Newry Mourne and Down District Council

2025 Air Quality Progress Report

In fulfilment of Environment (Northern Ireland) Order 2002

Local Air Quality Management

January 2026

Information	Newry Mourne and Down District Council
Local Authority Officer	James Campbell
Department	Environmental Health
Address	**Newry Office** 19 Rampart Road, Greenbank Industrial Estate, Newry, Co. Down BT34 2QU
Telephone	0330 137 4000
E-mail	James.campbell@nmandd.org
Report Reference Number	Progress Report 2025
Date	January 2026

Executive Summary

Newry Mourne and Down District Council has completed this 2025 Progress Report in accordance with the provisions of the Environment (Northern Ireland) Order 2002 and the Northern Ireland Local Air Quality Management Policy Guidance document.

This 2025 Progress Report for Newry Mourne and Down District Council provides a review and assessment of all new or existing potential sources of air quality pollutants and a summary of air quality monitoring results for the calendar year 2024.

The PM_{10} levels at Canal Street Air station continues to be under the air quality objective meaning the AQMA will be revoked.

2024 monitoring data identified the following:

- No exceedance of annual mean objective for PM_{10}.
- No exceedance of daily mean objective for PM_{10}.
- During 2024 one of the 27 diffusion tubes located within Newry City Centre exceeded the annual mean objective for nitrogen dioxide (NO_2) (40µg/m3).

This report has not identified any new sources with relevant exposure therefore it is not considered necessary to proceed to a Detailed Assessment based on potential sources.

Table of Contents

Executive Summary ii

1 Introduction 1

1.1 Description of Local Authority Area 1

1.2 Purpose of Progress Report 1

1.3 Air Quality Objectives 2

1.4 Summary of Previous Review and Assessments 2

2 New Monitoring Data 9

2.1 Summary of Monitoring Undertaken 9

2.1.1 Automatic Monitoring Sites 9

2.1.2 Non-Automatic Monitoring Sites 12

2.2 Comparison of Monitoring Results with Air Quality Objectives 17

2.2.1 Nitrogen Dioxide (NO_2) 17

2.2.2 Particulate Matter (PM_{10}) 30

2.2.3 Sulphur Dioxide (SO_2) 34

2.2.4 Benzene 35

2.2.5 Other Pollutants Monitored 35

2.2.6 Summary of Compliance with AQS Objectives 35

3 New Local Developments 36

3.1 New Developments with Fugitive or Uncontrolled Sources 36

4 Local / Regional Air Quality Strategy 37

5 Planning Applications 37

6 Air Quality Planning Policies 37

7 Local Transport Plans and Strategies 38

8 Climate Change Strategies 40

9 Implementation of Action Plans 41

10 Conclusions and Proposed Actions 44

10.1 Conclusions from New Monitoring Data 44

10.2 Conclusions relating to New Local Developments 44

10.3 Other Conclusions 44

10.4 Proposed Actions 45

11 References 46

12 Appendices 46

Appendix A: QA/QC Data 47

QA/QC Diffusion Tube Monitoring 47

Diffusion Tube Annualisation 48

Diffusion Tube Bias Adjustment Factors 49

NO_2 Fall-off with Distance from the Road 50

QA/QC of Automatic Monitoring 50
PM_{10} and $PM_{2.5}$ Monitoring Adjustment 50
Automatic Monitoring Annualisation 50
NO_2 Fall-off with Distance from the Road 51

List of Figures

Figure 1.1 – Map(s) of AQMA Boundaries

Figure 2.1 – Map(s) of Automatic Monitoring Sites

Figure 2.2- Newry Automatic Monitoring Station-Canal Street

Figure 2.3 – Map(s) of Non-Automatic Monitoring Sites- Downpatrick

Figure 2.4 – Trends in Annual Mean NO_2 Concentrations Measured at Automatic Monitoring Sites

Figure 2.5 – Trends in Annual Mean PM_{10} Concentrations

List of Tables

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

Table 2.1 – Details of Automatic Monitoring Sites

Table 2.2 – Details of Non-Automatic Monitoring Sites

Table 2.3 – Results of Automatic Monitoring for NO_2: Comparison with Annual Mean Objective

Table 2.4 – Results of Automatic Monitoring for NO_2: Comparison with 1-hour Mean Objective

Table 2.5 – Annual Results Summary

Table 2.6 – Results of NO_2 Diffusion Tubes (2018 to 2024)

Table 2.7 – Results of Automatic Monitoring for PM_{10}: Comparison with Annual Mean Objective

Table 2.8 – Results of Automatic Monitoring for PM_{10}: Comparison with 24-hour Mean Objective

Table 9.1 – Action Plan Progress

Appendices

Appendix A QA/QC Data

Appendix B Monthly diffusion tube results 2024

Appendix C Air Quality Action Plan

1 Introduction

1.1 Description of Local Authority Area

Newry, Mourne and Down District Council area has a population of approximately 182,000. The area lies on the east coast of Ireland with its southern boundary forming part of the border between Northern Ireland and the Republic of Ireland.

The district's main settlement is Newry city which has a thriving commercial sector and with its proximity to the border with the Republic of Ireland it experiences fluctuations in cross border trade depending on the exchange rate between sterling and the euro. When the exchange rate is favourable shoppers from the Republic of Ireland visit Newry City with resultant increases in traffic volumes.

The area has two declared AQMAs Newry (Urban Centre) Air Quality Management Area (AQMA) (annual mean objective for NO_2) and Newry (Canal St) Air Quality Management Area (24 hour mean objective for PM10).

During 2024 there were 2 air quality monitoring stations (AQMS) in operation, 1 in Newry city area and 1 in Downpatrick. The AQMS in Newry monitored PM10 and NO_2 while the Downpatrick station monitored NO_2.

1.2 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 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.

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.

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		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

1.4 Summary of Previous Review and Assessments

Title of Work	Summary of Report
USA (2004)	Potential exceedances of the **NO_2** and **PM_{10}** AQS objectives in the vicinity of several roads in Newry City centre
Detailed Assessment (2005)	Concluded a risk of exceeding air quality objectives for **NO_2** and **PM_{10}** in Newry city centre. There was a high degree of uncertainty in the modelling results. Following discussions with the Environment and Heritage Service of the Department of Environment (NI), NMDC resolved to declare five AQMAs for the annual mean **NO_2** objective and the 24-hour **PM_{10}** objective
USA (2006)	Concluded that the risk of the air quality objectives for **NO_2** being exceeded outside existing AQMAs was negligible for all sources. In addition, the USA indicated that there was little likelihood of the 2004 air quality objectives for **PM_{10}** being exceeded.
Further Assessment (2007)	The results showed that **NO_2** annual average concentrations within the AQMA were still likely to exceed the AQS objective along Canal Street, Water Street and Kilmorey Street in Newry City. Given the uncertainties in modelling **PM_{10}**, the focus of the further assessment and source apportionment study was therefore focused on **NOx** and **NO_2**
Further Modelling (2009)	The model performance was improved from 2005 results. The results showed that **NO_2** annual average concentrations within the AQMA were still likely to exceed the AQS objective along Canal Street, Water Street, Kilmorey Street, and a newly identified street, Sandy Street in Newry City.

	The model indicated that there was little likelihood of the 2004 air quality objectives for **PM_{10}** being exceeded within Newry City. The Council resolved to revoke existing 5 AQMAs and to declare one AQMA for the annual mean **NO_2** objective covering all areas of possible exceedance - Newry (Urban Centre) AQM.
USA (2009)	As no new or significantly changed sources of pollutants were identified a further detailed assessment was not required. Newry and Mourne Council finalised the Action Plan for the Newry (Urban Centre) AQMA.
Progress Report 2010	The PM_{10} AQ Objective was not breached during 2009. A new site was established at Canal Street in June 2009. This site recorded 21 exceedances of the daily mean objective for PM_{10}. The street had formally been declared an AQMA for PM_{10} but this was revoked following further dispersion modelling results (Further Assessment 2009), which indicated that exceedance of PM_{10} objective was not likely within Newry City. Monitoring of PM_{10} has continued at this location. 2009 monitoring data found that a number of sites of relevant exposure breached the annual mean objective for nitrogen dioxide. All of these sites were within the existing AQMA.
Progress Report 2011	2010 monitoring data identified exceedances of the annual mean objective for nitrogen dioxide (NO_2) (40$\mu g/m^3$) for a number of streets within Newry City. These streets were within an existing Air Quality Management Area - Newry (Urban Centre) Air Quality Management Area for which there is an agreed Action Plan. Air quality monitoring results for NO_2 and PM_{10} for 2010 were elevated from 2009 and it was argued that these

