Fermanagh & Omagh
District Council
Comhairle Ceantair
Fhear Manach agus na hÓmaí

Fermanagh and Omagh District Council
2020 Air Quality Progress Report

In fulfilment of Environment (Northern Ireland) Order 2002
Local Air Quality Management

December 2020

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Executive Summary

The Environment (NI) Order 2002 and subsequent regulations place a duty on district councils to undertake regular review of air quality in their area. The Local Air Quality Management regime provides the framework for review of a range of air pollutants against objectives outlined in the Northern Ireland Air Quality Strategy. This Progress Report has been prepared in accordance with the Local Air Quality Management Technical Guidance LAQM.TG(16).

The progress report determines that there has been no significant changes to sources of air pollution in the Fermanagh and Omagh District Council area since the last Updating and Screening Assessment and concludes that the relevant air quality objectives are being met for the prescribed pollutants.

For monitoring purposes Fermanagh and Omagh District Council has selected ten sampling sites in the District (Five in Omagh Town and Five in Enniskillen Town) where passive diffusion tubes will be deployed to monitor NO_2 levels from traffic sources.

A further eight sampling sites have been selected (Four in Omagh Town and Four in Enniskillen Town) to monitor for SO_2 emissions arising primarily from domestic solid fuels.

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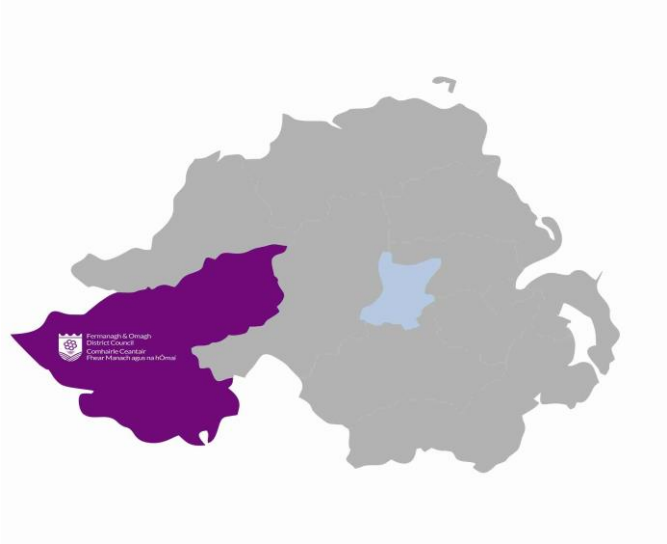
1 Introduction

1.1 Description of Local Authority Area

This Progress Report is provided for Fermanagh and Omagh District Council 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. The district has a border with four councils in the Republic of Ireland namely Donegal, Leitrim, Cavan and Monaghan. 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 117,000 which is the smallest of the eleven councils resulting in the lowest population density.

There are two main centres within the district, Omagh to the North East with a population of 20,474 and Enniskillen with a population of 13,737 to the west (NISRA population estimate 2019). The district has a number of satellite villages and a dispersed settlement pattern typical of rural Northern Ireland. More detailed information for the district council area is available on the website www.fermanaghomagh.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 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

Table 1.2 Previous Air Quality Reports for Fermanagh and Omagh District Council

Stage 1 Review and Assessment 2001	The first stage assessment identified three pollutants of concern namely nitrogen dioxide, sulphur dioxide and particulate matter at risk of exceeding the strategy objectives.
Stage 2/3 Review and Assessment 2004	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.
Progress Report 2005	This report concluded that no exceedances of the air quality objectives were identified at relevant receptors.
Updating & Screening Assessment 2006	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.
Progress Report 2007	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.
Progress Report 2008	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.
Updating & Screening Assessment 2009	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.
Progress Report 2010	This report concluded that no exceedances of the air quality objectives were identified at relevant receptors.
Progress Report 2011	This report concluded that no exceedances of the air quality objectives were identified at relevant receptors.
Updating & Screening Assessment 2012	This report concluded that no exceedances of the air quality objectives were identified at relevant receptors.
Progress Report 2013	This report concluded that no exceedances of the air quality objectives were identified at relevant receptors.
Progress Report 2014	This report concluded that no exceedances of the air quality objectives were identified at relevant receptors.
Updating & Screening Assessment 2015	This report concluded that no exceedances of the air quality objectives were identified at relevant receptors.
Progress Report 2016	This report concluded that no exceedances of the air quality objectives were identified at relevant receptors.
Progress Report 2017	This report concluded that no exceedances of the air quality objectives were identified at relevant receptors.
Update & Screening Assessment 2018	This report concluded that no exceedances of the air quality objectives were identified at relevant receptors.
Update & Screening Assessment 2019	This report concluded that no exceedances of the air quality objectives were identified at relevant receptors.

2 New Monitoring Data

2.1 Summary of Monitoring Undertaken

2.1.1 Automatic Monitoring Sites

There are no automatic monitoring sites operated by Fermanagh and Omagh District Council within the district. However, the Environment Agency who manage the UK National Air Quality Monitoring Network on behalf of DEFRA maintain an automatic monitor at Lough Navar in Co. Fermanagh. This rural upland site provides background air quality readings for ozone, PM_{10} and $PM_{2.5}$. No exceedances of the air quality standards for these pollutants were observed during the period. The below tables provide a summary of recorded results for each parameter:

Exceedance Statistics for 2019

Air Pollution Bands

Band	Hours in Band	Days in Band
PM_{10} Low	-	355
PM_{10} Moderate	-	0
PM_{10} High	-	0
PM_{10} Very High	-	0

Table 2.1

Exceedance Statistics for 2019

Air Pollution Bands

Band	Hours in Band	Days in Band
PM2.5 Low	0	354
PM2.5 Moderate	0	1
PM2.5 High	0	0
PM2.5 Very High	0	0

Table 2.2

Exceedance Statistics for 2019

Air Pollution Bands

Band	Hours in Band	Days in Band
O_3 Low	8503	365
O_3 Moderate	62	8
O_3 High	0	0
O_3 Very High	0	0

Table

2.1.2 Non-Automatic Monitoring Sites

The 2019 report recommends the council would undertake a passive diffusion survey NO_2 in Omagh and Enniskillen town areas primarily to review air pollution arising from road traffic sources. Due to the impact of Covid-19 pandemic upon council services over the course of the year it has not proved possible to commence the survey. It is envisaged that the survey will be commenced over the course of 2021, circumstances permitting.

In order to provide an understanding of the impact from domestic sources it is also planned to undertake a diffusion survey for SO_2 in areas of higher density housing where there is the ability to avail of solid fuel heating as a supplementary heat source.

Fermanagh and Omagh District Council have identified ten NO_2 sampling sites where passive diffusion tubes will be located: five tubes in the Omagh Town area and five in the Fermanagh Town area. In addition eight SO_2 sampling sites where passive diffusion tubes will be located: four tubes in the Omagh Town area and four in the Enniskillen Town area. A tendering process is currently being followed to select a supplier for the provision and testing of the diffusion tubes.

The following data and literature will be reported upon in the next progress report:

- The Lab supplying and analysing the tubes
- Preparation method used
- Confirmation that the procedures set out in the Practical Guidance are followed
- Results of laboratory precision and AIR-PT proficiency testing scheme referenced in Paragraph 7.183 in LAQM.TG16
- Confirmation if the diffusion tubes were compared to the reference method in a co-location study
- The bias adjustment factor being applied to the annual means from the diffusion tubes.

