



North Lanarkshire Council Air Quality Action Plan

In fulfilment of Part IV of the
Environment Act 1995
Local Air Quality Management

2018 - 2021

Version Control

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Strategic Alignment
 Improve the health and care of communities
 Improve relationships with communities and the third sector
 Provide a safe and attractive environment that supports the wellbeing of communities

Consultation and Distribution Record

Consultation process	Stakeholder meetings, steering group and public consultation as described in clauses 4.1, 4.2 and Appendix A	
Stakeholders	Contacts identified for each service	
	NLC residents, employees and businesses within the Council's jurisdictional area; elected members; Scottish Government; Scottish Environment Protection Agency (SEPA); neighbouring local authorities; Strathclyde Partnership for Transport (SPT).	As per clauses 4.1, 4.2 and Appendix A
Distribution	As per clauses 4.1, 4.2 and Appendix A	

Change Record

Date	Insert date	Author	Insert name
Change made	No changes – new, draft document		

Executive Summary

This Air Quality Action Plan (AQAP) has been produced as part of our statutory duties required by the Local Air Quality Management framework. It outlines the action we will take to improve air quality in North Lanarkshire between 2018 - 2021.

This action plan replaces the previous action plan, which ran from 2013 to 2016. Projects delivered through the past action plan include:

- Improvements to NLC vehicle fleet
- Extensive provision of pool cars for use for Council business, including electric vehicles
- The introduction and continued implementation of the environmental fleet recognition scheme Eco Stars
- Significant awareness-raising of air quality issues among the public, particularly among school children
- Planning guidance for developers was produced and awareness raising among planners in both development control and strategic planning as well as other relevant Council departments was undertaken

Air pollution is associated with a number of adverse health impacts. It is recognised as a contributing factor in the onset of heart disease and cancer. Additionally, air pollution particularly affects the most vulnerable in society: children and older people, and those with heart and lung conditions. There is also often a strong correlation with equalities issues, because areas with poor air quality are also often the less affluent areas^{1,2}.

The annual health cost to society of the impacts of particulate matter alone in the UK is estimated to be around £16 billion³. North Lanarkshire Council is committed to reducing the exposure of people in North Lanarkshire Council to poor air quality in order to improve health.

We have developed actions that can be considered under several broad topics:

- Alternatives to private vehicle use
- Environmental permits

¹ Environmental equity, air quality, socioeconomic status and respiratory health, 2010

² Air quality and social deprivation in the UK: an environmental inequalities analysis, 2006

³ Defra. Abatement cost guidance for valuing changes in air quality, May 2013

- Freight and delivery management
- Policy guidance and development control
- Promoting low emission plants;
- Promoting low emission transport
- Promoting travel alternatives
- Public information
- Transport planning and infrastructure
- Traffic management
- Vehicle fleet efficiency

Based on input from public and stakeholder consultations and a cost benefit analysis exercise our priorities are to lead by example in continuing to:

- improve engine emission standards of the Council's vehicle fleet and that of our partners
- work to improve bus provision within North Lanarkshire
- ensure air quality is appropriately considered in strategic planning policy and through the development planning process
- strive to maximise modal shift away from private vehicles onto sustainable travel options for both Council employees and the wider population of North Lanarkshire.

In this AQAP we outline how we plan to effectively tackle air quality issues within our control. However, we recognise that there are a large number of air quality policy areas that are outside of our influence (such as vehicle emissions standards agreed in Europe), but for which we may have useful evidence, and so we will continue to work with regional and central government on policies and issues beyond North Lanarkshire Council's direct influence.

Responsibilities and Commitment

This AQAP was prepared by the Environmental Health Department of North Lanarkshire Council with the support and agreement of the a number of officers and departments within the council, including Protective Services, Roads and Transportation, Fleet and Transport, Planning and Enterprise and Housing Resources.

This AQAP is being submitted in draft format to the Scottish Government and SEPA, and to internal departments for review. Once this review process is complete the action plan will be presented and approved by Full Council prior to publication and being made publicly available.

This AQAP will be subject to an annual review, appraisal of progress and reporting to the Council's infrastructure Committee as appropriate. Progress each year will be reported in the Annual Status Reports (ASRs) produced by North Lanarkshire Council, as part of our statutory Local Air Quality Management duties.

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1. Introduction

This report outlines the actions that North Lanarkshire Council will deliver between 2018-2021 in order to reduce concentrations of air pollutants and exposure to air pollution; thereby positively impacting on the health and quality of life of residents and visitors to the North Lanarkshire Council area.

This Air Quality Action Plan covers all four of North Lanarkshire Council's AQMAs, namely Motherwell Town Centre, Chapelhall, Coatbridge and Croy, however greater emphasis is placed on the first three AQMAs on the list, as they are broadly similar with the principal source of air pollution being road traffic emissions. The fourth AQMA, Croy, differs in that the main source of air pollution in this AQMA is in relation to the adjacent quarry and levels at this location have been consistently below the objective in recent years. As such, it is felt that this AQMA is likely to be revoked at some point during the lifetime of this Action Plan and consequently measures specific to this AQMA have not been included. Clearly though, the broad-based, Council-wide measures that are contained within the Action Plan will also benefit air quality within the Croy AQMA.

The Action Plan has been developed in recognition of the legal requirement on the local authority to work towards National Air Quality Strategy (NAQS) objectives under Part IV of the Environment Act 1995 and relevant regulations made under that part and to meet the requirements of the Local Air Quality Management (LAQM) statutory process.

This Plan will be reviewed every five years at the latest and progress on measures set out within this Plan will be reported on annually within North Lanarkshire Council's air quality Annual Progress Report.

2. Summary of Current Air Quality in North Lanarkshire Council

The following sections provide a summary of local air quality conditions in North Lanarkshire up until the end of 2017. Further detail is provided the Annual Progress Report.

2.1 Introduction

Air quality in North Lanarkshire is monitored under the Local Air Quality Management (LAQM) process, which serve to fulfil requirements set out in Part IV of the Environment Act (1995) and the relevant Policy and Technical Guidance documents.

The LAQM process compels all local authorities to assess air quality and determine whether or not air quality objectives are being met within their areas. If an exceedance is predicted, the local authority must put in place an Air Quality Action Plan (AQAP) and declare an Air Quality Management Area (AQMA). This acts to highlight the measures that will be put in place to meet air quality objectives. Monitoring is taken place at specified sites in the local authority area, using automatic monitoring sites and diffusion tubes to measure concentrations of air pollutants.

The main pollutants covered under the Air Quality Objectives in Scotland are Particulate Matter (PM₁₀), Particulate Matter (PM_{2.5}) and nitrogen dioxide (NO₂). Pollutant sources mainly come from road traffic, but also from industrial, commercial, domestic and other transport.

The air quality objectives are set for the purpose of protecting human health, vegetation and ecosystems from certain harmful atmospheric pollutants. The Scottish objectives take account of the EU limit values and are either effectively identical, or more stringent. The objectives applicable to this study are shown in Table 1.

Table 1 – National Air Quality Strategy (NAQS) Objectives included in Regulations for the purpose of Local Air Quality Management in Scotland applicable to North Lanarkshire AQAP

Pollutant	Concentration	Measured as
Nitrogen dioxide (NO ₂)	200 µg/m ³ not to be exceeded more than 18 times a year	1-hour mean
	40 µg/m ³	Annual mean
Particulate material (PM ₁₀)	50 µg/m ³ , not to be exceeded more than 7 times a year	24-hour mean
	18 µg/m ³	Annual mean
Particulate material (PM _{2.5})	10 µg/m ³	Annual mean

As a consequence of measured and predicted exceedances of the NAQS annual mean objective for PM₁₀ three AQMAs were declared in North Lanarkshire Council in 2005, in Chapelhall; Coatbridge; and Motherwell. The AQMA in Chapelhall has subsequently been amended to include for NO₂, and the Coatbridge AQMA has been amended geographically. A subsequent AQMA has been declared in Croy, however this does not form part of this AQAP.

An AQAP was published in 2010, and subsequently updated in 2013. The main issue identified within the plan was that the largest contributing factor to air pollution was road traffic within the AQMAs. It was also suggested that the then proposed M8 Completion project (now completed) would degrade air quality in certain areas, as well as improving some.

In 2016, the annual mean objective for PM₁₀ was not exceeded in North Lanarkshire, with the highest annual mean being 15.4 ug/m³ at the Chapelhall monitoring site. For NO₂, the annual mean at automatic monitoring sites remained below the annual mean objective, with the only exceedance at diffusion tube 61 (Central Way Eastbound, Cumbernauld), a location with no relevant public exposure.

Measured concentrations in 2017 are higher, although concentrations typically remain below NAQS objective levels. Further discussion on measured concentrations is provided in the following sections.

2.2 Background Air Quality

Ambient air quality levels across North Lanarkshire can be illustrated by reference to background concentrations, defined on a 1 km grid square basis by Scottish Government. Predicted background PM₁₀ and NO₂ concentrations are presented in Figures 1 and 2 respectively.

