

**Southend-on-Sea Borough Council**

**Report of Executive Director  
(Neighbourhoods and Environment)**

**To  
Cabinet**

**On  
15 September 2020**

Report prepared by: Elizabeth Georgeou, Head of Regulatory  
Services

**Agenda  
Item No.**

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**Declaration of Air Quality Management Area No2**

**Lead Cabinet Member: Councillor Mulroney**

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**A Part 1 Public Agenda item.**

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**1. Purpose of Report**

- 1.1. To advise Cabinet that the air quality at the junctions of Victoria Avenue, West Street, and Priory Crescent A127, Southend has reported exceedences of the national air quality objectives for nitrogen dioxide. Following a detailed assessment for air quality at these junctions 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**

- 2.1 It is recommended that the statutory duty of the Local Authority under the Environment Act 1995 be discharged through:
- 2.2 Note the outcome of the 2020 Local Air Quality Management Detailed Assessment for Southend-on-Sea Borough Council for nitrogen dioxide exceedences at the junctions of Victoria Avenue, West Street and Priory Crescent.
- 2.3 Declare the proposed Air Quality Management Area boundaries for nitrogen dioxide, detailed within Appendix 1 as the Air Quality Management Area (No. 2) 2020. To approve the making of an Order under the Provisions of Section 83(1) of the Environment Act 1995 by formally designating the area as an Air Quality Management Area as detailed in Appendix 2.
- 2.4 The Air Quality Action Plan adopted by Council in July 2018 is to be reviewed in order to take into consideration the second AQMA.

### 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  $40\mu\text{gm}^{-3}$ .
- 3.3 The Council assesses air quality through 47 diffusion tubes which measure nitrogen dioxide and they are located across the borough in accordance with DEFRA Technical Guidance (Reference 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 is currently one Air Quality Management Areas in Southend located at The Bell Junction (A127). This was declared in November 2016.
- 3.6 There are over 700 AQMA's declared in the UK, 90% of these 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, agricultural and domestic sources also make a contribution to background pollutant concentrations.

- 3.8 **Current Position:** The 2017 to 2019 Local Air Quality Management (LAQM) Annual Status Reports for Southend on Sea Borough Council highlighted the need for a Detailed Assessment to be undertaken for nitrogen dioxide at the Victoria Avenue junctions with West Street and Priory Crescent because the levels measured had exceeded the air quality objective with an annual mean concentration for nitrogen dioxide of 42.01  $\mu\text{g}/\text{m}^3$  in 2017, 38.4  $\mu\text{g}/\text{m}^3$  in 2018 and 39.1  $\mu\text{g}/\text{m}^3$  in 2019. These figures are close to or exceed the national air quality objective annual mean which is 40  $\mu\text{g}/\text{m}^3$ . However, passive diffusion tube data should only be used as a screening tool to indicate whether more accurate and reliable real-time monitoring should be undertaken.
- 3.9 To better inform the Detailed Assessment, the Council installed a temporary (May 2019 to March 2020) real-time, automatic monitoring station at the junction of Victoria Avenue and Priory Crescent. The results of the monitoring confirmed an annual mean nitrogen dioxide level of 51  $\mu\text{g}/\text{m}^3$ . An exceedance of the annual mean of 40  $\mu\text{g}/\text{m}^3$ .
- 3.10 The outcome of the modelling was compared against the AQ objectives. The 2020 Detailed Assessment identified exceedences of the National Air Quality Objectives for nitrogen dioxide at this junction and reported that an Air Quality Management Area should be declared.
- 3.11 The assessment identified the extent of the area which falls within the 40 $\mu\text{g}/\text{m}^3$  boundary of 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.
- 3.12 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.
- 3.13 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 review the existing air quality action plan to try to improve the air quality in the area.

#### **4. Other Options**

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

#### **5. Reasons for Recommendation**

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

- 5.2 For the more vulnerable groups of the community with an existing respiratory condition such as asthma or COPD this will be an opportunity to highlight the issue of the link between air quality and public health and focus more resources on proactive actions such as:
- Raising awareness and providing practical guidance on e.g. healthy lifestyles;
  - Targeted air quality alerts;
  - Indoor air quality.
- 5.3 Declaring an AQMA enables the Council to focus existing resources and identify resources to deal with improving air quality in the whole Borough as well as at traffic hot-spots, improving local air quality for the whole community as well as the more vulnerable.

## **6. Corporate Implications**

### **6.1 Contribution to the Southend 2050 Road Map**

- 6.1.1 The purpose of a declaration of an Air Quality Management Area is for the Council to try to improve air quality in areas where there are exceedences of an air quality through the delivery of an Air Quality Action Plan (AQAP). The Air Quality Action Plan, which was developed to try to improve air quality around the Air Quality Management Area at the Bell Junction, supports the Council's 2050 outcomes for having a Connected and Smart town which is clean and green. The AQAP also supports the Safe and Well outcome for transport and being a Green City, including influencing changes in modal transport. The Council will refresh the AQAP for the Bell Junction to include the junctions of Victoria Avenue with West Street and Priory Crescent.

### **6.2 Financial Implications**

- 6.2.1 There are likely cost implications to the Council to implement actions to improve air quality. The cost of which cannot be determined until the AQAP has been reviewed. Once resource costs of the action plan have been identified then the funding of these may need to be considered as part of the annual budget process, and for achieving the Council's 2050 outcomes. An application to DfT has already been made for so-called "pinch-point" funding.

### **6.3 Legal Implications**

- 6.3.1 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 try to improve air quality.

### **6.4 People Implications**

- 6.4.1 There are no People implications.

## **6.5 Property Implications**

6.5.1 There are no Property implications.

## **6.6 Consultation**

6.6.1 The Air Quality Steering Group oversees the implementation of action planning and annual reviews of the Air Quality Action Plan.

6.6.2 All residents and businesses who will be within the AQMA will be contacted 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.

6.6.3 There will be a full consultation of the review of the current and proposed Air Quality Action Plan which will be completed in 2020. The Council will continue with monitoring of air quality within the AQMA2 and throughout the Borough.

## **6.7 Equalities and Diversity Implications**

6.7.1 There are no Equality and Diversity Implications. The action plan to improve air quality will have a positive impact on all groups.

## **6.8 Risk Assessment**

6.8.1 At high concentrations NO<sub>2</sub> 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.

6.8.2 Failure to meet the air quality objectives is currently a breach of European Union law and fines may be imposed by the EU on the UK. DEFRA 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. There has been no indication on whether the ability to discharge UK financial penalties will replace the EU penalties.

## **6.9 Value for Money**

6.9.1 The Council co-ordinates with Essex to purchase air quality tubes and their subsequent analysis.

## **6.10 Community Safety Implications**

6.10.1 There are no Community Safety Implications.

## **6.11 Environmental Impact**

6.11.1 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**

2020 Air Quality Annual Status Report for Southend on Sea Borough Council;  
DEFRA Policy Guidance (PG) 16 April 2016;  
DEFRA Technical Guidance (TG) 16 April 2016;  
2020 LAQM Detailed Assessment for Southend on Sea Borough Council.

## **8. Appendices**

**Appendix 1** Air Quality Management Area;  
**Appendix 2** Order and Schedules.