



**BANBRIDGE**  
DISTRICT COUNCIL

2009 Air Quality Updating and  
Screening Assessment for  
*Banbridge District Council*

In fulfillment of Part IV of the Environment Act 1995  
Local Air Quality Management

April 2009

**Banbridge District Council - Northern Ireland**

<b>Local Authority Officer</b>	<a href="#">Theresa Mallon</a> <a href="#">Christopher Coyle</a>
--------------------------------	---

<b>Department</b>	<a href="#">Environmental Health</a>
<b>Address</b>	<b>Gate Lodge</b> , Linenhall Street, <b>Banbridge</b> , Co. Down BT32 3EG
<b>Telephone</b>	
<b>e-mail</b>	<a href="mailto:theresa.mallon@banbridge.gov.uk">theresa.mallon@banbridge.gov.uk</a>

<b>Report Reference number</b>	
<b>Date</b>	April 2009

## **Executive Summary**

Diffusion Tube monitoring at 4 locations within Banbridge District Council's area has demonstrated that with the exception of one site (A1 Dromore by-pass) there are no NO<sub>2</sub> levels exceeding the objective limit of 40ug/m<sup>3</sup>. The NO<sub>2</sub> average result at the A1 Dromore by-pass location did reach the objective limit (41 µg/m<sup>3</sup>). However Banbridge District Council will not be declaring an AQMA at this location as there are no sensitive receptors close to the sampling location. The nearest receptor is approx 20m from the sampling tube. It is assumed that given the drop out rate of NO<sub>2</sub> from the source (road vehicles), the level of NO<sub>2</sub> pollution at the nearest receptor would be well below the objective limit. No AQMA's will be declared at this time for any of the sites monitored by Banbridge District Council. No detailed assessments are required for NO<sub>2</sub> at this time.

Banbridge District Council has not seen any significant changes from any pollution sources since the last round of review and assessment and no other sources of pollution have been identified. Therefore the likely impact from such sources is negligible.

Banbridge District Council has not identified the requirement for any proposed actions at this time as a result of information identified in this Updating and Screening Assessment. The next course of action to be taken by the council is to complete and submit a Progress Report in 2010.

# Table of contents

<b>1</b>	<b>Introduction</b>	<b>4</b>
1.1	Description of Local Authority Area	4
1.2	Purpose of Report	4
1.3	Air Quality Objectives	4
1.4	Summary of Previous Review and Assessments	6
<b>2</b>	<b>New Monitoring Data</b>	<b>7</b>
2.1	Summary of Monitoring Undertaken	7
2.2	Comparison of Monitoring Results with AQ Objectives	7
<b>3</b>	<b>Road Traffic Sources</b>	<b>10</b>
3.1	Narrow congested streets with residential properties close to the kerb	10
3.2	Busy streets where people may spend 1-hour or more close to traffic	10
3.3	Roads with high flow of buses and/or HGVs.	10
3.4	Junctions and busy roads	10
3.5	New roads constructed or proposed since the last round of review and assessment	11
3.6	All roads with significantly changed traffic flows.	11
3.7	Bus and coach stations	11
<b>4</b>	<b>Other Transport Sources</b>	<b>12</b>
4.1	Airports	12
4.2	Railways (diesel and steam trains)	12
4.3	Ports (shipping)	12
<b>5</b>	<b>Industrial Sources</b>	<b>13</b>
5.1	New or Proposed Industrial Installations	13
5.2	Major fuel (petrol) storage depots	13
5.3	Petrol stations	13
5.4	Poultry farms	14
<b>6</b>	<b>Commercial and Domestic Sources</b>	<b>15</b>
6.1	Biomass combustion – Individual Installations	15
6.2	Biomass combustion – Combined Impacts	15
6.3	Domestic Solid-Fuel Burning	15
<b>7</b>	<b>Fugitive or Uncontrolled Sources</b>	<b>16</b>
<b>8</b>	<b>Conclusions and Proposed Actions</b>	<b>17</b>
8.1	Conclusions from New Monitoring Data	17
8.2	Conclusions from Assessment of Sources	17
8.3	Proposed Actions	17
<b>9</b>	<b>References</b>	<b>18</b>

