

Report of: Head of Environmental Development
To: City Executive Board
Date: 1st April 2009 **Item No:**
Title of Report: Local Air Quality Management – Low Emission Zone

Summary and Recommendations

Purpose of report: To ask the City Executive Board to consider the findings of the final report of the Low Emission Zone Feasibility Study, carried out in conjunction with Oxfordshire County Council

Key decision? Yes

Executive lead member: Cllr John Tanner

Report Approved by: Head of Environmental Development

Legal: Lindsay Cane

Finance: Paul Shepherd

Policy Framework: This work reflects the Council's Vision of improving performance and working with others to deliver shared goals. It specifically contributes to the strategic priority to improve the local environment, economy and quality of life, and the Community Strategy theme of working to create a better living environment.

Recommendation(s)

1. To declare a Low Emission Zone, requiring all Public Service Vehicles (PSV) operating in Oxford city centre to meet the Euro V emission standard by 31st December 2013
2. In pursuit of the above, to work together with Oxfordshire County Council in the development of an integrated package of transport and bus quality improvements in Oxford.

This to include :-

- (i) the establishment of Bus Quality Partnership Scheme (QPS), by October 2009, that will require all public service vehicles (PSVs) operating in Oxford City Centre to comply with the requirements of the proposed LEZ; **AND**
- (ii) work with the Traffic Commissioner to develop a traffic regulation condition (TRC), requiring all PSVs operating in Oxford city centre to comply with the requirements of the proposed LEZ. The TRC will be introduced unless a QPS as described in 2(i) above has been implemented first.

Background

1. Levels of nitrogen dioxide in parts of Oxford city centre exceed national air quality objectives. In response to this, an Air Quality Management Area (AQMA) was designated in September 2001 covering part of the city centre. The designated area was extended in September 2003. In February 2009 City Executive Board proposed to extend the city centre AQMA further and consolidate it with AQMA's in other parts of the city into a single city-wide AQMA.
2. In 2006, the city and county councils jointly agreed an Air Quality Action Plan for Oxford city centre. Road traffic is the main source of nitrogen oxides (NOx) in the city centre, so the plan is focused on reducing emissions from traffic. One of the measures in the plan predicted to deliver a substantial reduction in traffic emissions is the introduction of a low emission zone (LEZ) – a defined area that vehicles may not enter unless they meet certain emissions standards.

Low emission zone feasibility study

3. The city and county councils have been working on a feasibility study for a low emission zone since 2007. The aim of this study has been to establish: a) whether a low emission zone would deliver sufficient air quality benefits to justify the considerable investment required by those needing to comply with it; b) to which vehicle types the low emission zone should apply; c) what emission standard would be effective and reasonable; and d) from what date that standard should apply.
4. The LEZ feasibility study has considered a range of options. Detailed reports have been produced at each stage of the study. Those with a direct interest in the implementation of an LEZ have been consulted at each stage. A joint steering group, comprising city and county council officers and councillors, has considered the recommendations at each stage of the study and narrowed down the options.
5. The study has taken into account the effects of other factors affecting air quality in the city centre. These factors include trends in vehicle emissions that would continue with or without an LEZ, planned developments such as the Westgate shopping centre, and planned transport schemes that are expected to affect traffic flows. Bus routing changes resulting from Stage 1 of Transform Oxford - the county council's proposals to transform the transport and pedestrian experience in Oxford city centre – have been included in the assessment.
6. The study has considered the compliance costs borne by individuals and companies operating vehicles in the city centre. This has focused primarily on the costs to the bus companies, because significant increases in their costs are likely to be passed on at least in part to passengers.

Low emission zone study – overall conclusions

7. The LEZ study has concluded that an LEZ for Oxford city centre should:

- (a) Apply only to public service buses and coaches, (including Tourist Coaches and National Express Coaches)

The main source of NOx in most streets in central Oxford is buses and coaches.

An LEZ applying to vehicles other than public service buses and coaches would need to be established using a traffic regulation *order* (TRO).

Such a scheme would involve establishing points on the roads leading into the city centre through which vehicles not complying with certain requirements would be prohibited from passing. Any non-compliant vehicles passing these points would be fined. The implementation, administration and enforcement of this would be highly complex and expensive, and would have to be undertaken by the county council. Income from fines would be low, given the relatively low number of non-compliant vehicles involved, and would not significantly contribute towards the scheme operating costs.

Considerable signage and enforcement equipment (e.g. cameras) would be needed at various locations, many of which would be sensitive for conservation reasons.

Alternative routes would need to be available for non-compliant vehicles to by-pass the restricted zone. In Oxford's constrained historic streets, this would be difficult or impossible to achieve without environmentally unacceptable and expensive infrastructure changes.

This option (i.e. LEZ via a TRO) is not recommended.

An LEZ applying only to public services buses and coaches could be established using a traffic regulation *condition* (TRC) or under the provisions of the Local Transport Act 2008. Using either method, implementation, administration and enforcement would be achieved through the system of bus service registration, rather than on-street enforcement of traffic restrictions.

The extra benefit of an LEZ applying to all vehicles would be small, and limited to a few streets, so the considerable extra cost, complexity, environmental harm and enforcement difficulties associated with an all-vehicles LEZ cannot be justified.

