Annual Progress Report (APR)



2023 Air Quality Annual Progress Report (APR) for North Lanarkshire Council

In fulfilment of Part IV of the Environment Act 1995, as amended by the Environment Act 2021

Local Air Quality Management

September 2023

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# Executive Summary: Air Quality in Our Area

## Air Quality in North Lanarkshire

North Lanarkshire Council is Scotland’s fourth largest (by population) local authority, situated in Central Scotland. Traditionally an area associated with heavy industry, this has significantly declined in recent years and the economy of the area now focuses on commerce and light industry. Due to its geographical location many of Scotland’s trunk roads pass through North Lanarkshire, including the M8/A8, M74, M73 and M80/A80. There is also substantial cross-boundary travel with neighbouring local authority areas, particularly Glasgow, South Lanarkshire, Falkirk, and West Lothian, for employment, education, and leisure activities. The main source of air pollution within North Lanarkshire is road traffic emissions, with a small element attributable to small-scale quarrying activities.

North Lanarkshire Council operate an extensive network of air monitoring equipment comprising ten real-time automatic monitoring stations measuring Nitrogen Dioxide (NO2) and fine Particulate Matter (PM10 and PM2.5) as well as a comprehensive network of 81 passive diffusion tubes monitoring NO2. Our monitoring locations, both automatic and diffusion tubes are reviewed on a regular basis to ensure we target the most appropriate locations in terms of air pollution sources and the potential for receptor exposure. During the reporting period of 2022 measured concentrations of NO2 across monitoring sites, both automatic and passive diffusion tube monitoring all complied comfortably with the annual mean statutory objective. In addition, no exceedances of the short-term NO2 objective were noted. Similarly, for PM10 and PM2.5 all statutory air quality objectives were met at the automatic monitoring sites in 2022. Measured concentrations of all NO2, PM10 and PM2.5 remained broadly consistent with measured concentrations from 2021. Reasons for this could be the ongoing legacy of working from home and reduced traffic levels because of the Covid-19 pandemic.

In 2022 we were successful in obtaining funding from the Scottish Government to upgrade some of our automatic monitoring equipment. Consequently, following a robust procurement exercise we purchased eight new NOx analysers which were installed in existing air monitoring locations in North Lanarkshire.

The process of revoking the Croy Air Quality Management Area (AQMA) was also completed in 2022.

A major focus of the work in 2022 was the update of the Council’s Air Quality Action Plan (AQAP). This involved the creation of a Steering Group comprising internal and external stakeholders and several meetings to devise new action plan measures aimed at the continued improvement of air quality in North Lanarkshire. Themes within the AQAP include the promotion of active travel and public transport, a review of all monitoring locations especially arounds schools in North Lanarkshire, as well as North Lanarkshire leading by example in measures aimed at improving air quality and tackling climate change. These new action plan measures will be the main focus of work in 2023. We will also continue to run our two Eco Stars schemes, for taxi and fleet operators and run workshops to raise awareness and encourage membership of the schemes.

North Lanarkshire Council manages and leads a partnership which includes South Lanarkshire Council and East Dunbartonshire to focus on reducing Vehicle Emissions and Vehicle Idling offences this work is funded by a Grant from the Scottish Government.  In the past financial year 2022/23 North Lanarkshire (NL) has conducted 9 vehicle emission testing days with Police Scotland which saw 150 to 200 vehicles tested and awareness raised with drivers around ensuring vehicles are serviced regularly and engine is maintained. In addition, 2022/23 saw over 155 vehicle idling patrols carried out at locations in NL where vehicle idling was considered contributing to poorer air quality at certain times, including schools at drop off and pick up times, taxi ranks, bus terminals and general idling hotspots identified across the authority from complaints received.  378 warnings to drivers were issued during these patrols where the driver was requested to turn their vehicle engine off and subsequently did so.

As has been reported previously there are several major developments planned in the North Lanarkshire Council area over the coming years. City Deal projects including the Pan Lan access to Ravenscraig routes, and the East Airdrie link Road, as well as the New Monklands Hospital and active travel improvements in Motherwell Town Centre. We continue to strive to ensure air quality is considered at the earliest possible stage in both major and smaller scale developments.

## Actions to Improve Air Quality

Despite 2022 still experiencing knock-on effects from the Covid-19 pandemic the Council were still able to complete several projects in line with pledges within the Air Quality Action Plan.

In terms of air quality monitoring – following robust procurement exercises eight new automatic NOx analysers were purchased and installed in existing air monitoring stations, replacing ageing equipment. The Council’s air quality maintenance and servicing contract was also re-tendered in 2023. Both were funded through the Scottish Government Air Quality Grant.

The Council’s Air Quality Action Plan was also updated in 2022/23 and the Croy AQMA was revoked in line with advice from the Scottish Government and SEPA.

Continuing with active travel initiatives and promotion carried out in recent years in 2022 Scottish Government Air Quality Funding provided a contribution to footpath widening, signage etc. to assist in linking the cycling hire facilities in the Watersports Centre to new cycling infrastructure in Strathclyde Country Park.

The Eco Stars Fleet environmental recognition scheme continued in North Lanarkshire in 2022, and a new Eco Stars scheme was set up for taxi operators. A workshop was also held in conjunction with South Lanarkshire Council for taxi drivers interested in finding out more about the scheme.

In the past financial year 2022/23 North Lanarkshire (NL) has conducted 9 vehicle emission testing days with Police Scotland.  On these days of action 150 to 200 vehicles were tested and awareness raised with drivers around ensuring vehicles are serviced regularly and engine is maintained. In the past year over 155 vehicle idling patrols by Environmental Protection Officers were carried out at locations in NL where vehicle idling was considered contributing to poorer air quality at certain times.  These locations included schools at drop off and pick up times, taxi ranks, bus terminals and general idling hotspots identified across the authority from complaints received.  378 warnings to drivers were issued during these patrols where the driver was requested to turn their vehicle engine off and subsequently did.  North Lanarkshire has raised awareness with vehicle idling around primary schools but will look to build on that work in the coming year.

## Local Priorities and Challenges

North Lanarkshire Council will continue to monitor air quality in line with our statutory responsibilities using our extensive network of automatic and passive diffusion tube air monitors. Particular attention will be paid to the newest of our automatic monitoring sites – Ravenscraig and A725 Whifflet to determine air quality levels and emerging trends in the monitoring data. We will also undertake a comprehensive review of all our air monitoring locations to ensure we have appropriate monitoring coverage in areas of relevant public exposure in North Lanarkshire, including our schools.

With the recent publication of the newly updated Air Quality Action Plan 2023-2028 we will begin work on our top five priorities in order that progress can be reported on in the next reporting year. Key priorities contained within the Council’s AQAP are as follows:

* We will investigate air quality around schools in North Lanarkshire with a focus on drop-off and pick-up times.
* We will facilitate modal shift from private car use to active travel and public transport.
* We will improve active travel options to NLC hubs.
* As a council we will lead by example in taking measures to reduce air pollution in North Lanarkshire, including decarbonisation of the Council’s vehicle fleet.
* We will undertake a comprehensive review of air quality monitoring to optimize resources and coverage across North Lanarkshire.
* We will increase EV infrastructure across North Lanarkshire.

We will continue to run our two Eco Stars schemes – for fleet and for taxi operators. To publicise the schemes and promote membership we will undertake to run workshops for members.

We will decommission the Croy air monitoring station in light of the revocation of the Croy Air Quality Management Area (AQMA) which was completed in 2022. On a similar vein, following discussion with the Scottish Government and SEPA we will revoke the Chapelhall and Coatbridge AQMAs for both NO2 and PM10.

We will continue to undertake awareness raising initiatives, such as Clean Air Day, both as North Lanarkshire stand-alone initiatives and also with our colleagues in South Lanarkshire or other local authorities.

## How to Get Involved

Further information on air quality in North Lanarkshire can be found on the Council’s website at <http://www.northlanarkshire.gov.uk/pests-and-pollution/pollution/air-pollution> or by contacting (01236)856300 or [kildonanPS@northlan.gov.uk](mailto:kildonanPS@northlan.gov.uk)

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# Local Air Quality Management

This report provides an overview of air quality in North Lanarkshire Council during 2022. It fulfils the requirements of Local Air Quality Management (LAQM) as set out in Part IV of the Environment Act (1995), as amended by the Environment Act (2021), and the relevant Policy and Technical Guidance documents.

The LAQM process places an obligation on all local authorities to regularly review and assess air quality in their areas, and to determine whether the air quality objectives are likely to be achieved. Where an exceedance is considered likely the local authority must 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. This Annual Progress Report (APR) summarises the work being undertaken by North Lanarkshire Council to improve air quality and any progress that has been made.

### Table 1.1 – Summary of Air Quality Objectives in Scotland

|  |  |  |  |
| --- | --- | --- | --- |
| **Pollutant** | **Air Quality Objective Concentration** | **Air Quality Objective Measured as** | **Date to be Achieved by** |
| Nitrogen  dioxide (NO2) | 200 µg/m3 not to be exceeded more than 18 times a year | 1-hour mean | 31.12.2005 |
| Nitrogen  dioxide (NO2) | 40 µg/m3 | Annual mean | 31.12.2005 |
| Particulate  Matter (PM10) | 50 µg/m3, not to be exceeded more than 7 times a year | 24-hour mean | 31.12.2010 |
| Particulate  Matter (PM10) | 18 µg/m3 | Annual mean | 31.12.2010 |
| Particulate  Matter (PM2.5) | 10 µg/m3 | Annual mean | 31.12.2021 |
| Sulphur dioxide (SO2) | 350 µg/m3, not to be exceeded more than 24 times a year | 1-hour mean | 31.12.2004 |
| Sulphur dioxide  (SO2) | 125 µg/m3, not to be exceeded more than 3 times a year | 24-hour mean | 31.12.2004 |
| Sulphur dioxide  (SO2) | 266 µg/m3, not to be exceeded more than 35 times a year | 15-minute mean | 31.12.2005 |
| Benzene | 3.25 µg/m3 | Running annual mean | 31.12.2010 |
| 1,3 Butadiene | 2.25 µg/m3 | Running annual mean | 31.12.2003 |
| Carbon Monoxide | 10.0 mg/m3 | Running 8-Hour mean | 31.12.2003 |

Actions to Improve Air Quality

## Air Quality Management Areas

Air Quality Management Areas (AQMAs) are declared when there is an exceedance or likely exceedance of an air quality objective. After declaration, the authority must prepare publish and implement an Air Quality Action Plan (AQAP) within the shortest possible time and no later than 12 months of the date of AQMA Designation Order. The AQAP must set out measures the local authority intends to put in place in pursuit of the objectives within the shortest possible time Measures should be provided with milestones and a final date for completion. The action plan itself should have a timescale for completion and for revocation of the AQMA. Where measures to reduce air pollution may require a longer timescale an action plan shall be reviewed and republished within five years of initial publication and then five-yearly thereafter.

A summary of AQMAs declared by North Lanarkshire Council can be found in [Table 1.2](#_bookmark0). Further information related to declared or revoked AQMAs, including maps of AQMA boundaries are available online at [https://www.northlanarkshire.gov.uk/pests-and-](https://www.northlanarkshire.gov.uk/pests-and-pollution/pollution/air-quality/air-quality-management-areas) [pollution/pollution/air-quality/air-quality-management-areas](https://www.northlanarkshire.gov.uk/pests-and-pollution/pollution/air-quality/air-quality-management-areas) . We will revoke the Chapelhall and Coatbridge AQMAs for both NO2 and PM10 during 2023/24 (see monitoring section) in line with the recommendation in the 2022 APR.

**Table 1.2 – Declared Air Quality Management Areas**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **AQMA**  **Name** | **Pollutants and Air Quality Objectives** | **City / Town** | **Description** | **Action Plan** |
| Chapelhall AQMA | NO2 annual mean  PM10 annual mean | Chapelhall | An area encompassing a number of properties at the junction of Main Street and Lauchope Street | [http://www.northlanarkshire.gov.](http://www.northlanarkshire.gov.uk/pests-and-pollution/pollution/air-quality/air-quality-management-areas) [uk/pests-and-](http://www.northlanarkshire.gov.uk/pests-and-pollution/pollution/air-quality/air-quality-management-areas) [pollution/pollution/air-quality/air-](http://www.northlanarkshire.gov.uk/pests-and-pollution/pollution/air-quality/air-quality-management-areas) [quality-management-areas](http://www.northlanarkshire.gov.uk/pests-and-pollution/pollution/air-quality/air-quality-management-areas) |
| Coatbridge AQMA | NO2 annual mean  PM10 annual mean | Coatbridge | Whifflet Street stretching from roundabout at McDonalds to Shawhead roundabout. Extended in 2015 to include Kirkshaws  Road | [http://www.northlanarkshire.gov.](http://www.northlanarkshire.gov.uk/pests-and-pollution/pollution/air-quality/air-quality-management-areas) [uk/pests-and-](http://www.northlanarkshire.gov.uk/pests-and-pollution/pollution/air-quality/air-quality-management-areas) [pollution/pollution/air-quality/air-](http://www.northlanarkshire.gov.uk/pests-and-pollution/pollution/air-quality/air-quality-management-areas) [quality-management-areas](http://www.northlanarkshire.gov.uk/pests-and-pollution/pollution/air-quality/air-quality-management-areas) |
| Motherwell AQMA | PM10 annual mean | Motherwell | An area encompassing part of Motherwell Town Centre | [http://www.northlanarkshire.gov.](http://www.northlanarkshire.gov.uk/pests-and-pollution/pollution/air-quality/air-quality-management-areas) [uk/pests-and-](http://www.northlanarkshire.gov.uk/pests-and-pollution/pollution/air-quality/air-quality-management-areas) [pollution/pollution/air-quality/air-](http://www.northlanarkshire.gov.uk/pests-and-pollution/pollution/air-quality/air-quality-management-areas) [quality-management-areas](http://www.northlanarkshire.gov.uk/pests-and-pollution/pollution/air-quality/air-quality-management-areas) |

## Cleaner Air for Scotland 2

[Cleaner Air for Scotland 2 – Towards a Better Place for Everyone (CAFS2)](https://www.gov.scot/publications/cleaner-air-scotland-2-towards-better-place-everyone/) is Scotland’s second air quality strategy. CAFS2 sets out how the Scottish Government and its partner organisations propose to further reduce air pollution to protect human health and fulfil Scotland’s legal responsibilities over the period 2021 – 2026. CAFS2 was published in July 2021 and replaces [Cleaner Air for Scotland – The Road to a Healthier Future (CAFS)](https://www.gov.scot/publications/cleaner-air-scotland-road-healthier-future/), which was published in 2015. CAFS2 aims to achieve the ambitious vision for Scotland "to have the best air quality in Europe". A series of actions across a range of policy areas are outlined, a summary of which is available on the Scottish Government’s website.

Progress by North Lanarkshire Council against relevant actions for which local authorities are the lead delivery bodies within this strategy is demonstrated below.

### Placemaking – Plans and Policies

Local authorities with support from the Scottish Government will assess how effectively air quality is embedded in plans, policies, City Deals and other initiatives, and more generally in cross departmental working, identifying, and addressing evidence, skills, awareness and operational gaps.

North Lanarkshire Council’s Local Development Plan (LDP) was adopted and implemented in July 2022. This is the land use planning strategy for the coming 5-10 years and it focuses on Promoting Development Locations and Protecting Assets. Air quality is specifically mentioned in the LDP in the section on Placemaking Environment and Design Qualities (EDQ) for Development. Category EDQ2 includes air quality as a Special Feature for Consideration for proposed development. Also, within EDQ3 Policy section of the LDP there is reference to air quality as one of a number of considerations in relation to planned development. Note is made of proposed development within or adjacent to AQMAs which are detailed in the LDP’s Protect Map. The Policies are written in such a way as to apply to any AQMA the Council designates in the future during the lifetime of the LDP.

### Transport – Low Emission Zones

Local authorities working with Transport Scotland and SEPA will look at opportunities to promote zero-carbon city centres within the existing LEZs structure.

North Lanarkshire Council has no Low Emission Zones established within the Local Authority area.

### Transport – Active Travel Strategy

North Lanarkshire Council Active Travel Strategy 2021 – 2031 aims to create a wide range of (transport) connections across North Lanarkshire which can be used for everyday journeys such as travelling to access employment, education or meeting essential needs in addition to recreational purposes. Key targets of the Active Travel Strategy includes increasing the number of cycle parking spaces at local amenities, employment centres, transport links and Town and Community Hubs, and introducing additional walking, wheeling and cycling connections to key destinations and local community hubs.

### Air Quality and Climate Change

North Lanarkshire Council has a statutory duty reduce carbon emissions, adapt to climate change and act sustainably. In recognition of the threat of increased global temperatures, the Council has declared a climate emergency setting a target of net-zero greenhouse gas emissions by 2030 for North Lanarkshire. The Council’s response to climate change and how it will progress towards its target by 2030 is set out in the document Climate Plan Action on Climate Together (ACT) 2030 supported by a list of multi-service actions.

## Implementation of Air Quality Action Plan(s) and/or measures to address air quality.

To ensure that local authorities implement the measures within an action plan by the timescales stated within that plan, the Scottish Government expects authorities to submit updates on progress through the APR process. In 2022 North Lanarkshire Council began the process of updating the Air Quality Action Plan from the previous version which ran from 2018 – 2021. This updated Action Plan was approved and accepted by the Environment and Climate Change Committee in August 2023.

In addition to the update of the Air Quality Action Plan North Lanarkshire Council has continued to take forward several measures within the previous action plan during the reporting year of 2022 in pursuit of improving local air quality and meeting the air quality objectives within the shortest possible time. Details of the measures outlined in the new Air Quality Action Plan 2023-2023 are outlined in Table 2.2 along with details of the progress

of each of the actions and milestones and key actions. More detail on these measures can be found in the Air Quality Action Plan document which is available on the Council website at [https://www.northlanarkshire.gov.uk/pests-and-pollution/pollution/air-quality/air-quality-](https://www.northlanarkshire.gov.uk/pests-and-pollution/pollution/air-quality/air-quality-management-areas) [management-areas](https://www.northlanarkshire.gov.uk/pests-and-pollution/pollution/air-quality/air-quality-management-areas)

Key completed measures for this reporting year are:

* In addition to the Eco Stars Fleet Scheme already in place in North Lanarkshire an Eco Stars Scheme was set up for taxi operators in North Lanarkshire. This was met with a great deal of interest by local taxi operators and a Taxi Operator workshop was held in conjunction with South Lanarkshire Council. This was heavily over-subscribed and consequently further workshops are planned for 2023/24.
* Following approval from the Scottish Government and SEPA the Croy AQMA was revoked in 2022.
* Scottish Government air quality grant funding contributed towards improving walking/cycling infrastructure at Strathclyde Country Park to link existing cycle hire facilities at the Watersports Centre with new cycling infrastructure in the north of the park.
* Following a robust procurement process eight new NOx automatic analysers were purchased to replace ageing equipment in eight of our existing air monitoring stations.
* The North Lanarkshire Air Quality Action Plan was updated following various stages of stakeholder engagement, consultation etc in line with the new Air Quality Policy Guidance PG(23). Engagement was sought from both internal and external stakeholder and interested parties to establish action plan measures aimed at the continual improvement of air quality in North Lanarkshire.
* In financial year 2022/23 North Lanarkshire Council has conducted 9 vehicle emission testing days with Police Scotland. On the testing days an average ranging from 150 to 200 vehicles were tested and awareness raised with drivers around ensuing their vehicles are serviced and maintained on a regular basis. In addition, in 2022/23 over 155 vehicle idling patrols were carried out at locations in North Lanarkshire where vehicle idling was considered to be contributing to poorer air quality at certain times. These locations included schools at drop-off and pick-up times, taxi ranks, bus terminals and general idling hotspots identified across the authority from complaints received. 378 warnings to drivers were issue during these patrols where the driver was requested to turn off their vehicle engine and they subsequently did so.