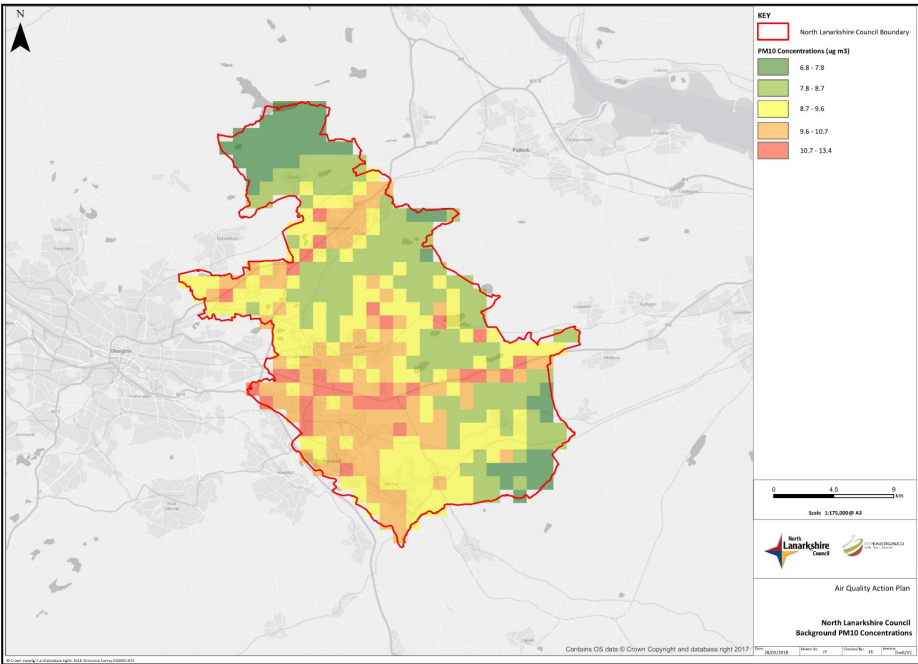


Figure 1 : North Lanarkshire Council Background PM10 Concentrations

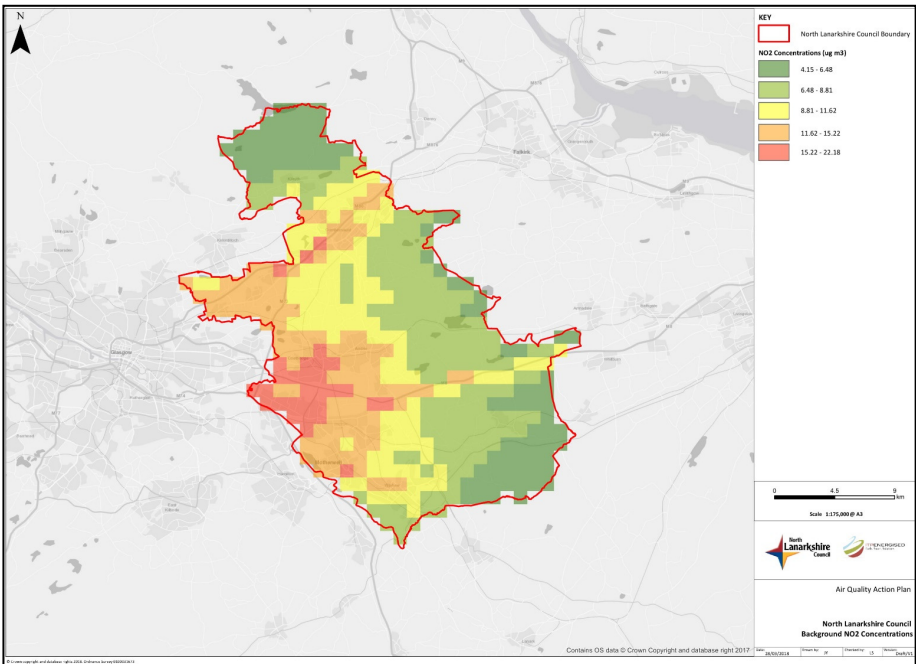


Figure 2 : NLC Background NO2 Concentrations

The above figures show background concentrations for the North Lanarkshire local authority area are shown below for PM₁₀ and NO₂. The values are taken from the 2017 LAQM background map data⁴, and range from 6.8 to 13.4 µg/m³ for PM₁₀ and 4.15 to 22.18 µg/m³ for NO₂. These ranges are below the annual objective for both pollutants. From the background concentration maps, it is clearly demonstrated that areas of issue, highlighted in red, are road traffic sources. The areas of highest PM₁₀ and NO₂ concentrations are major road networks, such as the M8 and M80.

Rural background pollutant concentrations were taken from the Glasgow Waulkmillglen automatic analyser as a baseline, which allowed for context via a comparison between the AQMA background concentrations (which are located in an urban setting) and a rural concentration. It is noted that 2017 values have not been adjusted for bias.

The measured rural concentrations can be considered to represent the ‘base’ condition within North Lanarkshire, without the effect of local anthropogenic activity.

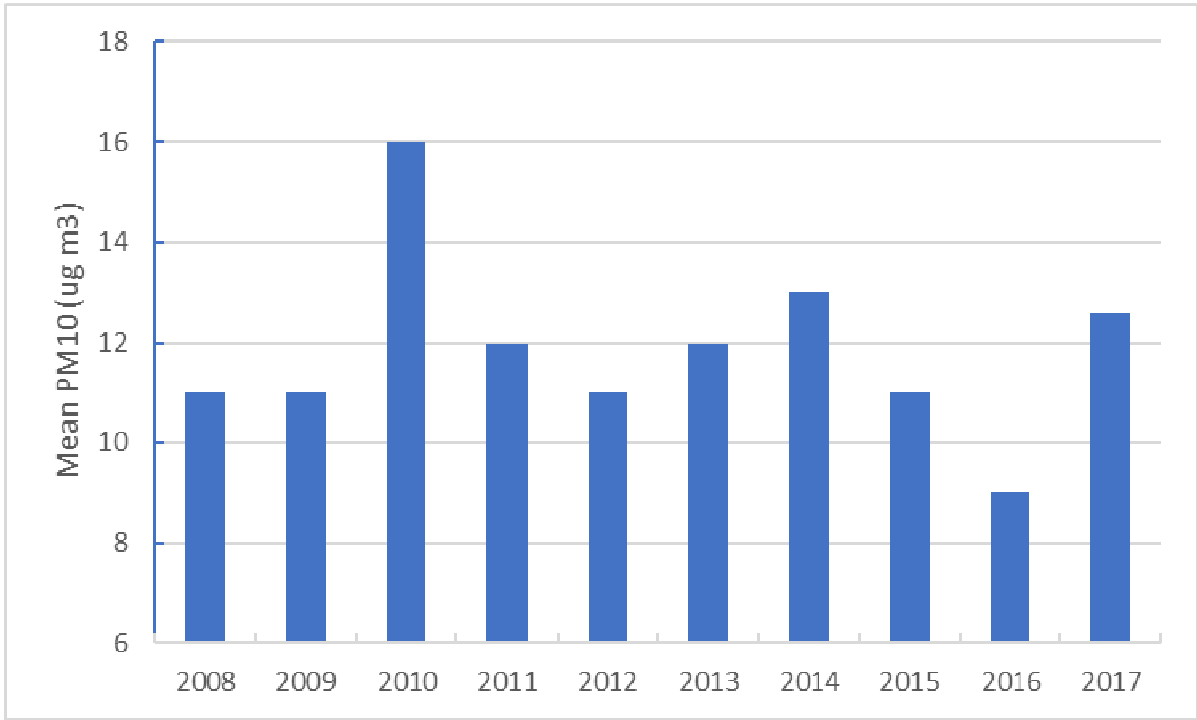


Figure 3 : Rural Background PM10 Concentrations Long Term Trends - Waulkmillglen

Figure 3 shows measured rural background PM₁₀ concentrations. Since 2008, concentrations have been mainly under 12 µg/m³, which a peak of 16 µg/m³ in 2010.

⁴ <https://laqm.defra.gov.uk/review-and-assessment/tools/background-maps.html>

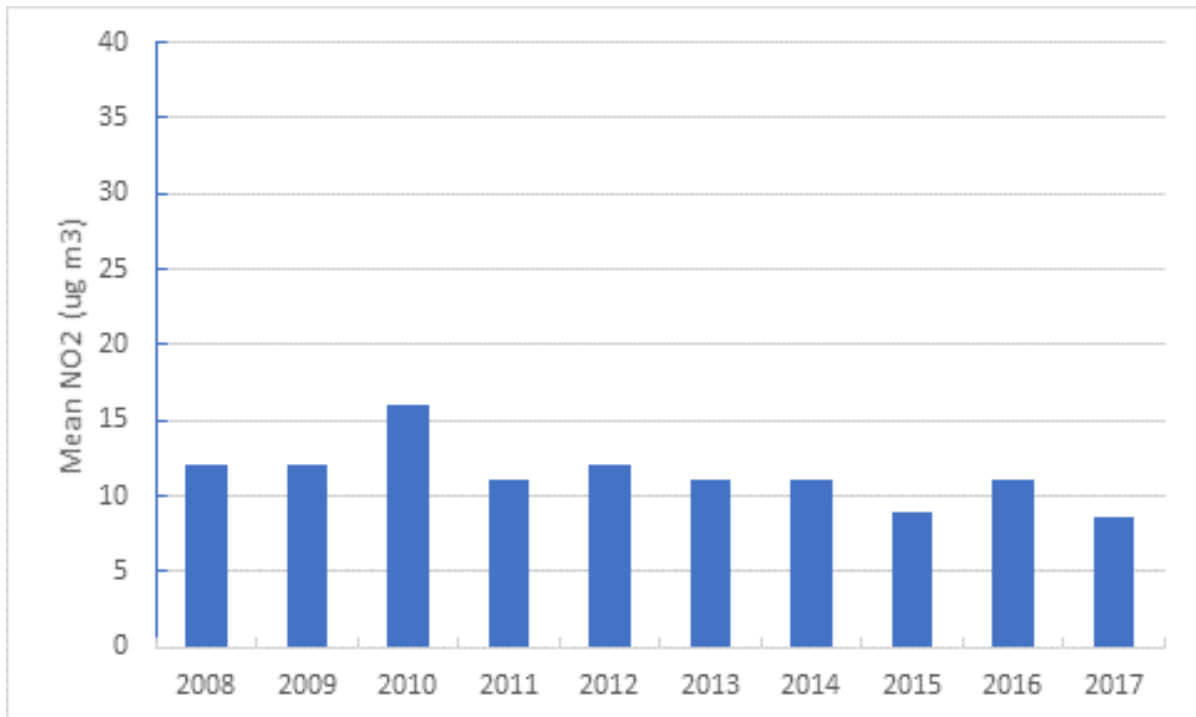


Figure 4 : Rural Background NO₂ Concentrations Long Term Trends - Waulkmillglen

Figure 4 shows background rural NO₂ concentrations. Since 2008, concentrations have been predominantly below the objective limit with the majority of years recording concentrations of below 12 µg/m³, with a peak of only 16 µg/m³ recorded in 2010.

