitoring Site

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 ?
Lowther Street	Roadside	X 351610 Y 492650	NO NO _x NO ₂	Y	Y (0.5)	0.5m	N

2.1.2 Non-Automatic Monitoring

Nitrogen Dioxide (NO₂) diffusion tube monitoring is carried out at 20 locations around the District.

These are supplied and analysed by Gradko International Ltd and deployed by the Local Authority following UK NO₂ Diffusion Tube Network guidance. The tubes are prepared using 20%TAE in water. Gradko state *"Our NO₂ diffusion tube procedures have been amended to follow the guidelines of the DEFRA Harmonisation document related to the preparation, extraction, analysis and calculation procedures for NO₂ passive diffusion tubes. As most of the procedures were already carried out before the introduction of the Guidelines, the amendments are minimal. Our internal analysis procedures are assessed by U.K.A.S. on an annual basis for compliance to ISO17025"* Further data for the laboratory, including WASP results, is shown in Appendix B.

One monitoring site (Middle Lowther Street) consists of three tubes located alongside the automatic monitor described in 2.1.1 (tube reference N11, N13 and N14) to allow calculation of the bias adjustment figure. For 2008 this was 0.84 (calculation of the bias figure is shown in Appendix B). Both this local figure and the national Gradko bias figure of 0.90 (calculated using www.uwe.ac.uk/aqm/review/R&Asupport/diffusiontube050509.xls) are shown in this report (2.2).

Sites are shown below (Table 2.2). Relevant exposure includes residential properties, a school, shops and offices. A distance of '0 m' to relevant exposure indicates the diffusion tube is located on the façade of the building. Where sites with no relevant exposure are used this is due to a lack of available sampling sites in an area (for example no lamp post or drain, or trees overhanging the more suitable location). These are generally located on the opposite side of the road to the receptor as a best available, representative, alternative site.

Site location maps are shown in Appendix C.

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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 ?
N1 Stricklandgate, Kendal	Roadside	351500 492710	NO ₂	N	Y (2)	2	Y
N2 Finkle Street, Kendal	Urban centre	351550 492730	NO ₂	N	Y (1)	47	Y
N3 Levens Close, Kendal	Urban Background	351860 491290	NO ₂	N	Y (6)	2	Y
N4 St Thomas' School, Kendal	Urban Background	351100 493720	NO ₂	N	Y (40)	1	Y
N5 Fountain Street, Ulverston	Roadside	328650 478470	NO ₂	N	Y (0)	1	Y
N6 Cavendish Street, Ulverston	Kerbside	328550 478190	NO ₂	N	N	0.5	Y
N7 Millans Park, Ambleside	Roadside	337560 504460	NO ₂	N	Y (5)	1	Y
N8 Crescent Road, Windermere	Kerbside	341290 498430	NO ₂	N	Y (2)	0.5	Y
N9 Top Lowther Street, Kendal	Roadside	351490 492610	NO ₂	Y	Y (0)	1	Y
N10 Millness, Crooklands	Roadside	353730 482740	NO ₂	N	Y (2)	100	Y
N11, 13 & 14 Middle Lowther Street, Kendal x3	Kerbside	351605 492640	NO ₂	Y	Y (0.5)	0.5	N
N12 Highgate, Kendal	Kerbside	351490 492600	NO ₂	N	Y (0)	0.5	Y
N15 New Road, Kendal	Roadside	351780 492730	NO ₂	N	N	1	Y
N16 Aynam Road, Kendal	Roadside	351710 491940	NO ₂	N	N	1	Y
N17 Kirkland, Kendal	Kerbside	351570 492410	NO ₂	N	Y (3)	0.5	Y
N18 Bowness	Roadside	340340 497010	NO ₂	N	Y (4)	1	Y
N19 Beezon Road, Kendal	Kerbside	351897 493022	NO ₂	N	Y (2)	0.5	Y
N20 Longpool, Kendal	Roadside	351970 493070	NO ₂	N	Y (0.5)	1	Y
N21 Blackhall Road, Kendal	Roadside	351680 492840	NO ₂	N	Y (3)	1.5	Y
N22 Parkside Road, Kendal	Roadside	351772 491843	NO ₂	N	Y (5)	1.5	Y

2.2 Comparison of Monitoring Results with AQ Objectives

South Lakeland District Council has only monitored Nitrogen Dioxide in 2008, as previous reviews have shown other pollutants to be of no concern in the District. There have been no significant developments to change this view.

2.2.1 Nitrogen Dioxide

No exceedences of the hourly mean of $200\mu\text{g}/\text{m}^3$ were monitored at the automatic station in 2008 and the annual mean was slightly below the $40\mu\text{g}/\text{m}^3$ objective.

However, there were several exceedences of the annual mean objective monitored by the diffusion tubes in 2008. These were bias adjusted as discussed (2.1.2 and Appendix B), which resulted in exceedences at two locations: Top Lowther Street (already within an AQMA) and Longpool using the local figure. Using the national figure, three exceedences were seen: Top Lowther Street (AQMA), Longpool and Blackhall Road. Marginal results were seen at three more sites: Middle Lowther Street (AQMA), Kirkland and Beezon Road. All sites are within Kendal town centre.

No annual mean results were above $60\mu\text{g}/\text{m}^3$ (levels above this may indicate exceedences of the hourly mean).

Automatic Monitoring Data

The automatic monitor is located within the AQMA at the façade of office buildings on Lowther Street, where there is the potential for people to be exposed to traffic emissions for several hours of the day. No exceedences of the hourly mean were monitored. The annual mean concentration was fractionally below the objective in 2008. This is an 8.5% decrease on last year's annual mean.

Data capture was only 84% due to a problem with the computer used to download monitoring data – this had to be replaced and one month's (November's) data was lost – and problems with the monitor itself. It may therefore be more representative to use results calculated using the national bias figure for Gradko shown below.

The annual mean is calculated using 1-hourly averages.

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

Site ID	Location	Within AQMA?	Proportion of year with valid data 2008 %	Annual mean concentrations ($\mu\text{g}/\text{m}^3$)		
				2006	2007	2008
A1	Lowther Street	Y	84	41.35	42.67	39.04

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

Site ID	Location	Within AQMA?	Data Capture 2008 %	Number of Exceedences of hourly mean ($200 \mu\text{g}/\text{m}^3$) <i>If the period of valid data is less than 90% of a full year, include the 99.8th %ile of hourly means in brackets.</i>		
				2006	2007	2008
A1	Lowther Street	Y	84	1	0	0 (87)

Diffusion Tube Monitoring Data

Monthly data from which the annual means are calculated is shown in Appendix D. No results were available for the triplicate tubes on Lowther Street in June, as they had turned upside down and filled with water, and 3 other tubes went missing from site through the year.

Table 2.4a Results of Nitrogen Dioxide Diffusion Tubes – Local Bias Adjustment Figure

Site ID	Location	Within AQMA?	Annual mean concentrations ($\mu\text{g}/\text{m}^3$) Adjusted for bias		
			2006	2007	2008
N1	Stricklandgate, Kendal	N	26.55	25.63	24.55
N2	Finkle Street, Kendal	N	23.47	21.09	20.00
N3	Levens Close, Kendal	N	15.08	14.96	13.35
N4	St Thomas' School, Kendal	N	11.63	11.36	11.02
N5	Fountain Street, Ulverston	N	23.33	26.63	22.01
N6	Cavendish Street, Ulverston	N	25.39	23.61	25.01
N7	Millans Park, Ambleside	N	24.32	25.71	24.02
N8	Crescent Road, Windermere	N	24.94	24.50	22.55
N9	Top Lowther Street, Kendal	Y	42.45	44.72	41.60
N10	Milness, Crooklands	N	20.38	22.90	19.81
N11 N13 N14	Middle Lowther Street, Kendal 1, 2 & 3*	Y	41.27	42.56	37.28
N12	Highgate, Kendal	N	33.56	33.18	25.93
N15	New Road, Kendal	N	32.49	33.31	29.78
N16	Aynam Road, Kendal	N	27.46	28.24	27.08
N17	Kirkland, Kendal	N	40.13	38.51	36.33
N18	Bowness	N	26.05	28.20	24.83
N19	Beezon Road, Kendal	N	N/A	42.13	37.20
N20	Longpool, Kendal	N	41.66	44.30	42.56
N21	Blackhall Road, Kendal	N	44.54	43.55	38.05
N22	Parkside Road, Kendal	N	N/A	33.00	28.28