Progress on the following measures has been slower than expected due to the main focus of work being the update to the Air Quality Action Plan

* Revocation of NO2 element of Chapelhall and Coatbridge AQMA was not carried out in 2022 because the focus of work was updating the Air Quality Action Plan 2023- 2028.
* Bus operator workshop did not go ahead because the Transport Scotland BEAR retrofitting grants were not available.
* Further expansion of the Dispersion Modelling study for areas of North Lanarkshire already covered. This was not carried out due to the focus of work again being the update to the Air Quality Action Plan.

North Lanarkshire Council expects the following measures to be undertaken over the course of the next reporting year:

* We will revoke the AQMAs in Chapelhall and Coatbridge for both NO2 and PM10.
* A review of all monitoring locations will be undertaken to ensure comprehensive monitoring coverage across North Lanarkshire at relevant locations of receptor exposure, including schools.
* Building on works undertaken in the previous year 2022, air quality grant funding will be used to pay half the costs of creating a new shared use (cycle/walking) route that links with the National Cycle Route (NCR) network.
* The Croy air monitoring station will be decommissioned in 2023/2024 since it is over a year since the AQMA at this location was revoked.
* Necessary equipment upgrades will be carried out on the FIDAS particulate analyser within the Chapelhall AQMA to ensure its optimum accuracy and high levels of data capture.
* It is hoped that in 2023/24 we hope to deliver on the extension of the regional air quality dispersion modelling study to cover the remainder of the North Lanarkshire area. This includes the northern corridor of North Lanarkshire and the east of the district (Shotts, Harthill etc).
* Cycle repair and pump stands will be installed in two of the Council’s Country Parks. These will be located at potential commuter routes and will be funded from the Scottish Government Air Quality grant.
* Further Eco Stars workshops for taxis and for bus operators will be carried out to encourage membership of both Eco Stars schemes.
* Subject to Scottish Government grant funding the Council will continue its ongoing Vehicle Emission Testing initiatives and vehicle idling programmes.

Table 1.3 – Progress on Measures to Improve Air Quality

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Mea sur e No.** | **Measure** | **Category** | **Expected/A ctual Completion year** | **Measure Status** | **Funding Status** | **Key Milestones** | **Progress** | **Barriers to implementation** |
| 1 | **Facilitate modal shift from private car use to active travel and public transport including:**   1. Input to the Local Transport Strategy (LTS) 2. Pre- and post- implementation monitoring of strategic active travel infrastructure projects, including traffic counts, speed and air quality will be undertaken. 3. Complete an audit of public transport across North Lanarkshire, looking at things such as key commuter routes to main centres of employment, out of hours provision and age of fleet | Alternatives to private vehicle use | 2024  2024-2026  2024/25 | Planned Planned  Planned | No extra funding required.  Variety of funding sources. Scottish Government air quality grant funding will be applied for if required.  Funding will be sought from Scottish Gov AQ grant to engage a consultant for this work | Publication of LTS  Collation of evidence from one key active travel intervention  Completion of initial study and thereafter determine what action may be required | LTS update being progressed.  Collation of evidence from one key active travel intervention  Work scheduled to begin in 2024, subject to funding | Subject to funding  Subject to funding |

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| 2 | **Investigate air quality around schools in North Lanarkshire with particular focus on drop-off and pick-up times:**   1. Review of existing monitoring network and deployment of additional monitoring equipment where necessary 2. Establish Air Quality Champion Schools in each of our AQMAs, and other relevant areas looking at School Travel Planning and relevant behaviour change campaigns to encourage sustainable travel to/from school for both pupils and staff working in the school | Promoting Travel Alternatives | 2023-2028  2023-2028 | Planned  Planned | Scottish Government Air Quality Grant and other funding sources  Funding may be required for projects within the wider brief eg School Travel Planning | Initial review of existing network  Further milestones defined after initial review.  Review Completion  Monitoring before and after interventions to test effectiveness on local air quality | Planned to start late 2023  Planned to start 2023/24 |  |

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| 3 | **Improve Active Travel Options to North Lanarkshire Community hubs:**   1. Audit existing infrastructure 2. Publicity campaigns to promote options | Promoting travel alternatives | 2023-2028 | Planned | Funding to be confirmed by project lead  No funding required for publicity campaigns | Report on provision and recommendations for improvements  Publicity campaign undertaken and thereafter completion of  campaign | Project timeline still to be finalised. |  |
| 4 | **Lead by example in taking measures to reduce air pollution in North Lanarkshire**:   1. In line with the Council’s approved Leadership/Operating Model we will support home working and the use of hubs in addition to fixed work locations to reduce workplace travel 2. We will enhance the digital delivery of services to reduce the need for employees and customers to travel to council buildings. 3. We will continue to offer and promote the Cycle to Work scheme for employees of North Lanarkshire. We will also look to introduce a lease scheme for Electric/Ultra Low Emission Vehicles for Council employees |  | Ongoing  Ongoing  Ongoing | In progress  In progress  In progress | N/A  N/A  NLC budget | N/A  Ongoing | Ongoing  Ongoing |  |

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| 5 | **Review of Monitoring Network to optimise resources and coverage across North Lanarkshire** | Policy guidance and control | 2023-2025 | Planned | Scottish Govt Air Quality grant | Initial review in 2023 for data  collection in 2024. Annually reviewed during preparation  of APR | Due to start Autumn/Winter 2023 |  |
| 6 | **Ensure air quality and climate change policy actions in North Lanarkshire enjoy a relationship with co-benefits for both areas.**   1. We will work towards the decarbonisation of the NLC fleet. 2. we will increase EV charging infrastructure within council new-build development.   c) We will increase EV charging infrastructure across North Lanarkshire | Policy guidance and control | 2023-2028  and beyond | In progress | NLC Capital funding bid and other sources | Proportion of fleet decarbonised reported annually.  Number of Council houses built with EV included reported annually.  Increase in public EV points reported annually | Ongoing  Ongoing | This will require significant expenditure and accordingly the rate at which the fleet will move away from existing petrol and diesel vehicles will be determined by the level of internal funding and the funding available from any external source.  Currently working with partner local authorities within Glasgow City Region to look at possibility of partnership approach with private sector to accelerate number of charging points available across  region |
| 7 | **We will ensure air quality has greater importance in NLC’s procurement and contract processes in terms of the**  **sustainable procurement duty requirement as outlined in Section 9 of the Procurement Reform (Scotland) Act 2014** |  | 2023-2028  and beyond | In progress | No budget implications | N/A | Ongoing |  |
| 8 | **Aligning Planning and Air Quality Guidance and Placemaking Targets outlined in CAFS 2** | Policy guidance and  control |  | Ongoing | No funding required | Planning and AQ information  reported on | Ongoing | No known barriers to implementation |

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|  | 1. We will continue to ensure that air quality is a material consideration in development management decisions and where appropriate will promote best practice to realise air quality improvements such as connectivity to active travel/public transport 2. We will ensure air quality is included in any revisions to the Local Development Plan and take due cognisance of air quality requirements that are included in National Planning Framework 4. |  | Ongoing |  |  | annual basis in APR |  |  |
| 9 | **Revoke the NO2 element of the Chapelhall and Coatbridge AQMAs** |  | 2024 | Planned | No funding required | Revocation achieved in 2024 | Project to begin Winter 2023/Spring  2024 |  |
| 10 | **Continuation, expansion and promotion of Eco Stars Environmental recognition scheme**   1. An Eco Stars taxi operator scheme will be set up in North Lanarkshire in addition to the Eco Stars Fleet Scheme 2. We will promote the NLC Eco Stars scheme to Council contractors and endeavour to ensure they are members | Promoting Vehicle Efficiency | 2023 | Ongoing | Scottish government air quality grant | Annual membership increase in both fleet and taxi schemes | Ongoing | Continuation of both schemes is dependent on funding from Scot Gov Air Quality grant |
| 11 | **Raising awareness including through Clean Air Day, Vehicle Emission Testing and idling campaigns** | Public information | Ongoing | Ongoing | Scottish government air quality grant | CAD event held annually | Ongoing | Dependent on Scottish Government air quality funding |
| 12 | **Continue our ongoing engagement with the Enterprise Projects Team to ensure that air quality is given appropriate consideration in**  **City Deal projects** | Transport Planning and Infrastructure | 2023-2026 | In progress | N/A | Delivery of City Deal Projects with relevant AQ input | Ongoing |  |

# Air Quality Objectives

## Summary of Monitoring Undertaken

### Automatic Monitoring Sites

This section sets out what monitoring has taken place and how local concentrations of the main air pollutants compare with the objectives.

North Lanarkshire Council undertook automatic (continuous) monitoring at 10 sites during 2022. Table A.1 in Appendix A shows the details of the sites. National monitoring results are available at [www.scottishairquality.scot](http://www.scottishairquality.scot/)

A map showing the location of the monitoring sites is provided in Figure 3.1. Due to the number of monitoring sites in North Lanarkshire Figure 3.1 is an overview of the sites. More detailed information on both the automatic and diffusion tube monitoring locations can be found on the website [www.scottishairquality.scot/latest](http://www.scottishairquality.scot/latest) . Further details on how the monitors are calibrated and how the data has been adjusted are included in Appendix C.

### Non-Automatic Monitoring Sites

North Lanarkshire Council undertook non- automatic (passive) monitoring of NO2 at 81 sites during 2022. Table A.2 in Appendix A shows the details of the sites.

A map showing the location of the monitoring sites is provided in Figure 3.1 and at [www.scottishairquality.scot/latest](http://www.scottishairquality.scot/latest). Further details on Quality Assurance/Quality Control (QA/QC) and bias adjustment for the diffusion tubes are included in Appendix C.

### Other Monitoring Activities

No other monitoring activities have been undertaken by North Lanarkshire Council in the reporting year of 2022.

## Individual Pollutants

The air quality monitoring results presented in this section are, where relevant, adjusted for annualisation and bias. Further details on adjustments are provided in Appendix C.

### Nitrogen Dioxide (NO2)

Monitoring of NO2 was carried out at 10 automatic monitoring stations in North Lanarkshire in 2022 and results indicate that there were no exceedances of the annual mean AQS objective for NO2 at any of the continuous monitoring sites in 2022.

There was a significant decrease in measured concentrations across the whole network in 2020 due to the Covid-19 Pandemic and the various restrictions on activities and Government advice such as working from home where possible leading to dramatic reduction in road traffic movements. The established practice of home and hybrid working has had a continued impact on the method and frequency of travel. Although traffic movements across North Lanarkshire increased in 2021 and 2022, they did not return to pre-pandemic levels which is reflected in the monitoring results. The majority of NO2 automatic monitoring sites measured very similar levels of NO2 in 2022 as had been recorded in 2021. Two sites, however, did show 20-30% increase in NO2 levels – CM11 – Adele Street, Motherwell, and CM12 – Whifflet Cross A725. Despite seeing an increase, however, both these sites remained well below the annual mean air quality objective of 40µg/m3 for NO2.

The graphs in Figures A1 to A6 in Appendix A show the trend in annual mean NO2 concentrations at continuous monitoring sites within the AQMAs.

In 2022 NO2 was also measured through the Council’s network of 81 passive diffusion tubes. For diffusion tubes, the full 2022 dataset of monthly mean values is provided in Appendix B. All Diffusion Tube monitoring results for 2022 comply comfortably with the annual mean statutory objective of 40 µg/m3. Half of the total number of Diffusion Tubes remained approximately the same in 2022 as in 2021, with the remainder almost all decreased and only 5 sites showing an increase on 2021 levels. The highest monitored NO2 diffusion tube result was DT63 at Central Way Westbound, Cumbernauld however this was well below the statutory objective at 25.4 µg/m3.

Table A.3 in Appendix A compares the ratified and adjusted monitored NO2 annual mean concentrations for the past five years with the air quality objective of 40 µg/m3.

A study carried out on behalf of Defra and the Devolved Administrations1 identified that exceedances of the NO2 1-hour mean are unlikely to occur where the annual mean is below 60µg/m3. There were no measured annual mean concentrations in excess of 60 µg/m3 in the same period indicating compliance with the 1-hour mean objective across the North Lanarkshire Council Region.

Table A.4 in Appendix A compares the ratified continuous monitored NO2 hourly mean concentrations for the past five years with the air quality objective of 200µg/m3, not to be exceeded more than 18 times per year. In terms of the short-term statutory air quality objective for NO2 – the hourly mean – monitored results indicate that there were no exceedances of the hourly mean objective level at the automatic air monitoring stations in operation in 2022 and during the period 2018 and 2022.

### Particulate Matter (PM10)

As for NO2, due to Covid-19 Pandemic restrictions, PM10 concentrations at all sites decreased in 2020 and increased again in 2021 but remained below 2019 pre-pandemic concentrations. At the 10 automatic monitoring stations which measure PM10 the monitoring results indicate there were no exceedances of the annual mean objective for PM10 in 2022. The highest measured concentration was 10.9 µg/m3 at CM10 Kenilworth Dr, Airdrie, however this site only attained data capture of 65% in 2022. All sites showed a marginal increase in 2022 concentrations compared to 2021. The exception to this was CM11 Adele Street, Motherwell which showed a marginal decrease in concentrations between 2021 and 2022.

The PM10 monitoring network was enhanced in 2021 by the commissioning of the two new monitoring sites at Whifflet Cross A725 within the Coatbridge AQMA, and the regional development site at Ravenscraig, north of the Motherwell AQMA.

In May 2023, the Scottish Government issued Local Authorities with a guidance note to explain how PM measurements made with the FIDAS 200 method should be adjusted and reported within APRs and other LAQM reports. The ratified PM10 results downloaded from

1 Local Air Quality Management Technical Guidance (TG22) -DEFRA August 2022

the Scottish Air Quality Database were divided by 0.909 in accordance with the guidance. Applying this adjustment had the effect of raising the PM10 concentrations slightly, however all sites remained well below the statutory objective.

Table A.5 and A.6 in Appendix A compare the ratified and adjusted monitored PM10 annual mean concentrations for the past five years with the air quality objective of 18µg/m3.

The graphs in Figures A7 to A12 in Appendix A show the trend in annual mean PM10 concentrations (with FIDAS correction) at continuous monitoring sites within the AQMAs.

In terms of the short-term air quality statutory objective for PM10, the monitoring results indicated that there were no breaches of objective for 24-hour mean PM10 (50 µg/m3 not to be exceeded more than seven times/year).Table A.7 in Appendix A compares the ratified continuous monitored PM10 daily mean concentrations for the past five years with the air quality objective of 50µg/m3, not to be exceeded more than seven times per year.

### Particulate Matter (PM2.5)

North Lanarkshire Council carried out monitoring of PM2.5 at ten automatic monitoring sites in 2022. No monitored exceedances of the PM2.5 annual mean air quality statutory objective of 10µg/m3 was noted in 2022. The highest measured PM2.5 concentration in 2022 was 5.6 µg/m3 at CM12 Whifflet Cross A725, and this was still comfortably below the statutory air quality objective.

The ratified PM2.5 results downloaded from the Scottish Air Quality Database were multiplied by 1.06 in accordance with the guidance.

The graphs in Figures A13 to A18 in Appendix A show the trend in annual mean PM2.5

concentrations (with Fidas correction) at continuous monitoring sites within the AQMAs.

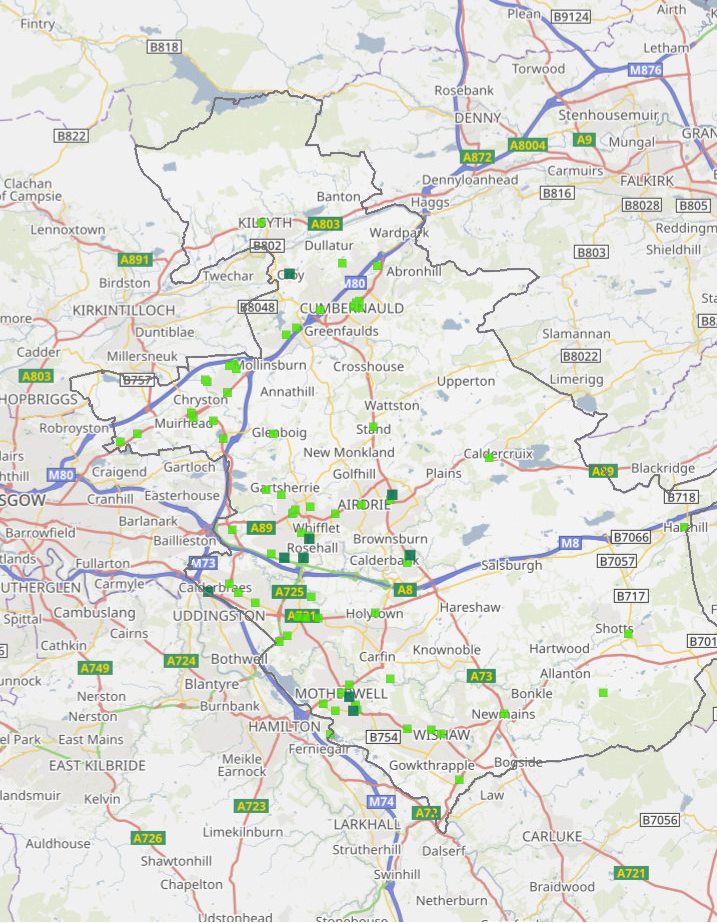
Table A.7 in Appendix A compares the ratified and adjusted monitored PM2.5 annual mean concentrations for the past five years with the air quality objective of 10µg/m3.

Tables A.8 and A.9 in Appendix A compare the ratified and adjusted monitored PM2.5 annual mean concentrations for the past five years with the air quality objective of 10µg/m3.

