

Southend-on-Sea Borough Council

Report of the Corporate Director for Place

To

Cabinet

On

20th September 2016

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Services Manager

Agenda
Item No.

Declaration of Air Quality Management Area
Cabinet – Executive Councillor: Councillor Flewitt

“A Part 1 Public Agenda item.”

1. Purpose of Report

To advise Cabinet that the air quality at the junction of the A127, Hobbeythick Lane, and Rochford Road has reported exceedences of the national air quality objectives for nitrogen dioxide. Following a detailed assessment for air quality at this junction the Council has a statutory duty to declare an Air Quality Management Area (AQMA) across the area detailed in Appendix 1 through an Air Quality Management Order.

2. Recommendation

It is recommended that the statutory duty of the Local Authority under the Environment Act 1995 be discharged through:

- 2.1 Noting the outcome of the 2016 Local Air Quality Management Detailed Assessment for Southend on Sea Borough Council for nitrogen dioxide exceedences at the junction of A127, Rochford Road and Hobbeythick Lane.**
- 2.2 Declaring the proposed Air Quality Management Area boundaries for nitrogen dioxide, detailed within Appendix 1 and the Air Quality Management Area Order 1 (Appendix 2), and approving the making of an Order under the provisions of Section 83(1) of the Environment Act 1995 formally designating the area as an Air Quality Management Area.**
- 2.3 Undertaking a consultation for the development of an Air Quality Action Plan in line with Department for Environment, Food and Rural Affairs guidance and implementation of an Action Plan.**
- 2.4 Developing an Air Quality Strategy for the Borough.**

2.5 To note the funding position for this project as set out in Section 6.2.

3. Background

- 3.1 Under the provisions of the Environment Act 1995, all Local Authorities are required to undertake a review and assessment of air quality within their area. The National Air Quality Strategy details the Government's proposals for tackling air quality on a national basis. The Air Quality Regulations 2000, as amended, lay down air quality objectives, including a timetable for achieving these, for 7 key pollutants. (benzene, 1,3 butadiene, carbon monoxide, lead, nitrogen dioxide, particulate matter and sulphur dioxide).
- 3.2 Local authorities report annually to the Department of Environment, Food and Rural Affairs (DEFRA) on air quality. Where the air quality objectives are exceeded the local authority is required to undertake a Detailed Assessment to provide an accurate assessment of the likelihood of the air quality objective being exceeded at locations with relevant exposure. The air quality objective for nitrogen dioxide is an Annual mean of $40\mu\text{g}\text{m}^{-3}$.
- 3.3 The Council assesses air quality through 24 diffusion tubes which measure nitrogen dioxide and they are located across the borough in accordance with DEFRA Technical Guidance (Appendix 3). The Council reports annually on these results to DEFRA and also takes into account major planning proposals, permitted processes, traffic levels, biomass, and background data from the DEFRA automatic monitoring station at Chalkwell.
- 3.4 Nitrogen Dioxide has a known harmful effect on human health and the environment. Road Transport is the major source of air pollution in the UK. Up to 23,500 people die prematurely in the UK each year as a result of exposure to Nitrogen Dioxide and particulate matter, the effect on mortality is equivalent to 29,000 deaths in the UK annually. Generally for those that are young and in a good state of health, moderate air pollution levels are unlikely to have any serious short term effects. However, elevated levels and / or long term exposure to air pollution can lead to more serious symptoms and conditions affecting human health. This mainly affects the respiratory system, but in the longer term can also lead to more serious conditions such as heart disease and cancer. The most at risk from the impact of air pollutions include the elderly, young people and those with heart and respiratory diseases such as asthma and bronchitis.
- 3.5 There are currently no Air Quality Management Areas in Southend, but Southend is part of the DEFRA Southend Urban Plan which is an agglomeration of Southend, Castle Point and Rochford. DEFRA have modelled nitrogen dioxide along the main roads into Southend and their modelling assessment indicates that the annual limit value for NO_2 was exceeded in 2013 but the objective for air quality is likely to be achieved before 2020 through the implementation of measures introduced by both Rochford and Southend Councils. Monitoring by Southend, as reported to DEFRA, has indicated no previous exceedences of the air quality objectives for nitrogen dioxide at residential receptors.

