



# Fermanagh and Omagh District Council

## 2025 Air Quality Progress Report



In fulfilment of Environment (Northern Ireland) Order  
2002

Local Air Quality Management

July 2026

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## Executive Summary

In fulfilment of its duties under the Environment (NI) Order 2002 and subsequent regulations, Fermanagh and Omagh District Council (FODC) have reviewed and assessed air quality within the District area, in order to identify any changes that have occurred since the previous Updating and Screening Assessment (USA).

This Progress Report has been prepared in accordance with the Local Air Quality Management Technical Guidance LAQM.TG(22). This report identified no exceedances of the objectives in the UK Air Quality Strategy objectives during 2024.

The Air Quality Monitoring Network within FODC continues to develop, with the three pollutants that are at the core of Local Air Quality Management (LAQM); Nitrogen Dioxide (NO<sub>2</sub>), Particulate Matter (PM<sub>10</sub>) and Sulphur Dioxide (SO<sub>2</sub>), being the focus.

In addition to the existing non-automated monitoring sites for NO<sub>2</sub> and SO<sub>2</sub>, an automated monitoring station for PM<sub>10</sub> and PM<sub>2.5</sub> was installed In Enniskillen (Bowling Green Site) in 2024. FODC is currently in the process of securing funding for an automated monitoring station for PM<sub>10</sub> and PM<sub>2.5</sub> that will be located within the Omagh Town Area.

There are currently no Air Quality Management Areas (AQMAs) declared within FODC. The review has concluded that there have been no exceedances of the relevant air quality objectives. No new sources that required progression to a detailed assessment had been identified. At the planning stage, several applications were reviewed with no further action being required.

In the absence of automated monitoring, the SO<sub>2</sub> levels are measured using passive diffusion tubes. FODC acknowledge that there has been no bias adjustment to ensure the accuracy and reliability of the data. However, the values are so low and accounting for the absence of bias adjustment, FODC are confident that it can demonstrate that the objective levels have not been exceeded. Due to the results being so low, FODC are satisfied that there is no further need to include SO<sub>2</sub> in the monitoring network.

As the implementation of the current Air Quality Monitoring Network is at the early stages of development, the amount of data to review and trend is limited. Therefore the creation of an Air Quality Strategy has been delayed to ensure that the best measures are devised based on a greater level of detail from a larger data set.

Other aspects of FODCs functions exist that overlaps into Air Quality. These include fulfilling permitting requirements for medium scale combustion plant and specified generators under the Pollution Prevention Control Regime. Permitting of such plant/generators results in setting emission limits.

FODC has participated in Northern Ireland wide sampling programme regarding the sulphur content of smokeless coal sold within the District. The sampling programme is aimed at ensuring sulphur levels of solid fuel sold within the District are compliant with relevant legislation.

FODC continues to works towards fulfilling its obligations under the Climate Change Act (NI) 2022. The Council introduced its Climate Change and Sustainable Development Strategy in February 2021 and became the first Council to launch a Sustainable Development Action Plan in November 2021. The Action Plan aims to achieve zero emissions by 2050.

The Environmental Health Service (EHS) continues to investigate and take enforcement action regarding dust and smoke emissions, where it can be sufficiently evidenced as to constitute a statutory nuisance. The EHS is also part of a Bonfire Interagency Group, with part of the function to control what material is being burned.

FODC is focused on raising the Air Quality Agenda within the District as it is regarded as an integral part of the Health and Wellbeing Agenda in Northern Ireland.

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# 1 Introduction

## 1.1 Description of Local Authority Area

The Council occupies a total area of approximately 3,000 sq. km making it the largest Council in terms of land mass equating to around twenty percent of Northern Ireland. It is located in the most westerly part of the province with much of the land rural in nature and includes the large water body of Lower and Upper Lough Erne. It has a population of approximately 117,700 (NISRA Mid Year Population Estimates 2024) which is the smallest of the eleven councils and covers one of the largest areas resulting in the lowest population density.

There are two main centres within the District, Omagh to the north east with a population of 20,458 and Enniskillen with a population of 14,086 to the west (NISRA Census 2021). Figure 1.1 below details location of the District.



**Figure 1.1**

The remainder of the District is largely rural in character, with a number of satellite villages and a dispersed settlement pattern typical of rural Northern Ireland. Approximately 30% of

the population live in the two main towns of Enniskillen and Omagh (NISRA Census 2021). A further 7% live in the local towns of Carrickmore, Dromore, Fintona, Irvinestown and Lisnaskea (NISRA Census 2021). The villages and small settlements account for a further 17% of the population with 46% of people living in open countryside (NISRA Census 2021). More detailed information for the district council area is available on the website [www.fermanaghmagh.com](http://www.fermanaghmagh.com).

The area has a large agricultural business sector and a broad mix of service industries including fabrication, quarrying, timber and cement product manufacture and a range of businesses supporting tourism and hospitality.

## **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 microgrammes per cubic metre  $\mu\text{g}/\text{m}^3$  (milligrammes per cubic metre,  $\text{mg}/\text{m}^3$  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 <sup>3</sup>	Running annual mean	31.12.2003
	3.25 µg/m <sup>3</sup>	Running annual mean	31.12.2010
1,3-butadiene	2.25 µg/m <sup>3</sup>	Running annual mean	31.12.2003
Carbon monoxide	10 mg/m <sup>3</sup>	Running 8-hour mean	31.12.2003
Lead	0.50 µg/m <sup>3</sup>	Annual mean	31.12.2004
	0.25 µg/m <sup>3</sup>	Annual mean	31.12.2008
Nitrogen dioxide	200 µg/m <sup>3</sup> not to be exceeded more than 18 times a year	1-hour mean	31.12.2005
	40 µg/m <sup>3</sup>	Annual mean	31.12.2005
Particulate matter (PM <sub>10</sub> ) (gravimetric)	50 µg/m <sup>3</sup> , not to be exceeded more than 35 times a year	24-hour mean	31.12.2004
	40 µg/m <sup>3</sup>	Annual mean	31.12.2004
Sulphur dioxide	350 µg/m <sup>3</sup> , not to be exceeded more than 24 times a year	1-hour mean	31.12.2004
	125 µg/m <sup>3</sup> , not to be exceeded more than 3 times a year	24-hour mean	31.12.2004
	266 µg/m <sup>3</sup> , not to be exceeded more than 35 times a year	15-minute mean	31.12.2005

## 1.4 Summary of Previous Review and Assessments

The following review is for Fermanagh and Omagh District Council and previously the legacy Councils of Fermanagh and Omagh.

**Table 1.2- Previous Review and Assessments**

<b>Stage 1 Review and Assessment 2001</b>	The first stage assessment identified three pollutants of concern namely nitrogen dioxide, sulphur dioxide and particulate matter at risk of exceeding the strategy objectives.
<b>Stage 2/3 Review and Assessment 2004</b>	Following on from the findings of stage 1, a more detailed assessment of air quality was required for the three identified pollutants of concern. Informed by the results of monitoring/modelling it was concluded that it was not necessary to declare any AQMA for the District Council.
<b>Progress Report 2005</b>	This report concluded that no exceedances of the air quality objectives were identified at relevant receptors.
<b>Updating &amp; Screening Assessment 2006</b>	The updating and screening assessment was undertaken in accordance with the LAQM TG (03). The report concluded that due to a major road development on the periphery of Omagh Town there may be likelihood of exceedance of objectives for nitrogen dioxide and particulates from road sources. Monitoring for nitrogen dioxide was initiated.
<b>Progress Report 2007</b>	The monitoring for nitrogen dioxide in Omagh continued for the period of this report. This report concluded that there were no exceedances of the air quality objectives for the remaining pollutant objective levels.
<b>Progress Report 2008</b>	This report concluded that no exceedances of the air quality objectives were identified at relevant receptors.

	Ongoing monitoring of nitrogen dioxide in Omagh generated from road traffic.
<b>Updating &amp; Screening Assessment 2009</b>	The USA was prepared in accordance with updated guidance contained within LAQM.TG(09). Informed by the completion of a monitoring/modelling programme for pollutants associated with road traffic, it was concluded that there was no need to proceed to a detailed assessment for any pollutants of concern.
<b>Progress Report 2010</b>	This report concluded that no exceedances of the air quality objectives were identified at relevant receptors.
<b>Progress Report 2011</b>	This report concluded that no exceedances of the air quality objectives were identified at relevant receptors.
<b>Updating &amp; Screening Assessment 2012</b>	This report concluded that no exceedances of the air quality objectives were identified at relevant receptors.
<b>Progress Report 2013</b>	This report concluded that no exceedances of the air quality objectives were identified at relevant receptors.
<b>Progress Report 2014</b>	This report concluded that no exceedances of the air quality objectives were identified at relevant receptors.
<b>Updating &amp; Screening Assessment 2015</b>	This report concluded that no exceedances of the air quality objectives were identified at relevant receptors.
<b>Progress Report 2016</b>	This report concluded that no exceedances of the air quality objectives were identified at relevant receptors.
<b>Progress Report 2017</b>	This report concluded that no exceedances of the air quality objectives were identified at relevant receptors.
<b>Updating &amp; Screening Assessment 2018</b>	This report concluded that no exceedances of the air quality objectives were identified at relevant receptors.

<b>Progress Report 2019</b>	This report concluded that no exceedances of the air quality objectives were identified at relevant receptors. Proposed that monitoring would take place within Enniskillen town and Omagh town areas for NO <sub>2</sub> levels from traffic sources.
<b>Progress Report 2020</b>	This report concluded that no exceedance of the air quality objectives were identified at relevant receptors. Proposed that in addition to NO <sub>2</sub> monitoring that SO <sub>2</sub> from domestic solid fuel sources would be monitored within the Enniskillen and Omagh town areas.
<b>Updating &amp; Screening Assessment 2021</b>	This report concluded that no exceedance of the air quality objectives were identified at relevant receptors. Monitoring of NO <sub>2</sub> and SO <sub>2</sub> undertaken within the Enniskillen and Omagh town areas. Deployment of tubes delayed due to Covid-19.
<b>Progress Report 2022</b>	This report concluded that no exceedance of the air quality objectives. Monitoring of NO <sub>2</sub> and SO <sub>2</sub> within the Enniskillen and Omagh town areas had commenced.
<b>Progress Report 2023</b>	This report concluded that no exceedance of the air quality objectives were identified at relevant receptors. FODC have confirmed funding for automatic monitoring equipment for PM <sub>2.5</sub> and PM <sub>10</sub> particulate matter.
<b>Updating &amp; Screening Assessment 2024</b>	This report concluded that no exceedance of the air quality objectives were identified at relevant receptors. Diffusion tube monitoring for 2023 had been temporarily suspended. FODC have confirmed that automatic monitoring equipment for PM <sub>2.5</sub> and PM <sub>10</sub> particulate matter would be installed in Enniskillen in August/September 2024.

## 2 New Monitoring Data

### 2.1 Summary of Monitoring Undertaken

#### 2.1.1 Automatic Monitoring Sites

FODC installed and commissioned a Fidas 200 automated monitoring station for PM<sub>2.5</sub> and PM<sub>10</sub> at a site located on the Dublin Road Area of Enniskillen (Enniskillen Bowling Green) in August 2024. The siting requirements of the station was completed in accordance with the Technical Guidance Note (TG22). The siting is relevant of worst-case public exposure. The site has been classified as 'Roadside'.

The station now provides real time information to the relevant stakeholders regarding pollution levels and will contribute to the national network sites. The data from the site is made available to the Department of Agriculture, Environment and Rural Affairs (DAERA) and is available on the 'Northern Ireland Air' Website.

The equipment used is a Fidas 200 and is classed as a light scattering monitor. It measures pulses from light scattered in a particular direction and outputs a signal determined by the size and the concentration of airborne particles in the sample stream. The Fidas 200 measures both PM<sub>10</sub> and PM<sub>2.5</sub> simultaneously and has been certified in the UK.

To ensure the reliability and validity of the data, the site is maintained on a monthly basis by EHS staff to perform local site operator duties such as filter changes and general housekeeping. Equipment is kept in calibration and serviced in line with manufacturer specifications.

As the automatic monitoring began on September 2024 and is for less than 75% of the year, annualisation techniques are used to estimate an annual average from part of the year.

There is also an automatic monitoring site located at Lough Navar in Co. Fermanagh that is maintained by DAERA. This rural upland site provides background air quality readings for

ozone, PM<sub>10</sub> and PM<sub>2.5</sub>. No exceedances of the air quality standards for these pollutants were observed during 2024 period.

A photograph of the Enniskillen Bowling Green monitoring station is presented in Figure 2.1 and a map identifying its location in Enniskillen is presented in Figure 2.2. Site-specific monitoring details are provided in Table 2.1.

**Figure 2.1 Photograph of Monitoring Station in Enniskillen.**



**Figure 2.2 Location Map of the Automated Monitoring Site in Enniskillen (Dublin Road).**

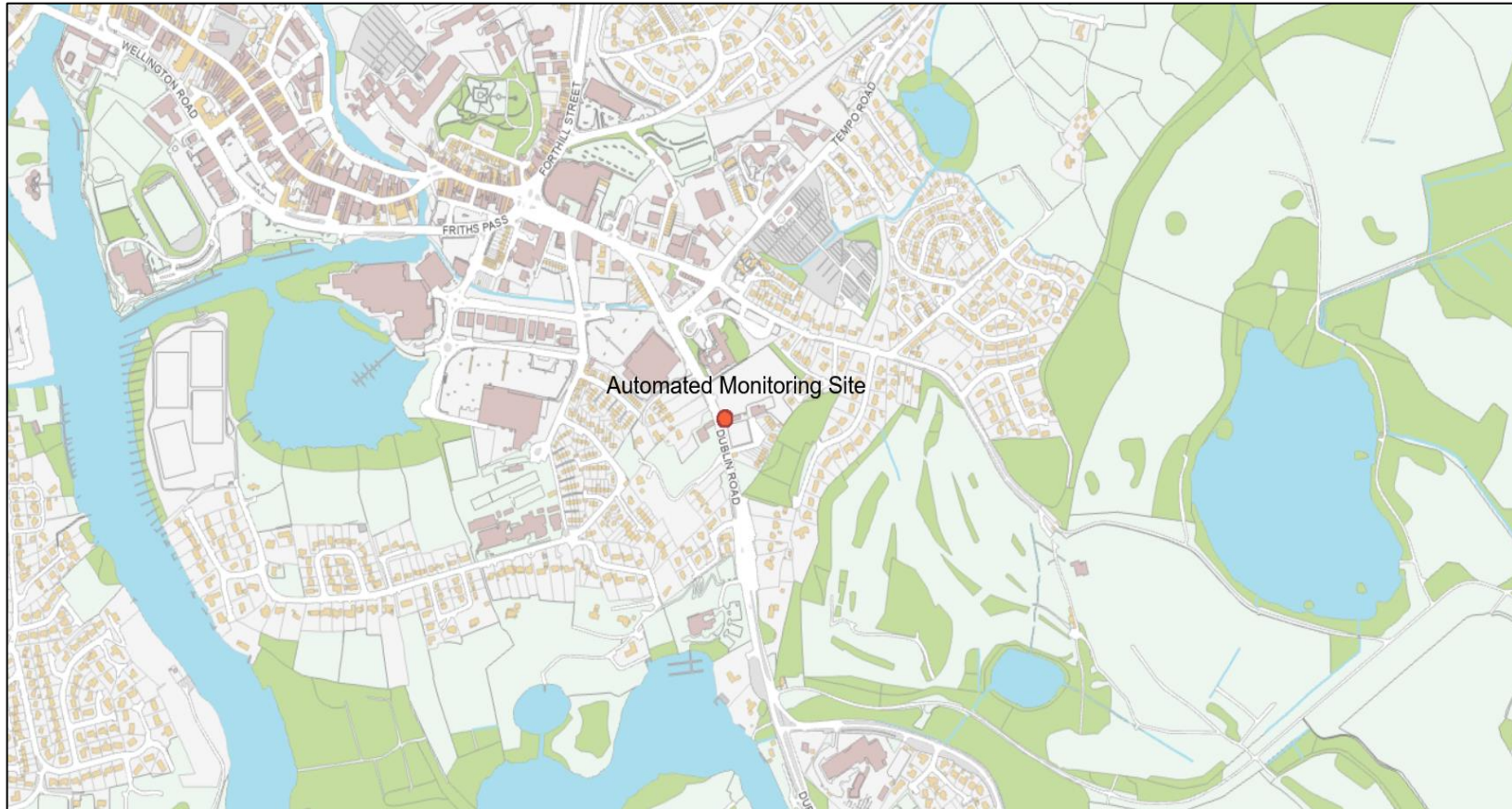


Figure 2.3 Aerial photograph of the Automated Monitoring Site in Enniskillen.