* Mean of triplicate tubes

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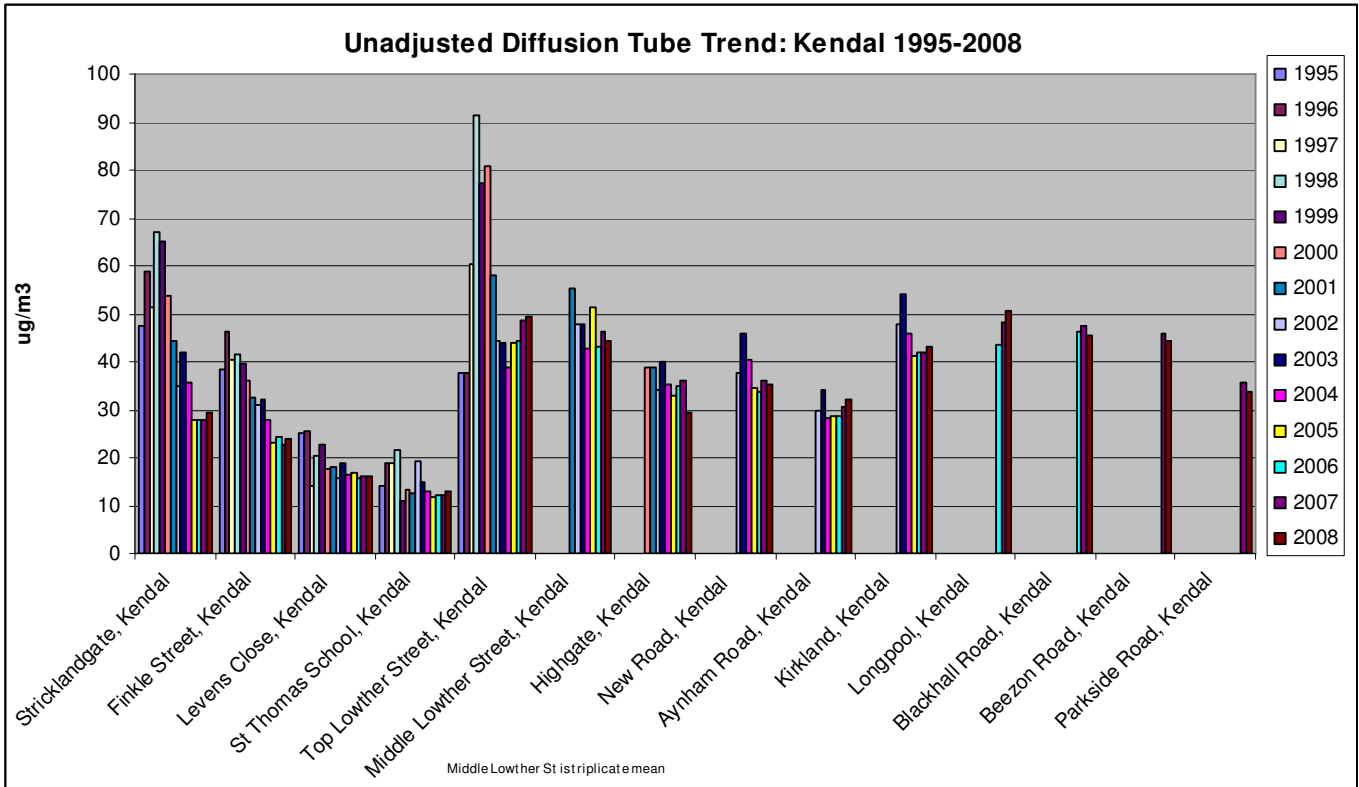
Table 2.4b Results of Nitrogen Dioxide Diffusion Tubes – National Bias Adjustment Figure

Site ID	Location	Within AQMA?	Annual mean concentrations ($\mu\text{g}/\text{m}^3$) Adjusted for bias		
			2006	2007	2008
N1	Stricklandgate, Kendal	N	26.55	24.79	26.30
N2	Finkle Street, Kendal	N	23.47	20.40	21.43
N3	Levens Close, Kendal	N	15.08	14.47	14.31
N4	St Thomas' School, Kendal	N	11.63	10.99	11.81
N5	Fountain Street, Ulverston	N	23.33	25.76	23.58
N6	Cavendish Street, Ulverston	N	25.39	22.84	26.79
N7	Millans Park, Ambleside	N	24.32	24.87	25.74
N8	Crescent Road, Windermere	N	24.94	23.70	24.17
N9	Top Lowther Street, Kendal	Y	42.45	43.26	44.58
N10	Milness, Crooklands	N	20.38	22.16	21.22
N11 N13 N14	Middle Lowther Street, Kendal 1, 2 & 3*	Y	41.27	41.17	39.94
N12	Highgate, Kendal	N	33.56	32.10	27.78
N15	New Road, Kendal	N	32.49	32.23	31.91
N16	Aynam Road, Kendal	N	27.46	27.32	29.02
N17	Kirkland, Kendal	N	40.13	37.25	38.93
N18	Bowness	N	26.05	27.28	26.60
N19	Beezon Road, Kendal	N	N/A	40.76	39.86
N20	Longpool, Kendal	N	41.66	42.86	45.60
N21	Blackhall Road, Kendal	N	44.54	42.13	40.77
N22	Parkside Road, Kendal	N	N/A	31.92	30.29

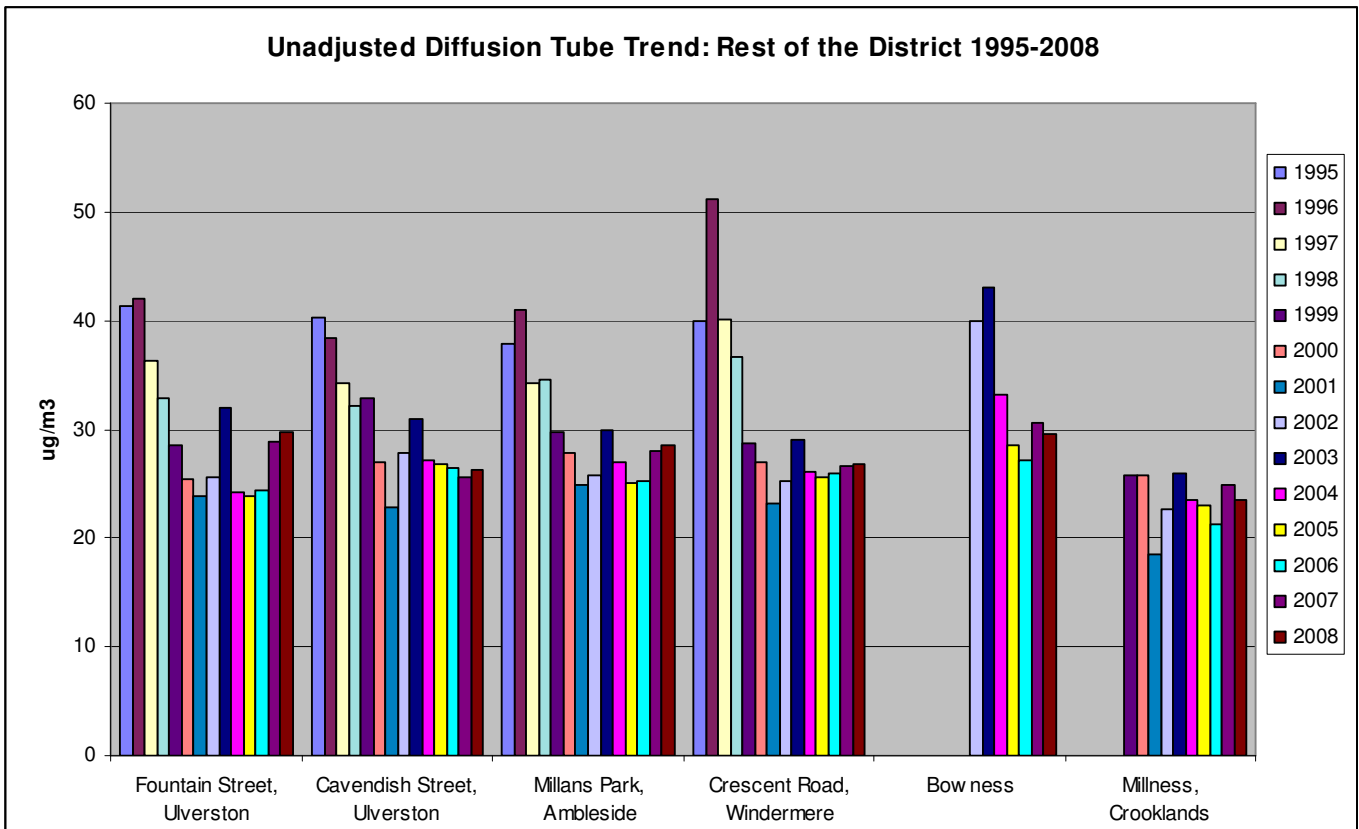
* Mean of triplicate tubes

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Graph 2.1



Graph 2.2



2.2.2 PM₁₀

No PM₁₀ monitoring has been undertaken in 2008.

2.2.3 Sulphur Dioxide

No Sulphur Dioxide monitoring has been undertaken in 2008.

2.2.4 Benzene

No Benzene monitoring has been undertaken in 2008.

2.2.5 Other pollutants monitored

No other pollutants have been monitored in 2008.

South Lakeland District Council has measured concentrations of Nitrogen Dioxide above the annual mean objective at relevant locations outside of the AQMA and **has proceeded to a Detailed Assessment**, for Longpool, Beezon Road, Kirkland (including Highgate) and Blackhall Road, Kendal.

3 Road Traffic Sources

3.1 Narrow Congested Streets with Residential Properties Close to the Kerb

As previously reported, Lowther Street in Kendal is a street canyon, being narrow with high residential and office buildings on each side. This street is heavily congested and has been declared an AQMA due to exceedences of the Nitrogen Dioxide annual mean.

The 2008 Progress Report also identified Longpool / Wildman Street in Kendal as a narrow, congested street, with exceedences of the 40µg/m³ limit and this is currently being assessed as part of a Detailed Assessment to be reported separately.

South Lakeland District Council confirms that there are no new/newly identified congested streets with a flow above 5,000 vehicles per day and residential properties close to the kerb, that have not been adequately considered in previous rounds of Review and Assessment. Previously identified streets are currently being assessed as part of a **Detailed Assessment**.

3.2 Busy Streets Where People May Spend 1-hour or More Close to Traffic

All streets where people may spend more than one hour close to traffic have been assessed in previous reports. There were no significant changes to these streets in 2008.

South Lakeland District Council confirms that there are no new/newly identified busy streets where people may spend 1 hour or more close to traffic.

