



# 2011 Air Quality Progress Report for Omagh District Council

In fulfillment of the Environment (Northern Ireland) Order  
2002 - Local Air Quality Management

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## **Executive Summary**

The Local Air Quality Management process requires District Councils to review and assess a range of pollutants against the objectives set out within the Air Quality Strategy. This Progress Report provides a summary of the latest available monitoring data.

There has been no significant change to any pollution sources in the Omagh District Council area and no additional sources of pollution have been identified since the 2010 Progress Report, which concluded that there was no risk of exceedence of the air quality objectives.

Therefore the Council's proposed action at this time is to complete this Progress Report and provide an Updating and Screening Assessment in 2012.

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# **1 Introduction**

## **1.1 Description of Local Authority Area**

The Omagh District Council area is the second largest council area in Northern Ireland covering an area of almost 113,000 hectares. The population in the Omagh District Council area is approximately 52,427 ([www.nisra.gov.uk](http://www.nisra.gov.uk), accessed December 2010).

The town of Omagh is at the centre of the region with the rest of the Omagh district primarily rural in character, with its population living in scattered small towns and villages or in dispersed rural communities.

## **1.2 Purpose of Progress Report**

Progress Reports are required in the intervening years between the three-yearly Updating and Screening Assessment reports. Their purpose is to maintain continuity in the Local Air Quality Management process.

They are not intended to be as detailed as Updating and Screening Assessment Reports, or to require as much effort. However, if the Progress Report identifies the risk of exceedence of an Air Quality Objective, the Local Authority (LA) should undertake a Detailed Assessment immediately, and not wait until the next round of Review and Assessment.

## **1.3 Air Quality Objectives**

The air quality objectives applicable to LAQM in Northern Ireland are set out in the Air Quality Regulations (Northern Ireland) 2003, Statutory Rules of Northern Ireland 2003, no. 342, and are shown in Table 1.1. This table shows the objectives in units of microgrammes per cubic metre  $\mu\text{g}/\text{m}^3$  (milligrammes per cubic metre,  $\text{mg}/\text{m}^3$  for carbon monoxide) with the number of exceedences in each year that are permitted (where applicable).

**Table 1 Air Quality Objectives included in Regulations for the purpose of Local Air Quality Management in Northern Ireland.**

<b>Pollutant</b>	<b>Concentration</b>	<b>Measured as</b>	<b>Date to be achieved by</b>
<b>Benzene</b>	16.25 $\mu\text{g}/\text{m}^3$	Running annual mean	31.12.2003
	3.25 $\mu\text{g}/\text{m}^3$	Running annual mean	31.12.2010
<b>1,3-Butadiene</b>	2.25 $\mu\text{g}/\text{m}^3$	Running annual mean	31.12.2003
<b>Carbon monoxide</b>	10.0 $\text{mg}/\text{m}^3$	Running 8-hour mean	31.12.2003
<b>Lead</b>	0.5 $\mu\text{g}/\text{m}^3$	Annual mean	31.12.2004
	0.25 $\mu\text{g}/\text{m}^3$	Annual mean	31.12.2008
<b>Nitrogen dioxide</b>	200 $\mu\text{g}/\text{m}^3$ not to be exceeded more than 18 times a year	1-hour mean	31.12.2005
	40 $\mu\text{g}/\text{m}^3$	Annual mean	31.12.2005
<b>Particles (PM<sub>10</sub>) (gravimetric)</b>	50 $\mu\text{g}/\text{m}^3$ , not to be exceeded more than 35 times a year	24-hour mean	31.12.2004
	40 $\mu\text{g}/\text{m}^3$	Annual mean	31.12.2004
<b>Sulphur dioxide</b>	350 $\mu\text{g}/\text{m}^3$ , not to be exceeded more than 24 times a year	1-hour mean	31.12.2004
	125 $\mu\text{g}/\text{m}^3$ , not to be exceeded more than 3 times a year	24-hour mean	31.12.2004
	266 $\mu\text{g}/\text{m}^3$ , not to be exceeded more than 35 times a year	15-minute mean	31.12.2005

## 1.4 Summary of Previous Review and Assessments

### Local Air Quality Management

Omagh District Council has in line with the technical guidance issued by DETR carried out the review and assessment approach to air quality on a phased approach as follows:-

#### **Stage One Review**

An initial screening of industrial, transportation and other sources of pollution that could have a significant impact within the district resulting in exceedences of the air quality objectives.