**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?
EKNA1	Enniskillen Bowling Green	Roadside	224399	343592	2.0	PM <sub>10</sub> PM <sub>2.5</sub>	N	Optical Light Scattering	Y (1m)	15.0	Y

### **2.1.2 Non-Automatic Monitoring Sites**

FODC has a monitoring network of passive diffusion tubes for NO<sub>2</sub> and SO<sub>2</sub> in the Omagh and Enniskillen town areas to assess pollution levels primarily from road traffic sources and domestic heating sources respectively.

For 2024, SO<sub>2</sub> diffusion tubes were excluded from the monitoring network in Enniskillen due to resourcing issues.

The monitoring network involves the placement of passive diffusion tubes located at predetermined locations in Omagh and Enniskillen Towns (Five in Omagh for NO<sub>2</sub> and SO<sub>2</sub> and five for NO<sub>2</sub> in Enniskillen). The location of each tube is based on worst case scenario.

The diffusion tubes are exposed in accordance with the Diffusion Tube Calendar. Specific details on the tube locations are provided in Table 2.2 with maps in Appendix B.

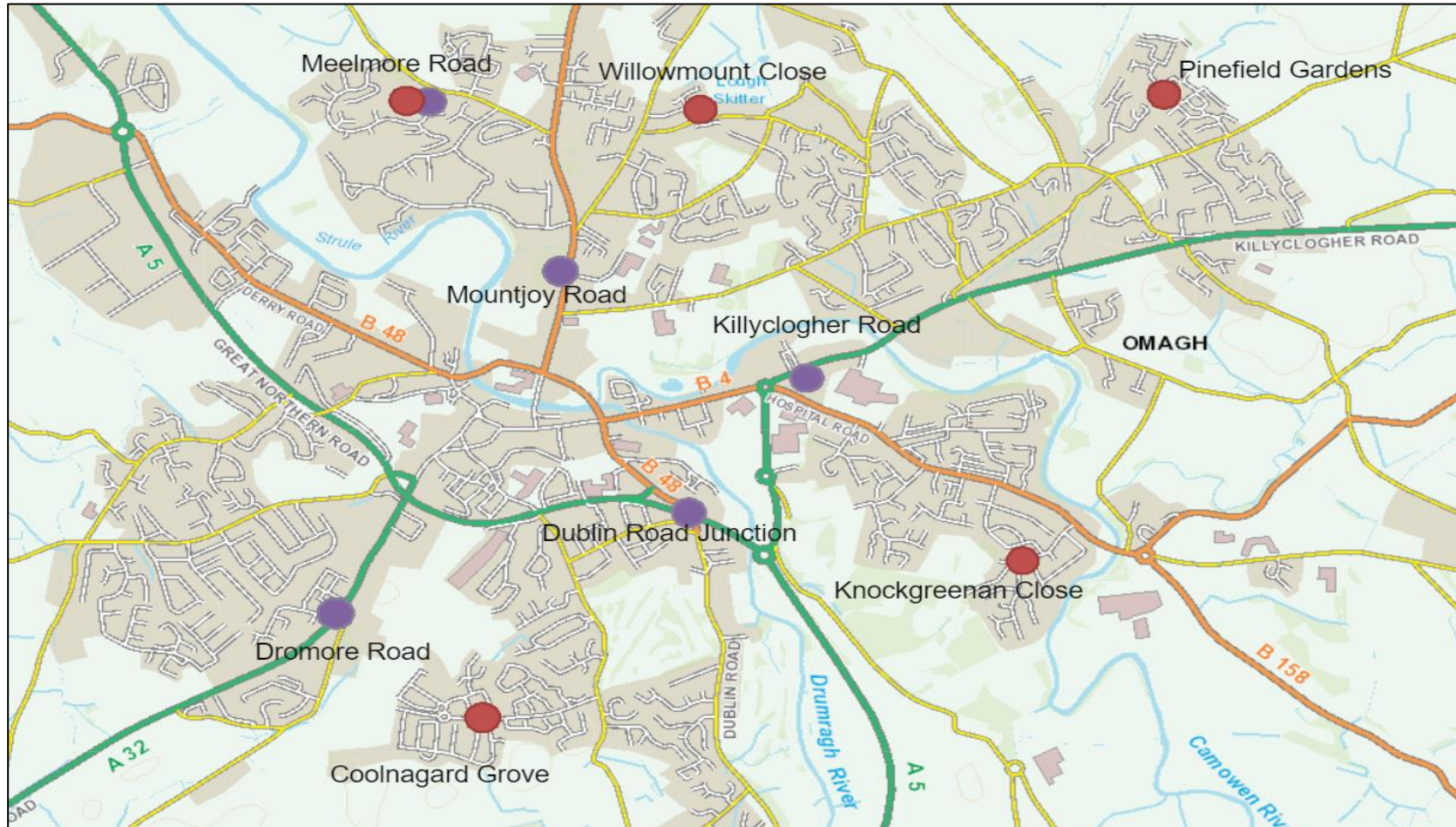
Previously NO<sub>2</sub> passive diffusion tubes were deployed singly, however for 2024 diffusion tubes were deployed in triplicate at each of the ten sites in order to improve confidence in the data. As this is only the second year of monitoring, deploying tubes in triplicate at a single location allows outlier concentrations to be more easily identified, which is not possible when only a single tube is deployed.

Maps highlighting all diffusion locations for Omagh and Enniskillen Town are presented in Figures 2.3 and 2.4.

In previous reports, the Irish grid reference system had been used to determine diffusion tube co-ordinate locations. To ensure compatibility with the Diffusion Tube Data Entry System (DTDES), the British grid reference system has now been used.

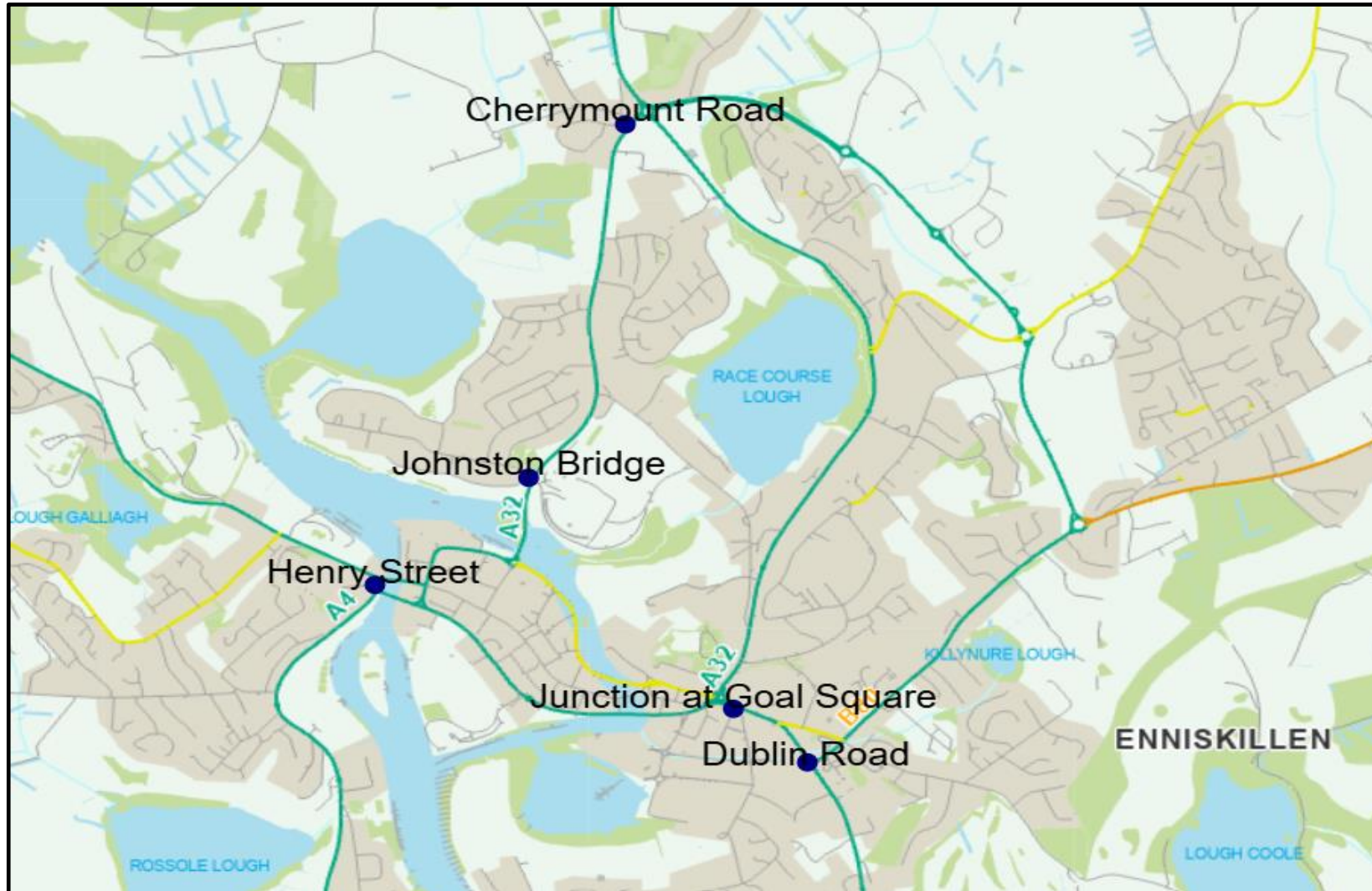
## Map(s) of Non-Automatic Monitoring Sites

Figure 2.4 Map of Omagh NO<sub>2</sub> and SO<sub>2</sub> Diffusion Tube Locations.



Key: ● No<sub>2</sub> Diffusion Tubes ● SO<sub>2</sub> Diffusion Tubes © Crown Copyright & Database Right 2020, © Ordnance Survey Ireland - SpatialNI is a service provided by Ordnance Survey of Northern Ireland®

**Figure 2.5** Map of Enniskillen NO<sub>2</sub> Locations



Key: ● No<sub>2</sub> Diffusion Tubes

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**Table 2.2 – 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?
O1N	Dublin Road Junction	Roadside	58257	535300	2m	NO <sub>2</sub>	N	N	Y (1M)	3.0m	Y
O2N	Mountjoy Road	Roadside	57872	536335	2m	NO <sub>2</sub>	N	N	Y (1M)	2.6m	Y
O3N	Dromore Road	Roadside	56973	534995	2m	NO <sub>2</sub>	N	N	Y (1M)	2.9m	Y
O4N	Meelmore Drive	Urban background	57455	537108	2m	NO <sub>2</sub>	N	N	Y (1M)	2.8m	Y
O5N	Killyclogher Road	Roadside	58676	535833	2m	NO <sub>2</sub>	N	N	Y (1M)	3.1m	Y
O1S	Coolnagard Grove	Urban background	57431	534480	2m	SO <sub>2</sub>	N	N	Y (1M)	3.5m	Y
O2S	Knockgreenan Close	Roadside	59435	534993	2m	SO <sub>2</sub>	N	N	Y (1M)	3.6m	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?
O3S	Pinefield Gardens	Urban background	60064	536904	2m	SO <sub>2</sub>	N	N	Y (1M)	2.8m	Y
O4S	Willowmount Close	Urban background	58394	536952	2m	SO <sub>2</sub>	N	N	Y (1M)	3.4m	Y
O5S	Meelmore Drive	Urban background	57455	537108	2m	SO <sub>2</sub>	N	N	Y (1M)	2.8m	Y
E1N	Junction at Goal Sq	Roadside	34231	508851	2m	NO <sub>2</sub>	N	N	Y (1M)	2.4m	Y
E2N	Dublin Road	Roadside	34424	508661	2m	NO <sub>2</sub>	N	N	Y (1M)	2.1m	Y
E3N	Henry Street	Roadside	33336	509152	2m	NO <sub>2</sub>	N	N	Y (1M)	1.9m	Y
E4N	Johnston Bridge	Roadside	33723	509626	2m	NO <sub>2</sub>	N	N	Y (1M)	2.6m	Y
E5N	Cherrymount Road	Roadside	34090	510716	2m	NO <sub>2</sub>	N	N	Y (1M)	2.5m	Y

## 2.2 Comparison of Monitoring Results with Air Quality Objectives

### 2.2.1 Nitrogen Dioxide (NO<sub>2</sub>)

The results are presented for NO<sub>2</sub> monitoring (Diffusion tubes only) and compared with the relevant objective levels. The diffusion tubes sampling was over 12 month monitoring period at monthly intervals and consider compliance with the annual objective of 40µg/m<sup>3</sup>.

No exceedances were detected.

#### Automatic Monitoring Data

Fermanagh and Omagh District Council do not undertake any Automatic monitoring for NO<sub>2</sub>.

#### Diffusion Tube Monitoring Data

The results from the diffusion tubes are presented in Table 2.5. The national bias adjustment factor of **0.84** that is based on 31 studies has been applied. Details of the QA/QC for the diffusion tubes and the reason for the use of the bias adjustment factor can be found in Appendix A.