3.3 Roads with a High Flow of Buses and/or HGVs.

There are no roads identified in South Lakeland with a high proportion of HGV's, and all roads with a high proportion of buses have previously been assessed. No significant changes occurred on these roads in 2008.

South Lakeland District Council confirms that there are no new/newly identified roads with high flows of buses/HDVs.

3.4 Junctions

All busy junctions have been assessed in previous reviews. There are no new junctions to evaluate for 2008.

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Previously identified 'hot-spot' junctions in Kendal town centre are currently being assessed as part of a Detailed Assessment, to be reported separately. These include Longpool / Wildman Street / Beezon Road and Blackhall Road / New Road / Lowther Street.

South Lakeland District Council confirms that there are no new/newly identified busy junctions. Previously identified junctions are currently being assessed as part of a **Detailed Assessment for Nitrogen Dioxide**.

3.5 New Roads Constructed or Proposed Since the Last Round of Review and Assessment

Construction of one new road, the A590 High Newton Bypass, was completed in 2008. As a bypass this merely diverts traffic flow away from a two-way, single lane carriageway passing close to residential properties, onto a dual carriageway further away from the majority of houses (although some properties would be nearer the new road than they were to the old). An air quality assessment was carried out by the Highways Agency looking at NO₂ and PM₁₀. This predicted an aggregate fall in both pollutants with construction of the road. It predicted 89 properties would suffer worse air quality following construction, 105 would have improved air quality and 12 would experience no change. Traffic numbers and the proportion of buses and HGV's have not significantly increased from those using the original road. It has not resulted in an increased traffic flow in any other areas.

South Lakeland District Council has assessed new roads meeting the criteria in Section A.5 of Box 5.3 in TG(09), and concluded that it will not be necessary to proceed to a Detailed Assessment.

3.6 Roads with Significantly Changed Traffic Flows

There are no new or newly identified roads with significantly changed traffic flows requiring assessment.

South Lakeland District Council confirms that there are no new/newly identified roads with significantly changed traffic flows.

3.7 Bus and Coach Stations

There has been no significant change to the number of buses using the principal (worst case) bus station in the District.

South Lakeland District Council confirms that there are no relevant bus stations in the Local Authority area.

4 Other Transport Sources

4.1 Airports

South Lakeland District Council confirms that there are no airports in the Local Authority area.

4.2 Railways (Diesel and Steam Trains)

4.2.1 Stationary Trains

South Lakeland District Council confirms that there are no locations where diesel or steam trains are regularly stationary for periods of 15 minutes or more, with potential for relevant exposure within 15m.

4.2.2 Moving Trains

South Lakeland District Council confirms that there are no locations with a large number of movements of diesel locomotives, and potential long-term relevant exposure within 30m.

4.3 Ports (Shipping)

South Lakeland District Council confirms that there are no ports or shipping that meet the specified criteria within the Local Authority area.

5 Industrial Sources

5.1 Industrial Installations

5.1.1 New or Proposed Installations for which an Air Quality Assessment has been Carried Out

A Combined Heat and Power Plant (CHP) is proposed at James Cropper Plc, a paper mill in Burneside near Kendal. This is regulated by the Environment Agency (reference EA/PPC/BJ7620) as a Part A1 process. The planning process is still underway and an Environmental Impact Assessment (to include air quality) is to be undertaken. The Environment Agency will assess this and it will be taken into account by SLDC in the round of air quality review and assessment which follows its issue.

There are no other installations to be considered within the District and none in neighbouring Authorities which may impact on South Lakeland.

South Lakeland District Council confirms that there are no new or proposed industrial installations for which planning approval has been granted within its area or nearby in a neighbouring authority.

5.1.2 Existing Installations where Emissions have Increased Substantially or New Relevant Exposure has been Introduced

Barrow Borough Council, a neighbouring Authority to the North West of the District, is assessing a gas power station run by Centrica. This is located approximately 1 mile from the Authority's border. Monitoring carried out by the company showed levels of Sulphur Dioxide potentially exceeding the one-hour average objective. The assessment will identify whether the levels are a substantial increase and whether further assessment is required. Barrow Borough Council will inform SLDC of the outcome and this will be reported in subsequent reports.

There are no other installations within the District or in neighbouring Authorities which have increased emissions by more than 30% in 2008 and locations of relevant exposure remain unchanged.

South Lakeland District Council confirms that there are no industrial installations with substantially increased emissions or new relevant exposure in their vicinity within its area or nearby in a neighbouring authority.

5.1.3 New or Significantly Changed Installations with No Previous Air Quality Assessment

Stainton Quarry, Ulverston, a limestone quarry to the north west of the District, recommissioned the site's asphalt coating plant in the summer of 2008. The nearest residential property is approximately 300m from the plant. The site was already regulated by the Local Authority as a Part B installation (reference B14) and the change resulted in a substantial change application to SLDC. As part of this a D1 calculation was carried out and a stack height of 18m was proposed. This has since been installed and extractive monitoring undertaken on commissioning. Continuous monitoring using the plant control system is also undertaken. Emissions of particulates are within the 50mg/m³ limit given in the Roadstone Coating Process Guidance Note and all fuel contains less than 0.1% Sulphur.

No other installations have significantly changed emissions.

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With the exception of James Cropper's CHP application (5.1.1), the Council is not aware of any other new installations proposed within the District or in neighbouring Authorities.

South Lakeland District Council has assessed new/proposed industrial installations, and concluded that it will not be necessary to proceed to a Detailed Assessment.

5.2 Major Fuel (Petrol) Storage Depots

There are no major fuel (petrol) storage depots within the Local Authority area.

5.3 Petrol Stations

South Lakeland District Council confirms that there are no petrol stations meeting the specified criteria.

5.4 Poultry Farms

There is one major poultry farm located in the District at Low Foulshaw Farm, Levens. This has the capacity to house 44,400 birds and has residential accommodation on site. It is regulated by the Environment Agency as a part A1 site (reference EA/PPC/CP3830UJ). The operator advises that living accommodation at the farm is at more than 100m from the poultry houses.

South Lakeland District Council confirms that there are no poultry farms meeting the specified criteria.

6 Commercial and Domestic Sources

6.1 Biomass Combustion – Individual Installations

Investigations have identified no plant burning biomass in units of 50Kw to 20 MW in the District.

South Lakeland District Council confirms that there are no large biomass combustion plant in the Local Authority area.

6.2 Biomass Combustion – Combined Impacts

No areas have been identified in the District where there is significant use of biomass combustion plant. Installation of domestic solid fuel burning appliances is still on a small scale and from dealing with planning applications has been seen to be principally in rural or less built up areas.

South Lakeland District Council confirms that there are no significant biomass combustion plant in the Local Authority area.

6.3 Domestic Solid-Fuel Burning

Areas in the District where open fires are in use have previously been assessed and discounted.

South Lakeland District Council confirms that there are no areas of significant domestic fuel use in the Local Authority area.

7 Fugitive or Uncontrolled Sources

The District has previously been assessed for fugitive emissions and no potential sources identified. No new sources were identified in 2008.

South Lakeland District Council confirms that there are no potential sources of fugitive particulate matter emissions in the Local Authority area.

8 Conclusions and Proposed Actions

8.1 Conclusions from New Monitoring Data

Monitoring in 2008 has shown another annual rise in Nitrogen Dioxide levels across the majority of the District. Only Bowness, Crooklands, Blackhall Road and Beezon Road had reduced levels. However, of all the sites only locations within Kendal town centre were at or above the annual mean Nitrogen Dioxide objective level. These include the sites on Lowther Street (already declared an Air Quality Management Area), Beezon Road, Blackhall Road, Longpool and Kirkland.

8.2 Conclusions from Assessment of Sources

Assessment of new or significantly changed sources has identified no potential exceedences of the Air Quality Objectives and no further action is proposed.

8.3 Proposed Actions

A Detailed Assessment has been commissioned to cover the roads and junctions in Kendal town centre where levels of Nitrogen Dioxide have been monitored above the annual mean objective: Beezon Road, Blackhall Road, Longpool, Kirkland (including Highgate) and Lowther Street. This will be reported separately in the summer of 2009. The outcome of this Assessment will inform whether the AQMA should be extended, or new, individual AQMA's declared to cover the new areas of exceedence. Consultation will be carried out throughout this process and before a final decision is taken.

