

REPORT TO: Cabinet

MEETING DATE: 14 June 2016

BY: Depute Chief Executive (Partnerships and Community Services)

SUBJECT: Air Quality Management Area: Action Plan Update

1 PURPOSE

- 1.1 This report informs Cabinet of the updated position of the development of an Action Plan, as required by the Environment Act 1995, with regards to the designated Air Quality Management Area (AQMA) of Musselburgh High Street.

2 RECOMMENDATIONS

- 2.1 Cabinet is asked to note the ongoing work that is being undertaken to develop the AQMA Action Plan in conjunction with road traffic modelling work that is being undertaken in relation to the Local Development Plan (LDP).

3 BACKGROUND

- 3.1 The Environment Act 1995 requires the UK Government and devolved administrations to publish a National Air Quality Strategy.
- 3.2 A set of air quality standards and objectives has been developed for several pollutants of concern for human health. Standards are concentrations of pollutants that are considered safe for humans and the environment. Objectives are derived from the standards and are a compromise between what is desirable purely on health grounds and what is practical in terms of feasibility and costs. Each objective has a date by when it must be achieved.
- 3.3 The objectives adopted in Scotland for the purpose of Local Air Quality Management are set out in the Air Quality (Scotland) Regulations 2000, the Air Quality (Scotland) Amendment Regulations 2002 and the Air Quality (Scotland) Amendment Regulations 2016. Similar targets are set

at EU level, where there are called limit or target values. These are set out in the European 2008 Ambient Air Quality Directive (2008/50/EC) and transposed into Scottish legislation by the Air Quality Standards (Scotland) Regulations 2010. It is the responsibility of EU Member States to achieve the limit and target values. A summary of the current UK Air Quality Objectives is provided in Appendix 1.

- 3.4 Since December 1997 each local authority in the UK has a statutory duty to review and assess air quality in their area on an annual basis.
- 3.5 Whenever it appears that one or more of the air quality objectives is unlikely to be met, the local authority concerned must declare an Air Quality Management Area (AQMA), covering the area of concern. The authority must then prepare and implement an Action Plan outlining how it intends to tackle the issues identified. The Plan will include timescales to indicate when the measures will be implemented.
- 3.6 The Environment Act 1995 does not prescribe any timescale for preparing an Action Plan but the Scottish Government expects Plans to be completed within 12-18 months following the designation of any AQMAs.
- 3.7 In March 2016, Scottish Government published revised Policy Guidance (PG(S)(16)) on Local Air Quality Management. The Scottish Government accepts that there will often be legitimate reasons for late submission of AQMA Action Plans. In such cases, a revised submission date can be agreed. Where no such contact is made (and in cases where the revised deadline is missed with no further contact) SEPA, with the support of the Scottish Government, is to introduce a new system of reminder and warning letters.

East Lothian Council Air Quality Management Area and Action Plan

- 3.8 The outcome of prescribed assessments and monitoring data in East Lothian indicate that the Objectives for all pollutants (particulates (PM₁₀), carbon monoxide, benzene, 1,3-butadiene, lead and sulphur dioxide), with the exception of nitrogen dioxide, are being met.
- 3.9 It was identified through passive diffusion tube monitoring, that in two sections of the High Street in Musselburgh, concentrations of nitrogen dioxide exceeded the respective annual mean air quality objectives. Results of diffusion tube monitoring along Musselburgh High street is shown in Appendix 2. The exceedences were consistent with emissions from local traffic congestion, with bus emissions arising from diesel fleet and particularly older fleet vehicles coupled with waiting and accelerating vehicles having significant impact.
- 3.10 In 2013 East Lothian Council designated and declared an Air Quality Management Area covering Musselburgh High Street, from its junction with Newbigging and extending westwards to the junction with Bridge Street, as illustrated in Appendix 3.

- 3.11 Following the declaration of the AQMA, East Lothian Council commissioned a Further Assessment of Air Quality in Musselburgh and this was completed in September 2014. This confirmed that the initial decision to declare an AQMA remained valid and more detailed information to contribute to the Action Plan was obtained.
- 3.12 East Lothian Council is required to prepare and publish an Action Plan focusing 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. Work remains ongoing to produce the Action Plan.

Development of the Action Plan

- 3.13 An Action Plan has to include quantification of the source contributions to allow measures to be effectively targeted; quantification of the expected impacts of the proposed measures and an indication if these measures will be sufficient. We must also ensure and evidence that all options have been considered on the grounds of cost effectiveness and feasibility.
- 3.14 It is important, that notwithstanding the current situation, the AQMA action plan must consider Local Development Plan (LDP) impact too. In order to effectively capture and assess the consequential impacts of housing and economic allocations on the AQMA, the Council must finalise technical work to assess the cumulative impacts of proposed growth and the impact of interventions designed to address transportation issues within the LDP itself. The traffic planning studies on impacts and interventions are forecasted for completion in July 2016.
- 3.15 Mitigation interventions identified as part of the technical transport work undertaken for the proposed plan will also be modelled by Scottish Government grant funded air quality consultants, Ricardo EE. This will identify the most effective collective measures for implementation and inclusion in the Action Plan.

