

## AIR QUALITY REVIEW AND ASSESSMENT (THIRD ROUND) UPDATE

### 1 SUMMARY

- 1.1 To update members on progress of the third review and assessment of air quality within Rochford District and provide a resolution for future air quality monitoring and assessment.

### 2 INTRODUCTION

- 2.1 The Environment Act 1995 requires local authorities to periodically review and assess the air quality within their district on behalf of the UK Government, who are the responsible body for attainment of the National Air Quality Objectives for certain prescribed pollutants.
- 2.2 Rochford's first air quality review was completed in December 2000 and concluded that the national air quality objectives were unlikely to be exceeded. The second review for 2005 concluded that the standard for particulate matter around Rawreth Industrial Estate might be exceeded.
- 2.3 Local Authorities have started to carry out the third round of reviews and consider whether the objectives are likely to be achieved in 2010. This round of reviews will be carried out in two stages:-
- An **Updating and Screening Assessment (USA)** – this identifies those aspects that have changed since the previous round of reviews and which may require further assessment. The local authority will only be required to proceed to the second stage (detailed assessment) if this report indicates areas that require further work.
  - A **Detailed Assessment (DA)** – this is required for any pollutants and specific locations that have been identified as requiring further investigation by way of monitoring and/or modelling.
- 2.4 The third round USA for Rochford District Council was completed and submitted to the Department for Environment, Food and Rural Affairs (DEFRA) in early Summer 2006. The USA was subsequently accepted. The findings of the USA were reported to the former Environmental Services Committee in September 2006.

### 3 THIRD ROUND AIR QUALITY REVIEW

#### Updating and Screening Assessment

- 3.1 Having considered each pollutant, the report concluded that the air quality objectives will be met for benzene, 1,3-butadiene, carbon monoxide, lead, PM<sub>10</sub> (annual mean), nitrogen dioxide (hourly mean objective) and sulphur dioxide.

- 3.2 However, the report also recommended that two detailed assessments should be carried out, each for a different pollutant objective at different locations. One was the nitrogen dioxide (NO<sub>2</sub>) annual mean objective at the Eastwood Road/High Street junction, Rayleigh. The other was for particulate matter (PM<sub>10</sub>) 24-hour objective at residential premises close to Rawreth Industrial Estate.

#### **Detailed Assessments**

- 3.3 Monitoring of the annual mean NO<sub>2</sub> objective at the Eastwood Road/High Street junction, Rayleigh took place between 26 July 2006 and 8 November 2006. The final report was received in late March 2007 and submitted to DEFRA for approval shortly thereafter.
- 3.4 This monitoring period showed an average concentration of 52µg/m<sup>3</sup> at the monitoring location. The report therefore concluded that the UK annual mean NO<sub>2</sub> objective of 40µg/m<sup>3</sup> is likely to be exceeded at this location.
- 3.5 To date, DEFRA have not yet formally commented on the DA, but the next step the Council will take is the commissioning of consultants to carry out a modelling exercise. This will determine the extent of the area where national standards are likely to be exceeded around the junction, which may include Crown Hill, and whether this is significant. The cost of this work should be met from the existing budget and will be reported to Members at the earliest opportunity.
- 3.6 Monitoring of the PM<sub>10</sub> 24-hour objective at properties near the Rawreth Industrial Estate has already commenced and is due to be completed next month. It is anticipated that the results of this latest monitoring will show a decrease in the monitored PM<sub>10</sub> concentrations due to the recent erection of a canopy at one of the estate's waste transfer sites and confirm that the PM<sub>10</sub> 24-hour objective is being met. The results of this monitoring will also be reported to Members in due course.

#### **Other Monitoring**

- 3.7 The Council has NO<sub>2</sub> diffusion tubes permanently placed in triplicate at three road junctions around the district: Eastwood Road/High Street, Rayleigh; Bedloes Corner, Rawreth; and the entrance to Market Square, West Street, Rochford. This method is recognised as providing a reasonable degree of accuracy whilst using relatively low technical equipment. These diffusion tubes are changed on a monthly basis and give an estimate of the trends in NO<sub>2</sub> concentrations experienced at each location.
- 3.8 It is our intention to retain at least one diffusion tube at each junction and to spread the remainder around alternative locations, particularly in the vicinity of these existing sites. This will provide information about NO<sub>2</sub> levels over a wider areas centred on the known hotspots.

- 3.9 Other air quality monitoring data will be made available to the Council through the planning process. Planning permissions granted for each of the new supermarkets in Rochford and Rayleigh contain conditions requiring the applicant to submit reports on the impact on air quality their developments will have/have had. Such a requirement will become increasingly common, in line with government and other specialist guidance, for medium- to large-scale developments.

### **Future Requirements**

- 3.10 All local authorities are required to submit a progress report to DEFRA by the end of April 2008. In the past, the Council has commissioned this report through the Essex Air Quality Consortium ([www.essexair.org](http://www.essexair.org)), and intends to do so again this year. The cost of this report should be met from the existing budget.
- 3.11 Should it be determined that an Air Quality Management Area (AQMA) is required, this will necessitate officers from the Council conducting a consultation exercise with local residents and businesses in association with other responsible bodies such as Essex County Council as Highway Authority. This will be in order to agree the boundary of any AQMA and inform the composition and implementation of an Action Plan for attaining the Air Quality Objective. Additional funds would be required for any such eventuality and before any action is taken, a further report will be made to the Executive Board.

## **4 RISK IMPLICATIONS**

### **Resource Risk**

- 4.1 Should monitoring or modelling confirm that the air quality objectives will be exceeded, an AQMA would need to be designated and an air quality action plan produced. This could have significant financial and human resource implications.

### **Operational Risk**

- 4.2 The additional officer time required to maintain the monitoring programme will impact most heavily during the busy summer months.

### **Regulatory Risk**

- 4.3 The conclusions of the updating and screening assessment have been approved by DEFRA but the Council is waiting for a response to its detailed assessment for NO<sub>2</sub>. Should the Council have to be declare an AQMA, responsibility for attainment of the objectives still resides with the UK Government.

**Third Party Risk**

- 4.4 If an AQMA is required, this could have implications for properties within the designated area.

**5 ENVIRONMENTAL IMPLICATIONS**

- 5.1 The ongoing and future monitoring will establish the extent of any exceedance and whether any action is required to reduce emissions of any particular pollutant.

**6 RESOURCE IMPLICATIONS**

- 6.1 It is intended that all planned monitoring and modelling work will be met from existing budgets, however this may change if a specific direction is given to the Council by DEFRA.

**7 LEGAL IMPLICATIONS**

- 7.1 Should the Council have to declare an AQMA, responsibility for attainment of the objectives still resides with the UK Government.

**8 RECOMMENDATION**

- 8.1 It is proposed that the Executive Board **RESOLVES**
- (1) To note the contents of this report; and
  - (2) That a further report be submitted to the Executive Board and the West Area Committee once the Detailed Assessments have been completed with regard to NO<sub>2</sub> monitoring in Rayleigh and PM<sub>10</sub> monitoring in Rawreth.

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**Background Papers:-**

Rochford District Council Local Air Quality Management – Updating and Screening Assessment October 2003.

Rochford District Council Local Air Quality Management – Detailed Assessment November 2004.

Rochford District Council Local Air Quality Management – Detailed Assessment May 2005.

Rochford District Council Local Air Quality Management – Updating and Screening Assessment May 2006.

Rochford District Council Local Air Quality Management – Detailed Assessment March 2007.

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