



# Lisburn & Castlereagh City Council

Detailed Assessment Report for revocation of the Air Quality Management Area, Normandy Court Dundonald for exceedances of Nitrogen Dioxide annual mean.

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

June 2025





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## **Executive Summary**

This Detailed Assessment has been produced by Lisburn & Castlereagh City Council (LCCC) to seek approval for the Air Quality management area (AQMA), apartments 1,2,5,6,9 & 10 Normandy Court, Dundonald, to be revoked, following several years of continued compliance with the Air Quality Objectives (AQO)

The AQMA was declared for NO<sub>2</sub> in 2011, due to the results from the NO<sub>2</sub> diffusion tubes at this location exceeding the objective.

The Department of Infrastructure had plans to introduce a Park & Ride facility servicing Dundonald, and a new Rapid Transport System from the Park & Ride to Belfast City centre, this was completed in 2018 and has been successful in reducing the NO<sub>2</sub> levels within the AQMA for five consecutive years to below the desired 20% reduction deemed necessary.



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## 1. Introduction

- 1.1. The Air Quality Strategy has established the framework for air quality management in the UK. Local Authorities have a duty under the Environment Act 1995 and subsequent regulations to review and assess air quality in their areas on a periodic basis to identify all areas where the air quality objectives are being or are likely to be exceeded. A phased approach has been adopted for the review and assessment process so that the level of assessment undertaken is commensurate with the risk of an exceedance of an air quality objective.
- 1.2. An updating and screening assessment (USA) is required to be prepared every three years by all local authorities in the UK with two interim progress reports. The last USA of air quality was undertaken in 2024. Where air pollution levels exceed or are predicted to exceed the relevant objectives taking due account of relevant exposure considerations, an AQMA will be declared. The district council is required subsequently to develop an Air Quality Action Plan (AQAP), in collaboration with competent partner authorities in pursuit of the objective. The Action Plan includes actions that the district councils and partner organisations intend to implement in order to improve air quality and protect public health.
- 1.3. In 2009 Castlereagh Borough Council (CBC), following the air quality review and assessment process, produced a Detailed Assessment reporting on elevated levels of Nitrogen Dioxide (NO<sub>2</sub>) at Normandy Court, within Dundonald village, following this an AQMA was declared in January 2011 for apartments 1,2,5,6,9 & 10 Normandy Court. In 2015 councils amalgamated and CBC now falls within LCCC. This is a Detailed Assessment report for LCCC, for Normandy Court, Dundonald AQMA, with a review to revoking the AQMA.



