

To: Scrutiny Committee

Date: 7 November 2016

Report of: Environmental Sustainability Manager

Title of Report: Air Quality in Oxford

Summary

Purpose of report: The Committee have asked to consider air quality data and actions / ideas for improving air quality in the worst areas (e.g. parts of the City Centre).

Key decision: No

Executive lead member: Councillor John Tanner, Board Member for A Clean Green Oxford

Report author: Ian Halliday, Air Quality Officer

Policy Framework: A Clean and Green Oxford

Appendices

Appendix 1 – Oxford Annual Status Report

Appendix 2 – Air Quality Monitoring in Oxford Factsheet

Background

The Committee have asked to consider data on air quality in the City and actions / ideas for improving air quality in the worst areas (e.g. parts of the City Centre).

Introduction

1. Air pollution remains an invisible killer. It contributes to a range of illnesses including heart disease and cancer. It particularly affects the most vulnerable in society: children, older people and those with heart and lung conditions.
2. Public Health England published a report in April 2014 providing details on the number of deaths in each local authority area which is attributable to air pollution. For Oxford the report estimated (based on 2010 figures for mortality)

that 55 deaths of people over 25 is due to particulate air pollution. This is equivalent to a total of 673 associated life-years lost.

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/332854/PHE_CRCE_010.pdf

3. Section 82 of the Environment Act 1995 requires that every unitary or district council shall review the air quality within its area, considering both the present and likely future air quality.
4. The Act requires local authorities to designate an Air Quality Management Area (AQMA) where air quality objectives are not being achieved, or are not likely to be achieved, as set out in the Air Quality (England) Regulations 2000. The relevant objectives are set out in the table below:

Pollutant	Air Quality Objective ¹	
	Concentration	Measured as
Nitrogen Dioxide (NO ₂)	200 µg/m ³ not to be exceeded more than 18 times a year	1-hour mean
	40 µg/m ³	Annual mean
Particulate Matter (PM ₁₀)	50 µg/m ³ , not to be exceeded more than 35 times a year	24-hour mean
	40 µg/m ³	Annual mean

5. Once the area has been designated, the Act requires the local authority to develop an Action Plan detailing remedial measures to tackle the problem within the AQMA.

The Oxford Situation

6. Oxford City Council is responsible for monitoring and assessing air quality in the city.
7. Oxford, in common with many urban areas throughout the United Kingdom, is subject to poor air quality, particularly close to areas with high levels of road traffic.
8. In Oxford, nitrogen dioxide is the pollutant of most concern as we continue to see breaches of the objective for this pollutant. The objectives are met for other pollutants in the city.
9. Transport is by far the most significant source of emissions of oxides of nitrogen in the city; accounting for 75% of emissions. The remaining emissions are 17% of emissions come from commercial and residential heating, 6% from industry and 2% from energy production.
10. In 2010 the whole of the city was declared as an Air Quality Management Area due to a failure to meet the annual mean objective for nitrogen dioxide.
11. As a result we have developed an Air Quality Action Plan (AQAP) that sets out the actions we will take to improve air quality. The AQAP is available here: https://www.oxford.gov.uk/downloads/download/133/air_quality_action_plan

¹ The units are in microgrammes of pollutant per cubic metre of air (µg/m³).

12. Oxford's AQAP not only focusses on measures the City Council needs to address, but includes measures that we can influence, or work in partnership with others to deliver.
13. Effective measures require co-operation from all sectors including transport policy and management, the Council's priorities for new developments, freight management for business and commerce, and daily choices made by all transport users.
14. Oxford's AQAP recognises that the City Council cannot act in isolation in order to deliver these measures without engagement and delivery from a wide set of stakeholders.
15. This is particularly relevant given the two tier structure of local government in which Oxford City Council operate. As most emissions are from transport we are reliant on the County Council, as the Transport Authority, to support and lead many of the initiatives that we may wish to take.
16. We are required to report annually to Defra on air quality in the city. Reports include details of AQMAs, AQAPs and progress made with their implementation, current and historic monitoring data and comparison with the objectives and priorities for the forthcoming year.
17. A copy of the Annual Status Report, which is still subject to approval by the Department for Environment, Food and rural Affairs (Defra), is attached to this report.