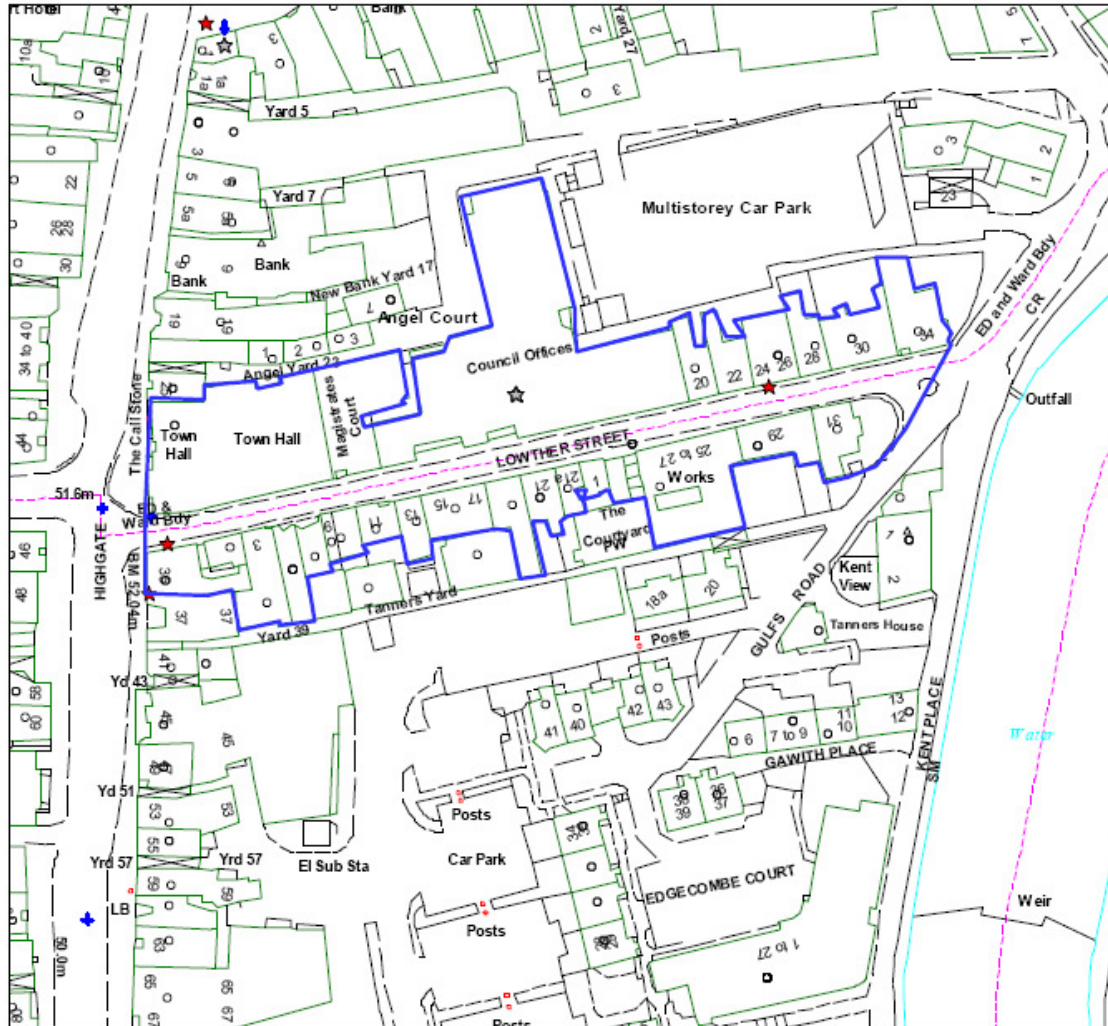
No changes to the Lowther Street AQMA are proposed at this time.

9 References

- Stage I Review & Assessment: SLDC (1998)
- Stage II & III Review & Assessment: SLDC (2000)
- Stage IV Review & Assessment & Lowther Street Air Quality Action Plan: SLDC (2002)
- Stage IV Review & Assessment Sandside AQMA: SLDC (2003)
- Updating and Screening Assessment 2003: SLDC
- Progress Report 2004: SLDC
- Progress Report 2005: SLDC
- Updating and Screening Report 2006: SLDC
- Progress Report 2007: SLDC
- Progress Report 2008: SLDC
- Technical Guidance LAQM.TG(09): Defra, February 2009
- Policy Guidance PG09: Defra, February 2009
- Practice Guidance 1: Economic Principles for the Assessment of Local Measures to Improve Air Quality: Defra, February 2009
- Practice Guidance 3: Measures to Encourage the Uptake of Low Emission Vehicles: Defra, February 2009
- Practice Guidance 4: Measures to Encourage the Uptake of Retro-fitted Abatement Equipment on Vehicles: Defra, February 2009

Appendices

Appendix A: Lowther Street AQMA



Appendix B: QA:QC Data

i) Diffusion Tube Bias Adjustment Factors

Factor From Diffusion Tube Supplier

Diffusion tubes are supplied and analysed by Gradko International, using 20% TEA in water. A bias adjustment factor is calculated using results from all Authorities supplied by Gradko who upload their results to the UWE website.

Year	Bias
2006	0.96
2007	0.89
2008	0.90

Factor from Local Co-location Study

The local bias adjustment factor was calculated using triplicate tubes located alongside the automatic monitor on Lowther Street in Kendal.

Year	Automatic Monitor Annual Mean	Diffusion Tube Annual Mean of 3 Tubes	Bias
2006	41.35	42.99	0.96
2007	42.67	46.26	0.92
2008	39.04	46.63	0.84

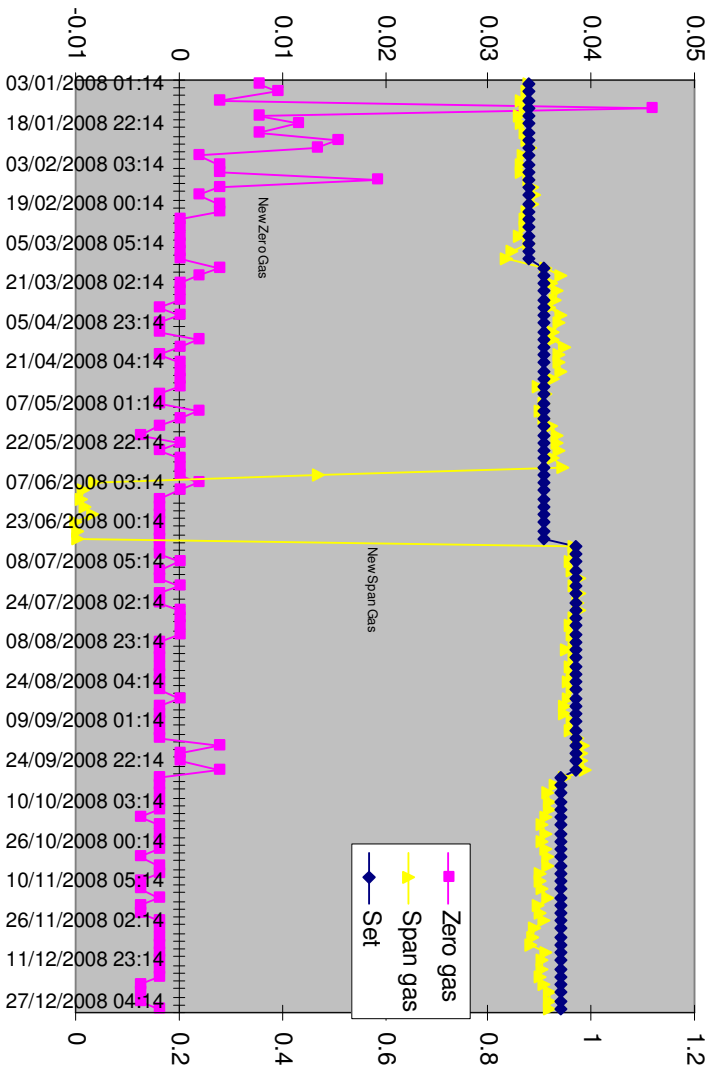
Discussion of Choice of Factor to Use

Given the large difference in the two factors, the results using both factors have been shown in this report. However, the results using the national figure, which predict more areas of exceedence, have been used when deciding which areas to include in the Detailed Assessment.

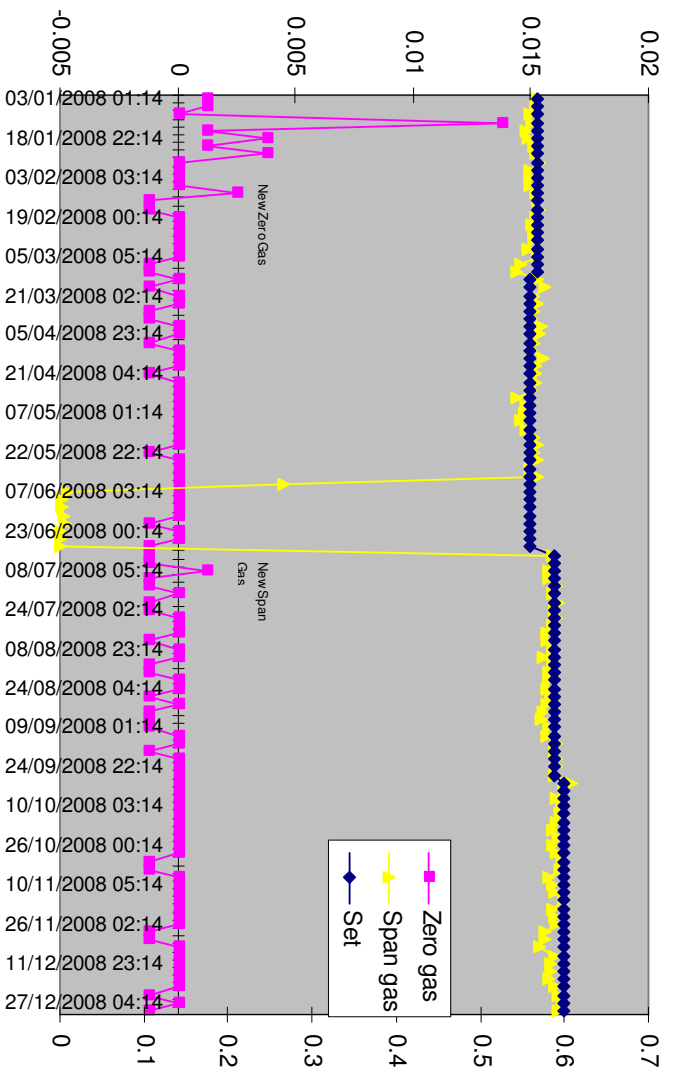
ii) QA/QC of automatic monitoring

South Lakeland District Council has, since 1999, used a US-EPA, TÜV and Netcen-accredited Horiba APN 360 ambient air quality analyser. This is situated in the basement of the Council Offices on Lowther Street, within the AQMA. The analyser is calibrated remotely and the results checked weekly by the Local Authority, with a 6-monthly service visit by the supplier. Access is available to an engineer at short notice if required. A fault with the PC used to log and store the data lead to a loss of data in November 2008, but this did not affect the calibration of the analyser. Calibration graphs for 2008 are shown below.