## ***Banbridge District Council - Northern Ireland***

### **Appendices**

Appendix A	QA:QC Data
Appendix B	Gradko WASP Data
Appendix C	Diffusion Tube Monitoring Maps

# 1 Introduction

## 1.1 Description of Local Authority Area

Banbridge District covers approximately 180 square miles in the north west of County Down and has a population of around 41,392. It is a predominantly rural area with a largely agricultural economic base. The main centres of population are Banbridge town, the focus of administration and commercial activity in the District, and the smaller settlements of Dromore, Rathfriland, Gilford, Loughbrickland and Scarva.

The District is dissected by two major traffic routes. The A1 from Belfast to Dublin runs along the outskirts of Dromore, Banbridge town and Loughbrickland through a traditionally rural area. In recent years residential development has expanded in proximity to the carriageway. This is to some extent due to the area becoming a convenient satellite residential base for commuters to Belfast. The A50 from Castlewellan to Portadown passes through the centre of Banbridge town. It crosses the A1 via a flyover in the developing residential area to the east of the town.

There are four relatively large quarries located in the District. Activities include rock blasting, crushing, screening, manufacture of bitmac and asphalt coating products and cement and concrete production. Other industries include animal feed, cement and food production, timber processing, textile manufacturing and engineering works. Some of these processes are prescribed for authorisation under IPC. Those significant to this report will be considered in Chapter 2.

Domestic fuel usage throughout the District has historically been based on solid fuel but, as with the province generally, the use of coal is declining.

## 1.2 Purpose of Report

This report fulfils the requirements of the Local Air Quality Management process as set out in Part IV of the Environment Act (1995), the Air Quality Strategy for England, Scotland, Wales and Northern Ireland 2007 and the relevant Policy and Technical Guidance documents. The LAQM process places an obligation on all local authorities to regularly review and assess air quality in their areas, and to determine whether or not the air quality objectives are likely to be achieved. Where exceedences are considered likely, the local authority must then declare an Air Quality Management Area (AQMA) and prepare an Air Quality Action Plan (AQAP) setting out the measures it intends to put in place in pursuit of the objectives.

## 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 microgram's per cubic metre  $\mu\text{g}/\text{m}^3$  (milligram's per cubic metre,  $\text{mg}/\text{m}^3$  for carbon monoxide) with the number of exceedences in each year that are permitted (where applicable).

## Banbridge District Council - Northern Ireland

Table 1.1 Air Quality Objectives included in Regulations for the purpose of Local Air Quality Management in Northern Ireland.

Pollutant	Air Quality Objective		Date to be achieved by
	Concentration	Measured as	
<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

**Table 1.4-** Summary of Previous Review and Assessment Report completed by Banbridge District Council

<b>Report Type</b>	<b>Date</b>	<b>Exceedences</b>	<b>Detailed Assessment Required</b>	<b>AQMA's Declared</b>
Initial Review and Assessment	Jan 2001	None	No	None
Supplementary Report on SO <sub>2</sub> and PM <sub>10</sub>	Nov 2004	None	No	None
Progress Report	Apr 2005	None	No	None
Updating & Screening Assessment	Apr 2006	None	No	None
Progress Report	Apr 2007	None	No	None
Progress Report	Apr 2008	None	No	None



## 2 New Monitoring Data

### 2.1 Summary of Monitoring Undertaken

#### 2.1.1 Automatic Monitoring Sites

There are no automatic monitoring sites within the Banbridge District Council area.

#### 2.1.2 Non-Automatic Monitoring

Banbridge District Council carries out monitoring of NO<sub>2</sub> by diffusion tubes at four sites within the District. The NO<sub>2</sub> diffusion tubes were prepared and analysed by Gradko International. Gradko International was contracted to supply and analyse the diffusion tubes from the beginning of June 2007. This laboratory takes part in the NO<sub>2</sub> Network QA/QC Field Intercomparison survey. Gradko International's diffusion tubes are prepared by coating the grids in 20% TEA in water. Analysis is carried out using a colorimetric technique.