The Stage One report concluded that :-

- (i) No further investigation or action was required to be undertaken for the following pollutants:
  - Benzene
  - 1,3-Butadiene
  - Lead
  - Carbon Monoxide
- (ii) A stage 2/3 Review and Assessment was required for the following pollutants:
  - Nitrogen Dioxide
  - Sulphur Dioxide
  - Particulate Matter (PM<sub>10</sub>)

The First Stage Report for Omagh District Council was completed in September 2001

#### **Second/Third Stage Review**

A more focused examination of the three pollutants identified from Stage One was undertaken by way of a Stage Two/Three review utilising modelling exercises and reference to locally monitored air quality data.

The second/third stage report concluded that:

- **Nitrogen Dioxide (NO<sub>2</sub>) (Second Stage)**

Assessment relied upon the application of the Design Manual for Roads and Bridges (DMRB) model and local diffusion tube monitoring data. The results show that it is unlikely that either the annual mean or hourly NO<sub>2</sub> objectives will be exceeded at relevant receptor locations.

- **Particulate Matter PM<sub>10</sub> (Second Stage)**

Assessment for PM<sub>10</sub> arising from traffic sources at the respective road sections/junctions was undertaken using the DMRB model. The modelling predicted no exceedences of the PM<sub>10</sub> objective from traffic sources.

A number of fugitive emissions from industrial sources of PM<sub>10</sub> were examined as part of the Second Stage Assessment. Based on recent findings in GB and the results of local monitoring at a hard rock quarry it was considered that it was not necessary to proceed to a Third Stage Assessment in respect of these sources.

- **Sulphur Dioxide and Particulate Matter SO<sub>2</sub>/ PM<sub>10</sub> (Second and Third Stage)**

The absence of reliable locally monitored data necessitated Omagh District Council to proceed directly to a Third Stage Assessment for SO<sub>2</sub> and PM<sub>10</sub> in respect of emissions from domestic sources and traffic sources. The assessments using appropriate modelling suggested that it is unlikely that there will be an exceedence of the SO<sub>2</sub> or PM<sub>10</sub> objectives in the modelled areas.

In conclusion the first round of Review and Assessment procedures indicated that there is no requirement to declare an Air Quality Management Area within the Omagh District Council Area.

### **An Updating and Screening Assessment**

The latest Updating and Screening Assessment was completed in December 2009 in accordance with the methodology described in Technical Guidance LAQM TG (03) and subsequent update as issued by the Department for Environment Food and Rural Affairs.

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The Updating and Screening Assessment has concluded that for each of the prescribed pollutants, air quality objectives are likely to be met in the Omagh District Council area and that it is not necessary to proceed to the Detailed Assessment Stage.

### **Progress Reports**

Omagh District Council has various duties with respect to local air quality management (LAQM) but following Government consultation it was concluded that the process was in danger of being too “start-stop” and that gaps may occur between air quality reviews. Detailed Assessments are now required at intervals of three years whilst Progress Reports are to be produced in the intervening years. Omagh District Council provided a Progress Report in 2008 and 2010 in accordance with Local Air Quality Management: Policy Guidance on Air Quality Progress Reports LAQM. PRG NI (04) issued under Art 16 of the Environment (NI) Order 2002.

The current Progress Report for 2011 is provided in accordance with the previously outlined legislation/technical guidance in order to ensure that air quality within the Omagh District is assessed on a yearly basis.