**Table 1. Air Quality Objectives included in Regulations for the purpose of LAQM in Northern Ireland**

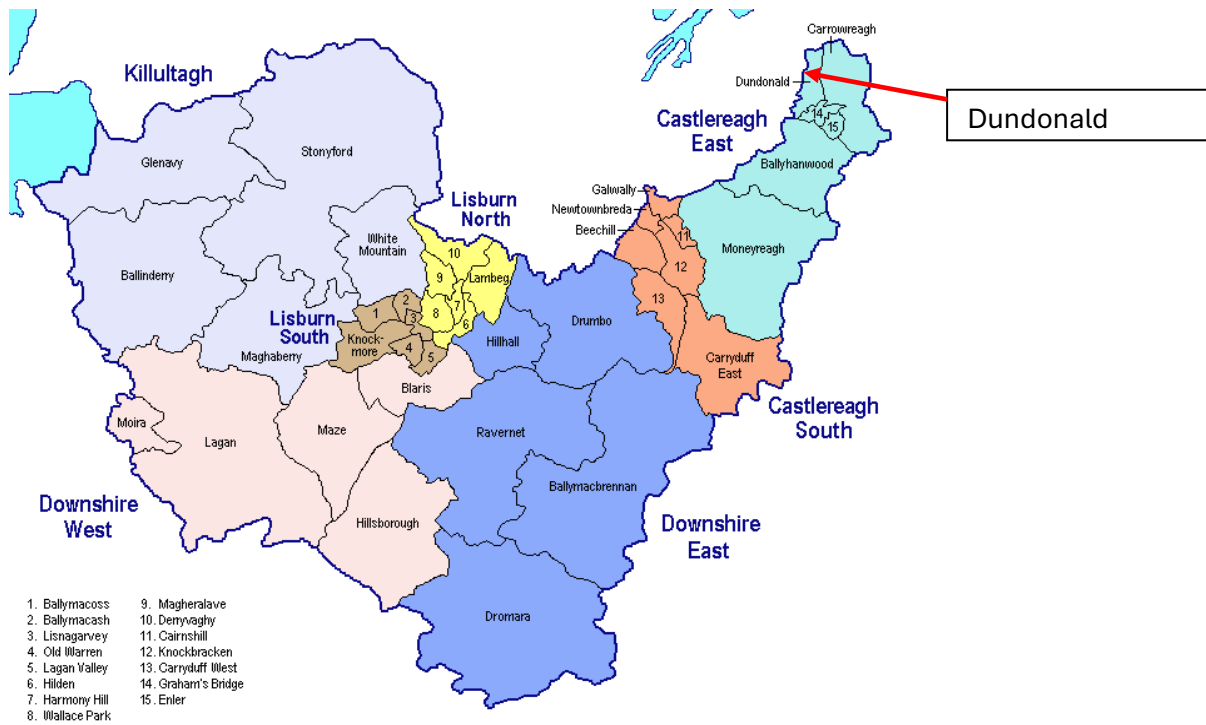
Pollutant	Air Quality Objective		Date to be achieved by
	Concentration	Measured as	
Benzene	16.25 µg/m <sup>3</sup>	Running annual mean	31.12.2003
	3.25 µg/m <sup>3</sup>	Running annual mean	31.12.2010
1,3-Butadiene	2.25 µg/m <sup>3</sup>	Running annual mean	31.12.2003
Carbon monoxide	10.0 mg/m <sup>3</sup>	Running 8-hour mean	31.12.2003
Lead	0.5 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
	<b>40 µg/m<sup>3</sup></b>	<b>Annual mean</b>	<b>31.12.2005</b>
Particles (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