None of the sites were co-located with an automatic NO<sub>2</sub> analyser. Details are given in Table 2.2.

**Table 2.2 Details of Non- Automatic Monitoring Sites**

Site Name	Site Type	OS Grid Ref	Pollutants Monitored	In AQMA ?	Relevant Exposure? (Y/N with distance (m) to relevant exposure)	Distance to kerb of nearest road (N/A if not applicable)	Worst-case Location ?
Site 7	Urban background	-	NO <sub>2</sub>	N	Y (10m)	N/A	Y
Site 8	Urban Background	-	NO <sub>2</sub>	N	Y (10m)	N/A	Y
Site 10	Roadside	-	NO <sub>2</sub>	N	Y (10m)	3m	Y
Site 11	Roadside	-	NO <sub>2</sub>	N	Y (10m)	2.5m	Y

### 2.2 Comparison of Monitoring Results with AQ Objectives

Pollutant	Equipment	Location	Eastings	Northings	Site Type
NO <sub>2</sub>	Nitrogen Dioxide diffusion tubes	(SITE 8) 17 Springfields, Banbridge BT32 3LT	312010	344249	Urban Background
		(SITE 10) 7 Hillview Terrace, Dromore Street, Banbridge BT32 4BS	312845	346275	Roadside
		(SITE7) 9 Fortfield, Maypole Hill, Dromore BT25 1DD	319800	353508	Urban Background
		(SITE 11) A1 Dromore By- Pass	319803	353635	Roadside

## Banbridge District Council - Northern Ireland

### 2.2.1 Nitrogen Dioxide

There are no automatic monitoring sites within the Banbridge District Council Area

#### Automatic Monitoring Data

Banbridge District Council does not have any automatic monitoring sites in the Council district

#### Diffusion Tube Monitoring Data

**Table 2.4a Results of Nitrogen Dioxide Diffusion Tubes**

Site ID	Location	Within AQMA?	Data Capture 2008 %	Annual mean concentrations
				2008 ( $\mu\text{g}/\text{m}^3$ ) Adjusted for bias
Site 7	9 Fortfield	N	100	12
Site 8	17 Springfields	N	100	13
Site 10	7 Hillview Terrace	N	75 <sup>a</sup>	32
Site 11	A1 Dromore By-Pass	N	100	41 <sup>b</sup>

Note: a) 75% data capture at 7 Hillview Terrace. Diffusion tubes located in populated area and were destroyed or stolen on 3 occasions during 2008

Note: b) Average result at A1 Dromore by-pass of 41  $\mu\text{g}/\text{m}^3$ . However Banbridge District Council will not be declaring an AQMA at this location as there are no sensitive receptors close to the sampling location. The nearest receptor is approx 20m from the sampling tube. It is assumed that given the drop out rate of  $\text{NO}_2$  from the source (road vehicles), the level of  $\text{NO}_2$  pollution at the nearest receptor would be well below the objective limit.

**Table 2.4b Results of Nitrogen Dioxide Diffusion Tubes**

Site ID	Location	Within AQMA?	Annual mean concentrations ( $\mu\text{g}/\text{m}^3$ ) Adjusted for bias		
			2006 *	2007 *	2008
Site 7	9 Fortfield	N	13	11	12
Site 8	17 Springfields	N	17	11	13
Site 10	7 Hillview Terrace	N	34	25	32
Site 11	A1 By-pass Dromore	N	42	33	41

### 2.2.2 $\text{PM}_{10}$

Banbridge District Council does not carry out monitoring for  $\text{PM}_{10}$  pollution at this time

### 2.2.3 Sulphur Dioxide

Banbridge District Council does not carry out monitoring for Sulphur Dioxide at this time.

## ***Banbridge District Council - Northern Ireland***

### **2.2.4 Benzene**

Banbridge District Council does not carry out monitoring for Benzene at this time.

### **2.2.5 Other pollutants monitored**

Not Applicable

### 3 Road Traffic Sources

#### 3.1 Narrow Congested Streets with Residential Properties Close to the Kerb

Banbridge District Council confirms that there are no new/newly identified congested streets with a flow above 5,000 vehicles per day and residential properties close to the kerb, that have not been adequately considered in previous rounds of Review and Assessment.