- 3.6 There are over 700 AQMA's declared in the UK, 90% of the AQMA's are related to traffic emissions. In the Essex area there are AQMA's in Rochford (including Rayleigh Town Centre), Chelmsford, Epping Forest, Thurrock, Brentwood, and Uttlesford.
- 3.7 The main source of air pollution in the Borough is road traffic emissions from major roads, notably the A13, A127 and A1159. Other pollution sources including commercial, industrial and domestic sources also make a contribution to background pollutant concentrations.
- 3.8 Neighbouring Rochford District Council is home to London Southend Airport which is close to the administrative boundary with Southend. The Council monitors air quality at roadside locations nearby. Airside operations are expected to only make an imperceptible contribution to background pollutant concentrations.

Current Position:

- 3.9 The 2015 Local Authority Quality Management (LAQM) Updating and Screening Assessment for Southend on Sea Borough Council highlighted the need for a Detailed Assessment to be undertaken for nitrogen dioxide at the junction with the A127, Hopleythick Lane and Rochford Road (The Bell Junction) because the levels found had exceeded the air quality objective with an annual mean concentration for nitrogen dioxide at the Bell junction of $48\mu\text{g}\text{m}^3$ in 2014.
- 3.10 The Technical Guidance requires that where annual monitoring and local intelligence shows persistent exceedences the local authority is encouraged to consider moving immediately to declaring and establishing an AQMA and the development of an action plan to include measures to improve air quality.
- 3.11 The Guidance also suggests that local authorities who have had few air quality problems can consider obtaining further information / data. As Southend had not previously reported air quality problems and to better inform the Detailed Assessment, the Council installed a temporary monitoring station for 6 months at The Bell junction.
- 3.12 The outcome of the modelling was compared against the AQ objectives and the 2016 LAQM Detailed Assessment for Southend on Sea Borough Council identified exceedences of the National Air Quality Objectives for nitrogen dioxide at this junction and reported that an Air Quality Management Area be declared.
- 3.13 The assessment identified the extent of the area which falls within the $40\mu\text{g}\text{m}^{-3}$ boundary of the proposed AQMA and also recommended further monitoring at the roundabout where the A127 meets the A1159 (Cuckoo Corner) to determine if there is relevant exposure to exceedences of the air quality objectives in this area. A monitoring tube was installed there in June 2016 and an extension to the Detailed Assessment includes this area within the proposed AQMA. It is recommended that the boundary of the AQMA be extended to $36\mu\text{g}\text{m}^{-3}$ and where a property is partially within that boundary it is included within the AQMA.

3.14 The findings of the Detailed Assessment must be reported to DEFRA and the Council is now under a statutory duty to declare an Air Quality Management Area. The guidance does not give a definite timeframe for the declaration of the AQMA but indicates that the local authority should not delay this. Once the AQMA has been declared the Council will need to undertake a consultation to develop the air quality action plan to try to improve the air quality in the area. The air quality action plan must be submitted to DEFRA for approval.

4. Other Options

There is no option the Local Authority must declare an AQMA where there are exceedences of the air quality objectives.

5. Reasons for Recommendation

The Council has a statutory duty to review air quality in the Borough and assess whether standards and objectives are being achieved. Where exceedences of the air quality objectives are not met the Council must declare an AQMA and develop an air quality action plan to improve air quality.

6. Corporate Implications

6.1 Contribution to Council's Vision & Corporate Priorities

The declaration of the AQMA and the development of subsequent action plans to improve air quality will have a positive impact on vulnerable groups. There is no known negative impact to the priorities of the Council.

