

REPORT TO: Cabinet

MEETING DATE: 21 October 2014

BY: Depute Chief Executive (Partnerships and Community Services)

SUBJECT: Local Air Quality Management – Air Quality Management Area (AQMA) in Musselburgh: Update

1. PURPOSE

- 1.1. This report informs Cabinet of the outcomes of a Further Assessment of local air quality in Musselburgh in fulfilment of the Council's obligations under Section 84(2)(a) of the Environment Act 1995, the UK National Air Quality Strategy and Scottish Air Quality Regulations.
- 1.2. The report seeks approval to progress the development of an Air Quality Action Plan required by section 84(2)(b) of the Environment Act 1995 to work towards compliance with air quality objectives and relevant Regulations.

2. RECOMMENDATIONS

- 2.1. It is recommended that Cabinet:
 - a) Note the conclusions of the 2014 Further Assessment and 2014 Air Quality Progress Report;
 - b) Acknowledge that further actions through developing an Air Quality Action Plan are required in order that air quality objectives are achieved in Musselburgh; and
 - c) Acknowledge that Environmental Protection will liaise with colleagues in Transportation to develop options that will be considered for inclusion within the Air Quality Action Plan, with a further report being submitted for consideration by Cabinet in 2015.

3. BACKGROUND

3.1 Legislation

3.1.1 Part IV of the Environment Act 1995 requires the UK Government and devolved administrations to publish a National Air Quality Strategy. The air quality objectives in Scotland are set out in the Air Quality (Scotland) Regulations 2000 and the Air Quality (Scotland) (Amendment) Regulations 2002. These objectives provide the statutory basis for the system of Local Air Quality Management (LAQM) to protect public health.

3.1.2 The regulations define air quality standards for a number of pollutants: lead; benzene; 1,3 butadiene; carbon monoxide, sulphur dioxide; nitrogen dioxide and small particulate matter (PM₁₀). These pollutants are primarily related to thermal combustion processes including road traffic emissions.

3.1.3 Section 82 of the 1995 Act places an obligation on all local authorities to regularly review and assess air quality in their areas and to consider the current and likely future air quality in their areas. Under the LAQM process local authorities also have a duty to continue to work towards meeting the objectives beyond the deadlines set out in the regulations. This review and assessment work is reported to Scottish Government & the Scottish Environment Protection Agency (SEPA) annually.

3.1.4 Where exceedences are considered likely, the local authority must then declare an Air Quality Management Area (AQMA) through issuing a formal order and prepare an Air Quality Action Plan (AQAP) setting out the measures it intends to put in place in pursuit of the objectives. In November 2013, East Lothian Council declared an Air Quality Management Area (AQMA) in Musselburgh in relation to breaches and likely breaches of the nitrogen dioxide annual mean air quality objective. The extent of the AQMA covers High Street, Musselburgh from the junction with Newbigging to the junction at Bridge Street as delineated on the map shown in Appendix 1.

3.1.5 Currently there are 34 AQMAs in Scotland within 14 local authority areas, with the vast majority of these having been declared for transport related emissions of nitrogen dioxide and/or particles (PM₁₀). The actions outlined in the Air Quality Action Plans vary for each authority, depending on the local air quality issues and the air quality objectives exceeded. AQMA's can be revoked at a future time if air quality within an AQMA is brought back within the air quality objective limits.

3.2 Assessment of Air Quality in East Lothian

3.2.1 The Council has been annually reviewing and assessing local air quality since 2003. The majority of pollutants (benzene, 1,3-butadiene, carbon monoxide, sulphur dioxide and lead) have been screened out in previous assessments and exceedences of air quality objectives for these pollutants across East Lothian are not considered likely.

3.2.2 The pollutants of greatest concern are particulate material (PM₁₀) and nitrogen dioxide (NO₂), principally from road traffic sources. For both of these pollutants air quality objectives are unlikely to be exceeded outwith the existing AQMA. PM₁₀ levels are not considered likely to breach the air quality objectives at this time but monitoring continues in Musselburgh.

3.2.3 The main issue relates to nitrogen dioxide (NO₂). In June 2012, the air quality Detailed Assessment for Musselburgh was completed. It concluded that the highest annual average NO₂ concentrations, using monitoring data from 2011 and also computer modelling, were predicted at receptors located on High Street and Bridge Street close to bus stops and that the majority of the predicted annual mean exceedences were marginal.

3.2.4 Additional monitoring of NO₂ levels took place in 2012-13 to verify the computer modelling. The results have confirmed that parts of the High Street are exceeding the nitrogen dioxide annual mean objective, which is a measure of longer term exposure. The 1-hour mean objective for NO₂ (a measure of short term exposure) is unlikely to be breached.

3.2.5 Monitoring of NO₂ outwith the Musselburgh AQMA does not indicate any exceedence of the air quality objectives at this time, however monitoring of NO₂ levels will continue at locations both within and outwith the AQMA.