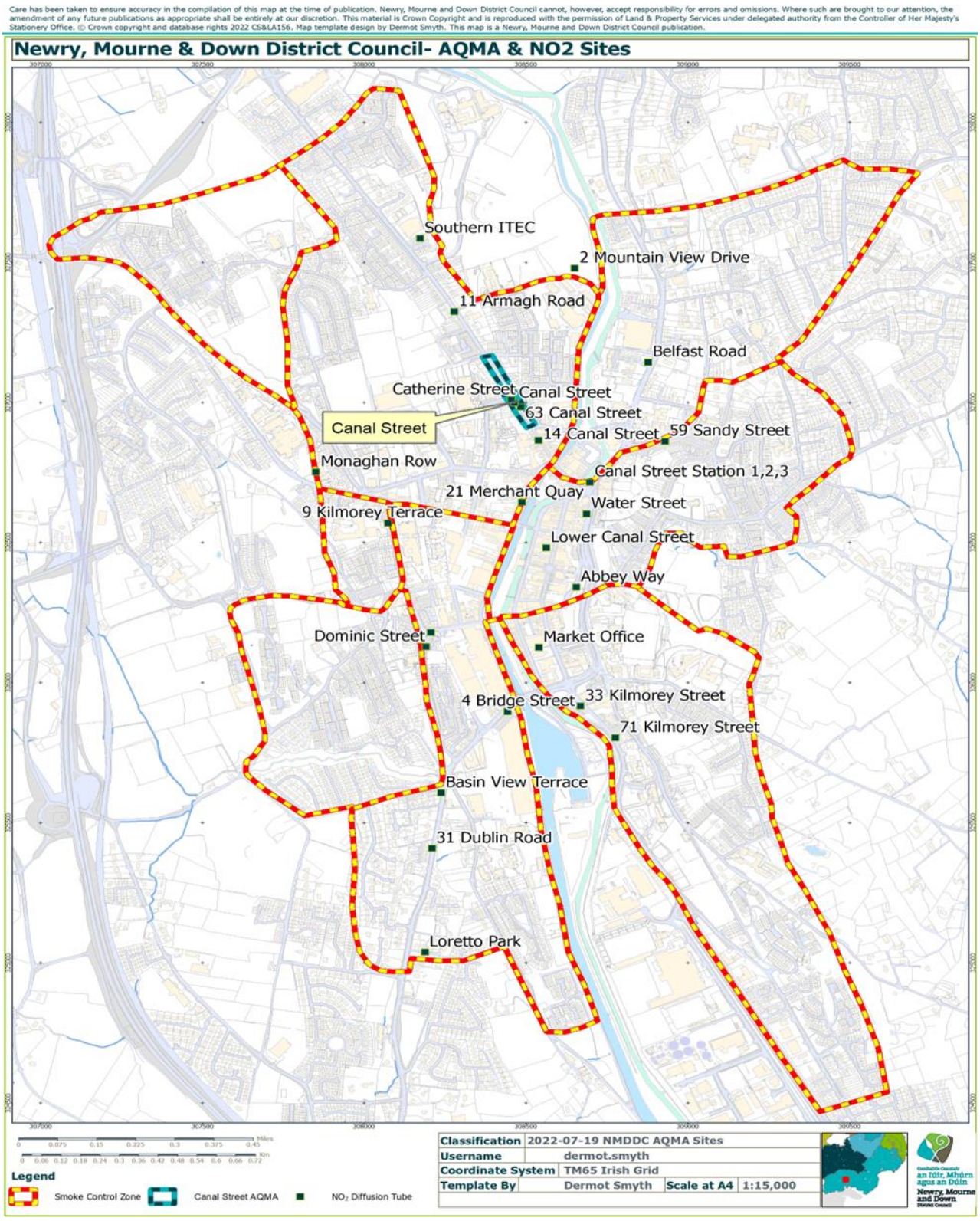
	increases were due mainly to the prevailing weather conditions during 2010 rather than as a result of new or increased sources of pollutants. During 2010 air quality monitoring in Canal Street, Newry, monitored exceedances for the 1-hour mean objective (200μg/m^3) for NO_2 at and for the 24-hour mean objective (50 mgm^{-3}) for PM_{10}. It was concluded that a Detailed Assessment for the 1-hour mean objective for NO_2 and the 24-hour mean objective for PM_{10} at Canal Street, Newry was required.
Detailed Assessment 2011	As a result of the findings of Progress Report 2010 a Detailed Assessment was carried out to determine if risk of 1-hour mean objective for NO_2 and daily mean objective for PM_{10} being exceed for Canal Street, Newry. Findings of the assessment did not establish a risk for 1-hour mean objective for NO_2 being exceeded but there was a risk identified for the daily mean objective for PM_{10} being exceeded for Canal Street. It was recommended that an AQMA be declared in Canal Street for the daily mean objective for PM_{10}.
Progress Report 2013	The 2013 report identified the following issues; Exceedance in Annual Mean objective for nitrogen dioxide (NO_2) (40μg/m^3) at Trevor Hill AQMS and Canal St AQMS. 15 of the 26 diffusion tubes located within Newry City Centre exceeded the annual mean objective for nitrogen dioxide (NO_2) (40μg/m^3). Exceedance of hourly mean objective for (NO_2) (200μg/m^3) at Canal St AQMS, at three diffusion sites in Newry Urban AQMA,(Canal Street and Kilmorey Street) the annual mean NO_2 level recorded by diffusion tubes exceeded 60 μg/m^3 .

	No exceedance of annual mean or daily mean objective for PM_{10}. These results were in contradiction to the conclusions drawn from the Detailed Assessment carried out in 2012 where it was concluded that there was no risk of the 1-hour mean objective for NO_2 being exceeded in Newry AQMA but there was a risk identified for the daily mean objective for PM_{10} being exceeded in Canal Street. It was not proposed to make any declaration in relation to a likelihood of an exceedance of the hourly mean objective for (NO_2) (200$\mu g/m^3$) in Canal Street and Kilmorey Street but monitoring at both these locations has continued.
Further Assessment 2014	A further assessment of PM_{10} concentrations within the Canal Street Air Quality Management Area (AQMA) was undertaken in early 2014. The further assessment involved a review of air quality monitoring data, dispersion modeling for road and domestic chimney sources and source apportionment. The assessment found that the PM_{10} objective was exceeded in both 2012 and 2013 and recommended that the AQMA should remain and monitoring continue. Source apportionment of local emission found that ambient background concentrations contribute the largest proportion to the overall concentration followed by emissions from cars on local roads
Progress Report 2014	The 2014 Progress Report for the former Newry and Mourne District Council which contained 2013 monitoring data has identified the following: Exceedance of daily mean objective for PM_{10} at Canal Street AQMS. Exceedance in Annual Mean objective for nitrogen dioxide (NO_2) (40$\mu g/m^3$) at Trevor Hill AQMS and Canal St AQMS.

	10 of the 28 diffusion tubes located within Newry City Centre exceeded the annual mean objective for nitrogen dioxide (NO_2) (40$\mu g/m^3$). Exceedance of hourly mean objective for (NO2) (200$\mu g/m^3$) at Trevor Hill AQMS and Canal St AQMS. A diffusion tube site at Canal St in Newry Urban AQMA recorded an annual mean NO_2 level of 60 $\mu g/m^3$ which is an indicator that the hourly mean objective (200$\mu g/m^3$) may be exceeded. No exceedance of annual mean objective for PM_{10}.
Progress Report 2017	The 2017 Progress Report which contained 2016 monitoring data identified the following: • No exceedance of annual mean objective for PM_{10}. • No exceedance of daily mean objective for PM10. • 9 of the 24 diffusion tubes located within Newry City Centre exceeded the annual mean objective for nitrogen dioxide (NO_2) (40$\mu g/m3$). • Exceedance of the annual mean objective for NO_2 at Market Street automatic station. • Council will proceed to a detailed assessment for the Market Street location.
USA 2018	The USA 2018 report which contained monitoring data from 2017 identified the following: • Five of the 27 NO_2 diffusion tubes located within Newry City Centre exceeded the annual mean objective for nitrogen dioxide (NO_2) • Monitoring at all sites will continue into 2019 to assess if a Detailed assessment will be necessary on the AQMA.

	• The PM_{10} daily mean objective was not exceeded within Canal Street, Newry. Monitoring at this site will continue into 2019 to assess if a Detailed assessment will be necessary on the AQMA. • Concentrations of NO_2 above the annual mean objective at Market Street Downpatrick were monitored. A detailed assessment for Market Street, Downpatrick will be carried out.
Progress Report 2019	• Four of the 24 NO_2 diffusion tubes located within Newry City Centre exceeded the annual mean objective for nitrogen dioxide (NO_2) and monitoring at all sites will continue into 2020 to assess if a Detailed assessment will be necessary on the AQMA. • The PM_{10} daily mean objective was not exceeded within Canal Street, Newry. • This report did not identify any new sources with relevant exposure therefore it is not considered necessary to proceed to a Detailed Assessment based on potential sources.
Progress report 2020	• A Detailed Assessment was completed for the centre of Downpatrick. The Assessment demonstrated that there will not be an exceedance of the annual mean NO_2 • This report did not identify any new sources with relevant exposure
Progress Report 2023	• The PM_{10} daily mean objective was not exceeded within Canal Street, Newry. • During 2022 three of the 27 diffusion tubes located within Newry City Centre exceeded the annual mean objective for nitrogen dioxide (NO2) (40µg/m3).

Figure 1.1 – Map(s) of AQMA Boundaries



2 New Monitoring Data

2.1 Summary of Monitoring Undertaken

2.1.1 Automatic Monitoring Sites

The automatic monitoring stations within the district are National Environmental Technology Centre (NETCEN) type tested and approved analysers, which contain air-conditioned units to maintain the correct operating temperature. In April 2018 the Downpatrick NO_2 analyser was replaced.

During 2024 Newry, Mourne and Down District Council had a QA/QC contract with Ricardo-AEA and Data Management contract with AQDM. QA/QC audits have been completed on the automatic monitoring equipment currently located within the Council area.