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Figure 3.1 Air Quality Monitoring Sites (dark green automatic stations, light green diffusion tube

site)



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September 11, 2023

Air Quality Monitoring Sites

**1:169,323**

0

7,000 14,000

28,000 ft

0 1,700 3,400

6,800 m

NLC



### Sulphur Dioxide (SO2)

Following several years with no measured exceedances of SO2 and with the agreement of the Scottish Government the monitoring of SO2 in North Lanarkshire ceased at the beginning of 2018.

### Carbon Monoxide, Lead, and 1,3-Butadiene

Historically, CO monitoring was undertaken at one site, Croy, where measured concentrations were substantially below the CO objectives, with no exceedances of the air quality objectives noted. Monitoring was discontinued at the end of 2017. No monitoring was undertaken for Lead or 1,2-Butadiene concentrations within the Council area in 2021. No significant sources of these pollutants have been identified in the previous round of review and assessment. Should any sources become known to the Council then discussions around the monitoring of these pollutant would be undertaken to decide on the most appropriate course of action.

# New Local Developments

## Road Traffic Sources

North Lanarkshire Council Roads and Transportation Team were consulted in relation to changes in traffic flows on roads within North Lanarkshire in 2021 and the following information was reported.

* + - Narrow congested streets with residential properties close to the kerb – there are no new roads that meet these criteria.
    - Busy streets where people may spend one hour or more close to traffic – there are no new roads that meet these criteria.
    - Roads with a high flow of buses or HGVs – there are no new roads that meet these criteria.
    - Junctions
      * A80 Cumbernauld Road – a new access junction off the A80 Cumbernauld Road was created between Buchanan Gate and Hornshill Farm Road, Stepps
    - New roads constructed or proposed – other than within new residential developments no new roads have been constructed or are proposed.
    - Roads with significantly changed traffic flows – there are no new roads that meet these criteria.
    - Roads with new/changed layout – there are no new/changed roads that meet this criteria.
    - Bus or coach stations – there are no altered bus/coach stations.

In addition to the above information the following projects are of interest in terms of air quality in North Lanarkshire.

* + - Lancaster Avenue, Chapelhall – eight new traffic islands were installed, as well as a 3.5-metre-wide footway (including 0.5m buffer strip of grass verge)
    - Newhouse to Salsburgh – various works including the installation of new 3.6m wide active travel footway, formalisation and reconstruction of all carriageway junction and farm accesses and construction of compliant pedestrian crossings with tactile paving at all dropped crossing points.
    - Bank St/Woodside St, Coatbridge – traffic signal optimisation and refurbishment, installation of pedestrian crossing islands, bus stop improvements, footway and carriageway resurfacing, installation of toucan crossing on Woodside Street at Kirkwood Train Station.
    - The Loaning, Motherwell – installation of traffic signals at the junction of Ladywell Rd
    - A89 Forest Street – installation of uncontrolled crossing, as part of the bus shelter improvements works undertaken on this street.
    - Horsley Brae – road alignment and widening. Footways widened and new footway constructed on A71. Traffic signals with controlled pedestrian crossing installed on A71 at Brownlee Road.
    - Works detailed in the 2022 APR at A73 Carlisle Rd/South Biggar Road, and at Calderbank, all now completed.
    - Speed limit changes have also been introduced at Stirling Road Airdrie, A89 Plains Airdrie and B825 Caldercruix.
    - The redevelopment of Motherwell Rail Station, led by Scotrail with funding from Transport Scotland and SPT was completed in Summer 2023. This involved public realm improvements and road layout changes at Muir Street, Motherwell to create more capacity for buses and new arrangements for taxis, drop-off, and disabled parking. This will reduce traffic congestion in this part of Motherwell town centre enabling greater free flow of traffic and provide additional infrastructure for public transport and active travel interchange at Motherwell Train Station.

### City Deal Road Infrastructure Projects Update

Glasgow City Region Deal is an agreement between the UK Government, Scottish Government and 8 local authorities, including North Lanarkshire Council. The City Deal consists of a £1.13 billion Infrastructure Fund to create economic growth by improving transport and regenerating or developing sites over the next 20 years. In North Lanarkshire, City Deal investment will provide major road infrastructure to support the redevelopment of Ravenscraig, as this is a nationally important development site. The main focus will be to deliver the Pan Lanarkshire Orbital Transport Corridor, or Pan Lan as it is known.

The Pan Lan is a £127 million pound project linking the M74 in the south with the M80 on a route through the Ravenscraig site. The Pan Lan will create a new and upgraded transport infrastructure in North Lanarkshire.

Pan Lan comprises three projects, as follows: East Airdrie Link Road

* + - Creating a new link road between Newhouse and Stand which will reduce traffic congestion.
    - Will link in with the Ravenscraig access infrastructure.
    - Will improve air quality in the Chapelhall AQMA by relieving congestion along the A73 and the Chapelhall AQMA.
    - The road will have limited connections to the local road network to optimise traffic flow. It will be a single carriageway road link from north of the M8 (A723/Newhouse Interchange) to the A73, north of Riggend.
    - The current stage is that following a rigorous options appraisal process a preferred route has been selected. The next stage of the project is to develop detailed designs for the preferred option and mitigation plans for potential impacts on the environment, local access, forestry and existing properties.

Ravenscraig Access Infrastructure North

* + - This project involves plans for access to the north section of the Ravenscraig site and will include the upgrading of 3km of the A723 existing route to provide a dual carriageway and shared footway/cycleway from the New Craig Road junction at Ravenscraig to the M8 at Holytown.
    - The latest update on this project is that additional surveys have now taken place and the design of the project is being finalised. Advance works for the construction of the dual carriageway from Ravenscraig Regional Sports Facility to Motherwell and the junction at Airbles Rd/Windmillhill Street are anticipated to being in 2023 with the main works being planned for 2024. Thereafter completion of the dualling of Airbles Road is expected to begin in 2025.

Ravenscraig Access Infrastructure South

* + - Creating a new road link and pedestrian and cycle paths into Ravenscraig from Airbles Road continuing to the Ravenscraig Regional Sports Facility.
    - Network Rail and their appointed contractor have now successfully completed the installation of the new bridge under the West Coast Main Line railway into position

and have now begun advanced works for the new road and foot/cycle ways into Ravenscraig, as well as making improvements to Airbles Road.

In addition to the Pan Lan, City Deal are also involved in the following project.

### M8/A8 Corridor Project

The City Deal Orchard Farm roundabout project involves a £2 million funding contribution from City Deal towards the development of a new junction on the A8 for heavy goods vehicles, light commercial vehicles and cars to Mossend International Rail Freight Park and Mossend rail head, as well as to the former Shanks and McEwan site and Carnbroe Business Development. the roundabout will enable new industrial developments at these locations. The project relies on PD Stirling Ltd delivering the Mossend International Rail Freight Park. Further information can be viewed by searching the North Lanarkshire Council online planning portal using the reference 19/00002/FUL. The Outline Business Case (OBC) which includes the Orchard Farm roundabout was approved by the Glasgow City Region (GCR) Cabinet on 30th August 2022. The OBC also includes 10km of strategic Active Travel linking local communities with key employment sites along the A8/M8 to stimulate modal shift and address access barriers for local areas.

### NHS Lanarkshire New Monklands Hospital

In addition to City Deal projects, NHS Lanarkshire has secured land at the Wester Moffat area of Airdrie and this is to be site of the New Monklands Hospital. Aspiring to be a “woodland hospital” the chosen site is in a semi-rural location on the outskirts of Airdrie and will be accessed via the City Deal East Airdrie Link Road. This site has been approved by the Scottish Government and the projected opening year for the new hospital at the time of writing is 2031. The application for the new hospital has now been submitted for planning permission.

The development control process for each of these developments will consider the potential effects on local air quality and assessments will determine any impact on the relevant statutory objectives for air quality. Any potential for cumulative impacts on air quality as development progresses will also be considered in relation to these major infrastructure projects. Cognisance will be taken of developments close to or impacting on the AQMAs.

## Other Transport Sources

North Lanarkshire Council considered the relevant criteria set out in the template and can confirm that there are no other significant transport sources to be considered in the report.

* + - Airports – there are no relevant sources in North Lanarkshire
    - Locations were diesel or stream trains are regularly stationary for periods of 15 minutes or more, with potential for relevant exposure within 15m – there are no relevant sources in North Lanarkshire
    - Locations with large numbers of movements of diesel locomotives – no relevant sources in North Lanarkshire
    - Ports for shipping – there are no relevant sources within North Lanarkshire

## Industrial Sources

On consulting with SEPA for this section the following responses were provided for 2022.

Industrial installations: new or proposed installations for which an air quality impact assessment has been carried out - none that SEPA are aware of.

Industrial installations: existing installations where emissions have increased substantially, or new relevant exposure has been introduced – none that SEPA are aware of.

Industrial installations: new or significantly changed installations with no previous air quality impact assessment –

* + - Greengairs Landfill & IBA, Meikle Drumgray Road, Greengairs, Airdrie, ML67TD (PPC/W/0020041), operated by FCC Waste Services Ltd had a variation to their existing authorisation for a landfill activity.
    - Warburtons Bellshill MCP, Sholto Crescent, Righead Industrial Estate, Bellshill, North Lanarkshire, ML4 3LX (PPC//B/5001999) operated by Warburtons Ltd had a new permit issued for a combustion plant.
    - OSPS Treatment Facility, 6 - 10 Janesmith Street, Etna Industrial Estate, Wishaw, North Lanarkshire, ML2 7XJ (WML/L/SEPA2021-8010), operated by On Site Project Services, new license for waste storage and transfer.
    - Building 1, 100 Inchinnan Road, Bellshill, ML4 3JA (WML/L/SEPA2021-8019), operated by Impact Recycling Ltd, new license for waste storage and transfer.

Major fuel depots storing petrol – SEPA responded that they are not aware of any new major fuel storage depots in North Lanarkshire in 2022.

Petrol Stations – SEPA responded that one new petrol station permit was issued in 2022. This was Motherwell Petrol Filling Station, Craigneuk Street, Wishaw, Motherwell, ML1 2NT, operated by Euro Garages Ltd. (PPC/B/50013144).

Poultry Farms – SEPA responded that there were no new poultry farms in North Lanarkshire in 2022.

## Commercial and Domestic Sources

On consulting with SEPA for details of any new commercial and domestic sources they provided the following response.

* + - Biomass combustion plant – none that SEPA are aware of.
    - Areas where the combined impact of several biomass combustion sources may be relevant – none that SEPA are aware of.
    - Areas where domestic solid fuel burning may be relevant – there are no areas in North Lanarkshire where domestic solid fuel burning is a relevant source of air pollution.
    - Combined Heat and Power (CHP) plant – none that SEPA are aware of.

## New Developments with Fugitive or Uncontrolled Sources

On consulting with SEPA the following information was provided.

* + - Landfill sites – SEPA has advise that there are no new landfill sites permitted in North Lanarkshire in 2022 however as detailed in Section 4.3 above - Greengairs Landfill and IBA, Meikle Drumgray Road, Greengairs, Airdrie ML6 7TD (PPC/W/0020041) operated by FCC Waste Services Ltd had a variation to their existing authorisation for a landfill activity.
    - Quarries – SEPA responded that they are not aware of any new quarries in 2022 and clarified that they only have limited controls over quarries for emissions to air and therefore will not regulate all quarry sites.
    - Unmade haulage roads on industrial sites – none that SEPA are aware of.
    - Waste transfer stations – as outlined in section 4.3 above SEPA has notified the following.
      * OSPS Treatment Facility, 6 - 10 Janesmith Street, Etna Industrial Estate, Wishaw, North Lanarkshire, ML2 7XJ (WML/L/SEPA2021-8010), operated by On Site Project Services, new licence for waste storage and transfer.
      * Building 1, 100 Inchinnan Road, Bellshill, ML4 3JA (WML/L/SEPA2021- 8019), operated by Impact Recycling Ltd, new licence for waste storage and transfer.
    - Other potential sources of fugitive particulate matter emissions – none that SEPA are aware of.

# Planning Applications

North Lanarkshire Planning and Place service was consulted for details of any relevant planning applications under consideration and planning applications granted consent during 2022 that have the potential to impact on local air quality. All relevant information is presented in Table 5.1 below.

**Table 5.1 – Relevant Planning Applications from 2022**

|  |  |  |  |
| --- | --- | --- | --- |
| **Application Number** | **Brief Description of Development** | **AQ Impact** | **Comments/Further Information** |
| **22/00206/FUL** | Warehouse, Eurocentral | Not in AQMA | [https://eplanning.northlanarkshire.](https://eplanning.northlanarkshire.gov.uk/online-applications) [gov.uk/online-applications](https://eplanning.northlanarkshire.gov.uk/online-applications) |
| **22/00305/FUL** | Residential development, Newmains | AQ Impact Assessment submitted and accepted. Not in an AQMA | [https://eplanning.northlanarkshire.](https://eplanning.northlanarkshire.gov.uk/online-applications) [gov.uk/online-applications](https://eplanning.northlanarkshire.gov.uk/online-applications) |
| **22/00413/FUL** | Five industrial units, Eurocentral | AQ Impact Assessment submitted and accepted. Not in an AQMA | [https://eplanning.northlanarkshire.](https://eplanning.northlanarkshire.gov.uk/online-applications) [gov.uk/online-applications](https://eplanning.northlanarkshire.gov.uk/online-applications) |
| **22/00815/FUL** | Warehouse, Legbrannock Rd, Newarthill | AQ Impact Assessment submitted and accepted. Not in an AQMA | [https://eplanning.northlanarkshire.](https://eplanning.northlanarkshire.gov.uk/online-applications) [gov.uk/online-applications](https://eplanning.northlanarkshire.gov.uk/online-applications) |
| **22/00829/FUL** | Warehouse and change to existing road, Eurocentral | No AQ Impact Assessment deemed necessary | [https://eplanning.northlanarkshire.](https://eplanning.northlanarkshire.gov.uk/online-applications) [gov.uk/online-applications](https://eplanning.northlanarkshire.gov.uk/online-applications) |

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| --- | --- | --- | --- |
| **22/00836/FUL** | Manufacturing facility, Gartcosh | AQ info submitted as part of EIA. Not in an AQMA | [https://eplanning.northlanarkshire.](https://eplanning.northlanarkshire.gov.uk/online-applications) [gov.uk/online-applications](https://eplanning.northlanarkshire.gov.uk/online-applications) |
| **22/01478/FUL** | Primary school with community facilities on site of former Drumpark primary school | AQ Impact Assessment requested and submitted | [https://eplanning.northlanarkshire.](https://eplanning.northlanarkshire.gov.uk/online-applications) [gov.uk/online-applications](https://eplanning.northlanarkshire.gov.uk/online-applications) |
| **22/01479/FUL** | 131 residential units, land N of School St, Coatbridge | AQ Impact Assessment submitted. In/adjacent to Coatbridge AQMA | [https://eplanning.northlanarkshire.](https://eplanning.northlanarkshire.gov.uk/online-applications) [gov.uk/online-applications](https://eplanning.northlanarkshire.gov.uk/online-applications) |
| **22/01138/FUL** | 2 industrial units, Newhouse | No AQ Impact Assessment requested. Not in AQMA. | [https://eplanning.northlanarkshire.](https://eplanning.northlanarkshire.gov.uk/online-applications) [gov.uk/online-applications](https://eplanning.northlanarkshire.gov.uk/online-applications) |

# Conclusions and Proposed Actions

## Conclusions from New Monitoring Data

Conclusions from the 2022 monitoring data presented in this report can be summarised as follows.

* + - Measured concentrations of NO2 at all automatic monitoring sites and Diffusion Tube sites all complied comfortably in 2022 with the statutory annual mean objective of 40 µg/m3. Approximately half of the Diffusion Tube sites remained at the same concentration in 2022 as in 2021, with the remainder apart from 5 sites decreasing slightly in concentration.
    - None of the NO2 automatic monitoring sites exceeded the short-term statutory objective in 2022.
    - All PM10 monitoring carried out in 2022 measured below the annual mean objective, both uncorrected, and when corrected for the use of FIDAS 200. The results remain similar to recent previous years, which may suggest the measured level of PM10 mainly comprises the residual background level of PM10 in the area.
    - All PM2.5 monitoring carried out in North Lanarkshire in 2022 measured below the annual mean objective.
    - Following the revocation of the Croy AQMA in 2022 the automatic monitoring station at this location will be decommissioned in 2023/24 and the equipment utilised in another area, representative of relevant public exposure.
    - As a result of the continued compliance with the statutory objectives the council will revoke the Chapelhall and Coatbridge AQMAs for both NO2 and PM10.
    - Following the completion of a North Lanarkshire-wide dispersion modelling study it is the council’s intention to conduct a comprehensive review of air quality monitoring around schools in North Lanarkshire. This is to ensure adequate coverage of our monitoring resources.

## Conclusions relating to New Local Developments

North Lanarkshire Council’s Pollution Control and Public Health Team has taken due cognisance of the information provided by the Council’s Development Management and

Strategic Planning Teams in relation to developments in 2022 and in reviewing Air Quality Impact Assessments that were submitted in support of planning applications in 2022. In considering this we conclude that although there is a high volume of planning applications received by the Council there are no significant issues in relation to new local developments and their impact on local air quality. This is mostly because the developments have generally not been located in areas where air quality levels are close to the statutory objectives, mitigation for air quality impacts were included in the development or the developments themselves did not lead to significant effects on air quality or result in exceedances of the air quality objectives at nearby sensitive receptors.

The Pollution Control and Public Health Team will continue to work with Planning colleagues to identify any future developments that may present air quality issues and take any action deemed appropriate at that time. We will also continue to request Air Quality Impact Assessments where necessary when consulted through the Planning process.

We will also continue to have an input as required to City Deal projects and other major infrastructure projects aiming to highlight any potential impact on local air quality at the earliest possible stage (pre-planning and Masterplanning) where possible.

## Proposed Actions

The focus of air quality work in North Lanarkshire in 2023/24 will be as follows:

* We will revoke the AQMAs at Chapelhall and Coatbridge for both NO2 and PM10.
  + - We will undertake a comprehensive review of all automatic and diffusion tube monitoring sites across North Lanarkshire. Focusing on areas with relevant public exposure, including our schools we will undertake to ensure appropriate and adequate air quality monitoring across the area.
    - We will decommission and remove the Croy air monitoring station since it is now over a year since the Croy AQMA was revoked. We will endeavour to utilise the monitoring equipment within this air station to an alternative relevant monitoring site.
    - We will ensure the spend of the Scottish Government air quality monitoring grant awarded to North Lanarkshire for 2023/24 on action plan projects including contributing to the link path to the National Cycle Route adjacent to Strathclyde Country Park, and also the installation of bike repair equipment stands.
    - We will continue to run the two North Lanarkshire Eco Stars schemes for fleet operators and taxis. Part of this will involve running Eco Stars workshops aimed at advising and encouraging membership of the schemes.
    - We will continue to work on our own, and in partnership with other local authorities, including South Lanarkshire Council on raising awareness of air pollution and the promotion of active travel options. Part of this will involve undertaking activities on national Clean Air Day.
    - The Pollution Control and Public Health Team will continue to act as a consultee for development management, major infrastructure and City Deal planned projects, highlighting air quality where necessary at the earliest possible opportunity in the planning process.
    - Subject to Scottish Government Air Quality grant funding we will continue to operate our Vehicle Emission Testing initiatives and vehicle idling programmes.

