Comhairle Ceantair
Lár Uladh
Mid Ulster
District Council

Mid Ulster District Council

2024 Updating Screening Assessment

In fulfilment of Environment (Northern Ireland) Order 2002

Local Air Quality Management

Date: October 2024

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Executive Summary

Mid Ulster District Council undertakes non-automatic monitoring for NO_2 in a number of towns and villages across the District. These are generally located close to the centres of the towns and villages along the main North to South A29 road transport system. This road runs from the North to the South of Northern Ireland and connects the three main towns in the District of Magherafelt, Cookstown and Dungannon.

There were previously five AQMA's declared for NO_2 in the District, two of which have been revoked due to improvements in the air quality at these locations. Ongoing diffusion tube monitoring has shown a slight reduction of NO_2 levels at the AQMAs in Dungannon and Moy. In 2023 the results for both AQMAs are just below the NO_2 air quality objective level.

The third AQMA in Magherafelt Town Centre has now shown no exceedances at any of the six monitoring sites for five-six years with all results being below 37µg/m³. Mid Ulster District Council now plan to revoke the AQMA in accordance with Department of Agriculture, Environment and Rural Affairs guidance: Local Air Quality Management during the COVID-19 Outbreak: Update, dated August 2021 and Supplementary Guidance for Councils RE: Revocation/Designation of AQMAs (Updated 2023).

The improvement in the air quality at Magherafelt is most likely linked to the construction of the A31 Magherafelt by-pass. The by-pass consists of a 5.9km single carriageway to the east of Magherafelt town, and now diverts a lot of the through traffic that previously passed through the town centre around the outskirts of the town.

Diffusion tube monitoring at eight locations along the main thoroughfare in Cookstown and Moneymore did not demonstrate any exceedances of the air quality objective limit. Routine monitoring of these locations will continue to help monitor trends in the air quality at these locations.

The report concludes that a detailed assessment is not required for any of the pollutants.

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1 Introduction

1.1 Description of Local Authority Area

The Mid Ulster District straddles two counties running from Swatragh in the north to Fivemiletown in the south and from the Sperrin Mountains in the west to Lough Neagh in the east. It comprises of an area of 1955km^2 with a varied landscape and a diverse mix of rural and urban communities. It is characterised by its rural nature, given the large proportion of households which are located in the small towns, villages and countryside.

Demographics

Mid Ulster is the 6th most populous District in Northern Ireland with a population of 150,293. This is an increase of 8.4% since the 2011 census (Census 2021). The population is an ageing one with a greater proportion of people aged over 64 than in previous years. Another marked demographic feature of our District is the relatively high migrant population. 9% of the population was born outside the UK and ROI, as opposed to a Northern Ireland average figure of 7%

This trend can partly be explained by the success of the agri-food industry in attracting migrant labour, particularly in and around the Dungannon area. The average household size is 2.76 people per household. This is the highest of all the 11 Local Government Districts. Mid Ulster has 15% of its population living in a household with more than 5 people compared to a Northern Ireland average of 9%.

Mid Ulster is also a very rural District with 72% of the population living in a rural area, as defined by the inter-departmental rural urban definition group. This definition of rural means that everywhere in the District is classed as rural apart from Cookstown, Dungannon, Magherafelt and Coalisland. Additionally, 40% of households are located with the countryside.

Economic Trend

Unemployment levels in Mid Ulster are in line with the Northern Ireland average of just under 5% (Census 2011). The District is significantly more dependent on the construction and manufacturing sectors than the rest of Northern Ireland. For instance, 27.5% of all jobs in Mid Ulster are in manufacturing and 8% are in construction, compared to regional figures of 11% and 4.2% respectively (Census for Employment, NISRA, July 2014). The high prevalence of manufacturing is in part linked to a thriving minerals industry in the District, particularly the extraction of sand and gravel. As a spin off to this extraction activity, there is a very strong manufacturing sector specialising in crushing and screening equipment. It has been estimated that Northern Ireland provides 40% of the world's mobile screening and crushing equipment and undoubtedly, a large proportion of this is supplied by companies within Mid Ulster.

Infrastructure

In terms of infrastructure, the A29 which runs throughout Northern Ireland from north to south, is the spine of the District and the main transport corridor. The A29 also connects the 3 main towns in the District, or what may be referred to as the three main "hubs" i.e. Cookstown, Dungannon and Magherafelt. Of these 3 towns, Dungannon and Cookstown are classed as "medium towns" by NISRA due to having a population of more than 10,000 whilst Magherafelt is considered a "small town."

The A4 which is an important east-west transport corridor also runs through the southern part of the District as does the A5 which is the main link between Dublin/ROI and the northwest of Northern Ireland. The A6 runs through the northern portion of the District, and this is a vital corridor which connects the two main cities in Northern Ireland. Travel times from some parts of Mid Ulster to an A&E hospital is over 50 minutes, making the need for improved roads and infrastructure a significant priority.

Environment

Mid Ulster is home to some of the most picturesque and high value landscapes in Northern Ireland. A significant portion of the northern half of the District is included within the Sperrin Area of Outstanding Natural Beauty, including the summit of Slieve Gallion which is a prominent feature in the Mid Ulster landscape. The Clogher Valley

is also an area of high scenic importance and in addition to important landscapes, Mid Ulster is also home to numerous important habitats including Lough Neagh, Lough Beg and Slieve Beagh, all of which are internationally important habitats.

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1.2 Purpose of Report

This report fulfils the requirements of the Local Air Quality Management process as set out in the Environment (Northern Ireland) Order 2002, 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 exceedances 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.

The aim of this Updating and Screening Assessment is to identify any matters that have changed which may lead to risk of an air quality objective being exceeded. A checklist approach and screening tools are used to identify significant new sources or changes and whether there is a need for a Detailed Assessment. The USA report should provide an update of any outstanding information requested previously in Review and Assessment reports.

If an Updating and Screening Assessment has not been submitted in accordance with the dates set in the DEFRA Local Air Quality Management Technical Guidance (currently LAQM TG22), DAERA will be unable to pay staff costs offered under the conditions of the LAQM Grant.

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 micrograms per cubic metre μg/m^3 (milligrammes per cubic metre, mg/m^3 for carbon

monoxide) with the number of exceedances in each year that are permitted (where applicable).

Table 1.1 Air Quality Objectives included in Regulations for the purpose of LAQM in Northern Ireland

Pollutant	Air Quality Objective Concentration	Air Quality Objective Measured as	Date to be achieved by
Benzene	16.25µg/m^3	Running annual mean	31.12.2003
	3.25µg/m^3	Running annual mean	31.12.2010
1,3-Butadiene	2.25µg/m^3	Running annual mean	31.12.2003
Carbon monoxide	10.0mg/m^3	Running 8-hour mean	31.12.2003
Lead	0.5µg/m^3	Annual mean	31.12.2004
	0.25µg/m^3	Annual mean	31.12.2008
Nitrogen dioxide	200µg/m^3 not to be exceeded more than 18 times a year	1-hour mean	31.12.2005
	40µg/m^3	Annual mean	31.12.2005
Particles (PM_{10}) (gravimetric)	50µg/m^3, not to be exceeded more than 35 times a year	24-hour mean	31.12.2004
	40µg/m^3	Annual mean	31.12.2004
Sulphur dioxide	350µg/m^3, not to be exceeded more than 24 times a year	1-hour mean	31.12.2004
	125µg/m^3, not to be exceeded more than 3 times a year	24-hour mean	31.12.2004
	266µg/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

The Updating and Screening Assessment of 2015 was the first Report submitted on behalf of the newly established Mid Ulster District Council. Previous reports submitted by both Dungannon and South Tyrone borough Council, and by Magherafelt District Council had identified a number of problematic areas in relation to areas where the air quality objective

of 40µg/m³for Nitrogen dioxide (NO_2) was exceeded. Routine air quality monitoring for Nitrogen Dioxide using diffusion tubes had identified the exceedances of this objective. As a result of this monitoring a number of Air Quality Management (AQMA's) were established in various areas throughout the District. There has been a total of five AQMA's declared within the Mid Ulster area since routine monitoring began. Four of these were located in the former Dungannon and South Tyrone Borough and one in the former Magherafelt District. However, following improvements in the air quality in two of these AQMA's for three successive years during which time the air quality objective was not exceeded the AQMA for these areas were revoked.

The AQMA's were revoked for the following areas:

1. Church Street, Dungannon
2. Stewartstown Road, Coalisland.

There are still three remaining AQMA's in the District located at the following locations:

1. Newell Road, Dungannon.
2. Charlemont Street, Moy.
3. Church Street & King Street, Magherafelt.

It is planned to revoke the Magherafelt AQMA in the forthcoming months.

Table 1.2

Table 1.2 lists previous reports and the dates they were produced.

Previous report	Date produced
Mid Ulster District Council 2023 Progress Report	Published: 29th July 2024
Mid Ulster- Progress Report 2022 -	Published: 12th February 2024

Mid Ulster - Updating and Screening Assessment - 2021 -	Published: 8th June 2023
Mid Ulster District Council 2020 Air Quality Progress Report -	Published: 9th December 2021
Mid Ulster - Progress Report - 2017 -	Published: 5th June 2018
Mid Ulster - Progress Report - 2016 -	Published: 17th November 2017
Mid Ulster - Updating and Screening Assessment - 2015	Published: 21st October 2016
Magherafelt - Progress Report - 2014 -	Published: 26th October 2016
Cookstown - Progress Report - 2014	Published: 26th October 2016
Dungannon and South Tyrone - Progress Report - 2014 -	Published: 31st March 2014
Magherafelt - Progress Report - 2013 -	Published: 30th December 2013
Dungannon and South Tyrone - LAQM Progress Report - 2013 -	Published: 31st March 2013
Cookstown - Progress Report - 2013 -	Published: 1st November 2013

Magherafelt - LAQM USA Report - 2012	Published: 30th April 2012
Dungannon and South Tyrone - Updating and Screening Assessment report - 2012 -	Published: 4th March 2012
Cookstown - LAQM USA Report - 2012	Published: 1st December 2012
Magherafelt - Updating and Screening Assessment report - 2012	Published: 4th March 2012
Dungannon and South Tyrone - Detailed Assessment - August 2011 -	Published: 29th August 2011
Magherafelt - Detailed Assessment - September 2011 -	Published: 29th August 2011
Dungannon and South Tyrone - Progress Report Appraisal Report - 2011 -	Published: 30th May 2011
Magherafelt - Progress Report - 2011 -	Published: 21st April 2011
Magherafelt - Detailed Assessment - 2011 -	Published: 29th March 2011
Cookstown - Progress Report - 2011 -	Published: 19th October 2011

Dungannon and South Tyrone - Progress Report - 2010 -	Published: 29th June 2010
Magherafelt - Progress Report - 2010 -	Published: 29th July 2010
Dungannon and South Tyrone - Updating and Screening Assessment - 2009 -	Published: 29th April 2009
Magherafelt - Updating and Screening Assessment - 2009 -	Published: 30th May 2009
Cookstown - Updating and Screening Assessment - September 2009 -	Published: 29th September 2009
Dungannon and South Tyrone - Progress Report - 2008 -	Published: 29th June 2008
Cookstown - Progress Report - 2008 -	Published: 29th June 2008
Magherafelt - Progress Report - 2008 -	Published: 30th August 2008
Dungannon and South Tyrone - Detailed Assessment for NO2 Diffusion Tubes -	Published: 29th June 2007

Cookstown - Progress Report - 2007	Published: 29th April 2007
Magherafelt - Progress Report - 2007 -	Published: 29th April 2007
Dungannon and South Tyrone - Local Air Quality Management - Stage 2 and 3 Review and Assessment	Published: 31st July 2004
Dungannon and South Tyrone - Local Air Quality Management - Stage 2 Review and Assessment - Supplementary Report -	Published: 31st May 2005
Cookstown - Updating and Screening Assessment - 2006 -	Published: 30th August 2006
Magherafelt - Progress Report - 2005 -	Published: 31st March 2005
Dungannon and South Tyrone - Local Air Quality Progress Report -	Published: 31st May 2005
Magherafelt - Air Quality Review and Assessment - Stage 2 -	Published:1st February 2002
Cookstown - Air Quality Review and Assessment - Stage 2 -	Published: 1st February 2002