NOx Calibration Data 2008 - ug/m3



NO Calibration Data 2008 - ug/m3



South Lakeland District Council - England

iii) QA/QC of diffusion tube monitoring

Information supplied by Gradko International:

WASP results for 01.08 to 01.09:

Jan08 Round 100 : Ref Value : 1.36ugNO₂ Measured Value : 1.34 ugNO₂ Z score -0.1 Satisfactory
 1.47ugNO₂ Measured Value : 1.50 ugNO₂ Z score 0.2 Satisfactory

March08 Round 101 Ref Value : 0.92ug NO₂ Measured Value : 0.95ugNO₂ Z Score 0.2 Satisfactory
 Ref Value : 1.86ugNO₂ Measured Value : 1.85ugNO₂ Z Score 0 Satisfactory

July 08 Round 102 Ref Value : 1.37ugNO₂ Measured Value : 1.42ugNO₂ Z Score 0.3 Satisfactory
 Ref value : 2.28ugNO₂ Measured Value : 2.21ugNO₂ Z score -0.2 Satisfactory

Jan09 Round 104 Ref Value : 2.02ugNO₂ Measured Value : 1.85ugNO₂ Z Score -0.7 Satisfactory
 Ref Value : 1.22ug NO₂ Measured Value : 1.21ugNO₂ Z Score -0.1 Satisfactory

Precision for 2008:

Checking Precision and Accuracy of Triplicate Tubes



Diffusion Tubes Measurements									
Period	Start Date dd/mm/yyyy	End Date dd/mm/yyyy	Tube 1 µg m ⁻³	Tube 2 µg m ⁻³	Tube 3 µg m ⁻³	Triplicate Mean	Standard Deviation	Coefficient of Variation (CV)	95% CI of mean
1	03/01/2008	30/01/2008	146.8	145.9	149.9	148	2.1	1	5.2
2	30/01/2008	27/02/2008	120.2	116.2	121.0	119	2.6	2	6.3
3	27/02/2008	02/04/2008	114.4	114.0	115.8	115	0.9	1	2.3
4	02/04/2008	30/04/2008	121.4	119.0	121.9	121	1.5	1	3.8
5	30/04/2008	29/05/2008	119.7	116.4	113.2	116	3.3	3	8.1
6	29/05/2008	03/07/2008	89.9	106.0	113.6	103	12.1	12	30.1
7	03/07/2008	01/08/2008	123.6	137.9	116.9	126	10.8	9	26.7
8	01/08/2008	03/09/2008	136.5	133.5	132.1	134	2.2	2	5.6
9	03/09/2008	01/10/2008	91.4	90.2	99.8	94	5.3	6	13.1
10	01/10/2008	29/10/2008	114.2	132.5	110.3	119	11.8	10	29.4
11	29/10/2008	03/12/2008	105.0	107.6	103.7	105	2.0	2	4.9
12	03/12/2008	07/01/2009	106.2	107.0	103.5	106	1.9	2	4.6
13									

It is necessary to have results for at least two tubes in order to calculate the precision of the measurements

Automatic Method		Data Quality Check	
Period Mean	Data Capture (% DC)	Tubes Precision Check	Automatic Monitor Data
130	99.4	Good	Good
138	98.7	Good	Good
117	99.2	Good	Good
120	99.4	Good	Good
100	95	Good	Good
106	99.6	Good	Good
126	99.4	Good	Good
128	98.4	Good	Good
108	99.4	Good	Good
138	99	Good	Good
90	99.2	Good	Good
88	99.5	Good	Good

Overall survey -->

Good precision Good Overall DC

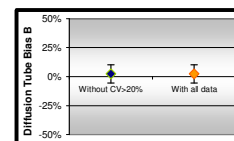
(Check average CV & DC from Accuracy calculations)

Site Name/ ID: Gradko 20% TEA/water - F.I. 2008

Precision 12 out of 12 periods have a CV smaller than 20%

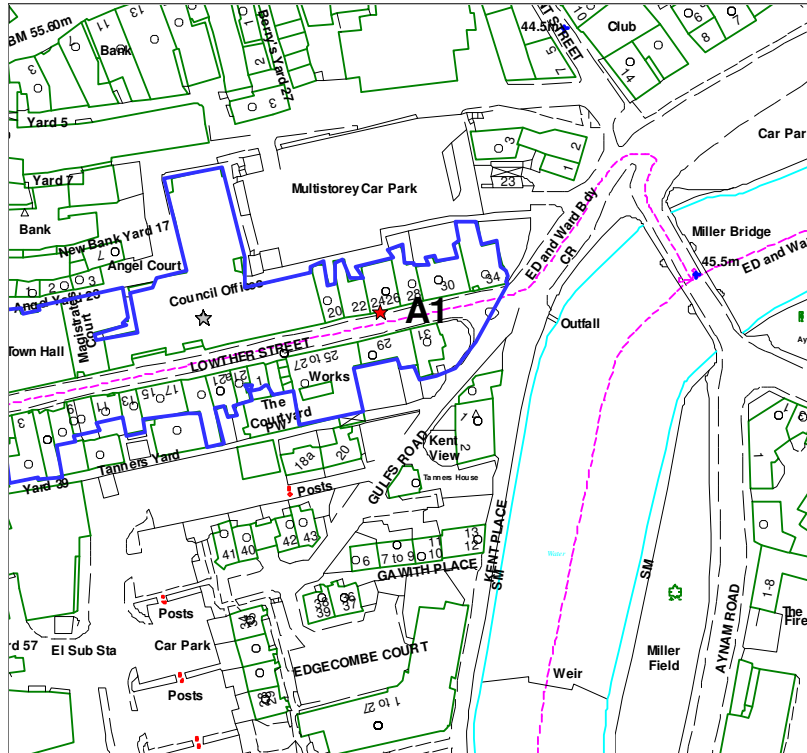
Accuracy (with 95% confidence interval)	
without periods with CV larger than 20%	
Bias calculated using 12 periods of data	
Bias factor A	0.99 (0.92 - 1.07)
Bias B	1% (-7% - 9%)
Diffusion Tubes Mean:	117 µg m ⁻³
Mean CV (Precision):	4
Automatic Mean:	116 µg m ⁻³
Data Capture for periods used:	99%
Adjusted Tubes Mean:	116 (108 - 125) µg m ⁻³

Accuracy (with 95% confidence interval)	
WITH ALL DATA	
Bias calculated using 12 periods of data	
Bias factor A	0.99 (0.92 - 1.07)
Bias B	1% (-7% - 9%)
Diffusion Tubes Mean:	117 µg m ⁻³
Mean CV (Precision):	4
Automatic Mean:	116 µg m ⁻³
Data Capture for periods used:	99%
Adjusted Tubes Mean:	116 (108 - 125) µg m ⁻³

