Mid Ulster District Council

2020 Air Quality Progress Report

In fulfillment of Environment (Northern Ireland) Order 2002

Local Air Quality Management

January 2021

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Report Reference number	MUDC/AQ/2020
Date	11th January 2021

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There were previously five AQMA's declared for No_2 in the District, two of which have been revoked due to improvements in the air quality at these locations.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 monitoring has shown continued exceedences of the air quality objective for No_2 at two of the AQMA's. For the first time all the air quality sites within the Magherafelt AQMA shown compliance with the air quality objective. It is hoped that if this trend continues this AQMA will be able to be revoked in the near future.

The improvement in the air quality at these locations 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 8 locations within the AQMA's in Dungannon and Moy has demonstrated that there are 2 sites where NO2 levels continue to exceed the objective limit of 40ug/m3; namely Newell Road, Dungannon and Charlemont Street in Moy.

Diffusion tube monitoring at 8 locations in Cookstown and Moneymore did not demonstrate any exceedences of the air quality objective limit. Routine monitoring of these locations will continue to help monitor trends in the air quality at these locations.

Mid Ulster District Council published a Local Development Plan 2030- Draft Plan Strategy in February 2019. The growth strategy and spatial planning framework

outlined in this document seeks to deliver a balanced approach to transport infrastructure, and to help reduce the carbon footprint and facilitate mitigation and adaptation to climate change whilst improving air quality. In the District. The strategy makes particular reference to improving the A29 and seeking by-passes around Dungannon and Cookstown. It is hoped that these schemes would see a net overall improvement in air quality in these centres.

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Introduction

Description of Local Authority Area

Mid-Ulster District Council is a local authority that was established on 1 April 2015 as a part of Local Government re-organisation in Northern Ireland. It replaced the three former Councils of Cookstown D.C., Dungannon and South Tyrone B.C., and Magherafelt D.C.

Mid Ulster District Council, as the name suggests, is located centrally within the province. It straddles the two counties of Tyrone and Derry/ Londonderry. The District runs from Swatragh in the north to Fivemiletown in the south and from the Sperrin Mountains in the west to the shores of Lough Neagh in the east.

Mid Ulster is the seventh largest of the eleven new council districts. The district covers an area of some 1955 km². Mid Ulster is the sixth most populous District in Northern Ireland with a 2020 population listed as 148,530. The District is mainly rural in nature with 72% of the population living in a rural area as defined by the interdepartmental rural urban definition group. This definition means that everywhere in the District is classified as rural apart from Cookstown, Dungannon, Magherafelt and Coalisland.

Additionally 40% of households are located within the countryside. The District has a high prevalence of manufacturing within 27.5% of all jobs in Mid Ulster being in manufacturing compared with a Northern Ireland average of 11%. The high prevalence of manufacturing is partly 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 strong manufacturing sector specialising in crushing and screening equipment.

In terms of infrastructure, the A29 which runs throughout Northern Ireland from the North to the South is the spine of the District and the main transport corridor. The A29 also connects the three main towns in the District. Of these three towns, Dungannon and

Cookstown are classified as medium towns by NISRA due to having a population of more than 10,000 while Magherafelt is classified as a small town. The A4 is an important East-West transport corridor runs through the Southern part of the District, as does the A5, which is the main link between Dublin / ROI and the North West of Northern Ireland. The A6 runs through the Northern portion of the District and is a vital corridor that connects the two main cities in Northern Ireland

Purpose of Progress Report

This report fulfils the requirements of the Local Air Quality Management (LAQM) 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 the air quality objectives are likely to be achieved. Where exceedances are 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.

For Local Authorities in Northern Ireland, Progress Reports are required in the intervening years between the three-yearly Updating and Screening Assessment reports. Their purpose is to maintain continuity in the LAQM process.

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

Air Quality Objectives

The air quality objectives applicable to LAQM **in Northern Ireland** are set out in the Air Quality Regulations (Northern Ireland) 2003, Statutory Rules of Northern Ireland 2003, no. 342, and are shown in Table 1.1. This table shows the objectives in units of microgrammes

per cubic metre 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		Date to be achieved by
	Concentration	Measured as	
Benzene	16.25 µg/m^3	Running annual mean	31.12.2003
	3.25 µg/m^3	Running annual mean	31.12.2010
1,3-butadiene	2.25 µg/m^3	Running annual mean	31.12.2003
Carbon monoxide	10 mg/m^3	Running 8-hour mean	31.12.2003
Lead	0.50 µg/m^3	Annual mean	31.12.2004
	0.25 µg/m^3	Annual mean	31.12.2008
Nitrogen dioxide	200 µg/m^3 not to be exceeded more than 18 times a year	1-hour mean	31.12.2005
	40 µg/m^3	Annual mean	31.12.2005
Particulate matter (PM_{10}) (gravimetric)	50 µg/m^3, not to be exceeded more than 35 times a year	24-hour mean	31.12.2004
	40 µg/m^3	Annual mean	31.12.2004
Sulphur dioxide	350 µg/m^3, not to be exceeded more than 24 times a year	1-hour mean	31.12.2004
	125 µg/m^3, not to be exceeded more than 3 times a year	24-hour mean	31.12.2004
	266 µg/m^3, not to be exceeded more than 35 times a year	15-minute mean	31.12.2005

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 exceedences 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 have 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. These are located at the following locations: 1. Newell Road, Dungannon. 2. Charlemont Street, Moy. 3. Church Street & King Street, Magherafelt. Mid Ulster District Council approved an Action Plan to help address air quality issues in the remaining AQMA's in December 2017. Ongoing routine air quality monitoring is undertaken in these areas and along main arterial routes in Cookstown and Moneymore to help identify any trends in air quality in the District.

Maps Showing Air Quality management Areas (AQMA's) in Mid Ulster.