Figure 1.1 – Map of AQMA Boundary at Church Street/ King Street Magherafelt

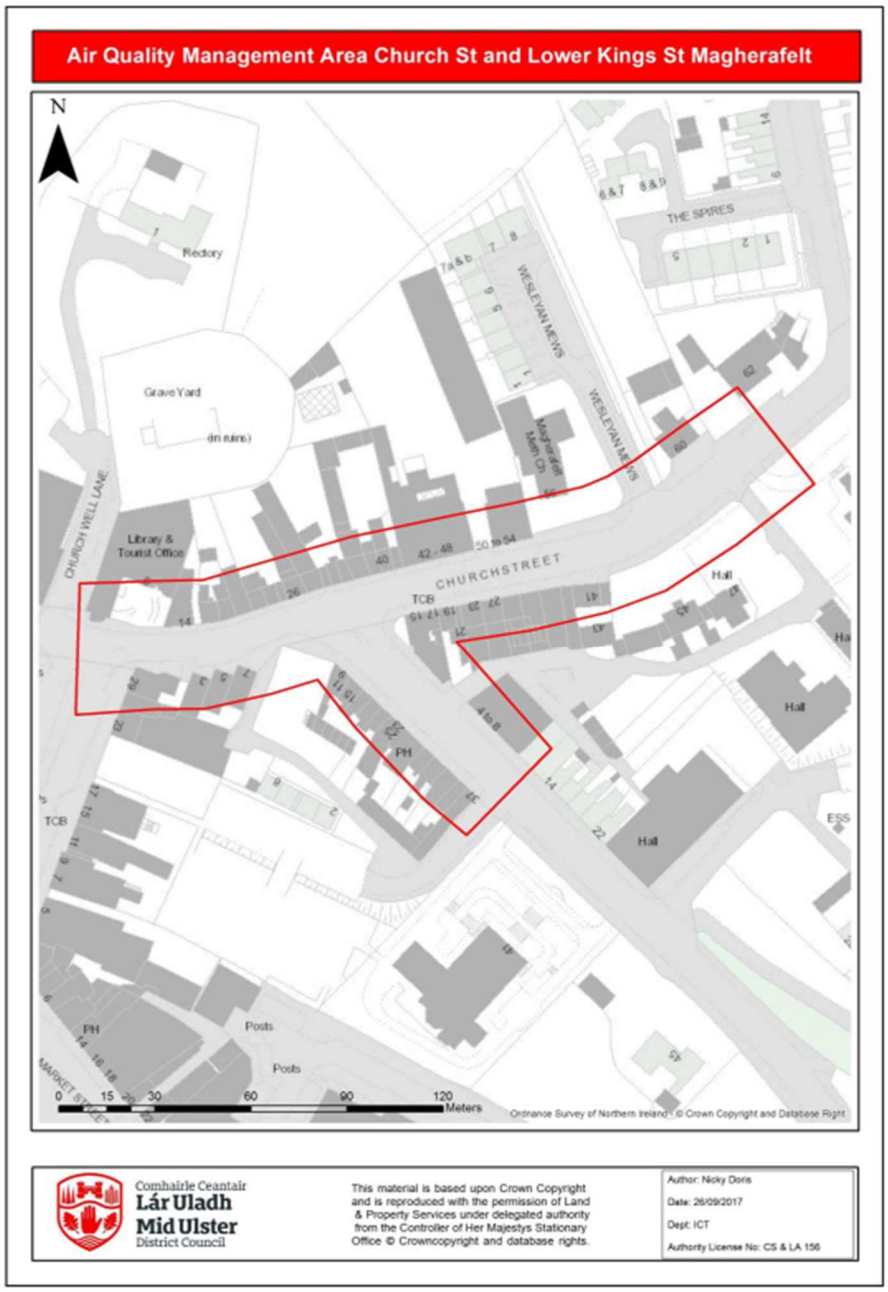


Figure 1.2 – Map of AQMA Boundary Newell Road, Dungannon

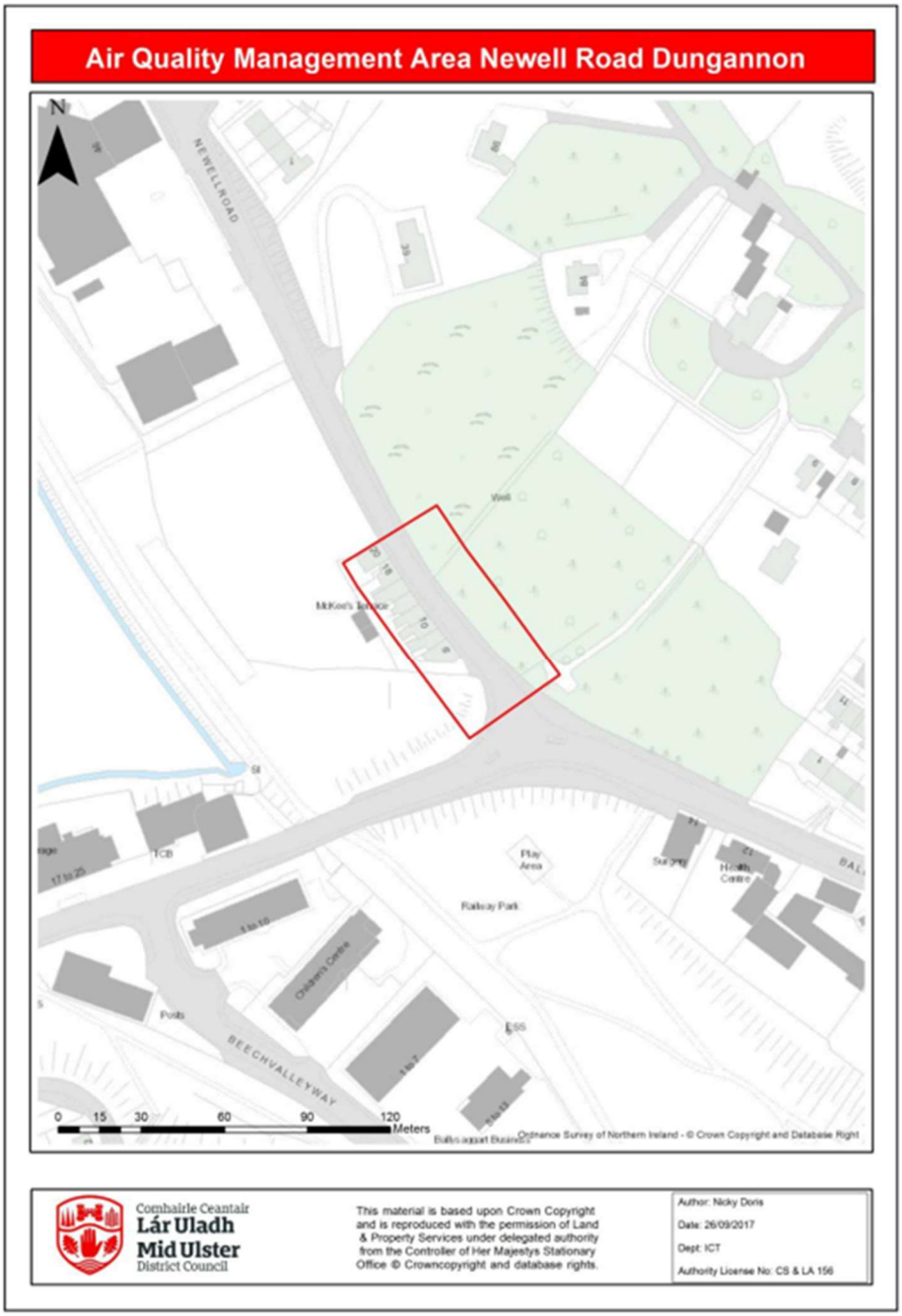
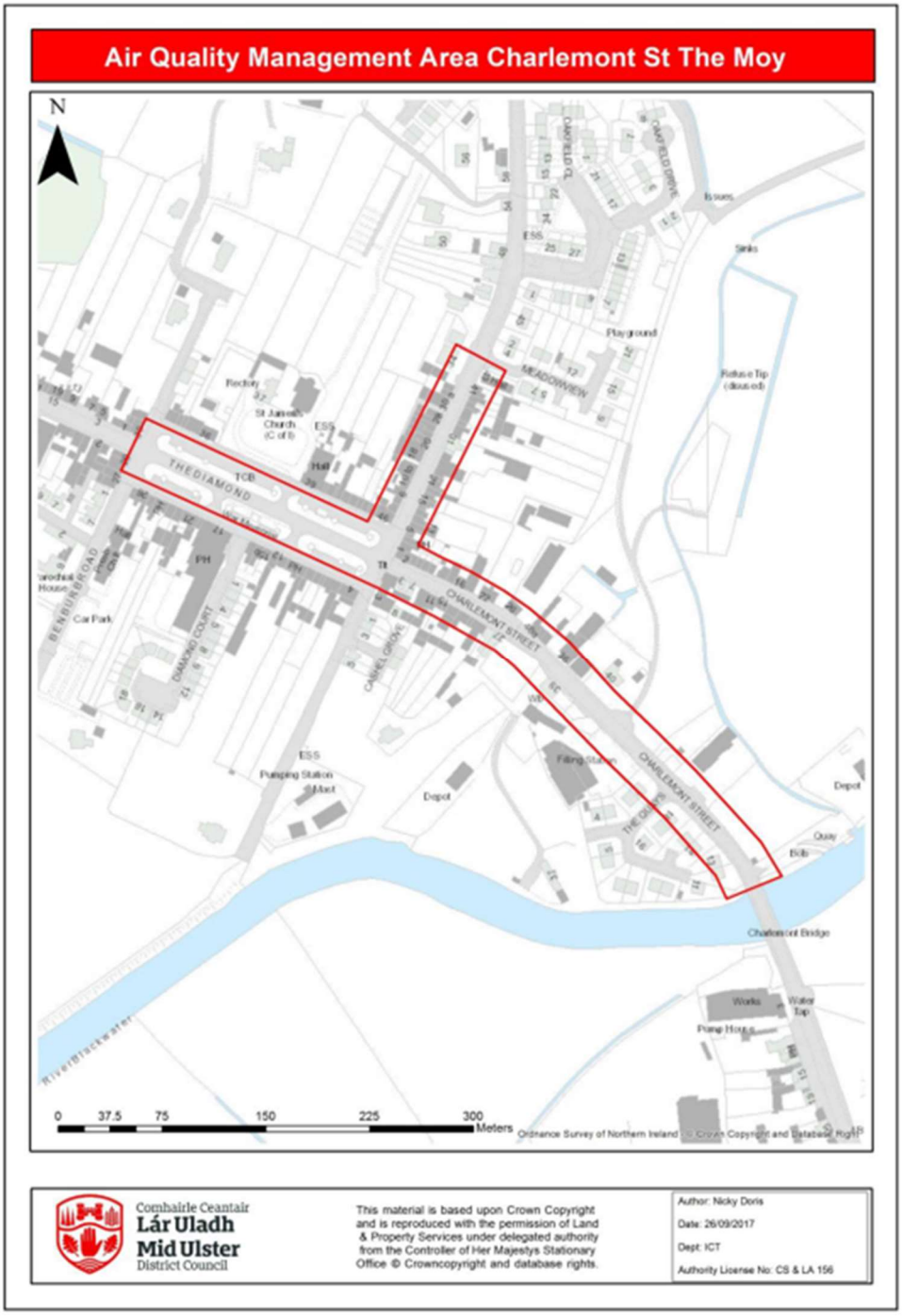


Figure 1.3 – Map of AQMA Boundary Charlemont Street, Moy



2 New Monitoring Data

2.1 Summary of Monitoring Undertaken

2.1.1 Automatic Monitoring Sites

There are no automatic monitoring sites in the Mid Ulster Council area. All monitoring is undertaken by diffusion tube at present.

2.1.2 Non-Automatic Monitoring Sites

Mid Ulster District Council has 30 non-automatic monitoring sites for Nitrogen Dioxide (NO_2). These sites are monitored using 48 diffusion tubes supplied by Somerset County Council, County Hall, Taunton Somerset. The reason that there is a greater number of diffusion tubes than monitoring sites is that some sites are monitored using three diffusion tubes to ensure results are more accurate. The tubes are located predominantly within the AQMA's with air quality monitoring takes place along the roads that are most heavily congested throughout the district. The chosen sites tend to be located close to residential dwellings at points where traffic is slowing down or idling at busy junctions or traffic lights. A number of additional diffusion tubes were erected in 2023 as a result of concerns raised about air quality from local residents, businesses and elected representatives. Magherafelt air quality monitoring sites were changed from triplicate to single diffusion tubes from April 2023 due to compliance with the NO_2 air quality objective level for several years.

Figure 2.1 Map(s) of Non-Automatic Monitoring Sites

Figure 2.2.1 Map showing Magherafelt AQMA and diffusion tube locations along Church Street and King Street

The air quality monitoring sites for Magherafelt town are located along Church Street and King Street. All sites are located within the AQMA with the exception of M24 which represents the urban background location at Marriott House Castledawson Road. The focus of air quality monitoring has been within this area as this road was used as the main through road for traffic heading from Cookstown for onwards travel to Belfast/Derry and vice versa. The Magherafelt By-pass opened on 6th October 2016 and has eased the through traffic within Magherafelt town centre.

