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COMMITTEE	Council
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REPORT TITLE	Air Quality Low Emission Zones Update
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DIRECTOR	Bernadette Marjoram
REPORT AUTHOR	Aileen Brodie

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**1. PURPOSE OF REPORT:-**

To advise Council of progress in the development of a Low Emission Feasibility Study as instructed at the meeting of 21 June 2017 and inform Council of progress in the development of the national Low Emission Zone (LEZ) regime.

**2. RECOMMENDATION(S)**

That the Council agree:-

- a) To instruct the Interim Director of Communities, Housing and Infrastructure to continue to progress the Low Emission Feasibility Study in accordance with the methodology detailed in the Technical Guidance and prescribed timescales and continue to inform the Council of the study outcomes at prescribed stages of the assessment process; and
- b) To instruct the Interim Director of Communities, Housing and Infrastructure to inform the Council of the implications of any new legislation, national policy and guidance relating to Low Emission Zones (LEZs) and air quality as they are published.

**3. BACKGROUND/MAIN ISSUES**

**3.1 Background**

- 3.1.1 The Council report of 21 June 2017 described the national arrangement for the development of a Low Emission regime and the roles and responsibilities of local authorities and partner organisations. The report further explained the steps involved in the development of a Low Emission Feasibility Study for the 4 main cities and the initial work carried out within Aberdeen. This report describes the progress in the development of the Air Quality Model for Aberdeen to support the Low Emission Zone (LEZ) feasibility study and progress in the development of a national LEZ framework. Note that the specific instructions of the meeting of 21 June were:

- (i) To instruct the Interim Director of Communities, Housing and Infrastructure to carry out a Low Emission Feasibility Study in accordance with the methodology detailed in the Technical Guidance and prescribed timescales;
- (ii) To instruct officers to inform the Council of the study outcomes and recommendations at prescribed stages of the assessment process as detailed in the Technical Guidance;
- (iii) To note the 'Next Steps' section explaining the Feasibility Study process and role of the partner organisations;
- (iv) To instruct the Interim Director of Communities, Housing and Infrastructure to bring a report back to Council detailing the outcomes of the feasibility study with a view to members determining whether Aberdeen City Council should volunteer itself as an early adopter.

### **3.2 National LEZ Framework Progress**

3.2.1 Actions to improve air quality featured prominently in the Government's Programme for Scotland 2017-18. Key commitments to be taken forward in the next year by the Scottish Government are to:

- Introduce a Low Emission Zone (LEZ) in one city by the end of next year – and work with local authorities to introduce LEZs in the other 3 biggest cities by 2020 and to all Air Quality Management Areas (AQMAs) by 2023.
- Introduce an Air Quality Fund to support local authorities with Air Quality Management Areas to deliver transport-based mitigation as identified by the National Low Emission Framework.
- Work with the commercial and bus sectors, the Energy Savings Trust and the Low Carbon Vehicle Partnership to introduce an Engine Retrofitting Centre for Scotland to support the delivery of LEZs, creating new jobs and with the goal of winning business from outside Scotland.

3.2.2 Glasgow City Council approved plans to introduce a LEZ at the Council meeting of 28 September 2017. The LEZ will initially focus on retrofitting older buses to improve emission performance, or to replace them with Euro VI models where possible. Air quality modelling in Glasgow commenced earlier than Aberdeen, Edinburgh and Dundee, hence the feasibility study is at a more advanced stage and enabled the announcement of the intention to introduce a LEZ.

3.2.3 The "Building Scotland's Low Emission Zones" consultation was launched on 6 September 2017 with a closing date of 28 November 2017. The consultation describes the proposed process to deliver a national approach that ensures robust implementation of LEZs. Key questions include views on the enforcement process, funding, classes of vehicles to include, exemptions, lead-in times and sunset periods for vehicle types. The consultation can be accessed via <https://consult.scotland.gov.uk/transport-scotland/building-scotlands-low-emission-zones>. A response will be submitted by the Council.

3.2.4 A Senior Council spokesperson from each of the 4 biggest cities has been invited to join a LEZ Leadership Group that is being created by the Scottish Government and ministerially chaired to support the implementation of LEZs. Eric Owens, Interim Head of Planning and Sustainable Development will represent Aberdeen and inform the Council of any key developments emerging from the Group. The Leadership

Group is in addition to and will support the Cleaner Air for Scotland (CAFS) Governance Group which considers the implementation of all measures within the CAFS strategy. Aberdeen City Council is also represented on the CAFS Governance Group.