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

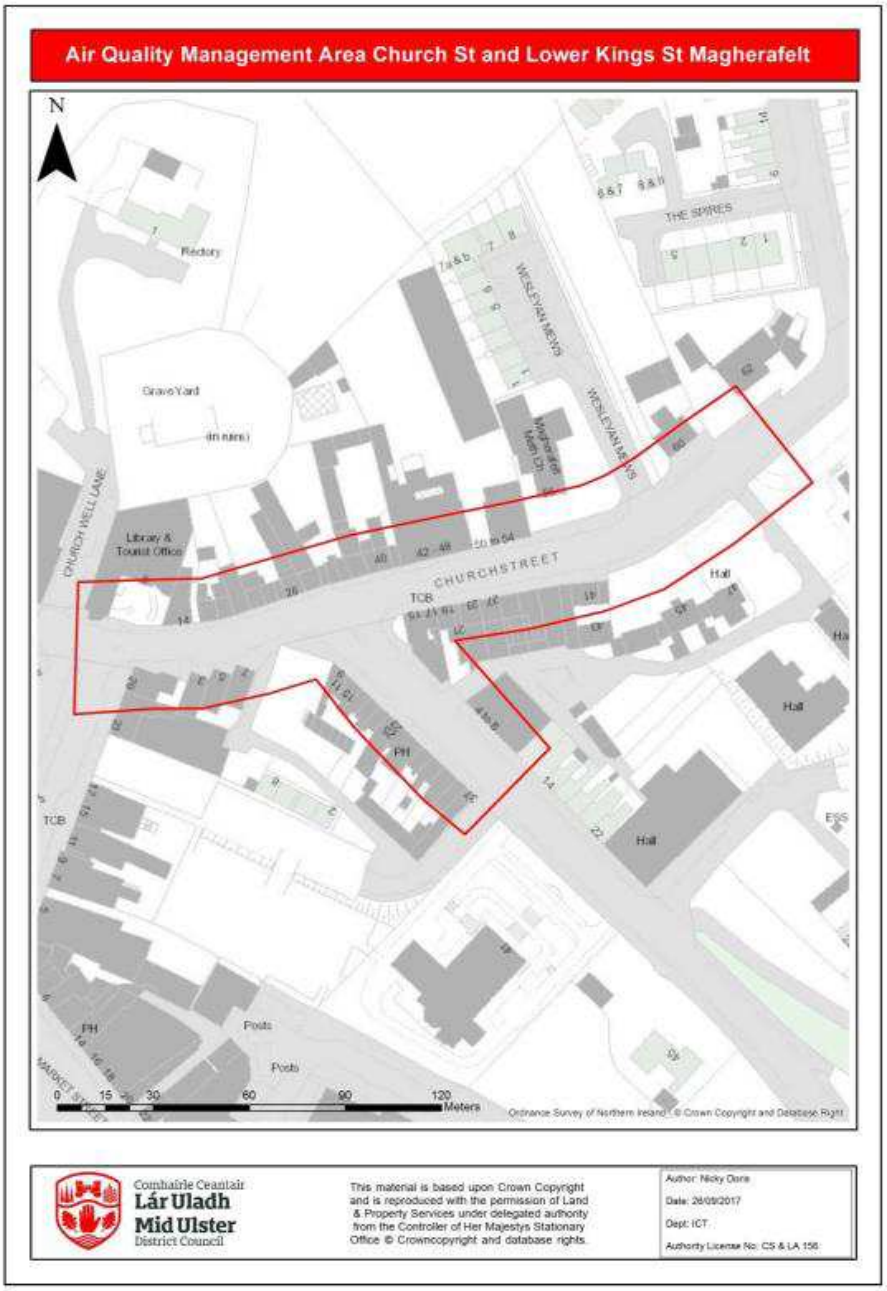


Figure 1.2 – Map of AQMA Boundary Newell Road, Dungannon

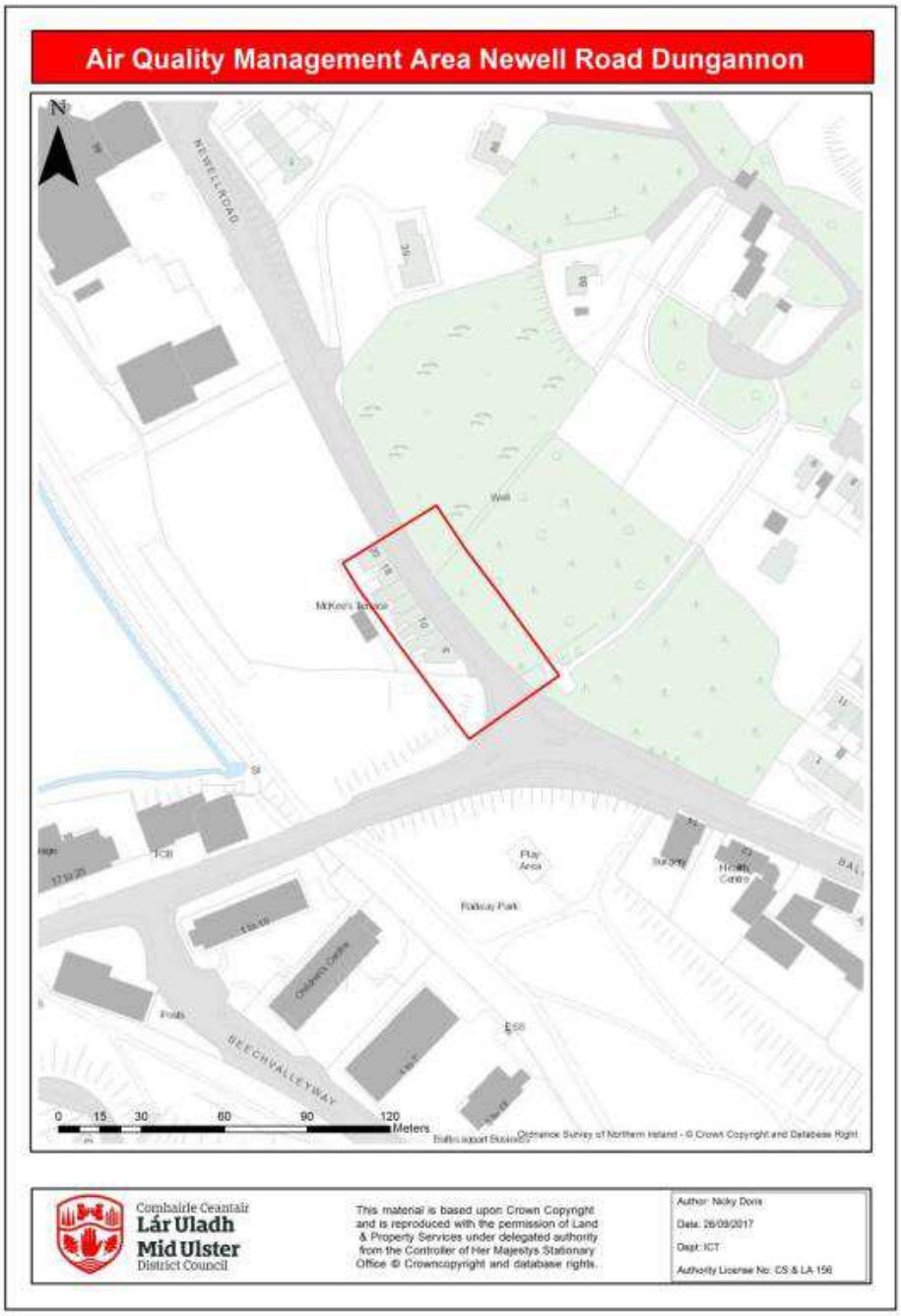
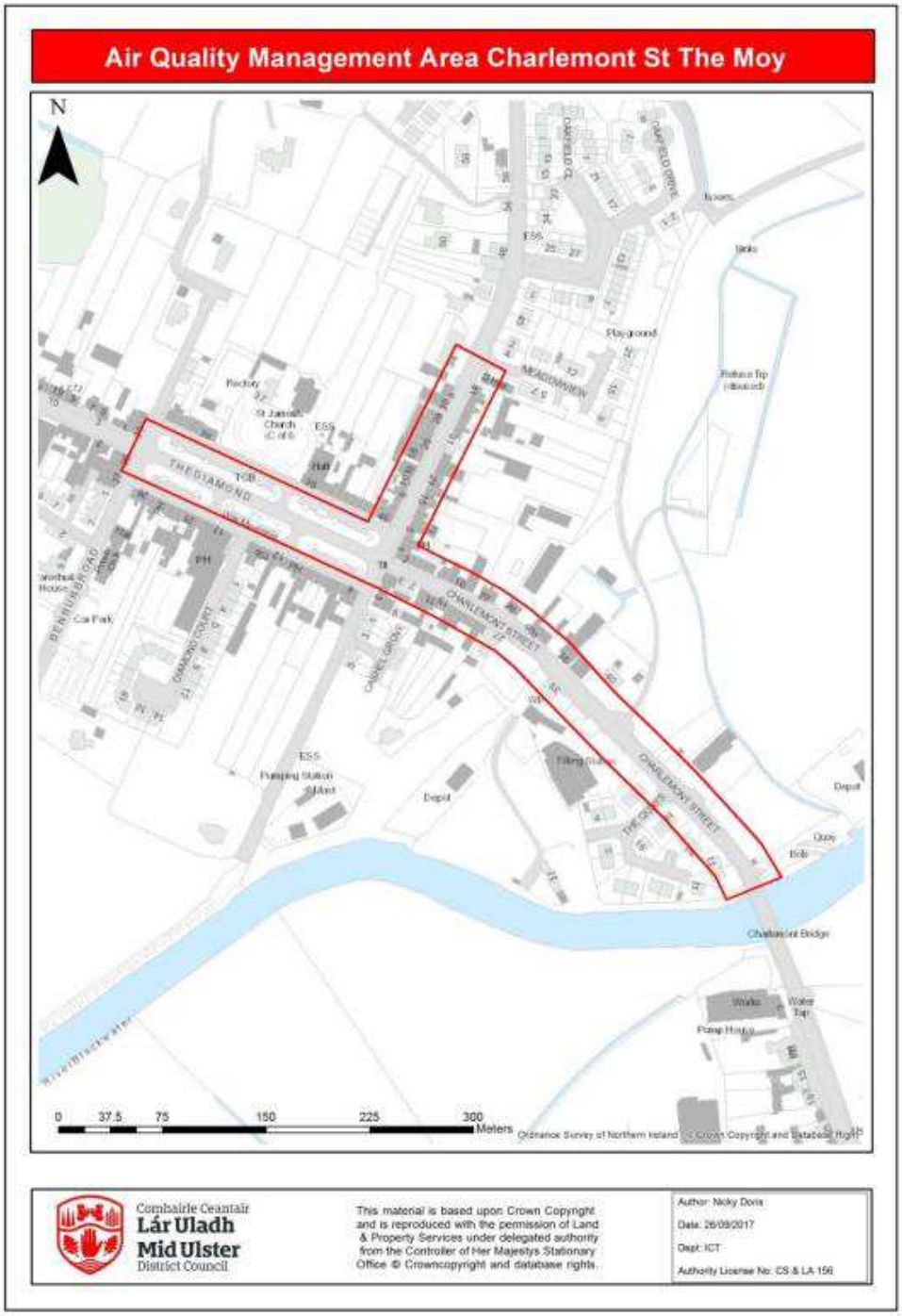


Figure 1.3 – Map of AQMA Boundary Charlemont Street, Moy



New Monitoring Data

Summary of Monitoring Undertaken

Automatic Monitoring Sites

There are no automatic air quality monitoring sites within the Mid Ulster District Council area

Non-Automatic Monitoring Sites

Mid Ulster District Council has 20 non-automatic monitoring sites for Nitrogen dioxide (NO_2). These sites are monitored using 43 diffusion tubes supplied by SOCOTEC, Diffusion Tube Laboratory in Didcot, Oxfordshire. 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 that are more accurate. These tend to be at the sites within the AQMA's. 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. 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.

Map(s) of Non-Automatic Monitoring Sites

Fig.2.2.1 Map Overview of Magherafelt Town Centre

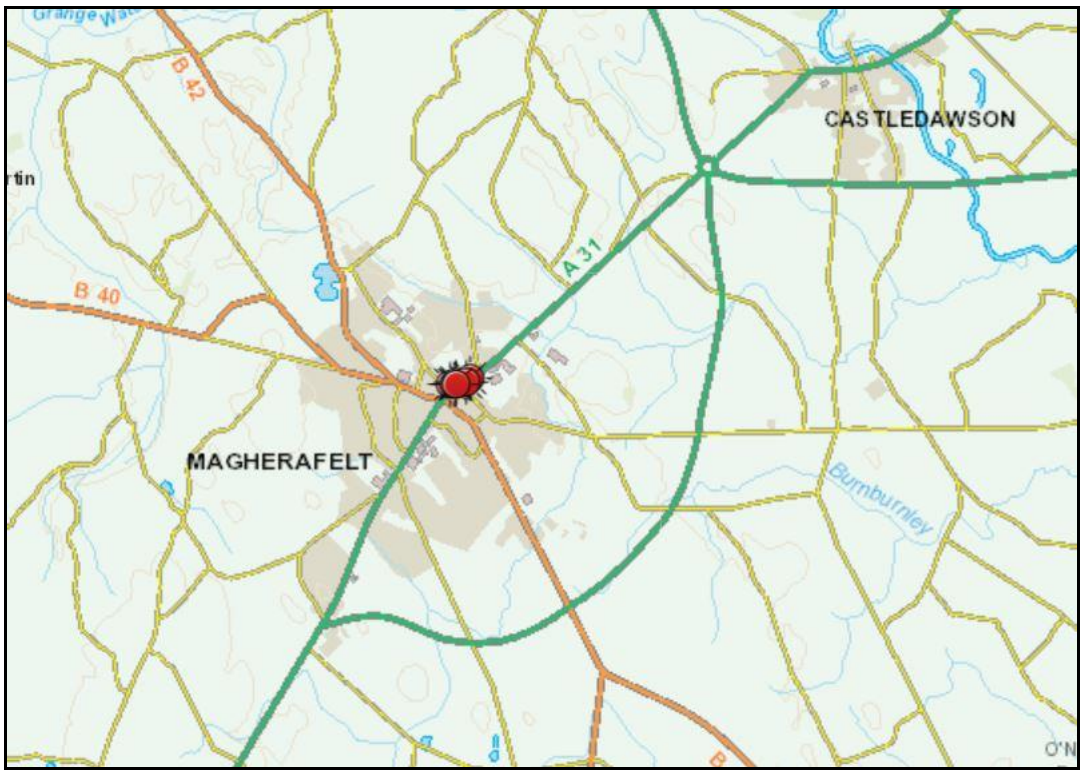


Figure 2.2.1 shows that the monitoring tubes are clustered in the town centre along the previous main thoroughfare of the A31 (route shown in green). The new Magherafelt by-pass is also shown in green and it can be seen that this loops around Magherafelt to the South and is now the main route for all through traffic.

Fig. 2.2.2 Map Showing Location of Diffusion Tubes in Magherafelt Town Centre along Church St. and King St.

The air quality monitoring sites for Magherafelt are shown above. It can be seen that the monitoring sites are located in the Church Street/ King Street areas in the centre of the town. These sites correspond with the AQMA area for the town outlined in Figure 1.1. Routine monitoring of other areas in the Magherafelt town centre in previous years indicated compliance with the air quality objective. Consequently, the focus of the monitoring is now within the AQMA. The new urban background location can be seen in Wesleyann Mews to the top right hand side of the map.

Fig. 2.2.3- Overview of Air Quality Monitoring Sites in Moneymore

The village of Moneymore receives a lot of through traffic from Cookstown 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, and in the cases of the Stonard Street and Conyngham Street locations along inclines where traffic is likely to be moving slowly.

The sites shown are from top to bottom Smith Street, Lawford Street, Conyngham Street and Stonard Street.

Fig. 2.2.4 Overview of Air Quality Monitoring Sites in Cookstown

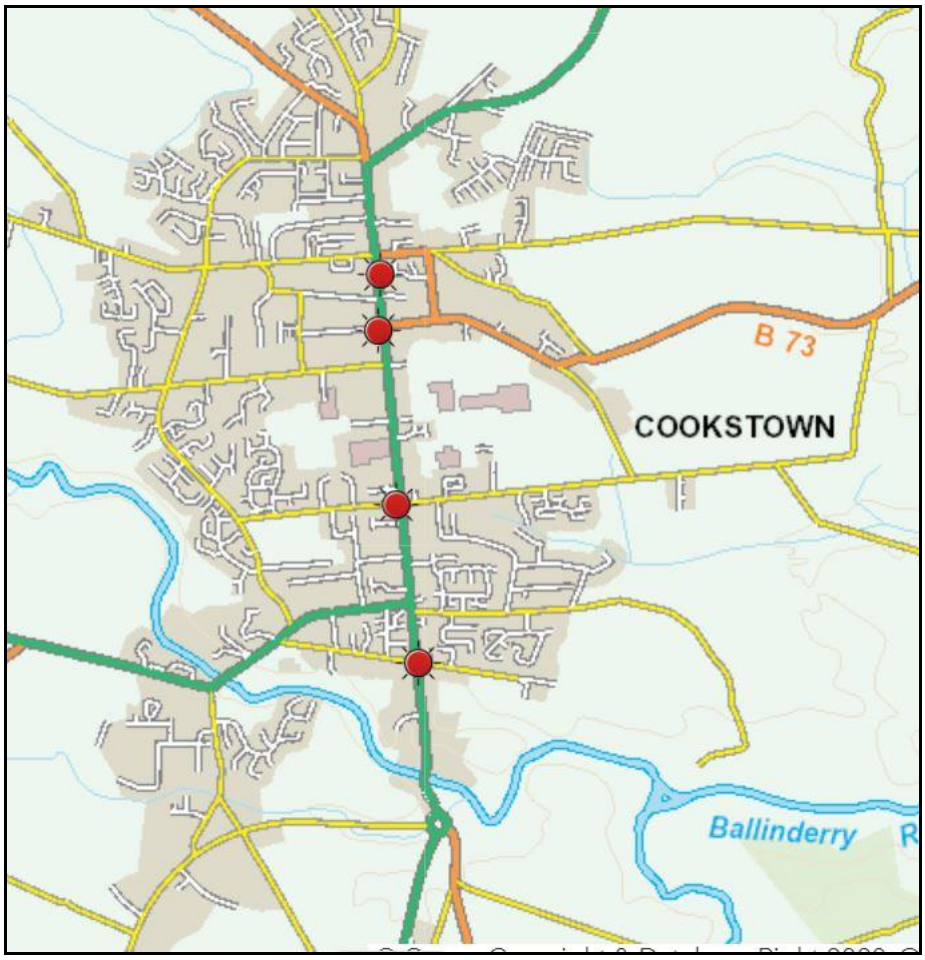


Fig. 2.2.4 above shows the monitoring site locations along Cookstowns main thoroughfare. As can be seen the sites are located close to busy road junctions and traffic lights where high volumes of traffic will frequently be idling.