Ongoing Monitoring

- 3.16 Ongoing studies confirm the exceedences of the annual mean nitrogen dioxide objective, where relevant exposure exists but that these levels are not rising.
- 3.17 The data from source apportionment studies provides statistics which identify and quantify extant sources of the specific air pollutant.
- 3.18 Data will be used to devise and deliver an effective policy and regulatory framework, with identified control strategies formulated from various mitigation scenarios, to reduce nitrogen dioxide levels in the AQMA to below Objective Levels.

Ongoing AQMA Positive Impact Work

- 3.19 Considerable work has been undertaken within the Council, in partnership with Scottish Government grant funded consultants, to address the air quality issue in Musselburgh High Street whilst awaiting the development of the LDP and the consequential modelling exercises.
- 3.20 A list of possible actions, ranging from strategic to practical measures has been devised for assessment of suitability and impact for inclusion in the Action Plan.
- 3.21 Sections 3.25 – 3.32 of this report outline practical initiatives currently in place and/or being developed within East Lothian Council that contribute to a positive impact on air quality and will constitute fundamental components of the final Action Plan, in addition to the specific measures realised from modelling outcomes.

Scottish Government Acknowledgement & Grant Funding

- 3.22 On 4 April 2016 the Air Quality Policy Manager of the Scottish Government acknowledged a progress update provided by East Lothian Council into the delay of finalising an Action Plan based upon the LDP modelling outcomes.
- 3.23 A submission date of 31 October 2016 has been set and agreed with Scottish Government for the Action Plan in recognition of the outstanding modelling work to be undertaken in relation to the LDP and associated development impact, together with a stakeholder consultation period that will follow on from the submission date.
- 3.24 On 23 May 2016 East Lothian Council was notified by the Air Quality Policy Manager of the Scottish Government of successful grant funding applications with regards to Local Air Quality Management (£10,000) and for Air Quality Management Area work (£21,000) in 2016-17.

Vehicle Emissions Partnership

- 3.25 Since 2003, East Lothian, Falkirk, Midlothian and West Lothian Councils have worked in partnership to provide a voluntary Vehicle Emission Testing Programme, aimed at raising awareness of vehicle emissions and air quality among the general public. The East Central Scotland Vehicle Emissions Partnership provides a service between March and October at sites in Musselburgh, Haddington and Dunbar. Last year, there were 36 full days of free emissions testing within East Lothian.
- 3.26 Together with the educational element to emissions, air quality and idling, this proactive programme helps East Lothian residents ensure that their cars will pass the MOT emissions test and be road legal. As opposed to serving Fixed Penalty Notices, the Partnership has been sending, where appropriate, advisory letters based on reports from members of the public who identify vehicles which are excessively smoky and also stationary vehicles which idle their engines for long periods.

- 3.27 Greater signposting and profile to the Vehicle Emissions Partnership has commenced, particularly within the Musselburgh area, for the coming year to enhance awareness of emissions from vehicles. An enforcement strategy for idling offences is currently being explored.

ECO Stars Fleet Recognition Scheme

- 3.28 The ECO Stars Fleet Recognition Scheme aims to help fleet operators improve efficiency, reduce fuel consumption and emissions and make cost savings.
- 3.29 The scheme provides recognition for best operational practices, and guidance for making improvements. The ultimate aim is to reduce fuel consumption which naturally leads to fewer vehicle emissions and has the added benefit of saving money.
- 3.30 The Council's own fleet, together with commercial transport companies will be encouraged to engage with the scheme which will have a positive impact on emissions throughout the area, with particular attention specifically targeting Musselburgh High Street.
- 3.31 The Environmental Health Service has been successful in applying to the Scottish Government for grant funding to initiate the Scheme within the East Lothian Council area from 2016/17.

Cleaner Vehicles

- 3.32 The Council's own fleet, as well as transport companies, particularly bus operators, contribute to improvements continually with newer, cleaner vehicles being programmed for phased commission and novel methods of reducing emissions being implemented, which will include the electrification of Lothian Buses travelling through Musselburgh High Street.

4 POLICY IMPLICATIONS

- 4.1 There is a direct correlation between the work being undertaken on air quality management and the development of the proposed LDP particularly in regard to traffic modelling and traffic flow interventions in the context of housing and economic land allocations.

5 INTEGRATED IMPACT ASSESSMENT

- 5.1 The update position of this report does not affect the wellbeing of the community or have a significant impact on equality, the environment or economy although the development of an Air Quality Action Plan may require more detailed consideration of the integrated impact assessment process.

