

Introduction

The Environment Act 1995 introduced the Local Air Quality Management system, which requires Local Authorities to undertake regular review and assessment of air quality, with respect to the standards and objectives set in the Air Quality Strategy, and enacted through the Air Quality Regulations in 1997, 2000 and 2002. In areas where an air quality objective is predicted not to be met by the required date, Local Authorities are required to establish Air Quality Management Areas and implement action plans to improve air quality.

Following the first round of air quality review and assessments, now completed in England, Wales and Scotland, the second round is under way, in which sources of emissions to air are reassessed to identify whether the situation has changed since the first round, and if so, what impact this may have on predicted exceedences of the air quality objectives.

The second round comprises two steps. The first step is an Updating and Screening Assessment, which updates the Stage 1 and 2 review and assessment previously undertaken for all pollutants identified in the Air Quality Regulations. Where a significant risk of exceedence is identified for a pollutant it will be necessary for the Local Authority to proceed to a Detailed Assessment, equivalent to the previous Stage 3 assessments. Where a Local Authority does not need to undertake a Detailed Assessment, a shorter Progress Report is required instead.

A timetable for future rounds of review and assessment has been set, whereby Updating and Screening Assessments are required at least every three years, in 2003, 2006 and 2009. In the intervening years, Local Authorities are required to produce a Progress Report.

1.1 Purpose and role of Progress Reports

The Progress Report is intended to ensure continuity in the LAQM process. Its objective is to provide an annual review and update on air quality issues, including developments that might be significant to air quality. Any significant developments can then be acted upon immediately, rather than waiting for the next full round of review and assessment. The benefits to Local Authorities are set out in Box 1.1 of the Progress Report Guidance LAQM.PRG (03), but these include the following.

- To provide a readily accessible source of up to date information on air quality, which may be useful to Local Authority staff for dealing with enquiries from members of the public, developers carrying out environmental assessments, and to assist in other areas such as transport and land use planning.
- To ensure continuity in maintaining resourcing, capability and staff skills for LAQM within the Local Authority.
- Helping to get maximum value from the monitoring carried out by the Local Authority.

This report forms the Progress Report of air quality within King's Lynn & West Norfolk during 2006 and follows the guidance laid out in the Guidance Document LAQM.PRG(03).

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

- Progress on implementation of action plans
- An assessment of the monitoring data in relation to likely exceedences of the objectives
- Progress on local air quality strategies
- A list of planning applications that have the potential to affect local air quality
- Progress on implementing those elements of the Local Transport Plan (local transport strategies in Scotland and Borough Spending Plans in London) that might affect air quality
- Any relevant updates on planning policies that relate specifically to air quality

All these issues have been considered in this report.

Air Quality Strategy Objectives

The Air Quality Strategy's standards and objectives are shown in Table 1. The table shows the standards in μgm^{-3} (mgm^{-3} for CO) with the number of permitted exceedences (where applicable).

Table 1 Objectives included in the Air Quality Regulations 2000 and (Amendment) Regulations 2002 for the purpose of Local Air Quality Management

Air Quality Objective			
Pollutant	Concentration	Measured as	Date to be achieved by
Benzene All authorities	16.25 μgm^{-3}	Running annual mean	31.12.2003
Authorities in England and Wales only	5.00 μgm^{-3}	Annual mean	31.12.2010
Authorities in Scotland and Northern Ireland only ¹	3.25 μgm^{-3}	Running annual mean	31.12.2010
1,3-Butadiene	2.25 μgm^{-3}	Running annual mean	31.12.2003
Carbon monoxide Authorities in England, Wales and Northern Ireland only	10.0 mgm^{-3}	Maximum daily running 8-hour mean	31.12.2003
Authorities in Scotland only	10.0 mgm^{-3}	Running 1-hour mean	31.12.2003
Lead	0.5 μgm^{-3} 0.25 μgm^{-3}	Annual mean Annual mean	31.12.2004 31.12.2008
Nitrogen dioxide 2	200 μgm^{-3} not to be exceeded more than 18 times a year 40 μgm^{-3}	1 hour mean Annual mean	31.12.2005 31.12.2005
Particles (PM₁₀) (gravimetric) ³ All authorities	50 μgm^{-3} not to be exceeded more than 35 times a year 40 μgm^{-3}	24-hour mean Annual mean	31.12.2004 31.12.2004
Authorities in Scotland only ⁴	50 μgm^{-3} not to be exceeded more than 7 times a year 18 μgm^{-3}	24-hour mean Annual mean	31.12.2010 31.12.2010
Sulphur dioxide	350 μgm^{-3} not to be exceeded more than 24 times a year 125 μgm^{-3} not to be exceeded more than 3 times a year 266 μgm^{-3} not to be exceeded more than 35 times a year	1-hour mean 24-hour mean 15-minute mean	31.12.2004 31.12.2004 31.12.2005