### 3.3 Aberdeen Air Quality Model

3.3.1 Development of the Aberdeen air quality model by SEPA is progressing. Data from the March 2017 traffic count has now been uploaded to the model and compared with the 2012 count data. Initial observations of 12 hour flows suggests a reduction in traffic flows along stretches of road next to the Market Street, Union Street, King Street and Wellington Road monitoring stations. Table 1.1 indicates the change in 12 traffic flows adjacent to the monitoring stations.

- Table 1.1. Changes in 12 hour traffic flows at Continuous Monitoring Stations

Location	Vehicle Classification					
	Cars		HGVs		LGVs	
	2012	2017	2012	2017	2012	2017
<b>Market St</b>	18013	18166	4212	3168	3143	4224
<b>Union St</b>	8825	7853	1816	1633	1319	1443
<b>King St</b>	16180	12332	2635	2244	2219	2136
<b>Wellington Rd</b>	15634	13993	3550	2994	2461	3030

- HGV: Heavy Goods Vehicles
- LGV: Light Goods Vehicles

The following points are noted:

- There was a significant reduction in the number of cars on most major city streets, with the exception of Market Street where the number of cars was similar in 2012 and 2017
- On Union Street the number of buses was similar (1398 buses in 2012 compared to 1376 in 2017)
- On Market Street and Wellington Road the number of HGVs decreased significantly although there was an increase in LGVs.
- Pollution concentrations at the monitoring stations have significantly reduced over the last few years which may be explained in part by the reduced traffic flows and associated reduced congestion.
- The model has been further developed to include emissions from shipping. Initial observations indicate similar predictions to the 2011 Harbour study undertaken by AECOM. This study showed that, while shipping did contribute to the exceedance of the air quality objectives in limited areas close to the Harbour, road traffic was by far the greater source of the raised pollution levels.

3.3.2 The air quality data is now being used to source apportion the measured NO<sub>2</sub> (nitrogen dioxide) and PM<sub>10</sub> (particulate) levels to the various vehicle types. This is the first step in the feasibility study. The information will enable scenario testing to predict future concentrations from various potential interventions. It is anticipated the source apportioning work will be completed by the end of the year, and the scenario testing by early 2018.

### **3.4 Next Steps**

- 3.4.1 Issues around resources both to local authorities and other stakeholders are still being considered nationally by the Scottish Government and partner organisations. Similarly guidance on the framework for key aspects such as the LEZ implementation process and enforcement regime is still being developed. Further updates on the implications for the Council will be provided once the outputs from the model scenario testing are available and national policies and processes are established.

## **4. FINANCIAL IMPLICATIONS**

- 4.1 There are no financial implications arising from the initial feasibility study actions using the air quality model other than staff time which can be met from existing resources. Potential other work streams including any health or economic appraisal, Business Case or stakeholder consultation process would require significant financial and staffing resources that cannot be met from existing Council budgets. These matters are being considered nationally by the Cleaner Air for Scotland (CAFS) working group. The role of local authorities in undertaking specific work streams and the support required is still under consideration. Transport Scotland is co-ordinating an assessment of potential costs to develop the infrastructure and enforcement regime for potential low emission schemes and will report on these costs to Scottish Ministers.
- 4.2 The economic impact of a low emission scheme, if implemented, could be significant depending on the nature of the scheme, location and vehicle classifications and will be assessed during the appraisal process. Estimated costs to develop a LEZ and provide the necessary infrastructure are £10M-£20M based on studies elsewhere in the UK. Further information on financial implications and the impact on services will also be reported to the Council in future reports. The potential economic impact on bus operators, haulage companies, business and the public would also require consideration.

## **5. LEGAL IMPLICATIONS**

- 5.1 There are no legal implications in undertaking a low emission feasibility study. The legal implications of setting up and enforcing low emission zones in Scotland is likely to require new legislation and is being considered nationally by Transport Scotland and partners organisations. Legal implications to Aberdeen City Council will be dependent on whether a formally adopted low emission zone is adopted and the nature of any such enforcement regime. Further information on the legal implications will be reported to the Council should the feasibility study recommend the introduction of a low emission zone in Aberdeen. If Aberdeen is not adopted as a LEZ, Aberdeen City Council will still have a duty to meet the air quality objectives through the implementation of the measures Air Quality Action Plan 2011 and other Council initiatives such as the City Centre Master Plan.

## **6. MANAGEMENT OF RISK**

### **6.1 Financial**

- 6.1.1 There are no financial risks associated with the feasibility study. Financial risks may arise should the Scottish Government recommend the implementation of a LEZ in Aberdeen. These risks would be determined by the nature, size and location of the LEZ and enforcement regime and cannot be currently quantified; however, the

Scottish Government is committed to providing the resources it considers necessary to meet EU legal obligations to comply with the air quality objectives.