## 2 New Monitoring Data

### 2.1 Summary of Monitoring Undertaken

#### 2.1.1 Automatic Monitoring Sites

There are no Automatic monitoring sites in the Omagh District Council area.

#### 2.1.2 Non-Automatic Monitoring

The previous Review and Assessment report concluded that exceedences of the air quality objectives were not likely. As there has been no significant development or alterations to existing infrastructure in the district council area, no diffusion tube monitoring has been carried out since the last Progress Report of 2010.

## 2.2 Comparison of Monitoring Results with Air Quality Objectives

### 2.2.1 Nitrogen Dioxide

Since there has been no significant development or alterations to existing infrastructure in the district council area, no diffusion tube monitoring has been carried out since the last Progress Report of 2010.

For information purposes, the table below indicates the results of previous NO<sub>2</sub> diffusion tube monitoring undertaken in 2008 and 2009.

**Table 2 Results of Monitoring for Nitrogen Dioxide**

Site ID	Location	Within AQMA?	Data Capture 2008 %	Annual mean concentration 2008 (µg/m <sup>3</sup> ) Adjusted for bias (x0.9)	Data Capture 2009 (for Jan-Sep) %	Annualised Mean concentration January-September 2009 (µg/m <sup>3</sup> ) (Adjusted using 2008 bias (x0.9))
1	Crevenagh Road, Omagh	No	92	19.15	100	17.89
2	Dublin Road, Omagh	No	100	26.76	100	25.95
3	Doogary, Omagh	No	100	18.54	89	20.49

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All measurements are bias adjusted. In 2009, monitoring was undertaken over a 9 month period, i.e. January- September. The mean concentration for nitrogen dioxide has therefore been annualised using the methodology indicated in TG(09) before being compared to the annual mean objective. The data indicates that there have been no exceedences of the **Annual Mean Limit of 40ugm<sup>-3</sup> for Nitrogen Dioxide** at any of the monitoring locations.

### **Diffusion Tube QA/QC Information:**

The NO<sub>2</sub> diffusion tubes are supplied by Envirotechnology plc.

They are Gradko tubes and the preparation method is 20%TEA in water.

The Gradko laboratory which Envirotechnology use for analysis is NAMAS accredited and complies with the requirements of the Workplace Analysis Scheme for Proficiency.

The review and assessment website indicates they are of 'good precision' and that the following bias adjustment factor of 0.9 should be applied for **2008**.

### **2.2.2 PM<sub>10</sub>**

Omagh District Council does not currently monitor PM<sub>10</sub>.

### **2.2.3 Sulphur Dioxide**

Omagh District Council does not currently monitor SO<sub>2</sub>.

### **2.2.4 Benzene**

Omagh District Council does not currently monitor Benzene.

### **2.2.5 Other pollutants monitored**

Omagh District Council does not currently monitor any other pollutants.

### **2.2.6 Summary of Compliance with AQS Objectives**

Omagh District Council has examined the results from monitoring in the district. Concentrations are all below the objectives, therefore there is no need to proceed to a Detailed Assessment.

### **3 New Local Developments**

Planning approval has been granted for a mixed use development comprising primary healthcare facility, community park, business units, food superstore, elderly community living facility and other associated commercial units at Derry Road, Omagh. An air quality assessment has been undertaken as part of the Environmental Statement and demonstrated to comply with the Air Quality Standards regulations objectives. The relevant planning reference is K/2008/0779.

#### **3.1 Road Traffic Sources**

An A5 Western Transport Corridor has been proposed which will pass through the Omagh council area. A public enquiry has been held in relation to this road scheme in the summer of 2011, the outcome of which will inform any subsequent planning application. If approval is granted further consideration will be given to any potential impact the scheme presents to local air quality in future air quality review and assessments.

#### **3.2 Other Transport Sources**

There are no new/newly identified other transport sources that need to be considered.