**Table 2.3 – Annual NO<sub>2</sub> Results Summary**

DT ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual Mean: Raw Data	Annual Mean: Annualised and Bias Adjusted 0.84	Annual Mean: Distance Corrected to Nearest Exposure	Comment
O1N	245726	372301	18.7	14.3	16.0	15.3	12.0	10.8	10.9	10.4	15	15.6	16.5	16.0	14.3	12.0	-	-
O2N	245255	373299	13.8	9.3	9.6	9.3	7.9	5.8	6.3	7.4	9.7	10.2	13.4	12.0	9.6	8.1	-	-
O3N	244474	371888	14.9	10.3	11.4	12.4	11.9	9.1	10.0	8.4	14.3	13.3	13.0	13.8	11.9	10.0	-	-
O4N	244774	374033	9.1	5.6	5.6	6.2	5.4	3.7	4.0	3.2	6.6	5.3	9.7	6.1	6.2	5.2	-	-
O5N	246098	372868	15.8	10.1	8.7	11.7	10.6	10.3	8.8	9.9	10.9	8.1	12.1	13.6	10.9	9.2	-	-
E1N	224066	343933	14.5	13.5	10.1	14.2	8.7	9.4	9.2	8.1	12.1	10.9	14.3	12.5	11.5	9.7	-	-
E2N	224274	343760	14.2	16	13.2	16.0	12.0	9.3	10.5	7.5	13.9	13.5	16.1	13.3	13.0	11.0	-	-
E3N	223149	344157	13.5	12.9	7.8	12.1	8.1	8.7	8.7	7.5	11.2	10.5	13.0	10.7	10.4	8.7	-	-
E4N	223496	344661	13.7	14.9	10.2	12.8	10.0	9.8	10.0	8.7	13.0	10.1	15.6	10.8	11.6	9.7	-	-
E5N	223767	345777	13.4	15.8	11.4	13.7	10.3	10.1	10.5	11.2	13.8	14.3	15.2	10.7	12.5	10.5	-	-

**In bold**, exceedance of the NO<sub>2</sub> annual mean AQS objective of 40µg/m<sup>3</sup>

Underlined, annual mean > 60µg/m<sup>3</sup>, indicating a potential exceedance of the NO<sub>2</sub> hourly mean AQS objective

<sup>a</sup> 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%

<sup>b</sup> If an exceedance is measured at a monitoring site not representative of public exposure, NO<sub>2</sub> concentration at the nearest relevant exposure should be estimated based on the [NO<sub>2</sub> 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 2.4 – Results of NO<sub>2</sub> Diffusion Tubes (2020 to 2024)**

Site ID	Site Type	Within AQMA?	Annual Mean Concentration (µg/m <sup>3</sup> ) - Adjusted for Bias <sup>a</sup>				
			2020 (Bias Adjustment Factor = XX)	2021 (Bias Adjustment Factor = 0.84)	2022 (Bias Adjustment Factor = 0.85)	2023 (Bias Adjustment Factor = XX)	2024 (Bias Adjustment Factor = 0.84)
O1N	Roadside	N	-	-	25.2	-	12.0
O2N	Roadside	N	-	-	19.1	-	8.1
O3N	Roadside	N	-	-	20.2	-	10.0
O4N	Urban background	N	-	-	9.6	-	5.2
O5N	Roadside	N	-	-	19.2	-	9.2
E1N	Roadside	N	-	-	17.2	-	9.7
E2N	Roadside	N	-	-	20.4	-	11.0
E3N	Roadside	N	-	-	16.4	-	8.7
E4N	Roadside	N	-	-	16.5	-	9.7
E5N	Roadside	N	-	-	17.9	-	10.5

**In bold**, exceedance of the NO<sub>2</sub> annual mean AQS objective of 40µg/m<sup>3</sup>

Underlined, annual mean > 60µg/m<sup>3</sup>, indicating a potential exceedance of the NO<sub>2</sub> hourly mean AQS objective

<sup>a</sup> 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%.

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

Diffusion tube monitoring commenced in 2022, with no monitoring in 2023, therefore the small sample size limits the reliability of identifying trends. Trending small samples can result in outlier values skewing results and creating false trends. A more reliable analysis will be provided upon completion of sampling over a five-year period. The sampling to date has identified that NO<sub>2</sub> levels at worst scenario selected sites, are all significantly lower than the Annual Mean Objective Level of 40 µg/m<sup>3</sup>.

Figure 2.6 - Annual Mean NO<sub>2</sub> concentrations for Omagh.

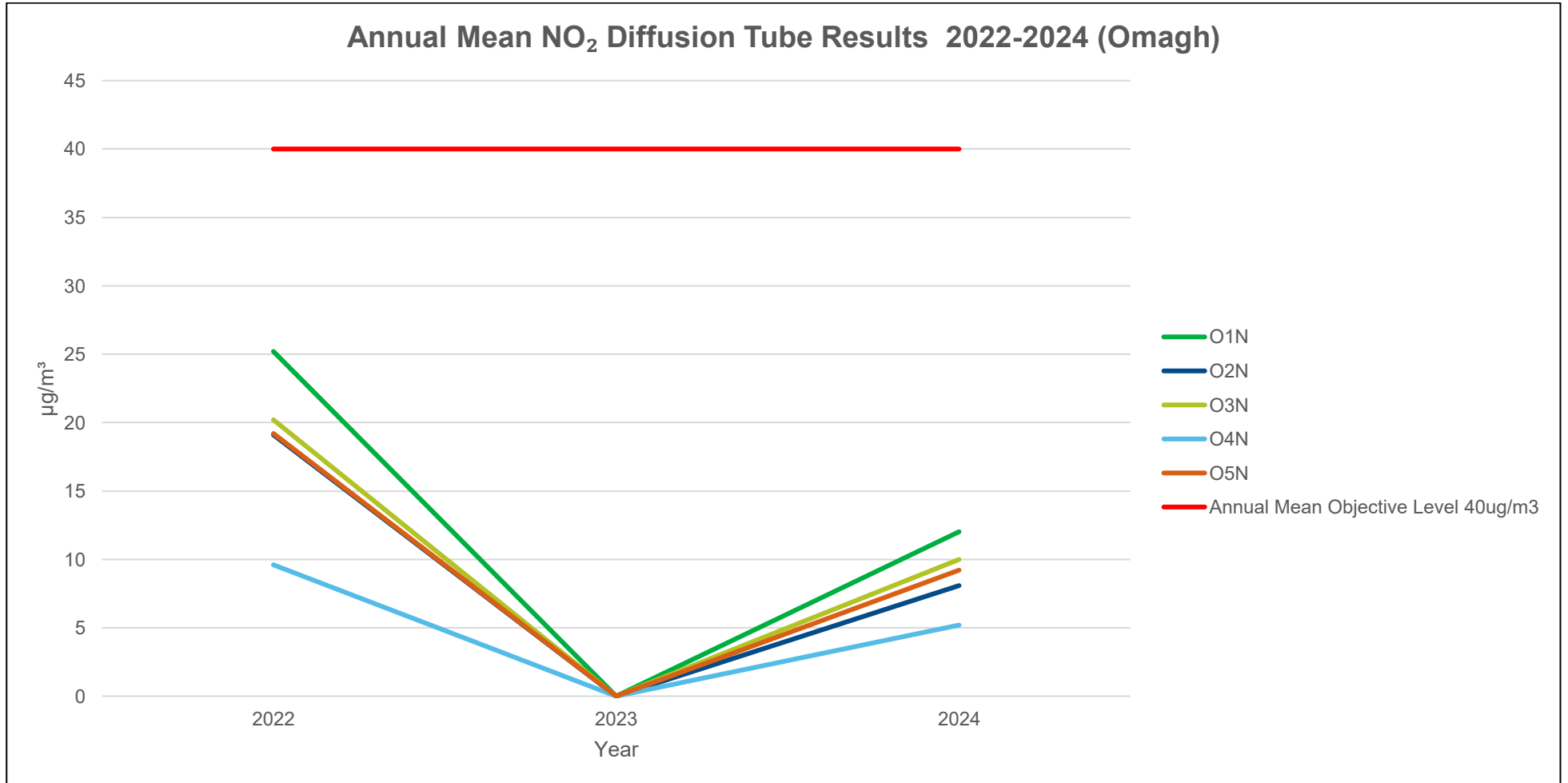
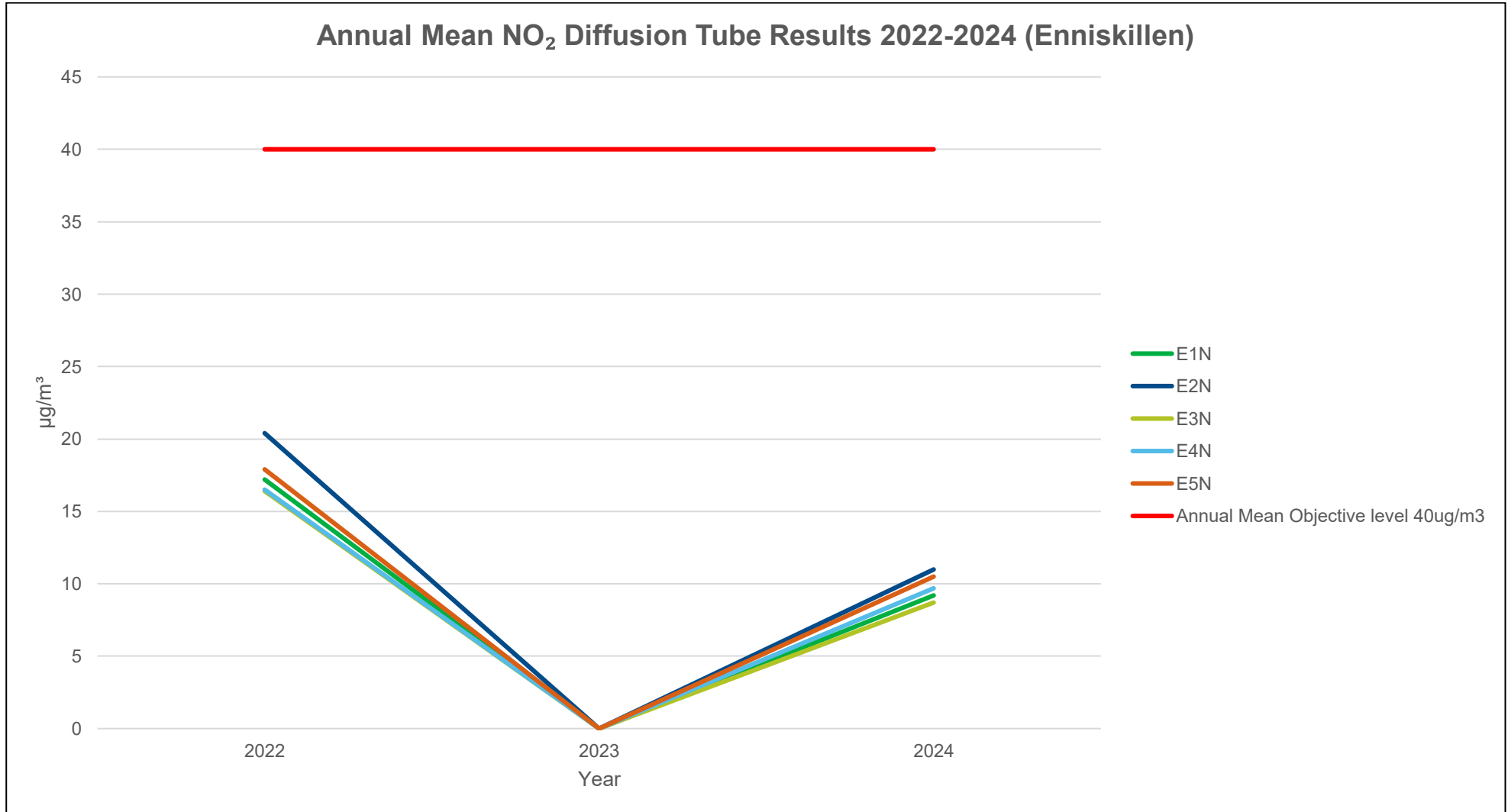


Figure 2.7 - Annual Mean NO<sub>2</sub> concentrations for Enniskillen.



### **2.2.2 Particulate Matter (PM<sub>10</sub>)**

At the Enniskillen Bowling Green site monitoring only commenced in August 2024, there was only 34 % data capture. We have complete data for four months: September to December 2024. The measured mean concentration for PM<sub>10</sub> for this period was 11 µg/m<sup>3</sup>, and for PM<sub>2.5</sub> was 4.2 µg/m<sup>3</sup>.

**Table 2.5 – Results of Automatic Monitoring for PM<sub>10</sub>: Comparison with Annual Mean Objective**

Site ID	Site Type	Within AQMA?	Valid Data Capture for Monitoring Period % <sup>a</sup>	Valid Data Capture 2024 % <sup>b</sup>	Confirm Gravimetric Equivalent (Y or N/A)	Annual Mean Concentration (µg/m <sup>3</sup> )				
						2020* <sup>c</sup>	2021* <sup>c</sup>	2022* <sup>c</sup>	2023* <sup>c</sup>	2024 <sup>c</sup>
EKNA1	Roadside	N	34	34	Y	-	-	-	-	11

**In bold**, exceedance of the PM<sub>10</sub> annual mean AQS objective of 40µg/m<sup>3</sup>

<sup>a</sup> i.e. data capture for the monitoring period, in cases where monitoring was only carried out for part of the year

<sup>b</sup> 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%)

<sup>c</sup> 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<sub>10</sub> Concentrations**

Due to only commencing monitoring in September 2024, there is insufficient data to allow meaningful trend analysis.

**Table 2.6 – Results of Automatic Monitoring for PM<sub>10</sub>: Comparison with 24-hour Mean Objective**

Site ID	Site Type	Within AQMA?	Valid Data Capture for Monitoring Period % <sup>a</sup>	Valid Data Capture 2024 % <sup>b</sup>	Confirm Gravimetric Equivalent (Y or N/A)	Number of Daily Means > 50µg/m <sup>3</sup>				
						2020* <sup>c</sup>	2021* <sup>c</sup>	2022* <sup>c</sup>	2023* <sup>c</sup>	2024 <sup>c</sup>
EKNA1	Roadside	N	34	34	Y	-	-	-	-	0 (18.4 <sup>c</sup> )

**In bold**, exceedance of the PM<sub>10</sub> daily mean AQS objective (50µg/m<sup>3</sup> – not to be exceeded more than 35 times per year)

<sup>a</sup> i.e. data capture for the monitoring period, in cases where monitoring was only carried out for part of the year

<sup>b</sup> 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%)

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

\* Number of exceedances for previous years is optional

### **2.2.3 Sulphur Dioxide (SO<sub>2</sub>)**

To assess the impact from domestic sources a diffusion survey for SO<sub>2</sub> has been completed. Monitoring was carried out in areas of higher density housing where there a tendency to avail of solid fuel heating as a supplementary heat source.

In the absences of automated monitoring, the SO<sub>2</sub> levels are measured using passive diffusion tubes. The SO<sub>2</sub> is absorbed as sulphate on the internal grid located in the purple cap. The analysis differs slightly; the absorbed compound is extracted and the amount present determined by ion chromatography as opposed to UV-visible spectrophotometry for NO<sub>2</sub> tubes.

The SO<sub>2</sub> analysis methods are accredited to ISO17025:2 operated by Gradko International Ltd.

FODC have presented the SO<sub>2</sub> diffusion tube data in the same format as NO<sub>2</sub> data, with a yearly mean provided. FODC acknowledge that there has been no bias adjustment to ensure the accuracy and reliability of the data. However, the values are so low and accounting for the absence of bias adjustment, FODC are confident that it can demonstrate that the objective levels have not been exceeded.