2.3 Chapelhall

Long-term data from 2008 has been collected at monitoring sites in Chapelhall AQMA. The figures presented show the trend in pollutant concentrations over this period. It is noted that 2017 values have not been adjusted for bias.

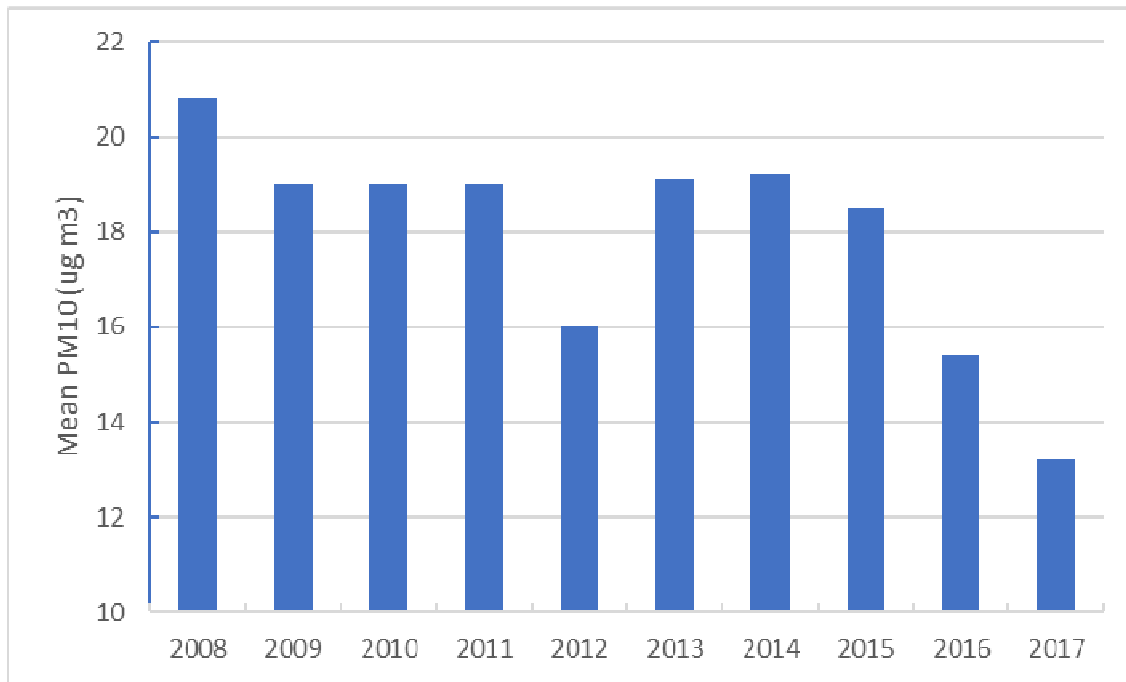


Figure 5 : Long Term Monitoring Trend PM10 Chapelhall Automatic Analyser

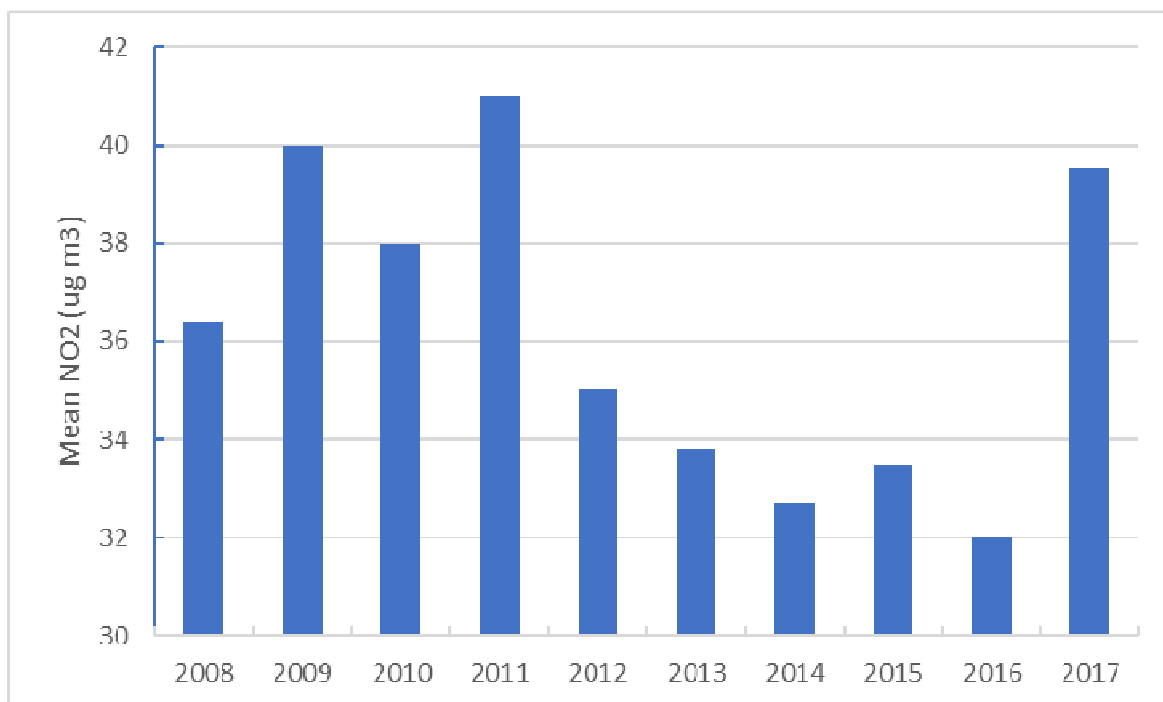


Figure 6 : Long Term Monitoring Trend NO2 Chapelhall Automatic Analyser

Long-term monitoring trends in PM₁₀ in Chapelhall show concentrations are consistently higher than the in rural background. However, rural background concentrations appear to remain relatively constant over the years, whereas concentrations in Chapelhall are decreasing post-2011 to the point where 2017 concentrations are at a similar level to the rural background. This trend can also be seen in NO₂ concentrations. In Chapelhall, annual NO₂ concentrations appears to have decreased post 2011, with the exception of 2017, which

saw a spike to just below the annual objective. The concentrations of NO₂ in Chapelhall are also higher than those in the rural background, in some cases by more than double, most recently in 2017 by almost four times. The increase in concentrations in 2017 co-incides with the completion and opening of the M8.

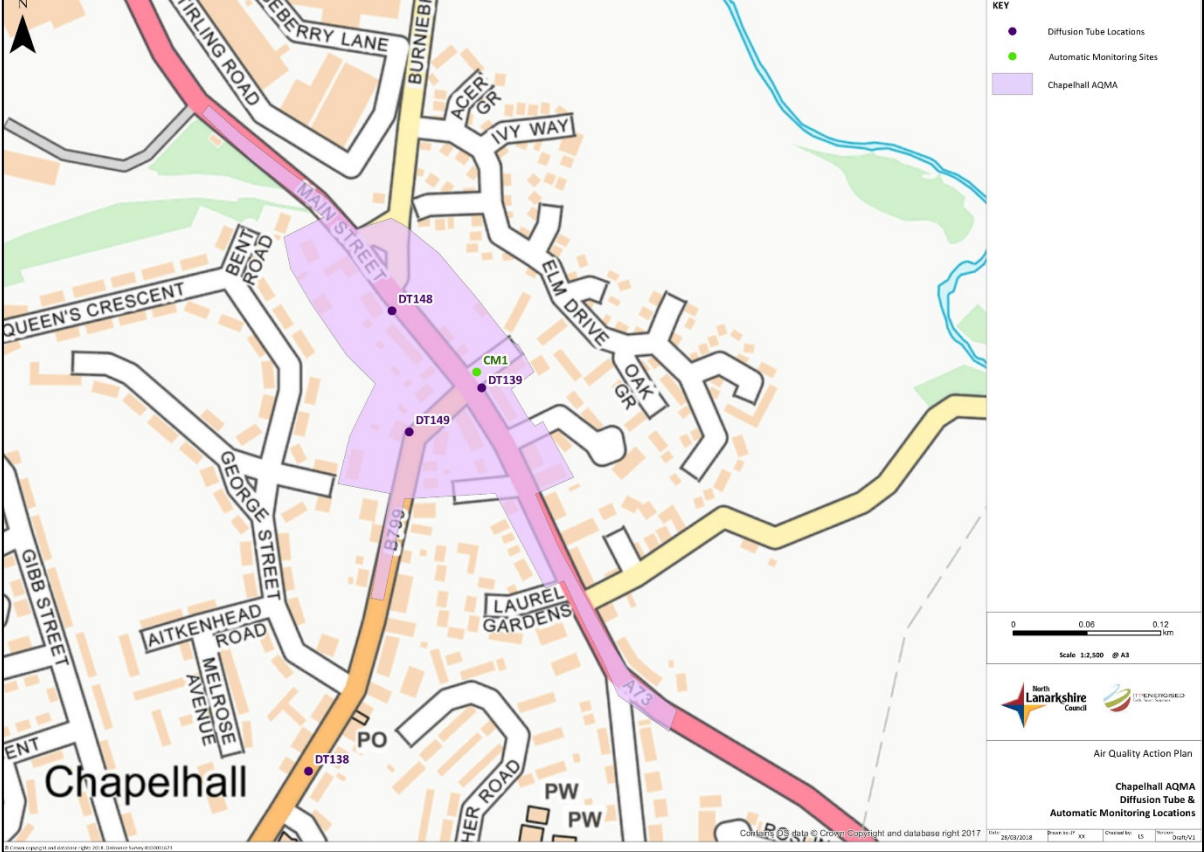


Figure 7 : Map of Monitoring Locations and Chapelhall AQMA Boundary - Diffusion Tube Locations and Automatic Monitor

Figure 7 shows the locations of monitoring equipment and boundary of Chapelhall AQMA. The AQMA contains a number of properties at the junction of Main Street and Lauchope Street. Within the AQMA there is one automatic monitoring site monitoring PM₁₀ and NO₂ and three diffusion tubes measuring NO₂, with one in the immediate surrounding area.