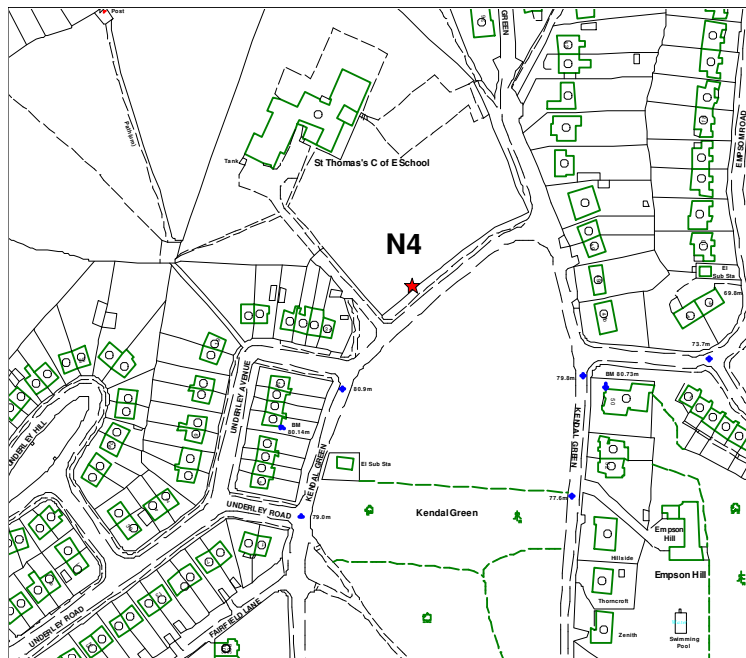


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 Version 03 - November 2006

Appendix C: Monitoring Locations

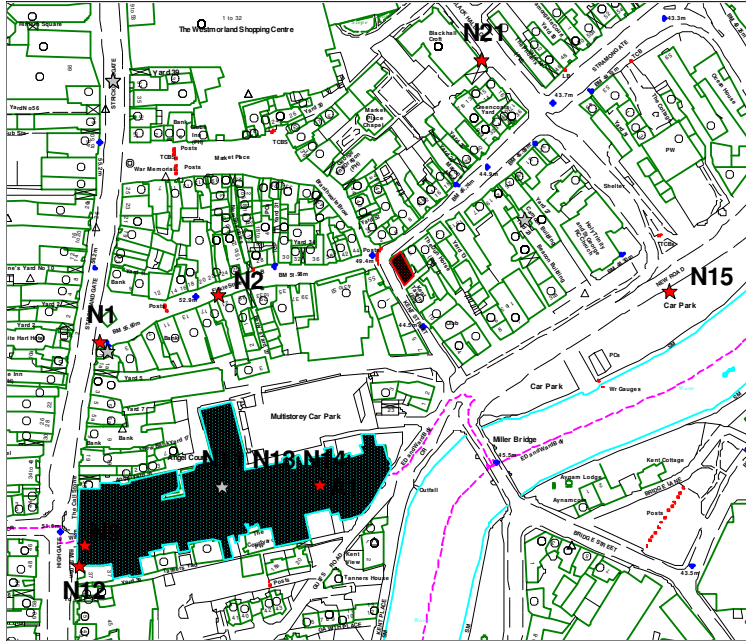


Automatic Monitor, Kendal - A1

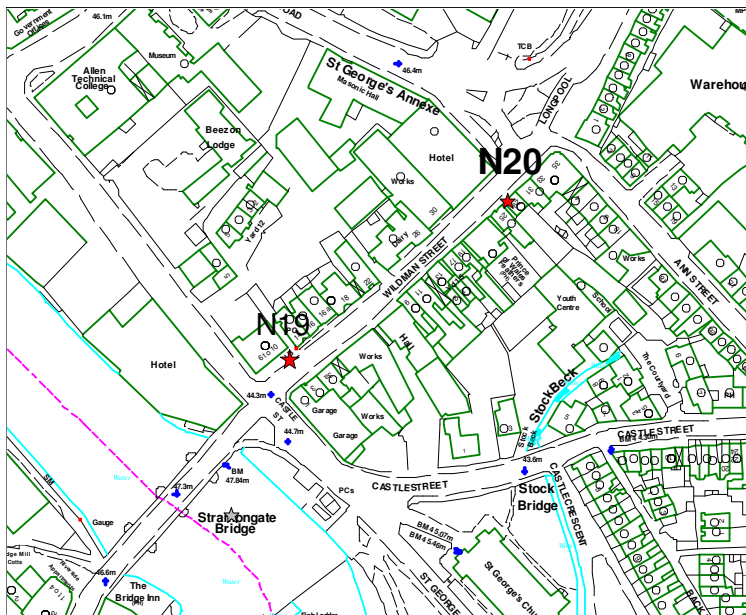


Kendal North – N4

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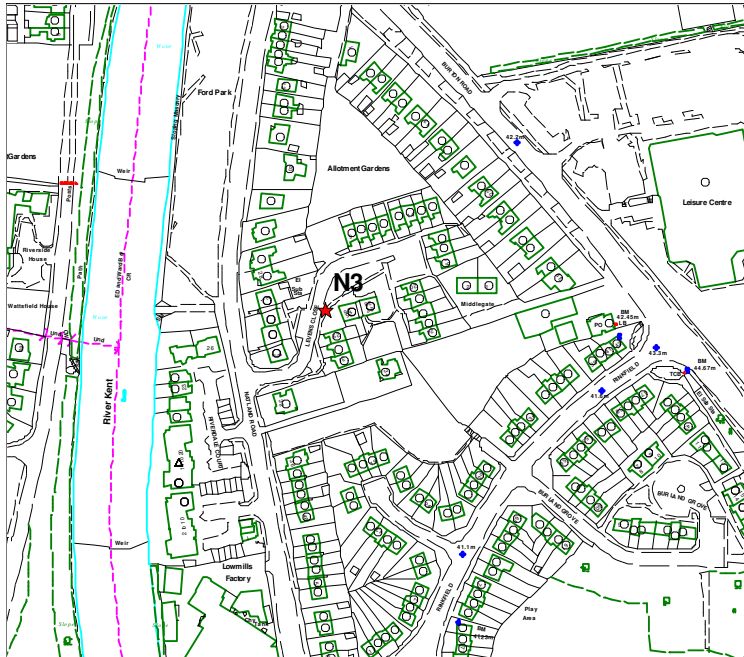


Kendal Central 1 – N1, N2, N9, N11, N12, N13, N14, N15, N21

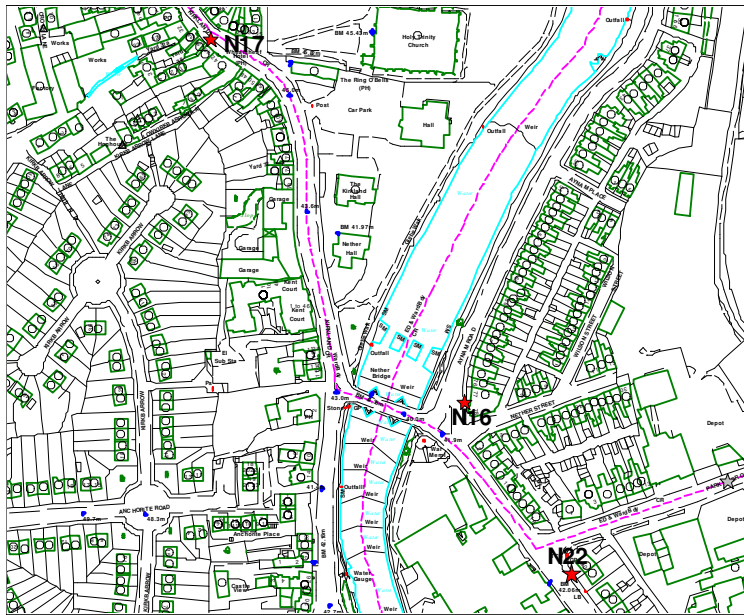


Kendal Central 2 – N19, N20

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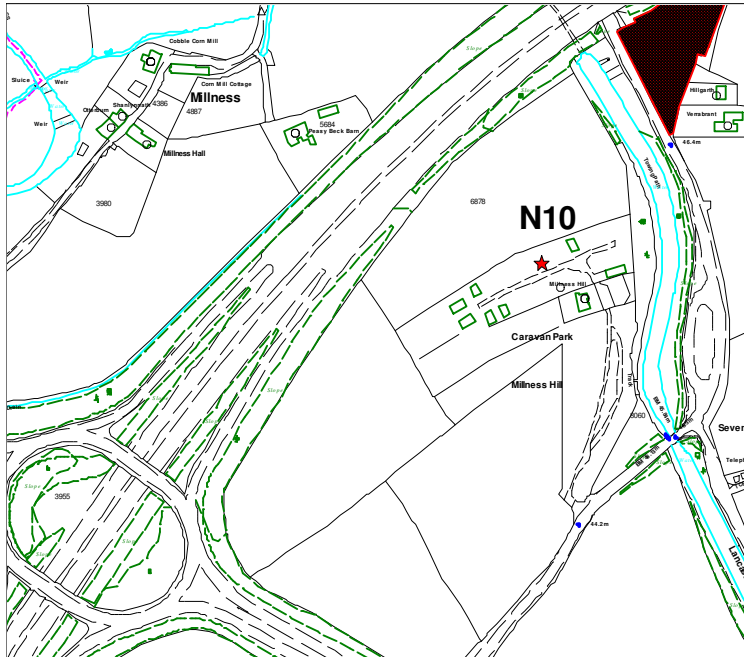


Kendal South 1 – N3

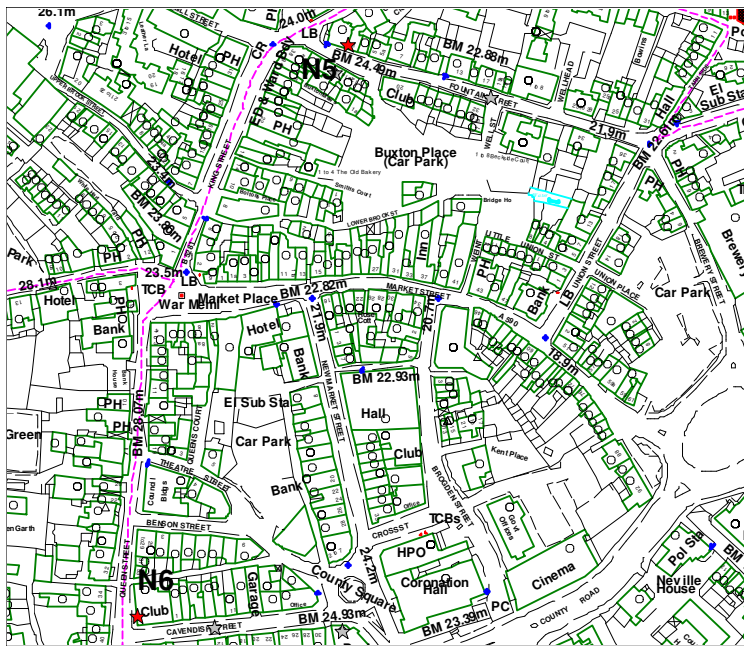


Kendal South 2 – N16, N17, N22

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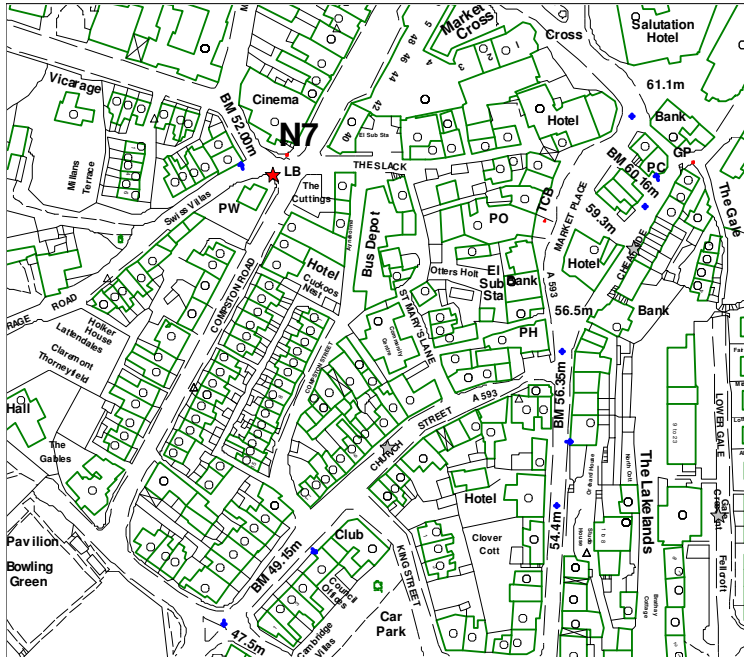