Fig. 2.2.5. Monitoring Locations at William Street and James Street

Figure 2.2.5 above shows the town centre monitoring locations along the town centre area of Cookstown in the main retail area of the town.

Fig. 2.2.6. Monitoring Locations at Church Street and Killymoon Street

Figure 2.2.5 above shows the town centre monitoring locations at the busy Church Street junction (top) and at the traffic lights beside the Sweep Road Asda/ McDonald's development.

Fig. 2.2.7 Overview of Monitoring Locations in Dungannon

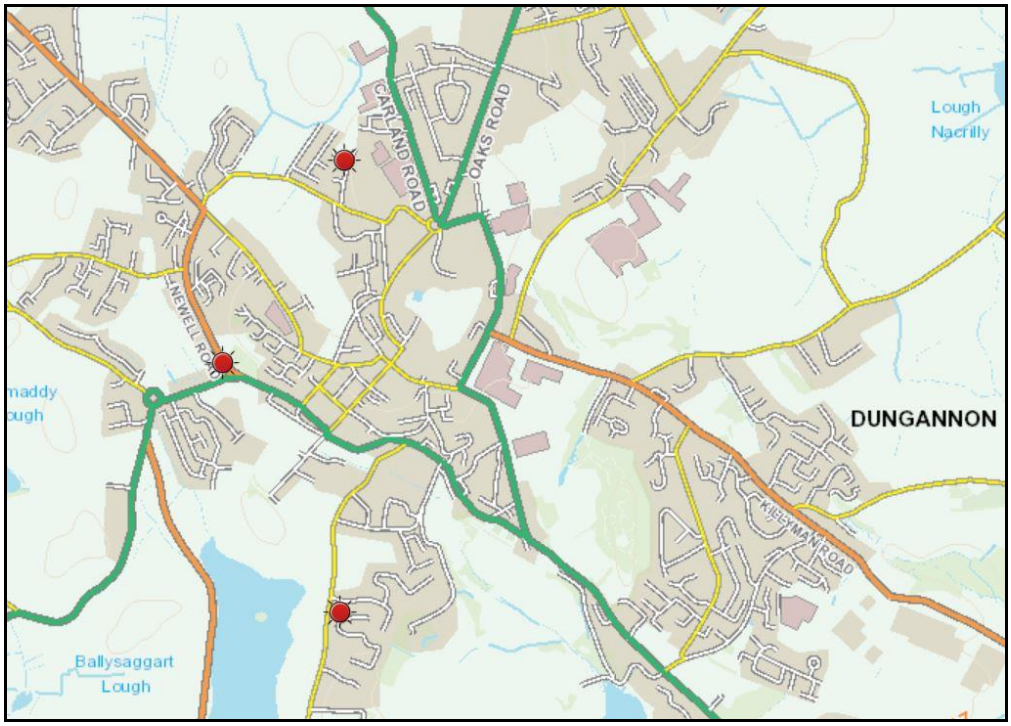


Fig. 2.2.7. shows the three monitoring sites in Dungannon showing from top to bottom sites at Ardgannon, Newell Road, and Dunclare Way.

Fig. 2.2.8. Position of Monitoring Site at Newell Road, Dungannon

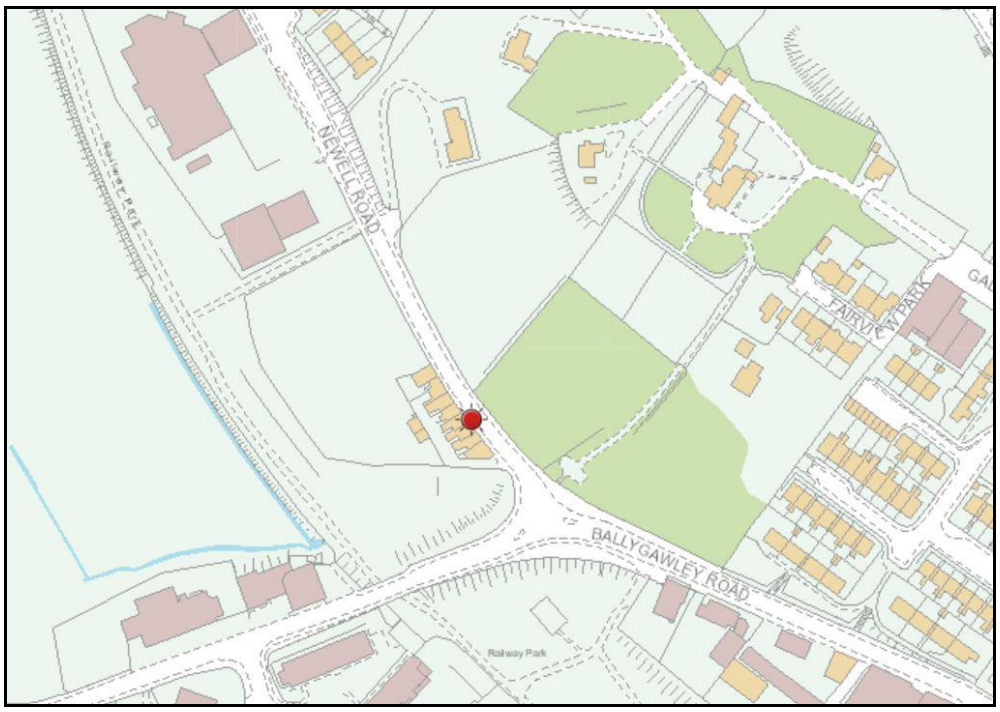


Fig.2.2.8. shows the location of the monitoring site at the AQMA on Newell Road. The site is framed by terraced houses on one side and a steep bank on the other. The route is along the main thoroughfare through the town from North to South.

Fig. 2.2.9. Overview of Monitoring Locations in Moy

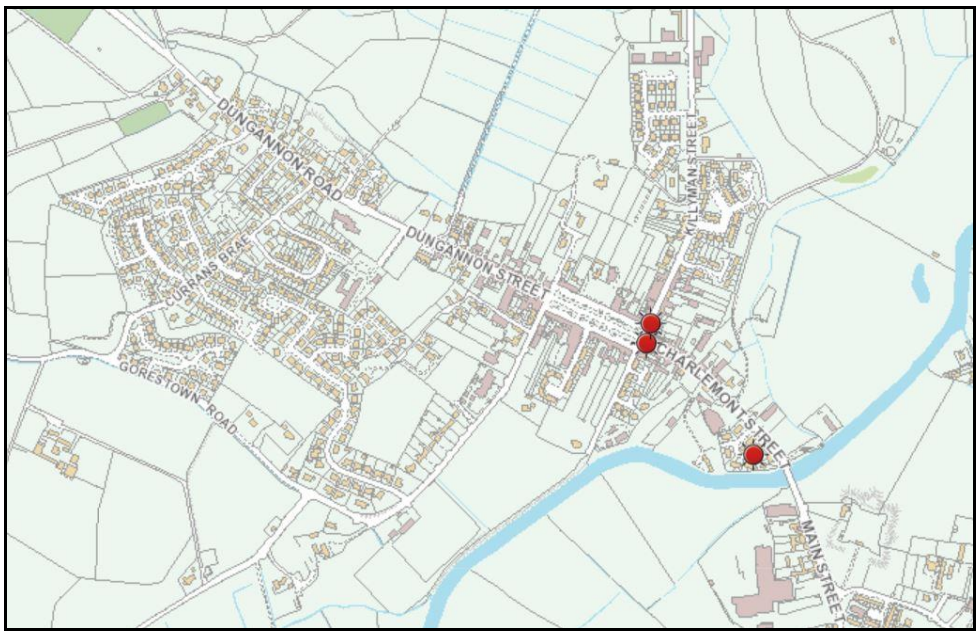
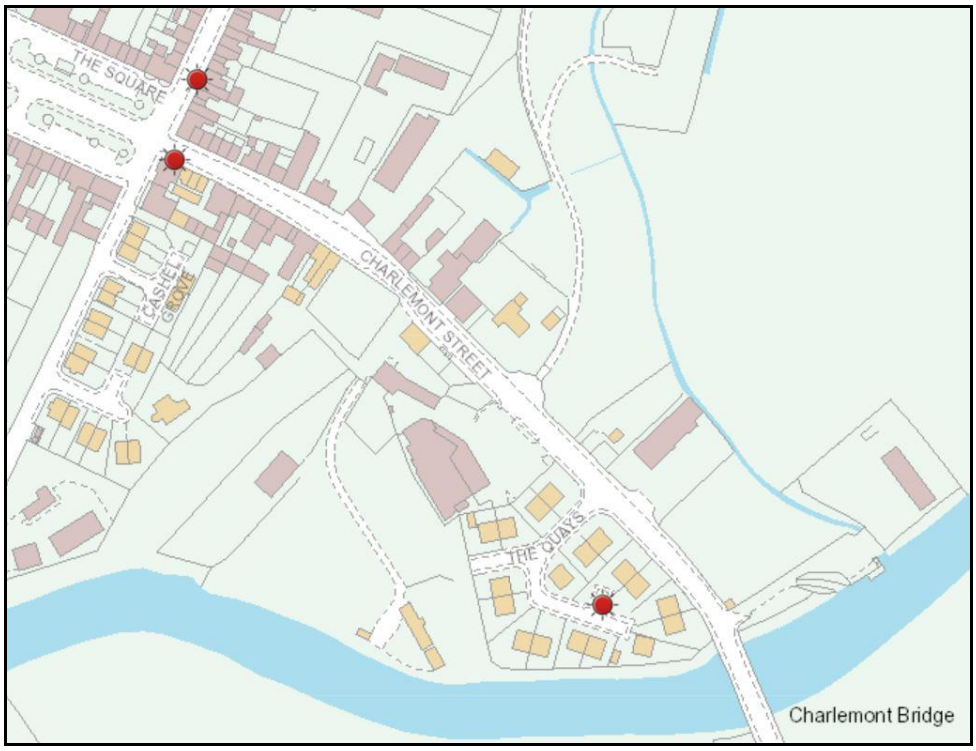


Fig. 2.2.10. shows the three monitoring sites in the village of Moy along the main Armagh to Dungannon Road.



The air quality monitoring sites for Moy are shown above.

The Charlemont Street site is shown at the junction of Charlemont Street running into the Square. The Killyman Street site (top site in Map) is located at a busy traffic light junction feeding into the main Square as well. These two sites are located within the AQMA. The urban background site located in the Quays residential area is also shown.