Figure 2.2.2 Map showing NO2 diffusion tube monitoring sites in Moneymore Village

The village of Moneymore carries through traffic from Cookstown heading to Magherafelt and from Cookstown to the north coast. The air quality monitoring sites in Moneymore are located close to residential properties on the main roads into and out of the village. Slow moving traffic is routinely experienced in the village along the approaching Stonard Street and Conyngham Street locations due to peak time road traffic congestion

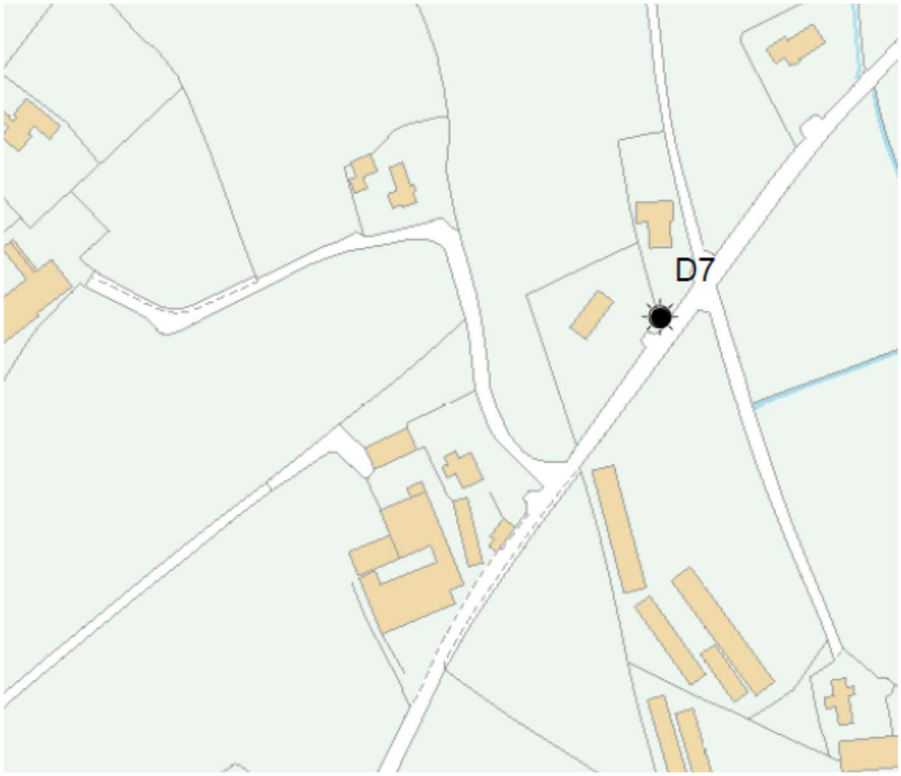
Figure 2.2.3 Map to show NO2 diffusion tube monitoring sites in Cookstown

Figure 2.2.3 shows the monitoring sites along Cookstown's main thoroughfare. Located close to busy road junctions and traffic lights where engine idling frequently occurs. The distribution of sites ensures an even representation in the large town with diffusion tube C5 being close to the busy Asda /McDonalds road junction.

Figure 2.2.4 Map showing NO2 diffusion tubes in Ardgannon and Dunclare Way, Dungannon

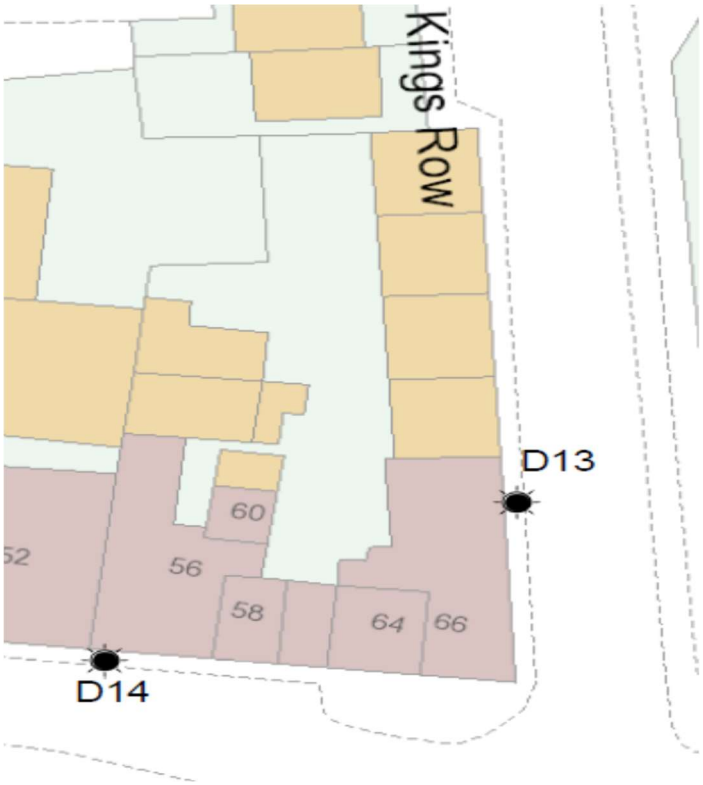
Figure 2.2.4 shows the urban background monitoring sites in Dungannon D6 and D1

Figure 2.2.5 Diffusion Tube location on Eskragh Road, Dungannon



This site was chosen because of local concerns about odour/air quality in the area. Eskragh Road is located near the Granville Industrial Estate Dungannon

Figure 2.2.6 Map showing diffusion tube location in Coalisland



Again, these sites were chosen because of local representative and business concerns about air quality in the area. All sites are located roadside, centrally within town of Coalisland.

Figure 2.2.7 Map to show AQMA Newell Road, Dungannon and diffusion tube locations

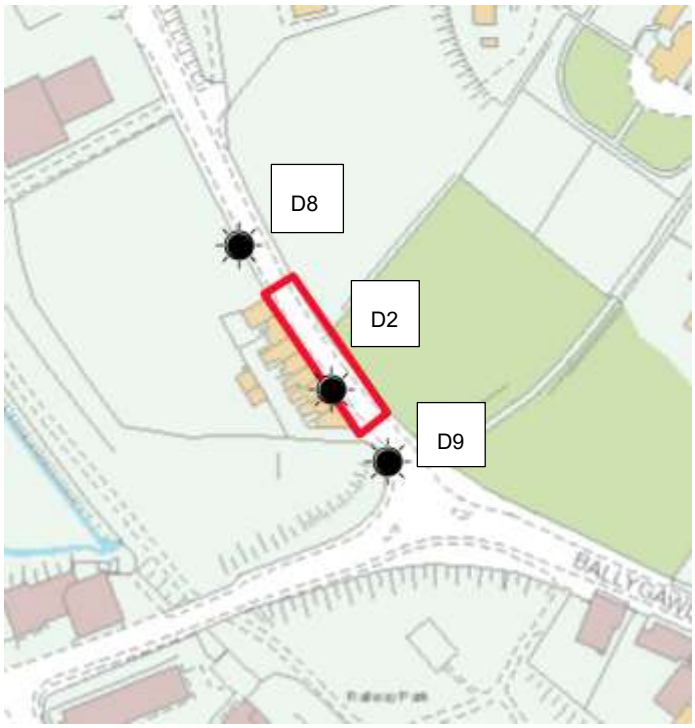
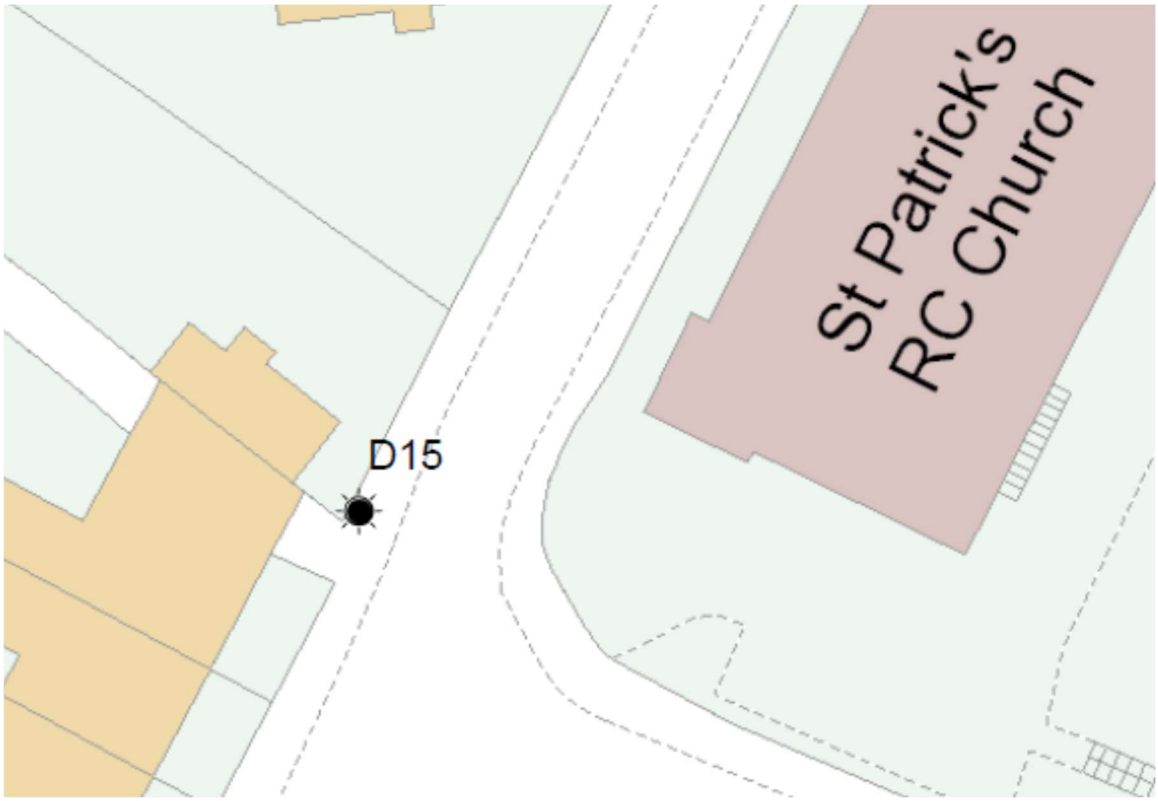


Figure 2.2.7 shows the location of the monitoring sites within the Newell Road AQMA. The site is framed by terraced houses on one side and a steep bank on the other. The route is along the main thoroughfare through the town from North to South. The proximity of the receptors to the main road can clearly be seen in the map.

In 2023 an additional 2 monitoring sites were added to this location to further investigate the extent of the NO_2 pollution within this area.

Figure 2.2.8 Map to show diffusion tube location Circular Road Dungannon



This site represents a busy junction on the Circular Road Dungannon which is extremely congested at peak times of the day. A busy route for school traffic and also traffic avoiding the town centre. In addition, vehicles use this road enroute to Moy/Armagh or Cookstown

Figure 2.2.9 Map to show Moy AQMA and diffusion tube location

The air quality monitoring sites for Moy are shown above, located along Charlemont street, Killyman Street and the Square. The urban background site is shown as D5 located just off Charlemont Street in the small residential development known as The Quays. 3 no. additional diffusion tubes were added to the AQMA in 2023 again to further inform the extent of NO_2 pollution levels within this area.