## MAPS of AIR QUALITY MANAGEMENT AREA (AQMA)

### No's 2,6,10,1,5,7 Normandy Court Dundonald BT16 2LA

**Figure 1 Map showing position of Dundonald Village within LCCC**



**Figure 1.1 Map showing position of AQMA in Dundonald Village**

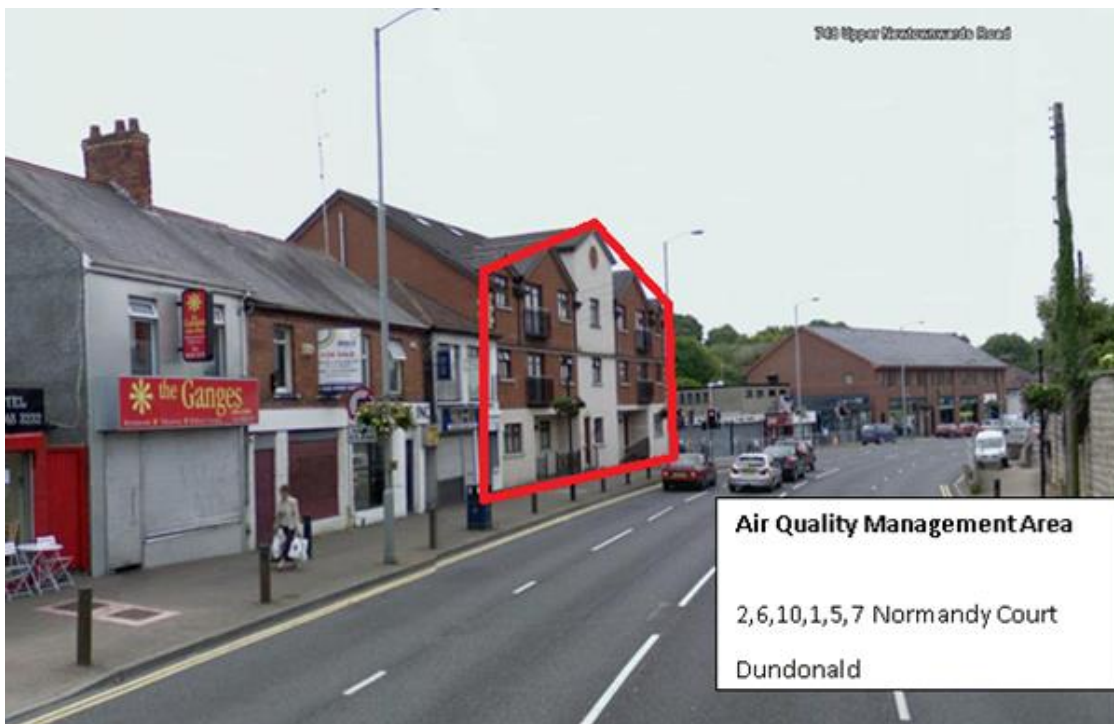




**Figure 1.2 Ariel photograph showing position of the AQMA in Dundonald Village**



**Figure 1.3 Photograph showing façade of Normandy Court AQMA in Dundonald Village**





## **2. Historical Air Quality Data at Normandy Court Dundonald**

- 2.1** The 2009 USA and previous progress reports produced by CBC, identified the NO<sub>2</sub> annual mean at Normandy Court diffusion tube site, was exceeding the objective and the local authority needed to proceed to a detailed assessment.
- 2.2** The detailed assessment produced in 2009 identified NO<sub>2</sub> levels were being exceeded, which subsequently required CBC to declare an AQMA.
- 2.3** Apartments 1,2,5,6,9 &10 Normandy Court, Dundonald which face the Upper Newtownards Road, were declared an AQMA in January 2011. Once the AQMA was declared CBC was required to produce an AQAP
- 2.4** In 2012, CBC produced an AQAP that identified several actions aimed at reducing NO<sub>2</sub> levels in Dundonald Village. The plan outlined the need for a 20% reduction in NO<sub>2</sub> levels to meet the air quality objective.
- 2.5** The 2012 AQAP identified road traffic as the main source of elevated NO<sub>2</sub> levels in Dundonald Village. To address this issue, the plan proposed several actions, including, the introduction of a Park & Ride scheme, the construction of a designated bus lane from Dundonald to Belfast City centre and the implementation of a Glider bus service encouraging public transport use, further decreasing road traffic congestion. The goal of these measures was to achieve a 20% reduction in NO<sub>2</sub> levels to meet air quality objectives.
- 2.6** In 2023, LCCC developed an updated AQAP, which highlighted successful projects that contributed to the reduction of NO<sub>2</sub> levels, particularly at Normandy Court. This update reflects ongoing efforts to improve air quality and demonstrates the effectiveness of implemented measures.
- 2.7** NO<sub>2</sub> diffusion tubes have been used to monitor levels at Normandy Court, Dundonald and reported annually since the introduction of the Air Quality Strategy 2003. In 2006 CBC reported the possibility of exceedances for NO<sub>2</sub> at this location. A suitable site was located 30M from Normandy Court for an automatic site with a real-time NO<sub>x</sub> analyser, this was installed in 2007.



**2.8** Results from the real-time analyser and the diffusion tubes 2008 to 2011 can be found in table 2, when the AQMA was declared as reported in the 2012 USA, during this time the diffusion tube monitoring site was moved to the façade of Normandy Court, and relevant exposure 2.5m from the original kerbside site in accordance with the Air Quality Technical Guidance (TG22).