**Table 2.7 – Annual SO<sub>2</sub> Results Summary**

DT ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual Mean: Raw Data
O1S	244974	371415	5.9	2.6	1.95	1.1	1.0	1.6	0.7	<0.5	<0.5	0.8	1.5	2.1	1.9
O2S	246926	372096	4.32	3.05	2.56	2.19	2.02	0.88	<0.5	<0.5	<0.5	1.4	1.9	4.6	2.6
O3S	247388	374052	8.94	2.69	2.07	-	1.33	2.37	<0.5	0.6	<0.5	1.5	2.6	6.4	3.2
O4S	245722	373958	6.48	3.51	3.6	2.54	1.17	1.81	<0.5	1.2	<0.7	2.6	3.6	4.5	3.0
O5S	244774	374033	2.82	1.22	1.31	0.82	1.17	1.18	<0.5	1.6	<0.5	0.6	1.4	2.5	1.4

**Table 2.8 – Results of SO<sub>2</sub> Diffusion Tubes (2020 to 2024)**

Site ID	Site Type	Within AQMA?	Annual Mean Concentration (µg/m <sup>3</sup> )				
			2020	2021	2022	2023	2024
O1S	Roadside	N	-	-	1.6	-	1.9
O2S	Roadside	N	-	-	1.7	-	2.6
O3S	Roadside	N	-	-	1.8	-	3.2
O4S	Urban background	N	-	-	1.8	-	3.0
O5S	Roadside	N	-	-	1.8	-	1.4
E1S	Roadside	N	-	-	1.8	-	-
E2S	Roadside	N	-	-	1.5	-	-
E3S	Roadside	N	-	-	1.6	-	-
E4S	Roadside	N	-	-	2.0	-	-
E5S	Roadside	N	-	-	1.6	-	-

#### **2.2.4 Benzene**

FODC do not monitor Benzene. There have been no developments within the District that would require further assessment.

#### **2.2.5 Other Pollutants Monitored**

With the installation of the automated monitor (FIDAS 200) in Enniskillen in September 2024, PM<sub>2.5</sub> are being measured. The annual mean results for PM<sub>2.5</sub> for the period measured in 2024 was 4.2 µg/m<sup>3</sup> with 34% data capture, below the UK limit of 20 µg/m<sup>3</sup>.

#### **2.2.6 Summary of Compliance with AQS Objectives**

FODC has examined the results from monitoring in the District. Concentrations are all below the objectives, therefore there is no need to proceed to a Detailed Assessment.

## 3 New Local Developments

### 3.1 Road Traffic Sources

FODC confirms that there has been no significant change to any of the sources detailed below that may have an impact on air quality since the last Updating and Screening Assessment;

- Narrow congested streets with residential properties close to the kerb.
- Busy 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 HGV's.
- Junctions.
- New roads constructed or proposed since the Last Updating and Screening Assessment.
- Roads with significantly changed traffic flows.
- Bus or coach stations.

Details of new traffic sources that have been considered in the last year have been outlined in the Planning Applications Section.

FODC confirms that there have been no new traffic sources that may have an impact on air quality.

### 3.2 Other Transport Sources

FODC confirms that there have been no new cases of the following that may have an impact on air quality 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 15 m.
- Locations with a large number of movements of diesel locomotives and potential long-term relevant exposure within 30 m.
- Ports for shipping.

Details of new potential traffic sources that have been considered in the last year have been outlined in the Planning Applications Section.

FODC confirms that there have been no new transport sources that may have an impact on air quality.

### **3.3 Industrial Sources**

FODC confirms that there have been no new cases of the following that may have an impact on air quality 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 15 m.
- Locations with a large number of movements of diesel locomotives and potential long-term relevant exposure within 30 m.
- Ports for shipping.

Details of new potential traffic sources that have been considered in the last year have been outlined in the Planning Applications Section.

FODC confirms that there have been no new transport sources that may have an impact on air quality.

### **3.4 Commercial and Domestic Sources**

FODC have considered the following commercial and domestic sources that are new since the last Updating and Screening Assessment;

- Biomass combustion plant-individual installations.
- Areas where the combined impact of several biomass combustion sources may be relevant.
- Areas where domestic solid fuel may be relevant.
- Combined Heat and Power Plant (CHP) Plant.

Details of new potential sources that have been considered in the last year have been outlined in the Planning Applications Section.

FODC confirms that there have been no new commercial or domestic sources that may have an impact on air quality.

### **3.5 New Developments with Fugitive or Uncontrolled Sources**

FODC have considered the following new developments with fugitive or uncontrolled sources that are new since the last Updating and Screening Assessment;

- Landfill sites.
- Quarries.
- Unmade haulage roads on industrial sites.
- Waste transfer stations etc.
- Other personal sources of fugitive particulate emissions.

FODC confirms that there have been no new developments with fugitive or uncontrolled sources that are new since the last Updating and Screening Assessment. Relevant proposed developments have been considered at the planning stage.

Fermanagh and Omagh 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.

Fermanagh and Omagh 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

There are currently no Air Quality Management Areas and Air Quality Action Plans in FODC as there are no exceedances with the Air Quality Objectives.

As the implementation of the current Air Quality Monitoring Network is at the early stages of development, the amount of data to review and trend is limited. Therefore the creation of an Air Quality Strategy has been delayed to ensure that the best measures are devised based on a greater level of detail from a larger data set.

## 5 Planning Applications

FODC review the planning applications received for the District and identify developments that have potential to negatively impact upon air quality. For these applications, an Air Quality Impact Assessment has been requested (if not presented with the application).

The Environmental Health Service (EHS) have identified larger construction projects, particularly in urban areas. With these applications a focused proactive approach can be given to the control of dust emissions and fugitive emissions, such as the burning of waste materials onsite. Through the planning consultation process, EHS require the submission of a Construction Environmental Management Plan for larger projects in line with the IAQM guidance on the assessment of dust from demolition and construction.

The following are the applications that were identified as having potential to negatively impact upon air quality and the action taken by FODC:

**Planning Application Reference no:** LA10/2024/0515/F

**Proposal:** Proposed demolition of existing buildings and erection of proposed mixed-use building to provide community group facilities.

**Action Taken:** EHS request that a Construction Environmental Management Plan (CEMP) is provided with details of dust suppression/control to be provided.

**Planning Application Reference no:** LA10/2024/1214/F

**Proposal:** Proposed facility to produce biomethane from biogas including upgrader, gas compressors, biomethane dispensers, propane and biomethane storage.

**Action Taken:** No impact on air quality identified.

**Planning Application Reference no:** LA10/2024/1047/F

**Proposal:** Translink bus maintenance facility, new access, NIE substation and associated site works.

**Action Taken:** An Air Quality Impact Assessment was submitted and concluded that there would be no impact on air quality.

**Planning Application Reference no:** LA10/2024/0995/PAD

**Proposal:** Proposed residential development and associated ancillary works.

**Action Taken:** FODC requested that the applicant determine if an air quality assessment is required and is to take the form of a Simple Assessment or a Detailed Assessment.

**Planning Application Reference no:** LA10/2024/0638/PAD

**Proposal:** Proposed housing development.

**Action Taken:** FODC requested that the applicant determine if an air quality assessment is required and is to take the form of a Simple Assessment or a Detailed Assessment.

**Planning Application Reference no:** LA10/2024/0619/PAD

**Proposal:** Development of a green hydrogen production plant and associated development.

**Action Taken:** FODC requested an air quality assessment and a CEMP.

## 6 Air Quality Planning Policies

FODC Local Development Plan 2039-Plan Strategy was formally adopted on 16 March 2023. The Local Development Plan 2030 underpins all Planning Policy within the District and is used to consider the merits of Planning Developments within Fermanagh and Omagh District Council.

The Local Development Plan 2030 includes a range of strategic planning policies and detailed policies to guide development in the District. Planning decisions must be determined in accordance with the Local Development Plan.

Examination of the Local Development Plan 2030 notes references to sustaining Air Quality in the District;

- Promote positive proposals on climate change.
- Promote the sustainable development of resources.

The Planning Department and Environmental Health Service will contribute further guidance on key areas of the Local Development Plan which may include Air Quality Impact.

## **7 Local Transport Plans and Strategies**

The Department for Infrastructure is currently preparing a new Transport Plan for the FODC area called the Fermanagh and Omagh Sub-Regional Transport Plan 2035 (FO SRTP). The FO SRTP considers local transport issues and will set the framework for transport policy up until 2035, with focus on the towns of Omagh and Enniskillen.

The future development of the Regional Strategic Transport Network such as the A5 is not considered as part of the FODC Sub Regional Transport Plan. These are considered separately as part of the Regional Strategic Transport Network Plan 2035.

Part of the preparation of the FO SRTP is an Intergraded Sustainability Appraisal (ISA). The ISA will assess the environmental impacts of the FO SRTP, including Greenhouse Gas Emissions.

The Transport Plan is being prepared in 6 stages, with three stages of the process being completed. The current stage 4 involves public consultation of the draft Transport Plan and the associated assessments.

The Electric Vehicle (EV) Infrastructure Action Plan was developed by the Electric Vehicle Infrastructure Task Force which was set up in December 2021 to bring together representatives from various stakeholders, to consider the EV infrastructure requirements to deliver a fit for purpose, modern EV charging network.

## 8 Climate Change Strategies

During the period January to December 2024, Fermanagh and Omagh District Council continued to be committed to addressing climate change and advancing sustainable development across its District.

Further to the publication of the Council's Climate Change and Sustainable Development Strategy: Restore, Revive, Thrive – Our Environment in February 2021 and Action Plan in October 2021. The Council is in the process of reviewing actions, achievements, and progress to date under their six key thematic areas:

- Energy & Buildings
- Resource Management
- Transport
- Land Use
- Economy
- Governance

This review process will then be followed by the commencement of preparations for a refreshed Action Plan for the period 2025 to 2030, detailing actions the Council will take to reduce Council emissions.

The Council have two groups which meet every three months:

- The Biodiversity and Climate Steering Group
- Integrated Climate Action Network (ICAN) which through cross sector partnership working aim to deliver their shared vision for the District.

Air quality and climate change are fundamentally interlinked, so reductions in emissions from sources that cause global warming such as vehicles, buildings, power generation and industry also contribute to reducing air pollution.

## **9 Conclusions and Proposed Actions**

### **9.1 Conclusions from New Monitoring Data**

FODC has examined the results from monitoring in the District and can confirm that there were no exceedances of any objectives and therefore there is no requirement for a Detailed Assessment.

### **9.2 Conclusions relating to New Local Developments**

When reviewing relevant planning applications Fermanagh and Omagh District Council have reviewed Air Quality Impact Assessments submitted with individual proposals or requested their submission if deemed necessary. To date there have been no significant changes in local circumstances identified within the District that would require a Detailed Assessment.

### **9.3 Other Conclusions**

Currently there are no Air Quality Management Areas in the District and consequently Air Quality Action Plans.

In the absence of an Air Quality Action Plan, Fermanagh and Omagh District Council are in the process of drafting a Local Air Quality Strategy that will detail action to be taken to maintain compliance with Air Quality Objectives.

Planning applications that required an Air Quality Impact Assessment will be reviewed in due course.

## 9.4 Proposed Actions

FODC are currently in the process of securing funding for the installation of an automated monitoring station for PM<sub>10</sub> and PM<sub>2.5</sub> in the Omagh Town area.

The SO<sub>2</sub> levels measured are so low and accounting for the absence of bias adjustment, FODC are confident that it can demonstrate that the objective levels have not been exceeded. Due to the results being so low, FODC are satisfied that there is no further need to include SO<sub>2</sub> in the monitoring network.

## References

Defra (2022) Review and Assessment: Technical Guidance LAQM.TG22, Defra.

Fermanagh and Omagh District Council Progress Report 2022, 2023.

Fermanagh and Omagh District Council Updating and Screening Assessment 2024.

Fermanagh and Omagh District Council: Climate Change and Sustainable Strategy: *Restore, Revive, Thrive- Our Environment*. 2021.

Fermanagh and Omagh District Council: Climate Change and Sustainable Development Action Plan. 2021.

Fermanagh and Omagh District Council: Regional Development Strategy 2035.

Fermanagh and Omagh Local Transport Study. Version 17. March 2021.

Sustainable Development Strategy for NI (2010).

# 10 Appendices

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

**Appendix B:** Maps of Diffusion Tube Locations.

# Appendix A: QA/QC Data

## QA/QC Diffusion Tube Monitoring

The NO<sub>2</sub> diffusion tubes were prepared and supplied by Gradko International Ltd using the preparation method of 20% TEA/Water.

### Diffusion Tube Annualisation

All diffusion tube monitoring locations within Fermanagh and Omagh District Council recorded data capture of 75% therefore it was not required to annualise any monitoring data.

### Diffusion Tube Bias Adjustment Factors

Fermanagh and Omagh District Council have applied a national bias adjustment factor of 0.84 to the 2024 monitoring data. The national figure is based on 31 studies.