# Appendix A: Monitoring Results

### Table A.1 – Details of Automatic Monitoring Sites

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Site ID** | **Site Name** | **Site Type** | **X OS**  **Grid Ref** | **Y OS**  **Grid Ref** | **Pollutants Monitored** | **In AQMA?**  **Which AQMA?** | **Monitoring Technique** | **Distance to Relevant Exposure (m)**  **(1)** | **Distance to kerb of nearest road**  **(m) (2)** | **Inlet Height (m)** |
| CM1 | Chapelhall | Roadside | 278174 | 663124 | NO2 PM10 PM2.5 | YES  (Chapelhall AQMA) | Chemiluminescent; FIDAS | 20 | 10 | 2 |
| CM2 | Croy | Special – by quarry | 272775 | 675738 | NO2 PM10 PM2.5 | NO (recently  revoked AQMA) | Chemiluminescent FIDAS | 30 | 10 | 2 |
| CM4 | Motherwell | Roadside | 275458 | 656792 | NO2 PM10 PM2.5 | Y  (Motherwell AQMA) | FIDAS | 20 | 8 | 2 |
| CM5 | Shawhead, Coatbridge | Roadside | 273411 | 662997 | NO2 PM10 PM2.5 | Y  (Coatbridge AQMA) | FIDAS | 22 | 20 | 2 |
| CM6 | Kirkshaws | Roadside | 272523 | 663030 | NO2 PM10 PM2.5 | Y  (Coatbridge AQMA) | FIDAS | 20 | 8 | 2 |
| CM7 | New Edinburgh Rd, Uddingston | Roadside | 269144 | 661496 | NO2 PM10 | N | Chemiluniescent; FIDAS | 30 | 10 | 2 |

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Site ID** | **Site Name** | **Site Type** | **X OS**  **Grid Ref** | **Y OS**  **Grid Ref** | **Pollutants Monitored** | **In AQMA?**  **Which AQMA?** | **Monitoring Technique** | **Distance to Relevant Exposure (m)**  **(1)** | **Distance to kerb of nearest road**  **(m) (2)** | **Inlet Height (m)** |
| CM10 | Kenilworth Drive, Airdrie | Roadside | 277385 | 665837 | NO2 PM10 | N | Chemiluminescent; BAM gravimetric equivalent | 30 | 10 | 2 |
| CM11 | Adele Street, Motherwell | Roadside | 275642 | 656148 | NO2 PM10 PM2.5 | Y  (Motherwell AQMA) | Chemiluminescent FIDAS | 20 | 0.75 | 2 |
| CM12 | Whifflet Cross, A725 | Roadside | 273646 | 663867 | NO2 PM10 PM2.5 | Y  (Coatbridge AQMA) | Chemiluminescent FIDAS | 16 | 20 | 2 |
| CM13 | Ravenscraig Plantation Rd | Roadside | 277307 | 657613 | NO2 PM10 PM2.5 | N | Chemiluminescent FIDAS | 30 | 1 | 2 |

**Notes:**

1. 0m if the monitoring site is at a location of exposure (e.g. installed on the façade of a residential property).
2. N/A if not applicable.

### Table A.2 – Details of Non-Automatic Monitoring Sites

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Site ID** | **Site Name** | **Site Type** | **X OS**  **Grid Ref** | **Y OS**  **Grid Ref** | **Pollutants Monitored** | **In AQMA?**  **Which AQMA?** | **Distance to Relevant Exposure (m)**  **(1)** | **Distance to kerb of nearest road**  **(m) (2)** | **Tube co- located with a Continuous Analyser?** | **Tube Height (m)** |
| DT47 | Lay-by in Stand | Roadside | 276538 | 668899 | NO2 | N | 10 | 2 | N | 2.5 |
| DT48 | Bus stop, Bron  Way, Cumbernauld | Kerbside | 275920 | 674203 | NO2 | N | 10 | 2 | N | 2.5 |
| DT49 | Swimming pool, Kilsyth | Kerbside | 271514 | 678040 | NO2 | N | 50 | 2 | N | 2.5 |
| DT50 | 1791  Cumbernauld Rd, Stepps | Kerbside | 265198 | 668204 | NO2 | N | 25 | 2 | N | 2.5 |
| DT51 | 131  Cumbernauld Rd, Stepps | Kerbside | 265971 | 668567 | NO2 | N | 30 | 2 | N | 2.5 |
| DT52 | Traffic lights A80 Eastbound, Moodiesburn | Kerbside | 269966 | 670412 | NO2 | N | 30 | 2 | N | 2.5 |
| DT53 | Traffic lights  A80 Westbound Moodiesburn | Kerbside | 269986 | 670400 | NO2 | N | 10 | 2 | N | 2.5 |

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Site ID** | **Site Name** | **Site Type** | **X OS**  **Grid Ref** | **Y OS**  **Grid Ref** | **Pollutants Monitored** | **In AQMA?**  **Which AQMA?** | **Distance to Relevant Exposure (m)**  **(1)** | **Distance to kerb of nearest road**  **(m) (2)** | **Tube co- located with a Continuous Analyser?** | **Tube Height (m)** |
| DT57 | Main St/ Carrick View jn, Glenboig | Urban background | 272030 | 668564 | NO2 | N | 10 | 2 | N | 2.5 |
| DT58 | Lochend Rd/Coatbridge Rd, Gartcosh (A752) | Urban background | 269828 | 668354 | NO2 | N | 20 | 2 | N | 2.5 |
| DT59 | 10-16  Coronation Pl, Mount Ellen | Urban Background | 269356 | 669173 | NO2 | N | 20 | 2 | N | 2.5 |
| DT61 | Under bridge Central Way Eastbound,  Cumbernauld | Roadside | 275778 | 674440 | NO2 | N | 10 | 2 | N | 2.5 |
| DT62 | Central Way A  Westbound, Cumbernauld | Roadside | 275920 | 674511 | NO2 | N | 10 | 2 | N | 2.5 |
| DT63 | Central Way B Westbound, Cumbernauld | Roadside | 275642 | 674271 | NO2 | N | 10 | 2 | N | 2.5 |
| DT64 | Under bridge Central Way, Westbound,  Cumbernauld | Roadside | 275666 | 674293 | NO2 | N | 10 | 2 | N | 2.5 |
| DT100 | Civic Centre, Motherwell | Roadside | 275820 | 656208 | NO2 | Y  Motherwell | 10 | 2 | N | 2.5 |
| DT101 | Shields Rd, Motherwell | Roadside | 274594 | 655113 | NO2 | N | 15 | 2 | N | 2.5 |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Site ID** | **Site Name** | **Site Type** | **X OS**  **Grid Ref** | **Y OS**  **Grid Ref** | **Pollutants Monitored** | **In AQMA?**  **Which AQMA?** | **Distance to Relevant Exposure (m)**  **(1)** | **Distance to kerb of nearest road**  **(m) (2)** | **Tube co- located with a Continuous Analyser?** | **Tube Height (m)** |
| DT104 | Coursington Rd, Motherwell | Urban background | 276178 | 657344 | NO2 | N | 20 | 2 | N | 2.5 |
| DT105 | Craigneuk Rd, Carfin | Urban background | 277244 | 658415 | NO2 | N | 10 | 2 | N | 2.5 |
| DT110 | New Edinburgh Rd(1), M74,  Uddingston | Roadside | 272789 | 675735 | NO2 | N | 30 | 2 | N | 2.5 |
| DT111 | New Edinburgh Rd(2), M74,  Uddingston | Roadside | 272789 | 675735 | NO2 | N | 15 | 2 | N | 2.5 |
| DT112 | New Edinburgh Rd(3), M74,  Uddingston | Roadside | 272789 | 675735 | NO2 | N | 10 | 2 | N | 2.5 |
| DT113 | Tinkers Lane, Motherwell | Roadside | 274305 | 656466 | NO2 | N | 20 | 2 | N | 2.5 |
| DT114 | Main St, Overtown | Kerbside | 280370 | 653072 | NO2 | N | 15 | 2 | N | 2.5 |
| DT115 | Plantation Rd/Ravenscraig Spine Rd | Kerbside | 277282 | 657607 | NO2 | N | 15 | 2 | N | 2.5 |
| DT117 | Hamilton Rd, Motherwell | Urban background | 275091 | 656986 | NO2 | N | 20 | 2 | N | 2.5 |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| DT121 | Flannigan Rd, Bellshill | Urban background | 273180 | 660350 | NO2 | N | 30 | 2 | N | 2.5 |
| DT122 | Main St, Mossend | Roadside | 274082 | 660308 | NO2 | N | 60 | 2 | N | 2.5 |
| DT123 | Hamilton Rd, Orbiston Bellshill | Kerbside | 272687 | 659512 | NO2 | N | 20 | 2 | N | 2.5 |
| DT124 | Scotmid, Tannochside | Kerbside | 270073 | 661870 | NO2 | N | 20 | 2 | N | 2.5 |
| DT125 | Main St nr Motherwell Rd, Bellshill | Kerbside | 273767 | 661281 | NO2 | N | 25 | 2 | N | 2.5 |
| DT126 | Main St nr Tesco, Bellshill | Kerbside | 273541 | 660339 | NO2 | N | 2 | 2 | N | 2.5 |
| DT129 | Newmains Police Station | Roadside | 282392 | 656016 | NO2 | N | 7 | 2 | N | 2.5 |
| DT130 | Main St (bottom),  Wishaw | Roadside | 279118 | 655327 | NO2 | N | 5 | 2 | N | 2.5 |
| DT131 | Brandon Pl, Bellshill | Roadside | 272302 | 659237 | NO2 | N | 5 | 2 | N | 2.5 |
| DT132 | Airdrie Rd, Caldercruix | Roadside | 281713 | 667517 | NO2 | N | 10 | 2 | N | 2.5 |
| DT133 | Coatbridge 1, Bank Street | Roadside | 272887 | 664991 | NO2 | N | 2 | 2 | N | 2.5 |
| DT134 | Coatbridge 2, Whifflet Court | Kerbside | 273655 | 664003 | NO2 | Y  Coatbridge | 10 | 20 | N | 2.5 |

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| DT135 | Grahamshill St, Airdrie | Kerbside | 277276 | 665615 | NO2 | N | 10 | 2 | N | 2.5 |
| DT136 | Airdrie 3,  Springwells Cres | Roadside | 274162 | 674130 | NO2 | N | 30 | 2 | N | 2.5 |
| DT138 | Main St (near shops), Chapelhall | Roadside | 278037 | 662798 | NO2 | Y  Chapelhall | 10 | 2 | N | 2.5 |
| DT139 | Lauchope St/Main St jn, Chapelhall | Roadside | 278178 | 663111 | NO2 | Y  Chapelhall | 10 | 2 | N | 2.5 |
| DT140 | Dundyvan rd, Coatbridge | Kerbside | 273293 | 664120 | NO2 | N | 5 | 1 | N | 2.5 |
| DT143 | Main St(2), Harthill(nr  shops) | Roadside | 290482 | 664386 | NO2 | N | 10 | 2 | N | 2.5 |
| DT144 | Lab 1, Constarry Rd, Croy | Roadside | 272789 | 675735 | NO2 | N | 100 | 5 | Y | 2.5 |
| DT145 | Lab 2, Constarry Rd, Croy | Roadside | 272789 | 675735 | NO2 | N | 100 | 5 | Y | 2.5 |
| DT146 | Lab 3, Constarry Rd, Croy | Roadside | 272789 | 675735 | NO2 | N | 100 | 5 | Y | 2.5 |
| DT147 | Bank St,  Coatbridge (nearest house) | Roadside | 272947 | 665037 | NO2 | N | 15 | 0 | N | 2.5 |
| DT148 | Main St (R22), Chapelhall | Kerbside | 278105 | 663174 | NO2 | Y  Chapelhall | 15 | 2 | N | 2.5 |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Site ID** | **Site Name** | **Site Type** | **X OS**  **Grid Ref** | **Y OS**  **Grid Ref** | **Pollutants Monitored** | **In AQMA?**  **Which AQMA?** | **Distance to Relevant Exposure (m)**  **(1)** | **Distance to kerb of nearest road**  **(m) (2)** | **Tube co- located with a Continuous Analyser?** | **Tube Height (m)** |
| DT149 | Main St (R33), Chapehall | Kerbside | 278119 | 663075 | NO2 | Y  Chapelhall | 15 | 2 | N | 2.5 |
| DT150 | Eastfield Rd, Cumbernauld | Kerbside | 275160 | 676210 | NO2 | N | 25 | 2 | N | 2.5 |
| DT151 | Main St, Holytown | Urban background | 276635 | 660569 | NO2 | N | 10 | 2 | N | 2.5 |
| DT152 | Coatbridge Rd (shops), Townhead | Roadside | 272391 | 665824 | NO2 | N | 10 | 2 | N | 2.5 |
| DT153 | 72 Townhead Rd, Coatbridge | Roadside | 271720 | 666053 | NO2 | N | 20 | 2 | N | 2.5 |
| DT154 | Sunnyside Rd, Coatbridge | Roadside | 273042 | 665176 | NO2 | N | 20 | 2 | N | 2.5 |
| DT156 | Stirling St, Airdrie | Roadside | 276005 | 665406 | NO2 | N | 50 | 2 | N | 2.5 |
| DT157 | 31 Station Road, Muirhead | Roadside | 268442 | 669262 | NO2 | N | 15 | 2 | N | 2.5 |
| DT158a | Croftmoraig Ave, Moodiesburn | Kerbside | 270281 | 671715 | NO2 | N | 15 | 2 | N | 2.5 |
| DT158b | Deedes St, Airdrie | Roadside | 274819 | 665005 | NO2 | N | 7 | 2 | N | 2.5 |
| DT159 | Glenview Cres, Moodiesburn | Roadside | 270391 | 671505 | NO2 | N | 10 | 2 | N | 2.5 |
| DT160 | The Cuillins, Moodiesburn | Roadside | 270067 | 671604 | NO2 | N | 10 | 2 | N | 2.5 |
| DT161 | Bridgend Cres, Moodiesburn | Roadside | 269071 | 670889 | NO2 | N | 1 | 1 | N | 2.5 |
| DT162 | Auchingeoch Rd, Moodiesburn | Roadside | 269022 | 670979 | NO2 | N | 2 | 1 | N | 2.5 |
| DT163 | 12 Inchwod Rd, Westfield, Cumbernauld | Roadside | 273098 | 673321 | NO2 | N | 10 | 1 | N | 2.5 |

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Site ID** | **Site Name** | **Site Type** | **X OS**  **Grid Ref** | **Y OS**  **Grid Ref** | **Pollutants Monitored** | **In AQMA?**  **Which AQMA?** | **Distance to Relevant Exposure (m)**  **(1)** | **Distance to kerb of nearest road**  **(m) (2)** | **Tube co- located with a Continuous Analyser?** | **Tube Height (m)** |
| DT164 | 12 Leckethill Ct, Westfield, Cumbernauld | Roadside | 272634 | 672994 | NO2 | N | 10 | 1 | N | 2.5 |
| DT165 | Kildonan St, Coatbridge | Roadside | 273727 | 665285 | NO2 | N | 20 | 2 | N | 2.5 |
| DT166 | 22 Cumbernauld Rd, Chryston | Roadside | 268392 | 669502 | NO2 | N | 10 | 2 | N | 2.5 |
| NewDT54 | Columba Ct/Old Edinburgh Rd, Viewpark | Roadside | 271259 | 661016 | NO2 | N | 15 | 2 | N | 2.5 |
| NewDT55 | Old Edinburgh Rd, Viewpark | Roadside | 270463 | 661441 | NO2 | N | 15 | 2 | N | 2.5 |
| NewDT56 | Bargeddie | Roadside | 270201 | 664281 | NO2 | N | 10 | 2 | N | 2.5 |
| NewDT102 | Windmillhill St (1), Motherwell | Roadside | 275738 | 656400 | NO2 | Y  Motherwell | 50 | 1 | N | 2.5 |
| NewDT103 | Windmillhill St(2),  Motherwell | Roadside | 275733 | 656439 | NO2 | Y  Motherwell | 20 | 1 | N | 2.5 |
| NewDT116 | Airbles Rd (Electric Bar),  Motherwell | Roadside | 274814 | 656147 | NO2 | N | 15 | 5 | N | 2.5 |
| NewDT118 | Merry St/Dalziel St, Motherwell | Roadside | 275444 | 657312 | NO2 | N | 15 | 5 | N | 2.5 |
| NewDT119 | Shawhead Roundabout, Coatbridge | Kerbside | 273432 | 662965 | NO2 | Y  Coatbridge | 30 | 2 | N | 2.5 |

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| NewDT120 | Kirkshaws Rd, Coatbridge | Roadside | 271939 | 663179 | NO2 | Y  Coatbridge | 10 | 2 | N | 2.5 |
| NewDT127 | Matalan, Wishaw | Kerbside | 278059 | 655368 | NO2 | N | 10 | 2 | N | 2.5 |
| NewDT128 | Wishaw Cross/Stewarton St, Wishaw | Roadside | 279587 | 655125 | NO2 | N | 30 | 2 | N | 2.5 |
| NewDT137 | Main St, Village, Cumbernauld | Roadside | 276710 | 676098 | NO2 | N | 10 | 2 | N | 2.5 |
| NewDT141 | Station Rd, Shotts | Roadside | 286840 | 656978 | NO2 | N | 20 | 2 | N | 2.5 |
| NewDT142 | Stane Gdns, Shotts | Roadside | 287954 | 659620 | NO2 | N | 20 | 2 | N | 2.5 |
| NewDT157a | Swing Park, Castlecary | Roadside | 278470 | 677901 | NO2 | N | 30 | 2 | N | 2.5 |

**Notes:**

1. 0m if the monitoring site is at a location of exposure (e.g. installed on/adjacent to the façade of a residential property).
2. N/A if not applicable.