**DELETE BOX IF NOT APPLICABLE. OTHERWISE ADD LOCAL AUTHORITY NAME AND LEAVE IN.**

#### 3.2 Busy Streets Where People May Spend 1-hour or More Close to Traffic

Banbridge District Council confirms that there are no new/newly identified busy streets where people may spend 1 hour or more close to traffic.

**DELETE BOX IF NOT APPLICABLE. OTHERWISE ADD LOCAL AUTHORITY NAME AND LEAVE IN.**

#### 3.3 Roads with a High Flow of Buses and/or HGVs.

Banbridge District Council confirms that there are no new/newly identified roads with high flows of buses/HDVs.

**DELETE BOX IF NOT APPLICABLE. OTHERWISE ADD LOCAL AUTHORITY NAME AND LEAVE IN.**

#### 3.4 Junctions

Banbridge District Council confirms that there are no new/newly identified busy junctions/busy roads.

**DELETE BOX IF NOT APPLICABLE. OTHERWISE ADD LOCAL AUTHORITY NAME AND LEAVE IN.**

### **3.5 New Roads Constructed or Proposed Since the Last Round of Review and Assessment**

Banbridge District Council confirms that there are no new/proposed roads.

***DELETE BOX IF NOT APPLICABLE. OTHERWISE ADD LOCAL AUTHORITY NAME AND LEAVE IN.***

### **3.6 Roads with Significantly Changed Traffic Flows**

Banbridge District Council confirms that there are no new/newly identified roads with significantly changed traffic flows.

***DELETE BOX IF NOT APPLICABLE. OTHERWISE ADD LOCAL AUTHORITY NAME AND LEAVE IN.***

### **3.7 Bus and Coach Stations**

Banbridge District Council confirms that there are no relevant bus stations in the District.

***DELETE BOX IF NOT APPLICABLE. OTHERWISE ADD LOCAL AUTHORITY NAME AND LEAVE IN.***

## 4 Other Transport Sources

### 4.1 Airports

Banbridge District Council confirms that there are no airports in the District.

**DELETE BOX IF NOT APPLICABLE. OTHERWISE ADD LOCAL AUTHORITY NAME AND LEAVE IN.**

### 4.2 Railways (Diesel and Steam Trains)

There are no train stations within the Banbridge District Council area

#### 4.2.1 Stationary Trains

Banbridge District Council confirms that there are no locations where diesel or steam trains are regularly stationary for periods of 15 minutes or more, with potential for relevant exposure within 15m.

**DELETE BOX IF NOT APPLICABLE. OTHERWISE ADD LOCAL AUTHORITY NAME AND LEAVE IN.**

#### 4.2.2 Moving Trains

There is a single train line that passes through a remote part of the Banbridge District Council area. There are no receptors open to exposure at any location along the track within the district

Banbridge District Council confirms that there are no locations with a large number of movements of diesel locomotives, and potential long-term relevant exposure within 30m.

**DELETE BOX IF NOT APPLICABLE. OTHERWISE ADD LOCAL AUTHORITY NAME AND LEAVE IN.**

### 4.3 Ports (Shipping)

The Banbridge District Council area is land-locked and therefore has no ports for shipping movements

Banbridge District Council confirms that there are no ports or shipping that meet the specified criteria within the Local Authority area.

**DELETE BOX IF NOT APPLICABLE. OTHERWISE ADD LOCAL AUTHORITY NAME AND LEAVE IN.**

## **5 Industrial Sources**

### **5.1 Industrial Installations**

#### **5.1.1 New or Proposed Installations for which an Air Quality Assessment has been carried out**

Banbridge District Council confirms that there are no new or proposed industrial installations for which planning approval has been granted within its area or nearby in a neighbouring authority.