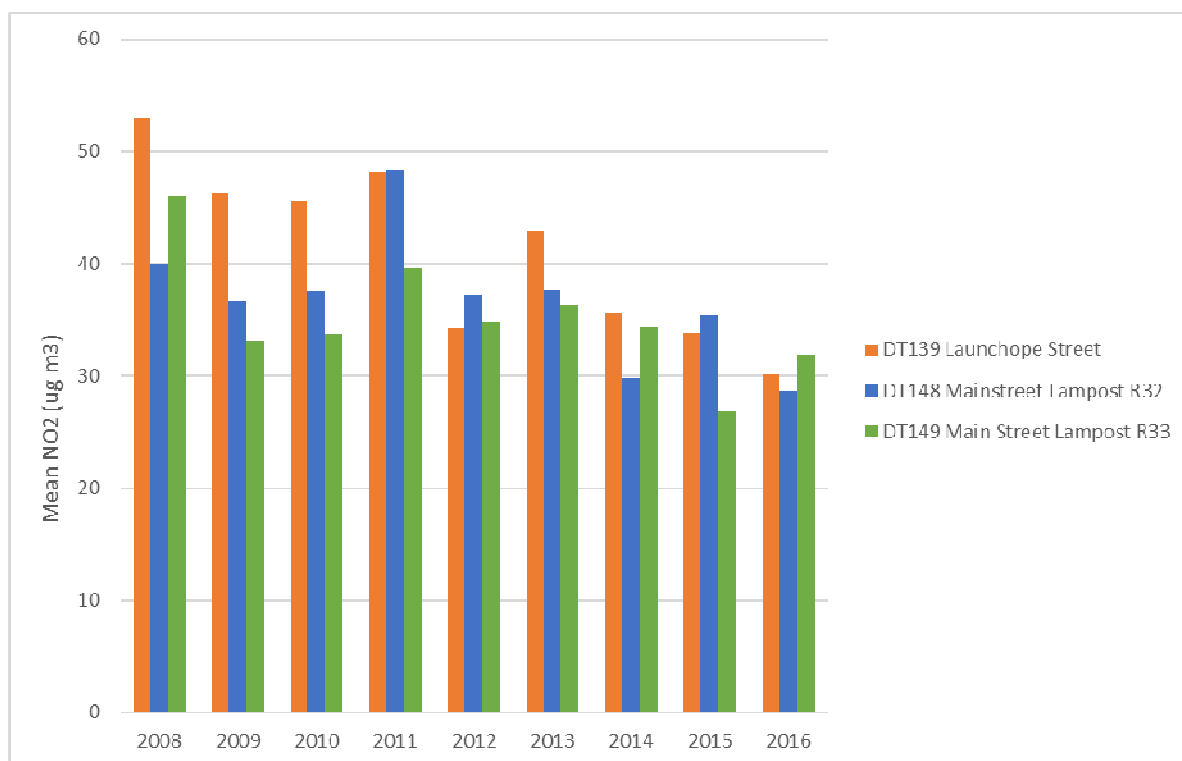
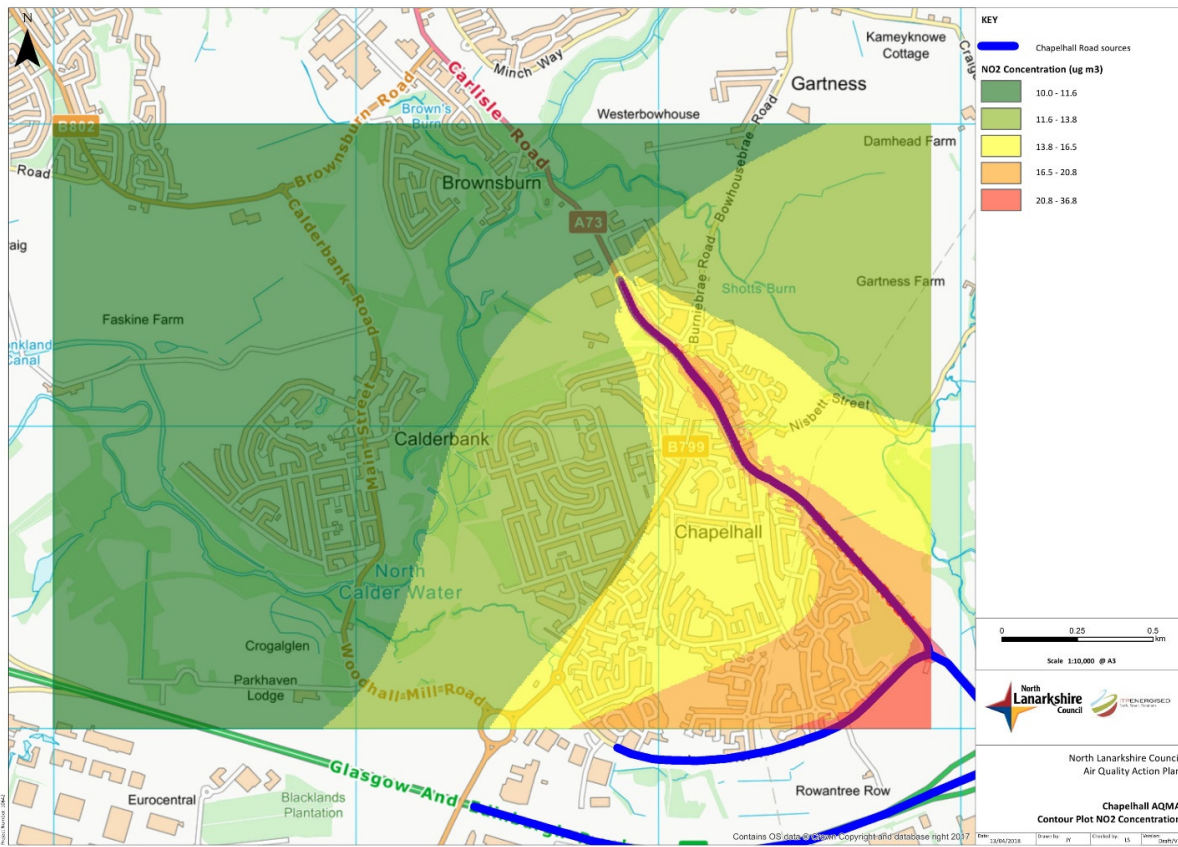


Figure 8 : Long Term Monitoring Trend NO₂ Diffusion Tube Chapelhall AQMA

Overall, the long-term trends in NO₂ concentrations appear to be decreasing steadily at diffusion tubes in the Chapelhall AQMA after a spike in 2011. There was also a spike in NO₂ concentration in 2011, which differs from the long-term trends for PM₁₀ in Chapelhall, which remained constant through 2011. However, both pollutants see a decrease in concentrations post 2011.

As noted in the previous sections it is evident that the main pollutant sources within the Chapelhall area are road traffic sources, as such a high level modelling exercise was undertaken to produce contour plots of the PM₁₀ and NO₂ concentrations as a result of road traffic.

Figure 9 : Map of Pollutant Contour Plots Chapelhall



The contour plots indicate the influence of emissions from road traffic on the local road network on ambient concentrations. The highest concentrations of pollutants are recorded close to the roadside with concentrations dropping off the further from the road source.

2.4 Coatbridge

Long-term data diffusion tube monitoring data has been collected at monitoring sites within the Coatbridge AQMA. The figures presented show the trend in pollutant concentrations over an eight and nine year period. It is noted that 2017 values have not been adjusted for bias.