3.3 Air Quality and Transportation

3.3.1 Town centre improvement works are currently ongoing and due for completion late November 2014. Included within this work is the upgrading of the traffic signals at the High Street / Newbigging junction and removal of the car park access arm from the junction. This will improve the operation and reduce the average cycle time under SCOOT (Split Cycle Offset Optimisation Technique) operation and reduce the overall delay to pedestrians by lowering the maximum waiting times.

3.3.2 Queue length reductions are expected to be achieved and the traffic modelling undertaken confirms this, however, in order to effectively measure this, a post installation survey will be carried out.

3.3.3 At this time, East Lothian Council has engaged a Transport Planning Consultant (SYSTRA) to enhance the SESTRAN Regional Saturn traffic model to provide increased detail within East Lothian. This exercise is running in conjunction with Transport Scotland – Cross Boundary modelling exercise to identify key strategic routes and junctions which will be placed under stress due to future demand.

3.3.4 A further contract will be let (mid November 2014) for a transport consultant to develop a more detailed traffic model of Musselburgh and the Tranent area based on the model currently being developed by SYSTRA, representative of the current traffic volumes, public transport

routes, travel patterns and behaviour so an accurate picture of traffic issues and problems can be understood.

3.3.5 The base model will then be used to test the effect of increased traffic volumes on the road network as a consequence of the current housing and business land allocations. The model will also be able to forecast future demands and examine potential solutions to achieve compliance with the annual mean nitrogen dioxide objective.

3.4 2013 Air Quality assessment report and next steps

3.4.1 The results of the 2013 and 2014 Air Quality Progress Reports, 2014 Further Assessment and monitoring data from 2012-13 indicate that the objectives for all other pollutants are being met across East Lothian. However, monitoring of nitrogen dioxide in Musselburgh continues to show concentrations at various locations in Musselburgh High Street have been exceeded, or are very close to, the annual mean objective. The results of automatic monitoring of PM₁₀ confirm that both the annual and 24-hour mean objectives continue to be met in Musselburgh.

3.4.2 The Further Assessment in 2014 concluded that:

- Ambient NO_x reductions of up to 27% are required within the AQMA to achieve compliance with the annual mean NO₂ Objective.
- Emissions from buses form the largest contribution of NO_x emissions with 29% attributed to bus activity.
- Queuing traffic is more of an issue than numbers of moving vehicles.
- A 30% reduction or greater in queuing traffic is required to bring NO₂ levels to below or equal to the annual mean objective.
- An integrated package of interventions that reduce overall traffic, reduce queuing and reduce bus numbers will provide the best NO_x reductions.
- The boundaries of the current AQMA do not require amendment or revocation at this time and were sufficient to include all relevant sources and receptors.

3.4.3 An Air Quality Action Plan has to be developed which must focus on effective, feasible, proportionate and quantifiable measures as the top priority in ensuring improvement in local air quality and future compliance with air quality objectives. These measures may be radical in nature if the Council is to meet the annual mean air quality objective for NO₂ in Musselburgh. The Air Quality Action Plan should include:

- quantification of the source contributions to allow measures to be effectively targeted
- evidence that all options have been considered on the grounds of cost effectiveness and feasibility
- how the local authority will use its powers and work with other

organisations in pursuit of air quality objectives

- clear timescales in which the authority and other organisations propose to implement the measures identified
- quantification of the expected impacts of the proposed measures and an indication if these measures will be sufficient
- how the local authority proposes to monitor and evaluate the effectiveness of the action plan

3.4.4 The 1995 Act does not specify any timescales for preparation of an Air Quality Action Plan but the Scottish Government would normally expect this to be completed within 12-18 months following AQMA declaration. Consultation should take place during the preparation of an Air Quality Action Plan to ensure consultees can make known their preliminary views about what the plan should include.

3.4.5 The types of measures that may feature in an Air Quality Action Plan are:

- Liaison with transport operators about vehicle emission levels in Musselburgh
- Reviewing traffic management arrangements in the town centre
- Measures to reduce engine idling
- Air quality monitoring
- In the longer term there may be considerations around roads infrastructure and public transport routes.

3.4.6 A further report will be prepared for Cabinet in 2015 detailing the measures to be considered for adoption within the proposed Air Quality Action Plan.

4. POLICY IMPLICATIONS

- 4.1. Assessment of local air quality is a statutory obligation on the Council.
- 4.2. Air quality is a key performance measure of East Lothian's environmental quality in the East Lothian Environment Strategy 2010-15 and in the East Lothian Single Outcome Agreement 2013
- 4.3. The existence of an Air Quality Management Area and the conclusions of the Further Assessment may have implications for development proposals in the Musselburgh area particularly any development which may generate significant additional traffic movement or involve thermal combustion processes.
- 4.4. Meeting air quality standards will have implications for traffic management through Musselburgh town centre.

5. EQUALITIES IMPACT ASSESSMENT

- 5.1. This report is not applicable to the well being of equality groups and an Equality Impact Assessment is not required although the development of an Air Quality Action Plan may require more detailed consideration of equalities related issues.