Table 2.1 – Details of Non- Automatic Monitoring Sites

Site ID	Site Name	Site Type	X OS Grid Reference	Y OS Grid Reference	Site Height (m)	Pollutants Monitored	In AQMA?	Is Monitoring Co-located with a Continuous Analyser (Y/N)	Relevant Exposure? (Y/N with distance (m) from monitoring site to relevant exposure)	Distance to Kerb of Nearest Road (m) (N/A if not applicable)	Does this Location Represent Worst-Case Exposure?
22 Church St	M2	Roadside	289771	390728	2.5	NO_2	Y	N	Y<10	1	Y
12 Church St	M9	Roadside	289745	390722	2.5	NO_2	Y	N	Y<10	1	Y
30 Church St	M10	Roadside	289794	390735	2.5	NO_2	Y	N	Y<10	1	Y
11 King St	M11	Roadside	289798	390706	2.5	NO_2	Y	N	Y<10	1	Y
Church St	M13	Roadside	289903	390778	2.5	NO_2	Y	N	Y<10	1	Y
Church St	M23	Roadside	289860	390734	2.5	NO_2	Y	N	Y<10	1	Y
Wesleyan Mews	M24	Urban Background	289887	390787	2.5	NO_2	Y	N	Y<10	4	Y

Site ID	**Site Name**	**Site Type**	**X OS Grid Reference**	**Y OS Grid Reference**	**Site Height (m)**	**Pollutants Monitored**	**In AQMA?**	**Is Monitoring Co-located with a Continuous Analyser (Y/N)**	**Relevant Exposure?** (Y/N with distance (m) from monitoring site to relevant exposure)	**Distance to Kerb of Nearest Road (m)** (N/A if not applicable)	**Does this Location Represent Worst-Case Exposure?**
Ardgannon	D1	Urban Background	279576	363173	2.5	NO_2	N	N	Y(<10)	>50	Y
Newell Rd	D2	Roadside	279139	362445	2.5	NO_2	Y	N	Y(<1)	2	Y
Dunclare Way	D6	Urban Background	279568	361548	2.5	NO_2	N	N	Y(<10)	>50	Y
The Quays	D5	Urban Background	285171	355922	2.5	NO_2	N	N	Y(<10)	>50	Y
Charlemont St	D3	Roadside	279556	363019	2.5	NO_2	Y	N	Y(<1)	2	Y
Killyman St	D4	Roadside	284991	356169	2.5	NO_2	N	N	Y(<1)	2	Y

Site ID	**Site Name**	**Site Type**	**X OS Grid Reference**	**Y OS Grid Reference**	**Site Height (m)**	**Pollutants Monitored**	**In AQMA?**	**Is Monitoring Co-located with a Continuous Analyser (Y/N)**	**Relevant Exposure?** (Y/N with distance (m) from monitoring site to relevant exposure)	**Distance to Kerb of Nearest Road (m)** (N/A if not applicable)	**Does this Location Represent Worst-Case Exposure?**
Lawford St	C1	Kerbside	285770	383510	2.5	NO_2	N	N	Y(<1)	2	Y
Smith St	C8	Kerbside	285813	383458	2.5	NO_2	N	N	Y(<1)	3	Y
Conyngham St	C10	Kerbside	285759	383333	2.5	NO_2	N	N	Y(<1)	3	Y
Stonard St	C11	Kerbside	285874	383341	2.5	NO_2	N	N	Y(<1)	2	Y
William St	C2	Roadside	281071	378445	2.5	NO_2	N	N	Y(<2)	1	Y
Killymoon St	C5	Kerbside	281225	376939	2.5	NO_2	N	N	Y(<6)	1	Y
Church St	C4	Roadside	281121	377537	2.5	NO_2	N	N	Y(<1)	2	Y
James St	C3	Kerbside	281053	378197	2.5	NO_2	N	N	Y(<4)	2	Y

Comparison of Monitoring Results with Air Quality Objectives

Nitrogen Dioxide (NO_2)

Automatic Monitoring Data

There are no automatic air quality monitoring sites within the Mid Ulster District Council area.

Diffusion Tube Monitoring Data

Mid Ulster District Council routinely monitors for NO_2 at a number of sites throughout the District in Magherafelt, Moneymore, Cookstown, Dungannon and Moy. Given that heightened levels of this pollutant are generally found close to congested roadsides, it is not surprising that these sites are found in urban areas along the A29 North South road that provides the main arterial route through the District.

The results of the diffusion tube monitoring for 2019 are indicated in Table 2.2 below. As can be seen from the table two of the sites exceeded the air quality objective of 40 µg/m³. These sites are located at Newell Road in Dungannon and Charlemont Street in Moy. The results for these two sites are 54 and 55 µg/m³ respectively. These two monitoring sites are located within the air quality management areas (AQMA's) for Dungannon and Moy.

As noted above one of the monitoring sites located within the AQMA for Moy shows an exceedance of the air quality objective in Charlemont Street. However, the other site within the AQMA nearby in Killyman Street shows a level of 26µg/m³ a figure well within the objective level. This trend is consistent with recent years. This highlights graphically just how localised these problems can be.

This year marks the second year when all the monitoring sites in the Magherafelt AQMA have recorded levels below the air quality objective. This is encouraging and would seem to indicate a general downwards trend as discussed later in this section. All results for the Dungannon, Moy and Magherafelt areas were recorded as the average of three tubes at

each location to ensure better accuracy. The only two sites monitored individually at these sites were the urban backgrounds taken for comparison purposes.

Results for the Cookstown and Moneymore areas continue to show levels well in compliance with the air quality objective. This is most likely due to the wide streets in the main thoroughfares of these areas. As a result, these sites are single tube sites.

Table 2.2 – Results of NO_2 Diffusion Tubes 2019

Site ID	Location	Site Type	Within AQMA?	Triplicate (T) or Co-located (C) Tube Neither (N)	Full Calendar Year Data Capture 2019 (Number of Months or %) [a]	2019 Annual Mean Concentration (µg/m³) - Bias Adjustment factor = 0.77 [b]
M2	22 Church St	Roadside	Y	T	12	35
M9	12 Church St	Roadside	Y	T	12	31
M10	30 Church St	Roadside	Y	T	12	37
M11	11 King St	Roadside	Y	T	12	22
M13	Church St	Roadside	Y	T	12	19
M23	Church St	Roadside	Y	T	12	29
M24	Wesleyann St	Urban Background	Y	T	12	10
D1	Ardgannon	Urban Background	N	N	9	11
D2	Newell Rd	Roadside	Y	T	12	**54**

Site ID	Location	Site Type	Within AQMA?	Triplicate (T) or Co-located (C) Tube Neither (N)	Full Calendar Year Data Capture 2019 (Number of Months or %) [a]	2019 Annual Mean Concentration (µg/m^3) - Bias Adjustment factor = 0.77 [b]
D6	Dunclare Way	Urban Background	N	N	12	8
D5	The Quays	Urban Background	N	T	12	9
D3	Charlemont St	Roadside	Y	T	12	**55**
D4	Killyman St	Roadside	Y	T	12	26
C1	Lawford St	Kerbside	N	N	12	33
C8	Smith St	Kerbside	N	N	12	24
C10	Conyngham St	Kerbside	N	N	12	13
C11	Stonard St	Kerbside	N	N	11	31
C2	William St	Roadside	N	N	12	26

Site ID	Location	Site Type	Within AQMA?	Triplicate (T) or Co-located (C) Tube Neither (N)	Full Calendar Year Data Capture 2019 (Number of Months or %) [a]	2019 Annual Mean Concentration (µg/m^3) - Bias Adjustment factor = 0.77 [b]
C5	Killymoon St	Kerbside	N	N	11	27
C4	Church St	Roadside	N	N	10	24
C3	James St	Kerbside	N	N	11	27

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 in Boxes 7.9 and 7.10 of LAQM.TG16, 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 (https://laqm.defra.gov.uk/tools-monitoring-data/no2-falloff.html), and results should be discussed in a specific section. The procedure is also explained in paragraphs 7.77 to 7.79 of LAQM.TG16.

Table 2.3 – Results of NO_2 Diffusion Tubes (2015 to 2019)

Site ID	Site Type	Within AQMA?	Annual Mean Concentration (µg/m^3) - Adjusted for Bias [a]				
			2015 (Bias Adjustment Factor = 0.87)	2016 (Bias Adjustment Factor = 0.92)	2017 (Bias Adjustment Factor = 0.89)	2018 (Bias Adjustment Factor = 0.93 & 0.76)	2019 (Bias Adjustment Factor = 0.77)
22 Church St	Roadside	Y	38	**47**	37	35	35
12 Church St	Roadside	Y	38	**46**	35	30	31
30 Church St	Roadside	Y	**46**	**52**	**41**	35	37
11 King St	Roadside	Y	29	33	28	24	22
Church St	Roadside	Y	23	28	25	23	19
Church St	Roadside	Y	N/A	N/A	N/A	33	29
	Urban Background	N	N/A	N/A	N/A	N/A	10
Ardgannon	Urban Background	N	11	11	10	12	11
Newell Rd	Roadside	Y	**53**	**58**	**50**	**50**	**54**

Site ID	Site Type	Within AQMA?	Annual Mean Concentration (µg/m^3) - Adjusted for Bias [a]				
			2015 (Bias Adjustment Factor = 0.87)	2016 (Bias Adjustment Factor = 0.92)	2017 (Bias Adjustment Factor = 0.89)	2018 (Bias Adjustment Factor = 0.93 & 0.76)	2019 (Bias Adjustment Factor = 0.77)
Dunclare Way	Urban Background	N	8	9	7	8	8
The Quays	Urban Background	N	8	10	7	9	9
Charlemont St	Roadside	Y	**58**	**61**	**57**	**55**	**55**
Killyman St	Roadside	Y	23	29	26	26	26
Lawford St	Kerbside	N	29	35	35	35	33
Smith St	Kerbside	N	22	28	27	26	24
Conyngham St	Kerbside	N	23	15	14	17	13
Stonard St	Kerbside	N	22	34	34	37	31

Site ID	Site Type	Within AQMA?	Annual Mean Concentration (µg/m^3) - Adjusted for Bias [a]				
			2015 (Bias Adjustment Factor = 0.87)	2016 (Bias Adjustment Factor = 0.92)	2017 (Bias Adjustment Factor = 0.89)	2018 (Bias Adjustment Factor = 0.93 & 0.76)	2019 (Bias Adjustment Factor = 0.77)
William St	Roadside	N	21	21	22	25	26
Killymoon St	Kerbside	N	29	32	32	30	27
Church St	Roadside	N	22	29	26	26	24
James St	Kerbside	N	28	32	31	31	27

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

Trends in Annual Mean Nitrogen Dioxide Concentrations Measured at Diffusion Tube Monitoring Sites

Fig. 2.4.1. Trends at 30 Church St. Magherafelt

The graph above shows the last five years results for the air quality-monitoring site outside 30 Church St. Magherafelt compared against the air quality objective of 40µg/m³. The 2017 result shows a level of 41µg/m³ an exceedance by 1µg/m³. This exceedance at this site is the last recorded exceedance at any of the sites within the AQMA. If this pattern continues for another year, it would be Mid Ulster District Council's intention to revoke this AQMA.

Fig. 2.4.2. Trends at 22 Church St. Magherafelt

Fig. 2.4.2. above shows the 5-year trend for the air quality site outside 22 Church St. Magherafelt. As can be seen the pattern broadly reflect that of the previous site. This site is compliant with the 40µg/m³ limit for the last three years.

Fig. 2.4.3. Trends at Roadside Site at Newell Rd. v Background Urban Site at Ardgannon

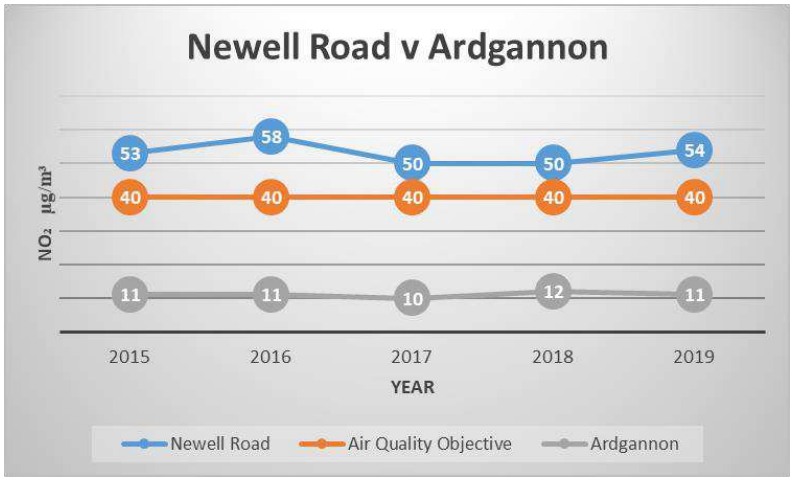
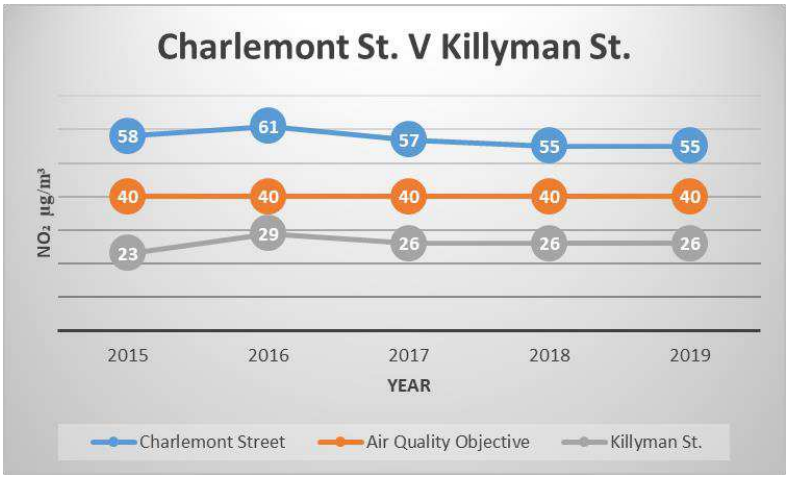


Fig 2.4.3. above shows the difference between monitoring results at a roadside site in the Newells Road AQMA and a Background Urban site compared with the 40µg/m³ objective. It can be seen that the roadside site consistently exceeds the air quality objective while that located within a residential development is consistently around 25% of the 40µg/m³ objective.

