

**THE PUBLIC PROTECTION COMMITTEE: 1<sup>st</sup> November 2016**

**Report of the Head of Shared Regulatory Services**

**PROGRESS REPORT REGARDING AIR QUALITY IN CARDIFF**

**1. Background**

- 1.1 The Council has a statutory obligation under the Environment Act 1995 to review and assess air quality in its area against National Air Quality Standards which have been set for the protection of human health. The Act requires local authorities to monitor, review and report on seven pollutants. Within Cardiff the pollutant of greatest concern is Nitrogen Dioxide (NO<sub>2</sub>).
- 1.2 Nitric Oxide (NO) is mainly derived from road transport emission. NO is not considered to be harmful to health. However, once released to atmosphere, NO is usually very rapidly oxidised (reacts with oxygen) to form Nitrogen Dioxide (NO<sub>2</sub>), which is harmful to health.
- 1.3 Nitrogen dioxide can irritate the lungs and lower resistance to respiratory infections such as influenza. Continued or frequent exposure to concentrations that are typically much higher than those formally found in the ambient air may cause increased incidence of acute respiratory illness in children.
- 1.4 The Council is required to report annually to Welsh Government (WG) with regard to latest monitoring data, changes and developments which may be significant with regard Local Air Quality Management (LAQM) and progress in implementing Air Quality Action Plans (AQAPs) devised to address previously identified areas of locally poor air quality.
- 1.5 There are currently four Air Quality Management Areas (AQMAs) declared in Cardiff as a result of exceedence of the annual mean objective of Nitrogen dioxide, these areas are:  
  
**Cardiff City Centre AQMA** (declared April 2013 to incorporate Westgate Street; formerly St Marys St AQMA);  
**Ely Bridge AQMA** (declared February 2007);  
**Stephenson Court AQMA** (declared December 2010);  
**Llandaff AQMA** (declared April 2013)
- 1.6 The four AQMA's listed above have all been declared in respect of high nitrogen dioxide levels to which the main contributor is road-traffic emissions. The 2016 Progress Report provides a series of maps (pages 12 to 15) which identify the boundaries of each of the four AQMA's. To combat the air quality issues in each of these areas Air Quality Action Plans (AQAP's) have been created which set out the measures required to address the problem. Details of the AQAP's for Cardiff's four AQMA's can be viewed on pages 98 to 103 of the Progress Report.

- 1.7 This report presents the Council's 2016 Progress Report to WG and highlights some of the report's key points.

## **2. Air Quality Monitoring**

- 2.1 The 2016 Progress Report presents monitoring data for the seven key pollutants that the Council is required to consider under the Local Air Quality Management (LAQM) regime.
- 2.2 The monitoring data confirms the findings of previous reports in that, for the six regulated pollutants other than nitrogen dioxide (particulate matter, sulphur dioxide, carbon monoxide, benzene, 1,3 butadiene and lead) there are no areas where measured concentrations are above the air quality standards.
- 2.3 2015 nitrogen dioxide monitoring data presented in the report shows a number of sites representative of relevant exposure with exceedances of the  $40\mu\text{g}\text{m}^3$  annual mean objective. These sites are predominantly contained within the declared AQMAs. However, there are two monitoring locations (Site IDs- 74 (Station Terrace) & 172 (Ocean Way)) which are not located within AQMAs, but it should be noted that annual exceedances are not out of character for these sites and are in locations not representative of relevant exposure
- 2.4 Following the completion of this 2016 Progress Report a detailed assessment is scheduled to be compiled to investigate the elevated concentration of NO<sub>2</sub> levels for Kingsway/ Duke Street/ Castle Street link area. This assessment will essentially confirm whether the current City Centre AQMA needs to be extended to include these streets.
- 2.5 Monitoring data for 2015 indicates that annual mean concentrations of nitrogen dioxide were not unduly elevated during the year and that in some locations concentrations may have been lower than expected. A detailed assessment will follow this 2016 Progress Report to determine the potential expansion of the City Centre AQMA to encompass Kingsway/Duke Street/Castle Street link past Cardiff Castle.

## **3 Action Plan Progress**

- 3.1 An Action Plan for the former St Mary Street AQMA was adopted in February 2010 and the measures therein have been fully implemented. The St Mary Street AQMA boundary was varied in April 2013 to include Westgate Street.
- 3.2 An Action Plan for Ely Bridge AQMA was adopted in February 2009. The action plans draws heavily on traffic and emission reduction measures contained in the Local Transport Plan (LTP).
- 3.3 The finalisation of Action Plans for Cardiff City Centre AQMA, Llandaff AQMA and Stephenson Court AQMA is a priority. Interim Action Plans for these AQMAs have been devised and included in the 2015 Progress Report. The actions set out in these interim Plans, will be undertaken, in particular the potential to undertake of detailed assessments for Llandaff and Stephenson Court AQMAs following a review of 2016's NO<sub>2</sub> data

3.4 In 2017, the Shared Regulatory Service and other Council departments will:

- Continue monitoring within and around the existing AQMAs and other areas of concern;
- Proceed to a detailed assessment for Kingsway/Duke Street/Castle Street link and based on findings, expand the City Centre AQMA to encompass these areas;
- Continue to drive Air Quality as a major aspect to be considered during any planning applications, most importantly Cardiff Central Development;
- Continue to work towards the development of Final Action Plans for Cardiff City AQMA, Llandaff AQMA and Stephenson Court AQMA;
- Continue monitoring within the Stephenson Court AQMA to assess the impact, if any, of the road-layout changes completed at the start of 2015. Following review of 2016's data, either proceed to develop a viable Air Quality Action Plan or proceed to a Detailed Assessment with the potential outcome of the AQMA being revoked;
- Continue monitoring within the Llandaff AQMA. Following review of 2016's data, either proceed to develop a viable Air Quality Action Plan or proceed to a Detailed Assessment with the potential outcome of the AQMA being revoked; and
- Submit a Progress Report in 2017.

#### **4. Achievability**

4.1 This report has no equality, property or human resource implications.

#### **5. Financial Implications**

5.1 This report is for information purposes only and does not result in any additional financial implications.

#### **6. Legal Implications**

6.1 The Council has statutory obligations under Part IV of the Environment Act 1995 which include reporting Air Quality annually to WG. The 2016 Progress Report fulfils this obligation.

## **7. Recommendations**

It is recommended that Committee: -

- 7.1.1 Note the contents of the 2016 Air Quality Progress Report and continue to be advised on air quality in Cardiff and measures taken to improve it.
- 7.1.2 Note that the 2016 Progress Report and its conclusions has been accepted by the Environmental Scrutiny Committee.
- 7.2 Approve the Detailed Assessment to be undertaken at the Kingsway/Duke Street/Castle Street link.
- 7.3 Note that detailed assessments may be undertaken for both Stephenson Court AQMA and Llandaff AQMA, if appropriate; Committee will be apprised of such action if assessments are undertaken.

**Dave Holland**  
**Head of Shared Regulatory Services**

**Date 14 October 2016**

This report has been prepared in accordance with procedures approved by the Corporate Management Team.

Background Papers:

Part IV Environment Act 1995 - Local Air Quality Management Progress Report, 2016