Figure 2.1 – Map(s) of Automatic Monitoring Sites

Downpatrick

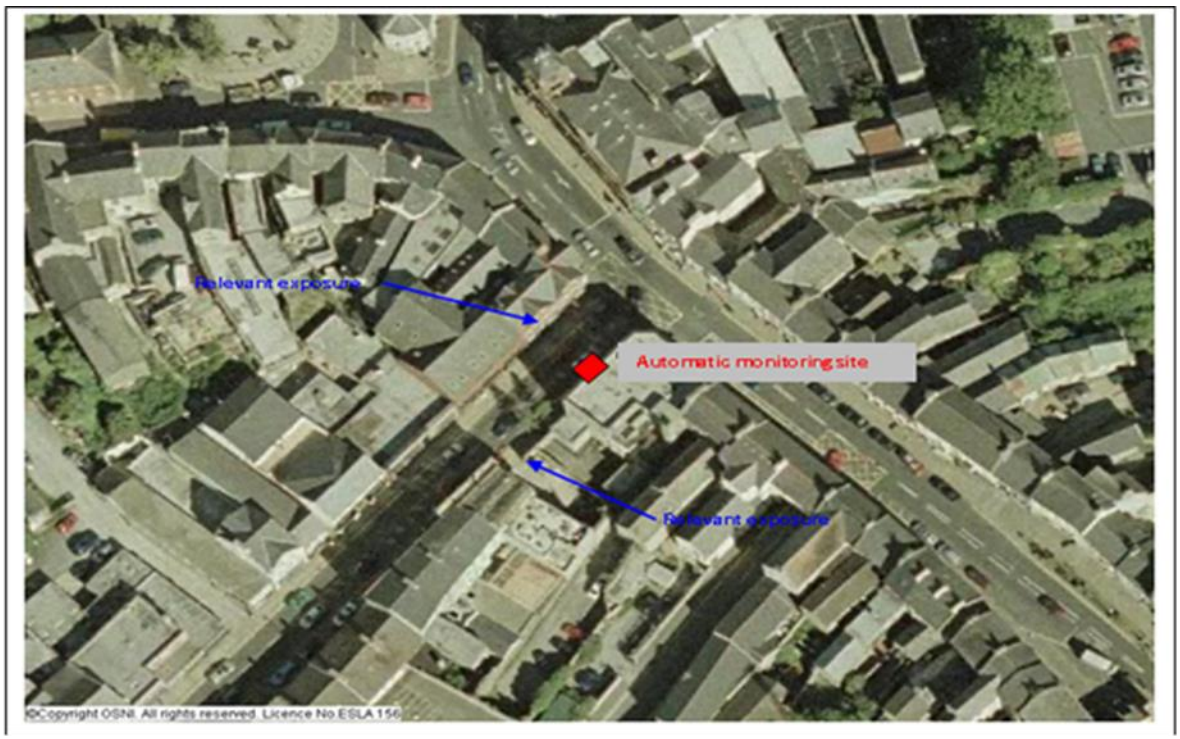


Figure 2.2- Newry Automatic Monitoring Station-Canal Street

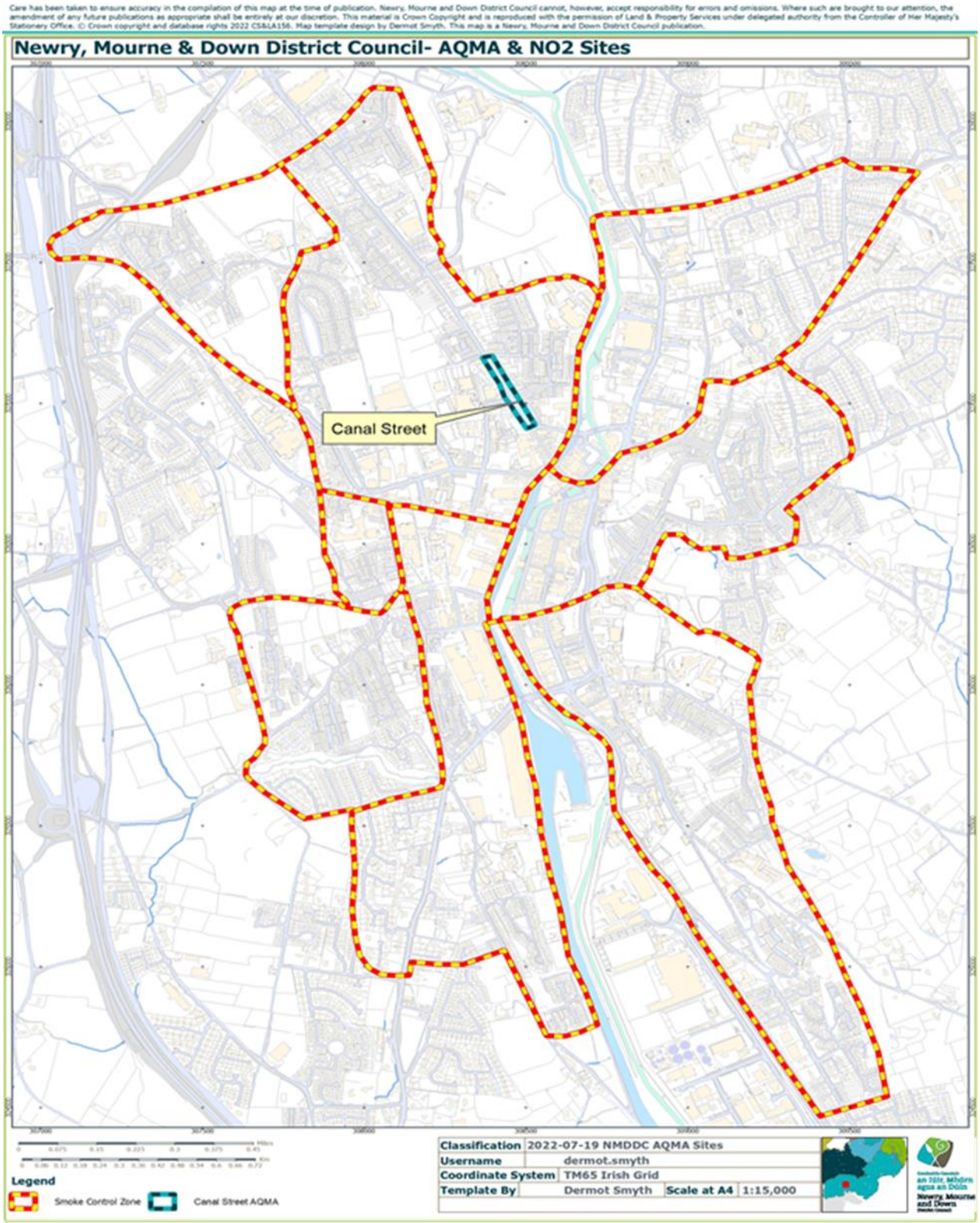


Table 2.1 – Details of Automatic Monitoring Sites

Site ID	Site Name	Site Type	X OS Grid Reference	Y OS Grid Reference	Inlet Height (m)	Pollutants Monitored	In AQMA?	Monitoring Technique	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?
CM1	Canal Street, Newry	Roadside	308485	326976	1.5	PM10 NO_2	Y	N/A	Y(<1M)	3M	Y
CM2	Market Street, Downpatrick	Roadside	348655	344596	2	NO_2	N	N/A	Y(10M)	1.5M	Y

2.1.2 Non-Automatic Monitoring Sites

In the calendar year 2024 Newry, Mourne and Down District Council deployed 31 NO_2 diffusion tubes per month at 29 sites within its District. One site at Canal Street was a triplicate site. The NO_2 diffusion tubes used were prepared and analysed by Socotec using the 50% TEA in acetone method. The laboratory methods are currently UKAS accredited.

Figure 2.3 – Map(s) of Non-Automatic Monitoring Sites- Downpatrick

Table 2.2 – Details of Non-Automatic Monitoring Sites

Site ID	Site Name	Site Type	X OS Grid Reference	Y OS Grid Reference	Pollutants Monitored	In AQMA? Which AQMA?	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)	Is Monitoring Co-located with a Continuous Analyser (Y/N)	Site Height (m)	
83610	Monaghan Row	Urban background	307851	326751	NO_2	Y	N	50m	N	2.5	Y
84610	Lower Canal Street	Roadside	308562	326481	NO2	Y	Y	1m	N	2.5	Y
87268	14 Canal Street	Roadside	308538	326864	NO2	Y	Y	2m	N	2.5	Y

87241 87252 87253	Canal Street Station1,2,3	Roadside	308697	326715	NO2	Y	Y	2m	N	2.5	Y
87242	63 Canal Street	Roadside	308483	326984	NO2	Y	Y	2m	N	2.5	Y
84609	Canal Street	Roadside	308463	326998	NO2	Y	Y	1m	N	2.5	Y
84611	Catherine Street	Roadside	308454	327009	NO2	Y	Y	2m	N	2.5	Y
87313	Southern ITEC	Roadside	308172	327586	NO2	Y	Y	2m	N	2.5	Y
87312	2 Mountain View Drive	Roadside	308650	327479	NO2	Y	Y	2m	N	2.5	Y
84649	59 Sandy Street	Roadside	308929	326861	NO2	Y	Y	1m	N	2.5	Y
87314	Abbey Way	Roadside	308655	326340	NO2	Y	Y	2m	N	2.5	Y
82651	Water Street	Roadside	308686	326602	NO2	Y	Y	1m	N	2.5	Y

87085	Market Office	Urban Background	308539	326125	NO2	Y	Y	25m	N	2.5	Y
85064	33 Kilmorey Street	Roadside	308668	325916	NO2	Y	Y	1m	N	2.5	Y
87088	71 Kilmorey Street	Roadside	308775	325803	NO2	Y	Y	1m	N	2.5	Y
87089	4 Bridge Street	Roadside	308443	325896	NO2	Y	Y	2m	N	2.5	Y
87315	Loretto Park	Roadside	308188	325037	NO_2	Y	Y	2m	N	2.5	Y
85070	Basin View Terrace	Roadside	308237	325606	NO2	Y	Y	1m	N	2.5	Y
85077	Dominic Street	Roadside	308190	326128	NO2	Y	Y	2m	N	2.5	Y
87369	11 Armagh Road	Roadside	308278	327324	NO2	Y	Y	3m	N	2.5	Y
87370	21 Merchant Quay	Roadside	308487	326643	NO2	Y	Y	3M	N	2.5	Y

87371	31 Dublin Road	Roadside	308209	325408	NO2	Y	Y	1m	N	2.5	Y
87397	30 Irish Street	Roadside	348718	344579	NO2	N	Y	3m	N	2.5	Y
87398	10 English Street	Roadside	348608	344679	NO2	N	Y	3m	N	2.5	Y
87399	6 Church Street	Roadside	348633	344690	NO2	N	N	3m	N	2.5	Y
87400	13 Church Street	Roadside	348664	344728	NO2	N	N	3m	N	2.5	Y
87401	19 Market Street	Roadside	348615	344572	NO2	N	Y	3m	N	2.5	Y
87402	40 Market Street	Roadside	348605	344527	NO2	N	N	3m	N	2.5	Y
87403	58 Irish Street	Roadside	348764	344536	NO2	N	Y	3m	N	2.5	Y

2.2 Comparison of Monitoring Results with Air Quality Objectives

The existing monitoring network consists of two continuous monitoring stations at Canal Street, Newry and Market Street, Downpatrick and 31 NO_2 diffusion tubes at 29 sites across Newry, Mourne and Down District Council area.