NO_2

The sites were selected to represent the areas where it is thought that concentrations are expected to be the highest and where the public may be exposed over the relevant averaging period of the objective. The following maps show the locations of the proposed sites;

Maps of Non-Automatic Monitoring Sites

Figure 2.1 Map of Omagh NO_2 Diffusion Tube Locations:

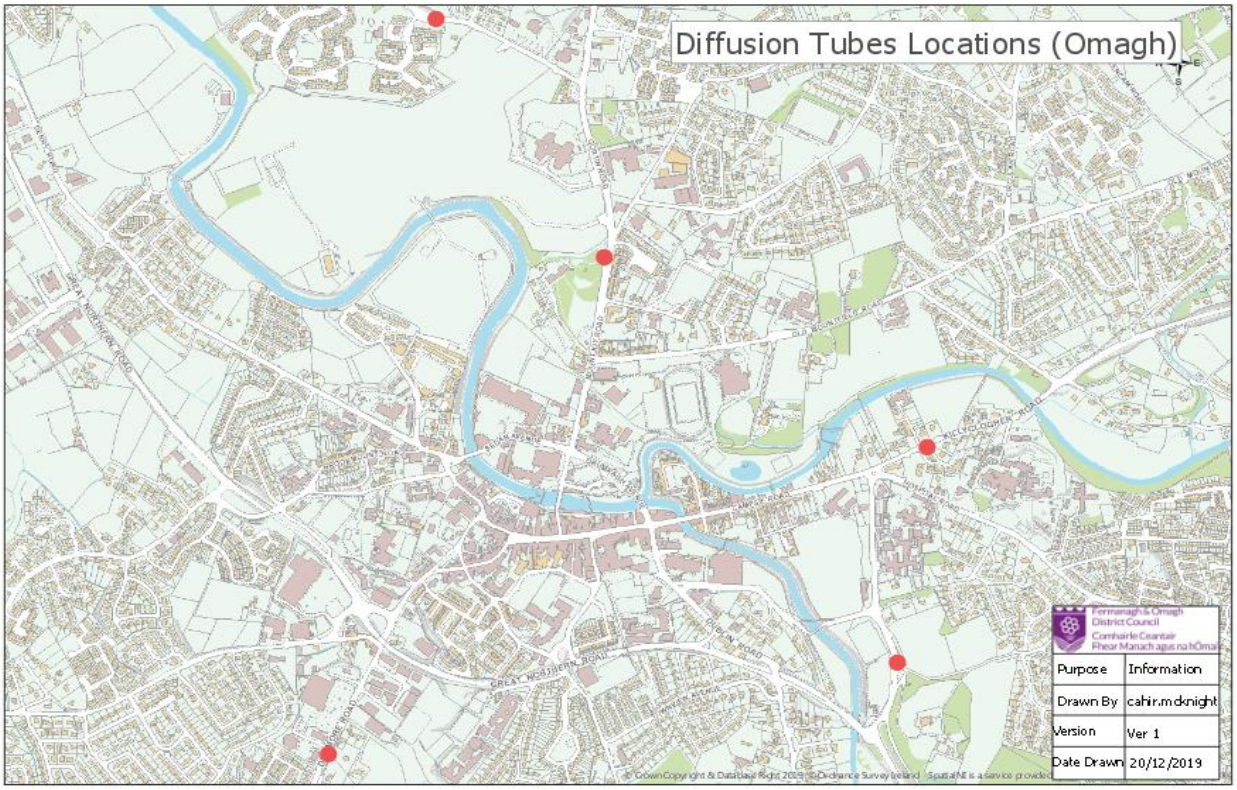


Figure 2.2 Map of Crevenagh Road Diffusion Tube Location:

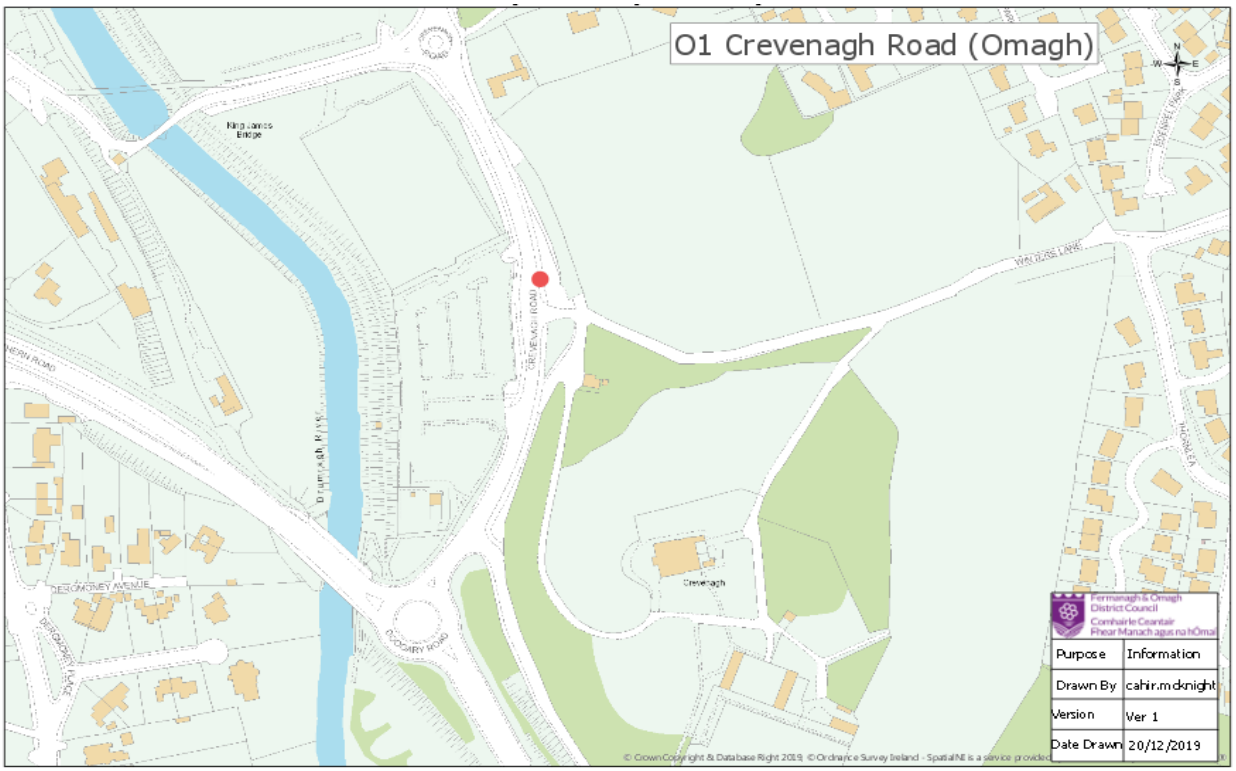


Figure 2.3 Map of Mountjoy Road Diffusion Tube Location:

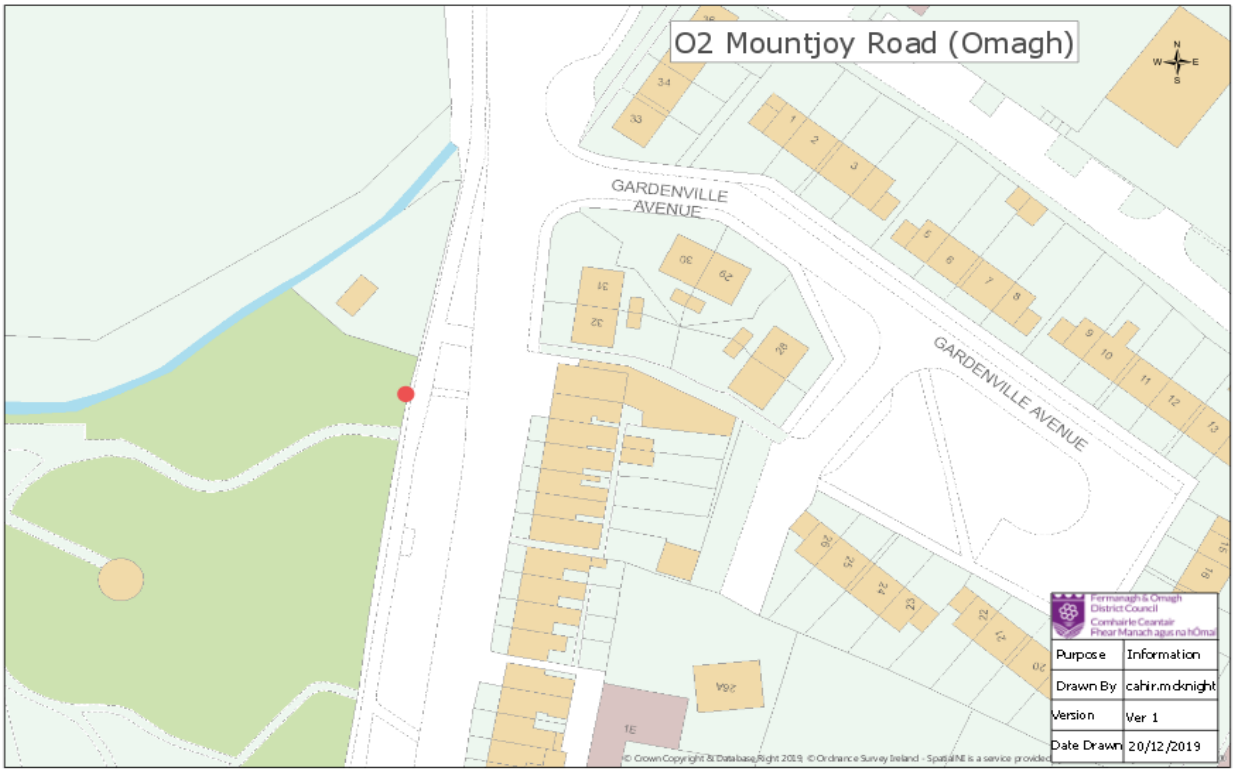


Figure 2.4 Map of Dromore Road Diffusion Tube Location:

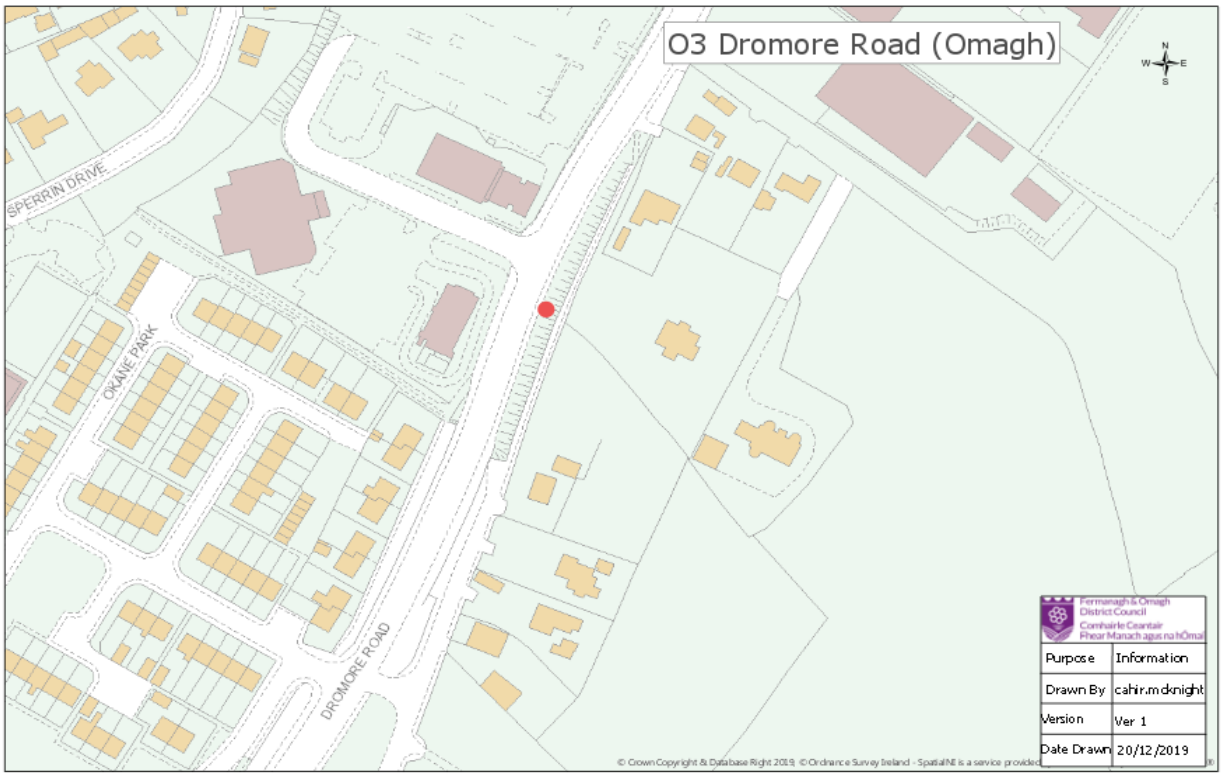


Figure 2.5 Map of Strathroy Road Diffusion Tube Location:

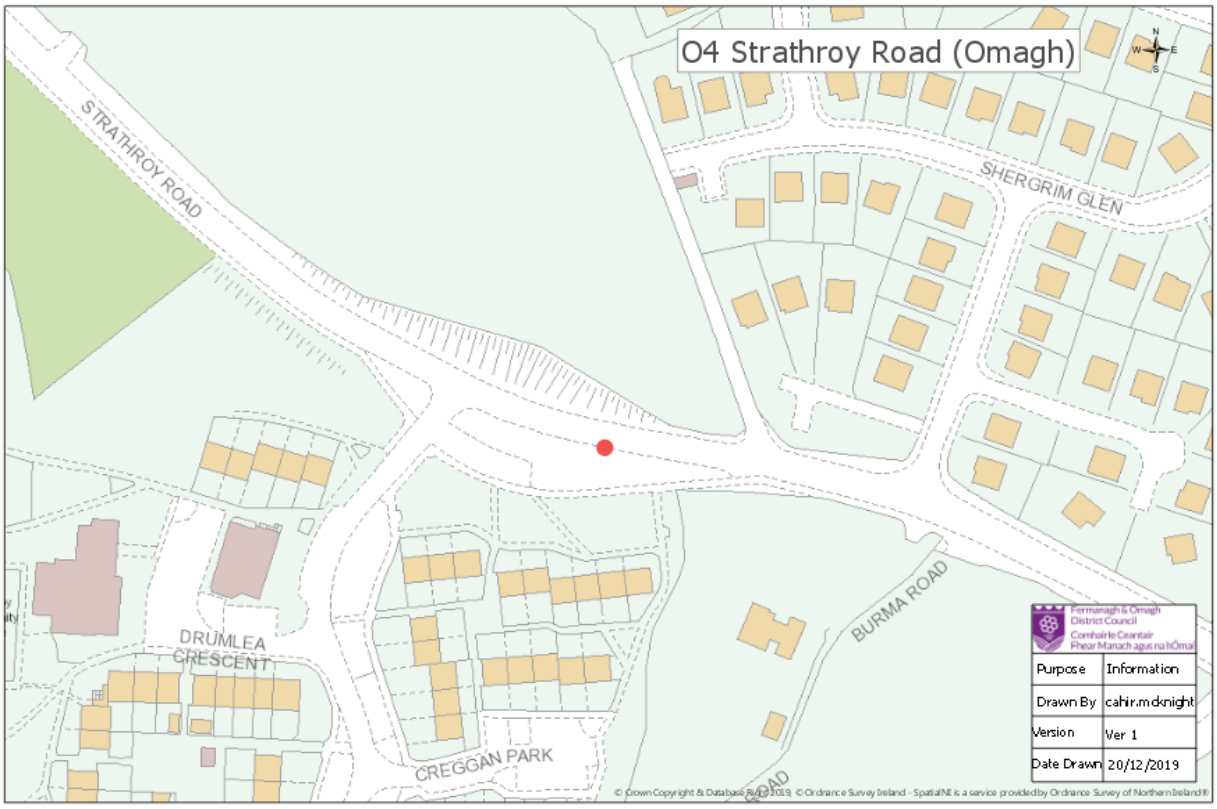


Figure 2.6 Map of Killyclogher Road Diffusion Tube Location:

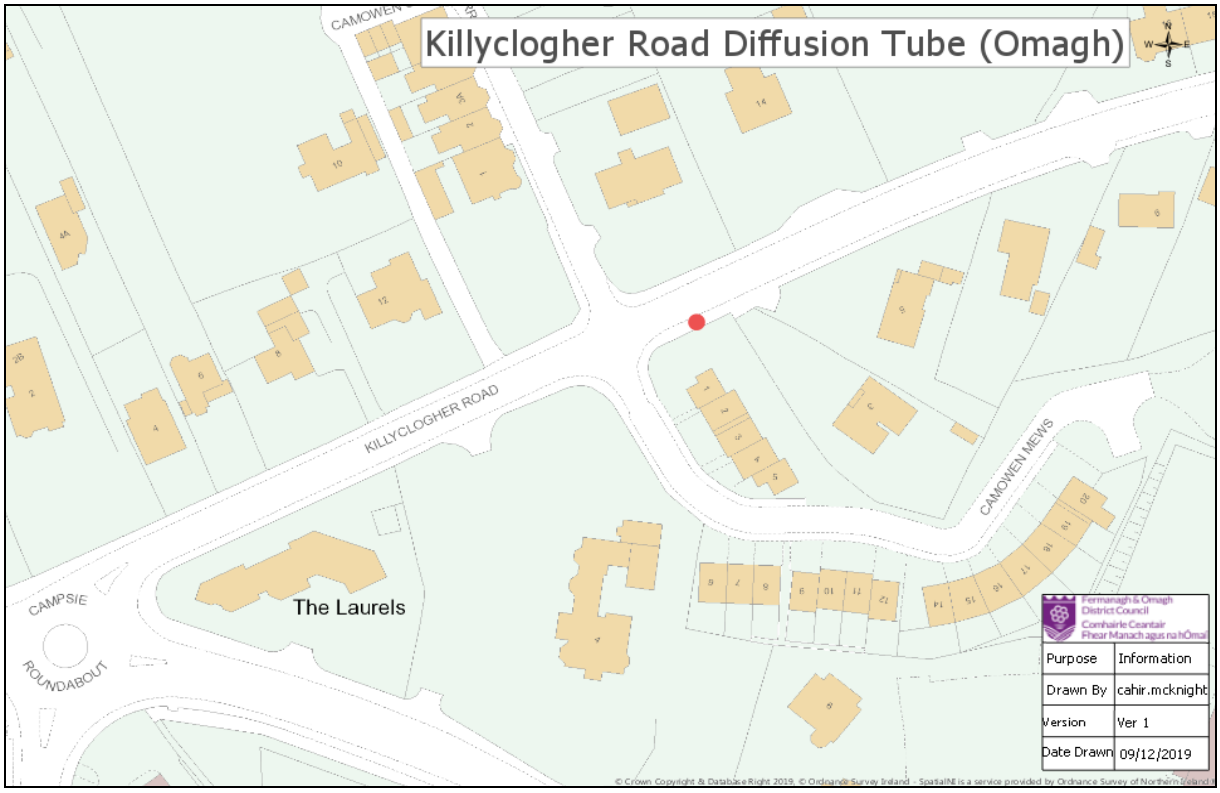


Figure 2.7 Enniskillen NO_2 Diffusion Tube Locations:

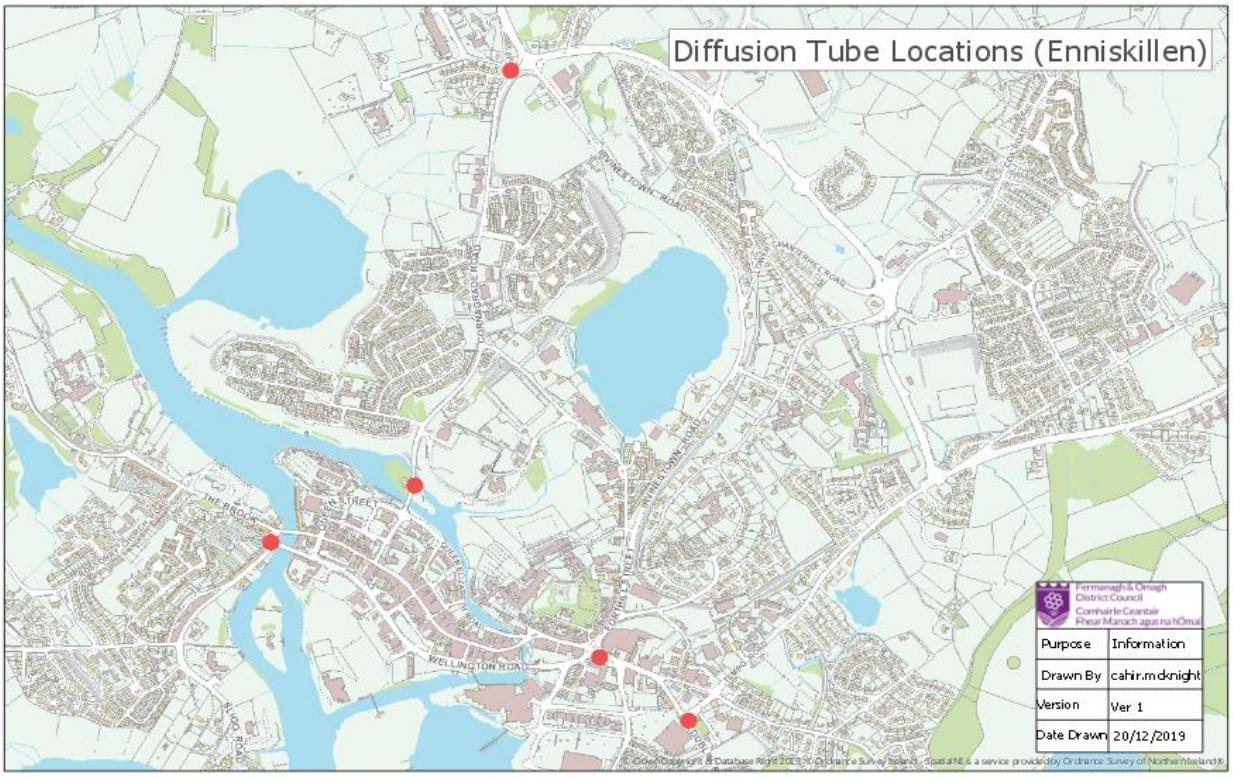


Figure 2.8 Map of Goal Square Diffusion Tube Location:

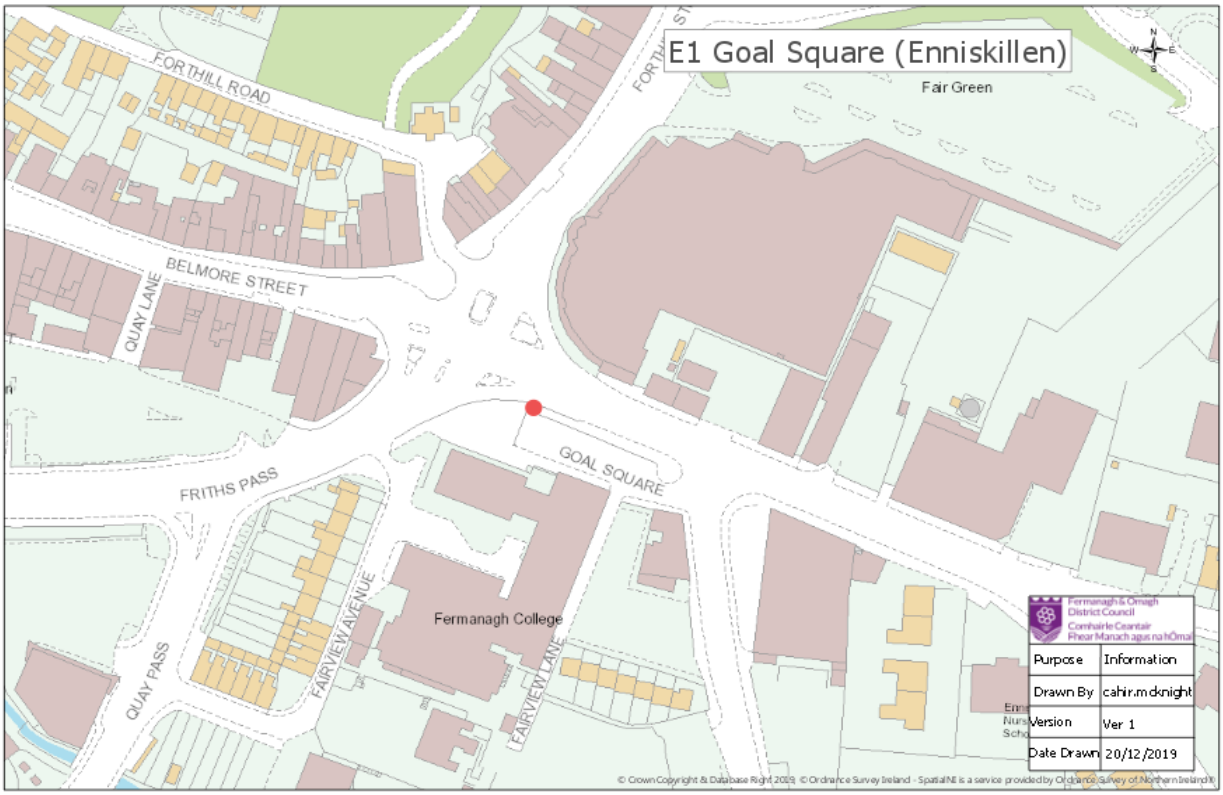
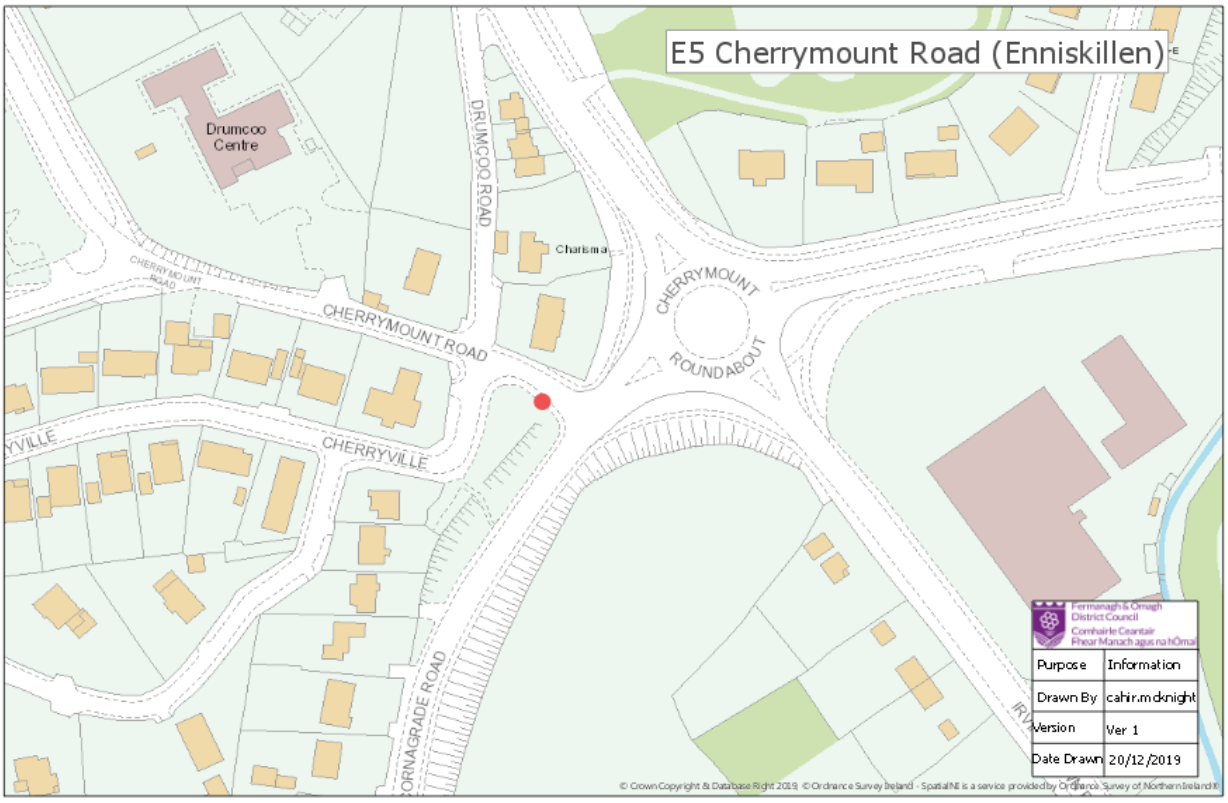


Figure 2.9 Map of Dublin Road Diffusion Tube Location:

Figure 2.10 Map of Henry Street Diffusion Tube Location:

Figure 2.11 Map of Johnston Bridge Diffusion Tube Location:

Figure 2.12 Map of Cherrymount Road Diffusion Tube Location:



PM10

The sites were selected to represent the areas where it is thought that concentrations are expected highest due to the density of housing using solid fuels. The following maps show the locations of the proposed sites;

Figure 2.13 Map of Coolnagard Grove Diffusion Tube Location:

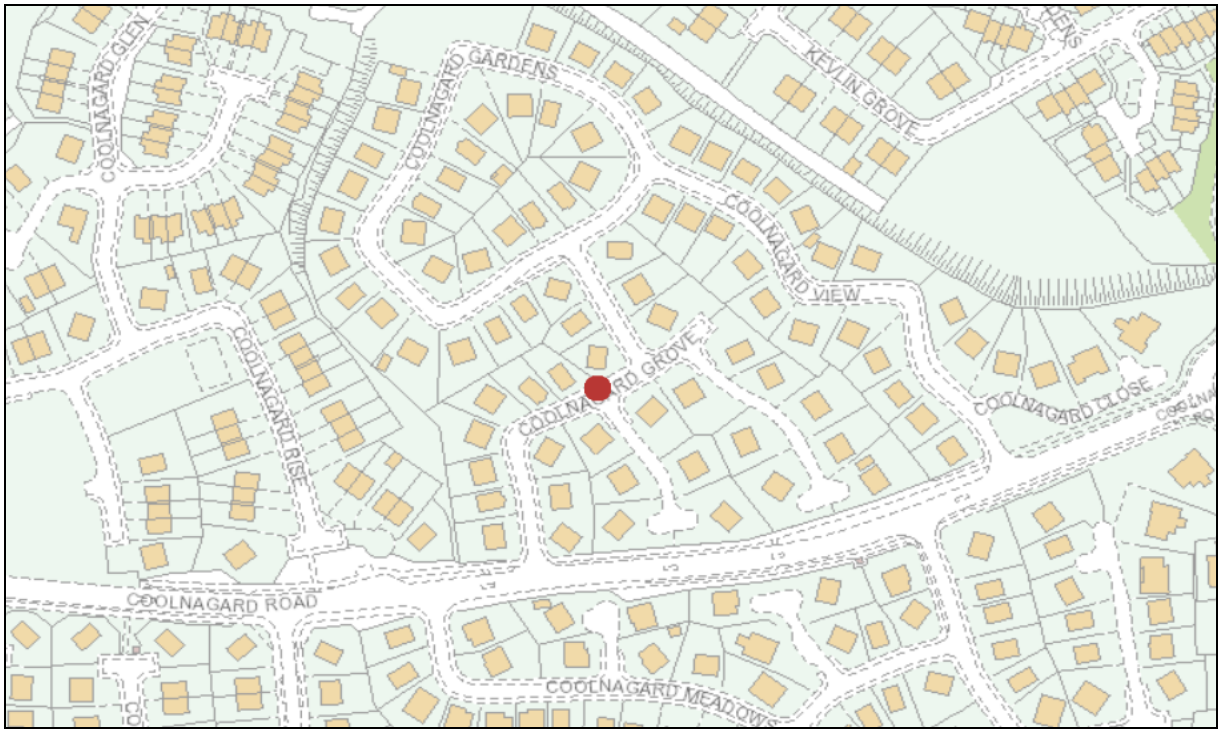


Figure 2.14 Map of Knockgreenan Close Diffusion Tube Location:

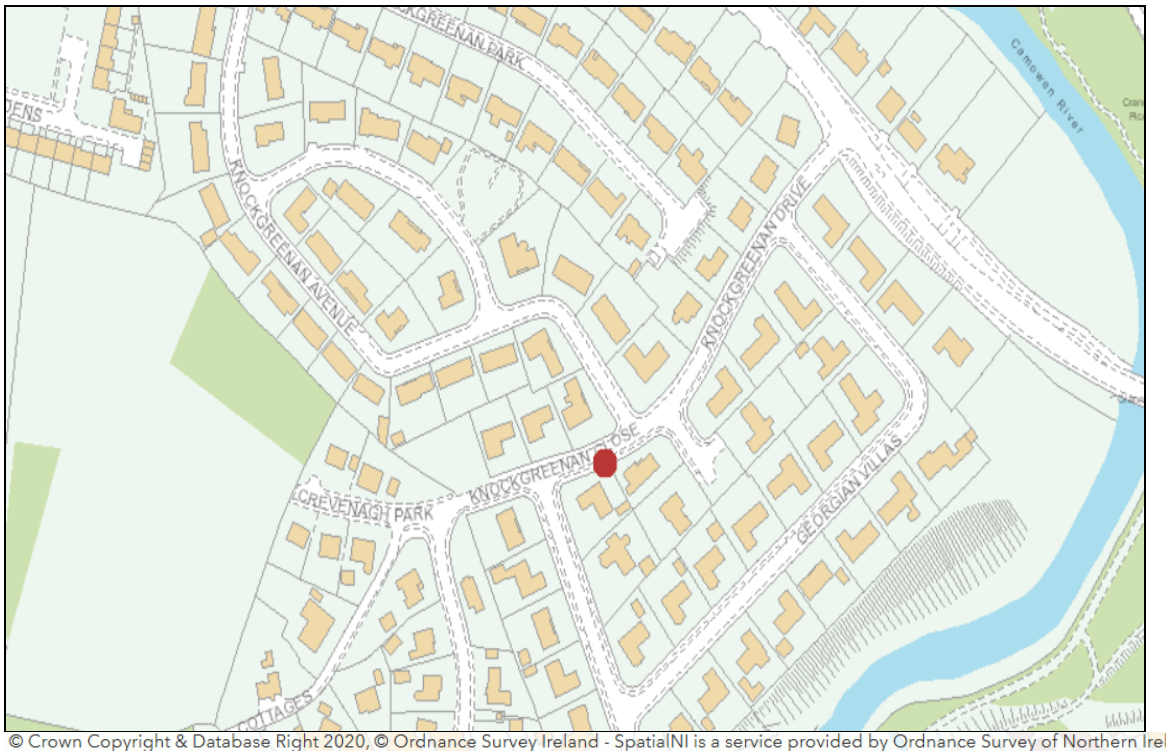


Figure 2.15 Map of Pinefield Gardens Street Diffusion Tube Location:

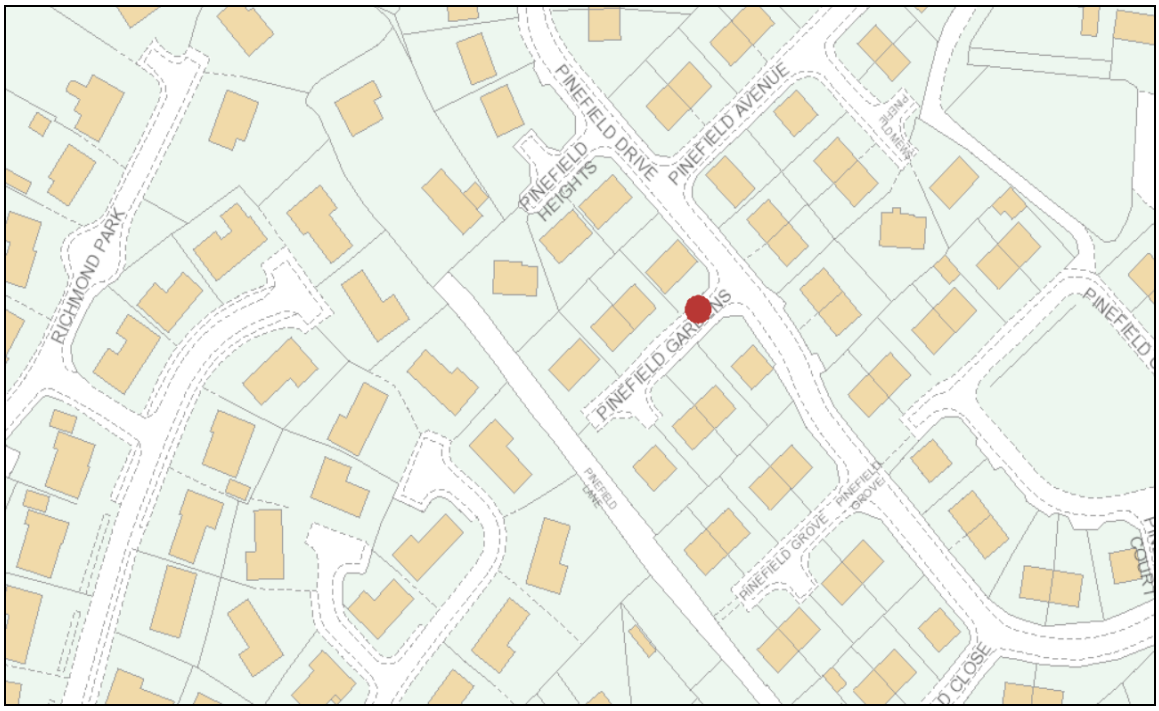


Figure 2.16 Map of Willowmount Close Diffusion Tube Location:

Figure 2.17 Map of Rossole Road Street Diffusion Tube Location:

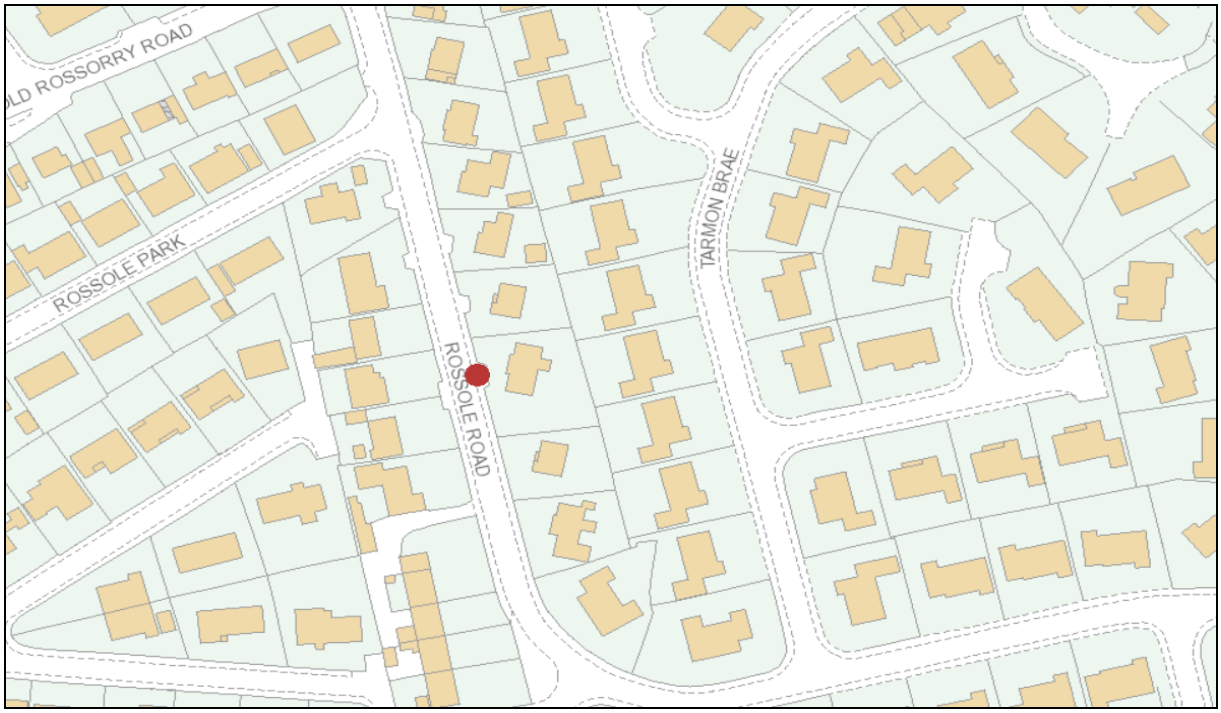


Figure 2.18 Map of Glebe Park Diffusion Tube Location:

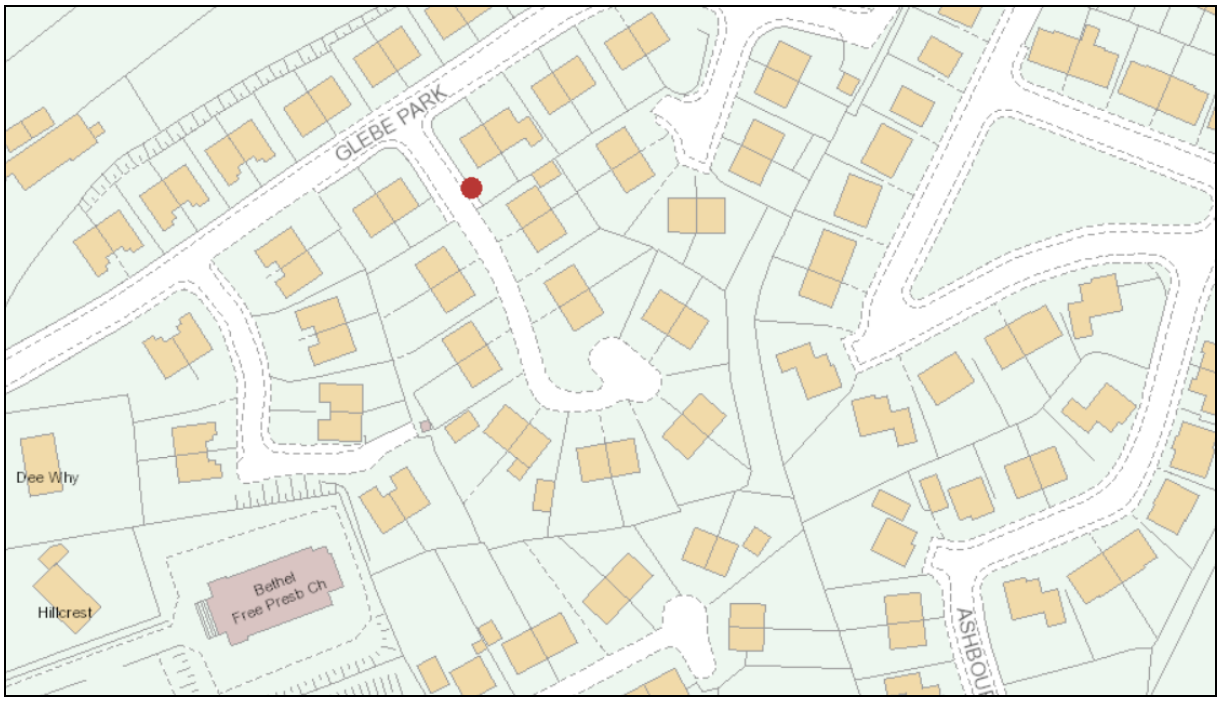


Figure 2.19 Map of Killynure Crescent Diffusion Tube Location:

Figure 2.20 Map of Derrin Road Diffusion Tube Location:

Table 2.4 – 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	Crevenagh Road	Roadside	246030	372307	2m	NO_2	N	N	Y (1M)		Y
O2N	Mountjoy Road	Roadside	245272	373410	2m	NO_2	N	N	Y (1M)		Y
O3N	Dromore Road	Roadside	244556	372055	2m	NO_2	N	N	Y (1M)		Y
O4N	Strathroy Road	Roadside	244835	374061	2m	NO_2	N	N	Y (1M)		N
O5N	Killyclogher Road	Roadside	246110	372894	2m	NO_2	N	N	Y (1M)		Y
O1S	Coolnagard Grove	Roadside	245116	371509	2m	SO_2	N	N	Y (1M)		Y
O2S	Knockgreenan Close	Roadside	246945	372102	2m	SO_2	N	N	Y (1M)		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	Roadside	247388	374050	2m	SO_2	N	N	Y (1M)		Y
O4S	Willowmount Close	Roadside	245725	373939	2m	SO_2	N	N	Y (1M)		Y
E1N	Junction at Goal Sq	Roadside	224033	343950	2m	NO_2	N	N	Y (1M)		Y
E2N	Dublin Road	Roadside	224296	343750	2m	NO_2	N	N	Y (1M)		Y
E3N	Henry Street	Roadside	223064	344312	2m	NO_2	N	N	Y (1M)		Y
E4N	Johnston Bridge	Roadside	223487	344490	2m	NO_2	N	N	Y (1M)		Y
E5N	Cherrymount Road	Roadside	223770	345799	2m	NO_2	N	N	Y (1M)		Y
E1S	Rossole Road	Roadside	223059	343076	2m	SO_2	N	N	Y (1M)		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?
E2S	Glebe Road	Roadside	225450	345178	2m	SO2	N	N	Y (1M)		Y
E3S	Killynure Crescent	Roadside	224822	343930	2m	SO2	N	N	Y (1M)		Y
E4S	Derrin Road	Roadside	223233	344782	2m	SO2	N	N	Y (1M)		Y

3 New Local Developments

3.1 Road Traffic Sources

Fermanagh and Omagh District Council confirms that there are no transport sources as defined under this category.