6.2 Financial Implications

The LAQM Policy Guidance (PG16) encourages the employment of an individual with AQ responsibility to ensure that Public Health / Transportation / Planning are fully briefed on what is being done and what is needed. Introducing a specialist AQ post to Southend would enable support and co-ordination across all corporate services, will enable all statutory responsibilities to be complied with, and will enable an assessment of any future requirements to be made. Currently no such expertise or resource exists within the Council.

The required role has been assessed at Level 9: £35,093 to £41,441 (with on costs £46,887 to £55,723). The overall cost of this post for the three year period from April 2017 would be £155k at mid-point. The funding required will be considered as part of the forthcoming budget process.

From now until 31 March 2017 there will still be the need for some external advice and support which would cost approximately £20k.

There is also a cost associated with the additional monitoring required around the AQMA and the consultation exercise which is estimated at £5,000.

The funding for the above £25k can be met from the Council's contingency.

There are also likely cost implications to the Council to implement actions to improve air quality. The cost of which cannot be determined until the air quality action plan has been developed. Once resource costs of the action plan have been identified then the funding of these will need to be considered as part of the Annual budget process.

6.3 Legal Implications

The Council has a statutory duty to review air quality in the Borough and to take action in line with DEFRA Technical Guidance (TG) 16. Where the detailed assessment identifies that the air quality objectives have been exceeded the local authority must declare an Air Quality Management Area and develop an action plan to improve air quality.

6.4 People Implications

None

6.5 Property Implications

None

6.6 Consultation

It is recommended in LAQM Policy Guidance (PG16) that the Council develops a Steering Group which includes all the main parties involved in developing an Action Plan and that all departments work together to identify suitable measures to address air quality. This includes measures in relation to local transport, highways, land use and planning, environmental health and public health.

We are writing to all residents and businesses who will be within the AQMA advising them that the Council is declaring an AQMA and providing them with an FAQ information sheet. They will also be directed to the Council's web pages on air quality to provide further information.

The formulation of action plans defines the main actions the Council and key partners can take in pursuit of the air quality objectives.

LAQM Technical Guidance (TG16) April 2016 also indicates that the Authority consult with interested local organisations e.g. residents and businesses affected by the measures proposed. The Authority must also consult with statutory consultees, DEFRA, Environment Agency and the relevant strategic body.

The development of the Action Plan must be completed within 12 months after designation, during which time there will be a need to continue with further monitoring of air quality within the AQMA.

6.7 Equalities and Diversity Implications

None. The action plan to improve air quality will have a positive impact on all groups.

6.8 Risk Assessment

At high concentrations NO₂ is an irritant that can cause inflammation of the airways and the delay in the declaration and implementation of an air quality action plan is a risk to the health of residents within the AQMA.

Failure to meet the air quality objectives is a breach of European Union law and fines may be imposed by the EU on the UK. DEFRA have issued a policy statement with respect to Part 2 of the Localism Act 2011 indicating that if fines were to be imposed by the EU and the local authority was responsible for permitting the breach, the authority could be required to pay the full cost.

6.9 Value for Money

The Council co-ordinates with Essex to purchase air quality tubes and their subsequent analysis. There is also co-ordination for the development of annual assessments and the hosting of the Essex Air Quality website.

6.10 Community Safety Implications

None

6.11 Environmental Impact

Air pollutants from transport include nitrogen oxides, carbon monoxide, hydrocarbons and particulates, all of which have a damaging impact on the health of fauna and flora.

7. Background Papers

2015 Update and Screening Report for Southend on Sea Borough Council
DEFRA Policy Guidance (PG) 16 April 2016
DEFRA Technical Guidance (TG) 16 April 2016
2016 LAQM Detailed Assessment for Southend on Sea Borough Council

8. Appendices

Appendix 1 Air Quality Management Area

Appendix 2 Order and Schedules

Appendix 3 Map of Tube Locations across the Borough