2.2.1 Nitrogen Dioxide (NO_2)

Automatic Monitoring Data

During 2024 the Council monitored NO_2 at two sites, Market Street, Downpatrick and Canal Street, Newry.

Table 2.3 – Results of Automatic Monitoring for NO_2: Comparison with Annual Mean Objective

Site ID	X OS Grid Ref	Y OS Grid Ref	Site Type	Valid Data Capture for Monitoring Period % [a]	Valid Data Capture 2024 % [b]	Annual Mean Concentration (µg/m^3)				
						2020* [c]	2021* [c]	2022* [c]	2023* [c]	2024 [c]
Canal Street	308485	326976	Roadside	91	91	31	37	34	35	32
Market Street	348655	344596	Roadside	82	82	34	37	33	40	37

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

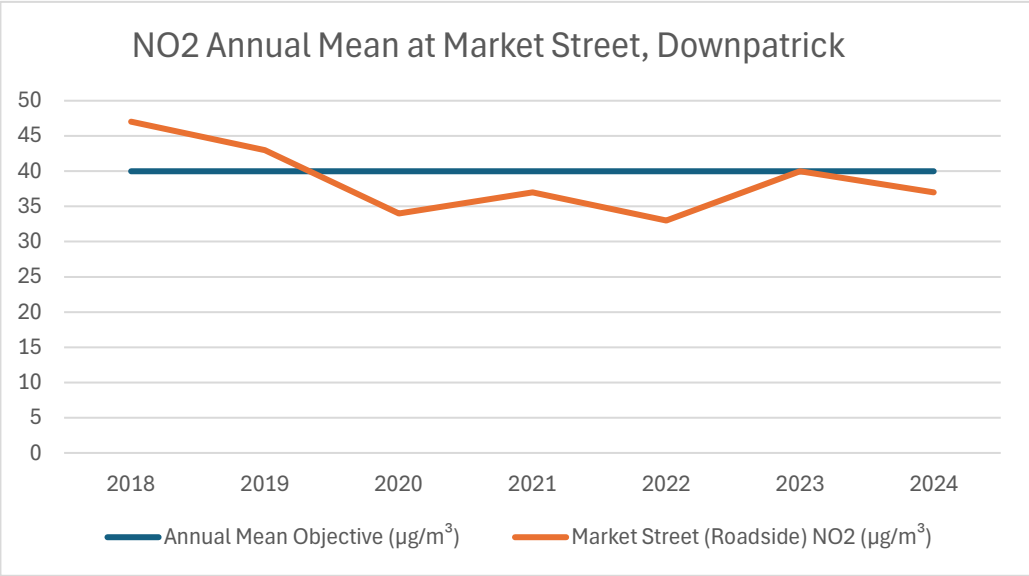
[a] i.e. data capture for the monitoring period, in cases where monitoring was only carried out for part of the year

[b] i.e. data capture for the full calendar year (e.g. if monitoring was carried out for six months the maximum data capture for the full calendar year would be 50%)

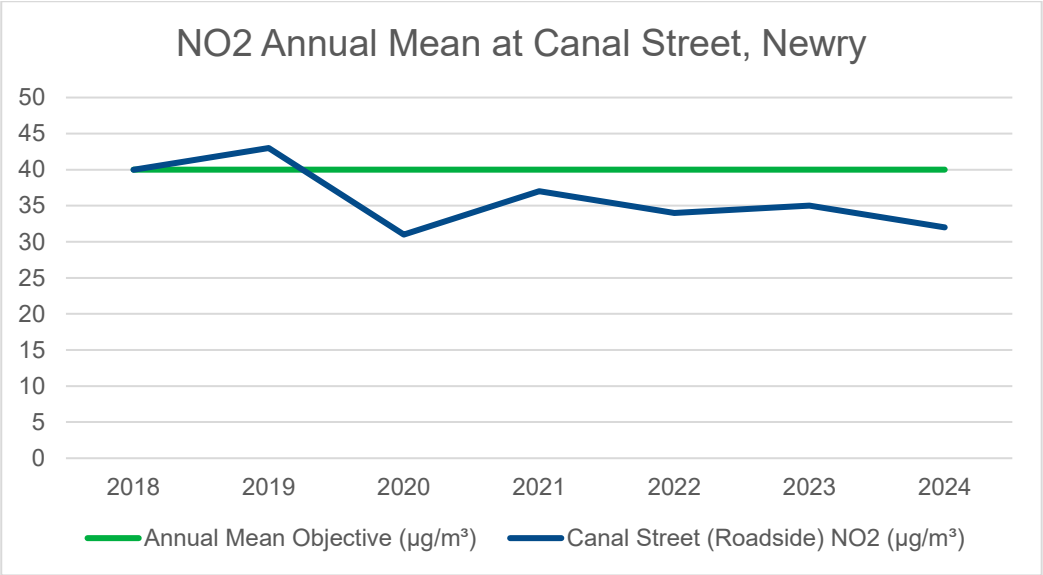
[c] Means should be "annualised" as in Boxes 7.9 and 7.10 of LAQM.TG22, if valid data capture is less than 75%

* Annual mean concentrations for previous years are optional

Figure 2.4 – Trends in Annual Mean NO_2 Concentrations Measured at Automatic Monitoring Sites



The annual mean concentration of NO_2 as displayed in Figure 2.4 above shows a trend line consistently just under the air quality objective from 2019. Air quality from 2020-2024 shows a drop from 2019 this in part may have been due to reduced travel during the Covid pandemic.



The annual mean concentration of NO_2 as displayed in Figure 2.4 for Canal Street shows a trend line consistently under the air quality objective from 2020. Air quality from 2020-2024 shows a drop from 2019 this in part may have been due to reduced travel during the Covid pandemic.

Table 2.4 – Results of Automatic Monitoring for NO_2: Comparison with 1-hour Mean Objective

Site ID	Site Type	Within AQMA?	Valid Data Capture for Monitoring Period % [a]	Valid Data Capture 2024 % [b]	Number of Hourly Means > 200µg/m^3				
					2020* [c]	2021* [c]	2022* [c]	2023* [c]	2024 [c]
Canal Street	Roadside	Y	91	91	0	0	0	0	0
Market Street	Roadside	Y	82	82	0	0	0	0	0

In bold, exceedance of the NO_2 hourly mean AQS objective (200µg/m^3 – not to be exceeded more than 18 times per year)

[a] i.e. data capture for the monitoring period, in cases where monitoring was only carried out for part of the year

[b] i.e. data capture for the full calendar year (e.g. if monitoring was carried out for six months the maximum data capture for the full calendar year would be 50%)

[c] If the data capture for full calendar year is less than 85%, include the 99.8th percentile of hourly means in brackets

* Number of exceedances for previous years is optional

Table 2.5 – Annual Results Summary

Diffusion Tube ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	NO_2 Mean Concentrations (µg/m³)												Time Weighted Annual Mean (µg/m³)			Comment
			Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Raw Data	Bias Adjusted (0.84) and Annualised	Distance Corrected to Nearest Exposure	
83610	307851	326751	21.3	22.2	18.8				12.4	11.1	17.2	19.2	18.7	20.5	17.9	15.1	-	
84610	308562	326481	33.9		41.9				26.6	20.3	37.3	30.4	34.8	27.1	31.5	25.2	-	
87268	308538	326864	27.5	31.0	28.2				20.6	15.2	25.0	31.2	31.3	27.6	26.4	22.2	-	
87241	308697	326715	41.0	39.1	40.7				35.7	38.0	51.6	37.0	33.6	35.1	-	-	-	Triplicate Site with 87241, 87252 and 87253 - Annual data provided for 87253 only
87252	308697	326715	43.1	38.1	43.9				31.1	28.6	49.8	39.1	46.5	32.9	-	-	-	Triplicate Site with 87241, 87252 and 87253 -

																		Annual data provided for 87253 only
87253	308697	326715	36.1	40.7	42.4				33.2	25.1	50.8	41.2	37.1	33.1	38.6	32.4	-	Triplicate Site with 87241, 87252 and 87253 - Annual data provided for 87253 only
87242	308483	326984	39.3	27.9	40.6				28.2	23.9	44.4	34.6	41.5	38.4	35.4	29.7	-	
84609	308463	326998	50.7	36.8	53.0				41.8	39.6	39.4	51.1	52.8	51.8	46.4	39.0	32.2	
84611	308454	327009	0.6	44.6	0.6				32.0	29.7	37.3	5.2	40.4	1.1	20.6	17.3	-	
87313	308172	327586	31.3	18.8	13.5				18.2	16.8	23.2	27.4	31.7	27.0	23.0	19.4	-	
87312	308650	327479	18.8	23.2	27.7				11.3	9.9	14.9	15.1	14.1	18.3	17.1	14.4	-	
84649	308929	326861	48.7	34.0	35.8				36.2	41.8	36.3	41.3	41.4	47.0	40.3	33.8	-	
87314	308655	326340	26.1	50.7	45.2				15.5	11.4	15.2	20.1	28.0	24.3	26.3	22.1	-	
82651	308686	326602	55.2		19.6				39.0	37.6	34.8	45.1	56.1	59.2	43.2	34.5	-	