Fig. 2.4.4. Trends at Charlemont St. and Killyman St. Sites within Moy AQMA.



The above trend graph illustrate just how localised these exceedances can be. The Charlemont St. and Killyman St. sites are both located within the AQMA in Moy approximately 40m apart. The Charlemont site consistently exceeds the 40µg/m³ objective by around 15µg/m³, while the Killyman St. site is consistently 15µg/m³ below it, a difference in the two sites of around 30µg/m³ per year. This is likely to do with differences in traffic volumes adjacent to both sites with Charlemont St. being located on the main Armagh to Dungannon Road.

Particulate Matter (PM_{10})

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

Sulphur Dioxide (SO_2)

Mid Ulster District Council does not routinely monitor for Sulphur dioxide (SO_2).

Benzene

Mid Ulster District Council does not routinely monitor for Benzene.

Other Pollutants Monitored

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

Summary of Compliance with AQS Objectives

Mid Ulster District Council has examined the results from monitoring in the district.

Concentrations within two of the AQMA's still exceed the 40µg/m³ objective for No_2 at the Newell Road site in Dungannon, and the Charlemont Street site in Moy and the AQMA's should remain in place at these locations.

For the second successive year, concentrations within the remaining AQMA in the Church Street/ King Street sites in Magherafelt are below the 40µg/m³ objective for No_2. While this represents encouraging progress, the AQMA will not be revoked until a third successive year has confirmed this downward trend.

Concentrations outside of the AQMA are all below the objectives at relevant locations. There is no need to proceed to a Detailed Assessment.

New Local Developments

The 2019 year has seen continuing progress on the A6 Randalstown to Castledawson dualling project. The project will upgrade 14.7 kilometres of the A6 North Western Transport Corridor between Randalstown and Castledawson to dual carriageway. This is expected to have a net beneficial effect on air quality due to the easing of traffic congestion

Road Traffic Sources

Mid Ulster District Council has not identified any new cases of the following since the last Updating and Screening Assessment:

- Narrow congested streets with residential properties close to the kerb.
- Busy streets where people may spend one hour or more close to traffic.
- Roads with a high flow of buses and/or HGVs.
- Junctions.
- New roads constructed or proposed since the last Updating and Screening Assessment.
- Roads with significantly changed traffic flows.
- Bus or coach stations

Other Transport Sources

Mid Ulster District Council has not identified any new cases of the following since the last Updating and Screening Assessment:

- Airports.
- Locations where diesel or steam trains are regularly stationary for periods of 15 minutes or more, with potential for relevant exposure within 15m.
- Locations with a large number of movements of diesel locomotives, and potential long-term relevant exposure within 30m.
- Ports for shipping.

Industrial Sources

A list of new and proposed industrial sources that have been considered in the last year is outlined in the planning applications considered section.

Commercial and Domestic Sources

A list of new and proposed commercial and domestic sources considered in this report is outlined in the Planning Applications considered section.

New Developments with Fugitive or Uncontrolled Sources

A list of new developments with fugitive or uncontrolled sources is listed in the planning application considered section.

Mid Ulster District Council confirms that there are no new or newly identified local developments that may have an impact on air quality within the Local Authority area.

Mid Ulster District Council confirms that all the following have been considered:

- **Road traffic sources**
- **Other transport sources**
- **Industrial sources**
- **Commercial and domestic sources**
- **New developments with fugitive or uncontrolled sources.**

Planning Applications

The following tables list planning applications approved by Mid Ulster District Council in 2019 where a consideration would have been made as to how the proposal could potentially affect air quality in the District. Where it was considered necessary the applicant would have been required to submit an air quality in support of their application that would have been considered as a part of the application.

Housing

LA09/2019/0808/F	Demolition of an existing commercial building and redeveloped with 5 residential apartments	1 West Street, Stewartstown
LA09/2018/1541/F	Proposed housing development consisting of 20 units (1 detached, 8 semi-detached and 11 town houses) with foul treatment plant and associated site works	Between 6-16 Donaghmore Road and to the rear of 16-50 Donaghmore Road Dungannon
LA09/2018/1649/F	Housing development consisting of 13No detached dwellings and 10 semi-detached dwellings and new associated road layout	Lands off Cloneen Drive Maghera
LA09/2019/1400/F	Proposed housing development consisting of 33 No. units; 7 detached, 26 semi-detached	Church of Ireland Church Street Ballygawley

LA09/2018/1695/O	Housing development with Waste Water Treatment Plant and associated site works	Lands North of 1 - 6 Cave Hill Drive Ardboe Dungannon Co Tyrone
LA09/2019/1236/F	Proposed housing development consisting of 27No. Dwellings (24 No Semi detached and 3No.Detached) and associated site works	Lands opposite 44-45 Lurgylea Road Galbally
LA09/2018/0945/F	Housing Development (79 no dwellings) to include 15no detached and 64no semi-detached dwellings.	Land to the SE of No 1 Park Lane Killyfaddy Road Magherafelt
LA09/2019/1065/F	Proposed 12 No. Semi-Detached two storey houses and associated site works.	Killyliss Manor Eglish Dungannon.
LA09/2019/1029/O	Proposed Housing Development.	Adj to 6 Craigmount Orritor Cookstown
LA09/2018/0946/F	Housing development comprising 22no semi-detached dwellings and 3 no detached, estate road and associated works	Land to the Rear and NE of No 70 Main Street Augher
LA09/2017/1579/O	Proposed housing development with sewage treatment plant and associated works	Lands immediately SW of 44 Dungannon Road Moy
LA09/2019/0708/F	Renewal of permission (I/2014/0123/F) for	70-70a Fairhill Road Cookstown

	demolition of existing dwellings, erection of 2 No. buildings containing 10 No. apartments.	
LA09/2018/0336/F	Housing development consisting of 6 no. detached two-storey dwellings, foul water treatment works and associated site works	Adjacent to and East of 2 Old Caulfield Road Dungannon
LA09/2019/0562/F	Proposed Residential Development of 20 No. Dwellings (12 No. Detached & 8 No. Semi-detached).	9a Slieve Gallion Drive Magherafelt Road Draperstown
LA09/2018/1345/F	Housing Development to include 41 No. units (26 semi detached and 15 detached) with garages and associated site works	Lands at and surrounding 24 Mullaghmore Road Dungannon
LA09/2019/0282/O	Site for housing development with foul sewage treatment plant and associated works	Lands east of 2 7 and 9 Aghinduff Pk Dungannon
LA09/2017/0126/F	Housing Development to include reduction of dwelling units to 37no units and alterations to house types from previous lapsed permission ref H/2008/0216/F	Site at Magherafelt Road Draperstown at junction with Drumard Road
LA09/2019/0229/F	Proposed housing development consisting of 6	Abbeyvale Mullinahoe Road

	no. 2 storey detached houses, 2 no. single storey detached houses, 2 no. single storey semi-detached houses & 28 no. two storey semi-detached houses. (38 units total) waste water treatment plant and associated site works.	Ardboe Co Tyrone.
LA09/2019/0203/F	Social housing development consisting of 2 no 3 storey blocks of apartments, 12 no apartments in total, access road, site works & landscaping	Rear & SSW of 14-32 Barrack Street Coalisland
LA09/2018/1693/F	Housing development with 14 no dwellings including semi-detached and detached and associated site works.	Lands south west of 30 Dunnamore Road
LA09/2018/1695/O	Housing development with Waste Water Treatment Plant and associated site works	Lands North of 1 - 6 Cave Hill Drive Ardboe
LA09/2018/1649/F	Housing development consisting of 13No detached dwellings and 10 semi detached dwellings and new associated road layout	Lands off Cloneen Drive Maghera
LA09/2018/1545/O	Proposed housing development	152 Old Caulfield Road Castlecaulfield

LA09/2018/0926/F	Housing development consisting of 10 no. 2 storey semi-detached dwellings	South of 12 Aghareany Close Dungannon
LA09/2018/1381/F	Proposed housing development consisting of 18no. houses with associated site works)	17 Mullaghmoyle Road Brackaville Coalisland

Industrial

LA09/2018/1258/F	Storage building and infilling of lands with inert material	Dungannon Business Park, Killyliss Road, Dungannon
LA09/2018/0785/F	Erection of ancillary store building and ancillary store extension to existing workshop	76 Derrynoyd Road Draperstown
LA09/2019/0467/F	Refurbishment and alteration of existing workshop.	20B Station Road Glebe Industrial Estate Magherafelt
LA09/2019/0558/F	Proposed redevelopment of established builders storage yard for industrial purposes comprising demolishing existing workshop on site and erection of new light industrial building	310 Drum Road Cookstown
LA09/2018/1283/F	Retention of engineering workshops, increased curtilage and hard standing including temporary car-	200 Annagher Road Coalisland

	park, bulk LPG gas tank, toilets and changing building and loading area	
LA09/2018/0471/F	Proposed new general industrial building (Use class B3) with ancillary accommodation.	Lands at 76 Derrynoid Road Draperstown
LA09/2019/0478/F	Demolition of existing building and extension to existing industrial unit	3 Moyola Road Castledawson
LA09/2019/1324/F	Variation of Condition 2 of Planning Approval H/2006/0213/F (to extend extraction for an additional 10 years until 31st Dec 2030.	260m NW of No 11 Brackaghlislea Road Draperstown
LA09/2018/1483/F	Proposed light industrial engineering workshop yard and car parking facility	East of the road junction at Station Road and Lurganeden Road Pomeroy
LA09/2019/1110/F	Retention of temporary waste storage yard, to recycle and remove waste from timber fencing, plastic drainage pipes and inert waste and disposed off through a licensed contractor, storage yard is associated to the duration of the waste from "Gas to the west"	Site 70m West of 39 Cullenramer Road Greystone Dungannon

LA09/2019/1166/F	Extension to light engineering workshop	199 Killyman Road Dungannon
LA09/2019/1097/F	Retrospective change of use (Unit A1) from Class B2/B3 Industrial and Business uses as defined within the Planning (Use Classes) Order (NI) 2015, to allow wholesaling and storage (Sui Generis) and ancillary Retail Trade Counter including minor internal and external alterations.	58 Ballyronan Road Magherafelt
LA09/2019/0643/F	Proposed erection of new assembly building	Terex Farlough Road Plant 32 Farlough Road Dungannon
LA09/2019/0851/F	Proposed retention of a kitchen manufacturers store which comprises a change of use of an agricultural building to Kitchen Product Store	Lands North and to the rear of No. 46 Oaklea Road Magherafelt
LA09/2019/1003/F	Erection of workshop	Approx. 60m W 15 Tobermesson Road Benburb Dungannon
LA09/2019/1023/F	Proposed fabrication and assembly building with offices for research and development of their new recycling machine	9 Keenaghan Road Rock Dungannon