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 2016/17 to assist the Council with the development and implementation of its Air Quality Action Plan and initiation of the ECO Stars Fleet Recognition Scheme. 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 Cabinet Report – Local Air Quality Management – Air Quality Management Area (AQMA) in Musselburgh: Update (October 2014)

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APPENDIX 1

SUMMARY OF OBJECTIVES OF THE NATIONAL AIR QUALITY STRATEGY

Pollutant	Air Quality Objective		To be achieved by
	Concentration	Measured as	
Benzene			
All UK authorities	16.25 $\mu\text{g m}^{-3}$	Running annual mean	31 December 2003
Authorities in Scotland and N. Ireland	3.25 $\mu\text{g m}^{-3}$	Running annual mean	31 December 2010
1,3-Butadiene	2.25 $\mu\text{g m}^{-3}$	Running annual mean	31 December 2003
Carbon Monoxide			
Authorities in Scotland Only	10.0 mg m^{-3}	Running 8-hour mean	31 December 2003
Lead	0.5 $\mu\text{g m}^{-3}$	Annual mean	31 December 2004
	0.25 $\mu\text{g m}^{-3}$	Annual mean	31 December 2008
Nitrogen Dioxide	200 $\mu\text{g m}^{-3}$ not to be exceeded more than 18 times a year	1-hour mean	31 December 2005
	40 $\mu\text{g m}^{-3}$	Annual mean	31 December 2005
Particles (PM10) (gravimetric)			
All authorities	50 $\mu\text{g m}^{-3}$, not to be exceeded more than 35 times a year	24 Hour mean	31 December 2004
	40 $\mu\text{g m}^{-3}$	Annual mean	31 December 2004
Scotland Only	50 $\mu\text{g m}^{-3}$, not to be exceeded more than 7 times a year	24 Hour mean	31 December 2010
	18 $\mu\text{g m}^{-3}$	Annual mean	31 December 2010
Particles (PM2.5) (gravimetric) *	25 $\mu\text{g m}^{-3}$ (target)	Annual mean	2020
All UK authorities	15% cut in urban background exposure	Annual mean	2010 - 2020
Authorities in Scotland Only	10 $\mu\text{g m}^{-3}$ (limit)	Annual mean	2020
Sulphur dioxide	350 $\mu\text{g m}^{-3}$, not to be exceeded more than 24 times a year	1-hour mean	31 December 2004
	125 $\mu\text{g m}^{-3}$, not to be exceeded more than 3 times a year	24-hour mean	31 December 2004
	266 $\mu\text{g m}^{-3}$, not to be exceeded more than 35 times a year	15-minute mean	31 December 2005