### Table A.3 – Annual Mean NO2 Monitoring Results (µg/m3)

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Site ID** | **Site Type** | **Monitoring Type** | **Valid Data Capture for Monitoring Period (%) (1)** | **Valid Data Capture 2022 (%) (2)** | **2018** | **2019** | **2020** | **2021** | **2022** |
| CM1-Chapelhall | Roadside | Automatic | 99.6% | 99.6% | 27.7 | 21.7 | 18.0 | 14.8 | 13.8 |
| CM2 - Croy | Special-by quarry | Automatic | 99.5% | 99.5% | 17.5 | 19 | 12.0 | 10.0 | 9.6 |
| CM4-Menteith Rd, Motherwell | Roadside | Automatic | 88.9% | 88.9% | - |  | 12.6 | 10.8 | 10.3 |
| CM5-Shawhead, Coatbridge | Roadside | Automatic | 99.6% | 99.6% | 20.7 | 20.3 | 16.0 | 14.2 | 13.5 |
| CM6-Kirkshaws, Coatbridge | Roadside | Automatic | 99.9% | 99.9% | 18.3 | 20.3 | 13.0 | 13.6 | 13 |
| CM7-New Edinburgh Rd, Uddingston | Roadside | Automatic | 99.6% | 99.6% | - | 24.4 | 17.0 | 16.6 | 15.1 |
| CM10-Kenilworth Dr, Airdrie | Roadside | Automatic | 99.9% | 99.9% | - | 16.9 | 14.0 | 11.9 | 12.2 |
| CM11-Adele St, Motherwell | Roadside | Automatic | 44% | 44% | - | - | - | 9 | 10.8 |
| CM12-Whifflet Cross A725 | Roadside | Automatic | 83.2% | 83.2% | - | - | - | 13.9 | 17.2 |
| CM13 – Ravenscraig Plantation Road | Roadside | Automatic | 97.6% | 75% | - | - | - | - | 5.9 |
| DT47-Lay by in Stand | Roadside | Diffusion Tube | 100% | 100% | 21.7 | 21.4 | 14.7 | 14.0 | 11.8 |
| DT48-bus stop, Bron Way, Cumbernauld | Kerbside | Diffusion Tube | 92% | 92% | 27.3 | 25.7 | 17.8 | 16.9 | 15.7 |
| DT49- Swimming Pool, Kilsyth | Kerbside | Diffusion Tube | 100% | 100% | 22.5 | 18.3 | 11.2 | 13.0 | 12.8 |
| DT50-1791 Cumbernauld Rd, Stepps | Kerbside | Diffusion Tube | 100% | 100% | 21.9 | 20.2 | 12.4 | 16.0 | 11.5 |
| DT51- 131 Cumbernauld Rd, Stepps | Kerbside | Diffusion Tube | 100% | 100% | 27.4 | 21.0 | 14.6 | 16.8 | 13.4 |
| DT52 – Traffic lights A80 Eastbound, Moodiesburn | Kerbside | Diffusion Tube | 100% | 100% | 25.4 | 22.6 | 14.6 | 14.2 | 12.5 |
| DT53-traffic lights A80 Westbound, Moodiesburn | Kerbside | Diffusion Tube | 100% | 100% | 22.9 | 18.3 | 10.5 | 11.1 | 9.8 |
| DT57-Main St/Garrick View, Glenboig | Urban background | Diffusion Tube | 100% | 100% | 18.1 | 16.6 | - | 12.8 | 9.5 |

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Site ID** | **Site Type** | **Monitoring Type** | **Valid Data Capture for Monitoring Period (%) (1)** | **Valid Data Capture 2022 (%) (2)** | **2018** | **2019** | **2020** | **2021** | **2022** |
| DT58-Lochend Rd/Coatbridge Rd (previously called DT54, changed in 2018) | Urban background | Diffusion Tube | 100% | 100% | 25.8 | 22.9 | 9.8 | 17.9 | 14.7 |
| DT59-10-16 Coronation Pl, Mount Ellen | Urban background | Diffusion Tube | 100% | 100% | 19.8 | 17.7 | 14.3 | 12.5 | 10.8 |
| DT61-under Central Way, Eastbound, Cumbernauld | Roadside | Diffusion Tube | 100% | 100% | 43.6 | 40.5 | 12.6 | 27.2 | 23.7 |
| DT62-Central Way Westbound (A), Cumbernauld | Roadside | Diffusion Tube | 100% | 100% | 39.0 | 32.9 | 25.8 | 24.2 | 19.8 |
| DT63-Central Way Westbound (B), Cumbernauld | Roadside | Diffusion Tube | 100% | 100% | 45.7 | 37.5 | 17.9 | 26.6 | 25.4 |
| DT64-Under Central Way, Westnound, Cumbernauld | Roadside | Diffusion Tube | 100% | 100% | 32.2 | 28.7 | 21.2 | 21.8 | 18.7 |
| DT100 – Civic Centre, Motherwell | Roadside | Diffusion Tube | 100% | 100% | 36.9 | 36.9 | 15.6 | 22.1 | 18.9 |
| DT101- Shields Rd, Motherwell | Roadside | Diffusion Tube | 92% | 92% | 24.9 | 20.1 | 22.4 | 14.8 | 13.5 |
| DT104-Coursington Rd, Motherwell | Urban background | Diffusion Tube | 100% | 100% | 10.5 | 10.5 | 10.2 | 7.7 | 5.9 |
| DT105-Craigneuk Rd, Carfin | Urban background | Diffusion Tube | 100% | 100% | 16.4 | 12.6 | 11.5 | 10.3 | 8.2 |
| DT110-New Edinburgh Rd(1), Uddingston | Roadside | Diffusion Tube | 100% | 100% | 33.8 | 28.9 | 20.2 | 23.9 | 18.8 |
| DT111-New Edinburgh Rd(2), Uddingston | Roadside | Diffusion Tube | 100% | 100% | 30.4 | 31.1 | 22.2 | 19.0 | 20.3 |
| DT112-New Edinburgh Rd,(3), Uddingston | Roadside | Diffusion Tube | 100% | 100% | 32.3 | 28.6 | 20.3 | 23.4 | 19.5 |
| DT113-Tinkers Lane, Motherwell | Roadside | Diffusion Tube | 100% | 100% | 22.0 | 17.9 | 14.1 | 14.4 | 11.9 |
| DT114-Main St, Overtown | Kerbside | Diffusion Tube | 100% | 100% | 17.7 | 15.0 | 14.1 | 9.9 | 8.5 |
| DT115-Plantation Rd, Ravenscraig, Motherwell | Kerbside | Diffusion Tube | 100% | 100% | 15.4 | 13.8 | 10.7 | 8.2 | 7.4 |
| DT117-Hamilton Rd, Motherwell | Urban background | Diffusion Tube | 92% | 92% | 27.4 | 26.8 | 18.6 | 19.5 | 16.4 |

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Site ID** | **Site Type** | **Monitoring Type** | **Valid Data Capture for Monitoring Period (%) (1)** | **Valid Data Capture 2022 (%) (2)** | **2018** | **2019** | **2020** | **2021** | **2022** |
| DT121-Flannigan Grove, Bellshill | Urban background | Diffusion Tube | 100% | 100% | 20.3 | 20.2 | 13.8 | 15.4 | 12.1 |
| DT122-Main St, Mossend | Roadside | Diffusion Tube | 100% | 100% | 27.5 | 24.0 | 17.1 | 15.2 | 11.4 |
| DT123-Hamilton Rd, Orbiston, Bellshill | Kerbside | Diffusion Tube | 100% | 100% | 23.9 | 21.4 | 16.7 | 17.1 | 14.3 |
| DT124-Scotmid, Tannochside | Kerbside | Diffusion Tube | 100% | 100% | 29.5 | 23.5 | 15.7 | 16.3 | 13.0 |
| DT125-Main St/Motherwell Rd, Bellshill | Kerbside | Diffusion Tube | 100% | 100% | 24.4 | 18.8 | 15.2 | 15.5 | 13.2 |
| DT126-Main St, near Tesco delivery rd, Bellshill | Kerbside | Diffusion Tube | 100% | 100% | 20.4 | 21.4 | 14.6 | 15.1 | 12.2 |
| DT129-Newmains Police Station | Roadside | Diffusion Tube | 100% | 100% | 27.7 | 27.3 | 17.7 | 21.5 | 17.9 |
| DT130- Main St, Wishaw (bottom) | Roadside | Diffusion Tube | 100% | 100% | 17.1 | 15.8 | 12.5 | 11.1 | 9.8 |
| DT131- Brandon Pl, Bellshill | Roadside | Diffusion Tube | 100% | 100% | 19.4 | 14.6 | 14.1 | 16.4 | 12.0 |
| DT132 – Airdrie Rd, Caldercruix | Roadside | Diffusion Tube | 83% | 83% | 16.8 | 15.8 | 10.2 | 9.9 | 9.4 |
| DT133- Bank St (1), Coatbridge | Roadside | Diffusion Tube | 100% | 100% | 30.4 | 30.1 | 17.5 | 23.5 | 17.0 |
| DT134- Whifflet Ct (2), Coatbridge | Kerbside | Diffusion Tube | 92% | 92% | 19.8 | 20.4 | 12.8 | 15.4 | 13.0 |
| DT135 -Grahamshill St, Airdrie | Kerbside | Diffusion Tube | 100% | 100% | 29.3 | 28.3 | 22.1 | 27.1 | 17.4 |
| DT136- Airdrie 3, Springwell Cres | Roadside | Diffusion Tube | 100% | 100% | 21.1 | 17.9 | 11.0 | 14.5 | 10.9 |
| DT138- Main St, Chapelhall (nr shops) | Roadside | Diffusion Tube | 100% | 100% | 22.7 | 23.1 | 12.3 | 16.7 | 13.7 |
| DT139- Lauchope St/Main St, Chapelhall | Roadside | Diffusion Tube | 100% | 100% | 29.4 | 28.1 | 18.1 | 22.8 | 21.1 |
| DT140 – Dundyvan Rd, Coatbridge | Kerbside | Diffusion Tube | 100% | 100% | 21.7 | 23.2 | 14.8 | 20.9 | 13.6 |

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Site ID** | **Site Type** | **Monitoring Type** | **Valid Data Capture for Monitoring Period (%) (1)** | **Valid Data Capture 2022 (%) (2)** | **2018** | **2019** | **2020** | **2021** | **2022** |
| DT143- Main St(2), Harthill (nr shops) | Roadside | Diffusion Tube | 100% | 100% | 17.8 | 15.4 | 11.6 | 11.6 | 9.9 |
| DT144-Lab 1, Constarry Rd, Croy | Roadside | Diffusion Tube | 100% | 100% | 17.9 | 16.7 | 9.5 | 9.7 | 9.9 |
| DT145-Lab 2, Constarry Rd, Croy | Roadside | Diffusion Tube | 100% | 100% | 20.4 | 16.4 | 9.9 | 10.4 | 10.5 |
| DT146- Lab 3, Constarry Rd, Croy | Roadside | Diffusion Tube | 100% | 100% | 22.9 | 15.8 | 11.6 | 9.5 | 11.2 |
| DT147- Bank St, Coatbridge (nearest house) | Roadside | Diffusion Tube | 100% | 100% | 28.5 | 27.4 | 13.7 | 20.2 | 16.0 |
| DT148- Main St, Chapelhall, R32 | Kerbside | Diffusion Tube | 100% | 100% | 31.2 | 28.0 | 17.6 | 20.6 | 19.1 |
| DT149- Main St, Chapelhall, R33 | Kerbside | Diffusion Tube | 100% | 100% | 26.9 | 29.1 | 17.2 | 20.7 | 16.4 |
| DT150- Eastfield Rd, Cumbernauld | Kerbside | Diffusion Tube | 92% | 92% | 19.2 | 18.7 | 11.2 | 11.8 | 10.9 |
| DT151- Main St, Holytown | Urban background | Diffusion Tube | 100% | 100% | 24.3 | 17.5 | 12.0 | 14.0 | 13.2 |
| DT152- Coatbridge Rd, (Townhead shops) | Roadside | Diffusion Tube | 100% | 100% | 28.6 | 30.3 | 20.7 | 20.3 | 14.3 |
| D153- 72 Townhead Rd, Coatbridge | Roadside | Diffusion Tube | 92% | 92% | 20.9 | 19.5 | 13.1 | 17.3 | 13.4 |
| DT154- Sunnyside Rd, Coatbridge | Roadside | Diffusion Tube | 92% | 92% | 24.7 | 27.4 | 18.3 | 21.5 | 18.0 |
| DT156- Stirling Rd, Airdrie | Roadside | Diffusion Tube | 100% | 100% | 30.9 | 28.4 | 18.9 | 26.0 | 16.0 |
| DT157- Station Rd, Muirhead | Roadside | Diffusion Tube | 100% | 100% | 34.1 | 22.3 | 14.4 | 19.1 | 12.7 |
| DT158a- Croftmoraig Cres, Moodiesburn | Roadside | Diffusion Tube | 100% | 100% | 18.4 | 17.8 | 11.2 | 11.4 | 10.5 |
| DT158b- Deedes St, Airdrie | Roadside | Diffusion Tube | 100% | 100% | 29.5 | 30.3 | 22.0 | 23.4 | 19.6 |
| DT159- Glenview Cres, Moodiesburn | Roadside | Diffusion Tube | 100% | 100% | 17.7 | 18.4 | 11.1 | 12.2 | 11.2 |

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Site ID** | **Site Type** | **Monitoring Type** | **Valid Data Capture for Monitoring Period (%) (1)** | **Valid Data Capture 2022 (%) (2)** | **2018** | **2019** | **2020** | **2021** | **2022** |
| DT160- The Cuillins, Moodiesburn | Roadside | Diffusion Tube | 100% | 100% | 17.6 | 18.4 | 10.7 | 11.3 | 9.9 |
| DT161- Bridgend Cres, Moodiesburn | Roadside | Diffusion Tube | 100% | 100% | 16.8 | 15.7 | 10.4 | 10.9 | 10.0 |
| DT162- Auchegeoch Rd, Moodiesburn | Roadside | Diffusion Tube | 100% | 100% | 19.4 | 18.3 | 11.6 | 12.1 | 9.9 |
| DT163- 12 Inchwood Rd, Westfield, Cumbernauld | Roadside | Diffusion Tube | 92% | 92% | 22.8 | 21.7 | 14.2 | 15.6 | 12.2 |
| DT164 – 12 Leckethill Ct, Westfield, Cumbernauld | Roadside | Diffusion Tube | 92% | 92% | 19.5 | 19.0 | 11.2 | 9.9 | 10.0 |
| DT165- Kildonan St, Coatbridge | Roadside | Diffusion Tube | 100% | 100% | 23.4 | 23.2 | 14.5 | 16.3 | 14.4 |
| DT166 – 22 Cumbernauld Rd, Chryston | Roadside | Diffusion Tube | 100% | 100% | 28.7 | 26.0 | 14.7 | 16.8 | 14.6 |
| NewDT54 – Columba Ct/Old Edinburgh Rd, Viewpark | Roadside | Diffusion Tube | 100% | 100% | 25.6 | 23.6 | 14.0 | 16.4 | 13.1 |
| NewDT55 – Old Edinburgh Rd, Viewpark | Roadside | Diffusion Tube | 100% | 100% | 27.6 | 24.7 | 13.6 | 19.3 | 15.0 |
| NewDT56 – Bargeddie | Roadside | Diffusion Tube | 100% | 100% | 20.6 | 20.0 | 12.2 | 14.1 | 12.2 |
| NewDT102 – Windmillhill St(1), Motherwell | Roadside | Diffusion Tube | 100% | 100% | 20.4 | 18.3 | 14.1 | 12.1 | 11.6 |
| NewDT103 – Windmilllhilll St(2), Motherwell | Roadside | Diffusion Tube | 100% | 100% | 25.9 | 20.7 | 16.6 | 15.1 | 15.0 |
| NewDT 116 – Airbles Rd, (Electric Bar), Motherwell | Roadside | Diffusion Tube | 100% | 100% | 22.3 | 17.2 | 13.3 | 14.3 | 10.0 |
| NewDT 118 – Merry St/Dalziel St, Motherwell | Roadside | Diffusion Tube | 100% | 100% | 28.3 | 24.1 | 17.1 | 17.6 | 14.8 |

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Site ID** | **Site Type** | **Monitoring Type** | **Valid Data Capture for Monitoring Period (%) (1)** | **Valid Data Capture 2022 (%) (2)** | **2018** | **2019** | **2020** | **2021** | **2022** |
| NewDT119- Shawhead roundabout, Coatbridge | Kerbside | Diffusion Tube | 100% | 100% | 27.8 | 23.7 | 18.5 | 19.7 | 17.7 |
| NewDT120- Kirkshaws Rd, Coatbridge | Roadside | Diffusion Tube | 92% | 92% | 26.5 | 24.4 | 18.9 | 20.5 | 16.2 |
| NewDT 127 – Matalan, Wishaw | Kerbside | Diffusion Tube | 100% | 100% | 24.3 | 26.6 | 18.9 | 18.0 | 14.3 |
| NewDT 128 – Wishaw Cross/Stewarton St, Wishaw | Roadside | Diffusion Tube | 100% | 100% | 26.7 | 27.9 | 21.8 | 22.6 | 18.2 |
| NewDT137 – Main St, Village, Cumbernauld | Roadside | Diffusion Tube | 100% | 100% | 20.6 | 22.5 | 13.9 | 16.4 | 15.2 |
| New DT141 – Station Rd, Shotts | Roadside | Diffusion Tube | 100% | 100% | 14.0 | 12.7 | 9.6 | 10.2 | 8.0 |
| NewDT142 – Stane Gdns, Shotts | Roadside | Diffusion Tube | 100% | 100% | 18.4 | 16.9 | 11.8 | 12.8 | 10.5 |
| NewDT157a-Swing park, Castlecary, Cumbernauld | Roadside | Diffusion Tube | 100% | 100% | 28.9 | 25.4 | 18.5 | 19.4 | 16.3 |

**Notes:**

Exceedances of the NO2 annual mean objective of 40µg/m3are shown in bold.

NO2 annual means exceeding 60µg/m3 indicating a potential exceedance of the NO21-hour mean objective are shown in bold and underlined.

Means for diffusion tubes have been corrected for bias. All means have been “annualised” as per LAQM.TG(22) if valid data capture for the full calendar year is less than 75%. See [Appendix C](#_bookmark1) for details.

1. Data capture for the monitoring period, in cases where monitoring was only carried out for part of the year.
2. Data capture for the full calendar year (e.g. if monitoring was carried out for 6 months, the maximum data capture for the full calendar year is 50%).