LA09/2019/0947/F	Replacement storage building to be used by Acrow Formworks	60m West of 81 Eskragh Road Granville Dungannon
LA09/2019/0643/F	Proposed erection of new assembly building.	Terex Farlough Road Plant 32 Farlough Road Dungannon
LA09/2018/1283/F	Retention of engineering workshops, increased curtilage and hard standing including temporary car-park, bulk LPG gas tank, toilets and changing building and loading area	200 Annagher Road Coalisland
LA09/2019/0152/F	Retention of the storage building and its use for the packaging and storage of hand made dog treats produced in the adjoining and attached garage	19 Major's Lane Moy Dungannon
LA09/2019/0810/F	Proposed 5 tonne modular pelletizing plant for research and development use only (not for commercial production of materials)	11 Aughnagar Road Ballygawley
LA09/2015/0558/F	Factory and office refurbishment of No 4 Curran Road including R & D Assembly all within Light Industrial B2 Class.	4-8 Curran Road Castledawson Magherafelt
LA09/2017/1403/F	Proposed new drying store and extension of existing site	2 Lisnamuck Road

	curtilage for 1. Relocation and storage of all concrete recyclable materials 2. The external storage of raw materials that are produced on the factory site	Tobermore
LA09/2018/0471/F	Proposed new general industrial building (Use class B3) with ancillary accommodation.	Lands at 76 Derrynoid Road Draperstown
LA09/2019/0604/F	B2 Light industrial Units 1,2,3 and 4 and storage and distribution including trade counter and display area Units 5,6 and 7.	1 Loves Hill Castledawson
LA09/2018/1531/F	New vehicle maintenance shed (B2) with auxiliary parking, vehicle wash and vehicle fuel storage with fuel pump.	Site directly adj to NE 20 Cahore Road Draperstown
LA09/2018/1469/F	Erection of factory and office building, staff and visitor parking and associated site works	20 Grandville Industrial Estate Dungannon
LA09/2019/0566/F	Proposed provision of 3no. units (2no. B2: Light Industrial and 1no. B4: Storage and distribution all with associated B1: Offices) Landscaping and vehicular	Site 50m West of entrance to G1 Kilcronagh Business Park Cookstown

	parking.	
LA09/2019/0517/F	Proposed light industrial units (3no.) with associated parking/turning space.	Lands adjacent Unit No.8 Derryloran Industrial Estate Sandholes Road Cookstown
LA09/2019/0494/F	Proposed 5 no. small Production units.	2 Coalisland Road Dungannon
LA09/2018/1514/F	Proposed extension to existing workshop and replacement storage unit	Units 8 and 9 Ballyreagh Business Park Cookstown
LA09/2019/0221/F	Large steel framed workshop to be finished with PVC cladding. Erected on a reinforced concrete base of 150mm depth and 30N/m2 strength.	98 Coolreaghs Road Cookstown
LA09/2018/1701/F	Boiler house and pellet bin to service car showroom/workshop (providing heat from wood pellet boiler system)	135 Dungannon Road Cookstown
LA09/2018/0248/F	Development to existing industrial and manufacturing workshops. New extension to an existing workshop to provide additional manufacturing lines.	116 Deerpark Road Toomebridge
LA09/2018/0471/F	Proposed new general industrial building (Use class B3) with ancillary	Lands at 76 Derrynoid Road Draperstown

	accommodation.	
LA09/2019/0152/F	Retention of the storage building and its use for the packaging and storage of hand made dog treats	19 Major's Lane Moy Dungannon
LA09/2019/0125/F	Extension two existing factory to facilitate the manufacture of communication cabinets for the telecoms industry.	Lands immediately opposite 87 Goland Road Ballygawley
LA09/2019/0012/F	Erection of a 1,240 sq m building, associated yard area and site works for use as ancillary storage to existing wholesale, storage.	84a Cookstown Road Dungannon
LA09/2019/0008/F	Proposal to extend the use of engineering business into attached agricultural shed, including the retention of small scale extension works	Lands approx. 60m West of 15 Tobermesson Road Benburb
LA09/2018/0826/F	Erection of new gantry crane for loading / unloading of pre cast concrete products and retention of extension to concrete yard for storage of pre cast concrete products	Creagh Concrete Products Ltd Blackpark Road Toomebridge
LA09/2018/1162/F	Proposed extension to factory to provide additional vehicle, parts and component storage and	50 Far Circular Road Dungannon

	additional office accommodation	
LA09/2018/1469/F	Erection of factory and office building, staff and visitor parking and associated site works	20 Granville Industrial Estate Dungannon
LA09/2018/1508/F	Extension to existing workshop to provide raw materials store and new raw materials store building.	108A Aghnagar Road Galbally Dungannon
LA09/2018/1311/F	Light engineering workshop incorporating staff welfare area and storage adjacent to existing engineering workshop stores and offices.	110 Derrycourtney Road Caledon Co Tyrone
LA09/2017/0567/F	Extension to existing factory. Construction of a new through road linking Coalisland Road to Carland Rd.	Lands at Rossmore Road and Cookstown Road.
LA09/2018/1422/F	Proposed light industrial units and extension and alterations to existing parking area	42 Dungannon Road Cookstown
LA09/2019/0176/F	Variation of condition 1 of planning approval LA09/2015/0324/F. (to extend extraction for additional 10 years until	Lands approx. 400m South of 10 Gortreagh Road Cookstown

	September 2030)	

Commercial

LA09/2017/1083/F	Proposed retail development to include supermarket and 2.no retail units with associated carparking, site access and landscaping	Lands including 2 to 10 Church Street, Cookstown
LA09/2019/0612/F	Retention of store extension, first floor accommodation to existing super market and additional car parking	243 Derryfubble Road Benburb Dungannon
LA09/2019/0305/O	| Proposed health care facility to provide accommodation for multiple doctor surgeries and ancillary uses commonly associated with a medical centre (circa 2500sqm). The proposed health care building to also accommodate complementary uses including retail (Circa 400sqm) cafe (circa 100sqm). New car parking to be provided, primarily accessed off existing Loy Street public car park.	2 4 6 and 8 Loy Street and lands to the rear of Nos 4 to 12 Loy Street and existing Loy Street public car park.
LA09/2019/1572/F	Proposed demolition of	22-28 Church Street

	existing commercial premises and redevelopment to provide new Credit Union Building	Magherafelt
LA09/2018/1589/F	Retrospective application for RHI boiler scheme and silo for fuel pellets	18 Sweep Road Cookstown
LA09/2019/1010/F	Proposed conversion of existing outbuildings and yard to provide 5No. Self-catering holiday lets and associated parking including internal and minor external alterations with small covered entrance to one building.	Site between No.9 and No.11 Aughrim Lane Creagh Toomebridge
LA09/2019/0785/F	Retention of Biomass boiler and storage unit.	66 Hospital Road Magherafelt
LA09/2019/1027/F	Proposed petrol filling station (8 No pumps) with underground storage tanks and ancillary services accommodation including retail, storage, cafe facilities,	
LA09/2019/1016/F	Redevelopment of gortgonis leisure centre and playing fields compromising of the demolition and general site clearance of existing facilities and erection of a new leisure	

	centre on the gortgonis site.	
LA09/2019/0803/F	Proposed Restaurant, Drive Thru & Motel	NE of 47 Magherafelt Road Castledawson
LA09/2018/1534/F	Proposed extended forecourt from previously approved application M/2010/0071/F with additional fuel pumps and extension of existing fuel canopy, proposed site lighting, external covered coal storage area to front of shop unit and proposed WC block	M1 Service Station Drumgormal Ballygawley Road Dungannon
LA09/2019/0416/F	Retention of commercial development for the repair and sale of agricultural/ construction plant and machinery Comprising 1 portal frame shed for the repair and maintenance of agricultural/ construction plant and machinery.	Lands at 67 Glenhoy Road Ballygawley and approx.

Agriculture

LA09/2018/1617/F	Additional broiler breeder laying poultry shed including link to existing with 2 No. additional feed bins and associated site works at land	100m NW of 43 Errigal Road, Ballygawley, Dungannon

	approx.	
LA09/2019/0183/F	Retention of cattle shed	30m SE of 112a Innishrush Road, Portglenone
LA09/2019/0851/F	Retention of store (change of use of an agricultural building)	Lands N and to the rear of 46 Oaklea Road, Magherafelt
M/2014/0524/F	Mushroom production, packaging, storage and distribution, storage and distribution complex and associated works	Land approx 30m SW of 15 Annaghilla Road, Augher.
LA09/2018/1349/F	Cattle handling and isolation facilities (cattle shed, force pen, cattle crush, collecting pen and hard-standing area.)	Lands NE of 102 and 104 Ballygawley Road and S of 101 Ballygawley Road,
LA09/2019/1216/F	Farm diversification scheme (retrospective) involving the change of u se of an agricultural building to a paint work shop	325m South West of 75 Moneyhaw Road Moneymore
LA09/2019/1037/F	Proposed cattle shed and machinery / fodder store.	Lands 50m NE of 48a Deerpark Road Bellaghy.
LA09/2018/1213/O	Proposed Agri Development Hub comprising circa 22,000sq m to facilitate processing of straw (pelletisation) and animal feeds, research and	Lands at Capper Trading Ltd

	development facility and agri-business/logistics centre, associated access ,parking, landscape and environmental enhancement works	
LA09/2018/1612/F	Proposed erection of an additional high welfare broiler poultry house (to house 37,500 max birds, bringing total site capacity up to 134,500).	Approx 200m N.E of No 106 Knockmanny Road Augher Co Tyrone
LA09/2019/0952/F	Change of use from agricultural buildings with refurbishment and extension to existing building to provide modern day office accommodation car parking	Buildings adjacent to 1 Gortnaskey Road Draperstown
LA09/2018/1160/F	Proposed retention of 1No shed housing 4No biomass boilers with 4No flues and 2No internal biomass fuel bins.	150m East of 54 Mullybrannon Road
LA09/2018/1451/F	Proposed extension to existing free range poultry shed with 1 no additional feed bin and associated site works (poultry shed to contain 8000 free range egg laying hens taking the total	Land Approx. 400m North West of 11 Kilmakardle Road Dungannon

	site capacity to 16000 free range egg laying hens	
LA09/2018/1504/F	Construction of 1No. Free range hen house (layers) Max 16000 birds with 2 meal bins and litter shed	Lands 95m SW of 50 Loughans Rd Ballygawley
LA09/2018/1366/F	Proposed free range poultry shed with 4 feed bins ,a standby generator building and associated site works (poultry shed to contain 32000 free range egg laying hens)	Land approx. 350m South West of 75 Moneyhaw Road Moneymore
LA09/2019/0202/F	Proposed free-range poultry shed with 2No. feed bins, a storage shed and associated site works (Poultry shed to contain 5,000 free range egg laying hens)	Land approx. 200m East of 107 Drummurrer Lane Coalisland Dungannon
LA09/2019/0116/F	Proposed free range poultry shed with 2 feed bins, 1 gas tank, an ancillary building and associated site works (to contain in total 14400 free range broilers)	Land approx. 250m South West of 86 Cadian Road Dungannon
LA09/2019/0299/F	Proposed additional free-range poultry shed with 2no. feed bins, a storage shed and associated site works (poultry shed to contain	Land approx. 150m South of 25 Coolmaghery Road Dungannon

	8,000 free range laying hens, taking the total site capacity to 24,000 free-range egg-laying hens).	
LA09/2018/1366/F	Proposed free range poultry shed with 4 feed bins ,a standby generator building and associated site works (poultry shed to contain 32000 free range egg laying hens)	Land approx. 350m South West of 75 Moneyhaw Road Moneymore

Infrastructure

LA09/2019/0490/F	Public car park (33 new spaces); new entrance onto the Barrack Street Road and drainage for surface water to be included in the works	adjacent to properties 10 and 22 Barrack Street, Coalisland
O/2013/0214/F	Carry out associated works required for the erection of a single circuit 400kV overhead line comprising 102 towers over 34. 1kms	From Trewmount Road, Moy.
O/2009/0792/F	Erection of a single circuit 400kV overhead line comprising 102 towers over 34.1kms	From Trewmount Road, Moy in the townland of Turleenan to the border with the Republic of Ireland
O/2013/0214/F	Carry out associated works required for the erection of a	From Trewmount Road, Moy

	single circuit 400kV overhead line comprising 102 towers over 34.1kms	
LA09/2019/0665/F	Demolition of existing school building construction of new 16,000m2 , 1300 pupil school building and associated works on the existing school site.	Holy Trinity College 9-29 Chapel Street Cookstown

Air Quality Planning Policies

Mid Ulster District Council published its Local Development Plan 2030- draft plan strategy in February 2019. The growth strategy and spatial planning framework is based on regional guidance that is geared to;

• ensuring an adequate supply of land to facilitate economic growth;

• deliver a balanced approach to transport infrastructure;

• implement a balanced approach to telecommunication infrastructure that gives a competitive advantage;

• promote a sustainable approach to the provision of sustainable tourism infrastructure;

• deliver a sustainable and secure energy supply;

• strengthen community cohesion;

• support urban and rural renaissance;

• manage housing growth to achieve sustainable patterns of residential development;

• reduce our carbon footprint and facilitate mitigation and adaptation to climate change whilst improving air quality;

• manage our waste sustainably;

• conserve, protect and where possible enhance our built heritage and our natural environment;

• promote a more sustainable approach to the provision of water and sewerage services and flood risk management.