87085	308539	326125		56.0	46.4						14.6	21.0	20.8	16.2	29.2	20.5	-	
85064	308668	325916	44.6	24.0	18.9				45.2	35.7	42.9	50.7	47.0	49.2	39.9	33.5	-	
87088	308775	325803	66.0	54.5	50.3				46.9	43.9	42.9	55.6	53.6	43.6	50.8	**42.7**	35.0	
87089	308443	325896	36.9	60.0	60.9				29.1	27.4	27.5	35.8	22.4	20.8	35.8	30.1	-	
87315	308188	325037	18.0	30.3	38.0				7.2	6.6	7.3	13.9	18.9	15.9	17.4	14.6	-	
85070	308237	325606	38.9	16.6	11.9				25.6	20.0	31.1	35.6	28.6	16.6	25.0	21.0	-	
85077	308190	326128	41.3	41.0	32.5				27.9	28.8	27.9	35.2	35.0	29.7	33.2	27.9	-	
87369	308278	327324	43.1	38.7	36.7				32.7	27.7	25.0	34.2	25.0		33.1	25.2	-	
87370	308487	326643	31.8	40.1	34.3				24.0	18.9	27.9	32.7	30.6	29.4	30.0	25.2	-	
87371	308209	325408	37.2	27.6	24.6				26.2	31.3	36.0	33.1	33.9	26.7	30.6	25.7	-	
87397	348718	344579	30.9	39.3	36.4				21.7	27.7	37.6	30.4	40.3	37.1	33.3	28.0	-	
87398	348608	344679		33.2	31.3						13.0	26.3		13.7	23.6	17.0	-	
87399	348633	344690	45.0	34.9	33.5					32.4	39.1	42.4	43.4	48.1	39.9	28.9	-	
87400	348664	344728	36.9	29.2	33.0				23.8	23.9	30.6			28.5	29.4	23.5	-	
87401	348615	344572	33.8	27.5	19.8				22.6	31.2	31.6	33.5	28.0	40.4	29.8	25.0	-	

87402	348605	344527	28.5	55.6	35.3				21.1	21.6	17.3	31.3	26.9	26.5	29.4	24.7	-	
87403	348764	344536	23.5	18.9	17.3				14.2	16.8	21.4	28.0	22.1	24.0	20.7	17.4	-	

Seven diffusion tube locations were annualised using the Diffusion Tube Data Processing Tool, which has been uploaded. No exceedances were found when the distance correction was applied. (Diffusion tube 87088).

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.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. The procedure is also explained in paragraphs 7.82 to 7.85 of LAQM.TG22.

Table 2.6 – Results of NO_2 Diffusion Tubes (2018 to 2024)

Site ID	Site Type	Within AQMA?	Annual Mean Concentration (µg/m^3) - Adjusted for Bias [a]				
			2020 (Bias Adjustment Factor = 0.76)	2021 (Bias Adjustment Factor = 0.77)	2022 (Bias Adjustment Factor = 0.76)	2023 (Bias Adjustment Factor = 0.78)	2024 (Bias Adjustment Factor = 0.84)
83610	Urban Background	Y. Newry	9.0	9.0	10.0	12.0	15.1
84610	Roadside	Y. Newry	27.0	31.0	30.0	30.0	25.2
87268	Roadside	Y. Newry	22.0	24.0	22.0	21.0	22.2
87241, 87252, 87253	Roadside	Y. Newry	30.0	34.0	33.3	33.0	32.4
87242	Roadside	Y. Newry	29.0	33.0	32.0	29.0	29.7
84609	Roadside	Y. Newry	38.0	**42.0**	**41.0**	**40.0**	39.0
84611	Roadside	Y. Newry	28.0	32.0	30.0	25.0	17.3
87313	Roadside	Y. Newry	17.0	18.0	21.0	18.0	19.4
87312	Roadside	Y. Newry	13.0	14.0	15.0	15.0	14.4

Site ID	Site Type	Within AQMA?	Annual Mean Concentration (µg/m^3) - Adjusted for Bias [a]				
			2020 (Bias Adjustment Factor = 0.76)	2021 (Bias Adjustment Factor = 0.77)	2022 (Bias Adjustment Factor = 0.76)	2023 (Bias Adjustment Factor = 0.78)	2024 (Bias Adjustment Factor = 0.84)
84649	Roadside	Y. Newry	32.0	31.0	34.0	30.0	33.8
87314	Roadside	Y. Newry	17.0	16.0	17.0	19.0	22.1
82651	Roadside	Y. Newry	38.0	38.0	**40.0**	27.0	34.5
87085	Urban Background	Y. Newry	14.0	16.0	14.0	26.0	20.5
87064	Roadside	Y. Newry	38.0	**42.0**	**41.0**	28.0	33.5
87088	Roadside	Y. Newry	**45.0**	**42.0**	**45.0**	**44.0**	**42.7**
87089	Roadside	Y. Newry	24.0	27.0	28.0	25.0	30.1
87315	Roadside	Y. Newry	11.0	10.0	13.0	16.0	14.6
85070	Roadside	Y. Newry	25.0	28.0	27.0	21.0	21.0
85077	Roadside	Y. Newry	24.0	28.0	28.0	22.0	27.9

Site ID	Site Type	Within AQMA?	Annual Mean Concentration (µg/m^3) - Adjusted for Bias [a]				
			2020 (Bias Adjustment Factor = 0.76)	2021 (Bias Adjustment Factor = 0.77)	2022 (Bias Adjustment Factor = 0.76)	2023 (Bias Adjustment Factor = 0.78)	2024 (Bias Adjustment Factor = 0.84)
87369	Roadside	Y. Newry	28.0	30.0	30.0	26.0	25.2
87370	Roadside	Y. Newry	25.0	26.0	25.0	25.0	25.2
87371	Roadside	Y. Newry	29.0	27.0	32.0	27.0	25.7
87397	Roadside	N	26.0	25.0	26.0	25.0	28.0
87398	Roadside	N	16.0	15.0	18.0	21.0	17.0
87399	Roadside	N	34.0	36.0	38.0	32.0	28.9
87400	Roadside	N	23.0	25.0	27.0	24.0	23.5
87401	Roadside	N	28.0	27.0	31.0	24.0	25.0
87402	Roadside	N	22.0	23.0	24.0	30.0	24.7
87403	Roadside	N	17.0	17.0	17.0	16.0	17.4

Site ID	Site Type	Within AQMA?	Annual Mean Concentration (µg/m^3) - Adjusted for Bias [a]				
			2020 (Bias Adjustment Factor = 0.76)	2021 (Bias Adjustment Factor = 0.77)	2022 (Bias Adjustment Factor = 0.76)	2023 (Bias Adjustment Factor = 0.78)	2024 (Bias Adjustment Factor = 0.84)

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.TG22, if full calendar year data capture is less than 75%

2.2.2 Particulate Matter (PM_{10})

During 2024 the Council monitored PM_{10} at Canal Street, Newry using a BAM PM_{10} analyser.

Table 2.7 – Results of Automatic Monitoring for PM_{10}: Comparison with Annual Mean Objective

Site ID	Site Type	Within AQMA?	Valid Data Capture for Monitoring Period % [a]	Valid Data Capture 2024 % [b]	Confirm Gravimetric Equivalent (Y or N/A)	Annual Mean Concentration (µg/m^3)				
						2020* [c]	2021* [c]	2022* [c]	2023* [c]	2024 [c]
Canal Street	Roadside	Y	87	87	Y	17	18	18	18	18

In bold, exceedance of the PM_{10} annual mean AQS objective of 40µg/m^3

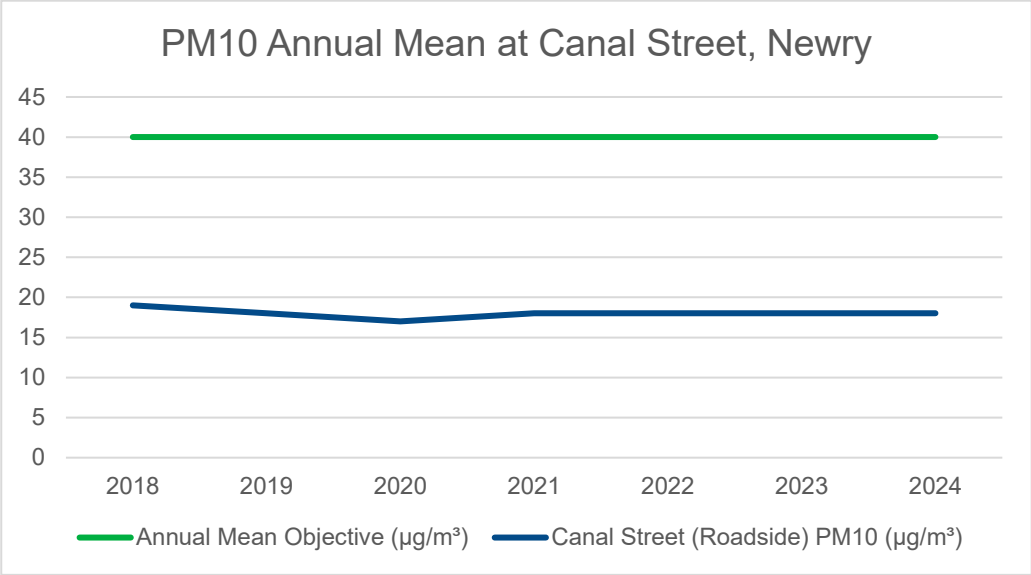
[a] i.e. data capture for the monitoring period, in cases where monitoring was only carried out for part of the year

[b] i.e. data capture for the full calendar year (e.g. if monitoring was carried out for six months the maximum data capture for the full calendar year would be 50%)

[c] Means should be "annualised" as in Boxes 7.9 and 7.10 of LAQM.TG22, if valid data capture is less than 75%

* Annual mean concentrations for previous years are optional

Figure 2.5 – Trends in Annual Mean PM_{10} Concentrations



This figure demonstrates the downward trend in PM_{10} concentrations in Canal Street AQMA. Since designation, the measured PM_{10} concentrations within the AQMA have continually fallen and levels have now been consistently below the national objective for ten years. National, regional and local policies have influenced this reduction in emissions and concentrations, and it is reasonable to expect that further reductions will be achieved through the increasing use of ultra-low and low emission vehicles and the shift to less polluting fuels for domestic burners. Having considered the historical monitoring data associated with the Canal Street AQMA, future national trends in emissions and any likely local impacts on the air quality levels within the AQMA will monitor during 2026 and if levels are consistent the Council will move to revoke the AQMA.

