



West Lothian
Council

2014 Progress Report for *West Lothian Council*

Non Technical Summary



Local Air Quality Management (LAQM) in West Lothian

Air Quality Objectives

The air quality objectives applicable to LAQM in Scotland are set out in the [Air Quality \(Scotland\) Regulations 2000](#) and the [Air Quality \(Scotland\) \(Amendment\) Regulations 2002](#), and are shown in [Table 1, Appendix A](#). This table shows the objectives for a number of pollutants in units of microgrammes per cubic metre ($\mu\text{g}/\text{m}^3$) (or milligrammes per cubic metre (mg/m^3) for Carbon Monoxide) with the number of exceedences in each year that are permitted (where applicable).

All local authorities are required to regularly review and assess air quality in their areas against objectives for a number of air pollutants of particular concern for human health.

The regulations require the local authority to undertake a Progress Report every year, except every 3rd year when an Updating and Screening Assessment (USA) is needed. The Progress Report, which has recently been completed, reviews air quality to the end of 2013.

Where exceedences of any air quality objectives 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.

Monitoring in Broxburn during 2010 resulted in an AQMA being declared on 29th March 2011 for exceedences of annual average objectives for fine particulates (PM_{10}) and Nitrogen dioxide (NO_2). The subsequent Air Quality Action Planning process seeking to improve air quality and working towards meeting the objectives is ongoing. Further information on the AQMA including the geographical boundary can be viewed at www.westlothian.gov.uk/law-licensing/1101/airquality2/broxburnaqma.

Air Quality Monitoring

During the reporting period, there were three automatic monitoring sites in West Lothian. (The Linlithgow site was moved on the recommendation of the Scottish Government to a worst case location within Linlithgow High Street during 2013):

- East Main Street Broxburn;
- High Street Linlithgow (old then new site); and
- Newton Main Street.

These sites are included in the Scottish Government's Scottish Air Quality database for Scotland and the Scottish Air Quality Website. Data and information on the monitoring sites can be viewed at www.scottishairquality.co.uk

All three sites are roadside locations, which monitor PM_{10} and NO_2 which are the main pollutants associated with road traffic.

West Lothian Council has continued monitoring NO_2 with passive diffusion tubes. The diffusion tube survey comprises a total of 20 sites around the district and includes both roadside and urban background locations.

Sources of Air Pollution

The main source of air pollution is associated with road traffic. Both the pollutants PM_{10} and Nitrogen dioxide are by-products of the petrol and diesel engines. Proportionally, heavy-duty vehicles (buses and Heavy Goods Vehicles (HGVs)) contribute greater emissions of PM_{10} and NO_2 than cars. All three roadside monitoring stations are therefore directly measuring road traffic pollution.

Comparison with Air Quality Objectives

A comparison with the Air Quality Objective values is shown graphically in the attached [Appendix B](#). The graphs show the PM₁₀ and NO₂ data results from the automatic monitoring stations.

The NO₂ diffusion tube screening survey has not indicated any potential exceedence of the air quality objectives other than in Linlithgow High Street.

Main findings of the Progress Report

The Progress Report has highlighted that monitoring data from the station located at East Main Street Broxburn, within the declared AQMA, in 2013 is below the annual Air Quality Objectives for PM₁₀ and NO₂. The AQMA will remain but will be reviewed in the 2015 Updating and Screening Assessment. Newton exceeded the annual Air Quality Objective for PM₁₀.

Conclusion

A need was identified to proceed to a Detailed Assessments for Linlithgow High Street and Newton Main Street.

Monitoring will continue for both PM₁₀ and NO₂ concentrations at all three automatic monitoring sites and at all existing diffusion tube sites.

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Appendix A

Table 1 Air Quality Objectives included in Regulations for the purpose of Local Air Quality Management in Scotland.

Pollutant	Air Quality Objective		Date to be achieved by
	Concentration	Measured as	
Carbon monoxide	10.0 mg/m ³	Running 8-hour mean	31.12.2003
Nitrogen dioxide	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 (PM₁₀) (gravimetric)	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

Appendix B

Figure 1 Trends in Annual Mean Nitrogen dioxide Concentration Measured at Automatic Monitoring Sites.

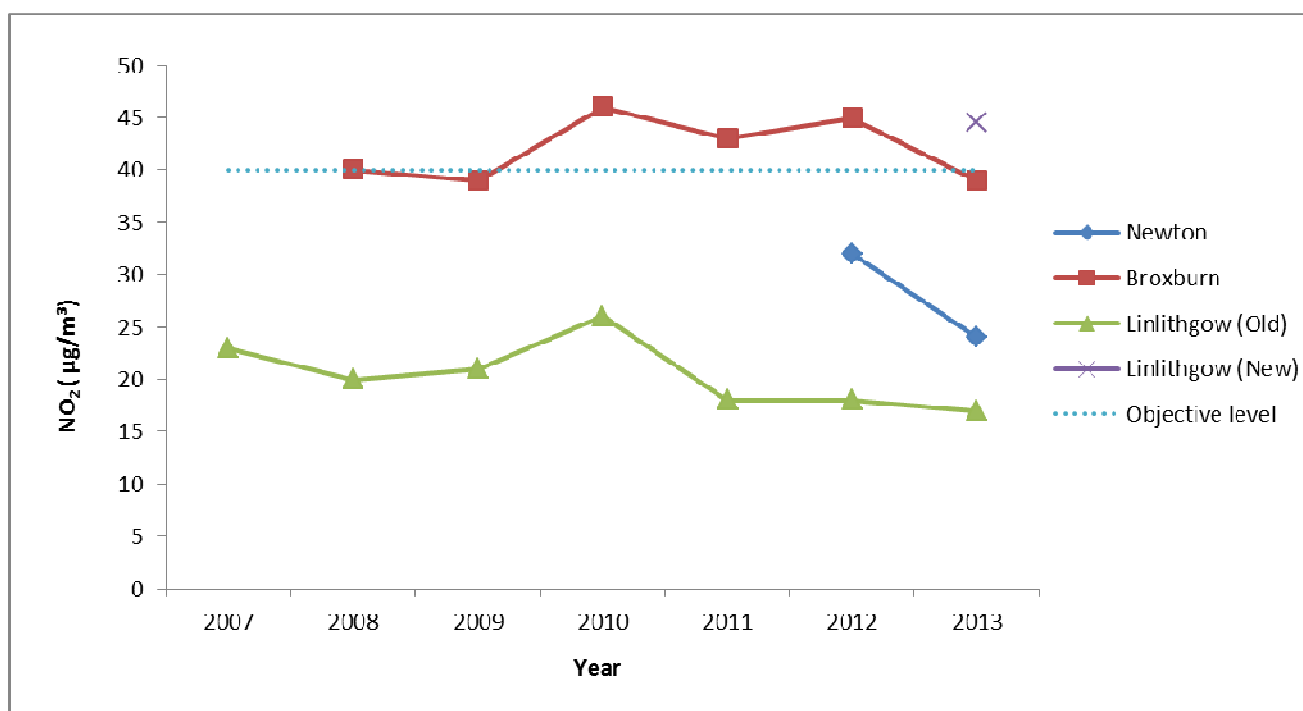


Figure 2 Trends in Annual Mean PM₁₀ measured at automatic monitoring sites