**Table 2. NO<sub>2</sub> results 2008 to 2011**

Site ID	Site Type	Annual Mean NO <sub>2</sub> Concentration µg/m <sup>3</sup>			
		2008* <sup>c</sup>	2009* <sup>c</sup>	2010* <sup>c</sup>	2011* <sup>c</sup>
Castlereagh Dundonald Automatic site	Roadside	32.3	36	41	39
Normandy Court Diffusion tube site	Kerbside	65.6	57.4		
Normandy Court Diffusion tube site	Facade			45	45

**2.9** Results from the real-time analyser and the diffusion tubes 2012 to 2019 pre COVID. The Park & Ride scheme was opened in 2014, and the new Rapid Transport Scheme (Glider Bus) was completed in 2018, a significant reduction in NO<sub>2</sub> levels is evident with the completion of these two schemes.

**Table 3. NO<sub>2</sub> results 2012 to 2019**

Site ID	Site Type	Annual Mean NO <sub>2</sub> Concentration (µg/m <sup>3</sup> )							
		2012	2013	2014	2015	2016	2017	2018	2019
Castlereagh Dundonald Automatic site	Roadside	30	32	37	29	27	27	24	22
Normandy Court Diffusion tube site	Facade	38	39	39	35	39	40	34	31



### 3. Impact of COVID-19 upon LAQM Data within the AQMA

3.1. COVID-19 had a significant impact on society. Inevitably, COVID-19 also had an impact on the environment, with implications to air quality at local, regional, and national scales. COVID-19 presented various challenges for Local Authorities with respect to undertaking their statutory LAQM duties. Despite the challenges that the pandemic gave rise to, the events of 2020 also provided Local Authorities and other organisations with an opportunity to quantify the air quality impacts associated with wide-scale and extreme intervention and changes in behaviour such as reduced road traffic and working from home. DAERA deemed air quality to be an essential service during lockdown. The LCCC air quality monitoring sites did not require access to any premises and therefore it was possible to continue monitoring both the automatic sites and all the NO<sub>2</sub> diffusion tubes sites.

There was a noticeable reduction in NO<sub>2</sub> during 2020 with the reduction in traffic flows, due to lockdown periods, home working and home schooling. In 2021 restrictions eased and traffic increased however guidance still recommended home working, so traffic flows were still reduced from pre-COVID.

During 2020/2021 and the pandemic, analysing the results and considering the DAERA COVID report LCCC concluded the large reduction in NO<sub>2</sub> was due to reduced traffic flows. It was the intention of LCCC pre COVID to give consideration to revoking the AQMA in Dundonald (Normandy Court) in 2021 when a continued trend in the reduction of NO<sub>2</sub> could be established. The completion of the Rapid Transport System (Glider Bus) through Dundonald had resulted in the desired 20% reduction in NO<sub>2</sub>, however as the 2020/2021 results were greatly affected by COVID, LCCC concluded continued monitoring at the AQMA and the other sites within the city council area was necessary.

3.2. The revocation of an AQMA should be considered following three consecutive years of compliance, 10% below the relevant objective at the point of exposure (i.e., following [fall off with distance adjustment](#)). Where there have been no exceedances for the past five years, local authorities must proceed with plans to revoke the AQMA. The LAQM Technical Guidance 2022 is clear in this respect, however it is not advisable to base compliance on a year that is not representative of long-term trends.



Air quality monitoring data should be considered as part of the wider context and not in isolation.

For example, compliance that is first achieved in 2020 unlikely to be representative of long-term trends in pollutant concentrations due to the impact of COVID-19 and associated lock down measures. Similarly in 2021, pollutant concentrations continued to be impacted by the change in typical activity that resulted from COVID-19 restrictions.

Substantive evidence would therefore need to be provided to show that these consecutive years are representative of long-term trends.

#### 4. Current Air Quality Data

**4.1** Pre-COVID the NO<sub>2</sub> monitored results at Normandy Court, Dundonald had achieved the required levels 10% below the objective. As restrictions eased and a normal living pattern returned LCCC in 2024 now have sufficient data to comply with the TG22 to move towards revoking the AQMA.

**4.2** Since 2010 the NO<sub>2</sub> diffusion tube monitoring carried out at Normandy Court was at the façade of the property, however in 2023 permissions were lost to have the tubes attached to the property and the monitoring site was re-located to the original kerbside site, as expected results at this location are elevated due to the close proximity to the road but still remain below the objective.