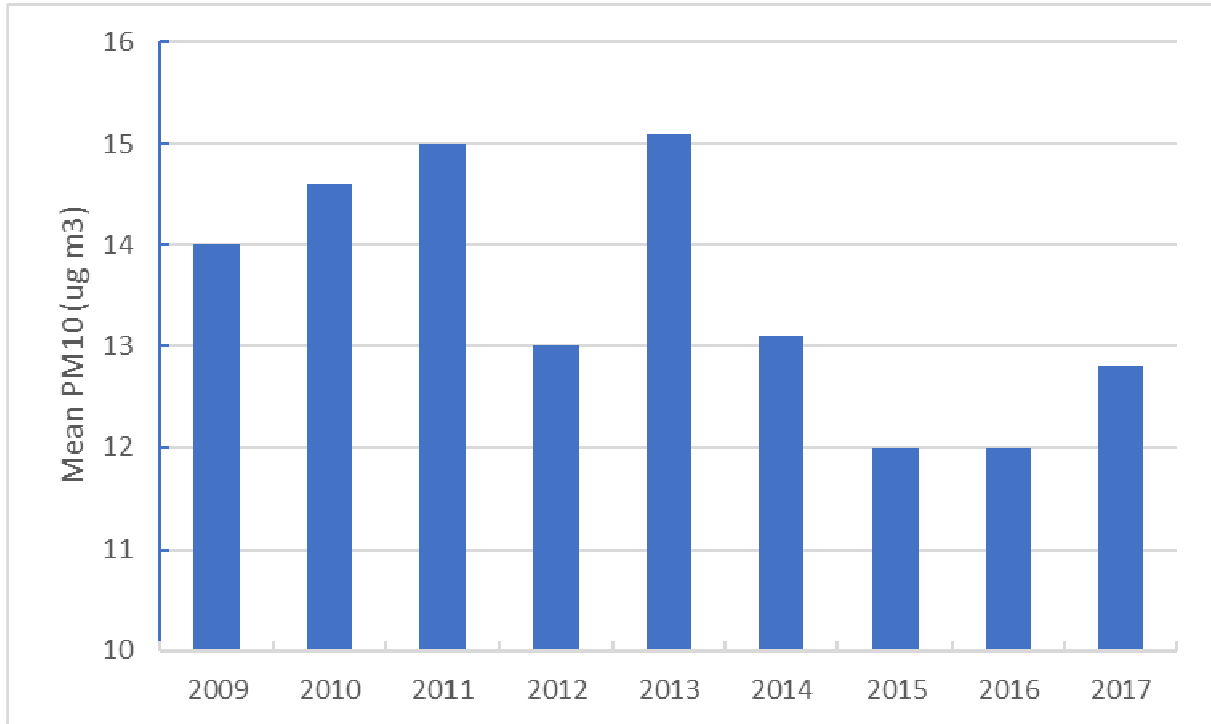


Figure 10 : Long Term Monitoring Trend PM10 Coatbridge Whifflet Automatic Analyser

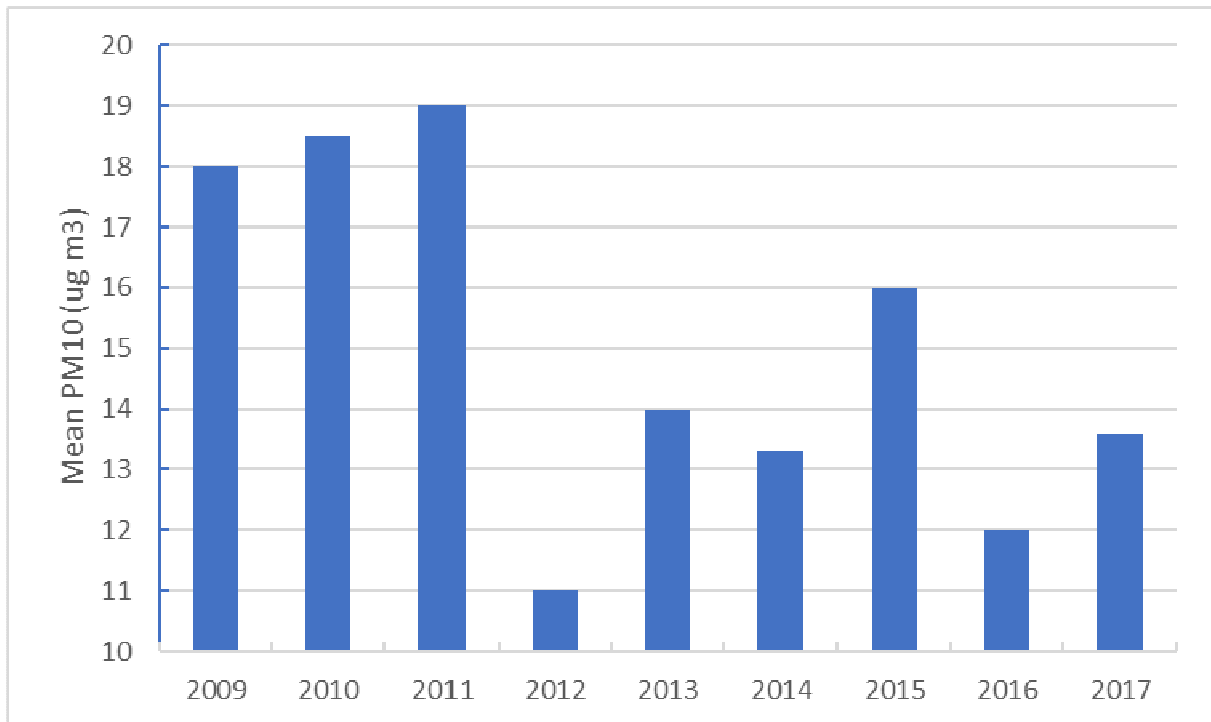


Figure 11 : Long Term Monitoring Trend PM10 Coatbridge Shawhead Automatic Analyser

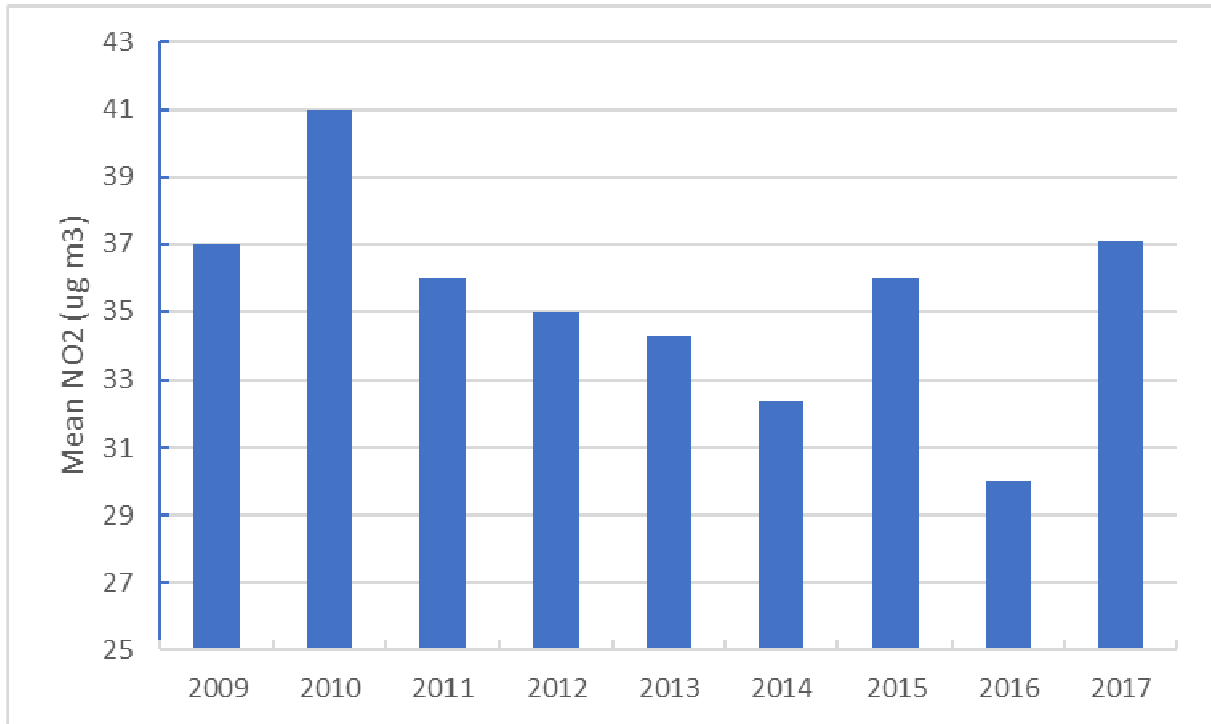


Figure 12 : Long Term Monitoring Trend NO2 Coatbridge Shawhead Automatic Analyser

Unlike Chapelhall AQMA, Coatbridge AQMA trends appear to follow the long-term trends of the rural background concentrations for PM₁₀. Both appear to fluctuate between 10-12 ug/m³, with Coatbridge seeing this trend emerge after 2011. Coatbridge concentrations of NO₂ show a decline from 2011 to 2016, with a spike in 2015 and 2017 (as was also noted in Chapelhall). Concentrations remained above 30 ug/m³, which differs from the trends seen in the rural background measurements, where NO₂ concentrations remained low in 2015 and 2017.