**DELETE BOX IF NOT APPLICABLE. OTHERWISE ADD LOCAL AUTHORITY NAME AND LEAVE IN.**

#### **5.1.2 Existing Installations where Emissions have Increased Substantially or New Relevant Exposure has been Introduced**

Banbridge District Council confirms that there are no industrial installations with substantially increased emissions or new relevant exposure in their vicinity within its area or nearby in a neighbouring authority.

**DELETE BOX IF NOT APPLICABLE. OTHERWISE ADD LOCAL AUTHORITY NAME AND LEAVE IN.**

#### **5.1.3 New or Significantly Changed Installations with No Previous Air Quality Assessment**

Banbridge District Council confirms that there are no new or proposed industrial installations for which planning approval has been granted within its area or nearby in a neighbouring authority.

**DELETE BOX IF NOT APPLICABLE. OTHERWISE ADD LOCAL AUTHORITY NAME AND LEAVE IN.**

### **5.2 Major Fuel (Petrol) Storage Depots**

*Delete whichever is not applicable:*

There are no major fuel (petrol) storage depots within the Local Authority area.

**DELETE BOX IF NOT APPLICABLE. OTHERWISE ADD LOCAL AUTHORITY NAME AND LEAVE IN.**

### **5.3 Petrol Stations**

Banbridge District Council confirms that there are no petrol stations meeting the specified criteria.

**DELETE BOX IF NOT APPLICABLE. OTHERWISE ADD LOCAL AUTHORITY NAME AND LEAVE IN.**

## **5.4 Poultry Farms**

Banbridge District Council confirms that there are no poultry farms meeting the specified criteria.

***DELETE BOX IF NOT APPLICABLE. OTHERWISE ADD LOCAL AUTHORITY NAME AND LEAVE IN.***



## **6 Commercial and Domestic Sources**

### **6.1 Biomass Combustion – Individual Installations**

Banbridge District Council confirms that there are no biomass combustion plants in the District.

***DELETE BOX IF NOT APPLICABLE. OTHERWISE ADD LOCAL AUTHORITY NAME AND LEAVE IN.***

### **6.2 Biomass Combustion – Combined Impacts**

Banbridge District Council confirms that there are no biomass combustion plants in the District.

***DELETE BOX IF NOT APPLICABLE. OTHERWISE ADD LOCAL AUTHORITY NAME AND LEAVE IN.***

### **6.3 Domestic Solid-Fuel Burning**

Banbridge District Council confirms that there are no areas of significant domestic fuel use in the District.

***DELETE BOX IF NOT APPLICABLE. OTHERWISE ADD LOCAL AUTHORITY NAME AND LEAVE IN.***

## **7 Fugitive or Uncontrolled Sources**

Banbridge District Council confirms that there are no potential sources of fugitive particulate matter emissions in the District.

***DELETE BOX IF NOT APPLICABLE. OTHERWISE ADD LOCAL AUTHORITY NAME AND LEAVE IN.***

## **8 Conclusions and Proposed Actions**

### **8.1 Conclusions from New Monitoring Data**

Monitoring at 4 locations within Banbridge District Council's area has demonstrated that with the exception of one site (A1 Dromore by-pass) there are no NO<sub>2</sub> levels exceeding the objective limit of 40µg/m<sup>3</sup>. The NO<sub>2</sub> average result at the A1 Dromore by-pass location did breach the objective limit (41 µg/m<sup>3</sup>). However Banbridge District Council will not be declaring an AQMA at this location as there are no sensitive receptors close to the sampling location. The nearest receptor is approx 20m from the sampling tube. It is assumed that given the drop out rate of NO<sub>2</sub> from the source (road vehicles), the level of NO<sub>2</sub> pollution at the nearest receptor would be well below the objective limit. No AQMA's will be declared at this time for any of the sites monitored by Banbridge District Council.

### **8.2 Conclusions from Assessment of Sources**

Banbridge District Council has not seen any significant changes from any pollution sources since the last round of review and assessment and no other sources of pollution have been identified. Therefore the likely impact from such sources is negligible.

### **8.3 Proposed Actions**

Banbridge District Council has not identified the requirement for any proposed actions at this time as a result of information identified in this Updating and Screening Assessment. The next course of action to be taken by the council is to complete and submit a Progress Report in 2010.