**Table 4 NO<sub>2</sub> results 2012 to 2019**

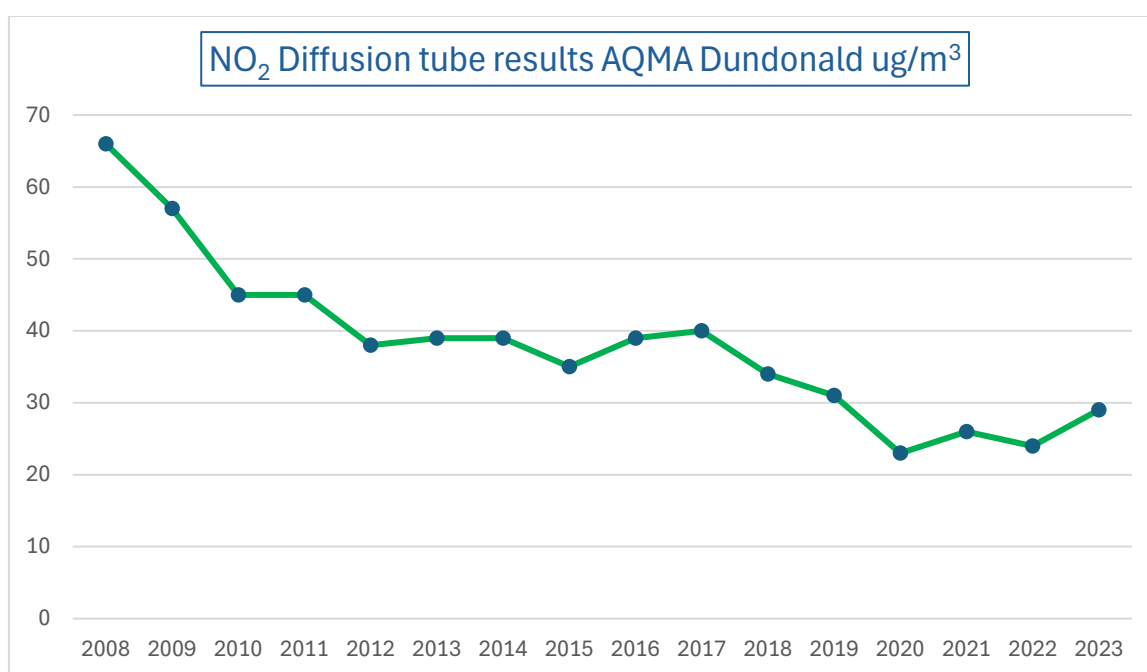
Site ID	Site Type	Annual Mean NO <sub>2</sub> Concentration (µg/m <sup>3</sup> )				
		2019	2020	2021	2022	2023
Castlereagh Dundonald Automatic site	Roadside	22	17	19	19	20
Normandy Court Diffusion tube site	Facade	31	23	26	24	29 (kerbside)



## 5. Intention to Revoke

- 5.1. In accordance with DEFRA guidance, an AQMA should be revoked when monitoring results from three consecutive years show no exceedances of the AQO, this has been demonstrated in this detailed assessment.
- 5.2. It is therefore recommended that the AQMA, apartments 1,2,5,6,9 & 10 Normandy Court Dundonald, be revoked in 2025, due to continued compliance with the AQO, since the completion of the Park & ride facilities and the rapid Transport system through Dundonald village and the AQMA, as shown in figure 2.

**Figure 2. NO<sub>2</sub> Diffusion Tube Results within AQMA Dundonald**



- 5.3. LCCC intention to revoke the AQMA was referenced in the 2024 USA air quality report, and the comments raised in the DEARA appraisal letter agreed with this decision, on acceptance of this detailed assessment by DEARA it will be submitted to LCCC council to seek permission with revocation.
- 5.4. On completion of these procedures, LCCC will officially revoke the AQMA through an AQMA Revocation Order, which will be published in the local paper to inform the public. This action may resource implications on the Council's Legal department.