A copy of the 2025 National Bias Adjustment Factors Spreadsheet;

National Diffusion Tube Bias Adjustment Factor Spreadsheet						Spreadsheet Version Number: 09/25					
Follow the steps below in the correct order to show the results of relevant co-location studies										This spreadsheet will be updated at the end of March 2026	
Data only apply to tubes exposed monthly and are not suitable for correcting individual short-term monitoring periods										LAQM Helpdesk Website	
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.											
The LAQM Helpdesk is operated on behalf of Defra and the Devolved Administrations by Bureau Veritas, in conjunction with contract partners AECOM and the National Physical Laboratory.						Spreadsheet maintained by the National Physical Laboratory. Original compiled by Air Quality Consultants Ltd.					
Step 1:		Step 2:	Step 3:	Step 4:							
Select the Laboratory that Analyses Your Tubes from the Drop-Down List		Select a Preparation Method from the Drop-Down List	Select a Year from the Drop-Down List	Where there is only one study for a chosen combination, you should use the adjustment factor shown with caution. Where there is more than one study, use the overall factor shown in blue at the foot of the final column.							
If a laboratory is not shown, we have no data for this laboratory.		If a preparation method is not shown, we have no data for this method at this laboratory.	If a year is not shown, we have no data.	If you have your own co-location study then see footnote 5. If uncertain what to do then contact the Local Air Quality Management Helpdesk at LAQMHelpdesk@bureauveritas.com or 0800 0327953							
Analysed By <sup>1</sup>	Method	Year <sup>2</sup>	Site Type	Local Authority	Length of Study (months)	Diffusion Tube Mean Conc. (Dm) (µg/m <sup>3</sup> )	Automatic Monitor Mean Conc. (Cm) (µg/m <sup>3</sup> )	Bias (B)	Tube Precision <sup>3</sup>	Bias Adjustment Factor (A) (Cm/Dm)	
Gradko	20% TEA in water	2024	R	Belfast City Council	12	34	27	25.5%	G	0.80	
Gradko	20% TEA in water	2024	R	Blackburn With Darwen Bo	12	22	17	32.9%	G	0.75	
Gradko	20% TEA in water	2024	R	Bath & North East Somerset	12	25	20	22.6%	G	0.82	
Gradko	20% TEA in water	2024	R	Cambridge City Council	12	19	15	28.5%	G	0.78	
Gradko	20% TEA in water	2024	UB	Plymouth City Council	12	16	14	13.8%	G	0.88	
Gradko	20% TEA in water	2024	R	Plymouth City Council	12	31	23	33.4%	S	0.75	
Gradko	20% TEA in water	2024	R	Monmouthshire County Council	12	29	24	19.4%	G	0.84	
Gradko	20% TEA in water	2024	KS	Marylebone Road Intercomparison	11	41	36	16.1%	G	0.86	
Gradko	20% TEA in water	2024	R	Lisburn & Castlereagh City Council	12	24	19	27.8%	G	0.78	
Gradko	20% TEA in water	2024	R	Aids And North Down Borough Council	11	28	20	44.5%	G	0.69	
Gradko	20% TEA in water	2024	R	Eastleigh Borough Council	12	29	24	20.3%	G	0.83	
Gradko	20% TEA in water	2024	UB	Eastleigh Borough Council	12	19	17	12.4%	G	0.89	
Gradko	20% TEA in water	2024	R	Eastleigh Borough Council	12	19	17	12.0%	G	0.89	
Gradko	20% TEA in water	2024	R	Gateshead Council	12	20	18	13.9%	G	0.88	
Gradko	20% TEA in water	2024	R	Gateshead Council	11	20	17	19.7%	G	0.84	
Gradko	20% TEA in water	2024	R	Gateshead Council	12	24	20	21.7%	G	0.82	
Gradko	20% TEA in water	2024	R	Gateshead Council	12	27	23	19.0%	G	0.84	
Gradko	20% TEA in water	2024	R	Gateshead Council	12	28	30	-6.0%	G	1.06	
Gradko	20% TEA in water	2024	R	Brighton & Hove City Council	11	34	27	26.3%	G	0.79	
Gradko	20% TEA in water	2024	R	Liverpool City Council	12	34	25	35.7%	G	0.74	
Gradko	20% TEA in water	2024	KS	Liverpool City Council	10	52	47	10.2%	G	0.91	
Gradko	20% TEA in water	2024	R	Nottingham City Council	10	29	26	12.2%	G	0.89	
Gradko	20% TEA in water	2024	R	Wycharon District Council	10	29	26	14.7%	G	0.87	
Gradko	20% TEA in water	2024	R	Worcestershire	12	12	12	-3.4%	G	1.04	
Gradko	20% TEA in water	2024	R	Cheshire West And Chester	12	33	27	21.7%	G	0.82	
Gradko	20% TEA in water	2024	R	Cheshire West And Chester	11	30	27	12.9%	G	0.89	
Gradko	20% TEA in water	2024	R	The Highland Council	12	19	18	6.9%	G	0.94	
Gradko	20% TEA in water	2024	R	The Highland Council	11	15	11	35.3%	G	0.74	
Gradko	20% TEA in water	2024		<b>Overall Factor<sup>4</sup> (31 studies)</b>				<b>Use</b>		<b>0.84</b>	

**Table A.1 - Bias Adjustment Factor**

<b>Year</b>	<b>Local or National</b>	<b>If National, Version of National Spreadsheet</b>	<b>Adjustment Factor</b>
2024	National	09/25	0.84
2023	-	-	-
2022	National	03/22	0.85
2021	-	-	-
2020	-	-	-

**NO<sub>2</sub> Fall-off with Distance from the Road**

No diffusion tube NO<sub>2</sub> monitoring locations within Fermanagh and Omagh District Council required distance correction during 2024

## QA/QC of Automatic Monitoring

FODC contracted AQDM Technology to provide the QA/QC for the automatic measurements of NO<sub>2</sub> and PM<sub>10</sub>/PM<sub>2.5</sub> for the automatic monitoring station at the Bowling Green site in Enniskillen.

Automatic Reports product by AQDM Technology;

### PM<sub>10</sub>

Jill Crawford (jill.crawford@fermanaghomagh.com) is signed in

The gravimetric PM<sub>10</sub> annual mean and daily mean Objectives were not exceeded.

The gravimetric PM<sub>10</sub> annual means and annual data captures are shown below. The annual mean AQS Objective is 40 µg m<sup>-3</sup> and the annual data capture target is 75%.

Station	Annual Data Capture %	Annual Mean µg m <sup>-3</sup>	Objective Exceeded
Enniskillen Bowling Green	34.0 (99.6)	10.6 *	No

\* The PM<sub>10</sub> annual mean should be annualised using the methodology in the Technical Guidance (7.140) because the annual data capture was less than 75% and there was at least 3 months monitoring.

The gravimetric PM<sub>10</sub> daily mean AQS Objective is 50 µg m<sup>-3</sup>. The number of exceedances is shown below. There is an annual allowance of 35 days.

Station	Number of Daily Mean > 50 µg m <sup>-3</sup>	Objective Exceeded	Maximum Daily Mean µg m <sup>-3</sup>	Annual Data Capture %	90.4 <sup>th</sup> Percentile µg m <sup>-3</sup>
Enniskillen Bowling Green	0	No	26.9	34.0	18.4 *

\* The PM<sub>10</sub> 90.4<sup>th</sup> percentile (Technical Guidance 7.182) should be reported because the annual data capture was less than 85%.

## PM<sub>2.5</sub>

The gravimetric PM<sub>2.5</sub> annual means and annual data captures are shown below. The annual mean AQS Objective is 20 µg m<sup>-3</sup> and the annual data capture target is 75%.

There is a target of a 35% reduction in population exposure compared with the average population exposure baseline period (2016 - 2018) by end of 2040.

The annual mean AQS Objective of 10 µg m<sup>-3</sup> should not be exceeded at any relevant monitoring station by 31<sup>st</sup> December 2040.

Station	Annual Data Capture %	Annual Mean µg m <sup>-3</sup>	Objective Exceeded
Enniskillen Bowling Green	34.0 (99.6)	6.6 *	No

\* The PM<sub>2.5</sub> annual mean should be annualised using the methodology in the Technical Guidance (7.140) because the annual data capture was less than 75% and there was at least 3 months monitoring.

## Air Quality Statistics

Pollutant	PM <sub>10</sub>	PM <sub>2.5</sub>	PM <sub>1</sub>
Number Very High #	0	0	-
Number High #	0	0	-
Number Moderate #	0	0	-
Number Low #	124	124	-
Maximum 15-min mean	- µg m <sup>-3</sup>	- µg m <sup>-3</sup>	81.3 µg m <sup>-3</sup>
Maximum hourly mean	79.8 µg m <sup>-3</sup>	72.9 µg m <sup>-3</sup>	75.5 µg m <sup>-3</sup>
Maximum running 8-hr mean	51.7 µg m <sup>-3</sup>	46.8 µg m <sup>-3</sup>	47.9 µg m <sup>-3</sup>
Maximum running 24-hr mean	31.8 µg m <sup>-3</sup>	27.2 µg m <sup>-3</sup>	27.3 µg m <sup>-3</sup>
Maximum daily mean	26.9 µg m <sup>-3</sup>	19.8 µg m <sup>-3</sup>	19.6 µg m <sup>-3</sup>
90.4 <sup>th</sup> percentile of daily means <sup>†</sup>	18.4 µg m <sup>-3</sup>	- µg m <sup>-3</sup>	- µg m <sup>-3</sup>
90 <sup>th</sup> percentile of daily means <sup>†</sup>	18.4 µg m <sup>-3</sup>	- µg m <sup>-3</sup>	- µg m <sup>-3</sup>
98.1 <sup>st</sup> percentile of daily means <sup>†</sup>	24.2 µg m <sup>-3</sup>	- µg m <sup>-3</sup>	- µg m <sup>-3</sup>
Average	10.6 µg m <sup>-3</sup>	6.6 µg m <sup>-3</sup>	5.3 µg m <sup>-3</sup>
Data capture	34.0 %	34.0 %	34.0 %
Data capture from 29 <sup>th</sup> August	99.6 %	99.6 %	99.6 %

# Daily Air Quality Index (DAQI) as defined by COMEAP January 2012 and revised April 2013

† Percentile required for annual data capture < 85%

\* PM<sub>10</sub> as measured by a FIDAS instrument using 1 gravimetric factor

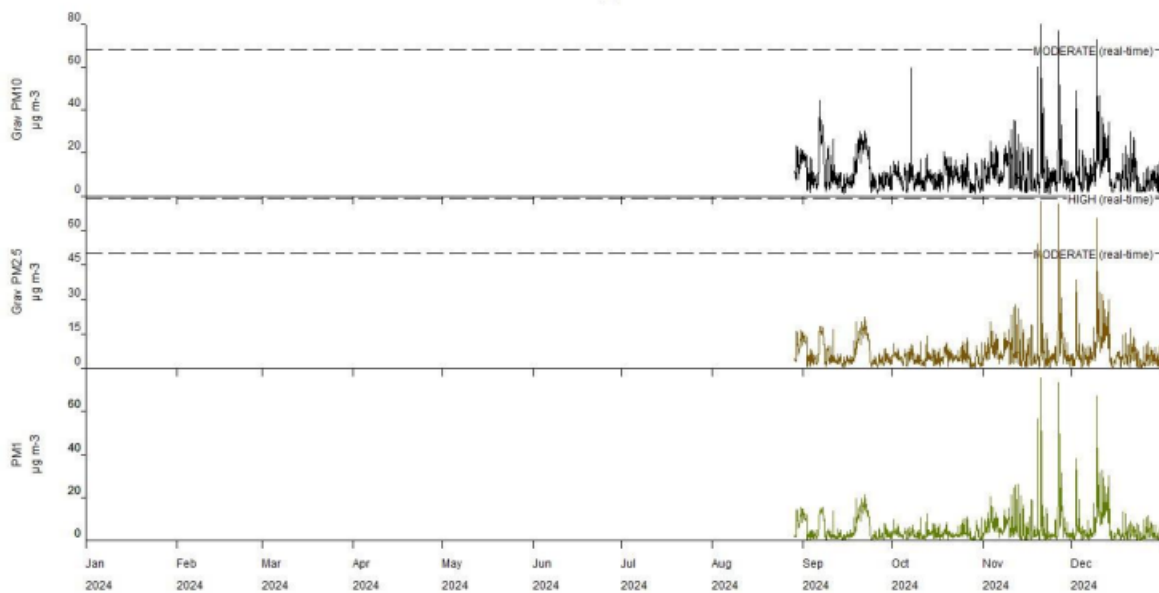
~ PM<sub>2.5</sub> as measured by a FIDAS instrument using 0.94 gravimetric factor

§ PM<sub>1</sub> as measured by a

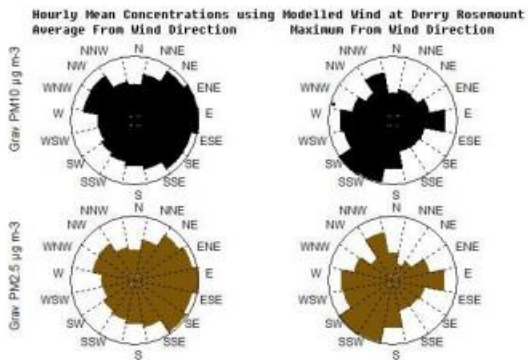
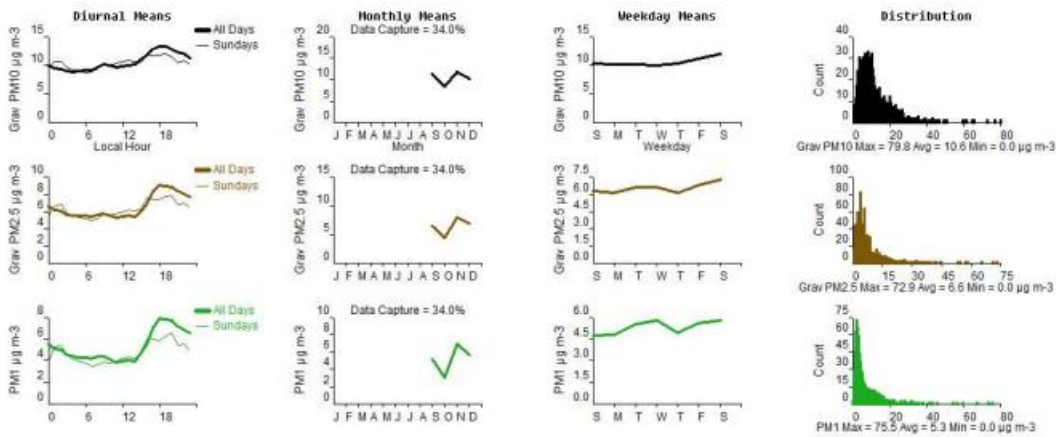
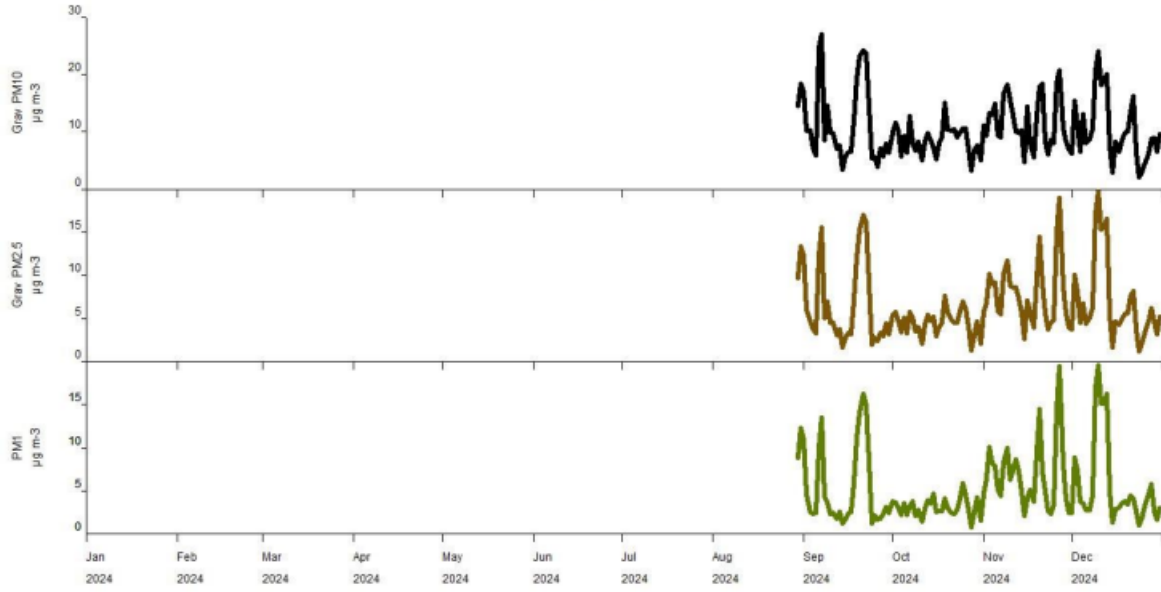
## Air Quality Exceedances

Pollutant	Air Quality Regulations (Northern Ireland) 2003	Max Conc	Number	Days	Allowed	Exceeded
PM <sub>10</sub> Particulate Matter (Gravimetric)	Annual mean > 40 µg m <sup>-3</sup>	10.6 µg m <sup>-3</sup>	0	-	-	No
PM <sub>10</sub> Particulate Matter (Gravimetric)	Daily mean > 50 µg m <sup>-3</sup>	26.9 µg m <sup>-3</sup>	0	0	35 days	No
PM <sub>2.5</sub> Particulate Matter (Gravimetric)	Annual mean > 20 µg m <sup>-3</sup>	6.6 µg m <sup>-3</sup>	0	-	-	No

## Hourly Means



# Daily Means



### **PM<sub>10</sub> and PM<sub>2.5</sub> Monitoring Adjustment**

If PM<sub>10</sub>/PM<sub>2.5</sub> monitoring is completed within your authority, where applicable please detail any correction factors applied to the data before it is published (e.g. using the Volatile Correction Model (VCM) or a specific correction factor). Correction factors as detailed within LAQM.TG22 Chapter 7: Particulate Matter Monitoring.