Risk: Low

## **6.2 Employee**

- 6.2.1 Initial stages of the feasibility study can be accommodated by existing staff resources and risks are low. Complex economic, health and Strategic Assessment Guidance assessments would require additional resources. Transport Scotland and partner organisations are assessing the potential local authority resource required and delivery options. Risks are generally low provided the Scottish Government and partner organisations provide the necessary personnel/consultant resource to manage the process, however Council employee involvement will still be necessary to direct and support any project.

Risk: Medium

## **6.3 Customer/citizen**

- 6.3.1 There are no risks associated with the feasibility study. Potential risks to citizens could arise should it be necessary to introduce a LEZ that includes restrictions on older diesel cars. The management of these risks would be considered during a public consultation process.

Risk: Low

## **6.4 Environment**

- 6.4.1 There are no environmental risks. Measures to improve air quality will provide wider environmental benefits through reduced CO2 emissions and reduced damage to vegetation and ecosystems.

Risk: Low

## **6.5 Technology**

- 6.5.1 The air quality model to support the feasibility process is via established technology and the risk of system failure is low. Potential technology risks could arise should a camera based enforcement regime be implemented. These risks will be specified in future reports should a LEZ be introduced.

Risk: Low

## **6.6 Legal**

- 6.6.1 Member states have a legal duty to comply with EU air quality objectives. The legal implications of setting up and enforcing low emission zones in Scotland is likely to require new legislation and is being considered nationally by Transport Scotland and partner organisations. The implication of any new legislation will be monitored in order to understand the impact on Aberdeen City Council at the earliest opportunity.

Risk: Low

## **6.7 Reputational**

- 6.7.1 There are no risks associated with the feasibility study.

Risk: Low

## **7. IMPACT SECTION**

- 7.1 There are no direct impacts from undertaking a low emission feasibility study. Although the focus of a LEZ is to reduce pollutants that are harmful to health, the

upgrade of vehicle fleets would potentially also reduce CO2 emissions and support Empowering Aberdeen.

## **7.2 Economy**

- 7.2.1 There are no direct economic impacts from undertaking a low emission feasibility study. The adoption of a low emission zone, if recommended by the feasibility study, would support the local economy by potentially reducing traffic and providing a more attractive environment to live, work and visit. However, the potential economic impact on haulage companies, bus operators and other businesses that could be adversely effected would require consideration.

## **7.3 People**

- 7.3.1 There are no impacts on people from undertaking a low emission feasibility study. The adoption of a low emission zone and associated air quality improvements would provide short and long term health benefits to people living in Aberdeen. Improved air quality provides greatest benefit to vulnerable people, particularly the elderly, young children and those who already suffer pulmonary or cardiovascular illness. A public consultation process will be undertaken should a low emission zone be recommended.

## **7.4 Place**

- 7.4.1 Improved air quality provides a more attractive environment to invest, live and visit. Depending on the location and vehicle classifications included, a LEZ has the potential to reduce vehicle numbers and congestion, complementing the objectives of the City Centre Masterplan and Smarter Cities to provide a people friendly City Centre.

## **7.5 Technology**

- 7.5.1 The air quality model will enhance pollution information available across the city and enable the assessment of air quality impacts of proposed road infrastructure or planning developments. Transport Scotland is also exploring methodologies that could be used to link air quality and traffic models to enable the impact of traffic displacement from LEZs to be assessed as part of the feasibility study process.

## **8. BACKGROUND PAPERS**

Building Scotland Low Emission Zones, A Consultation, Transport Scotland September 2017 (<https://consult.scotland.gov.uk/transport-scotland/building-scotlands-low-emission-zones>)

Cleaner Air For Scotland – the Road to a Healthier Future, Scottish Government, 2015 ([www.scottishairquality.co.uk/air-quality/CAFS](http://www.scottishairquality.co.uk/air-quality/CAFS))

Aberdeen City Council Air Quality Progress Report 2016

Aberdeen City Council Air Quality Action Plan 2011

## **9. APPENDICES**

None

## **10. REPORT AUTHOR DETAILS**

Aileen Brodie  
Principal Environmental Health Officer  
[ailbrodie@aberdeencity.gov.uk](mailto:ailbrodie@aberdeencity.gov.uk)  
01224 522216

## **HEAD OF SERVICE DETAILS**

Derek McGowan  
Head of Communities and Housing  
[demcgowan@aberdeencity.gov.uk](mailto:demcgowan@aberdeencity.gov.uk)  
01224 52226