

Report of: John Copley, Environmental Health Business Manager

Title: LOCAL AIR QUALITY MANAGEMENT - DETAILED
ASSESSMENT OF AIR QUALITY

Ward: ALL

Report author: Roger Pitman / Trevor Dixon

Contact Tel No: 01865 252380 / 252296

E-mail address: rpitman@oxford.gov.uk / tdixon@oxford.gov.uk

Key Decision: Yes

Lead Member: Cllr Susan Brown

Scrutiny responsibility: Environment Overview and Scrutiny Committee

RECOMMENDATIONS

That the Executive Board agrees to:

1. Consider the contents of the Detailed Assessment report and consultation responses.
2. Recommend Council to make an Air Quality Management Order in relation to an Air Quality Management Area at Green Road Roundabout and to determine the boundaries and the date of commencement of any such Order.
3. Approve the continued assessment of air quality at the other locations identified in the Detailed Assessment report where the annual mean Air Quality Objective for nitrogen dioxide may not be met. The continued assessment of air quality will be covered by existing budgets but measures that may be adopted as part of an Air Quality Action Plan could have financial implications requiring additional funding.
4. To note the requirement for the Council to carry out a further review and assessment of air quality and to prepare an action plan in respect of any new Air Quality Management Area.
5. Should an Air Quality Management Area be declared, to formally request the Oxfordshire County Council to submit details of its proposals for any action that it can take within its power to be included in an action plan for the Air Quality Management Area.

Summary

1. This report outlines the findings of the Detailed Assessment (DA) Report on air quality in Oxford, completed in June 2004 and recommends further activities. The required statutory consultation has been carried out and the Department for Environment Food and Rural Affairs (DEFRA) has approved the DA report.
2. The main finding of the DA report is that an Air Quality Management Area should be declared at the Green Road roundabout because the annual mean Air Quality Objective for nitrogen dioxide will not be met. Other locations should also be assessed in further detail as part of the ongoing local air quality management programme.
3. The Air Quality Objectives are prescribed in the Air Quality Regulations 2000 and Air Quality (Amendment) Regulations 2002. The Oxford City Council has a duty to continue to work towards meeting the Air Quality Objectives even beyond the deadlines set in the regulations.

Council's Vision

4. The Council's responsibilities for air quality relate to the Council's Vision in terms of 'Improving the environments where people live and work'.

Background

5. Air quality reporting is a requirement of the Environment Act 1995. During the last ten years a series of reports were produced which resulted in the declaration of an Air Quality Management Area (AQMA) in Oxford City Centre. The next stage in the Local Air Quality Management programme was to carry out an Updating and Screening Assessment (USA) which was completed in November 2003. The USA report reviewed air quality across Oxford and identified locations where there was a risk of not meeting air quality standards. A Detailed Assessment (DA) of air quality was then carried out in those locations and the DA report was completed in June 2004. Both reports have been submitted to and approved by DEFRA.
6. These assessments are a statutory requirement under Part IV of the Environment Act 1995 and must be submitted to DEFRA. The ongoing process of review and assessment of air quality which local authorities are required to carry out is summarised in the table below.

Activity	Completion Date	Responsible Authority
Stage 3 Report	January 2001	Oxford City Council
Stage 4 Report	July 2003	Oxford City Council
Updating and Screening Assessment (USA) Report	November 2003	Oxford City Council

Detailed Assessment Report	June 2004	Oxford City Council
Progress Report	End of April 2005	All Local Authorities (Oxford City Council)
USA Report	End of April 2006	All Local Authorities (Oxford City Council)
Detailed Assessment Report	End of April 2007	Those Local Authorities (Oxford City Council) that identified a need for one in their April 2006 USA report
Progress Report	End of April 2007	Those Local Authorities (Oxford City Council) that identified that there was <u>no</u> need for a DA report in their April 2006 USA report
Progress Report	End of April 2008	All Local Authorities (Oxford City Council)

7. The Stage 3 Review and Assessment, completed in January 2001 resulted in an AQMA being declared for the City Centre based upon the annual mean Air Quality Objective for Nitrogen Dioxide not being met. The report concluded that this was mainly due to road traffic emissions. The Stage 4 Review and Assessment, completed in July 2003 confirmed the need for the AQMA and resulted in it being slightly extended.

Detailed Assessment Report

8. The June 2004 DA report covers a more detailed investigation of air quality at locations identified in the USA report where an Air Quality Objective may not be met. Electronic copies of the report are available via the Council's website www.oxford.gov.uk by following the links to Air Pollution and then Public Consultation. A copy is also available in the Members' room in the Town Hall.
9. The main observations of the DA report are as follows: -
- The annual mean nitrogen dioxide objective for 2005 will not be met at Wolvercote, Cutteslowe and Green Road roundabouts, and the need for the declaration of additional Air Quality Management Areas (AQMAs) at these locations should therefore be considered. Further monitoring and modelling is required at these locations to determine what the precise extent of the AQMA's should be if declared;
 - Further assessments should be carried out on other major junctions (in particular the Eastern By-Pass/Oxford Road, Cowley) on the ring road where it appears that an Air Quality Objective may not be met at locations where members of the public may be exposed;

- The hourly objective for nitrogen dioxide is likely to be exceeded in eight streets within the existing AQMA, although further action is not required. The main reason for this is that the existing AQMA was declared because the annual mean objective for nitrogen dioxide was not being met, and this is a more demanding objective to achieve than the hourly objective.
- The 24-hour mean PM₁₀ particulate matter objective for 2004 will be met. However, further monitoring should continue on the High Street so that a detailed assessment for the 2010 objective can be considered at a later stage.