Given that the AQMA's in Mid Ulster relate to elevated levels of NO_2, a pollutant linked to traffic congestion it is worth emphasising Mid Ulster approach to transportation. The

development plans approach is to facilitate a strategy that suits the needs of Mid Ulster as a rural district. The guiding principle is a focus on improve connectivity for both rural and urban dwellers. This will be centred on by-passes around the three main towns and the villages of Moneymore and Moy, with a focus on improving the A29 spine road. This focus is likely to have a net beneficial effect on air quality within the District, and this is well illustrated in the improved air quality n the Magherafelt AQMA since the by-pass of the town.

The success of clustering services across the main hubs in the district is dependent on improving connectivity and reducing travel time. Critical to this are new by-passes for Cookstown and Dungannon. In turn this will reduce the congestion in the town centres making them a safer and better environment for shopping and economic activity. The Council are also keen to see a by-pass for the Fivemiletown and Clogher valley villages in order to improve travel times along the A5 Ulster Connaught corridor, and delivery of the A4 improvements through Mid Ulster.

Local Transport Plans and Strategies

Good quality transport infrastructure is fundamental to achieving sustainable growth and vibrant communities within Mid Ulster. In terms of travel to work, the vast majority of our working population travel by private car, however the majority of our employed population also work within the District. By contrast, only a very small percentage of the working population travel to work by public transport. There is a high reliance on the private car as Mid Ulster is a predominantly rural population, with limited access to public transport and a complete absence of railways.

Given the dispersed nature of Mid Ulster's rural population, access to transportation is a key element in developing vibrant rural communities and will assist in alleviating social isolation. With regard to health and well-being, Mid Ulster residents have an average 50 minute travel

time to the nearest acute hospital. This demonstrates the importance of improving the local road network in Mid Ulster.

Therefore, the focus is on developing the key and link transportation corridors between the three main hubs of Dungannon, Cookstown and Magherafelt, the two local towns of Maghera and Coalisland and the rural hinterland. Mid Ulster will identify the routes of future infrastructure works to upgrade the A29 trunk road and will think of safeguarding other protected routes within our District.

The Regional Development Strategy 2035 (RDS) advocates managing our road and rail space in a more efficient way and this is to be achieved through a number of key objectives. These are improving connectivity, maximising the potential of the Regional Strategic Transport Network, improving social exclusion and accessibility and road safety. The RDS establishes the three main towns have the potential to form a cluster and are well positioned on key transport corridors.

Strategic planning policy aims to encourage greater integration of transportation within land use planning. The strategic objectives focus on promoting sustainable transport choices such as walking and cycling and providing more facilities for cyclists. The SPPS also focuses on reducing the reliance on the private car through appropriate car parking policies. To achieve this Local Development Plans are expected to consider transportation in the allocation of land use, and zoning of housing land. Consideration should also be given to new transport schemes, opportunities from disused railways, provision of car parking and protected routes

Our Community Plan recognises the importance of the roads and public transport infrastructure to facilitate the movement of goods and people particularly between the 'Mid Ulster Urban Cluster' of Cookstown, Dungannon and Magherafelt and the rural hinterland. A key issue identified is the heavy reliance on the private car in Mid Ulster. Key outcomes of the Community Plan are that we are better connected through appropriate infrastructure and we increasingly value our environment and enhance it for our children. This aim shall be met through two main objectives: improving the rural and urban road network and providing facilities that encourage more sustainable modes of transport

A key objective of improving the roads network will be facilitated by the development of the Strategic Road Network (the A29-A31, A4, A5 and A6) including by-passes for the three main

hubs. Within Mid Ulster, there is a high proportion of rural dwellers and our Community Plan recognises the need to maintain the local roads network to allow those living in rural communities to access goods and services both in the hubs and local villages.

In terms of sustainable transport, our Community Plan encourages active travel and greater public transport use and this can be achieved by implementing Park & Ride at strategic sites and investigating the feasibility of restoring rail links to and from Mid Ulster. In rural areas the objective is to pilot an 'Integrated Transport Scheme' for rural dwellers and businesses. Also to develop an Intra-Town Transit System to include shuttle bus, cycling and walking

Implementation of Action Plans

The Action Plan that has been produced by Mid Ulster District Council outlines the actions that the Council will deliver between 2017-2023 in order to reduce concentrations of air pollutants and exposure to air pollution; thereby positively impacting on the health and quality of life of residents and visitors to the Mid Ulster District Council area.

It has been developed in recognition of the legal requirement on the local authority to work towards Air Quality Strategy (AQS) objectives under Part III of the Environment Order (NI) 2002 and relevant regulations made under that part and to meet the requirements of the Local Air Quality Management (LAQM) statutory process. This Plan will be reviewed biennially, at the latest and progress on measures set out within this Plan will be reported on annually within Mid Ulster District Council's Progress Report. This AQAP was prepared by the Environmental Health Service in support of the vision and values within the four Themed Priorities of the Council Corporate Plan

Table 9.1 – Action Plan Progress

Measure No.	Measure	EU Category	EU Class	Lead Authority	Planning Phase	Implementation Phase	Key Performance Indicator	Target Pollution Reduction in the AQMA	Estimated Completion Date
1	Investigate potential for traffic control systems leading to and within AQMA	Traffic Management	UTC, Congestion management, traffic reduction	Transport NI	2018	2019	To be determined	To be determined and dependent on proposed changes	To be agreed
2	Ensure potential air quality issues are assessed with new developments before problems arise through consultation with the Planning Department	Policy Guidance and Development Control	Air Quality Planning and Policy Guidance	MUDC	2017	Immediate	Unable to determine	Development of appropriate response for planning consultations in line with up to date guidance	Air Quality issues considered in all planning consultation responses by Environmental Health

Measure No.	Measure	EU Category	EU Class	Lead Authority	Planning Phase	Implementation Phase	Key Performance Indicator	Target Pollution Reduction in the AQMA	Estimated Completion Date
3	Investigate the potential of requiring a number of electric charging points to be included in certain developments, through consultation with the Planning Department	Policy Guidance and Development Control	Air Quality Planning and Policy Guidance	MUDC	2017	2018	Increase in number of charging point	Development of appropriate response for planning consultations in line with up to date guidance	Inclusion of app on Council web site to identify electric charging points in the District.
4	Prepare information leaflets on how to help improve air quality and reduce exposure	Promoting Travel Alternatives Transport and Planning Infrastructure	Promotion of cycling Promotion of walking School Travel & Workplace Travel Planning	MUDC DEARA	2017-2023	Ongoing	To be determined	Development of leaflets and information on Council website. Promotion campaigns and advertisements	Ongoing

Measure No.	Measure	EU Category	EU Class	Lead Authority	Planning Phase	Implementation Phase	Key Performance Indicator	Target Pollution Reduction in the AQMA	Estimated Completion Date
5	Control of emissions from Part C processes	Environmental Permits	Air Quality Planning and Policy Guidance	MUDC	2017	Ongoing	Meet inspection target in line with DEARA requirements	Compliance with KPI	Current review and update of all Environmental permits.
6	Investigation of air quality nuisance complaints, inclusion appropriate action to resolve the problem	No EU category/ classification	No EU category/ classification	MUDC	In place	Ongoing	85% of complaints to be responded to within 3 days	Compliance with KPI	Ongoing
7	Identify, map and promote use of electric vehicle recharging points within Council area.	Promoting Low Emission Transport	Other	MUDC Local Business/ town Centre forum	2018	2018	Map produced and available on council website	Unable to determine	Inclusion of app on Council web site to identify electric charging points in the District.

Measure No.	Measure	EU Category	EU Class	Lead Authority	Planning Phase	Implementation Phase	Key Performance Indicator	Target Pollution Reduction in the AQMA	Estimated Completion Date
8	Enforcement of the Clean Air Act with regards to industrial smoke	No EU category/ classification	No EU category/ classification	MUDC	2017	Ongoing	Unable to determine	Ongoing	Ongoing
9	Encourage the installation and of new and bicycle stands at large supermarkets located in the District and will promote the use of existing bicycle stands	Promoting Travel Alternatives	Promotion of cycling	MUDC Local Business town Centre forum	2019	2020	Increase in number of bike stands	Unable to determine	Ongoing
10	Ensure that bicycle stands are available at all council buildings	Promoting Travel Alternatives	Promotion of cycling	MUDC	2019	2020	Increase in number of bike stands	Unable to determine	Ongoing

Measure No.	Measure	EU Category	EU Class	Lead Authority	Planning Phase	Implementation Phase	Key Performance Indicator	Target Pollution Reduction in the AQMA	Estimated Completion Date
11	Investigate fleet improvements of Council owned vehicles	Vehicle Fleet Efficiency	Vehicle Retrofitting Programme	MUDC	Not yet determined	Not yet determined	Air Quality performance now included as part of Council specification for new vehicles.	Not yet determined	Ongoing
12	Annual engagement event to educate and raise awareness regarding air quality. Also to find joint working opportunities	Public Information	Promotion campaigns and advertisements	MUDC	2018-2023	Ongoing	To be determined	Development of leaflets and information on Council website.	Ongoing
13	Investigation potential for marked walking and routes within towns	Promoting Travel Alternatives	Promotion of walking	MUDC	2019	2020	Increase in number of walking routes within towns	Unable to determine	Ongoing

Conclusions and Proposed Actions

Conclusions from New Monitoring Data

This year's new monitoring data indicates compliance with air quality objectives at areas monitored outside of the AQMA's. It also shows compliance with air quality objectives at the Magherafelt AQMA. However, exceedances' were still noted at the Dungannon and Moy AQMA's. Based on this year's results there is no need to proceed to a detailed assessment based on this year's new monitoring data.

Conclusions relating to New Local Developments

There is no need to proceed to a detailed assessment based on new local developments that have been considered.

Other Conclusions

There is no need to proceed to a detailed assessment based on this year's new monitoring data. There are no other significant conclusions to be drawn.

Proposed Actions

The new monitoring data has not identified the need to progress to a detailed assessment for any pollutant. The monitoring data has indicated that there are no changes required to the existing AQMA's within the District at this stage. Air Quality at the Magherafelt AQMA has complied with air quality objectives for the second successive year and it is hoped to revoke this AQMA should a third year show compliance. This is a welcome step in the improvement of air quality within the District. Mid Ulster District Council's next course of action is to continue with the actions outlined in the Air Quality Action Plan, and to continue to monitor pollutants at their current locations and submit a Progress Report in 2021.

References

i. The Environment (Northern Ireland) Order 2002

ii. Air Quality Regulations (Northern Ireland) 2003

iii. The Air Quality Strategy for England, Scotland, Wales and Northern Ireland 2000

iv. DEFRA Local Air Quality Management Technical Guidance LAQM.TG(16)

v. Magherafelt District Council 1st Stage Review and Assessment of Air Quality 2001

vi. Magherafelt District Council 2nd Stage Review and Assessment of Air Quality 2002

vii. Magherafelt District Council Progress Report on Air Quality Management 2005

viii. Magherafelt District Council Air Quality Update and Screening Assessment 2006

ix. Magherafelt District Council Progress Report on Air Quality Management 2007

x. Magherafelt District Council Local Air Quality Management Grant Evaluation Form 2008

xi. Magherafelt District Council Progress Report on Air Quality Management 2008

xii. Magherafelt District Council Local Air Quality Management Grant Evaluation Form 2009

xiii. Magherafelt District Council Air Quality Update and Screening Assessment 2009

xiv. Magherafelt District Council Local Air Quality Management Grant Evaluation Form 2010

xv. Magherafelt District Council Progress Report on Air Quality Management 2010

xvi. Magherafelt District Council Local Air Quality Management Grant Evaluation Form 2011

xvii. Magherafelt District Council Detailed Assessment for NO2 Levels on Church Street and King Street, Magherafelt 2011

xviii. Magherafelt District Council Local Air Quality Management Grant Evaluation Form 2012

xix. Magherafelt District Council Air Quality Update and Screening Assessment 2012

xx. Magherafelt District Council Local Air Quality Management Grant Evaluation Form 2013

xxi. Magherafelt District Council Air Quality Progress Report 2013

xxii. Magherafelt District Council Air Quality Progress Report 2014

xxiii. Cookstown District Council 1st Stage Review and Assessment - August 2001

xxiv. Cookstown District Council 2nd/3rd Stage Review and Assessment Report- August 2004.

xxv. Cookstown District Council – Updating and Screening Assessment – August 2006

xxvi. Cookstown District Council – Updating and Screening Assessment – Aug 2009

xxvii. Cookstown District Council – Updating and Screening Assessment – Aug 2012

xxviii. Cookstown District Council Progress Report – 2007

xxix. Cookstown District Council Progress Report – 2008

xxx. Cookstown District Council Progress Report – 2010

xxxi. Cookstown District Council Progress Report – 2011

xxxii. Cookstown District Council Progress Report – 2013

xxxiii. 2015 Mid Ulster District Council Updating and Screening Assessment

xxxiv. 2016 Mid Ulster District Council Air Quality Progress Report

xxxv. 2017 Mid Ulster District Council Air Quality Progress Report

xxxvi. 2018 Mid Ulster District Council Air Quality Progress Report

xxxvii. Local Development Plan2030 – Draft Plan Strategy FEB 2019

xxxviii. 2019 Mid Ulster District Council Air Quality Progress Report

Appendices

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

The diffusion tube analysis for the Council in 2019 was carried out by SOCOTEC, Didcot, England. The tubes were exposed for a month at a time before being sent for laboratory analysis.