6. RESOURCE IMPLICATIONS

- 6.1. Financial - There are no direct financial implications related to this report, although development and consultation on an Air Quality Action Plan will incur some administrative costs. These costs will be assessed during preparation of the Air Quality Action Plan and a further report submitted if necessary. Scottish Government grant funding has been awarded for financial year 2014/15 to assist the Council with the development and implementation of its Air Quality Action Plan. Further funding may be available for future financial years.
- 6.2. Personnel - There will be no immediate impacts upon personnel resources as a consequence of this report
- 6.3. Other - None

7. BACKGROUND PAPERS

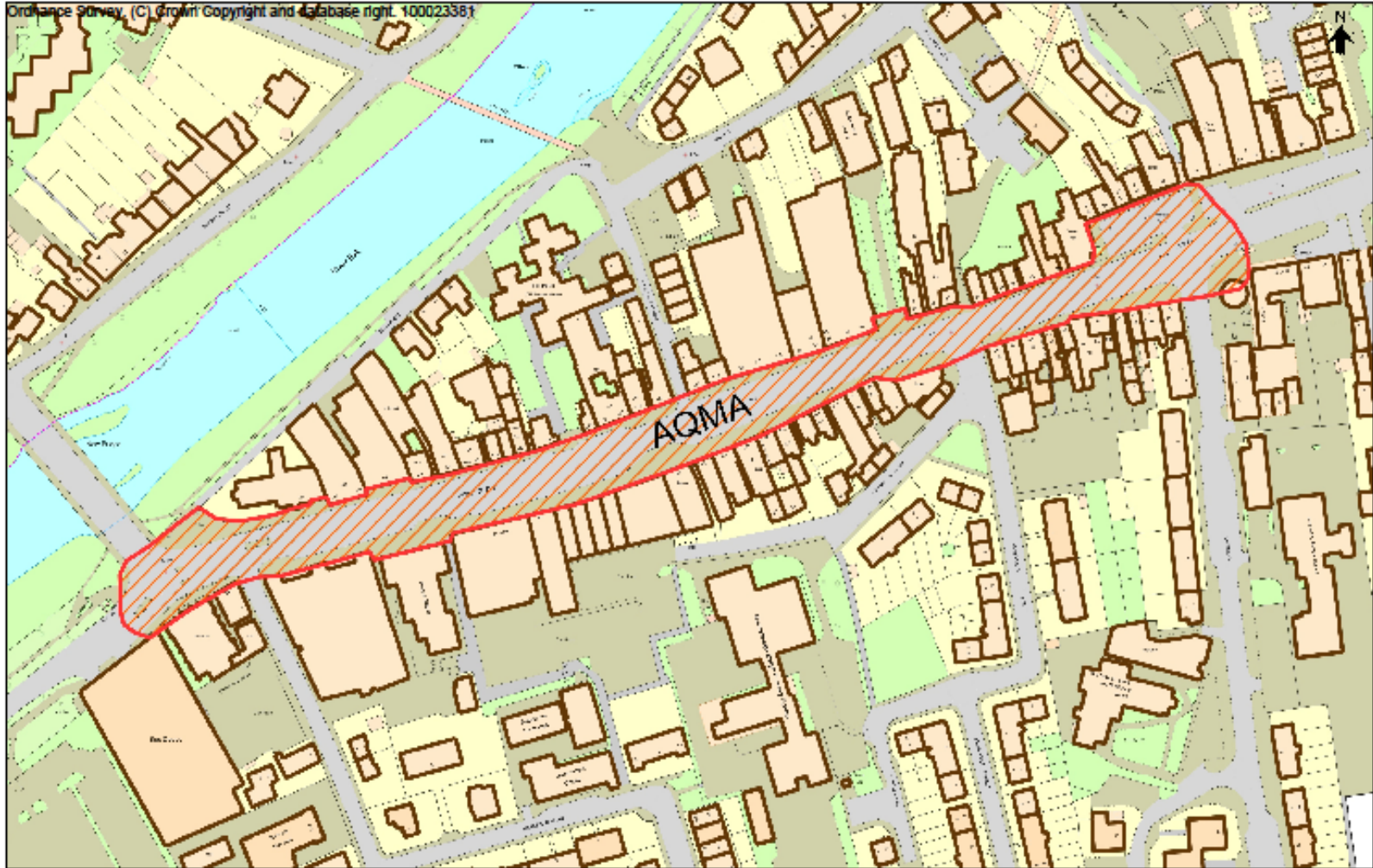
- 7.1. 2013 Air Quality Progress Report for East Lothian Council, August
- 7.2. 2014 Air Quality Further Assessment for Musselburgh, Ricardo-AEA for East Lothian Council, September 2014
- 7.3. 2014 Air Quality Progress Report for East Lothian Council, September 2014

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DATE	08 th October 2014

APPENDIX 1:

EXISTING AIR QUALITY MANAGEMENT AREA, HIGH STREET, MUSSELBURGH

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High Street, Musselburgh (Newbigging to The Mall) - Air Quality Management Area

1:2000
30 August 2013

User: admin