Crooklands / M6 – N10



Ulverston – N5, N6

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Ambleside – N7

Appendix D: Monthly Diffusion Tube Results

	N1	N2	N3	N4	N5	N6	N7	N8	N9	N10	N11
Month Ending	Stricklandgate	Finkle St.	Levens Close	St Thomas' School	Fountain St.	Cavendish St.	Millans Park	Crescent Rd.	Top Lowther Street	Crooklands	Middle Lowther Street 1
31.01.08	37.18	24.56	17.48		29.14	27.63	30.28	20.32	53.88	26.34	38.11
27.02.08	42.24	33.13	24.22	22.87	37.74	39.97	33.48	29.16	48.88	33.07	56.11
02.04.08	26.83	19.76	13.35	10.27	24.37	22.04	26.92	20.26	40.65	22.05	42.39
30.04.08	29.83	22.56	14.07	11.71	29.70	23.71	28.88	19.56	50.94	19.19	41.77
28.05.08	25.71	19.27	10.77	9.10	31.81	28.27	26.19	17.49	59.38	16.74	49.43
01.07.08	21.57	16.95	10.01	7.31	23.56	21.08	24.78	23.77	44.23	19.65	
30.07.08	18.39	17.13	9.56	7.48	24.86	21.56	25.88	26.64	48.24	17.08	32.30
03.09.08	27.72		11.13	8.86	24.53	22.73	29.52	31.42	48.47	19.60	45.18
01.10.08	23.95	22.99	12.12		25.49	21.41	26.08	31.42	40.63	23.23	50.65
29.10.08	27.07	22.91	12.85	11.68	26.71	22.05	29.16	26.81	47.47	24.31	49.45
03.12.08	31.71	30.02	21.96	15.95	36.19	27.17	26.61	29.90	50.31	26.55	54.33
07.01.09	38.50	32.62	33.25	25.98	43.14	36.79	35.42	45.46	61.27	35.17	64.44

	N12	N13	N14	N15	N16	N17	N18	N19	N20	N21	N22
Month Ending	Highgate	Middle Lowther Street 2	Middle Lowther Street 3	New Road	Aynam Road	Kirkland	Bowness	Beezon Road	Longpool	Blackhall Road	Parkside Road
31.01.08	31.77	45.68	43.70	24.97	36.94	52.33	25.27	54.11	57.14	48.76	33.81
27.02.08	39.89	51.76	52.11	44.57	44.39	55.89	35.68	49.06	63.10	47.23	42.99
02.04.08	25.62	41.59	42.44	32.98	22.70	41.02	21.93	43.28	39.30	47.45	27.02
30.04.08	35.60	44.13	41.65	33.98	31.95	39.61	32.07	44.65	43.67	41.42	24.27
28.05.08	46.80	47.00	46.56	29.82	31.63	35.19	28.32	40.20	55.25	33.70	31.77
01.07.08	30.72			27.88	33.26	38.41	27.35	44.54	46.75	43.40	29.50
30.07.08	29.37	45.72	38.83	30.68	20.49	36.60	31.54	36.59	52.08	31.88	29.35
03.09.08	35.57	45.35	44.63	31.96		41.71	36.52	40.99	51.40		
01.10.08	36.06	37.78	36.50	35.74	33.08	32.59	30.30	33.60	39.38	50.36	33.50
29.10.08	37.61	45.43	45.15	36.05	31.59	44.76	28.58	47.85	49.10	39.84	30.77
03.12.08	41.15	53.57	56.87	41.74	22.57	46.86	25.59	47.45	52.34	56.34	41.39
07.01.09	53.64	57.09	60.26	55.06	46.00	54.02	31.53	49.11	58.47	57.93	45.90

Appendix E: Lowther Street AQMA Action Plan Progress Report

South Lakeland District Council is required by Part IV of the Environment Act 1995 to work towards the air quality objectives contained within the legislation. This Action Plan is produced to show what the Council is doing to achieve this.

The Lowther Street Air Quality Management Area Action Plan Progress Report has been reviewed in 2009 and this review has been included in consultation on the Updating and Screening Assessment 2009.

The new version of the Action Plan has taken into account Defra's comments following consultation on the 2008 Progress Report, as well as removing any actions completed in previous years and actions which are no longer to be used. It includes some new actions aimed at reducing Nitrogen Dioxide within the AQMA, Kendal as a whole and the District in general. The combined impact of the actions on Nitrogen Dioxide levels in the AQMA in 2008 is shown in the graphs and tables in section 2.2.1 above. The nature of the actions makes it difficult to quantify the impact on NO₂ levels of each individually. Any targets in place have been included and progress towards meeting these new targets will be reported in subsequent assessments.

KEY:

SLDC EP = South Lakeland District Council Environmental Protection Group

SLDC CS = South Lakeland District Council Community Services

SLDC SE = South Lakeland District Council Social Enterprise

SLDC HR = South Lakeland District Council Human Resources

SLDC DP = South Lakeland District Council Development Plans

SLDC DC = South Lakeland District Council Development Control

CCC = Cumbria County Council

VOSA = Vehicle & Operator Services Agency

KDCS = Kendal & District Cycle Scene

CT = Cumbria Tourism

SLACC = South Lakes Action on Climate Change

FoLD = Friends of the Lake District

LTP = Local Transport Plan

Timescale:

Short Term = 2009/10

Long Term = After 2010

South Lakeland District Council - England

A: LOCAL IMPACT – AQMA & KENDAL					
OPTION		LEAD ROLE	TIMESCALE	TARGET	PROGRESS TOWARDS TARGET
A1.	Encouraging and implementation of Better Ways to School	CCC	Short Term	100% of Kendal schools to have Travel Plan by 2010.	Presently just less that 100% of schools in Kendal have Travel Plans (see www.bwts.net) - only one school still to implement – so on target. Cycle training is provided for Years 3,4,5/6 & 7 pupils. Primary school children receive pedestrian training. Survey of cycle parking at schools completed annually.
A2.	Increased cycle network provision	CCC SLDC DP	Long Term	Kendal Cycle Network Action Plan to be implemented by 2012. Increase no. trips by bike by 10% by 2012.	The Kendal Cycle Network Action Plan (KC NAP) sets out a range of measures to be implemented over the next 5 years to provide a fully integrated network of routes through and accessing the town centre. Work on canal towpath and cycle route through town completed in early 2009. Submission made to Cycling England for Kendal to be a Cycle Demonstration Town was unsuccessful. To reapply during next round. Based around a cordon of cycle counts on the key routes into the town centre, a detailed monitoring exercise is carried out over a two-week period each year. This is used to determine whether the Local Transport Plan for cycling is being met and will enable a better understanding of the needs of local residents. LDF Core Strategy seeks to work with CCC to integrate links with cycleways into new development and improve visitor attraction accessibility by bike. Developer contributions sought to fund cycle paths and access as part of Travel Plans.
A3.	Public transport provision & promotion & provision of public transport information / timetables	Transport providers CCC SLDC DP	Ongoing	Increase bus patronage to 18m by 2011. Electronic timetabling to be installed in Kendal by 2010 Increase bus satisfaction levels by >6% by 2009/10	New Bus Shelters erected on Stricklandgate. Programme being devised for improved facilities at stops within the town through the Kendal Transport Plan - to be implemented as funding allows. Network of town bus services requires financial support. Routes normally provided by Low Floor / easy access buses. Bus usage rose due to free concessionary transport, but still well below levels achieved prior to 2001. Potential for improved frequency is low without new funding sources. Developer contributions will be sought through LDF to aid this. CCC provides information through leaflets, timetable poster inserts, bus stops, Traveline and website. This is a requirement of the LTP and the Public Transport Information Strategy. Electronic timetabling to be installed at strategic points in the longer term. A Place Profile report by the Local Futures Group in January 2009 showed South Lakeland to be in the bottom 40% of Districts nationally on levels of connectivity to intercity rail, motorways & transport, with the proportion of people travelling to work by public transport being 2.95% (2001 figures).