3.2 Other Transport Sources

Fermanagh and Omagh District Council confirms that there are no transport sources as defined under this category.

3.3 Industrial Sources

Fermanagh and Omagh District Council are currently processing a planning application for an underground mining operation for valuable minerals that also includes surface level development that involves a processing plant and other ancillary works. An Air Quality Assessment has been submitted in support of the application and is currently being considered.

3.4 Commercial and Domestic Sources

Fermanagh and Omagh District Council reviewed a planning application for a retail and leisure development. An Air Quality Impact Assessment was completed. The assessment concluded the impact of the development would have a negligible impact on local air quality.

Fermanagh and Omagh District Council assessed the impact of three free range poultry houses (186,00 birds). The Air Quality Impact Assessment concluded the impact of the development would have a negligible impact on local air quality.

Fermanagh and Omagh District Council assessed the impact of a 250Kw Combined Heat and Power Unit. The Air Quality Impact Assessment used the AERMOD Dispersion Modelling Package to predict the ground level concentration of pollutants µg/m3 (Nitrogen Dioxide (NO2) and Nitrogen Oxides NOx). The Air Quality Impact Assessment report demonstrated that the stack heights of the units are sufficient to

prevent emissions having a significant impact on Air Quality Objectives for NO_2 and no exceedance of limits at any residential receptors in the vicinity.

3.5 New Developments with Fugitive or Uncontrolled Sources

Fermanagh and Omagh District Council has identified the following new or previously unidentified local development which may impact on air quality in the Local Authority area.

K/2011/0258/F: Link road connecting two arterial routes to the north of Omagh Town Centre.

LA10/2017/1249/F: Underground valuable minerals mining and exploration, surface level development and ancillary works.
These will be taken into consideration in the next Progress Report.

4 Local / Regional Air Quality Strategy

Fermanagh and Omagh District Council has published its Community Plan 2030 for the District. The purpose of the document is to develop the long term vision and plan to improve the quality of life within the council area. It has been developed around three main aims one of which fouses on enhancement of the local environment including consideration of air quality matters.

5 Planning Applications

Fermanagh and Omagh District Council Planning Department deal with all local planning applications with the exception of a small number of regionally significant projects which are administered by the Strategic Planning Division within the Department for Infrastructure (DfI). Consultations are routinely passed to Environmental Health Service for comment with air quality impacts being reviewed as a material planning consideration. Planning applications deal with potential air quality matters on a case by case basis with applicants being encouraged to 'front load' any applications with all relevant information.

The following are planning applications that were reviewed and the impact on Air Quality was assessed. No exceedances with relevant levels were identified:

LA10/2019/1392/F (Retail and Leisure Development)

Fermanagh and Omagh District Council reviewed a planning application for a retail and leisure development. An Air Quality Impact Assessment was completed. The assessment concluded the impact of the development would have a negligible impact on local air quality.

LA10/2019/1392/F (Three free range poultry houses-186,000 birds)

Fermanagh and Omagh District Council assessed the impact of three free range poultry houses (186,00 birds). The Air Quality Impact Assessment concluded the impact of the development would have a negligible impact on local air quality.

LA10/2019/1364/F (Installation of 25Kw Combined Heat and Power Unit

Fermanagh and Omagh District Council assessed the impact of a 250Kw Combined Heat and Power Unit. The Air Quality Impact Assessment used the AERMOD Dispersion Modelling Package to predict the ground level concentration of pollutants µg/m3 (Nitrogen Dioxide (NO2) and Nitrogen Oxides NOx). The Air Quality Impact Assessment report demonstrated that the stack heights of the units are sufficient to prevent emissions having a significant impact on Air Quality Objectives for NO_2 and no exceedance of limits at any residential receptors in the vicinity.

LA10/2019/0287/F (Rention of a Biomass Boiler)

Following a screening assessment of the biomass boiler it was determined that the target emission rates in relation to NO_x and PM_{10} was not exceeded.

6 Air Quality Planning Policies

The Fermanagh and Omagh District Council Local Development Plan 2030 (Draft) seeks to support the pillars of sustainable development and underpins the vision of the Community Plan by placing sustainability at the core of the planning policy. The policy will endeavour to promote actions which will positively impact on local air quality through considered design, spatial layout and integrated development control.

7 Local Transport Plans and Strategies

The Fermanagh and Omagh District Council Local Development Plan Transportation provides an overview of transportation provision within the Council area. There is recognition that there must be promotion of a shift to more sustainable forms of transport and greater integration of transportation and land use planning.

8 Climate Change Strategies

The Fermanagh and Omagh District Council 2030 Community Plan provide an overarching plan for the District including progression of sustainability for council business. The Corporate Plan 2020-2024 provides the guiding strategy for Council actions based upon the aims of the Community Plan. Fermanagh and Omagh District has introduced a Climate Change Resilience Strategy Group has produced a draft Climate Change Strategy. Its aim is to influence Council operations and procedures to take recognition of climate change.

9 Conclusions and Proposed Actions

9.1 Conclusions from New Monitoring Data

There has been no new monitoring data since the last Progress Report in 2019.

9.2 Conclusions relating to New Local Developments

Fermanagh and Omagh District Council has considered the potential air quality impacts of a number of proposed developments and has concluded that there are no new significant sources.

The impact of the underground valuable minerals mining and exploration, surface level development and ancillary works will be reviewed as part of the ongoing planning process for this proposal.

9.3 Other Conclusions

EHS consider the need to ascertain the levels of SO_2 emitted primarily from domestic dwellings using solid fuels.

9.4 Proposed Actions

Fermanagh and Omagh District Council will continue to review local air quality within the district by submitting an Update and Screening Assessment 2021. This will include the presentation of new data following the installation of ten diffusion tubes installed in the District to monitor NO_2 levels from traffic and eight diffusion tubes installed to monitor SO_2 levels from domestic dwellings.

10 References

- Defra (2016) Local Air Quality Management, Technical Guidance LAQM.TG (16)
- Biomass and Air Quality Guidance for Local Authorities LACORS/EPUK (2009)
- Fermanagh and Omagh Local Development Plan (2030)
- Fermanagh and Omagh Corporate Plan 2020-2024
- Fermanagh and Omagh Climate Change Strategy 2020 (Draft)
- Fermanagh and Omagh District Council Local Development Plan Transportation (October 2020).
- Omagh District Council Progress Report 2011
- Omagh District Council Updating and Screening Assessment 2012
- Omagh District Council Progress Report 2013
- Omagh District Council Progress Report 2014
- Fermanagh District Council Progress Report 2011
- Fermanagh District Council Updating and Screening Assessment 2012
- Fermanagh District Council Progress Report 2013
- Fermanagh District Council Progress Report 2014
- Fermanagh and Omagh District Council Updating and Screening Assessment 2015
- Fermanagh and Omagh District Council Progress Report 2016.
- Fermanagh and Omagh District Council Progress Report 2017.
- Fermanagh and Omagh District Council Updating and Screening Assessment 2018.
- Fermanagh and Omagh District Council Progress Report 2019.

Appendices

Appendix A: QA/QC Data

Information and data to be provided following the completion of the tendering process and the commencement of monitoring.