### **Automatic Monitoring Annualisation**

If annualisation was required for any automatic monitoring sites a summary of the sites should be provided here and the annualisation data should be presented in Table A.3. Annualisation is required for any site with data capture less than 75% but greater than 25%.

### **NO<sub>2</sub> Fall-off with Distance from the Road**

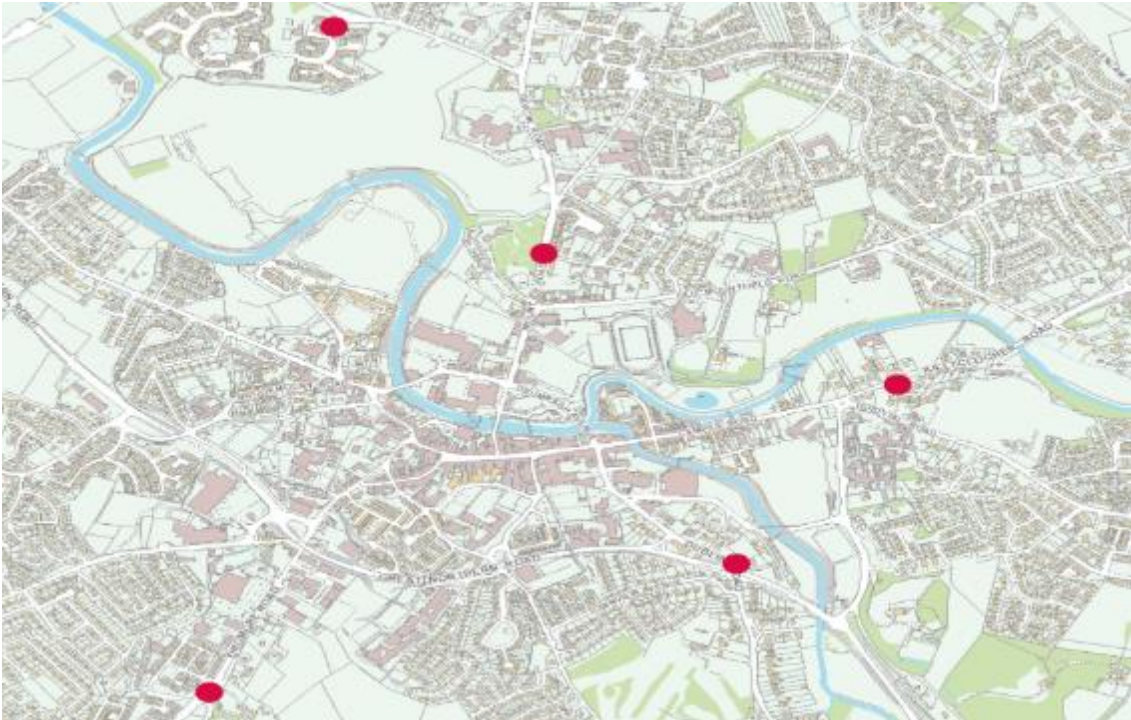
No automatic NO<sub>2</sub> monitoring locations within FODC required distance correction during 2024.

**Table A.3 – Annualisation Summary (concentrations presented in  $\mu\text{g}/\text{m}^3$ )**

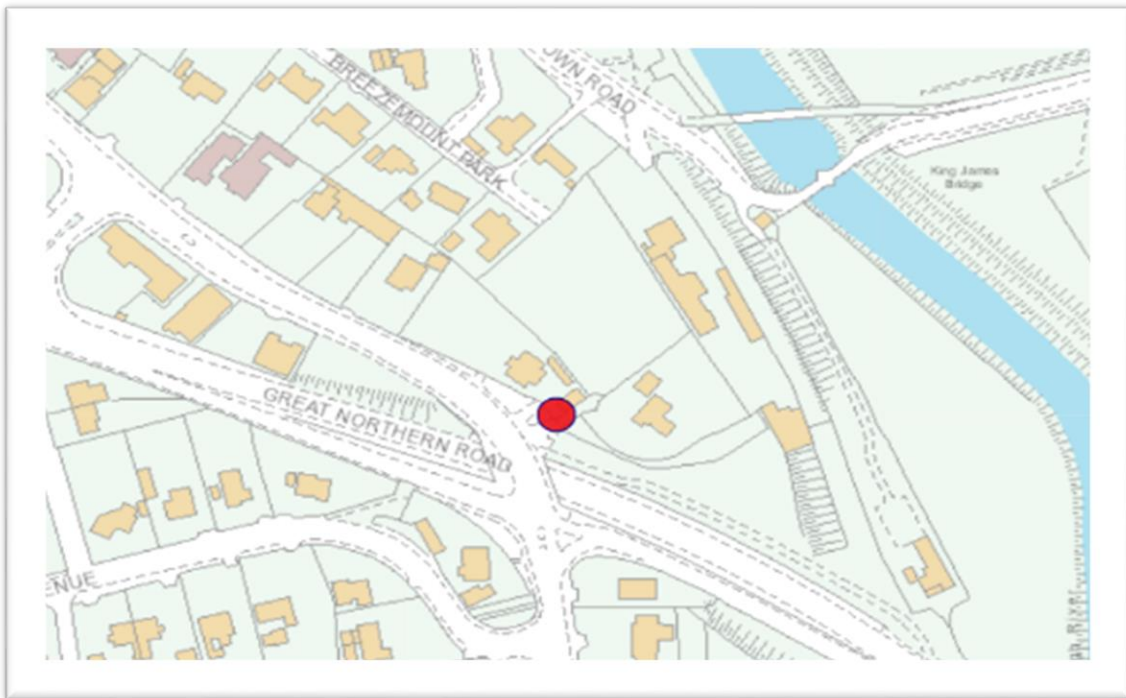
Site ID	Annualisation Factor Lough Navar	Annualisation Factor Derry Rosemount	Annualisation Factor Newtownstewart	Annualisation Factor Ballymena Ballykeel	Average Annualisation Factor	Raw Data Annual Mean	Annualised Annual Mean	Comments
EKNA1 PM10	1.04	1.18	0.95	0.92	1.022	10.6	11.0	
EKNA1 PM2.5	0.59	0.73	0.46	0.76	0.635	6.6	4.2	

# Appendix B: Maps of Diffusion Tube Locations.

Maps of NO<sub>2</sub> Diffusion Tubes in Omagh Town:



**Map of Dublin Road Junction Road NO<sub>2</sub> Diffusion Tube Location (Ref: O1N):**



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High traffic flow, junction with high concentrations with stop-start driving conditions. Would also have high HDV flows.



**Map of Mountjoy Road NO<sub>2</sub> Diffusion Tube Location (Ref: O2N):**

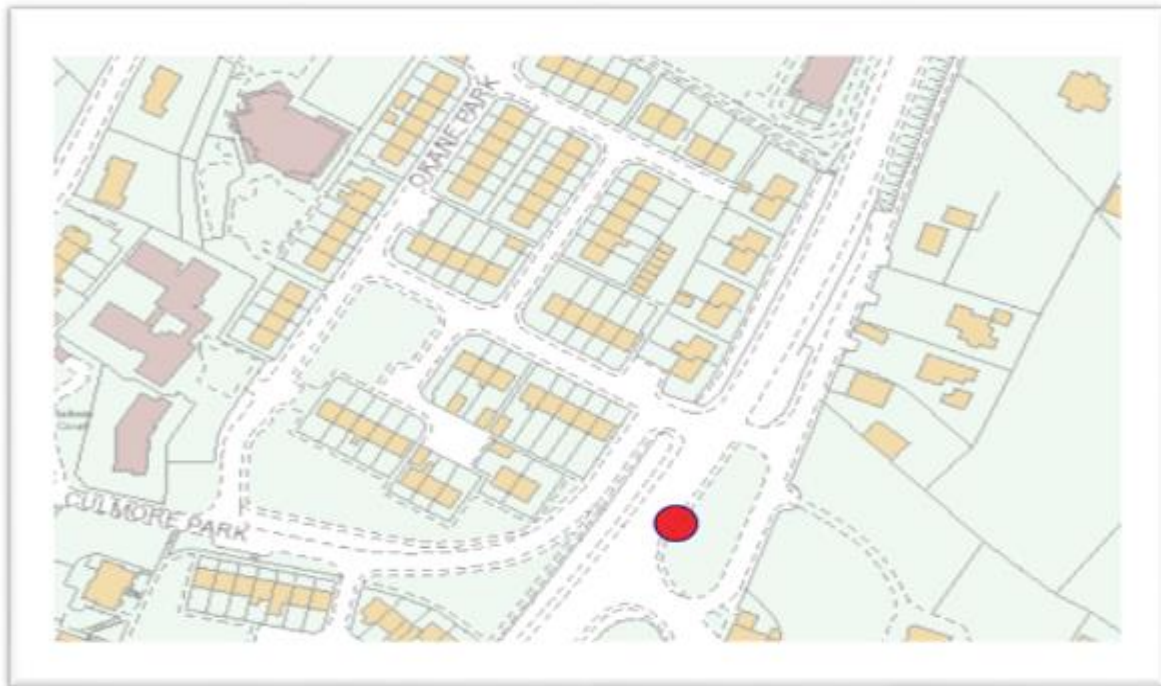


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High traffic flow, at a busy junction with stop start conditions. Residential properties close to kerb.



**Map of Dromore Road NO<sub>2</sub> Diffusion Tube Location (Ref O3N):**



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Continually high concentration of traffic, slow moving near a junction with High HDV flows. Main road connecting Omagh and Fermanagh. High concentration of housing on both sides.



**Map of Meelmore Drive NO<sub>2</sub> Diffusion Tube Location (O4N):**



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New by pass road connecting onto main road to Derry, passing through area of high density of residential property.



**Map of Killyclogher Road NO<sub>2</sub> Diffusion Tube Location (O5N):**

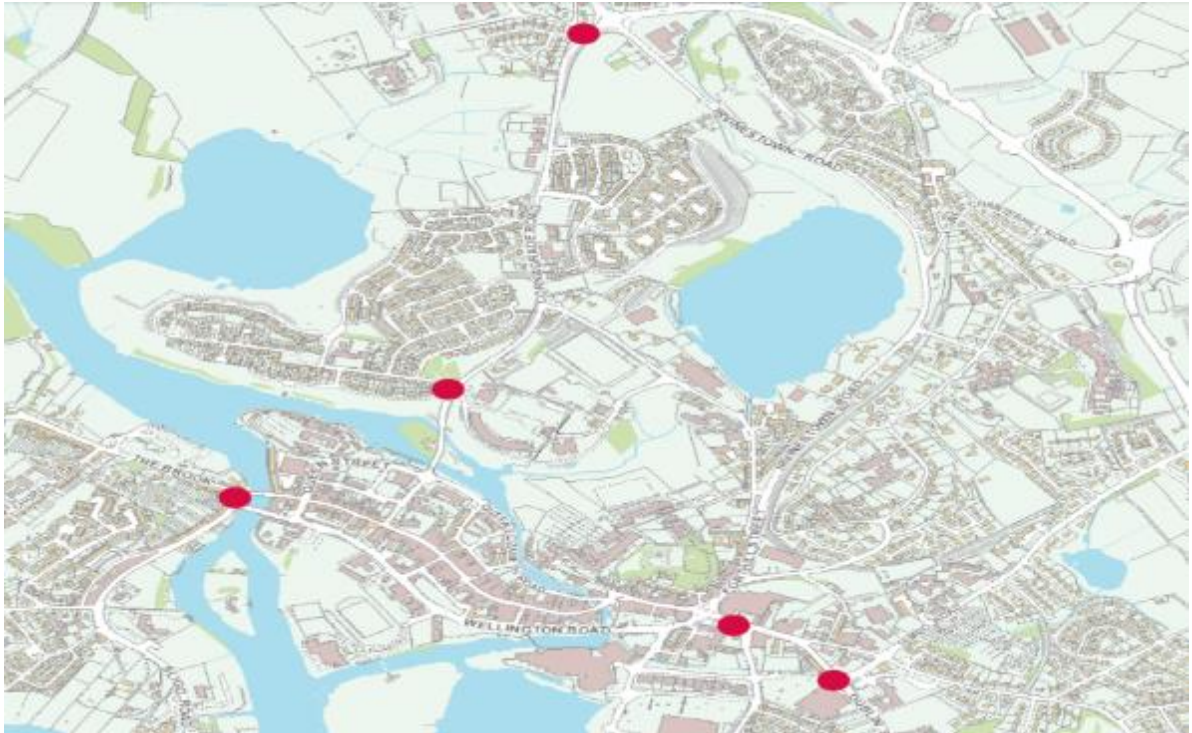


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Slow moving traffic leading to a busy round about, narrow road with residential properties close to kerbside.