Table 2.1 Details of Non-Automatic Monitoring Sites

Site ID	Site Name	Site Type	X OS Grid Ref	Y OS Grid Ref	Site Height (m)	Pollutants Monitored	In AQMA? Which AQMA?	Is monitoring co-located with a Continuous Analyser (Y/N)	Relevant Exposure? *(Y/N with distance (m) to relevant exposure)*	Distance to kerb of nearest road (m) *(N/A if not applicable)*	Does this location represent worst-case exposure?
M2	22 Church Street	Roadside	289771	390728	2.5	NO_2	Y, M'felt	N	Y (1m)	2	Y
M9	12 Church Street	Roadside	289745	289745	2.5	NO_2	Y, M'felt	N	Y (1m)	2	Y
M10	30 Church Street	Roadside	289794	390735	2.5	NO_2	Y, M'felt	N	Y (15m)	2	Y
M11	27 King Street	Roadside	289788	390706	2.5	NO_2	Y, M'felt	N	Y (1m)	2	Y
M13	47 Church Street	Roadside	289903	390778	2.5	NO_2	Y, M'felt	N	Y (1m)	2	Y
M23	47 Church Street	Roadside	289860	390734	2.5	NO_2	Y, M'felt	N	Y (1m)	2	Y
M24	Marriott House	Urban Background	290012	390944	2.5	NO_2	Y, M'felt	N	Y (5m)	50	Y
D1	Ardgannon	Urban Background	279576	363173	2.5	NO_2	N	N	Y (5m)	50	Y
D2	Newell Road	Roadside	279139	362445	2.5	NO_2	Y, Dungannon	N	Y (0.1m)	2	Y
D3	Charlemont Street	Roadside	284969	356128	2.5	NO_2	Y, Moy	N	Y (0.1m)	1.7	Y
D4	Killyman Street	Roadside	284984	356161	2.5	NO_2	Y, Moy	N	Y (0.1m)	2.6	Y
D5	The Quays, Moy	Suburban	285171	355922	2.5	NO_2	N	N	Y (1m)	30	Y
D10	Charlemont Street, Moy	Roadside	285051	356082	2.5	NO_2	Y, Moy	N	Y (8.4m)	1.4	Y
D11	Charlemont Street, Moy	Kerbside	284977	356123	2.5	NO_2	Y, Dungannon	N	Y (1.2m)	0.4	Y

D12	The Square, Moy	Roadside	284818	356232	2.5	NO_2	Y, Moy	N	Y (0.4m)	22.2	Y
D6	Dunclare Way	Urban Background	279568	361548	2.5	NO_2	N	N	Y (1m)	3	Y
D7	Eskragh Road, Dungannon	Roadside	277670	361504	2.5	NO_2	N	N	Y (8m)	1	Y
D13	Kings Row, Coalisland	Roadside	284203	366588	2.5	NO_2	N	N	Y (1m)	2	Y
D14	Mamies Corner, Coalisland	Roadside	284176	366575	2.5	NO_2	N	N	Y (1m)	2	Y
D15	Circular Road, Dungannon	Roadside	280093	362567	2.5	NO_2	N	N	Y (1m)	2	Y
C1	Lawford Street, Moneymore	Roadside	285770	383510	2.5	NO_2	N	N	Y (1m)	2	Y
C8	Smith Street Moneymore	Roadside	285813	383458	2.5	NO_2	N	N	Y (1m)	2	Y
C10	Conyngham St. Moneymore	Roadside	285759	383333	2.5	NO_2	N	N	Y (1m)	2	Y
C11	Stonard Strett, Moneymore	Roadside	285874	383341	2.5	NO_2	N	N	Y (1m)	2	Y
C2	William St, Cookstown	Roadside	281071	378445	2.5	NO_2	N	N	Y (1m)	2	Y
C5	Killymoon St, Cookstown	Roadside	281053	378197	2.5	NO_2	N	N	Y (5m)	1	Y
C4	Church St, Cookstown	Roadside	281121	377537	2.5	NO_2	N	N	Y (1m)	1	Y
C3	James St, Cookstown	Roadside	281225	376939	2.5	NO_2	N	N	Y (4m)	2	Y
D8	Newell Road	Roadside	279110	362494	2.5	NO_2	Y, Dungannon	N	Y (26.5m)	1.8	Y
D9	Newell Road	Roadside	279161	362418	2.5	NO_2	Y, Dungannon	N	Y (15.2m)	1.9	Y

Details of QA/QC for diffusion tubes are included within Appendix A.

Monthly Diffusion tube results for each site are included within Appendix C.

2.2 Comparison of Monitoring Results with Air Quality Objectives

2.2.1 Nitrogen Dioxide

Automatic Monitoring Data

Mid Ulster District Council does not undertake any automatic monitoring for Nitrogen Dioxide throughout the district.

Diffusion Tube Monitoring Data

Mid Ulster District Council monitors 30 separate locations for Nitrogen dioxide NO_2. This is done using 48 tubes which are changed on a monthly basis. The tubes located in the Air Quality Management Areas are mainly in triplicate arrangement (except for Magherafelt AQMA) while single tubes are used to monitor other locations.

The Air quality monitoring takes place along the roads that are more heavily congested throughout the district. This generally occurs along the main North-South transport route identified in the Local Development Plan 2030 – Draft Plan Strategy. The roads in question link the three main towns of Magherafelt, Cookstown and Dungannon. Two of the smaller villages that this traffic passes through are also monitoring sites, namely Moneymore and Moy. These sites have been strategically chosen to represent worst case scenarios ie. along busy arterial roads, congested roads close to junctions and traffic lights. In addition, a number of sites were added in 2023 particularly within the AQMA of Newell Road and Moy to provide further data and therefore improve the robustness of any decision-making process. The chosen sites tend to be located close to residential dwellings at points where the traffic is slowing down or idling at busy junctions or traffic lights. The laboratory used for the 2023 year was Somerset Scientific Services.

The results of the NO_2 diffusion tube monitoring for 2023 are indicated in Table 2.6. As can be seen from the table sites D2 and D3 exceeded the air quality objective of 40ug/m3.

Table 2.2 Results of Nitrogen Dioxide Diffusion Tubes in 2023

Site ID	Location	Site Type	Within AQMA? Which AQMA?	Triplicate or Co-located Tube	Full Calendar Year Data Capture 2023 (Number of Months or %) [a]	2023 Annual Mean Concentration (µg/m^3) - Bias Adjustment factor = 0.83 [b]
M2	22 Church Street, Magherafelt	Roadside	Y	Single	9 months	22.3
M9	12 Church Street, Magherafelt	Roadside	Y	Single	12months	23.7
M10	30 Church Street, Magherafelt	Roadside	Y	Single	12months	28.3
M11	27 King Street Magherafelt	Roadside	Y	Single	12months	17.1
M13	47 Church Street, Magherafelt	Roadside	Y	Single	12months	24.8
M23	35 King Street, Magherafelt	Roadside	Y	Single	11months	21.0
M24	Castledawson Rd, Magherafelt	Urban Background	N	Single	12 months	7.6
D1	Ardgannon Dungannon	Urban Background	N	Single	9 Months	9.2
D2	Newell Road Dungannon	Roadside	Y	Triplicate	9 Months	**40.8**
D3	Charlemont St, Moy	Roadside	Y	Triplicate	12months	**41.5**
D4	Killyman St, Moy	Roadside	Y	Triplicate	12months	20.1
D5	The Quays, Moy	Suburban	Y	Triplicate	12months	6.2
D6	Dunclare Way	Urban Background	N	Single	9 Months	6.1
D7	Eskragh Road, Dungannon	Roadside	N	Single	7 months	7.8
D8	Newell Road	Roadside	Y	Triplicate	7 months	22.6
D9	Newell Road	Roadside	Y	Triplicate	7 Months	21.1
D10	Charlemont St Moy	Roadside	Y	Triplicate	8 Months	11.4
D11	Charlemont St, Moy	Roadside	Y	Triplicate	8 Months	12.4
D12	The Square, Moy	Roadside	Y	Triplicate	8 Months	15.7
D13	Kings Row Coalisland	Roadside	N	Single	7 Months	29.7
D14	Mamies Corner Coalisland	Roadside	N	Single	9 Months	15.4
D15	Circular Rd Dungannon	Roadside	N	Single	7 Months	27.7

C1	Lawford St Moneymore	Kerbside	N	Single	12 months	26.0
C8	Smith St Moneymore	Roadside	N	Single	12 months	21.4
C10	Conyngham St Moneymore	Kerbside	N	Single	12 months	11.4
C11	Stonard St Moneymore	Roadside	N	Single	11 months	24.2
C2	William Street Cookstown	Kerbside	N	Single	12 months	19.1
C5	Killymoon St Cookstown	Kerbside	N	Single	12 months	16.2
C4	Church Street Cookstown	Kerbside	N	Single	12 months	18.2
C3	James Street Cookstown	Roadside	N	Single	12 months	24.9

In **bold**, exceedance of the NO_2 annual mean AQS objective of 40µg/m^3.

Underlined, annual mean > 60µg/m^3, indicating a potential exceedance of the NO_2 hourly mean AQS objective.

[a] Means should be “annualised” as per LAQM.TG22, if full calendar year data capture is less than 75%.

[b] If an exceedance is measured at a monitoring site not representative of public exposure, NO_2 concentration at the nearest relevant exposure should be estimated based on the NO_2 fall-off with distance calculator, and results should be discussed in a specific section.

Table 2.3 Results of Nitrogen Dioxide Diffusion Tubes, adjusted for bias (µg/m^3): 2019 to 2023

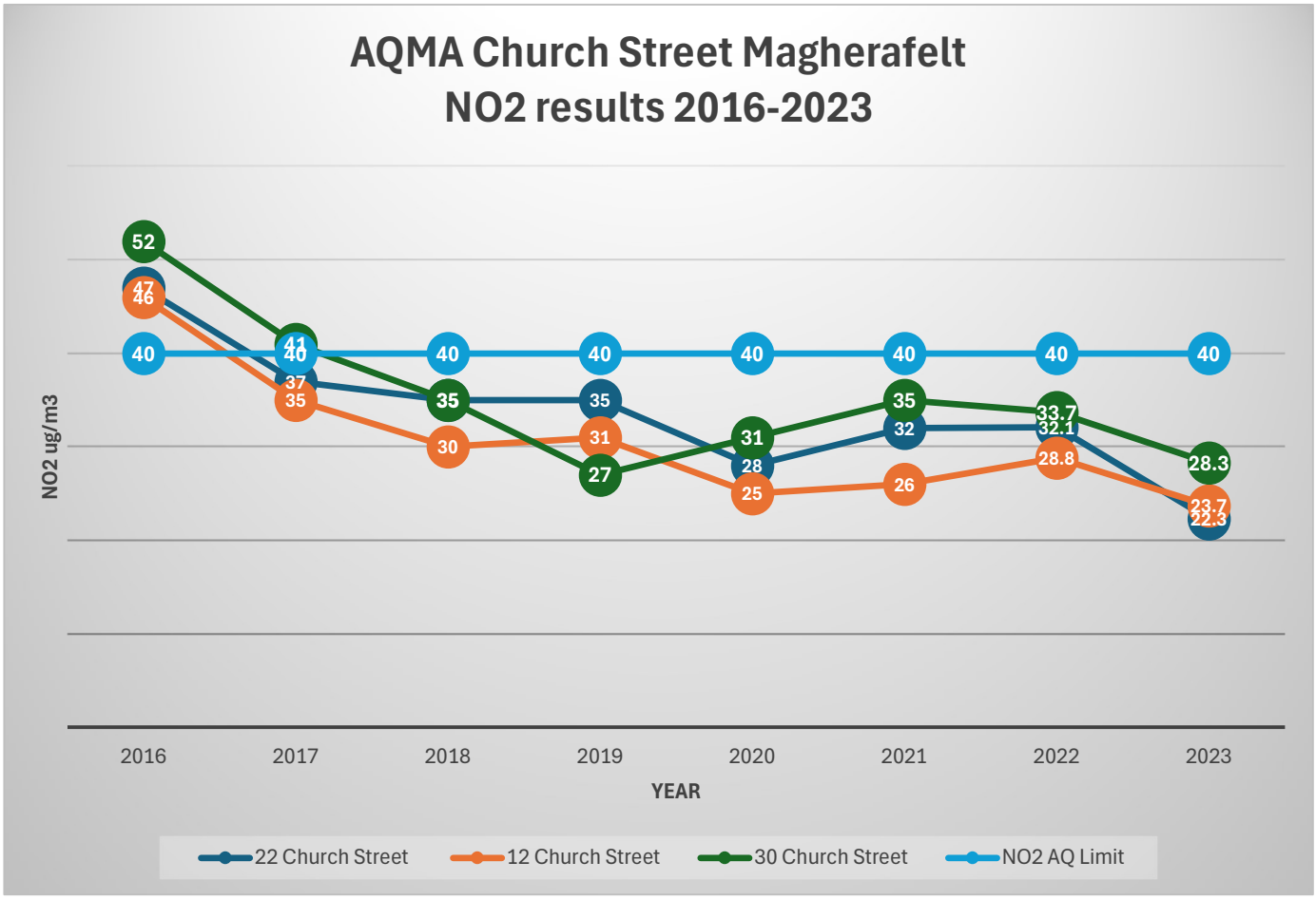
Site ID	Site Type	Within AQMA? Which AQMA?	2019 [a] (Bias Adjustment Factor = 0.77)	2020 [a] (Bias Adjustment Factor = 0.77)	2021 [a] (Bias Adjustment Factor = 0.78 & 0.86)	2022 [a] (Bias Adjustment Factor = 0.85)	2023 [a] (Bias Adjustment Factor = 0.83)
M2	Roadside	Y	35	28	32	32	22
M9	Roadside	Y	31	25	26	29	24
M10	Roadside	Y	27	31	35	34	28
M11	Roadside	Y	22	18	17	20	17
M13	Roadside	Y	19	15	19	22	25
M23	Roadside	Y	29	21	26	28	21
M24	Urban Background	N	10	8	9	10	8
D1	Urban Background	N	11	9	10	10	9
D2	Roadside	Y	54	42	45	43	41
D3	Roadside	Y	55	46	47	47	42
D4	Roadside	Y	26	20	22	21	20
D5	Suburban	Y	8	7	8	6	6
D10	Roadside	Y	0	0	0	0	11
D11	Roadside	Y	0	0	0	0	12
D12	Roadside	Y	0	0	0	0	16
D6	Roadside	N	9	7	7	6	6
D7	Roadside	N	0	0	9	8	8
D13	Roadside	N	0	0	0	0	30
D14	Roadside	N	0	0	0	0	15
D15	Roadside	N	0	0	0	0	28
C1	Kerbside	N	33	26	29	31	26
C8	Roadside	N	24	19	20	23	21
C10	Kerbside	N	13	13	11	12	11
C11	Roadside	N	27	27	24	30	24
C2	Kerbside	N	26	26	22	24	19
C5	Kerbside	N	27	27	19	21	16
C4	Kerbside	N	24	24	20	23	18
C3	Roadside	N	27	27	25	27	25
D8	Roadside	Y	0	0	0	0	23
D9	Roadside	Y	0	0	0	0	21

In **bold**, exceedance of the NO_2 annual mean AQS objective of 40µg/m^3.

