



# **Fermanagh District Council**

## **Local Air Quality Management**

### **PROGRESS REPORT 2007**

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## **Local Air Quality Management**

### **PROGRESS REPORT (2007)**

#### **1 BACKGROUND**

The UK Government published its strategic policy framework for air quality management in 1995 which established national strategies and policies on air quality issues.

The Environment (NI) Order 2002 (Part III) together with the Air Quality Regulations (NI) 2003 provides the statutory basis for district councils to undertake local air quality management (LAQM) duties in NI.

One of the first steps in the LAQM process is for all District Councils to carry out a review and assessment of their local air quality. This has been carried out by FDC and was based on a staged approach as follows:

##### **Stage One**

An initial screening of industrial, transport and any other sources of pollution that could have a significant impact within the council area, resulting in the likelihood of exceedances of the air quality objectives

The Stage One report for Fermanagh District Council was completed in August 2001. It concluded that no further investigation or action needed to be undertaken for the following pollutants:

- Benzene
- 1,3-Butadiene
- Lead
- Carbon Monoxide

However, the Stage One screening indicated that air quality objectives were at risk of being exceeded for three of the strategy pollutants, namely:

- Nitrogen Dioxide
- Sulphur Dioxide
- Particulate Matter (PM<sub>10</sub>)

Accordingly, Fermanagh District Council was required to proceed to a Stage Two/Three Review of these pollutants.

### **Stage Two/Three**

A more detailed assessment of all the pollutants identified as significant locally in the first stage. This included computer modelling of sources and made reference to locally monitored air quality data.

The conclusions of the second/third stage were:

- Nitrogen Dioxide (NO<sub>2</sub>) (Stage Two):

The assessment of NO<sub>2</sub> emissions from road traffic was largely based upon the application of the Design Manual for Roads and Bridges (DMRB) and some diffusion tube monitoring data that was available.

The results of both the diffusion tube survey and the DMRB modelling showed that it is unlikely that either the annual mean or hourly NO<sub>2</sub> objective will be exceeded in Fermanagh DC area at relevant receptor locations.

It was therefore not necessary to undertake a Third Stage Review and Assessment for NO<sub>2</sub>.

- Sulphur Dioxide (SO<sub>2</sub>) (Stage Two/Three):

In the absence of any reliable local monitoring, Fermanagh District Council was required to proceed directly to a Third Stage Review and Assessment in respect of SO<sub>2</sub> from domestic fuel combustion for the 1km x 1km grid square identified in Stage One.

The results of the assessment, using ADMS computer modelling, suggested that there was unlikely to be an exceedance of the SO<sub>2</sub> objectives in the modelled area.

- Particulates (PM<sub>10</sub>) (Stage Two/Three) :

The results of DMRB modelling confirmed that there would be no likelihood of predicted exceedances of the PM<sub>10</sub> objective from traffic sources.

Based on findings elsewhere it was not considered necessary to proceed to a Stage Three Review and Assessment for PM<sub>10</sub> in respect of industrial type sources, controlled or uncontrolled.

In relation to domestic solid fuel use, in the absence of any reliable local monitoring data, it again was necessary to proceed to a Third Stage Review and Assessment for this source. This also involved detailed modelling of domestic fuel emissions using ADMS version 3.1, using new fuel usage data, as well as more locally accurate PM<sub>10</sub> monitoring data from neighbouring Omagh District Council.

The modelling suggested that an exceedance of the PM<sub>10</sub> objective was unlikely.

The conclusion of the first round of the Review and Assessment process was that it is not necessary to declare an Air Quality Management area within the Fermanagh District Council area.

## **2 PROGRESS REPORTS**

In order to ensure continuity of the Government's Local Air Quality Review and Assessment process, Progress Reports are now required in the intervening years to fill the gaps between the three yearly requirement for detailed Assessments. The aim is to report progress on implementing local air quality management and progress on achieving or maintaining concentrations below the air quality objectives.

This Progress Report is being submitted therefore as required in accordance with the LAQM Progress Reports Policy Guidance PRG NI (04).

### 3 NEW MONITORING RESULTS

Since completion of Fermanagh District Council's Stage 2/3 Report in September 2004, NO<sub>2</sub> emissions from road traffic has continued to be monitored by diffusion tubes at four sites in Enniskillen. The 2005 and 2006 results are shown below:

**Table 1: Annual average concentrations measured by Diffusion Tubes at locations in the Fermanagh District Council area in 2005**

Site Name (Enniskillen)	Site Type	Sample Frequency	Average NO <sub>2</sub> (µgm <sup>-3</sup> ) (uncorrected for bias)	Laboratory
Townhall	K	Monthly	28.4	Eurofins
Belmore St	K	Monthly	37.8	do.
Tempo Rd	B	Monthly	9.4	do.
Rossole Rd	B	Monthly	10.5	do.

K =Kerbside 1-5m from a busy town centre road

B = Urban Background in a residential area more than 50 metres from a busy road.

[Dec 2005 Objective for Nitrogen Dioxide (Annual Mean) - 40 µgm<sup>-3</sup>]

**Table 2: Annual average concentrations measured by Diffusion Tubes at locations in the Fermanagh District Council area in 2006**

<b>Site Name (Enniskillen)</b>	<b>Site Type</b>	<b>Sample Frequency</b>	<b>Average NO<sub>2</sub> (µgm<sup>-3</sup>) (uncorrected for bias)</b>	<b>Laboratory</b>
Townhall	K	Monthly	26.5	Eurofins
Belmore St	K	Monthly	34.1	do.
Tempo Rd	B	Monthly	8.2	do.
Rossole Rd	B	Monthly	11.3	do.

K =Kerbside 1-5m from a busy town centre road

B = Urban Background in a residential area more than 50 metres from a busy road.

**[Dec 2005 Objective for Nitrogen Dioxide (Annual Mean) - 40 µgm<sup>-3</sup>]**

These results do not indicate an exceedance of the December 2005 NO<sub>2</sub> concentration objective. There has been no monitoring of any of the other pollutants of concern

#### **4 NEW LOCAL DEVELOPMENTS**

##### **Industrial Pollution Control / Industrial Pollution Prevention and Control.**

There have been no significant industrial processes permitted under the IPPC scheme since 2005 which would impact on air quality. The Council's new Waste Management Landfill and Recycling Facility at Drummeemore, Enniskillen is currently in operation. This process, which is regulated by the Environment and Heritage Service (IPRI), has resulted in the closure of the previous facility at Glassmullagh.

##### **Retail / Residential / Road Developments.**

There are a number of medium / large housing developments both under construction and proposed in the Enniskillen area but these are all of a similar type and density to existing developments and are not expected to adversely affect air quality.

There have been no major retail developments nor have there been any new road schemes constructed within the District since 2005 which might significantly modify traffic flows.

#### **5 ADDITIONAL INFORMATION**

Fermanagh District Council has not been required to declare an Air Quality Action Area and consequently does not need to implement any Action Plans.

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