The new national particles objectives for England, Wales and Greater London are not currently included in Regulations for the purpose of LAQM. The Government and the Welsh Assembly however intends that the new particles objectives will be included in Regulations as soon as practicable after the review of the EU's first air quality daughter directive. This review, originally due to be completed in 2004, is "on hold" and unlikely to be completed before the end of 2005. The new particles objectives for England, Wales and Greater London are shown in Table 2. Whilst authorities have no obligation to review and assess against them, they may find it helpful to do so, in order to assist with longer-term planning and the assessment of development proposals in their local areas. Assessment against these proposed objectives is provided in this report.

Table 2 Proposed new particles objectives for England, Wales and Greater London (not included in Regulations)

Air Quality Objective			
Region	Concentration	Measured as	Date to be achieved by
London	50 μgm^{-3} not to be exceeded more than 10 times a year	24-hour mean	31.12.2010
London	23 μgm^{-3}	Annual mean	31.12.2010
London	20 μgm^{-3}	Annual mean	31.12.2015 ⁵
Rest of England and Wales	50 μgm^{-3} not to be exceeded more than 7 times a year	24-hour mean	31.12.2010
Rest of England and Wales	20 μgm^{-3}	Annual mean	31.12.2010

Conclusions of the previous rounds of Review and Assessment

The Borough Council of King's Lynn and West Norfolk has completed the following Review and Assessments of air quality to date:

- Stage 1 and Stage 2 (January 2001)
- Stage 3 (June 2001) and Stage 4 (April 2003)
- Updating and Screening Assessment (August 2003)
- Progress Report (November 2004)
- Detailed Assessment (November 2005)
- Updating and Screening Assessment (November 2006)

Previous rounds of review and assessment have predicted NO_2 and PM_{10} exceedences at some locations in King's Lynn. As a result, Air Quality Management Areas (AQMA) for PM_{10} at South Quay and NO_2 at Railway Road were declared in April 2002 and November 2003 respectively.

The South Quay AQMA was revoked in June 2006 due to the effective application of an Air Quality Action Plan.

Conversely, the 2005 Detailed Assessment recommended that the Railway Road AQMA should be extended to include all residential properties along Railway Road, Blackfriars Road, and London Road as a minimum; extended Railway Road AQMA boundaries were also proposed. The 2006 USA recommended that monitoring of NO_2 be continued in the Borough to validate any proposals to extend the Railway Road AQMA.

It was also noted that a potential exceedence of the NO_2 objective had been modelled by Fenland District Council, in an area of Wisbech that lies within the Borough of King's Lynn & West Norfolk. Both local authorities have deployed additional NO_2 diffusion tubes in the affected area and it was therefore recommended that the Borough Council of King's Lynn & West Norfolk should closely monitor the diffusion tube results from this area and present them in this Progress Report. The 2006 USA concluded that a Detailed Assessment was not needed for any pollutants at that time.

The Borough Council of King's Lynn & West Norfolk have since approved a variation order (February 2007) to extend the Railway Road AQMA to include all of Railway Road, Austin Street, Blackfriars Road, St James Road and London Road in King's Lynn, as per the recommendations of the 2005 Detailed Assessment. The new AQMA boundaries are shown in Appendix 3.