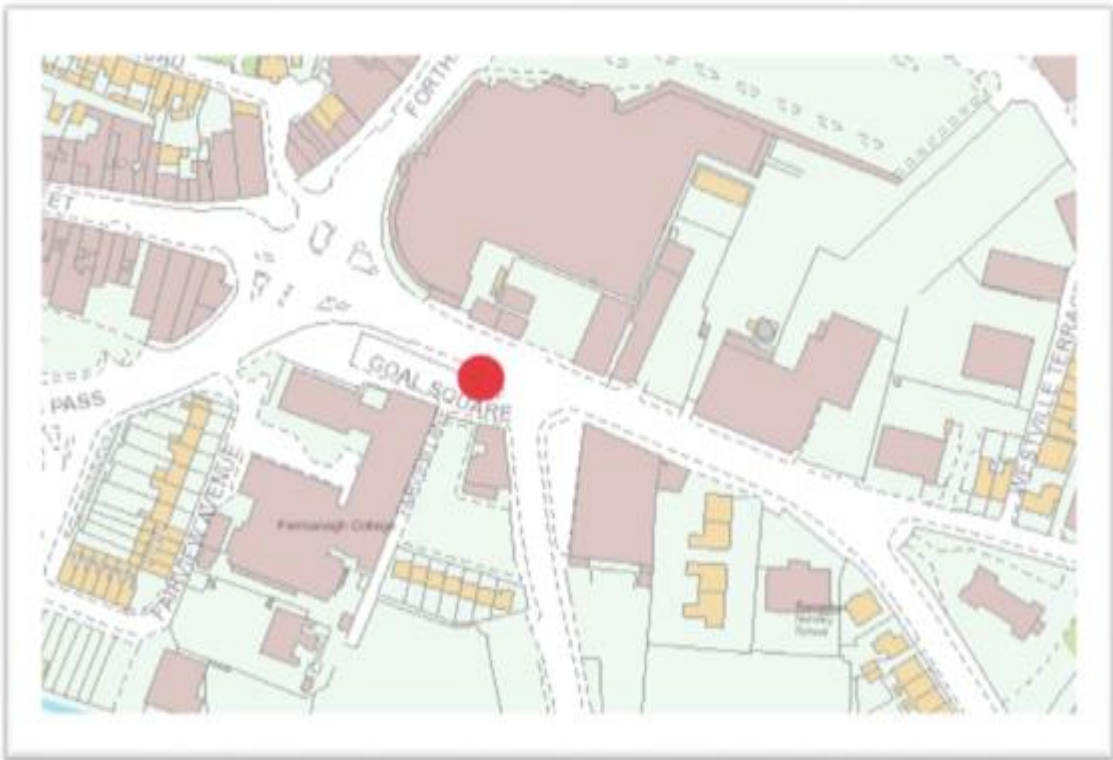
## Maps of NO<sub>2</sub> Diffusion Tubes in Enniskillen Town:



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**Map of Goal Square NO<sub>2</sub> Diffusion Tube Location (Ref E1N):**

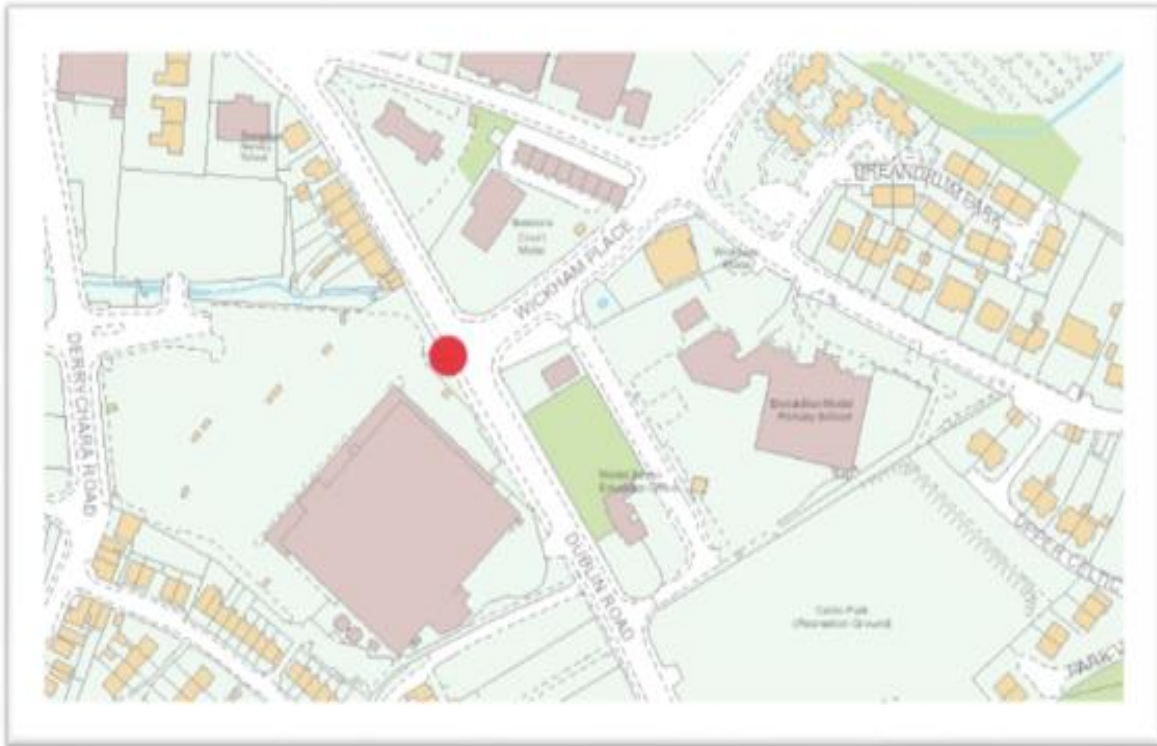


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Junction with high flow of traffic with stop-start driving conditions, high HDV flows.



**Map of Dublin Road NO<sub>2</sub> Diffusion Tube Location (Ref:E2N):**

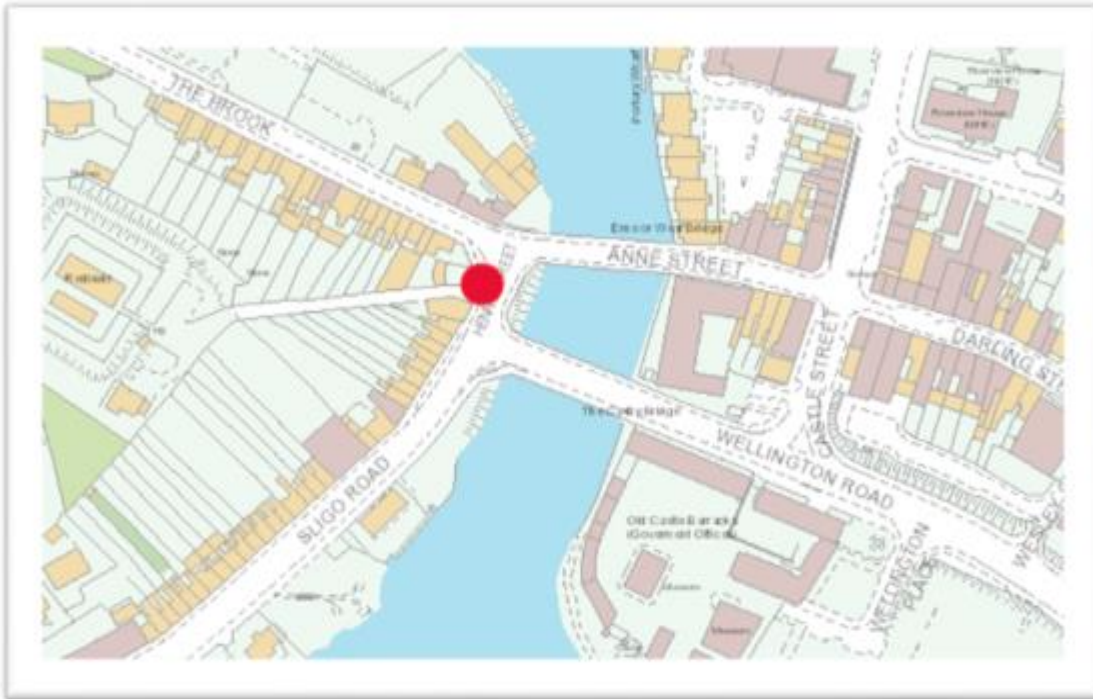


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High flow of traffic, slow moving.



## Map of Henry Street NO<sub>2</sub> Diffusion Tube Location (Ref: E3N):



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High flow of traffic, residential properties close to the kerb.



**Map of Johnston Bridge NO<sub>2</sub> Diffusion Tube Location (Ref E4N):**



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High flow traffic, slow moving.



**Map of Cherrymount Road NO<sub>2</sub> Diffusion Tube Location (Ref: E5N):**

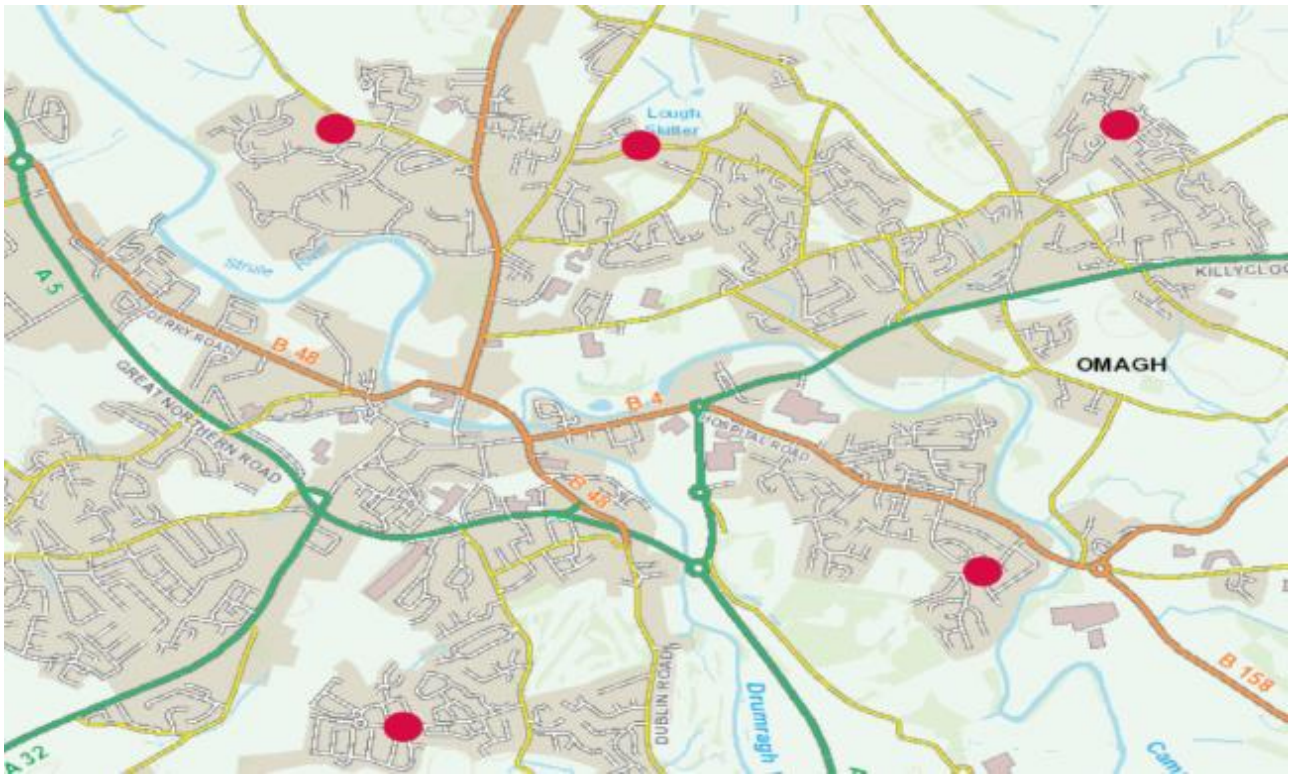


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High traffic, slow moving residential properties close to the kerb.



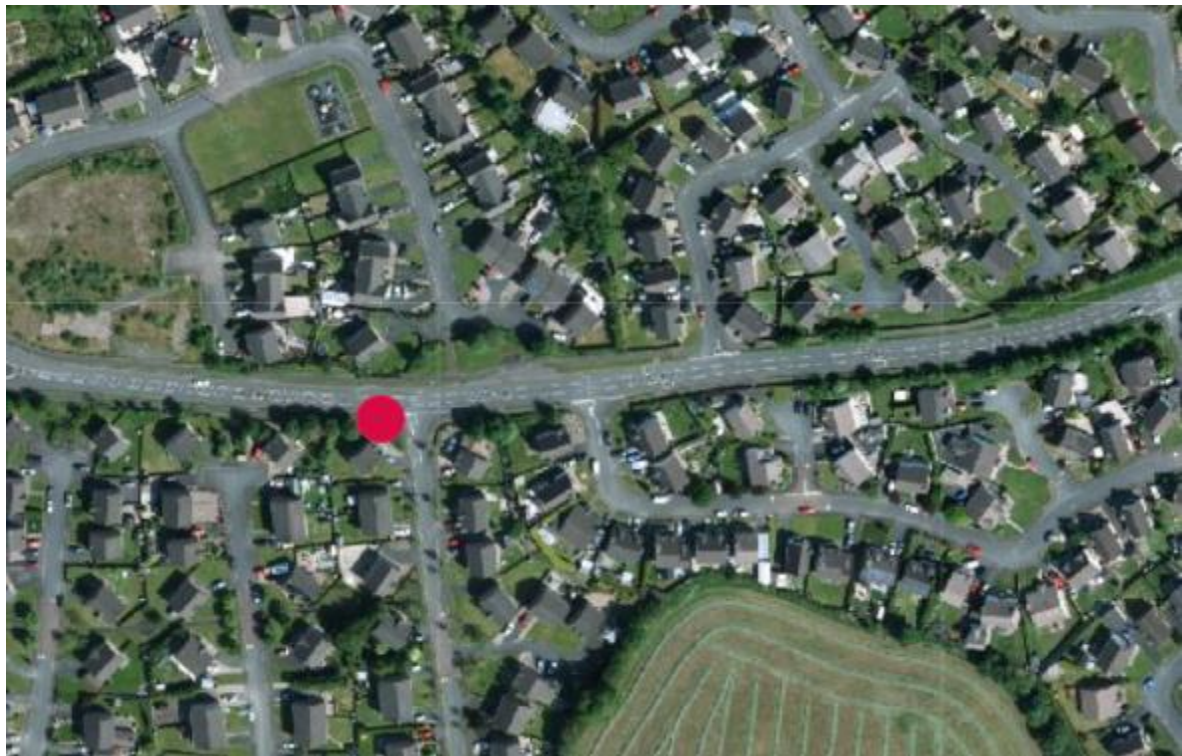
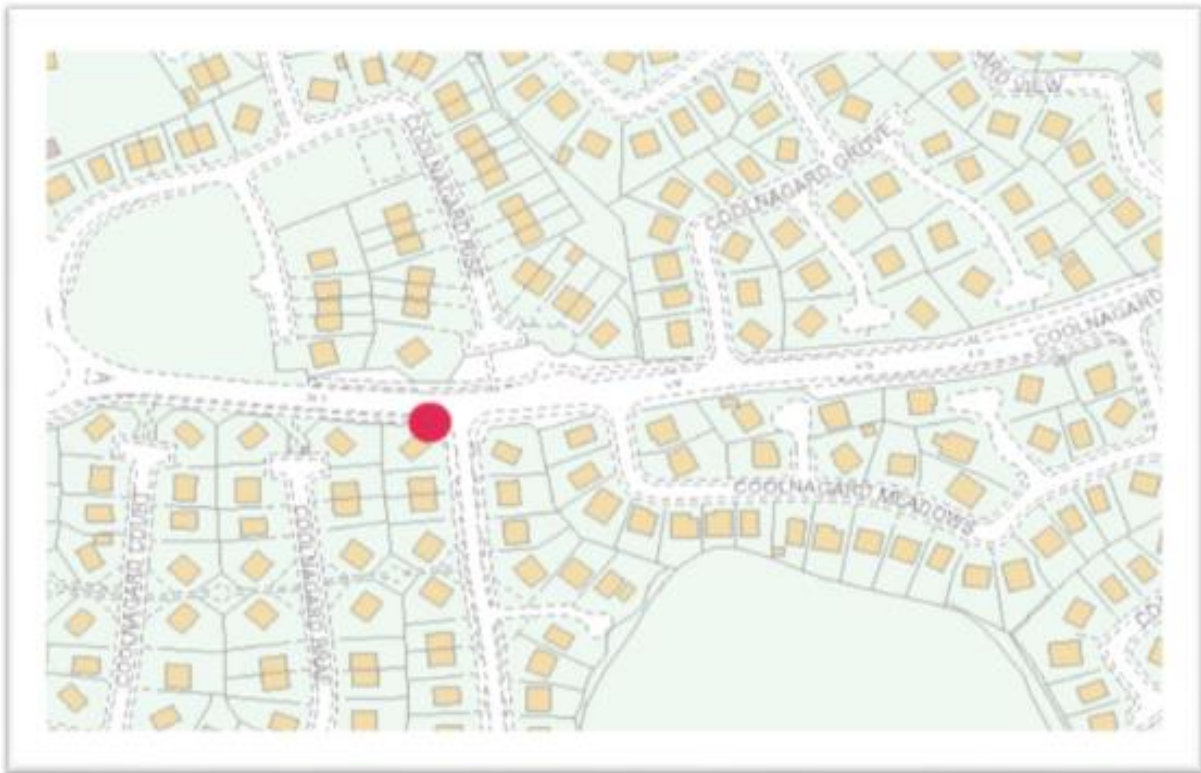
## Maps of SO<sub>2</sub> Diffusion Tubes in Omagh Town:



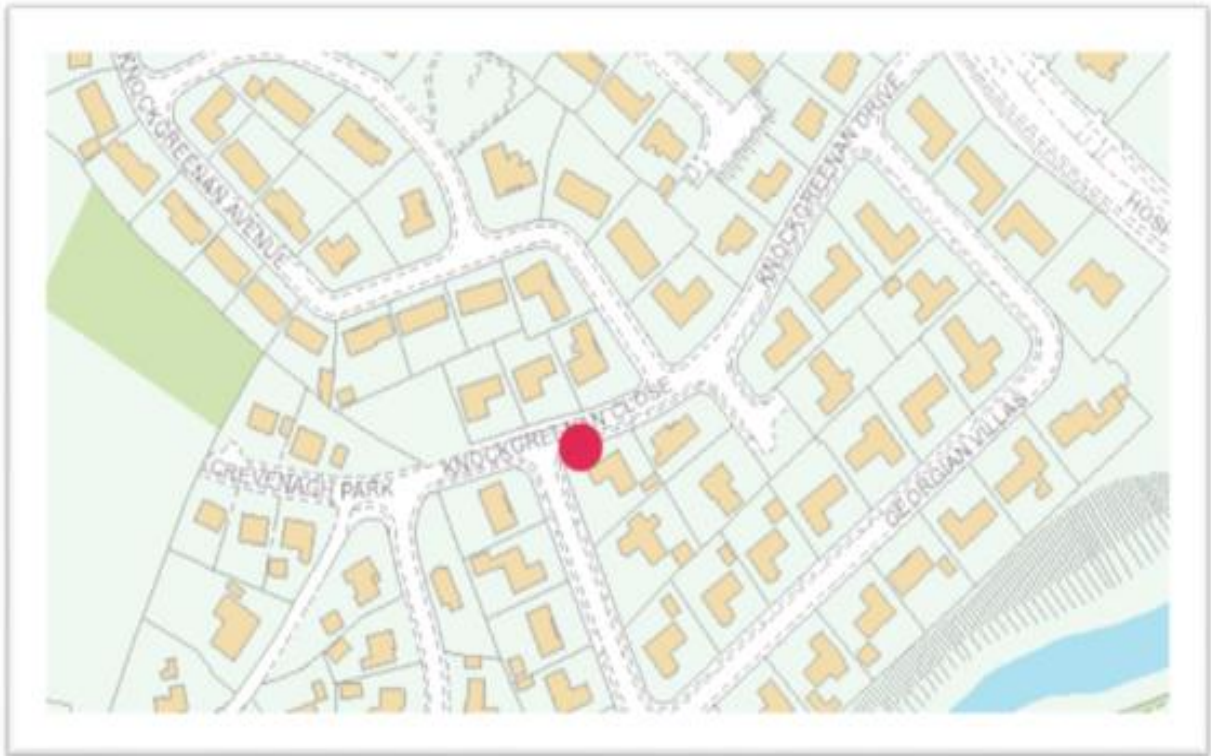
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**Map of Coolnagard Grove SO<sub>2</sub> Diffusion Tube Location (Ref O1S):**



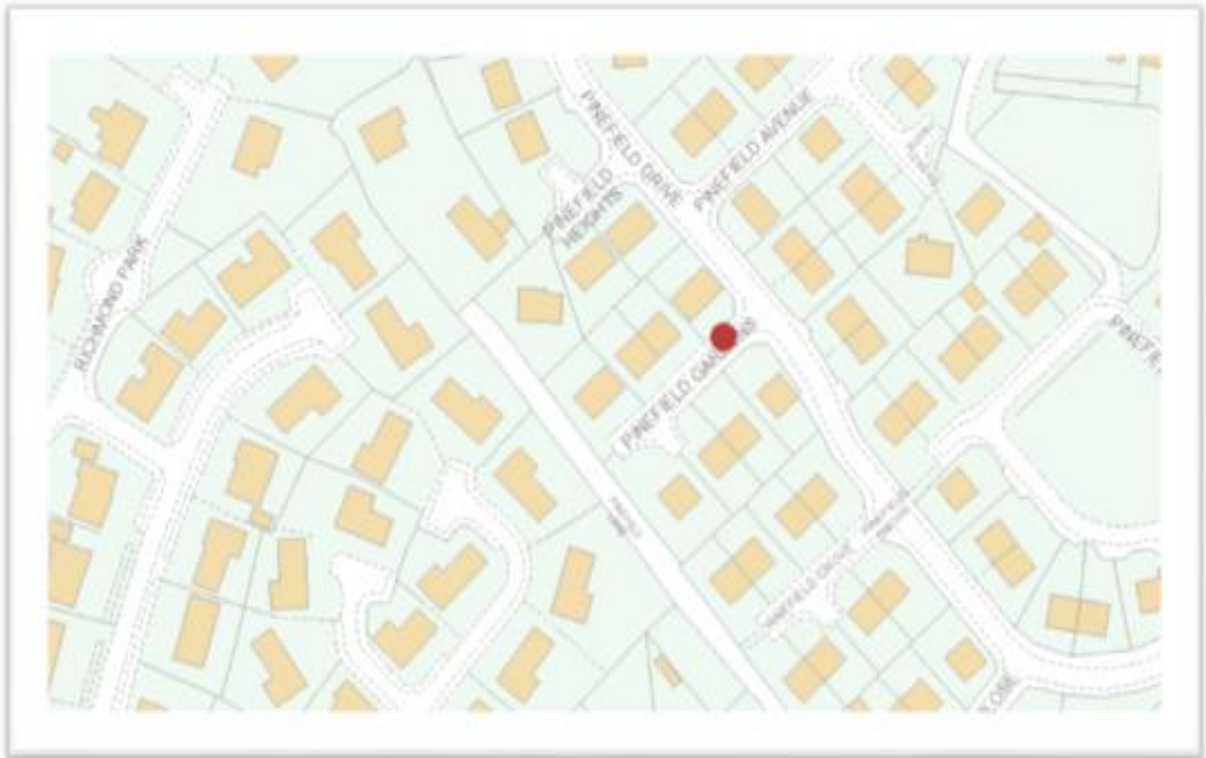
**Map of Knockgreenan Close SO<sub>2</sub> Diffusion Tube Location (Ref: O2S):**



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**Map of Pinefield Gardens SO<sub>2</sub> Diffusion Tube Location (Ref: O3S):**



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**Map of Willowmount Close SO<sub>2</sub> Diffusion Tube Location (Ref O4S):**



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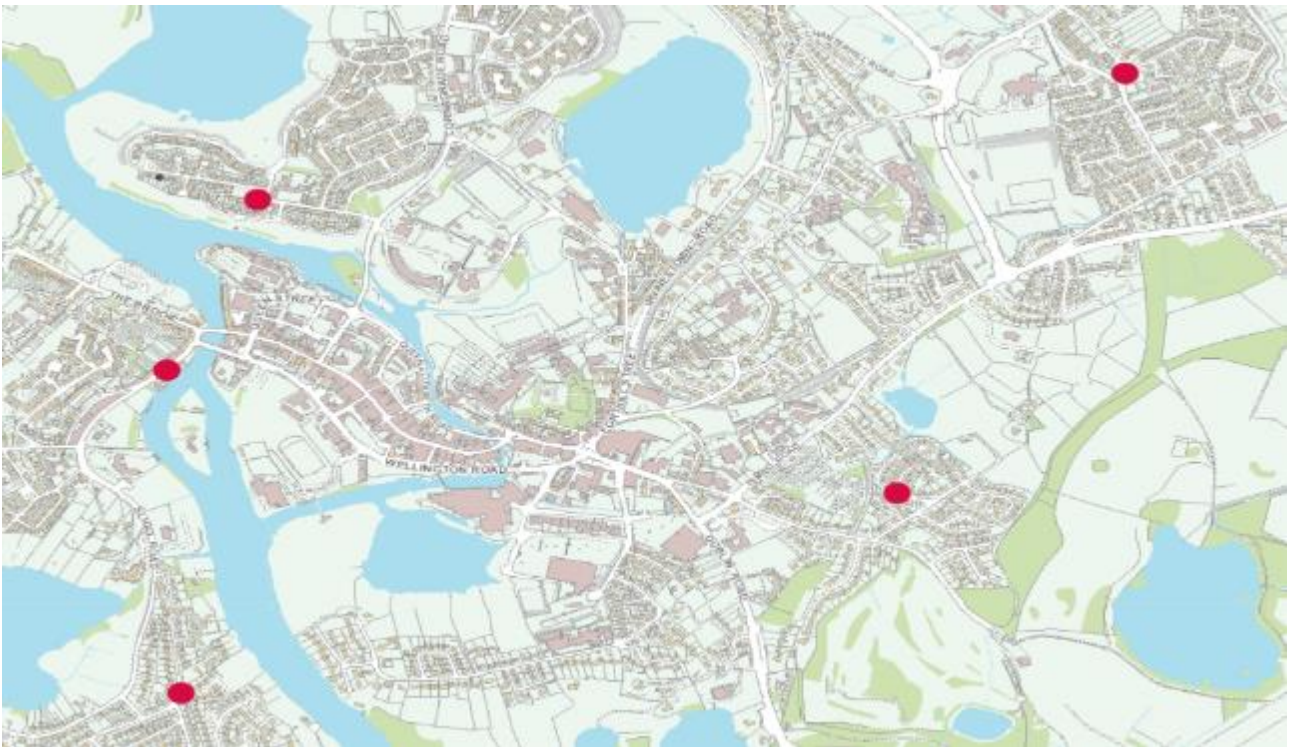
**Map of Meelmore Drive SO<sub>2</sub> Diffusion Tube Location (Ref: O5S):**



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## Maps of SO<sub>2</sub> Diffusion Tubes in Enniskillen Town:



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**Map of Rossole Road SO<sub>2</sub> Diffusion Tube Location (Ref E1S):**



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**Map of Glebe Park SO<sub>2</sub> Diffusion Tube Location (Ref E2S):**



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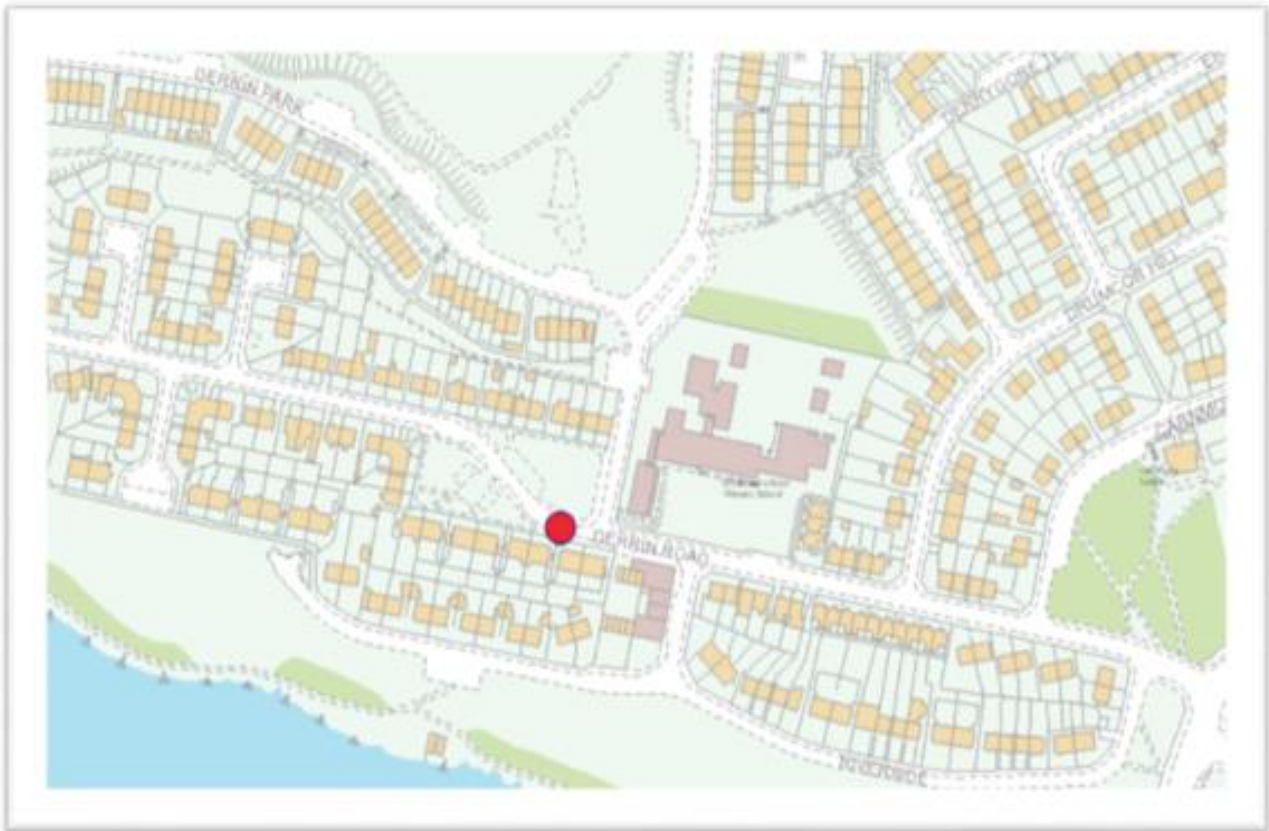
**Map of Killynure Crescent SO<sub>2</sub> Diffusion Tube Location (Ref E3S):**



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**Map of Derrin Road SO<sub>2</sub> Diffusion Tube Location (E4S):**



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**Map of Henry Street SO<sub>2</sub> Diffusion Tube Location (Ref E5S):**



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