



2018 Air Quality Progress Report for West  
Lothian Council  
**Non-Technical Summary**

## **Local Air Quality Management (LAQM) in West Lothian (January – December 2017)**

### **Local Air Quality Management (LAQM)**

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 an exceedance is considered likely the local authority must 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. This non-technical summary of the [2018 Annual Progress Report \(APR\)](#), outlines the work being undertaken by West Lothian Council to improve air quality and any progress that has been made.

### **Air Quality Monitoring**

During the reporting period, there were three automatic monitoring sites in West Lothian:

- [East Main Street, Broxburn](#);
- [High Street, Linlithgow](#);
- [Main Street, Newton](#).

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](http://www.scottishairquality.co.uk).

All three sites are roadside locations. They monitor Nitrogen dioxide (NO<sub>2</sub>) and particulates (PM<sub>10</sub>), which are the main pollutants associated with road traffic. The Linlithgow and Broxburn monitoring sites also monitor PM<sub>2.5</sub> which is considered a more harmful particulate.

West Lothian Council has also continued monitoring NO<sub>2</sub> 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. An AQMesh solar powered mobile monitoring station has continued to be installed in Newton to increase monitoring capacity.

### **Sources of Air Pollution**

The main source of air pollution is associated with road traffic. The pollutants PM<sub>10</sub>, PM<sub>2.5</sub> and Nitrogen dioxide are by-products of petrol and diesel engines. Proportionally, heavy/light-duty vehicles (buses and LGVs/HGVs) contribute greater emissions of PM<sub>10</sub> and NO<sub>2</sub> than cars. As all three monitoring stations are located at the roadside, they are therefore directly measuring road traffic pollution.

In Newton, household solid fuel burning also contributes significantly to PM<sub>10</sub> levels. Depending on location, 50- 90% of PM<sub>10</sub> can be non-road traffic related emissions.

## Comparison with Air Quality Objectives

A comparison with the Air Quality Objective values is shown graphically in [Appendix B](#). The graphs show the PM<sub>10</sub> and NO<sub>2</sub> data results from the automatic monitoring stations.

## Main Findings of the Annual Progress Report

The 2017 monitoring data at all three continuous air quality monitoring stations has shown that the NO<sub>2</sub> and PM<sub>10</sub> short and long term air quality objectives have been met. All NO<sub>x</sub> passive diffusion tubes located throughout West Lothian have shown no new exceedances in 2017. The AQmesh has had poor data capture in 2017 and is therefore not included in this report. There were no exceedances of the PM<sub>2.5</sub> annual mean at Linlithgow or Broxburn in 2017.

West Lothian Council approved and finalised the Broxburn Air Quality Action Plan (AQAP). It can be viewed here: [https://www.westlothian.gov.uk/media/17039/2017-Broxburn-Air-Quality-Action-Plan-Approved/pdf/2017\\_Broxburn\\_Air\\_Quality\\_Action\\_Plan\\_final\\_for\\_consultation.pdf](https://www.westlothian.gov.uk/media/17039/2017-Broxburn-Air-Quality-Action-Plan-Approved/pdf/2017_Broxburn_Air_Quality_Action_Plan_final_for_consultation.pdf)

The Linlithgow and Newton AQAP's are currently in development and will have a number of measures which aim to reduce levels of PM<sub>10</sub> and NO<sub>2</sub> in each Air Quality Management Area (AQMA). There have been no new AQMA's declared in 2017.

### Air Quality in Newton

Newton's PM<sub>10</sub> and NO<sub>2</sub> annual average levels increased in 2017 compared to 2016 but still met the objective levels for each pollutant.

### Air Quality in Linlithgow

Levels of PM<sub>10</sub> in Linlithgow decreased significantly in 2017 compared with 2016 while NO<sub>2</sub> dropped to a 5 year low.

### Air Quality in Broxburn

Levels of PM<sub>10</sub> and NO<sub>2</sub> in Broxburn on average showed a slight decrease compared to 2016 and have met objective levels for the last 5 years.

## Actions to Improve Air Quality

The actions taken in 2017 to improve air quality within West Lothian include the following:

- Traffic modelling for potential changes to the Greendykes Road Junction in Broxburn;
- Provision of a Bikeability Officer Post located in West Lothian Leisure, to provide cycle training in Schools in Linlithgow and Broxburn and then rolled out to the whole of West Lothian;
- Funding has been secured for the ECOstars fleet recognition scheme in West Lothian which will be taken forward as a project through the Vehicle Emission Partnership; and

- Air Quality Supplementary Planning Guidance has been finalised following public consultation and is awaiting committee approval.