Consultation

10. The Environment Act 1995 requires that consultation is carried out on all aspects of the Local Air Quality Management process. A copy of the DA report has therefore been sent to the following statutory consultees: the Department for Environment Food and Rural Affairs (DEFRA); the Environment Agency; the Highways Authority; Oxfordshire County Council; Cherwell, South Oxfordshire, West Oxfordshire and the Vale of White Horse District Councils; the Government Office for the South East and the NHS Executive.
11. The DA report was presented to all the Area Committees during November and December 2004.

Response to Consultations

12. DEFRA accepted the conclusions reached in the DA report and that an additional AQMA will now be required in Oxford for nitrogen dioxide.
13. Oxfordshire County Council has confirmed that the locations put forward in the DA report as potential AQMA's are already on its transport agenda to deal with congestion, and public transport reliability. It recognises that air quality issues should also be considered in transport scheme developments and that both the Oxford City and Oxfordshire County Councils should agree an appropriate level of action.
14. The East Area Parliament asked that further consideration be given to including Cowley Road, St Clements and the Donnington Bridge Road/ Iffley Road junction in the proposed Air Quality Management Area. Part of St Clements is included in the existing AQMA and the section of Cowley Road adjoining St Clements was assessed as part of the detailed assessment. Other areas of Cowley Road and the Donnington Bridge Road/ Iffley Road junction were identified in the DA report, as requiring further assessment. These areas will continue to be assessed in an ongoing cycle of review and assessment of air quality.
15. The Central South and West Area Committee requested that the Executive Board be recommended to consider a low emission zone for the City Centre. An action plan to improve air quality within the existing AQMA for

Oxford City Centre is currently being drafted and a low emission zone will be considered as part of the proposals.

16. The other Area Committees agreed to note the report. All the responses received to the consultation are given in Appendix 1.

Declaring an Air Quality Management Area

17. The criteria for identifying an AQMA is where an Air Quality Objective is not being met at a location where members of the public are likely to be exposed over the averaging period for the Air Quality Objective in question. Modelling of the air quality taking into account factors such as monitoring data, weather data, and traffic flows etc. was used. Three areas were identified in the DA report where the annual mean nitrogen dioxide objective for 2005 ($40 \mu\text{g}/\text{m}^3$ - microgrammes per cubic metre) would not be met. These were at the Green Road, Wolvercote and Cutteslowe roundabouts.
18. At Wolvercote and Cutteslowe roundabouts only one point was identified at each location where the Air Quality Objective for nitrogen dioxide would not be met. At Green Road roundabout twelve points were identified where the Air Quality Objective would not be met.
19. Since the DA report was completed in June 2004 modelling at these locations has been refined. No additional points were identified at Wolvercote and Cutteslowe roundabouts where the annual mean Air Quality Objective for nitrogen dioxide would not be met, whereas at Green Road roundabout several additional points were identified.
20. Previous reports on the review and assessment of air quality in Oxford identified road traffic as the main cause for the annual mean Air Quality Objective for nitrogen dioxide not being met. If congestion is to be improved at these three locations, as suggested by Oxfordshire County Council, it follows that improved traffic flows should result in improved air quality.
21. Based on the additional modelling undertaken since the DA report was completed and the comments received from Oxfordshire County Council the Environmental Health Business Manager would suggest that an AQMA should at this stage, only be considered for Green Road roundabout.
22. The ongoing cyclical process of review and assessment required by the Environment Act 1995, see paragraph 6, will however ensure that air quality at the Wolvercote and Cutteslowe roundabouts, and other locations identified in the DA report, continues to be assessed against the Air Quality Objectives.
23. If an AQMA were declared for Green Road roundabout it would take effect by the making of an Order. The Order would describe the area and include a map. The date of commencement may be later than the date of making the Order to allow for the Order to be fully advertised. A draft AQMA Order

for Green Road roundabout is included in Appendix 2 for information. In defining the boundaries of the AQMA consideration has been given to matching it up with physical features that can be identified on a map.

24. Where an Air Quality Management Area has been declared, then it is a requirement under Section 84(2) of the Environment Act 1995, that Oxford City Council produce an Action Plan. The Air Quality Action Plan will set out the measures that are required to reduce the levels of nitrogen dioxide in the AQMA

Resources

25. It is considered that the preparation of the Air Quality Action Plan can be carried out within existing financial and staffing resources. The specific measures set out in any finalised Air Quality Action Plan may have some financial implications which cannot be quantified at this early stage; these will be addressed in a later report.

THIS REPORT HAS BEEN SEEN AND APPROVED BY:
The Environment Portfolio Holder – Councillor Susan Brown.
Councillor Mary Clarkson has also seen and approved the report.
The Environmental Health Business Manager
Emma Griffiths for the Interim Legal and Democratic Services Business Manager
Andy Collett for the Finance and Asset Management Business Manager:

Background papers:

Updating and Screening Assessment Report - November 2003

Detailed Assessment Report - June 2004

Glossary

Air quality: usually refers to the concentration in air of one or more pollutants.

Air quality objectives: policy targets of what the Government intends should be achieved in the light of the air quality standards.

Air quality standards: the concentrations of pollutants in the atmosphere, which can broadly be taken to achieve a certain level of environmental quality. Air quality standards are based on the assessment of the effects of each pollutant on health.

AQMA: Air Quality Management Area

DEFRA: Department for the Environment Food and Rural Affairs.

PM₁₀: particulate matter less than 10 microns in diameter (10 millionths of a metre).

USA: Updating and Screening Assessment.