Table 2.8 – Results of Automatic Monitoring for PM_{10}: Comparison with 24-hour Mean Objective

Site ID	Site Type	Within AQMA?	Valid Data Capture for Monitoring Period % [a]	Valid Data Capture 2024 % [b]	Confirm Gravimetric Equivalent (Y or N/A)	Number of Daily Means > 50µg/m^3				
						2020* [c]	2021* [c]	2022* [c]	2023* [c]	2024 [c]
Canal Street	Roadside	Y	87	87	Y	0	0	0	2	1

In bold, exceedance of the PM10 daily mean AQS objective (50µg/m3 – not to be exceeded more than 35 times per year)

[a] i.e. data capture for the monitoring period, in cases where monitoring was only carried out for part of the year

[b] i.e. data capture for the full calendar year (e.g. if monitoring was carried out for six months the maximum data capture for the full calendar year would be 50%)

[c] if data capture for full calendar year is less than 85%, include the 90.4th percentile of 24-hour means in brackets

* Number of exceedances for previous years is optional

2.2.3 Sulphur Dioxide (SO_2)

During 2024 there was no monitoring of sulphur dioxide undertaken within the council area.

2.2.4 Benzene

During 2024 there was no monitoring of benzene undertaken within the council area.

2.2.5 Other Pollutants Monitored

During 2024 there were no other pollutants monitored within the council area.

2.2.6 Summary of Compliance with AQS Objectives

Newry Mourne and Down District Council has examined the results from monitoring in the district. Concentrations outside of the AQMA are all below the objectives at relevant locations, therefore there is no need to proceed to a Detailed Assessment.

3 New Local Developments

Newry Mourne and Down District Council confirms that there are no new or newly identified local developments which may have an impact on air quality within the Local Authority area.

Newry Mourne and Down 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.**

3.1 New Developments with Fugitive or Uncontrolled Sources

Newry Mourne and Down District Council confirms that there are no new or newly identified local developments which may have an impact on air quality within the Local Authority area.

Newry Mourne and Down 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.**

4 Local / Regional Air Quality Strategy

Local authorities in Northern Ireland are responsible for reviewing the state of air quality in their district. To assist them with this process an air quality strategy (AQS) has been devised for the UK. This sets down standards and objectives for the air quality pollutants causing the problems and allows councils to review air quality in their area against these. A separate Clean Air Strategy for Northern Ireland is being prepared by DAERA.

5 Planning Applications

Newry, Mourne and Down District Council can confirm that there have been no planning applications approved which it is considered will have a significant detrimental impact on the air quality within the district.

6 Air Quality Planning Policies

Responsibility for Planning lies with the local councils in Northern Ireland. The councils are responsible for:

• Local development planning

• Development Management

• Planning enforcement.

The Department of Infrastructure are responsible for:

• Determination of regionally significant and ‘called in’ planning applications.

• Regional Development Strategy

• Regional Planning Policy

• Planning Legislation

• Performance management

• Oversight and guidance for councils.

The Strategic Planning Policy Statement for Northern Ireland (SPPS) ‘Planning for Sustainable Development’ published in September 2015 consolidates the previous planning policy statements into one document and details strategic subject

planning policy for a wide range of planning matters. It also sets out the strategic direction for the new councils to bring forward detailed operational policies within

future local development plans. Annex A to SPPS highlights how the planning system can positively contribute to the improvement of air quality and in minimising

its harmful impacts on health and wellbeing.

In administering its planning function councils must take account of the Regional Development Strategy 2035 (RDS) (2010), and the Strategic Planning Policy Statement (SPPS) (2015), and any other policies or advice in guidance issued by the Department. The RDS represents the overarching regional planning framework, while the SPPS provides an overarching statement of the general planning principles underlying the planning system. Of particular relevance in the RDS is RG9: Reduce our carbon footprint and facilitate mitigation and adaption to climate change whilst improving air quality.

This guidance includes several mitigation measures in relation to air quality, including:

- Reducing noise and air pollution from transport
- Developing strong linkages between policies for managing air pollution and climate change
- Protecting Air Quality Management Areas

The Council is currently working on a new Area Plan for its district, and it is anticipated that this will be completed shortly.

7 Local Transport Plans and Strategies

The Regional Strategic Transport Network (RSTN) Transport Plan prepared by the Department for Regional Development (DRD) (now DfI) covers the complete rail network, 5 Key Transport Corridors (KTCs), 4 Link Corridors, the Belfast Metropolitan Transport Corridors and the remaining trunk network across Northern Ireland. The Plan is based on the guidance set out in the Regional Development Strategy (RDS) and the Regional Transportation Strategy (RTS). The RSTN Transport Plan consists of proposals for transport schemes and measures for the maintenance, management and development of the RSTN until 2015. The RSTN Transport Plan also includes several measures for rail, bus, roads, walking and cycling. In addition, the Sub-Regional Transport Plan 2015 was

prepared by the Department for Regional Development (DRD) and completed in 2007. The SRTP is based upon the guidance provided by the Regional Development Strategy (RDS) and the Regional Transportation Strategy (RTS). It covers the transport needs of Newry Mourne and Down District Council along with other areas except for the Belfast Metropolitan area.

8 Climate Change Strategies

Newry Mourne and Down District Council is in the process of finalising a Sustainability and Climate Change Strategy. It is expected to be launched in June 2026. It is envisaged that the proposed structure of 3 x Sustainability Officers will be responsible for delivery, implementation, and monitoring of the Sustainable Development Strategy for council focussing on the themes below:

1. Buildings and Energy
2. Transport
3. Carbon Emissions and Climate Change
4. Waste and Recycling
5. Ecology
6. Environmental Impact
7. Sustainable Communities
8. Leadership and Community Engagement

In addition to above, Sustainability and Climate Change is a cross-cutting theme and a key driver for council with the key objective of improving the lives and livelihoods of people who live and work here. The above additional resources within Sustainability will be required to work with key stakeholders to deliver the sustainability objectives of the 4 Council Directorate Business and Service Plans.

9 Implementation of Action Plans

An Action Plan for the Newry (Urban Centre) AQMA was approved in April 2010 (Appendix C). The Action Plan had planned actions which have assisted in reducing the levels of NO_2 levels from traffic and background emissions within the designated AQMA. It is recognised that many of these measures contributed towards the wider strategic objectives of sustainable development and tackling climate change. It is recognised that many of the actions have now been completed and are dated. Newry Mourne and Down District Council produced an Active Travel Masterplan in 2021 which considered air quality issues. This document provides guidance on the development of cycling and walking infrastructure and complimentary measures over the next 10 years. It sets out a suite of recommendations that will drastically and radically improve conditions not only for people choosing to cycle and walk in the district, but also all residents who suffer from the negative effects of too much motor vehicle traffic.
www.newrymournedown.org/media/uploads/nmd_active_travel_masterplan.pdf

Newry, Mourne and Down District Council and other stakeholders continue to make the case for the Newry Southern Relief Road, which when implemented, has the potential to provide traffic relief to Newry City centre with the consequent improvements in local air quality.

Table 9.1 – Action Plan Progress

No.	Measure	Focus	Lead Authority	Organisations Involved	Planning Phase	Implementation Phase	Indicator	Target Annual Emission Reduction in the AQMA	Progress to Date	Progress in Last 12 Months	Estimated Completion Date	Comments Relating to Emission Reductions
1.	Undertake Healthy Streets Checks outside all train and bus stations to assess the quality of the public realm. Implement changes to address issues identified by the Checks.	Providing an evidence-based approach to create fairer, sustainable and attractive urban spaces.	Council	Council	2026	2028-30	Implementation	2%	Publication of masterplan	Publication of masterplan	2030	

No.	Measure	Focus	Lead Authority	Organisations Involved	Planning Phase	Implementation Phase	Indicator	Target Annual Emission Reduction in the AQMA	Progress to Date	Progress in Last 12 Months	Estimated Completion Date	Comments Relating to Emission Reductions
2	Adopt the NICE Quality Standard, 'Air pollution: outdoor air quality and health' and apply it to all Newry, Mourne and Down strategies	Reducing emissions from council vehicle fleet	Council	Council departments	2026	Seek all council departments approval to implement	Adoption has occurred	2%	10 year Active Travel Master plan has been approved	Approval of Plan	2027	
3	Ensure high quality cycle and pedestrian infrastructure connecting to all train and bus stations, and existing and upcoming park & ride facilities, to encourage sustainable multi-modal journeys.	Reducing emissions in urban areas	Council	Council, DfI	2026	2026-20230	Infrastructure in place	5%	Masterplan published	Approval and publishment of Plan	20230	

10 Conclusions and Proposed Actions

10.1 Conclusions from New Monitoring Data

Newry, Mourne and Down District Council has measured concentrations of PM_{10} below the annual mean objective at Canal Street Newry and after additional confirmatory monitoring will move to revoke this AQMA.

2024 monitoring data identified the following:

- No exceedance of annual mean objective for PM_{10}.
- No exceedance of daily mean objective for PM_{10}.
- 2024- one of the 27 diffusion tubes located within Newry City Centre exceeded the annual mean objective for nitrogen dioxide (NO_2) (40µg/m3) but after the distance correction was applied it is under the objective.

10.2 Conclusions relating to New Local Developments

There have been no new industrial installations or new commercial or fugitive source emissions within the Newry, Mourne and Down District Council area in the period 2024.

Newry City and Downpatrick have smoke control areas. All new developments within these areas are required to comply with the restrictions within the smoke control areas in relation to the use of authorised fuels.