### Table A.4 – 1-Hour Mean NO2 Monitoring Results, Number of 1-Hour Means > 200µg/m3

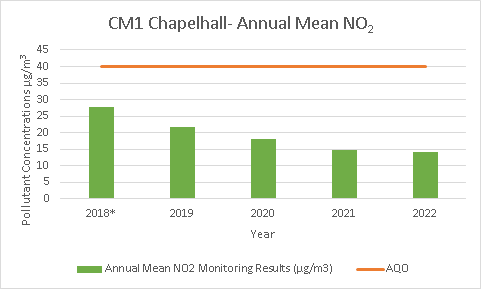
|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Site ID** | **Site Type** | **Monitoring Type** | **Valid Data Capture for Monitoring Period (%)**  **(1)** | **Valid Data Capture 2022**  **(%) (2)** | **2018** | **2019** | **2020** | **2021** | **2022** |
| CM1-Chapelhall | Roadside | Automatic | 99.6% | 99.6% | 0(142) | 0(112) | 0 | 0 | 0 |
| CM2-Croy | Special – by quarry | Automatic | 99.5% | 99.5% | 0(93) | 0(77) | 0(73) | 0 | 0 |
| CM4-Menteith Rd, Motherwell | Roadside | Automatic | 88.9% | 88.9% | 0(125) | 0(114) | 0(113) | 0 | 0 |
| CM5-Shawhead | Roadside | Automatic | 99.6% | 99.6% | 0(114) | 0(113) | 0 | 0 | 0 |
| CM6-Kirkshaws | Roadside | Automatic | 99.9% | 99.9% | 0(107) | 0(114) | 0 | 0 | 0 |
| CM7-New Edinburgh Rd, Uddingston | Roadside | Automatic | 99.6% | 99.6% | - | 0(87) | 0 | 0 | 0 |
| CM10-Kenilworth Dr, Airdrie | Roadside | Automatic | 99.9% | 99.9% | - | 0(83) | 0 | 0 | 0 |
| CM11-Adele St, Motherwell | Roadside | Automatic | 44% | 44% | - | - | - | 0(75.1) | 0(83.5) |
| CM12-Whifflet Cross A725 | Roadside | Automatic | 83.2% | 83.2% | - | - | - | 0(71) | 0 |
| CM13-Ravenscraig Plantation Road | Roadside | Automatic | 97.6% | 75% | - | - | - | - | 0(47.9) |

**Notes:**

Exceedances of the NO2 1-hour mean objective (200 µg/m3 not to be exceeded more than 18 times/year) are shown in bold. If the period of valid data is less than 85%, the 99.8th percentile of 1-hour means is provided in brackets.

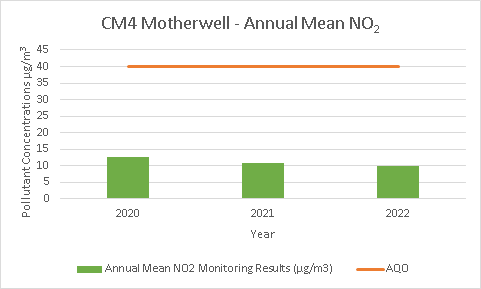
1. Data capture for the monitoring period, in cases where monitoring was only carried out for part of the year.
2. Data capture for the full calendar year (e.g. if monitoring was carried out for 6 months, the maximum data capture for the full calendar year is 50%).

Figures A1 to A6 below show the trend graphs of measured annual mean NO2 concentrations over the period 2018-2022 in the three AQMAs.

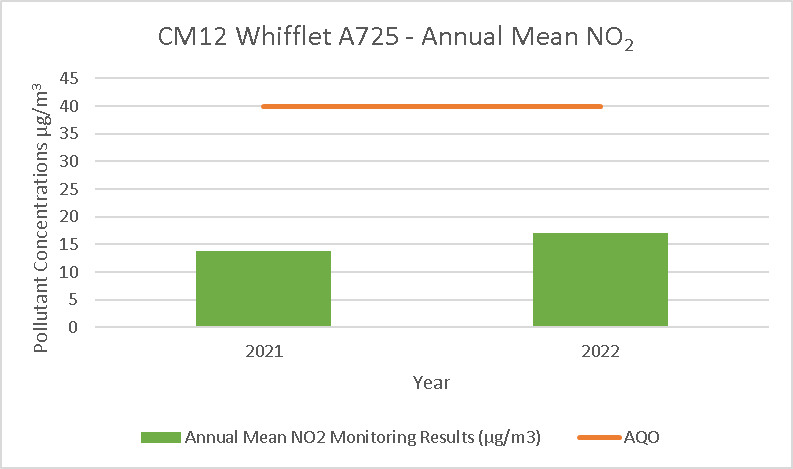


\*Annualised Data

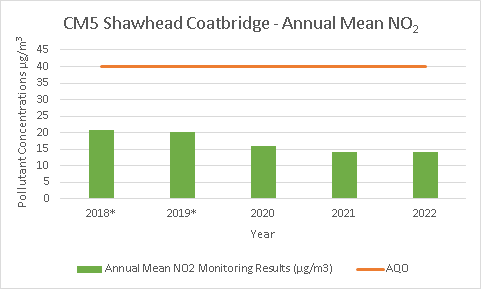
**Figure A1: Annual Mean Concentrations of NO2 at CM1 Chapelhall**



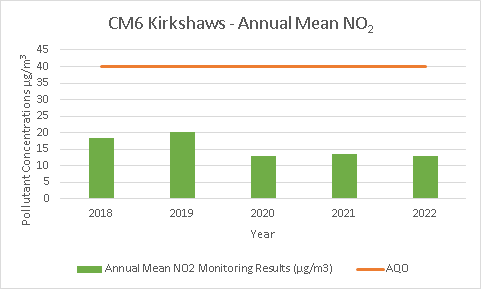
**Figure A2: Annual Mean Concentrations of NO2 at CM4 Motherwell**



**Figure A3: Annual Mean Concentrations of NO2 at CM12 Whifflet A725**



**Figure A4: Annual Mean Concentrations of NO2 at CM5 Shawhead Coatbridge**



**Figure A5: Annual Mean Concentrations of NO2 at CM6 Kirkshaws Coatbridge**

**Table A.5 – Annual Mean PM10 Monitoring Results (µg/m3) – non-corrected**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Site ID** | **Site Type** | **Valid Data Capture for Monitoring Period (%) (1)** | **Valid Data Capture 2022**  **(%) (2)** | **2018** | **2019** | **2020** | **2021** | **2022** |
| CM1-Chapelhall | Roadside | 100% | 100% | 10.2 | 10.0 | 9.0 | 9.4 | 9.9 |
| CM2-Croy | Special – by quarry | 100% | 100% | 12.2 | 11.0 | 8.0 | 8.5 | 10.6 |
| CM4-Menteith Rd, Motherwell | Roadside | 87% | 87% | 9.7 | 11.0 | 9.0 | 9.6 | 10 |
| CM5-Shawhead | Roadside | 100% | 100% | 4.9 | 10.0 | 8.0 | 9.1 | 9.4 |
| CM6-Kirkshaws | Roadside | 100% | 100% | 9.6 | 10.0(3) | 9.0 | 8.9 | 9.8 |
| CM7-New Edinburgh Rd, Uddingston | Roadside | 99% | 99% | - | 13.5 | 9.0 | 9.5 | 10.7 |
| CM10-Kenilworth Dr, Airdrie | Roadside | 65% | 65% | - | 12.2 | 7.8 | 10.2 | 10.9 |
| CM11-Adele St, Motherwell | Roadside | 82% | 82% | - | - | 8.0 | 8.8 | 7.7 |
| CM12-Whifflet Cross A725 | Roadside | 100% | 100% | - | - | - | 9.4 | 10.2 |
| CM13-Ravenscraig Plantation Road | Roadside | 89% | 89% | - | - | - | - | 8.3 |

### Notes:

Exceedances of the PM10 annual mean objective of 18 µg/m3 are shown in bold.

All means have been “annualised” as per LAQM.TG(22), valid data capture for the full calendar year is less than 75%. See [Appendix C](#_bookmark1) for details.

1. Data capture for the monitoring period, in cases where monitoring was only carried out for part of the year.
2. Data capture for the full calendar year (e.g. if monitoring was carried out for 6 months, the maximum data capture for the full calendar year is 50%).

### Table A.6 – Annual Mean PM10 Monitoring Results (µg/m3) – FIDAS corrected

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Site ID** | **Site Type** | **Valid Data Capture for Monitoring Period (%) (1)** | **Valid Data Capture 2022 (%) (2)** | **2018** | **2019** | **2020** | **2021** | **2022** |
| CM1-Chapelhall | Roadside | 100% | 100% | 11.1 | 11.1 | 9.4 | 10.3 | 10.9 |
| CM2-Croy | Special – by quarry | 100% | 100% | 12.9 | 12.6 | 8.4 | 9.3 | 11.7 |
| CM4-Menteith Rd, Motherwell | Roadside | 87% | 87% | 10.4 | 11.5 | 10.3 | 10.5 | 11 |
| CM5-Shawhead | Roadside | 100% | 100% | 8.7 | 10.9 | 9 | 10 | 10.4 |
| CM6-Kirkshaws | Roadside | 100% | 100% | 9.8 | 11.4 | 9.6 | 9.8 | 10.7 |
| CM7-New Edinburgh Rd, Uddingston | Roadside | 99% | 99% | - | 11.4 | 9.2 | 10.4 | 11.8 |
| CM10-Kenilworth Dr, Airdrie | Roadside | 65% | 65% | - | 10.3 | 9.5 | 10.2 | 10.1 |
| CM11-Adele St, Motherwell | Roadside | 82% | 82% | - | - | 8.2 | 9.7 | 8.5 |
| CM12-Whifflet Cross A725 | Roadside | 100% | 100% | - | - | - | 10.4 | 11.3 |
| CM13-Ravenscraig Plantation Road | Roadside | 89% | 89% | - | - | - | - | 9.1 |

**Notes:**

Exceedances of the PM10 annual mean objective of 18µg/m3 are shown in bold.

All means have been “annualised” as per LAQM.TG(22), valid data capture for the full calendar year is less than 75%. See Appendix C for details.

1. Data capture for the monitoring period, in cases where monitoring was only carried out for part of the year.
2. Data capture for the full calendar year (e.g. if monitoring was carried out for 6 months, the maximum data capture for the full calendar year is 50%).

**Table A.7 – 24-Hour Mean PM10 Monitoring Results, Number of PM10 24-Hour Means**

**>50µg/m3**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Site ID** | **Site Type** | **Valid Data Capture for Monitoring Period (%)**  **(1)** | **Valid Data Capture 2022**  **(%) (2)** | **2018** | **2019** | **2020** | **2021** | **2022** |
| CM1-Chapelhall | Roadside | 100% | 100% | 0(24) | 1 | 0 | 0 | 0 |
| CM2-Croy | Special – by quarry | 100% | 100% | 0(42) | 3 | 0(18) | 0 | 2 |
| CM4-Menteith Rd, Motherwell | Roadside | 87% | 87% | 0(23) | 2 | 0 | 0 | 0 |
| CM5-Shawhead | Roadside | 100% | 100% | 0(19) | 2 | 0 | 0 | 0 |
| CM6-Kirkshaws | Roadside | 100% | 100% | 0(21) | 1 | 0 | 0 | 0 |
| CM7-New  Edinburgh Rd, Uddingston | Roadside | 99% | 99% | - | 0(21) | 0(15) | 0(18.3) | 0 |
| CM10-Kenilworth Dr, Airdrie | Roadside | 65% | 65% | - | 0(21) | 0(23) | 0(22.4) | 0(29.1) |
| CM11-Adele St, Motherwell | Roadside | 82% | 82% | - | - | 0(18) | 0 | 0(16.2) |
| CM12-Whifflet Cross A725 | Roadside | 100% | 100% | - | - | - | 0(21.2) | 0 |
| CM13-Ravenscraig Plantation Road | Roadside | 89% | 89% | - | - | - | - | 0 |

**Notes:**

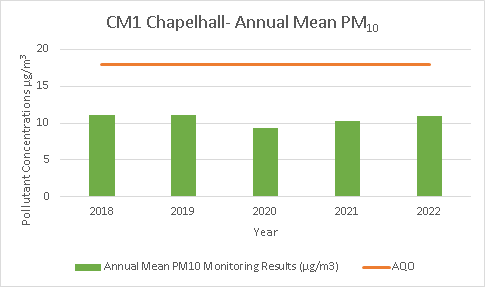
Exceedances of the PM10 24-hour mean objective (50 µg/m3 not to be exceeded more than seven times/year) are shown in bold.

If the period of valid data is less than 85%, the 98.1st percentile of 24-hour means is provided in brackets.

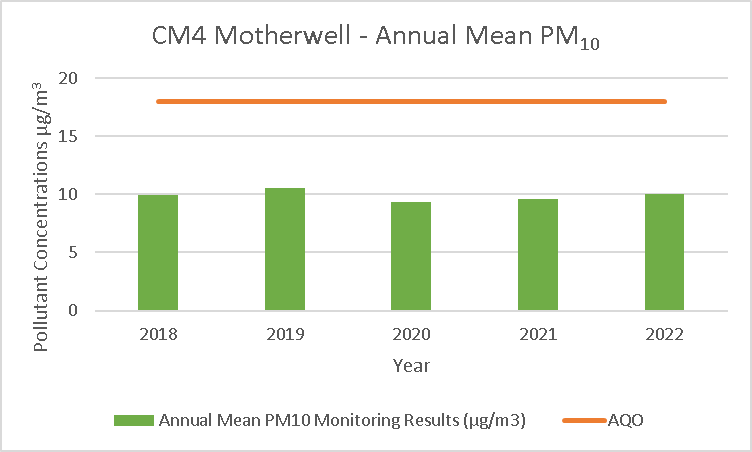
1. Data capture for the monitoring period, in cases where monitoring was only carried out for part of the year.
2. Data capture for the full calendar year (e.g. if monitoring was carried out for 6 months, the maximum data capture for the full calendar year is 50%).

Figures 7 to 12 below show the trend graphs of measured annual mean PM10 concentrations over the period 2018-2022 in the three AQMAs.

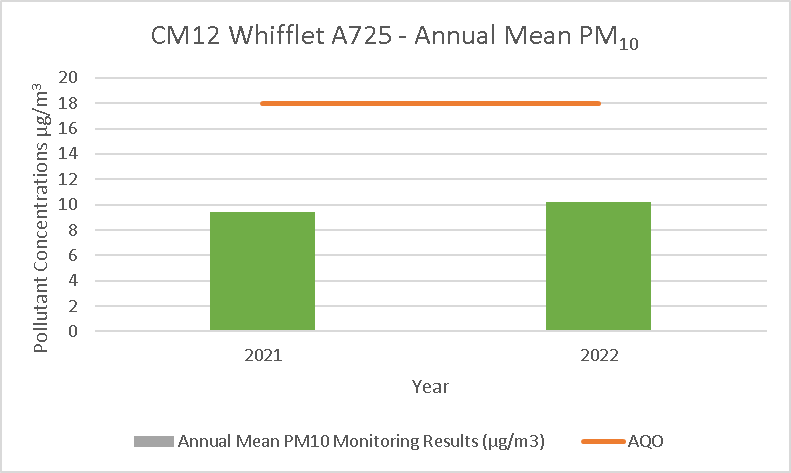
N.B. Monitoring Data of PM10 and PM2.5 has been adjusted in line with the Scottish Government guidance issued May 2023 to adjust all PM data collected by FIDAS 200 instruments to be using factors PM10 divided by 0.909 and PM2.5 multiplied by 1.06.



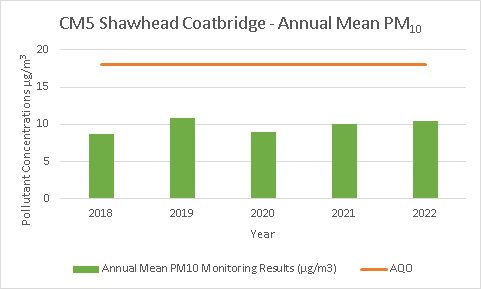
**Figure A6: Annual Mean Concentrations of PM10 at CM1 Chapelhall**



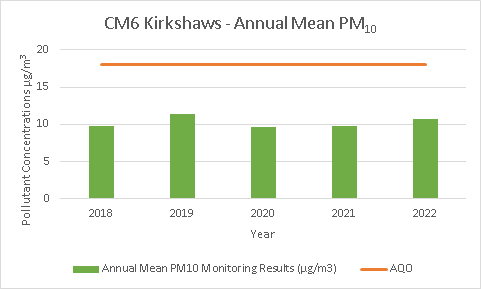
**Figure A7: Annual Mean Concentrations of PM10 at CM4 Motherwell**



**Figure A8: Annual Mean Concentrations of PM10 at CM12 Whifflet A725**



**Figure A9: Annual Mean Concentrations of PM10 at CM5 Shawhead Coatbridge**



**Figure A10: Annual Mean Concentrations of PM10 at CM6 Kirkshaws Coatbridge**

**Table A.8 – Annual Mean PM2.5 Monitoring Results (µg/m3) – non corrected.**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Site ID** | **Site Type** | **Valid Data Capture for Monitoring Period (%)**  **(1)** | **Valid Data Capture 2022**  **(%) (2)** | **2018** | **2019** | **2020** | **2021** | **2022** |
| CM1-Chapelhall | Roadside | 100% | 100% | 5.3 | 6.0 | 5.0 | 5.0 | 5.2 |
| CM2-Croy | Special – by quarry | 100% | 100% | 6.0 | 6.0 | 4.0 | 4.9 | 5.5 |
| CM4-Menteith Rd, Motherwell | Roadside | 87% | 87% | 5.4 | 6.0 | 5.0 | 5.0 | 5.4 |
| CM5-Shawhead | Roadside | 100% | 100% | 5.6 | 6.0 | 5.0 | 4.8 | 5.1 |
| CM6-Kirkshaws | Roadside | 100% | 100% | 5.4 | 6.0 | 5.0 | 4.9 | 5.3 |
| CM7-New Edinburgh Rd, Uddingston | Roadside | 99% | 99% | - | - | - | 5.0 | 5.2 |
| CM11-Adele St, Motherwell | Roadside | 82% | 82% | - | - | 4.5 | 5.0 | 4.3 |
| CM12-Whifflet Cross A725 | Roadside | 100% | 100% | - | - | - | 5.2 | 5.6 |
| CM13-Ravenscraig Plantation Road | Roadside | 89% | 89% |  |  |  |  | 4.6 |

**Notes:**

Exceedances of the PM2.5 annual mean objective of 10 µg/m3 are shown in bold.

All means have been “annualised” as per LAQM.TG(22), valid data capture for the full calendar year is less than 75%. See Appendix C for details.

1. Data capture for the monitoring period, in cases where monitoring was only carried out for part of the year.
2. Data capture for the full calendar year (e.g. if monitoring was carried out for 6 months, the maximum data capture for the full calendar year is 50%).