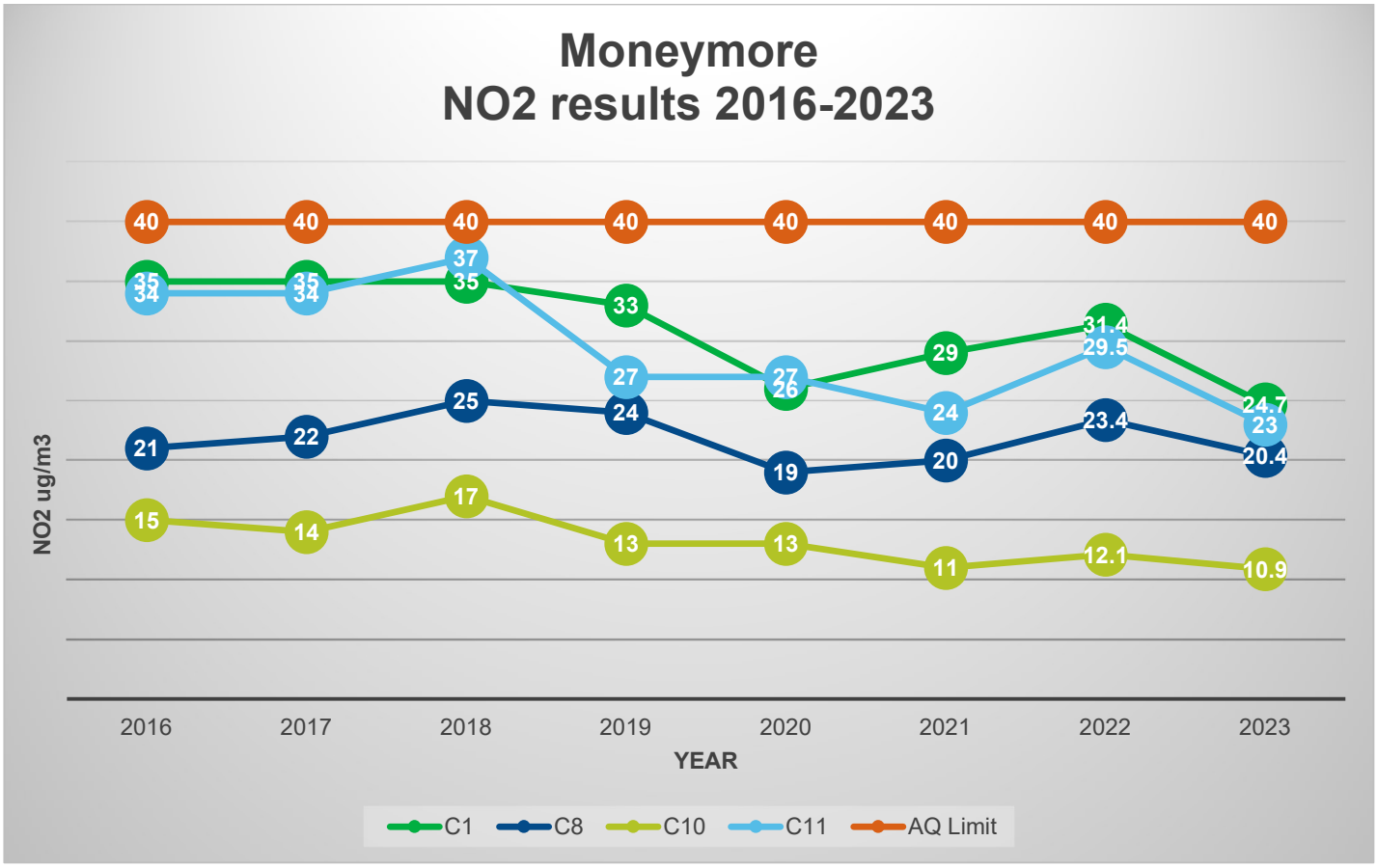
Underlined, annual mean > 60µg/m^3, indicating a potential exceedance of the NO_2 hourly mean AQS objective.

[a] Means should be “annualised” as per LAQM.TG22, if full calendar year data capture is less than 75%.

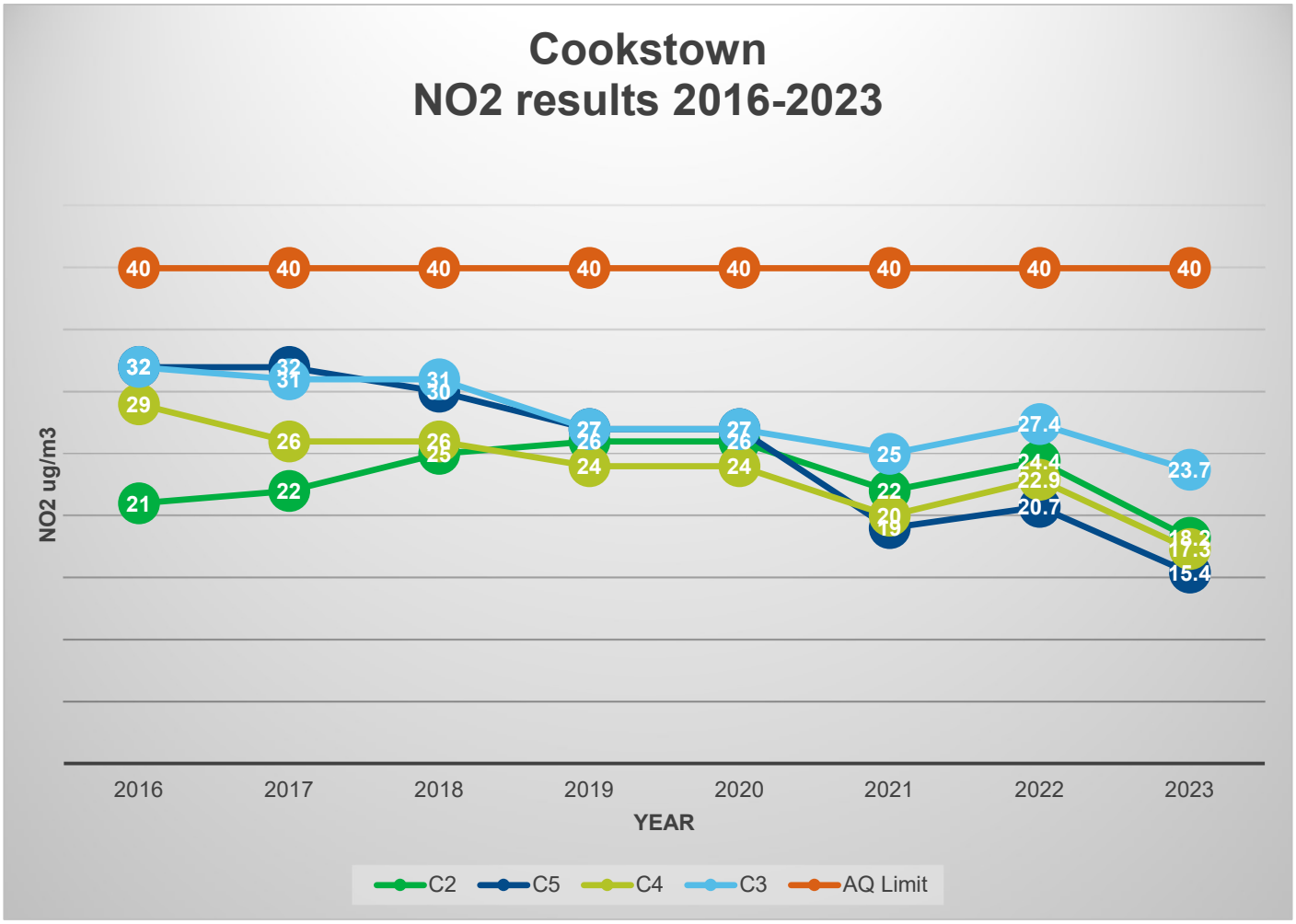
Figure 2.2 Trends in Annual Mean Nitrogen Dioxide Concentrations measured at Diffusion Tube Monitoring Sites



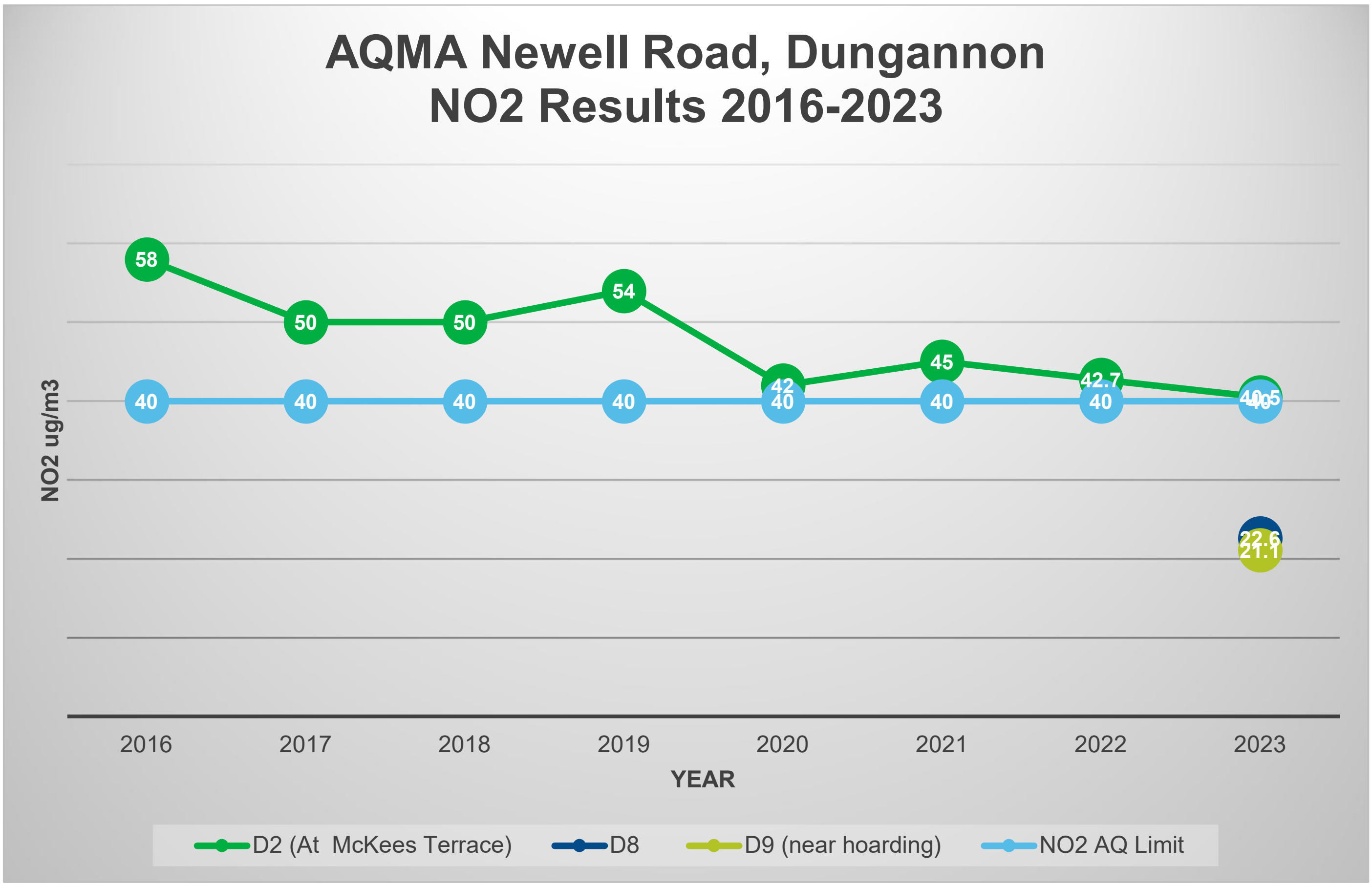
The graph above shows the seven-year trend within the AQMA in Magherafelt town centre. The graph shows a trend downwards from values which exceeded the air quality objective in 2016 to having no exceedances for the last five years at 30 Church Street, and no exceedances at 12 Church Street and 22 Church Street for the last six years. Some caution must be taken for the figures for 2020 and 2021 due to Covid impacts. There have now been no exceedances within the AQMA at any monitoring point for five years. Mid Ulster District Council will now review the results and decide on revoking the AQMA in accordance with Department of Agriculture, Environment and Rural Affairs guidance: Local Air Quality Management during the COVID-19 Outbreak: Update, dated August 2021 and Supplementary Guidance for Councils RE: Revocation/Designation of AQMAs (Updated 2023).