10.3 Other Conclusions

The Council's Active Travel Masterplan is assisting with improvements in air quality within the district and the future commencement of the Climate Strategy will also improve by creating action on Air quality.

10.4 Proposed Actions

Newry Mourne and Down District Council will be reviewing PM_{10} data for 2025 and if levels are still below the air quality objective move to revoke the AQMA in Canal Street Newry.

11 References

Local Air Quality Management Technical Guidance – LAQM.TG(09)

Local Authority Air Quality Support website http://laqm.defra.gov.uk/

Local Air Quality Management Technical Guidance (TG16)

12 Appendices

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

Appendix B - Monthly diffusion tube results 2024

Appendix C- Air Quality Action Plan

Appendix A: QA/QC Data

QA/QC Diffusion Tube Monitoring

QA/QC Diffusion Tube Monitoring

Diffusion Tube Bias Adjustment Factors

The diffusion samples were analysed in accordance with SOCOTEC's standard operating procedure ANU/SOP/1015. This method meets the guidelines set out in DEFRA's 'Diffusion Tubes for Ambient NO_2 Monitoring: Practical Guidance.'

The tubes were prepared by spiking acetone:triethanolamine (50:50) onto grids prior to the tubes being assembled. The tubes are desorbed with distilled water and the extract analysed using a segmented flow autoanalyzer with ultraviolet detection. Please note:

(i) As set out in the practical guidance, the results were initially calculated assuming an ambient temperature of 11°C, the reported values have been adjusted to 20°C to allow for direct comparison with EU limits.

(ii) The reported results from the laboratory were not bias adjusted.

PM Monitoring Adjustment

The data from the PM_{10} monitor was subject to QA/QC inspection by Ricardo AEA during the 2024 monitoring period.

Short-term to Long-term Data adjustment

No short-term to long term data adjustments were required.

QA/QC of automatic monitoring

During 2024 Newry, Mourne and Down District Council had a QA/QC contract with Ricardo AEA. AQDM acted as the Data Management contractor. QA/QC audits have been completed on the automatic monitoring equipment currently located within the Council area.

QA/QC of diffusion tube monitoring

SOCOTEC is assessed annually by UKAS to establish conformance of the Laboratory Quality Procedures.

Newry, Mourne and Down District Council QA/QC procedure ensures that the diffusion tubes are handled and stored in accordance with SOCOTEC Diffusion Tube Instruction Manual for exposure and location.

Diffusion Tube Annualisation

Seven diffusion tube monitoring locations within Newry Mourne and Down District Council recorded data capture of 75% or below therefore it was required to annualise their monitoring data.

Diffusion tube distance correction.

Distance correction was applied to two diffusion tubes.

Diffusion Tube Annualisation

As seven diffusion tube locations had data capture below 75% annualisation was required. Newry Mourne and Down District Council used the Diffusion Tube Data Processing Tool, see below.

Diffusion Tube ID	Annualisation Factor Ballymena	Annualisation Factor Derry Rosemount	Annualisation Factor Site 3 Name	Annualisation Factor Site 4 Name	Average Annualisation Factor	Raw Data Time Weighted Annual Mean (µg/m³)	Annualised Data Time Weighted Annual Mean (µg/m³)
84610	0.9569	0.9459			0.9514	31.5	30.0

82651	0.9569	0.9459			0.9514	43.2	41.1
87085	0.8634	0.8077			0.8355	29.2	24.4
87369	0.9036	0.9123			0.9080	33.1	30.0
87398	0.8732	0.8386			0.8559	23.6	20.2
87399	0.8665	0.8540			0.8602	39.9	34.3
87400	0.9603	0.9465			0.9534	29.4	28.0

Diffusion Tube Bias Adjustment Factors

Newry Mourne and Down District Council have applied a local bias adjustment factor of 0.84 to the 2024 monitoring data. A summary of bias adjustment factors used by Newry Mourne and Down District Council over the past five years is presented in Table A.1.

- A local factor has been used, from the triplicate site at Canal Street air station.

Table A.1 - Bias Adjustment Factor

Year	Local or National	If National, Version of National Spreadsheet	Adjustment Factor
2024	Local	-	0.84
2023	National	09/22	0.78
2022	National	06/21	0.76
2021	National	09/20	0.77
2020	National	06/19	0.76

NO_2 Fall-off with Distance from the Road

A fall-off-with-distance calculation was required for two non-automatic monitoring sites. The calculation was carried out using output from the Diffusion Tube Data Processing Tool and presented in table A.2.

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

Site ID	Distance (m): Monitoring Site to Kerb	Distance (m): Receptor to Kerb	Monitored Concentration (Annualised and Bias Adjusted	Background Concentration	Concentration Predicted at Receptor	Comments
84609	1.0	3.0	39.0	8.0	32.2	
87088	1.0	3.0	42.7	8.0	35.0	

QA/QC of Automatic Monitoring

During 2024 Newry, Mourne and Down District Council had a QA/QC contract with Ricardo AEA. AQDM acted as the Data Management contractor. QA/QC audits have been completed on the automatic monitoring equipment currently located within the Council area.

Live and historic Data is available on the Ni Air Quality website.

PM_{10} and $PM_{2.5}$ Monitoring Adjustment

The data from the PM_{10} monitor was subject to QA/QC inspection by Ricardo AEA during the 2024 monitoring period.

Short-term to Long-term Data adjustment

No short-term to long term data adjustments were required.

Automatic Monitoring Annualisation

All automatic monitoring locations within Newry Mourne and Down District Council recorded data capture of greater than 75% therefore it was not required to annualise any monitoring data. In addition, any sites with a data capture below 25% do not require annualisation.

NO_2 Fall-off with Distance from the Road

No automatic NO_2 monitoring locations within Newry Mourne and Down District Council required distance correction during 2024.

Table A.3 – Annualisation Summary (concentrations presented in µg/m^3)

Site ID	Annualisation Factor Ballymena	Annualisation Factor Derry Roesmount	Annualisation Factor	Annualisation Factor	Average Annualisation Factor	Raw Data Annual Mean	Annualised Annual Mean	Comments
84610	0.9569	0.9459			0.9514	31.5	30.0	
82651	0.9569	0.9459			0.9514	43.2	41.1	
87085	0.8634	0.8077			0.8355	29.2	24.4	
87369	0.9036	0.9123			0.9080	33.1	30.0	
87398	0.8732	0.8386			0.8559	23.6	20.2	
87399	0.8665	0.8540			0.8602	39.9	34.3	
87400	0.9603	0.9465			0.9534	29.4	28.0	

Table A.4 – Local Bias Adjustment Calculations

	Local Bias Adjustment Input 1	Local Bias Adjustment Input 2	Local Bias Adjustment Input 3	Local Bias Adjustment Input 4	Local Bias Adjustment Input 5
Periods used to calculate bias	8				
Bias Factor A	0.84(0.75-.95)				
Bias Factor B	19% (5%-33%)				
Diffusion Tube Mean (µg/m^3)	39.7				
Mean CV (Precision)	6.4%				
Automatic Mean (µg/m^3)	33.3				
Data Capture	98%				
Adjusted Tube Mean (µg/m^3)	33 (30-38)				

Notes:

A single local bias adjustment factor has been used to bias adjust the 2024 diffusion tube results.

Table A.5 - NO_2 Fall-off with Distance Calculations (concentrations presented in $\mu g/m^3$)

Site ID	Distance (m): Monitoring Site to Kerb	Distance (m): Receptor to Kerb	Monitored Concentration (Annualised and Bias Adjusted)	Background Concentration	Concentration Predicted at Receptor	Comments
84609	1.0	3.0	39.0	8.0	32.2	
87088	1.0	3.0	42.7	8.0	35.0	