This option (i.e. LEZ via TRC and/or Bus Quality Partnership Scheme QPS) is recommended.

- (b) Apply to ALL public service buses and coaches operating in the city centre

Public transport operators compete in a commercial environment for business, so any LEZ applying to some operators and not others would give an unfair competitive advantage to those operators to which it did not apply.

- (c) Set a standard for NOx emissions only (not NOx and particulate matter)

Although both nitrogen dioxide and particulate matter affect health, the main problem in Oxford city centre is nitrogen dioxide pollution. LEZ options setting a standard for both pollutants were assessed, but rejected because i) a particulate matter based standard could *worsen* NOx emissions; ii) a NOx-based standard would also improve particulate matter emissions.

- (d) Be achieved through a traffic regulation condition (TRC) or statutory quality partnership scheme (QPS)

Various implementation methods have been considered. A traffic regulation condition (TRC) or statutory quality partnership scheme (QPS) are considered to be the most appropriate. The two main alternatives (at either end of the scale in terms of level of regulation) are voluntary agreements and bus quality contracts.

Voluntary arrangements would give the councils no guarantees that the required emissions reductions would be delivered. They would also leave bus operators who complied with the voluntary agreement vulnerable to unfair competition from non-compliant operators (e.g the ability to offer lower fares by running older, cheaper vehicles).

Bus quality contracts require the local transport authority (in Oxfordshire the county council) to take a direct role in the running of bus services. This would involve letting contracts for the operation of buses in a defined area for fixed periods. The county council would incur significant additional on-going costs in administering such an arrangement, and it would very likely take many years to establish. Bus quality contracts are not, therefore, considered to be the right model for achieving emissions reductions in Oxford, primarily because equally effective methods (a TRC or QPS) are available and can be implemented more quickly and without major on-going costs.

- (e) Require buses and coaches to meet the Euro V standard

The study assessed the impacts of both a Euro IV and Euro V standard on emissions and bus operators' compliance costs.

A Euro V standard, applying to all buses and coaches, would deliver the required NOx reductions in central Oxford. A Euro IV standard would not deliver the required reductions.

A Euro V standard results in the most equitable distribution of compliance costs for the main commercial bus operators in Oxford; i.e. the compliance costs they each would bear is roughly proportionate to the size of their fleets. Other options are less equitable in this respect.

Low emission study – conclusions on Transform Oxford Stage 1

8. The LEZ study has concluded that the bus routing changes associated with Transform Oxford Stage 1 would deliver some major improvements in air quality in those streets where buses are reduced or eliminated. However, air quality will, as would be expected, worsen in those streets where the number of buses increases as a result of the routing changes. The overall effect of Transform Oxford can be considered positive.
9. These improvements are not sufficient to remove the need for further action to improve air quality in Oxford city centre, so the study recommends that an LEZ is still progressed.

LEZ compliance date

10. The city and county councils must specify a date by which they expect bus operators to comply with Euro V standard. Some operators already have some vehicles that comply. To meet the standard across their entire fleet, the bus companies must close the gap between their current compliance level and the target compliance level of 100%.
11. The LEZ steering group has considered various options for closing this gap, and has assessed the impact of these options on bus operators' future vehicle replacement costs. On the basis of these assessments, the group has decided to set a target compliance date of 31st December 2013.

Integration with other transport initiatives

12. It is vital that proposals for a low emission zone are not progressed in isolation from other transport initiatives. Two major initiatives that are currently particularly relevant are Transform Oxford (county council proposals to transform the transport and pedestrian experience in Oxford city centre) and the county council's related work with the bus operators to establish a new statutory quality partnership scheme which would only allow access to certain bus infrastructure if certain constraints are met (including new initiatives such as joint ticketing arrangements). It is envisaged that the LEZ proposals would be developed as a fully integral part of a single quality partnership scheme.

13. This content and recommendations of this report have been agreed with Oxfordshire County Council, through the LEZ feasibility study Steering Group. An equivalent report is being presented to County CMD on 26th March 2009.

Climate change / environmental impact

14. Improving air quality is consistent with contributing to reducing emissions that contribute to climate change. The recommendations are with the objective of reducing transport emissions in order to improve air quality in central Oxford.

Equalities impact

15. The declaration of a Low Emission Zone, is part of a joint initiative with Oxfordshire County Council to implement an integrated package of transport and bus quality improvement measures, for improvement of the city centre air quality and environment.

Financial Implications

16. There are no financial implications of the recommendations on the City Council

Legal Implications

17. There are no legal implications of the recommendations on the City Council

Recommendations

18. The Executive is RECOMMENDED to:
1. To declare a Low Emission Zone, requiring all Public Service Vehicles (PSV) operating in Oxford city centre to meet the Euro V emission standard by 31st December 2013
 2. In pursuit of the above, to work together with Oxfordshire County Council in the development of an integrated package of transport and bus quality improvements in Oxford.

This to include :-:-

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AND

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List of background papers:

LEZ Stage 1 and Stage 2 Reports, AEA Technology

Glossary

AQAP: Air Quality Action Plan

AQMA: Air Quality Management Area

LEZ: Low Emission Zone

PSV: Public Service Vehicle

TRC: Traffic Regulation Condition

TRO: Traffic Regulation Order

QPS: Quality Partnership Scheme

Version number: 6

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