Monitoring Data

18. Air quality in Oxford has seen significant improvements but there is far more that needs to be done.
19. Ten year trends from our data collection and analysis show that nitrogen dioxide (NO₂) levels have dropped by typically 35% at roadsides in the city centre. This is good news for the environment and for the health of people in Oxford.
20. In 2015, automatic monitoring station data for nitrogen dioxide continued to show decreases in levels at both High St and St Aldate's, following previous years (2009-2012) of recorded increases.
21. The number of diffusion tube locations indicating results above the annual mean objective for nitrogen dioxide of 40µg/m³ are also reducing.
22. There were two exceedences of the hourly objective of 200µg/m³ measured in St Aldate's in 2015. This is well within the 18 exceedences permitted by the Regulations.
23. In 2015 we saw small increases in measured levels of NO₂ at some monitoring locations. In general, these were associated with locations where traffic and congestion levels were influenced by events such as long term road works, particularly around Frideswide Square and routes leading to and from it.
24. Automatic monitoring station data for Particulate Matter (PM10) shows that the measured annual means were 21µg/m³ on the High Street and 13µg/m³ at St Ebbe's. These are well within the objective of 40µg/m³.

25. Automatic monitoring station data for Particulate Matter (PM_{2.5}) shows that the measured annual mean was 10µg/m³. This compares to an annual mean of 14µg/m³ measured in 2010. The Regulations currently do not set out a safe level of PM 2.5.

Progress to Date

26. The following are actions that Oxford City Council has recently taken to improve air quality in the city:
- a. Introduced the first extensive Low Emission Zone (LEZ) outside of London. This won the prize for Local Authority Air Quality Initiative of the Year at the National Air Quality Awards 2015.
 - b. Launched the Oxfordshire Air Quality website to make historic and real time air quality data more readily accessible to members of the public. The website is accessible via: <http://www.oxfordshire.air-quality.info/>
 - c. Increased the number of diffusion tube monitoring locations in the city by nearly 50% from January 2015.
 - d. Launched Oxford Park and Pedal which has seen over 100 cycle parking spaces introduced at two of our park and ride sites.
 - e. Ran the Test Drive the Future event to introduce the public to a range of electric vehicles (EVs) and the financial and environmental benefits of going electric. The event provided an opportunity to test drive vehicles, and outlined the options for driving an electric car 'pay as you go' through one of Oxford's car clubs.
 - f. Engaged with the Oxfordshire Health Improvement Board to ensure that air quality is considered in the context of the Joint Strategic Needs Assessment.
 - g. Commissioned a study into options for a Delivery and Servicing Plan for the Council's city centre premises. Consideration and implementation of the options is now underway.
 - h. Continued to seek opportunities to work in partnership with our neighbouring District Councils through participation in in the Oxfordshire Air Quality Group.
 - i. Presented on our experiences of implementing our Low Emission Zone to inform Defra's consideration of the most appropriate mechanism for establishing newly proposed Clean Air Zones.

Future Priorities

27. The priorities for the forthcoming year are:
- a. Continuing our expanded monitoring regime and seeking to expand further, where appropriate.
 - b. Launching the 'Schools Tackling Oxford's Air Pollution (STOP) project. This will install real time, indicative air quality monitors in six schools across the city and provide educational material to integrate the measurements into the national curriculum.

- c. Working with the County Council to further develop measures from the Oxford Transport Strategy that will have a positive impact on air quality, including options for a Zero Emission Zone.
- d. Using £800,000 worth of grant funding won through the Go Ultra Low City Scheme to roll out EV charging solutions for properties without dedicated parking spaces.
- e. Bidding to the Office for Low Emission Vehicles Taxi Scheme for funding to facilitate the installation of electric charging infrastructure to encourage the uptake of electric taxis.
- f. Developing a Technical Advisory Note setting out our approach to consideration of air quality in the planning process.
- g. Ensuring that air quality is considered fully during the development of the Oxford Local Plan.
- h. Reporting annually to the Health improvement Board on the state of air quality across the county and what measures are being taken to improve it.

Challenges

28. There are a number of challenges to successfully tackling air pollution :

- a. £3 million pounds in funding is available through the Defra Air Quality Grant scheme. This is a competitive process and the signs are that priority will be given to areas not predicted to be compliant with the Objectives by 2020. Oxford is not in one of these areas.
- b. Ensuring that the required growth of Oxford is balanced with the need to improve air quality, utilising the latest technology and innovative transport measures.
- c. As noted above, progress in many areas cannot be made in isolation and is highly dependent on partnership working with the County Council.
- d. Engagement with local Public Health groups has proved to be more challenging than anticipated.

Next Steps

The Committee is asked to note the report.

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Version number: 1.1

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