### Table A.9 – Annual Mean PM2.5 Monitoring Results (µg/m3) – FIDAS corrected.

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Site ID** | **Site Type** | **Valid Data Capture for Monitoring Period (%)**  **(1)** | **Valid Data Capture 2022**  **(%) (2)** | **2018** | **2019** | **2020** | **2021** | **2022** |
| CM1-Chapelhall | Roadside | 100% | 100% | 5.6 | 5.9 | 4.9 | 5.3 | 5.6 |
| CM2-Croy | Special – by quarry | 100% | 100% | 5.4 | 6.7 | 4.4 | 5.2 | 5.8 |
| CM4-Menteith Rd, Motherwell | Roadside | 87% | 87% | 4.9 | 6.4 | 5.4 | 5.3 | 5.7 |
| CM5-Shawhead | Roadside | 100% | 100% | 4.7 | 6 | 4.7 | 5.1 | 5.4 |
| CM6-Kirkshaws | Roadside | 100% | 100% | 4.4 | 6.4 | 5 | 5.2 | 5.6 |
| CM7-New Edinburgh Rd, Uddingston | Roadside | 99% | 99% | - | - | - | 5.2 | 5.5 |
| CM11-Adele St, Motherwell | Roadside | 65% | 65% | - | - | 4.7 | 5.3 | 4.6 |
| CM12-Whifflet Cross A725 | Roadside | 82% | 82% | - | - | - | 5.5 | 5.9 |
| CM13-Ravenscraig Plantation Road | Roadside | 100% | 100% | - | - | - | - | 4.9 |

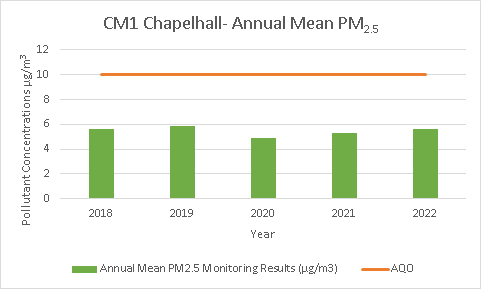
**Notes:**

Exceedances of the PM2.5 annual mean objective of 10 µg/m3 are shown in bold.

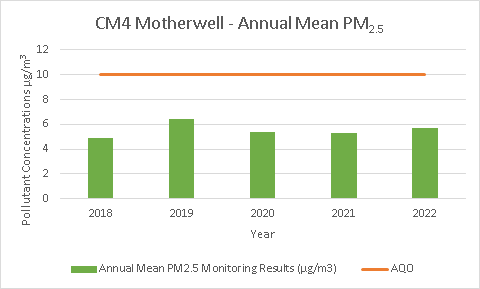
All means have been “annualised” as per LAQM.TG(22), valid data capture for the full calendar year is less than 75%. See Appendix C for details.

* 1. Data capture for the monitoring period, in cases where monitoring was only carried out for part of the year.
  2. Data capture for the full calendar year (e.g. if monitoring was carried out for 6 months, the maximum data capture for the full calendar year is 50%).

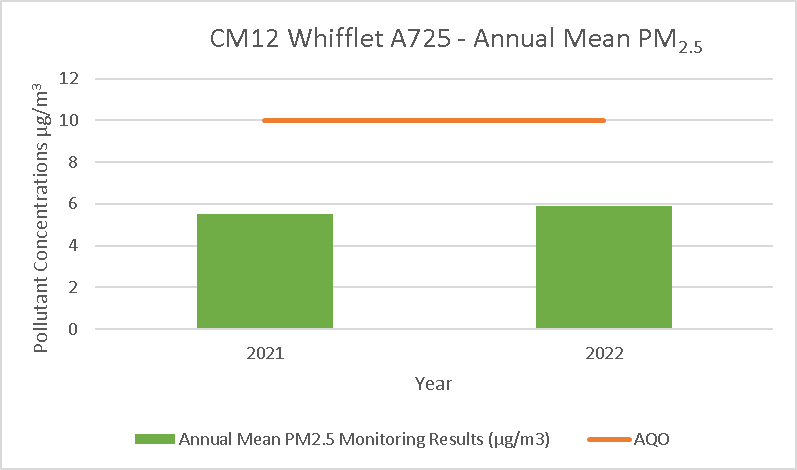
Figures A13 to A18 below show the trend graphs of measured annual mean PM2.5 concentrations over the period 2018-2022 in the three AQMAs.



**Figure A11: Annual Mean Concentrations of PM2.5 at CM1 Chapelhall**



**Figure A12: Annual Mean Concentrations of PM2.5 at CM4 Motherwell**

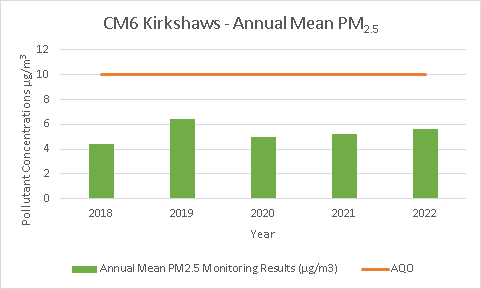


**Figure A13: Annual Mean Concentrations of PM2.5 at CM12 Whifflet A725**

Figure A14: Annual Mean Concentrations of PM2.5 at CM5 Shawhead
Coatbridge


**Figure A14: Annual Mean Concentrations of PM2.5 at CM5 Shawhead**

**Coatbridge**



**Figure A15: Annual Mean Concentrations of PM2.5 at CM6 Kirkshaws Coatbridge**

# Appendix B: Full Monthly Diffusion Tube Results for 2022

### Table B.1 – NO2 2022 Monthly Diffusion Tube Results (µg/m3)

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Site ID** | **Jan** | **Feb** | **Mar** | **Apr** | **May** | **Jun** | **Jul** | **Aug** | **Sep** | **Oct** | **Nov** | **Dec** | **Annual Mean: Raw Data** | **Annual Mean: Bias Adjusted (1)** |
| DT47-Lay by, Stand | 19.1 | 9.6 | 7.1 | 7.4 | 5.1 | 6.3 | 8.4 | 15.4 | 13.7 | 18 | 35.6 | 17.3 | 13.6 | 11.8 |
| DT48-bus stop, Bron Way, Cumbernauld | 27.8 | 19.7 | 9.8 | 10.0 | 6.0 | - | 4.6 | 19.9 | 18.0 | 22.8 | 34.8 | 24.6 | 18.0 | 15.7 |
| DT49-swimming pool, Kilsyth | 20.7 | 9.5 | 10.0 | 9.6 | 3.2 | 8.0 | 12.5 | 15.5 | 12.0 | 21.4 | 31 | 23.2 | 14.7 | 12.8 |
| DT50-1791 Cumbernauld Rd, Stepps | 18.3 | 9.0 | 5.2 | 7.7 | 9.1 | 11.1 | 14.0 | 11.1 | 12.9 | 13.9 | 26.9 | 19.6 | 13.2 | 11.5 |
| DT51-131 Cumbernauld Rd, Stepps | 23.2 | 9.7 | 8.3 | 13.0 | 3.2 | 10.3 | 13.2 | 14.9 | 12.2 | 20.2 | 34.3 | 22.4 | 15.4 | 13.4 |
| DT52-Traffic lights Eastbound A80, Moodiesburn | 1.6 | 1.8 | 7.6 | 16.2 | 6.3 | 8.2 | 14.0 | 9.8 | 9.2 | 14.5 | 32.4 | 19.6 | 14.3 | 12.5 |
| DT53-Traffic lights Westbound A80, Moodiesburn | 1.6 | 9.1 | 10.8 | 5.8 | 3.4 | 7.0 | 10.8 | 9.5 | 7.1 | 12.9 | 28.8 | 14.4 | 11.3 | 9.8 |
| DT57-Main St/Garrick View, Glenboig | 13.4 | 16.3 | 5.3 | 9.8 | 9.8 | 6.5 | 7.8 | 7.8 | 9.9 | 9.9 | 23.6 | 11.0 | 10.9 | 9.5 |
| DT58-Lochend Rd/Coatbridge Rd, Gartcosh | 21.9 | 15.9 | 15.5 | 14.3 | 14.3 | 9.5 | 15.0 | 10.8 | 12.8 | 14.7 | 38.5 | 19.1 | 16.9 | 14.7 |
| DT59-Coronation Pl, Mount Ellen | 17.3 | 8.0 | 7.3 | 13.4 | 13.4 | 7.3 | 10.7 | 11.8 | 8.0 | 13.9 | 25.1 | 12.4 | 12.4 | 10.8 |
| DT61-under Central Way, Eastbound, Cumbernauld | 41.7 | 29.4 | 18.4 | 29.2 | 29.2 | 28.5 | 34.4 | 27.4 | 30.0 | 20.4 | 21.7 | 16.9 | 27.3 | 23.7 |
| DT62-Central Way (A) Westbound, Cumbernauld | 34.3 | 21.1 | 14.5 | 23.7 | 23.7 | 17.3 | 19.5 | 27.7 | 19.0 | 18.3 | 34.8 | 19.4 | 22.8 | 19.8 |
| DT63-Central Way (B) Westbound Cumbernauld | 34.8 | 28.2 | 29.6 | 29.8 | 29.8 | 24.1 | 31.1 | 29.0 | 25.7 | 29.9 | 25.8 | 32.9 | 29.2 | 25.4 |
| DT64-Under Central Way Westbound, Cumbernauld | 24.5 | 16.4 | 21.3 | 27.2 | 27.2 | 13.0 | 17.1 | 13.1 | 13.7 | 23.8 | 40.2 | 21.1 | 21.6 | 18.7 |
| DT100-Civic Centre, Motherwell | 30.4 | 13.4 | 24.9 | 24.9 | 19.9 | 17.3 | 18.2 | 15.0 | 18.1 | 17 | 29.4 | 31.7 | 21.7 | 18.9 |
| DT101-Shields Rd, Motherwell | 18.2 | - | 22.8 | 14.5 | 10.9 | 12.0 | 10.6 | 10.7 | 16.4 | 11.8 | 17.7 | 25.5 | 15.6 | 13.5 |
| DT104-Coursington Rd, Motherwell | 9.8 | 4.9 | 5.0 | 6.8 | 6.0 | 4.4 | 5.7 | 10.2 | 4.3 | 3.7 | 6.4 | 14.4 | 6.8 | 5.9 |
| DT105-Craigneuk Rd, Carfin | 12.3 | 6.1 | 14.1 | 10.7 | 6.8 | 5.0 | 6.3 | 8.6 | 10.2 | 5.3 | 10.7 | 17.5 | 9.5 | 8.2 |
| DT110-New Edinburgh Rd(1),Uddingston | 29.0 | 15.8 | 32.2 | 1.7 | 12.5 | 16.1 | 16.8 | 14.9 | 20.6 | 21.1 | 29 | 34.1 | 21.6 | 18.8 |
| DT111-New Edinburgh Rd(2), Uddingston | 27.8 | 12.9 | 30.9 | 23.6 | 17.9 | 18.2 | 18.4 | 21.8 | 21.6 | 22.3 | 27.6 | 36.4 | 23.3 | 20.3 |
| DT112-New Edinburgh Rd(3), Uddingston | 29.3 | 10.6 | 33.6 | 23.9 | 17.0 | 15.0 | 18.9 | 18.8 | 19.5 | 20.1 | 26.6 | 35.7 | 22.4 | 19.5 |
| DT113-Tinkers Lane, Motherwell | 20.0 | 12.6 | 18.2 | 13.1 | 10.7 | 15.3 | 10.2 | 6.3 | 12.5 | 7.1 | 15.6 | 22.9 | 13.7 | 11.9 |
| DT114-Main St, Overtown | 13.9 | 5.8 | 13.6 | 9.2 | 7.3 | 4.8 | 7.8 | 11.4 | 1.5 | 10.8 | 10.1 | 20.7 | 9.7 | 8.5 |
| DT115-Plantation Rd, Ravenscraig, Motherwell | 11.1 | 8.4 | 11.0 | 8.8 | 2.8 | 5.1 | 4.7 | 8.2 | 7.7 | 6.8 | 10.9 | 16.7 | 8.5 | 7.4 |
| DT117-Hamilton Rd, Motherwell | 21.9 | 9.8 | 25.1 | 16.2 | 7.6 | 10.6 | 16.2 | 15.2 | 19.7 | 19.9 | - | 44.8 | 18.8 | 16.4 |
| DT121-Flannigan Grove, Bellshill | 16.6 | 6.7 | 19.4 | 12.0 | 4.2 | 6.9 | 13.8 | 7.6 | 16.7 | 15.4 | 19.5 | 28.2 | 13.9 | 12.1 |
| DT122-Main St, Mossend | 17.2 | 8.4 | 21.1 | 8.3 | 3.8 | 4.9 | 11.7 | 8.0 | 15.1 | 14.7 | 15 | 28.8 | 13.1 | 11.4 |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Site ID** | **Jan** | **Feb** | **Mar** | **Apr** | **May** | **Jun** | **Jul** | **Aug** | **Sep** | **Oct** | **Nov** | **Dec** | **Annual Mean: Raw Data** | **Annual Mean: Bias Adjusted (1)** |
| DT123-Hamilton Rd, Orbiston, Bellshill | 23.7 | 8.9 | 23.3 | 8.2 | 6.8 | 10.6 | 13.0 | 16.6 | 17.7 | 16.5 | 20.5 | 31.7 | 16.5 | 14.3 |
| DT124-Scotmid, Tannochside | 22.4 | 11.6 | 22.9 | 9.5 | 4.5 | 10.8 | 11.8 | 8.9 | 9.6 | 17.5 | 18.8 | 31.1 | 15.0 | 13.0 |
| DT125-Main St/Motherwell Rd, Bellshill | 15.9 | 15.5 | 22.2 | 10.2 | 5.6 | 9.3 | 11.7 | 12.8 | 14.5 | 16.7 | 18.5 | 28.9 | 15.2 | 13.2 |
| DT126-Main St nr Tesco delivery, Bellshill | 20.6 | 10.2 | 21.8 | 7.5 | 5.6 | 9.0 | 10.4 | 8.5 | 18.8 | 13.3 | 18.3 | 24.5 | 14.0 | 12.2 |
| DT129-Newmains Police Station | 24.5 | 11.6 | 30.0 | 17.6 | 9.2 | 14.6 | 14.5 | 23.4 | 20.1 | 22.2 | 28.2 | 31.4 | 20.6 | 17.9 |
| DT130-Main St, Wishaw  (bottom) | 12.4 | 5.6 | 16.1 | 7.8 | 8.6 | 6.2 | 7.7 | 11.5 | 12.6 | 11.1 | 12.5 | 23.6 | 11.3 | 9.8 |
| DT131-Brandon Pl, Bellshill | 20.3 | 8.5 | 18.8 | 9.3 | 7.3 | 12.1 | 11.1 | 11.3 | 16.7 | 10.1 | 15.9 | 23.8 | 13.8 | 12.0 |
| DT132-Airdrie Rd, Caldercruix | 16.0 | 9.9 | 8.9 | 8.9 | 11.0 | 4.9 | 8.2 | 9.4 | - | - | 19.5 | 11.9 | 10.9 | 9.4 |
| DT133-Bank St(1), Coatbridge | 27.5 | 21.6 | 32.4 | 10.5 | 8.4 | 12.6 | 2.1 | 10.8 | 20.5 | 23.4 | 27.1 | 37.5 | 19.5 | 17.0 |
| DT134-Whifflet Ct(2), Coatbridge | 26.0 | 11.5 | 24.0 | 5.6 | 6.5 | 7.7 | 10.7 | 12.4 | 13.5 | - | 20.7 | 25.7 | 14.9 | 13.0 |
| DT135-Grahamshill St, Airdrie | 34.2 | 19.0 | 31.2 | 13.4 | 10.4 | 16.9 | 19.0 | 15.9 | 12.7 | 25 | 20.4 | 22.3 | 20.0 | 17.4 |
| DT136-Airdrie 3, Springwell Cr | 18.8 | 8.6 | 16.3 | 6.4 | 3.9 | 6.8 | 8.1 | 6.5 | 17.8 | 11.5 | 12.8 | 32.4 | 12.5 | 10.9 |
| DT138-Main St, Chapelhall (nr shops) | 20.2 | 9.9 | 22.6 | 7.0 | 6.0 | 10.7 | 13.2 | 16.6 | - | 15.7 | 19.1 | 32.1 | 15.7 | 13.7 |
| DT139-Lauchope St/Main St, Chapelhall | 36.5 | 16.1 | 35.0 | 16.9 | 11.0 | 22.4 | 19.3 | 24.8 | 14.3 | 24.6 | 32.7 | 37.9 | 24.3 | 21.1 |
| DT140-Dundyvan Rd,Coatbridge | 19.9 | 19.8 | 25.7 | 10.1 | 7.8 | 6.8 | 11.1 | 13.6 | 9.8 | 15.3 | 23 | 24.7 | 15.6 | 13.6 |
| DT143-Main St(2), Harthill (nr shops) | 14.0 | 7.4 | 13.7 | 11.6 | 4.4 | 8.3 | 11.4 | 9.2 | 14.6 | 14.4 | 13 | 14.9 | 11.4 | 9.9 |
| DT144-Lab 1, Constarry Rd, Croy | 16.6 | 8.4 | 10.8 | 6.0 | 3.8 | 7.7 | 8.0 | 11.1 | 14.3 | 13.7 | 10.8 | 24.7 | 11.3 | 9.9 |
| DT145-Lab 2-Constarry Rd, Croy | 14.4 | 6.7 | 10.4 | 7.4 | 3.4 | 7.4 | 7.2 | 13.0 | 13.4 | 13.5 | 18.3 | 29.1 | 12.0 | 10.5 |
| DT146-Lab 3-Constarry Rd, Croy | 14.0 | 9.6 | 12.4 | 12.6 | 4.7 | 5.9 | 8.2 | 15.4 | 18.1 | 12.7 | 16.6 | 24.1 | 12.9 | 11.2 |
| DT147Bank St, Coatbridge  (nearest house) | 34.4 | 19.9 | 13.4 | 15.3 | 8.9 | 9.4 | 14.3 | 16.6 | 19.5 | 14.7 | 21.6 | 32.4 | 18.4 | 16.0 |
| DT148-Main St, Chapelhall R32 | 72.1 | 12.4 | 13.9 | 13.9 | 6.2 | 12.2 | 12.9 | 20.2 | 21.1 | 19.2 | 25.1 | 34.1 | 21.9 | 19.1 |
| DT149-Main St, Chapelhall R33 | 29.8 | 12.7 | 15.4 | 9.8 | 7.5 | 17.2 | 16.7 | 19.7 | 12.6 | 23 | 29.3 | 32.1 | 18.8 | 16.4 |
| DT150-Eastfield Rd, Cumbernauld | 14.3 | 7.2 | 10.0 | 8.0 | 3.8 | - | 9.3 | 10.8 | 15.8 | 15.4 | 21.1 | 22.7 | 12.6 | 10.9 |
| DT151-Main St, Holytown | 19.0 | 11.5 | 10.6 | 14.4 | 5.7 | 9.0 | 10.2 | 15.1 | 23.2 | 12.9 | 26.7 | 23.5 | 15.2 | 13.2 |
| DT152-Coatbridge Rd, Townhead  (shops) | 27.6 | 13.2 | 11.4 | 9.8 | 9.1 | 14.9 | 12.6 | 15.1 | 8.2 | 17.6 | 26.6 | 30.7 | 16.4 | 14.3 |
| DT153-72 Townhead Rd, Coatbridge | 14.6 | 11.4 | 11.1 | 17.3 | 11.6 | 10.6 | 10.6 | - | 13.4 | 18.5 | 21.7 | 29.2 | 15.5 | 13.4 |
| DT154-Sunnyside Rd,Coatbridge | 18.1 | 18.8 | 30.0 | 20.5 | 9.0 | 17.9 | 12.4 | - | 19.5 | 21.2 | 24.4 | 35.3 | 20.6 | 18.0 |
| DT156-Stirling Rd, Airdrie | 22.2 | 16.4 | 17.9 | 13.7 | 8.8 | 19.6 | 10.4 | 13.7 | 21.1 | 22.1 | 20.5 | 34.1 | 18.4 | 16.0 |
| DT157-Station Rd, Muirhead | 25.7 | 13.1 | 15.2 | 8.7 | 4.8 | 4.7 | 11.2 | 10.9 | 16.2 | 11.2 | 21 | 32.7 | 14.6 | 12.7 |
| DT158a-Croftmoraig Cres, Moodiesburn | 6.8 | 6.8 | 15.6 | 7.8 | 10.6 | 2.6 | 11.1 | 12.5 | 6.1 | 16.5 | 32.3 | 15.5 | 12.0 | 10.5 |
| DT158b-Deedes St, Airdrie | 19.5 | 14.0 | 15.4 | 24.7 | 12.1 | 19.5 | 23.5 | 28.8 | 27.9 | 20.7 | 29.1 | 35.0 | 22.5 | 19.6 |
| DT159-Glenview Cres, Moodiesburn | 8.5 | 8.5 | 15.9 | 6.4 | 7.8 | 2.0 | 6.4 | 12.0 | 8.0 | 16.5 | 30.1 | 14.3 | 12.9 | 11.2 |
| DT160-The Cuillins,  Moodiesburn | 6.6 | 6.6 | 12.2 | 8.3 | 7.1 | 3.3 | 6.0 | 14.2 | 9.6 | 15.1 | 32.7 | 15.1 | 11.4 | 9.9 |
| DT161-Bridgend Cr, Moodiesburn | 8.5 | 8.5 | 12.7 | 5.3 | 7.4 | 1.7 | 4.3 | 11.5 | 8.8 | 15.8 | 26.4 | 11.2 | 11.5 | 10.0 |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Site ID** | **Jan** | **Feb** | **Mar** | **Apr** | **May** | **Jun** | **Jul** | **Aug** | **Sep** | **Oct** | **Nov** | **Dec** | **Annual Mean: Raw Data** | **Annual Mean: Bias Adjusted (1)** |
| DT162-Auchengeoch Rd,  Moodiesburn | 10.1 | 10.1 | 16.2 | 8.6 | 14.8 | 2.6 | 3.8 | 8.4 | 10.5 | 12.4 | 29.7 | 9.7 | 11.4 | 9.9 |
| DT163-Inchwood Rd, Westfield,  Cumbernauld | 10.5 | 10.5 | 21.2 | 11.2 | 14.3 | 3.7 | 6.4 | - | 8.3 | 18 | 31.6 | 18.6 | 14.0 | 12.2 |
| DT164-12 Leckethill Ct, Westfield, Cumbernauld | 10.8 | 10.8 | 14.4 | 9.5 | 10.8 | 4.2 | 4.9 | - | 7.5 | 20 | 19.4 | 14.7 | 11.5 | 10.0 |
| DT165-Kildonan St, Coatbridge | 17.5 | 15.5 | 13.2 | 16.9 | 16.9 | 12.5 | 15.9 | 15.6 | 16.5 | 15.3 | 12.8 | 30.5 | 16.6 | 14.4 |
| DT166-22 Cumbernauld Rd, Chryston | 12.7 | 12.7 | 24.4 | 15.2 | 13.9 | 8.0 | 15.6 | 14.7 | 11.6 | 21.1 | 34.2 | 16.7 | 16.7 | 14.6 |
| NewDT54-Columba Ct/Old Edin Rd,Viewpark | 14.6 | 14.6 | 19.1 | 7.1 | 18.5 | 8.0 | 13.7 | 12.4 | 10.2 | 13.3 | 30.5 | 19.0 | 15.1 | 13.1 |
| NewDT55-Old Edinburgh Rd,Viewpark | 18.0 | 18.0 | 23.1 | 12.8 | 11.8 | 8.6 | 16.8 | 15.8 | 17.3 | 18.8 | 25.8 | 20.7 | 17.3 | 15.0 |
| NewDT56-Bargeddie | 16.4 | 16.4 | 18.1 | 6.1 | 7.9 | 10.5 | 12.7 | 12.2 | 10.9 | 16.7 | 26.5 | 14.3 | 14.1 | 12.2 |
| NewDT102-Windmillhill St(1),Motherwell | 21.6 | 9.4 | 18.0 | 11.1 | 8.8 | 8.0 | 8.2 | 7.0 | 13.1 | 14.1 | 17.6 | 23.7 | 13.4 | 11.6 |
| NewDT103-Windmillhill St,Motherwell | 2.0 | 20.3 | 20.9 | 16.7 | 11.5 | 10.2 | 11.4 | 20.8 | 16.5 | 10.6 | 20.8 | 27.5 | 17.3 | 15.0 |
| NewDT116-Airbles Rd(Electric Bar)Motherwell | 13.8 | 6.1 | 15.3 | 15.3 | 3.8 | 6.1 | 9.7 | 8.0 | 14.7 | 5.7 | 11 | 29.0 | 11.5 | 10.0 |
| NewDT118-Merry St/Dalziel St, Motherwell | 26.6 | 13.9 | 17.7 | 17.7 | 6.9 | 13.9 | 14.8 | 11.4 | 20.3 | 17 | 17.7 | 25.6 | 17.0 | 14.8 |
| NewDT119-Shawhead roundabout,Coatbridge | 35.8 | 15.2 | 23.5 | 18.2 | 9.4 | 18.7 | 17.4 | 12.2 | 20.8 | 18.1 | 22.2 | 32.7 | 20.4 | 17.7 |
| NewDT120-Kirkshaws Rd,Coatbridge | 30.2 | 13.0 | 23.0 | 11.9 | 7.0 | 14.3 | 12.2 | - | 17.4 | 20 | 24.4 | 31.8 | 18.7 | 16.2 |
| NewDT127-Matalan, Wishaw | 25.4 | 8.6 | 22.8 | 7.9 | 5.5 | 15.2 | 17.1 | 13.6 | 18.8 | 18.2 | 23.6 | 20.3 | 16.4 | 14.3 |
| NewDT128-Wishaw Cross/Stewart St | 28.4 | 17.3 | 29.3 | 14.3 | 7.5 | 17.4 | 19.6 | 18.4 | 21.5 | 22.8 | 22.4 | 32.0 | 20.9 | 18.2 |
| NewDT137-Main St,Village,Cumbernauld | 19.9 | 12.8 | 23.5 | 1.7 | 9.3 | 8.7 | 8.3 | 14.5 | 21.7 | 15.8 | 22.7 | 36.0 | 17.5 | 15.2 |
| NewDT141-Station Rd,Shotts | 9.5 | 4.9 | 13.4 | 7.9 | 5.4 | 4.4 | 7.2 | 10.5 | 13.7 | 7.9 | 9 | 17.0 | 9.2 | 8.0 |
| NewDT142-Stane Gdns,Shotts | 15.6 | 10.6 | 15.2 | 14.1 | 5.1 | 9.3 | 11.3 | 9.2 | 12.8 | 11.9 | 11.6 | 17.7 | 12.0 | 10.5 |
| NewDT157a-swing park, Castlecary | 25.7 | 3.5 | 15.2 | 13.7 | 8.0 | 4.7 | 11.2 | 10.9 | 16.3 | 27.7 | 23.5 | 32.7 | 18.7 | 16.3 |