Appendix B - **Monthly diffusion tube results 2024**

Diffusion Tube ID	Site Name	Duplicate/Triplicate ID	New or Existing Site?	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Site Type	Distance to Relevant Exposure (m)	Distance to Kerb of Nearest Road (m)	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Requires Annualisation?
83610	Monaghan Row		Existing	307851	326751	Urban Background	29.0	50.0	21.3	22.2	18.8				12.4	11.1	17.2	19.2	18.7	20.5	NO
84610	Lower Canal Street		Existing	308562	326481	Roadside	2.0	1.0	33.9		41.9				26.6	20.3	37.3	30.4	34.8	27.1	YES
87268	14 Canal Street		Existing	308538	326864	Roadside	12.0	2.0	27.5	31.0	28.2				20.6	15.2	25.0	31.2	31.3	27.6	NO
87241	Canal Street station	Canal Street station	Existing	308697	326715	Roadside	3.0	2.0	41.0	39.1	40.7				35.7	38.0	51.6	37.0	33.6	35.1	NO
87252	Canal Street station	Canal Street station	Existing	308697	326715	Roadside	3.0	2.0	43.1	38.1	43.9				31.1	28.6	49.8	39.1	46.5	32.9	NO
87253	Canal Street station	Canal Street station	Existing	308697	326715	Roadside	3.0	2.0	36.1	40.7	42.4				33.2	25.1	50.8	41.2	37.1	33.1	NO
87242	63 Canal Street		Existing	308483	326984	Roadside	2.0	2.0	39.3	27.9	40.6				28.2	23.9	44.4	34.6	41.5	38.4	NO
84609	Canal Street		Existing	308463	326998	Roadside	2.0	1.0	50.7	36.8	53.0				41.8	39.6	39.4	51.1	52.8	51.8	NO
84611	Catherine Street		Existing	308454	327009	Roadside	2.0	2.0	0.6	44.6	0.6				32.0	29.7	37.3	5.2	40.4	1.1	NO
87313	Southern ITEC		Existing	308172	327586	Roadside	17.0	2.0	31.3	18.8	13.5				18.2	16.8	23.2	27.4	31.7	27.0	NO
87312	2 Mountain View Drive		Existing	308650	327479	Roadside	7.0	2.0	18.8	23.2	27.7				11.3	9.9	14.9	15.1	14.1	18.3	NO
84649	59 Sandy Street		Existing	308929	326861	Roadside	2.0	1.0	48.7	34.0	35.8				36.2	41.8	36.3	41.3	41.4	47.0	NO
87314	Abbey Way		Existing	308655	326340	Roadside	2.0	2.0	26.1	50.7	45.2				15.5	11.4	15.2	20.1	28.0	24.3	NO
82651	Water Street		Existing	308686	326602	Roadside	40.0	1.0	55.2		19.6				39.0	37.6	34.8	45.1	56.1	59.2	YES
87085	Market Office		Existing	308539	326125	Urban Background	42.0	25.0		56.0	46.4						14.6	21.0	20.8	16.2	YES
85064	33 Kilmorey Street		Existing	308668	325916	Roadside	2.0	1.0	44.6	24.0	18.9				45.2	35.7	42.9	50.7	47.0	49.2	NO
87088	71 Kilmorey Street		Existing	308775	325803	Roadside	2.0	1.0	66.0	54.5	50.3				46.9	43.9	42.9	55.6	53.6	43.6	NO
87089	4 Bridge Street		Existing	308443	325896	Roadside	2.0	2.0	36.9	60.0	60.9				29.1	27.4	27.5	35.8	22.4	20.8	NO
87315	Loretto Park		Existing	308188	325037	Roadside	12.0	2.0	18.0	30.3	38.0				7.2	6.6	7.3	13.9	18.9	15.9	NO
85070	Basin View Terrace		Existing	308237	325606	Roadside	2.0	1.0	38.9	16.6	11.9				25.6	20.0	31.1	35.6	28.6	16.6	NO
85077	Dominic Street		Existing	308190	326128	Roadside	2.0	2.0	41.3	41.0	32.5				27.9	28.8	27.9	35.2	35.0	29.7	NO
87369	11 Armagh Road		Existing	308278	327324	Roadside	9.0	3.0	43.1	38.7	36.7				32.7	27.7	25.0	34.2	25.0		YES
87370	21 Merchant Quay		Existing	308487	326643	Roadside	2.0	3.0	31.8	40.1	34.3				24.0	18.9	27.9	32.7	30.6	29.4	NO
87371	31 Dublin Road		Existing	308209	325408	Roadside	12.0	1.0	37.2	27.6	24.6				26.2	31.3	36.0	33.1	33.9	26.7	NO
87397	30 Irish Street		Existing	348718	344579	Roadside	2.0	3.0	30.9	39.3	36.4				21.7	27.7	37.6	30.4	40.3	37.1	NO
87398	10 English Street		Existing	348608	344679	Roadside	20.0	3.0		33.2	31.3						13.0	26.3		13.7	YES
87399	6 Church Street		Existing	348633	344690	Roadside	10.0	3.0	45.0	34.9	33.5					32.4	39.1	42.4	43.4	48.1	YES
87400	13 Church Street		Existing	348664	344728	Roadside	27.0	3.0	36.9	29.2	33.0				23.8	23.9	30.6			28.5	YES
87401	19 Market Street		Existing	348615	344572	Roadside	8.0	3.0	33.8	27.5	19.8				22.6	31.2	31.6	33.5	28.0	40.4	NO
87402	40 Market Street		Existing	348605	344527	Roadside	56.0	3.0	28.5	55.6	35.3				21.1	21.6	17.3	31.3	26.9	26.5	NO
87403	58 Irish Street		Existing	348764	344536	Roadside	6.0	3.0	23.5	18.9	17.3				14.2	16.8	21.4	28.0	22.1	24.0	NO

Appendix C- Air Quality Action Plan

No.	Measure	Focus	Lead Authority	Planning Phase	Implementation Phase	Indicator	Target Annual Emission Reduction in the AQMA	Progress to Date	Progress in Last 12 Months	Estimated Completion Date
1	DBFO 2 - A1 Beech Hill – Cloghogue. Project	Reduce traffic entering city centre thereby reducing emissions	Road Service	2007 - 2010	2008 - 2010	Completion of road	Not known	New road open to traffic July 2010	Complete	Complete
2	Expanded Strategic Road Improvement Programme 2015 – Southern Relief Road	Reduce traffic entering city centre thereby reducing emissions	Road Service	2011 onwards	Not determined	DRD Road Service to identify preferred route for the Southern Relief Road by 2011. Estimated Cost of scheme £100 - 210 million (depending on preferred route - Newry Southern Relief Road Feasibility Study Report August 2009)	Not known	The Department announced the Preferred Route in October 2018. Subsequent will help finalise the design used for the technical Scheme Assessment Reports, the Environmental Impact Assessment (EIA) and the draft Statutory Orders.	Ongoing	Not known
3	Review signage displayed under Traffic Weight Restriction (Newry) Order (NI) 1992 and to raise awareness of TRO among motorists	Enforce provisions of TRO in Canal Street thereby reducing emissions from HGV's using this street	PSNI	Ongoing	Ongoing	Compliance with TRO	Not known	Ongoing	Ongoing	Ongoing

No.	Measure	Focus	Lead Authority	Planning Phase	Implemen-tation Phase	Indicator	Target Annual Emission Reduction in the AQMA	Progress to Date	Progress in Last 12 Months	Estimated Completion Date
4	Proposed improvements to walking facilities in Newry City, as detailed in the SRTP Technical Supplement for Newry, by 2015.	Improve walking facilities thereby encourage walking as an alternative mode of transport to private car	Road Service	2002 - 2015	2007 - 2015	Improved walking facilities	Not known	Provision of new footpaths in Newry City Centre (Hill St, Monaghan St, Merchant Quay) as part of ongoing Public Realm Schemes.	Complete	Complete
5	Proposed improvements to cycling facilities in Newry City, as detailed in the SRTP Technical Supplement for Newry, by 2015.	Improve cycling facilities thereby encourage cycling as an alternative mode of transport to private car	Road Service	2002 - 2015	2007 - 2015	Improved cycling facilities	Not known	Provision of cycle paths and cycle stands along Merchants Quay. Introduction of approximately 15 new cycle stands across Newry city centre.	Not known	Ongoing
6	Park and Share Facilities to be provided at Beech Hill and Cloghogue of A1	Encourage car sharing thereby reducing number of single occupancy vehicles using city	Road Service	2002 - 2015	2007 - 2015	Establishing park and share facilities	Not known	As part of DBFO 2 - A1 Beech Hill – Cloghogue. Project Park and Share facilities established at Sheepbridge and Cloghogue (25 spaces each)	Complete	Complete

No.	Measure	Focus	Lead Authority	Planning Phase	Implementation Phase	Indicator	Target Annual Emission Reduction in the AQMA	Progress to Date	Progress in Last 12 Months	Estimated Completion Date
7	Replace Ulsterbus Newry Fleet with new less polluting vehicles in accordance with Translink Environmental Statement	Reduce emissions from public transport in the AQMA	Translink	2007 - 2013	2007 - 2013	To achieve an average road fleet age of 8 years and a retirement age of 12 years for coaches and 18 years for buses by 2013.	Not known	As of Feb 2014, average road fleet age of 5.87 years and oldest vehicle in use is 12.74 years.	Ongoing	Ongoing
8	Improved bus stops and customer information	Encourage greater use of public transport against use of private vehicles thereby reducing emissions from private vehicles	Translink	2002 - 2015	2007 - 2015	Improvement to existing bus stops and increase to number of bus stops	Not known	From 07/08 to 08/09 there was a 10% increase in passenger numbers using Ulster bus, 08/09 to 09/10 saw a further 7% increase however, from 09/10 to 10/11 there has been an 8% reduction in passenger numbers.	Ongoing	Ongoing
9	Provision of network of natural gas in Newry City	Providing natural gas as an alternative fuel over other fuels such as oil and coal which have higher emission rates of NO2	Firmus	Ongoing	Ongoing	Increased uptake of natural gas customers in Newry City	Not known	There are 2837 domestic properties converted to Firmus Energy Gas Network across the Newry area.	Ongoing	Ongoing

No.	Measure	Focus	Lead Authority	Planning Phase	Implemen-tation Phase	Indicator	Target Annual Emission Reduction in the AQMA	Progress to Date	Progress in Last 12 Months	Estimated Completion Date
10	NIHE Energy Efficiency Improvement Programme	Improve energy efficiency of NIHE homes in AQMA thereby reducing energy consumption & emissions	NIHE	2018- 2021	NIHE's 2018/21 Energy Efficiency Programme includes 16 schemes at a cost of £8.9m.	Increased number of housing stock with improved energy efficiency and cleaner heating systems	Not known	Of the NIHE properties within Newry City 265 properties have gas-heating system and 737 have oil-heating system.	Ongoing	Ongoing
11	Extension of Council ISO 14001 management system	Reduce the impact of Council services on the environment, including air quality. The Council, by leading by example, will encourage other businesses within the Council area to implement their own environmental management system	Council	2004 - 2011	2004 - 2011	Maintenance of ISO 14001 accreditation.	Not known	The council has not maintained the accreditation	. No progress in the last 12 months.	No progress in the last 12 months.

No.	Measure	Focus	Lead Authority	Planning Phase	Implementation Phase	Indicator	Target Annual Emission Reduction in the AQMA	Progress to Date	Progress in Last 12 Months	Estimated Completion Date
12	Establish a Workplace Travel Plan for NMDC	Reduce emissions from Council travel	Council	2009 - 2010	2010 - 2015	Achievement of targets set within Council Travel plan	Not known	Council purchased its first electric vehicle for use by an Enforcement Officer and installed an electric charging point at the Monaghan Row site. Further replacement of council fleet with less polluting vehicles, increased number of employees part of Cycle scheme	Active Travel Plan nearing completion	The council continue to use an electric vehicle for enforcement officer. The council have launched a new Cycle 2 Work Scheme and are implementing the Active Travel plan.