South Lakeland District Council - England

A4.	Park and Ride scheme for Kendal	CCC	Long Term	No target available	<p>A car parking study undertaken in 2008 for SLDC concluded that provision of a single P&R site is not viable.</p> <p>The creation of a number of smaller sites will be looked at with the use of existing car parks of commercial and leisure developments being considered at times when not required. In order to help fund the sites and the required complementary measures to bring about new or improved bus services or improved access on foot to the town centre, contributions will be sought through the planning process as part of new developments.</p> <p>The 'Kendal Clipper' is a vintage bus funded by the Town Council and local businesses (asking for user contributions), which runs for 6 weeks in the summer as a mini Park and Ride to transport people from Romney Road and the Leisure Centre into the town centre. In 2008, 2,832 customers used the service (although it is not known whether these people would otherwise have driven into Kendal). In future years it will be operated by the new 'K Village' as part of their planning consent and it is hoped that an electric bus will replace the existing diesel. The service is likely to run every 30 minutes from the new 350-place car park.</p>
A5.	Incorporate Air Quality as a key decision in the LDF	SLDC DP	Short Term	Publication of LDF Core Strategy by April 2010	<p>Air Quality is now a key decision in SLDC's LDF. The main document of the LDF, the Core Strategy, is scheduled to be adopted in April 2010. The South Lakeland Local Development Framework (LDF) will seek to secure opportunities for people to use more sustainable forms of transport, including working with CCC to integrate links with cycle-ways and footpaths into new development and improve visitor attraction accessibility by foot and cycle.</p> <p>As part of planning applications and under the proposed Core Strategy, Travel Plans are requested for all major developments in Kendal. Core Strategy will seek developer contributions towards increasing frequency of bus services. It is a key planning objective to ensure services are accessible by public transport.</p> <p>An assessment of transport in Kendal was undertaken on behalf of SLDC's LDF team to inform their proposals for the location and nature of new development.</p> <p>This hi-lighted current problems with capacity at a number of junctions in Kendal which would be over capacity in future years even without the development proposals in the LDF, confirming the findings of the EP Group's air quality monitoring and modelling. It recommended reduction of the number of development sites proposed, as well as junction improvements to deliver a reduction in congestion and delay (signalisation of Station Road roundabout (Longpool) and Kendal Inner Relief Road proposals are of particular interest). These proposals are currently being considered and will require inclusion in the KTP and assessment for air quality impacts prior to any implementation.</p>

South Lakeland District Council - England

A6.	Encouraging and implementing Kendal Work Travel Plan, including Work Travel Plan at SLDC	SLDC CS CCC	Long Term	SLDC Travel Plan in place by March 2010. Increase proportion of employees covered by Travel Plan by 6% by 2012	Kendal Work Travel Plan unlikely to go ahead without funding, but this may be available through developer contributions under LDF proposals following transport assessment (see A5). CCC has a Travel Plan Co-ordinator in place who is available to assist any organisation wishing to develop a Travel Plan throughout Cumbria. Westmorland General Hospital and CCC have completed Travel Plans for Kendal sites, both now require a review. Cycle Scheme in place for CCC. Climate Change Officer appointed at SLDC in June 2008. Green Travel Plan for SLDC to be developed by March 2010. Adhoc travel actions taking place before then including promoting Cumbria Liftshare and introducing Cycle to Work scheme. Cycle Scheme to be implemented for SLDC in June 2009.
A7.	Development of a Kendal Car Club	SLDC CS, SLACC, FoLD and others	Short Term	Car Club to be established by Sep 09	Assessing feasibility and interest in shared car ownership through a Car Club in Kendal. Survey open to residents June/July. Results due August.
A8.	Lobbying of County Council Highways Authority to ensure traffic flow down Lowther Street reduced	SLDC EP CCC	Ongoing	At least one meeting annually between SLDC & CCC representative	Ongoing liaison with CCC in implementation of Kendal Transport Plan (KTP). Response made to all consultation documents emphasising air quality issues (although it appears that the EP Group was omitted from consultation on changes to the road system in Kendal taking place in 2009 – to be reported in 2010 report). Representative attends AQ Steering Group. One representative is now point of contact for all Cumbrian Authorities. LTP 3 for Cumbria to be produced by December 2009.
A9.	SCOOT control	CCC	Short Term	Scoot to be installed by December 2009	Erroneous data provided in previous years – not yet installed in Kendal Town Centre. Existing signals in Kendal to be connected to SCOOT system as part of 2008/09 bid. Joint SLDC / CCC venture to have wireless network linking signals and CCTV to help monitor congestion. CCC to facilitate real time NOx monitoring whilst maximising SCOOT control.
A10.	Implementation of workplace charging schemes in Kendal	CCC	Long Term	No target available	No progress. Undertaken at Westmorland General Hospital, but no further charging schemes currently proposed.

South Lakeland District Council - England

A11.	Alterations to town centre parking provision and pricing	SLDC DP SLDC SE	Long Term	No target available	<p>Review of car parking in Kendal undertaken by consultants for Kendal Futures (Kendal regeneration group) & SLDC DP in 2008. This concluded that adequate parking spaces were available in the short term, but recommended provision of more free parking places through: enforcement of restrictions in car parks and on street; restricting CCC & SLDC free permits; increasing the price of parking permits; implementing travel plans.</p> <p>In the longer term it advises implementation of Pay by Phone, new car parks on Maude Street and Beezon Fields and a new floor on top of Blackhall Road multi-storey.</p> <p>Free coach parking and a drop off point on Highgate were also recommended.</p> <p>Kendal Futures are likely to produce a car parking strategy and lobby SLDC to action the recommendations of this report.</p>
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South Lakeland District Council - England

B: REGIONAL IMPACT – AQMA, KENDAL & DISTRICT					
OPTION	LEAD ROLE	TIMESCALE	TARGET	PROGRESS TOWARDS TARGET	
B1.	Increased provision of air quality information to public	SLDC EP	Ongoing	Air Quality leaflet to be produced by December 2009	Use is made of local newspaper to report on air quality issues & developments. All air quality-related reports and annual results available on SLDC website.
B2.	Use of Local Air Pollution Control to control and restrict industrial emissions to air	SLDC EP	Ongoing	100% part B inspection rate annually	92% inspection rate in 2008/09. Environmental Permitting legislation now covers all Part B processes in South Lakeland. Environment Agency regulate all Part A installations.
B3.	Use of Local Air Pollution Control to encourage alternative fuel provision on forecourt	SLDC EP	Ongoing	No target	Planning applications for installation of LPG tanks encouraged, providing no adverse effects expected. No commercial planning applications in 2008, although there was one private application. Encouraged during LAPPC inspection visits of Petrol Filling Stations.
B4.	Lobbying of Government to create national policy to encourage and facilitate use of greener forms of transport	SLDC EP	Ongoing	No target	Generally through consultations.
B5.	Lobbying of Government to create policy to encourage and facilitate use of cleaner vehicle fuels.	SLDC EP	Ongoing	No target	Generally through consultations.
B6.	Lobbying of Government to implement national traffic reduction measures	SLDC EP	Ongoing	No target	Generally through consultations.
B7.	Local travel initiatives	SLACC & others	Short Term	No target	Staveley GTI initiative promoting more sustainable travel for Staveley residents, including transport to Kendal. Results expected Sep 2009. Series of talks and events around greener transport running in 2009.
B8.	Support of events promoting non-car travel (eg. Liftshare Day, Bike Week and Car Free Day / In Town Without My Car)	SLDC	Short Term	Information on events & schemes to be put on SLDC website by September 2009	Ongoing promotion of initiatives.
B9.	Promotion of use of alternative fuels in vehicles (eg. LPG, LSD, electricity, hybrid)	SLDC EP	Ongoing	To have relevant information on SLDC website by September 2009	General reliance on Government campaigns, which will be publicised by SLDC.

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B10.	Improving SLDC fleet efficiency & maintenance	SLDC CS	Ongoing	Green fleet review completed by December 2009	35 SLDC staff members have undertaken a fuel-efficient driving course. It is hoped that this will be rolled out across the Council, starting with the drivers of fleet vehicles. SLDC Carbon Management Programme Carbon Reduction Plan 2009 requires a 5% reduction in SLDC fleet mileage annually. Green fleet review underway for business use & <3.5T fleet vehicles.
B11.	Increasing use of alternative fuels in SLDC fleet vehicles	SLDC CS	Ongoing	All new vehicles bought from 2009 to be Euro 5	All SLDC refuse vehicles now run on ultra low sulphur diesel and are fitted with EminoX CRT filter systems for PM ₁₀ , CO, NO _x & HC. 7.5 –32 T trucks now fitted with CRT. All trucks are Euro 3 and have reduced pollution certification. All new vehicles bought until 2009 were Euro 4 and have to meet emission targets using selective catalyst reduction (fuel additive) or exhaust gas recirculation, depending on the vehicle. After this date they will be Euro 5.
B12.	Review of SLDC car user scheme / leasing policy	SLDC HR	Short Term	Staff car park pass policy in place by March 2010 Business travel and essential car user allowance policy in place by March 2010	This is still occurring through a complete review of parking & permits. SLDC Carbon Management Programme Carbon Reduction Plan 2009 requires a 5% reduction in SLDC fleet and business mileage annually.
B13.	Encouragement of / increase in Vehicle & Operator Services Agency (VOSA) emission testing (cars/taxis/buses/HGV'S)	VOSA SLDC EP	N/A	N/A	Decision taken by VOSA to stop roadside emission testing. Action will be removed from next update.
B14.	Cycling promotion	CCC KDCS SLDC CS CT Sustrans SLACC	Ongoing	Kendal Cycle Network Action Plan to be implemented by 2012. SLDC Cycle to Work Scheme in place by June 2009. 10% increase in cyclists using Kendal route by 2012.	The County Council is in the process of implementing a Cycle Development Action Plan, which includes actions to promote cycling through health, cycle tourism and events. Kendal lies on National Cycle Network route 6 and the Walney to Wear route and is seen as a location where cycle tourism investment should be directed to develop the town's role as a hub. Sustrans is working closely with CT, CCC & SLDC on a number of schemes. Week long Cyclefest in Kendal June 2009 promoting cycling run by SLACC & promoted by SLDC. Key planning objective to ensure services accessible by cycle and foot. CCC introduced the Government's Cycle to Work Scheme for it's staff in 2008. SLDC Scheme to be implemented in 2009.