The preparation method used by SOCOTEC that the tubes were prepared by spiking acetone:triethanolamine (50:50) onto the grids prior to the tubes being assembled. The tubes were desorbed with distilled water and the extract analysed using a segmented flow autoanalyser with ultraviolet detection

The results were adjusted for bias using figures obtained from the DEFRA Website. under the Local Air Quality Management Section. The website lists the bias adjustment figures that should be applied to the diffusion tubes based on individual laboratories and the type of analysis undertaken.

The overall 2019 figure for SOCOTEC Didcot Laboratories and the 20% TEA method in water was 0.76. This is based on 28 overall co-location studies. This was the figure used for SOCOTEC results as it seemed most representative of the method in general.

The website can be found at the following address:

http://laqm.defra.gov.uk/bias-adjustment-factors/national-bias.html

The relevant figures for Socotec are shown from the screenshot below.

National Diffusion Tube Bias Adjustment Factor Spreadsheet — Spreadsheet Version Number: 06/20

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 September 2020
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: Select the Laboratory that Analyses Your Tubes from the Drop-Down List. If a laboratory is not shown, we have no data for this laboratory.

Step 2: Select a Preparation Method from the Drop-Down List. If a preparation method is not shown, we have no data for this method at this laboratory.

Step 3: Select a Year from the Drop-Down List. If a year is not shown, we have no data[2].

Step 4: 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 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[2] (To undo your selection, choose (All))	Site Type	Local Authority	Length of Study (months)	Diffusion Tube Mean Conc. (Dm) (µg/m³)	Automatic Monitor Mean Conc. (Cm) (µg/m³)	Bias (B)	Tube Precision[5]	Bias Adjustment Factor (A) (Cm/Dm)
Socotec Didcot	20% TEA in water	2019	KS	New Forest DC	11	46	32	46.7%	G	0.68
Socotec Didcot	20% TEA in water	2019	R	South Oxfordshire Distric Council	12	33	28	16.2%	G	0.86
Socotec Didcot	20% TEA in water	2019	R	South Oxfordshire Distric Council	11	42	35	19.4%	G	0.84
Socotec Didcot	20% TEA in water	2019	R	London Borough of Ealing	10	84	64	30.7%	G	0.77
Socotec Didcot	20% TEA in water	2019	R	London Borough of ealing	12	52	42	24.1%	G	0.81
Socotec Didcot	20% TEA in water	2019	R	London Borough of ealing	12	63	49	28.5%	G	0.78
SOCOTEC Didcot	20% TEA in water	2019		Overall Factor[3] (12 studies)				Use		0.77

Appendix B: NO2 diffusion tubes results in Mid Ulster

NO2 diffusion tube results Magherafelt Area

	2A	2B	2C	9A	9B	9C	10A	10B	10C	11A	11B	11C	13A	13B	13C	23A	23B	23C	24A	24B	24C	
Jan	65.8	58.3	49.2	46.4	50.1	38.8	49.3	56.6	62.6	37.3	33.8	36.9	31.2	30.2	29.7	51.9	46.7	28.2				Jan
Feb	43.5	36.7	39	37.8	40.9	38.3	44	43.8	45.7	34.8	34	34	28.6	28.8	29.7	46.3	52.4	48.4				Feb
Mar	41	46.6	47.9	40.5	41.3	44.4	48	51	43.5	28	28.6	27.9	20	25.1	22.3	35.3	36.8	38				Mar
Apr	39.1	41.7	41.9	31.1	30.4	26.5	36.9	41.7	41.3	26	26.6	27.5	22.1	20.1	23.7	37.7	40.8	41.7	13.7	13.9	12.9	Apr
May	51.9	53.2	51.9	41	42.8	37.6	55	52.8	55.4	23.4	24.2	32.4	20.6	17.7	21.1	32.7	31.3	20.4	10.5	8.1	9	May
Jun	45.2	44.9	44.2	35.5	34.5	35.8	48	44.9	45.4	21.3	21.6	21.9	17.7	16.7	18.4	27.8	27.1	28.9	8.3	8	8.1	Jun
Jul	35	33.6	30.4	27.4	27.6	28.5	38.1	35.5	38.4	18.7	18.5	18.1	14.6	16.7	16.3	28.3	26.5	23.1	7.6	7.4	7.4	Jul
Aug	35.1	36.8	35.4	33	32	32.2	34.1	33.2	34.6	22.2	25.3	23.5	19.3	19.5	21.5	31.2	33	30.1	11.8	9.9	9.4	Aug
Sep	43.1	44.7	46.9	36.2	37	36.7	47.7	46.8	50.3	25.2	26	25.8	23.1	26.5	24.1	34.6	33.8	34				Sep
Oct	54.3	52.5	53.1	49.4	45.9	44.1	51	55	53.6	33.6	32.1	31.9	28.5	27.7	23.6	42.1	29.1	35.4	16.2	14.9	16.9	Oct
Nov	61.6	60.8	57.3	56.3	48.5	53.1	57.1	64.9	56.2	36.8	38.6	38	34.1	35	33.7	46.9	47.6	51.7	17.9	21.2	21.2	Nov
Dec	46.6	43.2	46.3	43.1	46	49.3	45.4	46.1	44.4	33.9	34.4	34.1	29.2	26.8	29.4	45.5	41.4	41	16.8	16.5	17.1	Dec
Total	562.2	553	543.5	477.7	477	465.3	554.6	572.3	571.4	341.2	343.7	352	289	290.8	293.5	460.3	446.5	420.9	102.8	99.9	102	Total
Average	46.85	46.08333	45.29167	39.80833	39.75	38.775	46.21667	47.69167	47.61667	28.43333	28.64167	29.33333	24.08333	24.23333	24.45833	38.35833	37.20833	35.075	12.85	12.4875	12.75	Average
Bias Adjus	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	Bias Adjus
Result	36.0745	35.48416	34.87459	30.65241	30.6075	29.85675	35.58684	36.72259	36.66484	21.89366	22.05409	22.58666	18.54417	18.65966	18.83291	29.53591	28.65041	27.00775	9.8945	9.615375	9.8175	Result
	36	35	35	31	31	30	36	37	37	22	22	23	19	19	19	30	29	27	10	10	10	

Site 1 Average result	35
Site 9 Average result	31
Site 10 Average resul	37
Site 11 Average resul	22
Site 13 Average resul	19
Site 23 Average resul	29
Site 24 Average resul	10

NO2 diffusion tube results Dungannon Area

2019																
	Ardgannor	Newell Rd	Newell Rd	Newell Rd	Dunclare \	The Quays	The Quays	The Quays	Charlemor	Charlemor	Charlemor	Killyman S	Killyman S	Killyman St 3		
Jan	18.5	74.9	76	75.1	10.6	12.9	11.8	13.3	85.3	83	71	34.8	34.3	34.8	Jan	
Feb	18.8	66	59.6	60.8	11.7	11.6	11.3	11.4	80	80.6	75.6	36.9	37.1	32.7	Feb	
Mar	13.3	65.9	69.6	67.5	10.3	8.3	7.8	8.7	83.2	76.4	79.4	31.3	28.1	28	Mar	
Apr	19.4	80.7	79	83.7	13.7	17.4	17.8	17.1	65.2	69.6	76.2	50.3	50.4	52.3	Apr	
May		69.9	75.2	76.6	8.2	10.7	9.4	10.7	70	68.5	72.8	34.4	33.8	30.9	May	
Jun	10.2	73.5	77.8	68.1	8.3	10.4	10.3	10.4	69.3	69.1	67.6	32.4	33.5	30.1	Jun	
Jul	6.5	60.1	63	56.9	6.3	7.5	7.5	7.8	66.1	65.8	65.4	26.7	26.5	26.5	Jul	
Aug	10.5	58.6	58.7	58.5	6.7	6.5	6.5	8	66.5	71.8	70.8	27.3	26.4	29	Aug	
Sep	12.4	70.3	65.7	69.5	9.7	9.7	10	9.9	70.1	73	73.9	30.9	31.4	31.5	Sep	
Oct		79.8	63.2	76.6	13.1	12.9	13.4	14.3	72.1	68.5	72	36.3	34.4	34.7	Oct	
Nov	23	92	94.2	93.2	19.5	22.4	22.3	21.2	65.9	65.9	74.4	44	42.8	41.3	Nov	
Dec		64.1	66.3	62.2	11.6	8.4	8	9.3	69.9	61.8	67.8	31.4	29.1	30.8	Dec	
Total	132.6	855.8	848.3	848.7	129.7	138.7	136.1	142.1	863.6	854	866.9	416.7	407.8	402.6	Total	
Average	14.73333	71.31667	70.69167	70.725	10.80833	11.55833	11.34167	11.84167	71.96667	71.16667	72.24167	34.725	33.98333	33.55	Average	
Bias Adjus	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	Bias Adjustment	
Result	11.34466	54.91384	54.43259	54.45825	8.322414	8.899914	8.733086	9.118086	55.41434	54.79834	55.62609	26.73825	26.16716	25.8335	Result	
	11	55	54	54	8	9	9	9	55	55	56	27	26	26		

Ardgannon average result	11
Newell Road average result	54
Dunclare Way average result	8
The Quays average result	9
Charlemont Street average resu	55
Killyman Street Average result	26

NO2 diffusion tube results Dungannon Area

2019											
	Lawford St	Smith St M	Conyngha	Stonard St	William St	Killymoon	Church St	James St	Cookstown		
Jan	53.2	38.4	23.4	54.5	31.3	35.1	35.5	36.8	Jan		
Feb	56.9	33.7	19.2	45.5	40.7	32.7	37.6	38.7	Feb		
Mar	41.2	27.8	17.8	47.4	28.7	44.4	36.5	31.8	Mar		04.03.19
Apr	38.2	33	19.1		60.6	26.2	38.6		Apr		12.04.19
May	43.1	28.9	13.9	42.3	30.8	35.5	30.4	32.6	May		01.05.19
Jun	36.4	24.8	12.9	37.9	27.8	34.2	29.1	31.8	Jun		05.06.19
Jul	38.6	24.5	12.7	37.6	25.2	32.2	25	32.1	Jul		08.07.19
Aug	44.6	27.7	13.6	38.4	26.1	35.8	30.9	35	Aug		07.08.19
Sep	40	32.4	14.6	39.8	29.5	37.8	29.4	35.4	Sep		02.09.19
Oct	45.4	32.7	20.2	48.9	33.2	42.4		42.1	Oct		03.10.19
Nov	41	40.8	24.4	49.9	41.4			39	Nov		04.11.19
Dec	38.5	25.5	16	3.7	23.4	33.5	24.8	35.2	Dec		06.12.19
Total	517.1	370.2	207.8	445.9	398.7	389.8	317.8	390.5	Total		
Average	43.09167	30.85	17.31667	40.53636	33.225	35.43636	31.78	35.5	Average		
Bias Adjus	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	Bias Adjsutment		
Result	33.18059	23.7545	13.33384	31.213	25.58325	27.286	24.4706	27.335	Result		
	33	24	13	31	26	27	24	27			

Lawford Street average result	**33**
Smith Street Moneymore avera	**24**
Conyngham Street average resu	**13**
Stonard Street Moneymore ave	**31**
William Street average result	**26**
Killymoon Street average result	**27**
Church Street average result	**24**
James Street average result	**27**