**Notes:**

(1) See [Appendix C](#_bookmark1) for details on bias adjustment

# Appendix C: Supporting Technical Information / Air Quality Monitoring Data QA/QC

## New or Changed Sources Identified Within North Lanarkshire During 2022

North Lanarkshire Council has not identified any significantly new or changed sources relating to air quality within the reporting year of 2022.

## Additional Air Quality Works Undertaken by North Lanarkshire Council During 2022

North Lanarkshire Council has not completed any additional works within the reporting year of 2022.

## QA/QC of Diffusion Tube Monitoring

The diffusion tubes were analysed by Glasgow Scientific Services (GSS) using the 50% triethanolamine (TEA) in acetone method. GSS has confirmed that the procedures set out in the Harmonisation Practical Guidance are followed during the analysis. The laboratory is UKAS accredited for the analysis and also participates in the Workplace Analysis Scheme for Proficiency (WASP) scheme. GSS has reported that the results from the WASP scheme confirm that the laboratory is performing satisfactorily.

The diffusion tubes for the year 2022 were supplied and analysed by GSS. The tubes were prepared using the 20% TEA in water preparation method. All results have been bias adjusted and annualised (where required). GSS is a UKAS accredited laboratory and participates in the WASP scheme for NO2 analysis and the Annual Field Intercomparison Exercise. These provide strict performance criteria for participating laboratories to meet, thereby ensuring NO2 concentrations reported are of a high calibre.

The latest AIR-PT results are as follows:

* AIR-PT AR042 (January to February 2021) – 50%
* AIR-PT AR043 (May to June 2021) – 100%
* AIR-PT AR045 (July to August 2021) – 100%
* AIR-PT AR046 (September to October 2021) – No results
* AIR-PT AR049 (January to February 2022) – 100%
* AIR-PT AR050 (May to June 2022) – 100%

Over a rolling five round AIR-PT window, it is expected that 95% of laboratory results should be greater than or equal to +2. If this percentage is substantially lower than 95% for a particular laboratory, within this five-round window, then one can conclude that the laboratory in question may have sources of error within their analytical procedure.

The AIR-PT AR042 results of 50% were investigated by the laboratory to the satisfaction of their accreditation body UKAS and no reprocessing was required.

The results of all round results from 2021 and 2022 were 100% demonstrating satisfactory performance of the laboratory.

The monitoring was largely carried out in adherence with the 2022 Diffusion Tube Monitoring Calendar.

### Diffusion Tube Annualisation

All diffusion tube monitoring locations within North Lanarkshire Council recorded data capture of 75% therefore it was not required to annualise any monitoring data.

### Diffusion Tube Bias Adjustment Factors

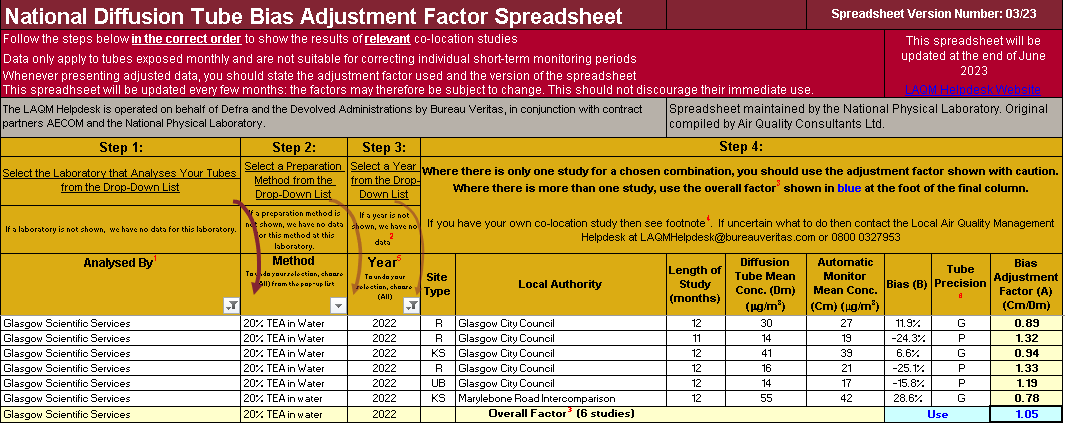
North Lanarkshire Council have applied national bias adjustment factor of 0.87 to the 2022 monitoring data. A summary of bias adjustment factors used by North Lanarkshire Council over the past five years is presented in [Table C.1](#_bookmark2).

The bias adjustment factor for the GSS laboratory and method are listed in the Spreadsheet of Bias Adjustment Factors v.03/23 (Ref.2) is 0.87. This is calculated from the average of the three co-location studies with Good Precision and is consistent with the approach used in previous APRs.

### Table C.1 – Bias Adjustment Factor

|  |  |  |  |
| --- | --- | --- | --- |
| **Year** | **Local or National** | **If National, Version of National Spreadsheet** | **Adjustment Factor(1)** |
| 2022 | National | 03/23 | 0.87 |
| 2021 | National | 06/22 | 0.97 |
| 2020 | National | 06/21 | 0.89 |
| 2019 | National | 06/20 | 0..87 |
| 2018 | National | 03/19 | 0.92 |

**(1) Adjustment Factor was derived from using the average of the diffusion tubes with Good Precision only**



### Figure C.1 – Glasgow Scientific Services - National Average Bias Adjustment Factor Spreadsheet v.03/23

Notes : A local bias adjustment factor of 0.87 has been used to bias adjust the 2022 diffusion tube results. This has been calculated by averaging the bias adjustment factors from three co-location studies with good precision (Average of 0.89, 0.94. 0.78 = 0.87)

### NO2 Fall-off with Distance from the Road

No diffusion tube NO2 monitoring locations within North Lanarkshire required distance correction during 2022.

## QA/QC of Automatic Monitoring

Automatic monitoring of NOx, PM10 and PM2.5 is completed within North Lanarkshire Council using Chemiluminescence and FIDAS (PM10 and PM2.5) analysers. All data is available in real-time and, following data dissemination, is ratified by Ricardo Energy and Environment to AURN standards.

The data from the automatic monitoring stations is checked by the Local Site Operator (in- house member of staff).

Live and historic data are available from [https://www.scottishairquality.scot](https://www.scottishairquality.scot/)

Details of the calibration, servicing etc arrangements for the automatic air stations in North Lanarkshire are as follows.

* Automatic analysers are set up to calibrate themselves every 72 hours.
* All automatic analysers are audited by Ricardo every six months.
* Analysers are serviced by the maintenance contractor for the equipment every six months. Maintenance contracts are in place for the analysers to ensure this. The maintenance contract also covers attending faults as necessary.
* The NLC in-house LSO maintains the air station network in terms of any required filter changes, gas ordering, initial fault-funding and reporting of faults as necessary. They also carry out visual checks on the monitors and ancillary equipment enclosures etc.

### PM10 and PM2.5 Monitoring Adjustment

All PM10 and PM2.5 monitoring within North Lanarkshire is carried out using the FIDAS monitoring technique. All correction factors applied to monitoring data of PM10 and PM2.5 within North Lanarkshire are detailed in the Annual Statistics Report.

### Automatic Monitoring Annualisation.

A laid out in section 7 of the LAQM Technical Guidance (TG22), where monitoring data capture is below 75% for the year, it is necessary to annualise the data.

Annualisation was required for the NO2 results from automatic monitoring site CM11 located at Adele Street, Motherwell as it had a data capture of 44%.

In accordance with Box 7-8 of the TG22 guidance, three continuous urban background and rural monitoring sites within a radius of 50 miles from CM11, with at least 85% data capture, were selected for the annualisation process.

The annualisation ration shown in Table C.2 was calculated by first taking the annual mean (AM) of each of the selected sites then dividing that by the period mean (PM) for the relevant months of data for which CM11 recorded data to obtain a ratio between the AM and PM for each site. The average of these AM/PM ratios is the annualisation ratio applied to the CM11 results.

Similarly, annualisation was required for PM10 concentrations from automatic monitoring site CM10 Kenilworth Drive, Airdrie as it had a data capture of 65%. Following the same process as outlined above, the annualised annual mean is shown in Table C.3.

### Table C.2 – Annualisation Summary NO2 (concentrations presented in µg/m3)

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Site ID** | **Annualisation Factor Glasgow Anderston** | **Annualisation Factor Glasgow Townhead** | **Annualisation Factor Bush Estate** | **Average Annualisation Factor** | **Raw Data Annual Mean** | **Annualised Annual Mean** | **Comments** |
| CM11 | 0.83 | 0.83 | 0.87 | 0.83 | 13 | 10.8 |  |

### Table C.3 – Annualisation Summary PM10 (concentrations presented in µg/m3)

| Site ID | Annualisation Factor Glasgow Anderston | Annualisation Factor Glasgow Townhead | Annualisation Factor Waulkmillglen Reservoir | Average Annualisation Factor | Raw Data Annual Mean | Annualised Annual Mean | Comments |
| --- | --- | --- | --- | --- | --- | --- | --- |
| CM10 | 1.13 | 0.98 | 0.77 | 0.96 | 10.5 | 10.1 |  |

# Glossary of Terms

|  |  |
| --- | --- |
| **Abbreviation** | **Description** |
| AQAP | Air Quality Action Plan - A detailed description of measures, outcomes, achievement dates and implementation methods, showing how the LA intends to achieve air quality limit values’ |
| AQMA | Air Quality Management Area – An area where air pollutant concentrations exceed / are likely to exceed the relevant air quality objectives. AQMAs are declared for specific pollutants and objectives |
| APR | Air quality Annual Progress Report |
| AURN | Automatic Urban and Rural Network (UK air quality monitoring network) |
| Defra | Department for Environment, Food and Rural Affairs |
| DMRB | Design Manual for Roads and Bridges – Air quality screening tool produced by Highways England |
| FDMS | Filter Dynamics Measurement System |
| LAQM | Local Air Quality Management |
| NO2 | Nitrogen Dioxide |
| NOx | Nitrogen Oxides |
| PM10 | Airborne particulate matter with an aerodynamic diameter of 10µm (micrometres or microns) or less |
| PM2.5 | Airborne particulate matter with an aerodynamic diameter of  2.5µm or less |
| QA/QC | Quality Assurance and Quality Control |
| SO2 | Sulphur Dioxide |

# References

North Lanarkshire Council Air Quality Action Plan 2018-2021 North Lanarkshire Council Air Quality Action Plan 2023-2028 North Lanarkshire Council Annual Progress Report 2022