## **9 References**

Local Air Quality Management Technical Guidance 2009 (Defra)

Local Air Quality Management Policy Guidance 2009 (Defra)

Diffusion Tubes for Ambient NO<sub>2</sub> Monitoring: Practical Guidance for Laboratories and Users – AEA Energy & Environment (Report to Defra and Devolved Administrations).

# **Appendices**

Appendix A: QA/QC Data

Appendix B: Gradko WASP data

Appendix C: Diffusion Tube Monitoring Sites

## **Appendix A: QA:QC Data**

### **Diffusion Tube Bias Adjustment Factors**

The NO<sub>2</sub> diffusion tubes were prepared and analysed by Gradko International from the beginning of June 2007. This laboratory takes part in the NO<sub>2</sub> Network QA/QC Field Intercomparison survey. Gradko International's diffusion tubes are prepared by coating the grids in 20% TEA in water. Banbridge District Council obtained the appropriate bias factor from the UWE Review and Assessment Website. A factor of 0.90 was taken from the drop down menus available on the excel spreadsheet matrix.

### **Factor from Local Co-location Studies (if available)**

Banbridge District Council did not use a Bias Factor from a local Co-location study. Banbridge does not have an automatic NO<sub>2</sub> analyser in the district to carry out a co-location assessment. Also, although a co-location factor may be available from two other neighbouring councils (Armagh & Newry), both of these councils use a different diffusion tube supplier and analysing laboratory to Banbridge.

### **Discussion of Choice of Factor to Use**

Banbridge District Council used the Bias Factor from the UWE Air Quality Website. This was calculated by using the matrix available on the site by selecting the appropriate laboratory, year of monitoring and significant methodology. Banbridge District Council used a bias factor for 2008 (0.90)

### **PM Monitoring Adjustment**

N/A

### **Short-term to Long-term Data adjustment**

N/A

### **QA/QC of automatic monitoring**

N/A

### **QA/QC of diffusion tube monitoring**

See Appendix B for Scientifics WASP data

## **Appendix B: Gradko WASP Data**

Information provided by Gerry Stutchbury at Gradko. Internal analysis procedures are assessed by U.K.A.S. on an annual basis for compliance to ISO17025

WASP results for 01.08 to 01.09 were as follows :

Jan08 Round 100 : Ref Value : 1.36ugNO<sub>2</sub> Measured Value : 1.34 ugNO<sub>2</sub> Z score -0.1 Satisfactory  
1.47ugNO<sub>2</sub> Measured Value : 1.50 ugNO<sub>2</sub> Z score 0.2 Satisfactory

March08 Round 101 Ref Value : 0.92ug NO<sub>2</sub> Measured Value : 0.95ugNO<sub>2</sub> Z Score 0.2 Satisfactory  
Ref Value : 1.86ugNO<sub>2</sub> Measured Value : 1.85ugNO<sub>2</sub> Z Score 0 Satisfactory

July 08 Round 102 Ref Value : 1.37ugNO<sub>2</sub> Measured Value : 1.42ugNO<sub>2</sub> Z Score 0.3 Satisfactory  
Ref value : 2.28ugNO<sub>2</sub> Measured Value : 2.21ugNO<sub>2</sub> Z score -0.2 Satisfactory

Jan09 Round 104 Ref Value : 2.02ugNO<sub>2</sub> Measured Value : 1.85ugNO<sub>2</sub> Z Score -0.7 Satisfactory  
Ref Value : 1.22ug NO<sub>2</sub> Measured Value : 1.21ugNO<sub>2</sub> Z Score - 0.1 Satisfactory





## **APPENDIX C**

### **Diffusion Tube Monitoring Sites**

**Map 1**

**Site at 17 Springfields, Banbridge BT32 3LT**



**Map 2**

**Site at 7 Hillview Terrace, Dromore Street, Banbridge BT32 4BS**



**Map 3**

**Sites at 9 Fortfield, Maypole Hill, Dromore BT25 1DD and A1  
Dromore By-Pass**



***Banbridge District Council - Northern Ireland***