West Lothian Council expects the following measures to be completed over the course of the next reporting year:

- Further Traffic Modelling in Broxburn to inform an air quality model for Greendykes Junction in Broxburn;
- The Bikeability Officer post filled and training carried out at schools in Linlithgow and Broxburn;
- ECOstars fleet recognition scheme agreement secured; and
- Air Quality Supplementary Planning Guidance finalised and published.

### **Local Priorities and Challenges**

The main priority for West Lothian Council is to carry out Detailed Assessments to determine if the three AQMAs need to be revoked due to air pollution levels meeting the 'target' air quality objectives for the last three years. The detailed assessments will include land allocated for development and will detail whether there will be any potential future exceedances of pollutants at relevant receptors.

Funding applications will still be made to Scottish Government for monitoring apparatus and action plan measures. West Lothian Council will still work towards finalising and publishing the Linlithgow and Newton AQAP's.

### **Contact Details**

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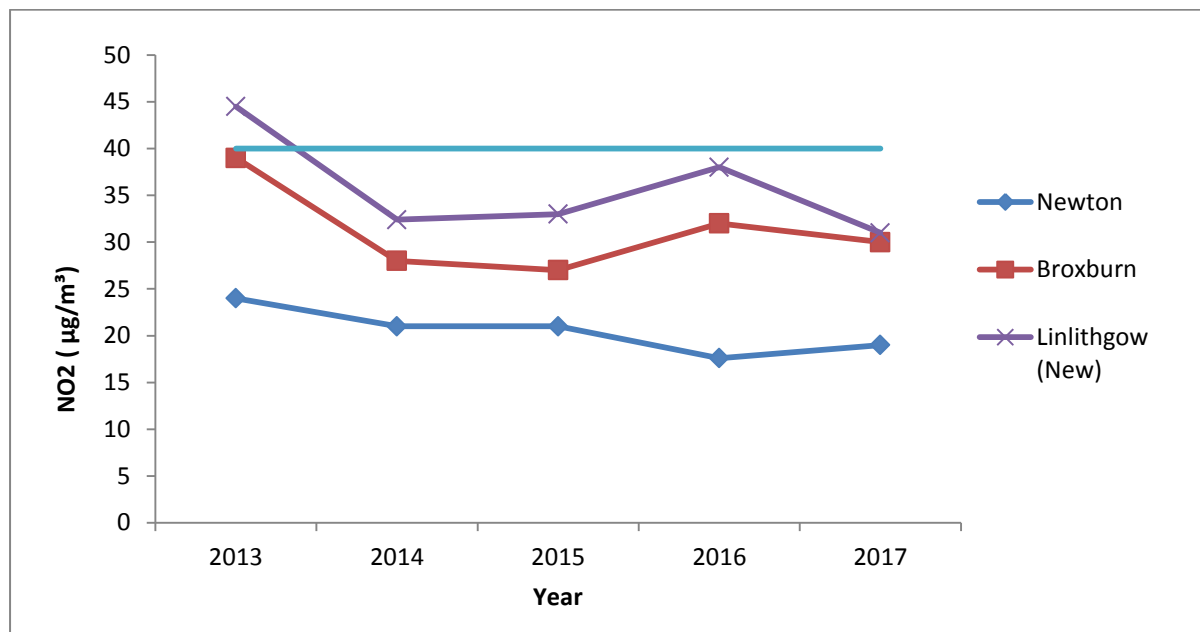
## Appendix A

**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	
Nitrogen dioxide (NO <sub>2</sub> )	200 µg/m <sup>3</sup> not to be exceeded more than 18 times a year	1-hour mean	31.12.2005
	40 µg/m <sup>3</sup>	Annual mean	31.12.2005
Particulate Matter (PM <sub>10</sub> )	50 µg/m <sup>3</sup> , not to be exceeded more than 7 times a year	24-hour mean	31.12.2010
	18 µg/m <sup>3</sup>	Annual mean	31.12.2010
Particulate Matter (PM <sub>2.5</sub> )	10 µg/m <sup>3</sup>	Annual mean	31.12.2020
Sulphur dioxide (SO <sub>2</sub> )	350 µg/m <sup>3</sup> , not to be exceeded more than 24 times a year	1-hour mean	31.12.2004
	125 µg/m <sup>3</sup> , not to be exceeded more than 3 times a year	24-hour mean	31.12.2004
	266 µg/m <sup>3</sup> , not to be exceeded more than 35 times a year	15-minute mean	31.12.2005
Benzene	3.25 µg/m <sup>3</sup>	Running annual mean	31.12.2010
1,3 Butadiene	2.25 µg/m <sup>3</sup>	Running annual mean	31.12.2003
Carbon Monoxide	10.0 mg/m <sup>3</sup>	Running 8-Hour mean	31.12.2003
Lead	0.25 µg/m <sup>3</sup>	Annual Mean	31.12.2008

## 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**