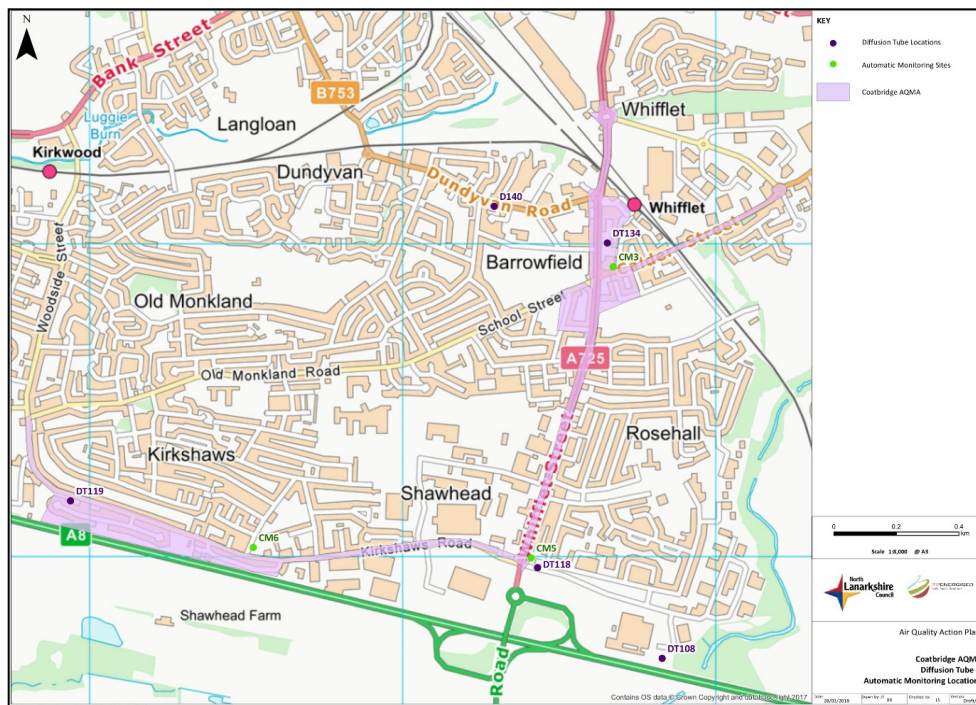


Figure 13 : Map of Monitoring Locations and Coatbridge AQMA Boundary - Diffusion Tube Locations and Automatic Monitor

Coatbridge AQMA stretches from Whifflet Street to Shawhead roundabout, and as of 2015 includes Kirkshaws Road. It contains one automatic monitoring site at Whifflet measuring PM₁₀, however, there are two further automatic monitoring sites directly adjacent to the AQMA boundary, which measure PM₁₀ and NO₂. There are two diffusion tubes for NO₂ within the Coatbridge AQMA, with a further 3 in the immediate surrounding area.

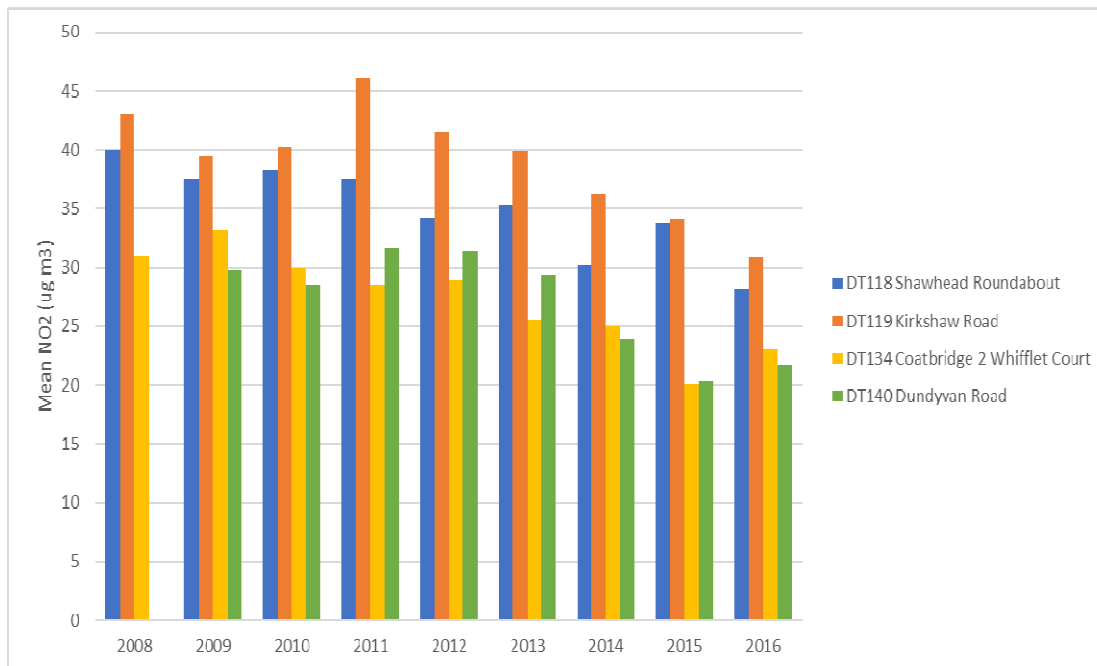


Figure 14 : Long Term Monitoring Trend NO2 Diffusion Tube Coatbridge AQMA

Like Chapelhall, the overall long-term trend in measured NO₂ concentrations at diffusion tube sites within the Coatbridge AQMA is of steady reduction. A spike can be seen in 2011, which is consistent with the PM₁₀ concentration trends seen throughout Coatbridge.

2.5 Motherwell

Motherwell AQMA encompasses Motherwell Town Centre. There are two automatic monitoring sites, Menteith Road, monitoring PM₁₀ and as of 2015, Civic Centre which monitors PM₁₀ and NO₂. Motherwell AQMA contains four diffusion tubes for NO₂ with a further one in the immediate surrounding area.

Long-term data from 2008 has been collected at monitoring sites in the Motherwell AQMA. The figures presented show the trend in pollutant concentrations over this period. It is noted that 2017 values have not been adjusted for bias.

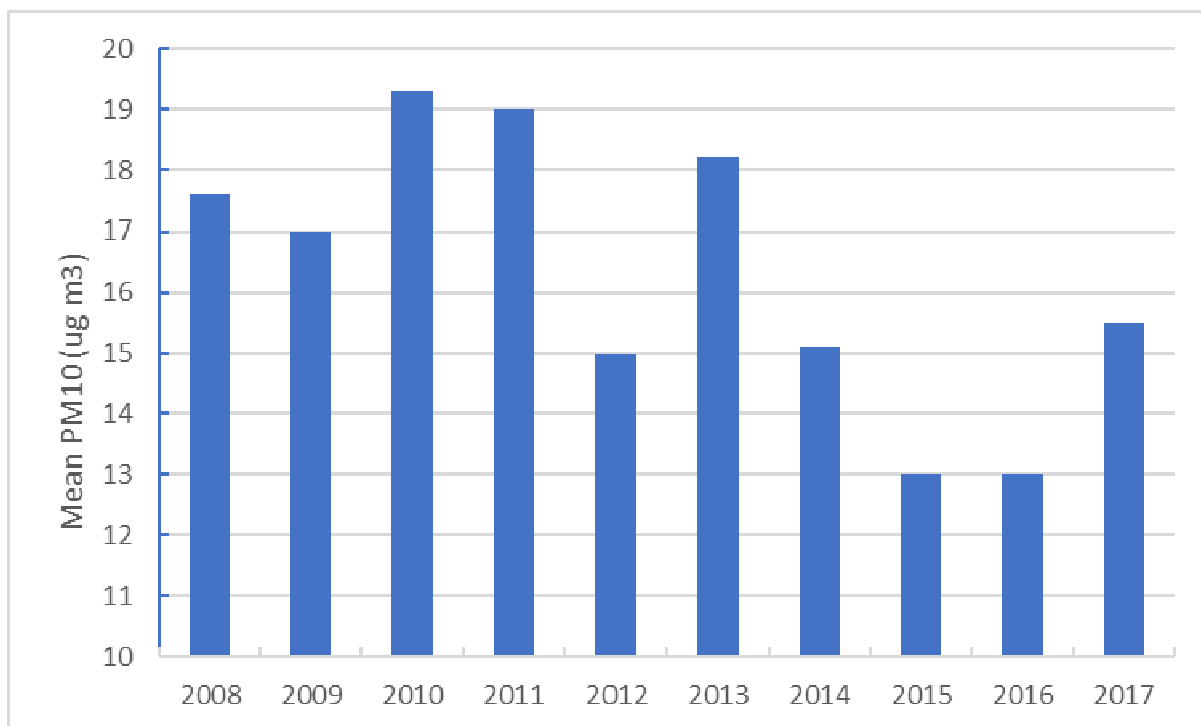


Figure 15 : Long Term Monitoring Trend PM10 Motherwell Menteith Automatic Analyser
Trends in measured PM₁₀ concentrations taken from the Motherwell Menteith monitoring site show a drop in concentrations post 2011, followed by a spike in 2013, with a reduction seen again in the years following. A spike can also be seen in 2017 (as was noted in both Chapelhall and Coatbridge); however, concentrations remained below the annual objective. This does not follow the relatively consistent trend in PM₁₀ concentrations seen in the rural background long-term measurements.

There is one automatic monitoring site recording NO₂ within the Motherwell AQMA, however this site was only established in 2015 and no data is yet available for analysis. The only NO₂ monitoring available for review is undertaken by diffusion tubes and is detailed below.