Moneymore
NO2 results 2016-2023
NO2 ug/m3
YEAR
2016
2017
2018
2019
2020
2021
2022
2023
C1
C8
C10
C11
AQ Limit

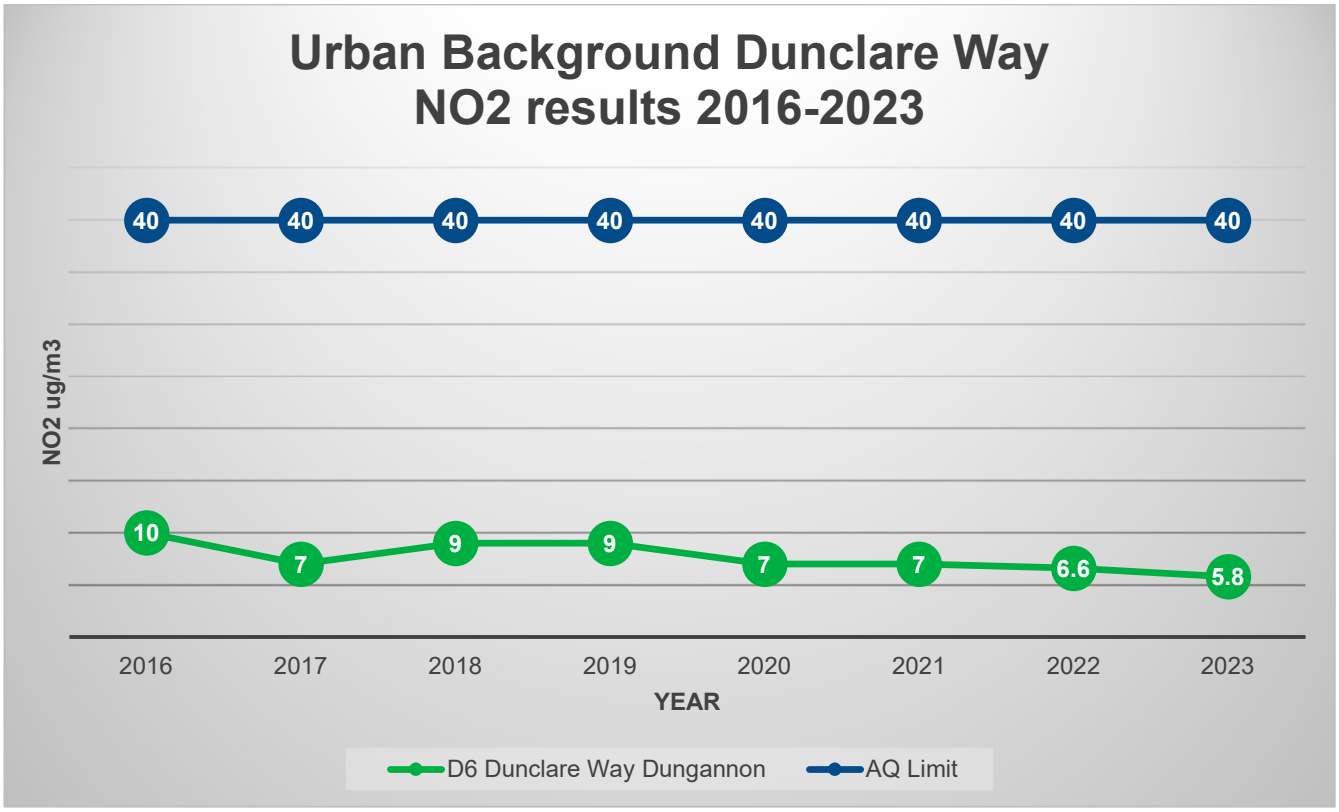
The graph shows a fluctuating trend but an overall decline in NO_2 levels from 2018 to 2023 levels. All results are below the air quality objective level.



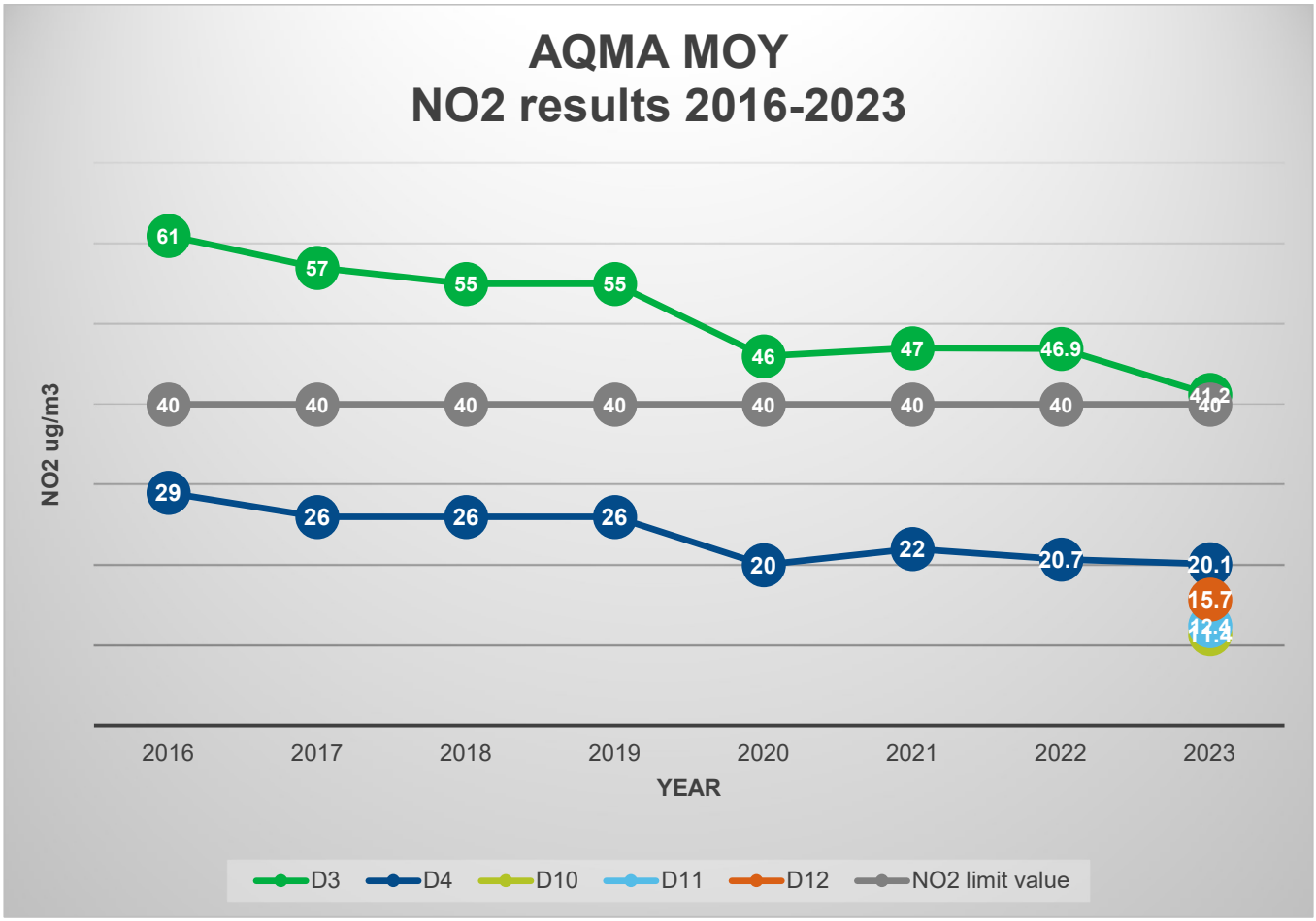
The graph shows an overall decline in NO_2 levels since 2016, there are however some fluctuations in levels year on year. The results are all under the air quality objective of 40ug/m^3



The trend for the Newell Road AQMA has been one of a gradual reduction. This stretch of road is affected by the canyoning effect of tall houses on one side and a steep bank on the other which may elevate pollution levels beyond what they would be if the site was more open. In 2021, where there was a slight increase in NO_2 levels following the Covid pandemic due to traffic increasing again following the relaxing of restrictions. The trend graph shows the level of NO_2 has steadily declined in the last 3 years and during 2023 the results are just above the Air Quality objective level at 40.8 ug/m^3



Results for the urban background site are all below 10ug/m^3. The graph shows NO_2 levels plateaued between 2018-2019 then a gradual decline in NO_2 levels since 2019



The seven-year trend at Charlemont Street in Moy shows a similarity to that of the other AQMA at Newell Road in Dungannon. The monitoring site is at a busy set of traffic lights on an incline. The site has shown a gradual decline from 2016 when it had a result of 61μg/m^3 to 55 μg/m^3 in 2019. The site showed a reduction to 46 μg/m^3 in 2020. Encouragingly this figure only rose to 47 μg/m^3 in 2021 and remained steady at 46.9 μg/m^3 in 2022. In 2023, the results are just above the 40 μg/m^3 air quality objective at 41.2 ug/m^3

2.2.2 Particulate Matter (PM_{10})

Mid Ulster District Council does not routinely monitor for Particulate Matter (PM_{10})

2.2.3 Sulphur Dioxide

Mid Ulster District Council does not routinely monitor for Sulphur Dioxide

2.2.4 Benzene

Mid Ulster District Council does not routinely monitor for Benzene

2.2.5 Other pollutants monitored

Mid Ulster District Council does not routinely monitor for any other pollutants

2.2.6 Summary of Compliance with AQS Objectives

Mid Ulster District Council has examined the results from monitoring in the district. Concentrations are all at or below the Air Quality objectives at relevant locations, therefore there is no need to proceed to a Detailed Assessment.

3 Road Traffic Sources

3.1 Narrow Congested Streets with Residential Properties Close to the Kerb

Mid Ulster 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.

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

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

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

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

3.4 Junctions

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

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

Mid Ulster District Council has been consulted on proposed new roads within the district, namely the A29 Cookstown by-pass and the A5 Western Transport corridor. A detailed air quality assessment has been undertaken for the A5 Road.

Mid Ulster District Council has assessed new/proposed new roads meeting the criteria in Table 7.1 of Chapter 7 of LAQM.TG22 and concluded that it will not be necessary to proceed with a detailed assessment.

3.6 Roads with Significantly Changed Traffic Flows

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

3.7 Bus and Coach Stations

Mid Ulster District Council confirms that there are no relevant bus stations in the Local Authority area.

4 Other Transport Sources

4.1 Airports

Mid Ulster District Council confirms that there are no airports in the Local Authority area.

4.2 Railways (Diesel and Stream Trains)

4.2.1 Stationary Trains

Mid Ulster 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.

4.2.2 Moving Trains

Mid Ulster 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.

4.3 Ports

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

5 Industrial Sources

5.1 Industrial Installations

5.1.1 New or Proposed Installations for which an Air Quality Assessment has been Carried Out

Mid Ulster District Council has assessed new/proposed industrial installations and concluded that it will not be necessary to proceed to a Detailed Assessment.

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

Mid Ulster District Council considered existing installations as part of its planning consultation responses.

Mid Ulster District Council has assessed industrial installations with substantially increased emission or new relevant exposure in their vicinity and concluded that it will not be necessary to proceed to a Detailed Assessment.

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

Mid Ulster District Council considered new or significantly changed installations as part of its planning consultation responses.

Mid Ulster District Council has assessed new/proposed industrial installations and concluded that it will not be necessary to proceed to a Detailed Assessment.

5.2 Major Fuel Depots

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

5.3 Petrol Stations

Technical guidance TG. 22 requires identification of all petrol stations with an annual throughput of more than 2000m^3 of petrol with a busy road nearby. A busy road is defined

as one with more than 30,000 vehicle movements per day. Mid Ulster district Council confirms that there are no petrol stations meeting the specified criteria.