#### **3.3 Industrial Sources**

Omagh District Council confirms that there are no new or newly identified industrial sources which may have an impact on air quality within the council area.

#### **3.4 Commercial and Domestic Sources**

There are no new/newly identified significant commercial or domestic sources which may have an impact on air quality within the Local Authority area, other than the mixed use development yet to be developed (as discussed in section 3).

#### **3.5 New Developments with Fugitive or Uncontrolled Sources**

Omagh District Council confirms that there are no new or newly identified developments with fugitive or uncontrolled sources which may have an impact on air quality within the Local Authority area.

## **4 Local / Regional Air Quality Strategy**

At present, Northern Ireland development Plans are prepared by Planning Service. The context for these plans is found in the Department's Planning Policy Statements and the Regional Development Strategy for Northern Ireland 2025. Currently there is no regional planning policy dealing exclusively with the control of air pollution. In addition, responsibility for preparation of development plans and the determination of planning decisions in Northern Ireland was due to transfer to local authorities in 2011 as part of the Review of Public Administration (RPA), but this has now been postponed awaiting resumption of the stalled RPA process.

## **5 Planning Applications**

As previously mentioned in Section 3 of this report (Local Developments) planning approval (K/2008/0779) has been granted for a mixed use development at Derry Road, Omagh. An air quality assessment has been undertaken as part of the Environmental Statement and demonstrated to comply with the Air Quality Standards Regulations objectives. Two other planning applications for similar major retail development (K/2010/0261/O and K/2011/0272) are being currently being considered by Planning Service.

During 2011, Omagh District Council received a number of consultations in relation to large housing developments, quarries and other commercial development. The Environmental Health Department assesses the potential impact of such developments on local air quality and makes recommendations to Planning Service accordingly.

## **6 Air Quality Planning Policies**

Omagh District Council has not prepared any air quality planning policies.

## **7 Local Transport Plans and Strategies**

Omagh District Council has not prepared any local transport plans and strategies.

## 8 Climate Change Strategies

Omagh District Council recognises that Climate Change is likely to be one of the key drivers of change within our community this century.

The Council has strategies that highlight the need for action on climate change, the environment and sustainability; these are:

- Sustainable Development Strategy and Action Plan 2011 – 2015  
This was adopted by Council in July 2011 as a policy document to inform business and work plans. The document largely mirrors the Sustainable Development Strategy of the OFMDFM, published 2010.
- Low Carbon Procurement Policy  
This policy is being rolled out for all purchasing across council departments.
- Environmental Management System for Omagh District Council 2011  
This has been extended to include the Leisure Centre and the Civic Amenity Site in Omagh.
- Participation in the ARENA Network NI-Benchmarking 2011 Survey.
- Omagh District Council and CIEH(NI) have jointly carried out the first LCLIP (Local Climate Impacts Profile) in Northern Ireland and is currently working to finalise the report.

## **9 Implementation of Action Plans**

The review and assessment process indicates that an action plan is not currently required.

## **10 Conclusions and Proposed Actions**

### **10.1 Conclusions from New Monitoring Data**

There has been no new monitoring data since the last Updating and Screening Assessment/Progress Report.

### **10.2 Conclusions relating to New Local Developments**

There are a number of possible proposed developments as previously indicated in Section 5 of this report which may need to be considered in a forthcoming Updating and Screening Assessment.

### **10.3 Proposed Actions**

It is proposed to submit an Updating and Screening Assessment in 2012.

## **11 References**

- Defra (2009) Local Air Quality Management, Technical Guidance LAQM.TG (09)
- Omagh District Council Stage 1 Review and Assessment 2001
- Omagh District Council Stage 2/3 Review and Assessment 2004
- Omagh District Council Progress Report 2005
- Omagh District Council Updating and Screening Assessment 2006
- Omagh District Council Progress Report 2007
- Omagh District Council Progress Report 2008
- Omagh District Council Updating and Screening Assessment 2009
- Omagh District Council Progress Report 2010