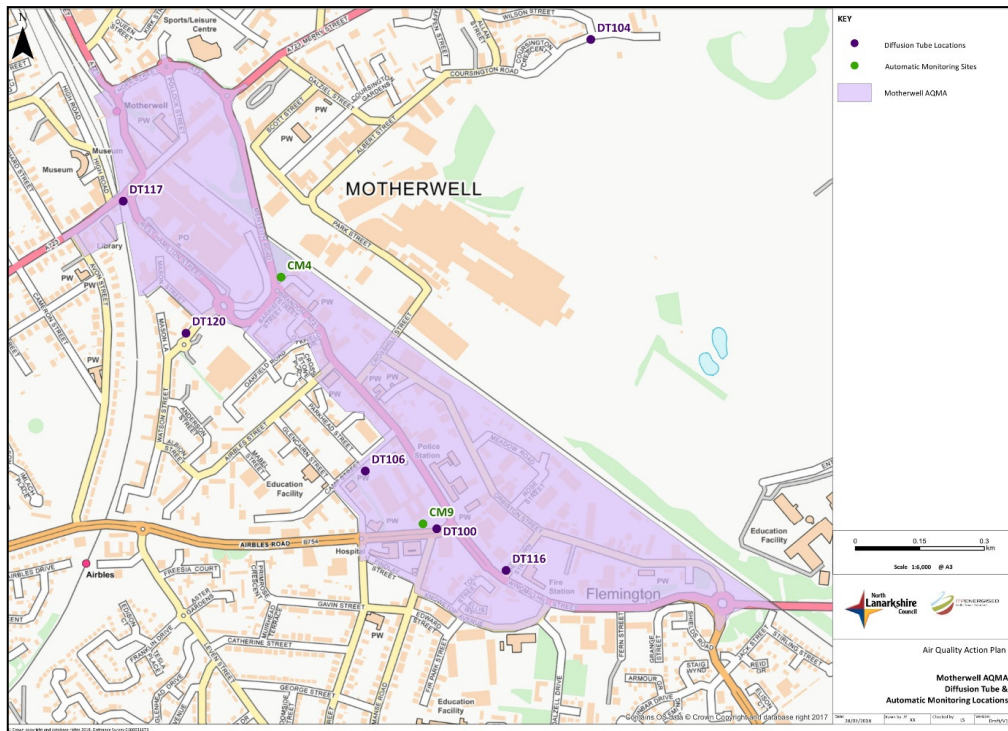


Figure 16 : Map of Monitoring Locations and Motherwell AQMA Boundary - Diffusion Tube Locations and Automatic Monitor

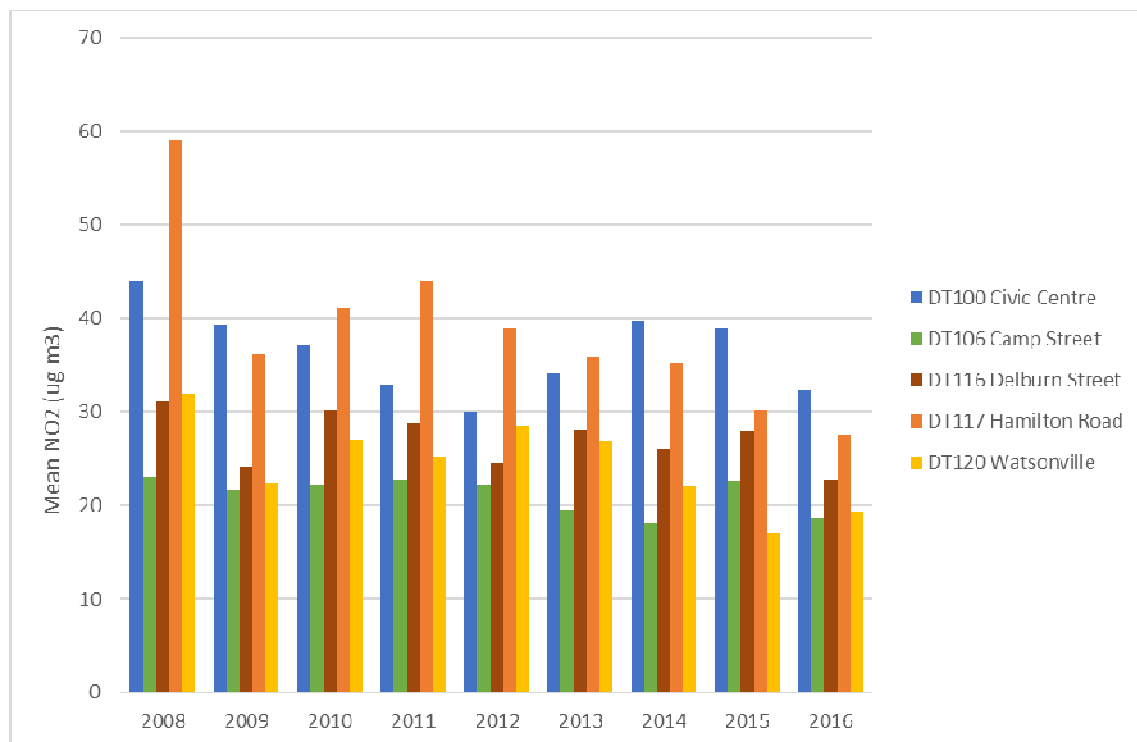


Figure 17 : Long Term Monitoring Trend NO2 Diffusion Tube Motherwell AQMA

As with the Chapelhall and Coatbridge AQMAs, Motherwell diffusion tube NO₂ concentrations show a decreasing long-term trend from 2008 to 2016, with some fluctuation in 2011 and 2014. This is similar to the long-term trends seen in Motherwell in PM₁₀, which also fluctuated in 2011, followed by a decline.

Contour plots of predicted ambient PM₁₀ and NO₂ concentrations within the Motherwell AQMA are presented in Figures 18 and 19 respectively. The contour plots indicate the influence of the road network on ambient concentrations. The effect of diffuse NO₂ emissions is also clearly demonstrated within the contour plots.