5.4 Poultry Farms

Mid Ulster District Council considered applications for poultry farms as part of its planning consultation responses. Technical guidance TG. 22 states that the following farms should be considered for PM10 if there is relevant exposure within 100m:

- Those with 400,000 birds if mechanically ventilated
- Those with 200,000 birds if naturally ventilated, and
- Those with 100,000 turkeys

A review of the DAERA Public Register (Pollution Prevention and Control (Industrial Emissions) Regulations (NI) 2013) within the Mid Ulster District Council area (Schedule 1 Section 6.9, Part A (a) (i) “Intensive Farming”) installations concluded that there are two poultry farms within the district which fall into the above categories.

The Poultry screening calculation was carried out in accordance with Box 7-2 of technical guidance TG. 22 methodologies. The calculated total 90.4th percentile daily mean PM_{10} concentrations are below the objective limits. Mid Ulster District Council confirms that there are no poultry farms meeting the specified criteria.

6 Commercial and Domestic Sources

6.1 Biomass Combustion – Individual Installations

Mid Ulster District Council confirms that there is no new individual biomass combustion plant identified since the last USA report in the Local Authority area. All planning applications which MUDC Environmental Health Department are consulted on, are examined and an air quality assessment requested if necessary.

6.2 Biomass Combustion – Combined Impacts

Mid Ulster District Council confirms that there are no new combined biomass combustion plant identified since the last USA report in the Local Authority area. All planning application which MUDC Environmental Health Department are consulted on are examined and an air quality assessment requested if necessary.

6.3 Domestic Solid Fuel Burning

Mid Ulster District Council confirms that there are no areas of significant domestic fuel use in the Local Authority area.

7 Fugitive or Uncontrolled Sources

Mid Ulster District Council confirms that there are no potential sources of fugitive particulate matter emissions meeting the criteria in Table 7.5 of TG 22 in the Local Authority area.

8 Conclusions and Proposed Actions

8.1 Conclusions from New Monitoring Data

The 2023 new monitoring data shows compliance with air quality objectives except for two sites: D2 located at Newell Road Dungannon (40.8ug/m3) and D3 located at Charlemont Street, Moy (41.5 ug/m3). The two exceedances of the AQ objectives are located within AQMAs. The results indicate a continuing downward trend which is encouraging. There has been continued compliance with the air quality objectives at the Magherafelt AQMA for several years now therefore Council will revoke this AQMA in accordance with DAERA guidance: Local Air Quality Management during the COVID-19 Outbreak: Update, dated August 2021 and Supplementary Guidance for Councils RE: Revocation/Designation of AQMAs (Updated 2023). See Appendix B. Based on this year's results there is no need to proceed to a detailed assessment based on this year's new monitoring data.

8.2 Conclusions from Assessment of Sources

There is no need to proceed to a detailed assessment for the impacts of local developments such as road transport, industrial installations, commercial/domestic or fugitive emissions. Mid Ulster District Council will continue to review the proposed new A29 Cookstown by-pass and the A5 Western Transport corridor.

8.3 Proposed Actions

New monitoring data has not identified the need to progress to a detailed assessment for any pollutant. Air Quality at the Magherafelt AQMA has complied with the NO_2 objective for 6 consecutive years. Mid Ulster District Councils next course of action will be to revoke this AQMA. Monitoring will continue in all existing areas.

9 References

1. Local Air Quality Management: Technical Guidance (TG22) August 2022
2. The Environment (Norther Ireland) Order 2002
3. Air Quality Regulations (Northern Ireland) 2003
4. The Air Quality Strategy for England, Scotland, Wales and Northern Ireland 2000
5. 2015 Mid Ulster District Council Updating and Screening Assessment
6. 2016 Mid Ulster District Council Air Quality Progress Report
7. 2017 Mid Ulster District Council Air Quality Progress Report
8. 2018 Mid Ulster District Council Air Quality Progress Report
9. 2022 Mid Ulster District Council Air Quality Progress Report
10. 2022 Mid Ulster District Council Air Quality Progress Report
11. 2023 Mid Ulster District Council Air Quality Progress Report
12. https://uk-air.defra.gov.uk/interactive-map
13. https://laqm.defra.gov.uk/air-quality/air-quality-assessment/national-bias/
14. https://laqm.defra.gov.uk/helpdesk/
15. https://laqm.defra.gov.uk/laqm-portal/
16. https://www.midulstercouncil.org/
17. https://www.infrastructure-ni.gov.uk/publications/traffic-and-travel-information-incorporating-annual-traffic-census-and-variations
18. https://laqm.defra.gov.uk/air-quality/air-quality-assessment/national-bias/

Appendices

Appendix A: Quality Assurance / Quality Control (QA/QC) Data

QA/QC Diffusion Tube Monitoring

The supplier used for diffusion tubes within 2023 was Somerset Scientific Services. The method of preparation used was 20% TEA in water. The diffusion tube supplier participates in analysis schemes: AIR-PT. For the Air PT rounds of testing from January /February 2023 to April/June 2024 (AR055- AR063) Somerset Scientific Services laboratory scored 100% on five out of six rounds. For the remaining round Somerset Scientific Services scored 75% (AR056).

Diffusion Tube Annualisation

Diffusion Tube ID	Annualisation Factor Ballymena Ballykeel	Annualisation Factor	Annualisation Factor	Annualisation Factor Limavady Dungiven	Average Annualisation Factor	Raw Data Simple Annual Mean (µg/m3)	Annualised Data Simple Annual Mean (µg/m3)	Comments
D12a	1.0443			1.1078	1.0760	-	-	*Triplicate Site with D12a, D12b and D12c - Annual data provided for D12c only*
D12b	1.0443			1.1078	1.0760	-	-	*Triplicate Site with D12a, D12b and D12c - Annual data provided for D12c only*
D12c	1.0443			1.1078	1.0760	17.6	18.9	*Triplicate Site with D12a, D12b and D12c - Annual data provided for D12c only*
D7	0.9964			1.0376	1.0170	9.2	9.4	
D13	1.0698			1.2108	1.1403	31.4	35.8	
D15	1.0481			1.1327	1.0904	30.6	33.4	
D8a	1.0443			1.1611	1.1027	-	-	*Triplicate Site with D8a, D8b and D8c - Annual data provided for D8c only*
D8b	1.0443			1.1611	1.1027	-	-	*Triplicate Site with D8a, D8b and D8c - Annual data provided for D8c only*
D8c	1.0443			1.1611	1.1027	24.7	27.3	*Triplicate Site with D8a, D8b and D8c - Annual data provided for D8c only*
D9a	1.0443			1.1611	1.1027	-	-	*Triplicate Site with D9a, D9b and D9c - Annual data provided for D9c only*
D9b	1.0443			1.1611	1.1027	-	-	*Triplicate Site with D9a, D9b and D9c - Annual data provided for D9c only*
D9c	1.0443			1.1611	1.1027	23.1	25.5	*Triplicate Site with D9a, D9b and D9c - Annual data provided for D9c only*

Diffusion tube Annualisation summary copied from Diffusion Tube Annual Processing Tool V4

Diffusion Tube Bias Adjustment Factors

Mid Ulster District Council have applied a national bias adjustment factor of 0.83 to the 2023 monitoring data. This bias adjustment factor was based on 12 studies.

Table A.1 Local Bias Adjustment Calculations

Diffusion Tube ID	Simple Annual Mean (µg/m3)			Comment
	Raw Data	Bias Adjusted and Annualised		
		National Factor (0.83)	No Local Factor	
M2a	-	-	-	Triplicate Site with M2a, M2b and M2c - Annual data provided for M2c only
M2b	-	-	-	Triplicate Site with M2a, M2b and M2c - Annual data provided for M2c only
M2c	26.9	22.3	-	Triplicate Site with M2a, M2b and M2c - Annual data provided for M2c only
M9a	-	-	-	Triplicate Site with M9a, M9b and M9c - Annual data provided for M9c only
M9b	-	-	-	Triplicate Site with M9a, M9b and M9c - Annual data provided for M9c only
M9c	28.5	23.7	-	Triplicate Site with M9a, M9b and M9c - Annual data provided for M9c only

M10a	-	-	-	Triplicate Site with M10a, M10b and M10c - Annual data provided for M10c only
M10b	-	-	-	Triplicate Site with M10a, M10b and M10c - Annual data provided for M10c only
M10c	34.1	28.3	-	Triplicate Site with M10a, M10b and M10c - Annual data provided for M10c only
M11a	-	-	-	Triplicate Site with M11a, M11b and M11c - Annual data provided for M11c only
M11b	-	-	-	Triplicate Site with M11a, M11b and M11c - Annual data provided for M11c only
M11c	20.7	17.1	-	Triplicate Site with M11a, M11b and M11c - Annual data provided for M11c only
M13a	-	-	-	Triplicate Site with M13a, M13b and M13c - Annual data provided for M13c only
M13b	-	-	-	Triplicate Site with M13a, M13b and M13c - Annual data provided for M13c only

M13c	29.9	24.8	-	Triplicate Site with M13a, M13b and M13c - Annual data provided for M13c only
M23a	-	-	-	Triplicate Site with M23a, M23b and M23c - Annual data provided for M23c only
M23b	-	-	-	Triplicate Site with M23a, M23b and M23c - Annual data provided for M23c only
M23c	25.2	21.0	-	Triplicate Site with M23a, M23b and M23c - Annual data provided for M23c only
M24a	-	-	-	Triplicate Site with M24a, M24b and M24c - Annual data provided for M24c only
M24b	-	-	-	Triplicate Site with M24a, M24b and M24c - Annual data provided for M24c only
M24c	9.1	7.6	-	Triplicate Site with M24a, M24b and M24c - Annual data provided for M24c only
D1	11.1	9.2	-	
D2a	-	-	-	Triplicate Site with D2a, D2b and D2c - Annual data provided for D2c only

D2b	-	-	-	Triplicate Site with D2a, D2b and D2c - Annual data provided for D2c only
D2c	49.1	**40.8**	-	Triplicate Site with D2a, D2b and D2c - Annual data provided for D2c only
D3a	-	-	-	Triplicate Site with D3a, D3b and D3c - Annual data provided for D3c only
D3b	-	-	-	Triplicate Site with D3a, D3b and D3c - Annual data provided for D3c only
D3c	50.1	**41.5**	-	Triplicate Site with D3a, D3b and D3c - Annual data provided for D3c only
D4a	-	-	-	Triplicate Site with D4a, D4b and D4c - Annual data provided for D4c only
D4b	-	-	-	Triplicate Site with D4a, D4b and D4c - Annual data provided for D4c only
D4c	24.2	20.1	-	Triplicate Site with D4a, D4b and D4c - Annual data provided for D4c only

D5a	-	-	-	Triplicate Site with D5a, D5b and D5c - Annual data provided for D5c only
D5b	-	-	-	Triplicate Site with D5a, D5b and D5c - Annual data provided for D5c only
D5c	7.5	6.2	-	Triplicate Site with D5a, D5b and D5c - Annual data provided for D5c only
D10a	-	-	-	Triplicate Site with D10a, D10b and D10c - Annual data provided for D10c only
D10b	-	-	-	Triplicate Site with D10a, D10b and D10c - Annual data provided for D10c only
D10c	13.7	11.4	-	Triplicate Site with D10a, D10b and D10c - Annual data provided for D10c only
D11a	-	-	-	Triplicate Site with D11a, D11b and D11c - Annual data provided for D11c only
D11b	-	-	-	Triplicate Site with D11a, D11b and D11c - Annual data provided for D11c only

D11c	15.0	12.4	-	Triplicate Site with D11a, D11b and D11c - Annual data provided for D11c only
D12a	-	-	-	Triplicate Site with D12a, D12b and D12c - Annual data provided for D12c only
D12b	-	-	-	Triplicate Site with D12a, D12b and D12c - Annual data provided for D12c only
D12c	17.6	15.7	-	Triplicate Site with D12a, D12b and D12c - Annual data provided for D12c only
D6	7.3	6.1	-	
D7	9.2	7.8	-	
D13	31.4	29.7	-	
D14	18.6	15.4	-	
D15	30.6	27.7	-	
C1	31.3	26.0	-	
C8	25.8	21.4	-	

C10	13.8	11.4	-	
C11	29.2	24.2	-	
C2	23.0	19.1	-	
C5	19.5	16.2	-	
C4	21.9	18.2	-	
C3	30.1	24.9	-	
D8a	-	-	-	Triplicate Site with D8a, D8b and D8c - Annual data provided for D8c only
D8b	-	-	-	Triplicate Site with D8a, D8b and D8c - Annual data provided for D8c only
D8c	24.7	22.6	-	Triplicate Site with D8a, D8b and D8c - Annual data provided for D8c only
D9a	-	-	-	Triplicate Site with D9a, D9b and D9c - Annual data provided for D9c only
D9b	-	-	-	Triplicate Site with D9a, D9b and D9c - Annual data provided for D9c only

D9c	23.1	21.1	-	Triplicate Site with D9a, D9b and D9c - Annual data provided for D9c only

National Diffusion Tube Bias Adjustment Factor Spreadsheet — **Spreadsheet Version Number: 09/24**

Follow the steps below **in the correct order** to show the results of **relevant** co-location studies
Data only apply to tubes exposed monthly and are not suitable for correcting individual short-term monitoring periods
Whenever presenting adjusted data, you should state the adjustment factor used and the version of the spreadsheet
This spreadsheet will be updated every few months: the factors may therefore be subject to change. This should not discourage their immediate use.