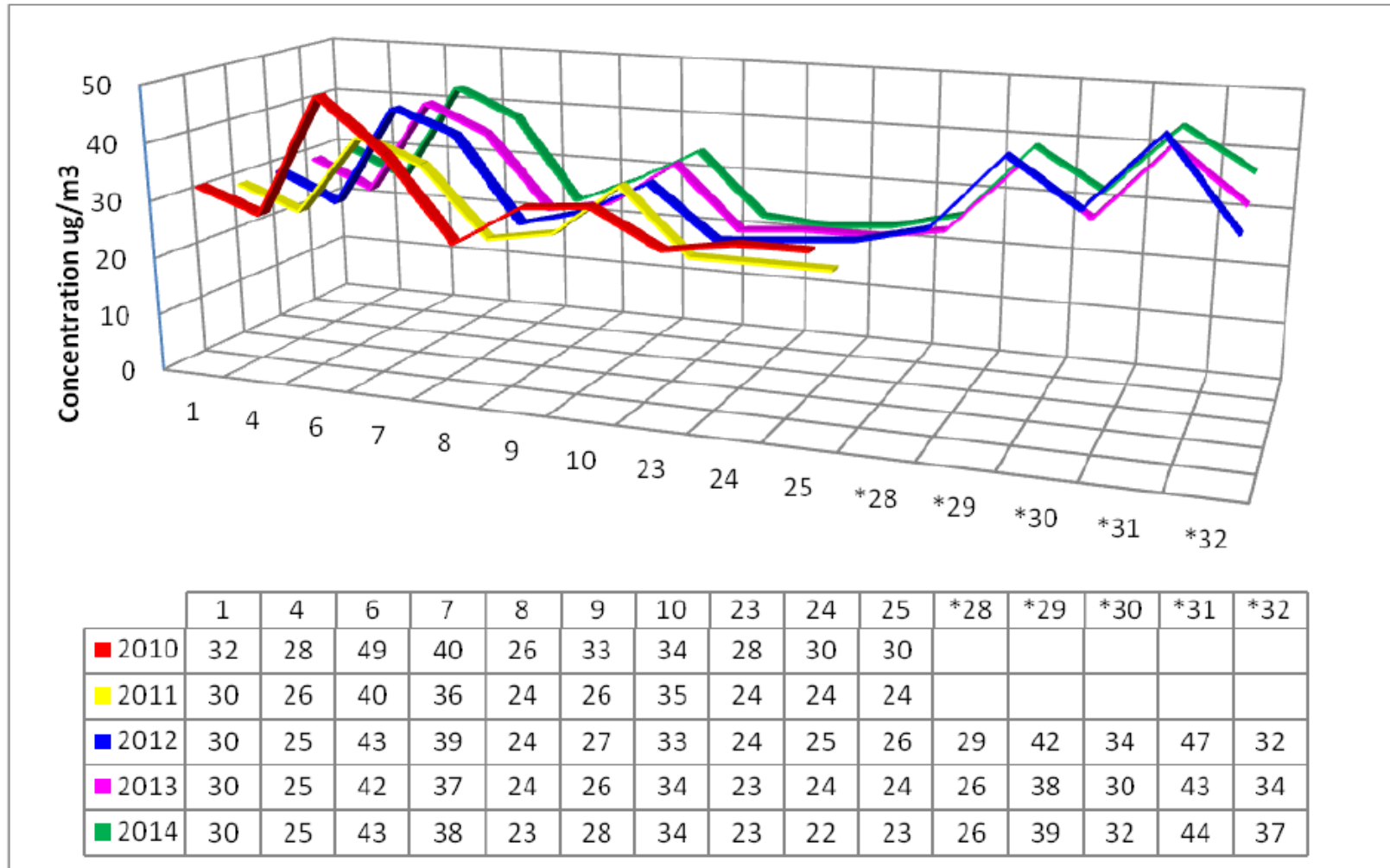
APPENDIX 2

RESULTS & TRENDS OF NITROGEN DIOXIDE DIFFUSION TUBE MONITORING

Table 2.6 Results of NO₂ Diffusion Tubes (2010 to 2014)

Site ID	Location	Site Type	Within AQMA?	Annual Mean Concentration (µg/m ³) - Adjusted for Bias ^a				
				2010 (Bias Adjustment Factor = 0.97)	2011 (Bias Adjustment Factor = 0.8)	2012 (Bias Adjustment Factor = 0.8)	2013 (Bias Adjustment Factor = 0.8)	2014 (Bias Adjustment Factor = 0.86)
1	Musselburgh – Newbigging Junction	Roadside	Y	32	30	30	30	30
4	Musselburgh - 87 High St	Roadside	Y	28	26	25	25	25
6	Musselburgh – 147 High Street	Roadside	Y	49	40	43	42	43
7	Musselburgh – 183 High St	Roadside	Y	40	36	39	37	38
8	Musselburgh - Mall Av	Roadside	N	26	24	24	24	23
9	Musselburgh – 45 Bridge Street	Roadside	N	33	26	27	26	28
10	Musselburgh – 150 North High St	Roadside	N	34	35	33	34	34
11	Tranent – 89 High St	Roadside	N	33	22	30	32	33
12	Tranent – 82 High St	Roadside	N	32	24	28	28	25
13	Tranent – 55 High Street	Roadside	N	34	29	28	28	29
14	Tranent – 26 High St	Roadside	N	33	33	26	24	24
15	Tranent – 58 Bridge St	Roadside	N	27	19	19	19	17
16	Haddington - Lyn Lea	Urban	N	11	12	8	8	8
23	Musselburgh - 133 N High St	Roadside	N	28	24	24	23	23
24	Musselburgh - 133 N High St	Roadside	N	30	24	25	24	22
25	Musselburgh - 133 N High St	Roadside	N	30	24	26	24	23
26	Wallyford - 116 Salters Rd	Roadside	N	31	26	23	23	24
27	Wallyford - 71 Salters Rd	Roadside	N	28	20	23	24	22
*28	Musselburgh - 15 Bridge Street	Roadside	N	N/A	N/A	29	26	26
*29	Musselburgh - 167 High Street	Roadside	Y	N/A	N/A	42	38	39
*30	Musselburgh - 137 High Street	Roadside	Y	N/A	N/A	34	30	32
*31	Musselburgh - 69 High Street	Roadside	Y	N/A	N/A	47	43	44
*32	Musselburgh - 86 High Street	Roadside	Y	N/A	N/A	32	34	37

Figure 2.6 Trends in Annual Mean Nitrogen Dioxide Concentrations|measured at Diffusion Tube Monitoring Sites in Musselburgh 2010-2014



**APPENDIX 3
EXISTING AIR QUALITY MANAGEMENT AREA, HIGH STREET, MUSSELBURGH**