This spreadsheet will be updated at the end of March 2025

LAQM Helpdesk Website

The LAQM Helpdesk is operated on behalf of Defra and the Devolved Administrations by Bureau Veritas, in conjunction with contract partners AECOM and the National Physical Laboratory.

Spreadsheet maintained by the National Physical Laboratory. Original compiled by Air Quality Consultants Ltd.

Step 1:	Step 2:	Step 3:	Step 4:
Select the Laboratory that Analyses Your Tubes from the Drop-Down List	Select a Preparation Method from the Drop-Down List	Select a Year from the Drop-Down List	**Where there is only one study for a chosen combination, you should use the adjustment factor shown with caution. Where there is more than one study, use the overall factor[3] shown in blue at the foot of the final column.**
If a laboratory is not shown, we have no data for this laboratory.	If a preparation method is not shown, we have no data for this method at this laboratory.	If a year is not shown, we have no data[2]	If you have your own co-location study then see footnote[4]. If uncertain what to do then contact the Local Air Quality Management Helpdesk at LAQMHelpdesk@bureauveritas.com or 0800 0327953

Analysed By[1]	Method (To undo your selection, choose (All) from the pop-up list)	Year[5] (To undo your selection, choose (All))	Site Type	Local Authority	Length of Study (months)	Diffusion Tube Mean Conc. (Dm) (µg/m^3)	Automatic Monitor Mean Conc. (Cm) (µg/m^3)	Bias (B)	Tube Precision[6]	Bias Adjustment Factor (A) (Cm/Dm)
Somerset County Council	20% TEA in water	2023		Overall Factor[3] (12 studies)				Use		0.83

A summary of bias adjustment factors used over the past five years is presented in **Table A.1**.

Table A.1 - Bias Adjustment Factor

Year	Local or National	If National, Version of National Spreadsheet	Adjustment Factor
2023	National	09/24	0.83
2022	National	09/23	0.85
2021	National	06/22	0.78 & 0.86
2020	National	09/20	0.77
2019	National	06/19	0.77
2018	National	09/18	0.76

NO_2 Fall-off with Distance from the Road

2 No. diffusion tube NO_2 monitoring locations (D2 & D3) required distance correction during 2023.

Table A.2 NO_2 Fall off With Distance Calculations (concentrations presented in µg/m^3)

Diffusion Tube ID	Distance (m)		NO_2 Annual Mean Concentration (µg/m^3)			Comment
	Monitoring Site to Kerb	Receptor to Kerb	Bias Adjusted and Annualised	Background	Predicted at Receptor	
D2a, D2b, D2c	2.0	2.1	40.8	8.3	**40.5**	*Predicted concentration at Receptor above AQS objective.*
D3a, D3b, D3c	1.7	1.8	41.5	8.3	**41.2**	*Predicted concentration at Receptor above AQS objective.*

Appendix B:

DAERA guidance: Local Air Quality Management during the COVID-19 Outbreak: Update, dated August 2021 and Supplementary Guidance for Councils RE: Revocation/Designation of AQMAs (Updated 2023).

FAQ 142 – Three or more years of compliance with air quality objectives

Which years count towards the full compliance needed for revocation?

1. The revocation of an AQMA should be considered following three consecutive years of compliance, 10% below the relevant objective at the point of exposure (i.e., following fall off with distance adjustment). Where there have been no exceedances for the past five years, local authorities must proceed with plans to revoke the AQMA. The LAQM Technical Guidance 2022 is clear in this respect:
2. "There should not be any declared AQMAs for which compliance with the relevant objective has been achieved for a consecutive five-year period." (Point 3.57, page 50).
3. Unless a likely exceedance has been identified in the area, Defra does not appraise AQAPs for AQMAs that have been in compliance for five years. Local Authorities are instead advised to revoke the AQMA and develop a local Air Quality Strategy.
4. To avoid cycling between declaring, revoking and declaring again, local authorities should be confident that the years counted towards full compliance are representative of typical conditions and therefore, are in a position to assure local communities that achievement with objectives will be maintained after revocation as required through Environment Act 1995, as amended by Environment Act 2021.
5. It is not advisable to base compliance on a year that is not representative of long-term trends. Air quality monitoring data should be considered as part of the wider context and not in isolation.

6. For example, compliance that is first achieved in 2020 unlikely to be representative of long-term trends in pollutant concentrations due to the impact of COVID-19 and associated lock down measures. Similarly in 2021, pollutant concentrations continued to be impacted by the change in typical activity that resulted from COVID-19 restrictions.
7. Substantive evidence would therefore need to be provided to show that these consecutive years are representative of long-term trends.
8. Where 2020 and 2021 are a continuation of a downward trend and part of many consecutive years of compliance (e.g., where compliance has also been achieved in 2019, prior to COVID-19) the AQMA may be appropriate for revocation.
9. If you are unsure how to approach these years of data in plans for revocation, please contact LAQM Helpdesk who will liaise with Defra for specific advice as needed.

Appendix C

Monthly Diffusion Tube Results 2023

Site ID	Address	Jan'24	Feb'24	Mar'24	Apr'24	May'24	Jun'24	Jul'24	Aug'24	Sep'24	Oct'24	Nov'24	Dec'24
M2	22 Church St, Magherafelt	36.9	37.1	32.0		11.2	17.1			20.99	23.91	35.11	26.3
M2	22 Church St, Magherafelt	36.3	41.3	33.1									
M2	22 Church St, Magherafelt	36.5	38.9	29.6									
M9	12 Church St, Magherafelt	31.3	38.5	30.9	26.0	16.1	25.9	24.2	22.2	28.1	32.2	37.4	29.7
M9	12 Church St, Magherafelt	32.2	39.5	30.6									
M9	12 Church St, Magherafelt	28.8	38.1	31.0									
M10	30 Church St, Magherafelt	37.7	37.1	33.5	35.0	33.0	33.2	30.8	26.0	27.9	31.3	46.0	34.0
M10	30 Church St, Magherafelt	38.1	42.0	34.1									
M10	30 Church St, Magherafelt	35.8	41.9	35.0									
M11	27 King St, Magherafelt	24.1	24.6	19.6	16.0	16.0	17.7	18.3	15.7	18.1	18.7	32.5	23.8
M11	27 King St, Magherafelt	24.5	24.9	21.4									
M11	27 King St, Magherafelt	27.1	26.6	20.4									
M13	47 Church St, Magherafelt	28.2	37.3	31.2	26.8	25.2	31.6	25.6	22.7	26.9	30.1	39.8	33.0
M13	47 Church St, Magherafelt	33.4	37.6	31.1									
M13	47 Church St, Magherafelt	20.2	37.9	35.2									
M23	35 King St, Magherafelt	36.4	30.0	21.7	21.7		23.9	20.0	19.1	21.4	23.4	32.8	31.2
M23	35 King St, Magherafelt	33.3	32.4	19.9									
M23	35 King St, Magherafelt	28.2	29.9	20.7									
M24	Marriott House, Magherafelt	10.9	10.7	9.7	7.7	6.0	6.6	7.9	6.0	7.3	11.0	15.2	10.4
M24	Castledan Road, Magherafelt	10.5	10.9	9.8									
M24	Magherafelt	10.2	10.9	9.8									
D1	Ardgannon, Dungannon	12.0	10.8	13.0		6.3			8.26	8.95	14.83	14.38	11
D2	Newell Rd, Dungannon	57.3	45.8	62.5	44.4	52.7			43.7	40.0		51.25	43.75
D2	Newell Rd, Dungannon	47.6	47.1	60.2	49.1	47.2			42.6	39.8	57.6	53.62	45.94
D2	Newell Rd, Dungannon	49.4	45.1	57.7	44.1	52.0			43.4		55.61	54.56	43.28
D8	Newell Road				30.0	11.5			20.71	23.2	28.69	32.03	21.86
D8	Newell Road				27.8	23.0			21.18	23.15	28.58	31.98	23.94
D8	Newell Road				25.9	20.6			21.49	20.05	25.43	35.63	22.95
D9	Newell Road				25.2	19.2			19.23	20.1	30.79	31.63	20.24
D9	Newell Road				24.4	18.5			19	20.44	32.31	27.98	18.51
D9	Newell Road				22.8	17.9			15.42			26.85	22.9
D3	Charlemont St, Moy	57.1	52.3	66.0	33.8	21.9	50.5	54.3	48.77	42.33	44.75	51.5	47.96
D3	Charlemont St, Moy	56.4	54.7	65.3	35.5	49.6	49.6	55.9	45.89	47.85	40.76	55.94	49.35
D3	Charlemont St, Moy	57.8	59.3	65.2	37.5	47.7	59.9	55.1	47.14	45.24	45.74	55.25	47.96
D4	Killyman St, Moy		28.3	32.1	19.3	23.4	31.9		21.1	21.18	25.75	25.96	20.76
D4	Killyman St, Moy		25.3	32.1	19.3	23.5	28.8	22.2	22.19		28.37	26.7	22.09
D4	Killyman St, Moy	22.6	22.9	31.8	20.4	25.0	29.0	20.6	21.1	18.02		26.31	21.11
D5	The Quays, Moy	7.0	7.9	10.0	5.7	6.9	8.0	6.8	6.12	5.35	9.95	12.06	5.22
D5	The Quays, Moy	7.5	7.8	10.2	5.9	6.2	7.9	7.7	5.88	5.3	9.69	11.62	5.57
D5	The Quays, Moy			10.1	6.0	2.1	6.9	8.0	6.23	4.86	9.53	12.16	5.63
D10	Charlemont Street, Moy				17.6	7.9	17.74	11.98	11.02	9.69	17.3	18.27	11.06
D10	Charlemont Street, Moy				17.6		17.44	13.5	12.27	10.33	16.67	17.73	9.56
D10	Charlemont Street, Moy				17.0		16.68	12.71	12.58	8.9	16.83	16.89	14.7
D11	Charlemont Street, Moy				15.5	13.0	12.94	14.74	12.7	11.17	19.13	21.43	13.25
D11	Charlemont Street, Moy					12.9	12.79	14.45	12.19	11.02		22.31	16.31
D11	Charlemont Street, Moy				15.4	12.4	14.06	13.14	12.23		18.56	21.77	15.27
D12	The Square, Moy				20.5	18.9	18.05	16.55		12.9	16.67	18.42	14.46
D12	The Square, Moy				20.2	21.3	20.32	15.17		13.39	18.09	19.36	17.06
D12	The Square, Moy				19.4	22.8	18.2	19.38		13.34	15.91	18.32	13.94
D6	Dunclare Way, Dungannon	8.2	6.9	9.0		4.3			5.61	5.3	10.84	12.95	2.74
D7	Eskragh Road, Dungannon			8.1		5.4			7.99	7.62	11.94	11.17	12.15
D13	Kings Row, Coalisland				26.0			29.75	27.25	29.22	29.42	44.99	32.95
D14	Molly's Corner, Coalisland				21.1	17.7	20.37	15.61	16.9	14.47	20.97	29.27	10.77
D15	Circular Road, Dungannon				32.0		33	30.19	28.34	29.66	19.45	41.54	
C1	Lawford St, Moneymore	36.7	36.8	39.5	28.6	29.5	29.3	30.11	6.46	30.56	27.22	46.6	34.27
C8	Smith St, Moneymore	27.0	31.7	32.1	29.5	23.4	27.16	24.24	4.86	24.58	25.49	32.57	26.77
C10	Conyngham St Moneymore	14.3	13.7	12.9	11.4	10.0	9.78	11.55	2.15	10.41	34.83	20.37	14.12
C11	Stonard St Moneymore		33.8	36.6	37.4	28.2	38.48	27	5.61	25.58	21.92	35.11	30.98
C2	William St Cookstown	23.4	25.2	29.7	26.4	21.6	23.89	29	3.81	19.36	21.39	28.45	24.11
C5	Killymoon St Cookstown	27.8	24.6	21.9	15.1	15.0	17.7	17.06	3.82	19.17	17.82	30.54	23.76
C4	Church St Cookstown	24.7	26.9	28.8	25.7	17.8	22.28	18.36	3.75	18.98	22.65	27.49	25.44
C3	James St Cookstown	32.3	34.4	33.7	27.6	25.4	27.16	54.92	5.24	24.96	24.86	36.28	33.87