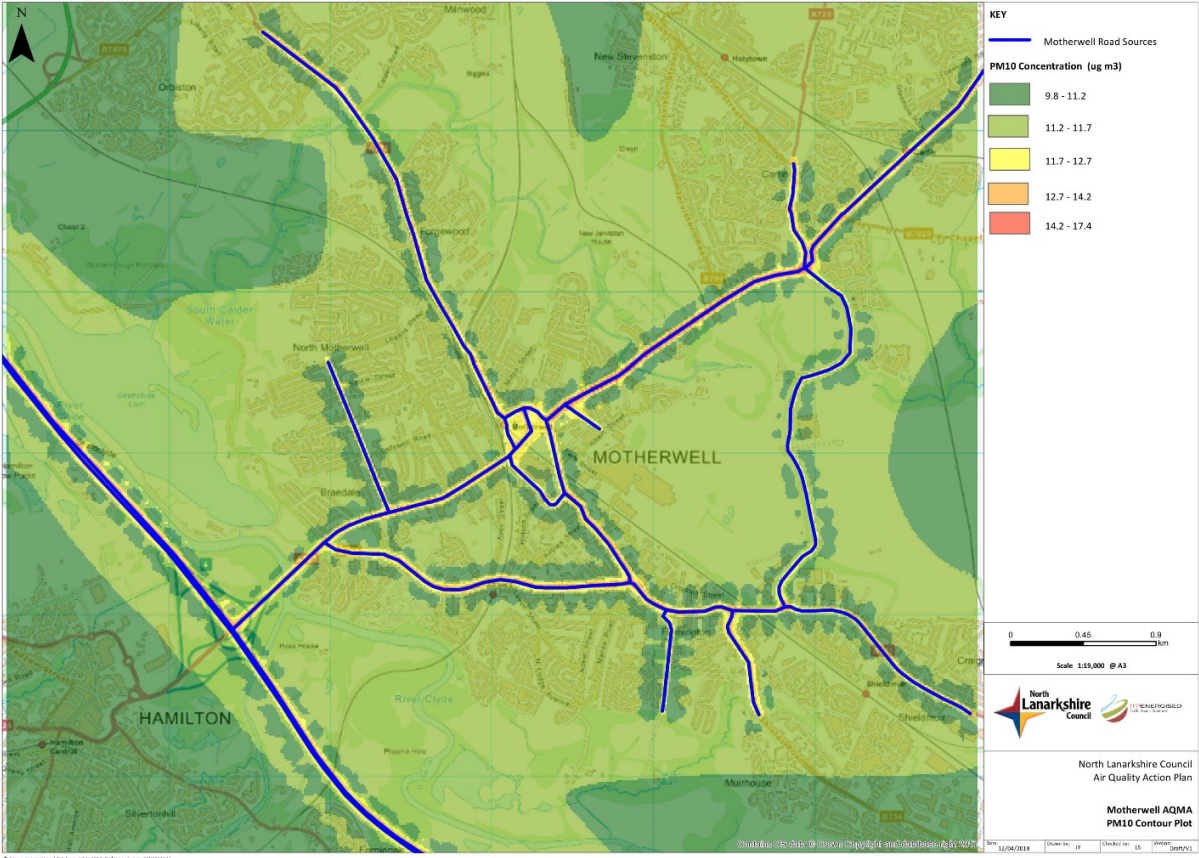


Figure 18 : Map of PM10 Contour Plots Motherwell

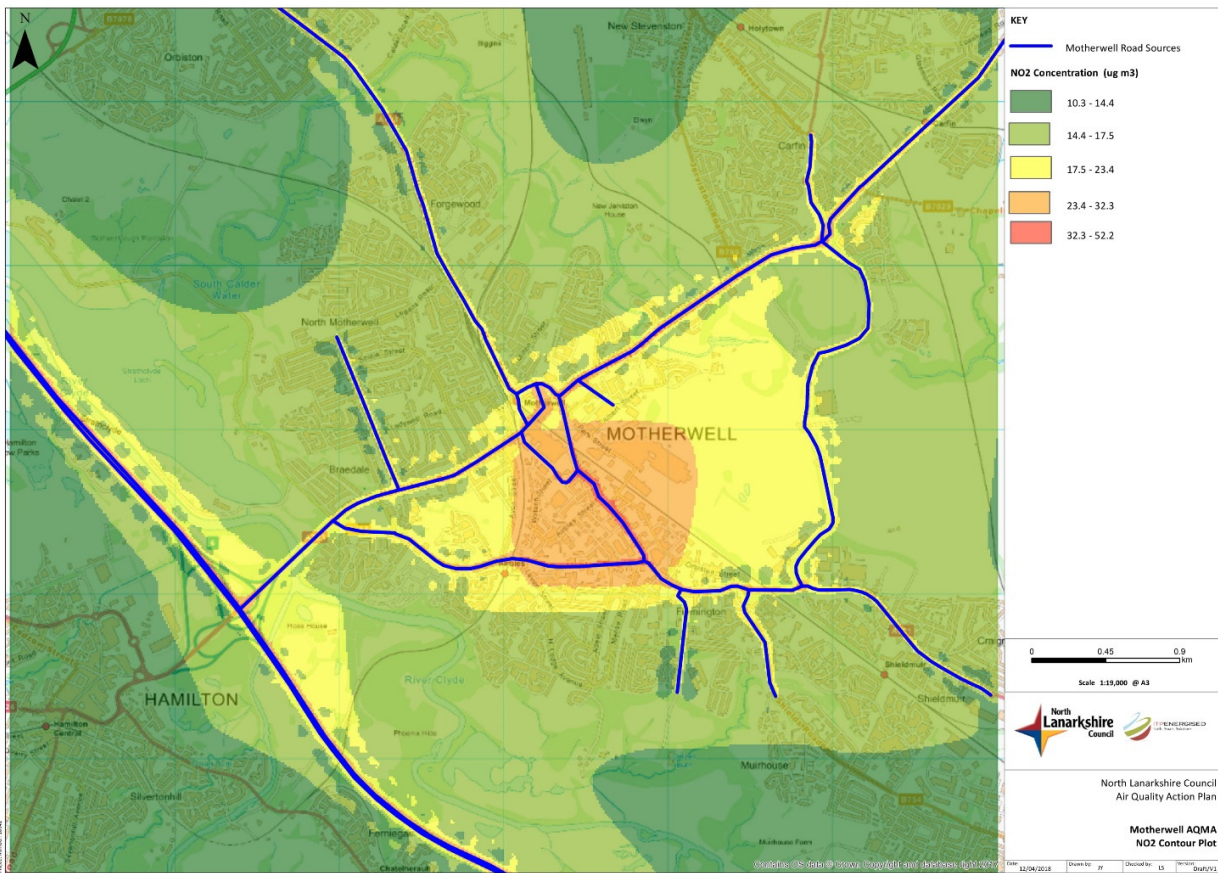


Figure 19 : Map of NO2 Contour Plots Motherwell

3. North Lanarkshire Council’s Air Quality Priorities

A wide range of factors, including other policies and plans being pursued by the Council as well as other parties, can influence air quality in North Lanarkshire. Development also has an impact on air quality throughout the district. This chapter outlines policies, plans and other known factors that have the potential to impact on air pollutant concentrations in North Lanarkshire.

3.1 North Lanarkshire Council Business Plan to 2020

The North Lanarkshire Business Plan to 2020 identifies the Council’s priority outcomes for the way ahead along with actions and measures of achievement. One service cannot deliver the outcomes; it requires inter-departmental working. This approach ensures effective partnership working which aims to result in successful outcomes for the Council. Listed below are the five priority outcomes:

- Improve economic opportunities and outcomes;
- Support all children to realise their full potential;
- Improve the health and care of communities;
- Improve relationships with communities and the third sector;
- Improve the council's resource base.

Below each of the five priorities are details on what the council aspires to deliver, the actions we need to take and what we as a council aim to achieve.

Improving air quality is a crucial element in achieving the priority outcomes of “Improving the health and care of communities”, and of “Improving relationships with communities and the third sector” in that, it supports the underpinning action to “provide a safe environment that supports the wellbeing of our communities”. This Action Plan also serves as an integral element informing the wider NLC ‘Environment Strategy’.

3.2 Planning and Policy Context

3.2.1 National Planning Framework

The planning system in Scotland comprises three main parts:-

- Development Plans – these set out how places should change and also set out the policies used to make decisions about planning applications;
- Development Management – this is the process whereby decisions about planning applications are made; and
- Enforcement – This process ensures development is carried out correctly and action is taken where development takes place without permission or when conditions are not followed.

Development plans set out what type of development should take place and where. This includes infrastructure developments such as roads, schools and parks. The Development Plan for North Lanarkshire currently comprises the Glasgow and Clyde Valley Strategic Development Plan and the North Lanarkshire Council Local Plan. The Strategic Development Plan sets out long-term development aspirations for the overall city region and the Local Plan will soon be replaced by a Local Development Plan, which will set out detailed development sites and policies to guide decisions on planning applications.

3.2.2 Clydeplan Strategic Development Plan

Clydeplan Strategic Development Plan sets out a spatial vision and development strategy for the Glasgow City Region. The Strategic Development Plan's vision is based on a "compact city model" which is aimed at minimising carbon and development footprints by focusing on a development corridor, which supports:-

- Centres – Glasgow city centre will be the city region's central connected hub and the employment, retail, civic and cultural core of the city region. It will be accessible from across the city region and further afield particularly by connections to Glasgow Airport and High Speed Rail connecting to London and other UK regions and centres. Support for other strategic centres to deliver their respective role and function.
- Regeneration – development directed to sustainable brownfield locations. Maximising the use of existing infrastructure and assets. Integrate land use with sustainable transport networks. Recycle previously development land. Minimal extension of the city regions built up area. Urban fabric renewed to carbon neutral standards.
- Economy – a rebalanced economy focused upon support for key economic sectors, the creation of high value jobs and the Strategic Economic Investment Locations. Investment in the Strategic Freight Transport Hubs. Delivery of the Glasgow and Clyde Valley City Deal. Investment in digital infrastructure. Low Carbon Infrastructure : heat and power networks, networks of waste management infrastructure, connected transport networks including active travel, green networks and sustainable drainage networks, which contribute to a low carbon economy and lifestyles.
- Placemaking – creating places, which are distinctive, safe, welcoming, adaptable, resource efficient and easy to move around. Communities reinvigorated by local activity. Places enable individual health and wellbeing and where Green Networks connect urban and rural areas.

3.2.3 North Lanarkshire Council Local Plan

The North Lanarkshire Local Plan at time of writing was adopted in 2012 and sets out detailed sites and policies for the development and use of land, as well as serving as a guide

for all day-to-day planning decisions. This Local Plan is in the process of being revised and the Council approved North Lanarkshire Development Plan in 2016. This is intended to be the land use planning strategy for North Lanarkshire.

The long-term aim is to increase sustainable growth and regeneration, and to improve places in support of the Corporate Vision. It is intended to be delivered in tandem with the Local Outcome Improvement Plan. Following publication, some 1,600 contributions were received and duly considered. In January 2018, the Council agreed to publish a Modified Local Development Plan, in order to take account of planning permissions granted since 2017 as well as factual and typographical errors and comments relating to layout and readability of the Plan.

The Council's Air Quality Management Areas (AQMAs) are specifically mentioned in the Thematic Policy protecting assets and Development Site Constraints. The AQMAs are shown on the Constraints map in the map book of the Local Development Plan published in January 2017, and will be shown in the Modified Local Development Plan when it is published later this year.

As part of the Plan's commitment to sustainability and the need to address climate change, this means that air quality has the same status as other potential constraints, such as Noise Management Areas (unspecified as yet), flood risk and contaminated land. Guidance will point to the need to consult with the Pollution Control and Public Health team within Regulatory Services and Waste Solutions.

3.3 Roads and Transportation Policies and Plans

3.3.1 National Transport Strategy

Scotland's National Transport Policy (Scotland's Transport Future) is currently in the process of being updated and is due for publication in 2020. Until then, the existing National Transport Policy (NTS) is still operating under the five high level objectives set out in the document, which aim to:-

- Promote economic growth by building, enhancing, managing and maintaining transport services, infrastructure and networks to maximise their efficiency;
- Promote social inclusion by connecting remote and disadvantaged communities and increasing the accessibility of the transport network;

- Protect our environment and improve health by building and investing in public transport which minimises emissions and consumption of resources and energy;
- Improve safety of journeys by reducing accidents and enhancing the personal safety of pedestrians, drivers, passengers and staff; and
- Improve journey integration by making journey planning and ticketing easier and working to ensure smooth connection between different forms of transport.

Three key strategic outcomes focus on achieving this vision:-

- Improve journey times and connections, to tackle congestion and the lack of integration and connections in transport which impact on our high level objectives for economic growth, social inclusion, integration and safety;
- Reduce emissions, to tackle the issues of climate change, air quality and health improvement which impact on our high level objective for protecting the environment and improving health; and
- Improve quality, accessibility and affordability, to give people a choice of public transport, where availability means better quality transport services and value for money or an alternative to the car.

There is a clear commitment to improving air quality and encouraging modal shift away from the car onto public transport and it is hoped that these aspirations will continue to be included in the new update to the NTS.

3.3.2 Regional Transport Strategy

Similar to the NTS, the Regional Transport Strategy (RTS) is being updated and will be published in 2020. The existing RTS is entitled “A Catalyst for Change, the Regional Transport Strategy for the West of Scotland 2008-2012” and this sets out Strathclyde Partnership for Transport’s (SPT) vision for transport, the goals they share with partner organisations, transport objectives, their shared priorities for transport and the indicators they will use to measure delivery. There are four key transport outcomes in the RTS – improved connectivity, access for all, reduced emissions and attractive, seamless, reliable travel. There are seven key objectives within the RTS and the one most relevant to air quality is

- Environment and Health – to improve health and protect the environment by minimising emissions and consumption of resources and energy by the transport system.

Although the RTS does not detail specific measures that will improve air quality in the AQMAs, there are “Indicators” and “Targets” to reduce the number of AQMAs and to reduce the carbon output by the transport sector. The RTS demonstrates a commitment to improving air quality as a result of improvements to public transport, and in particular, the rail network and service improvements as well as encouraging modal shift, promoting cleaner vehicles and restricting growth in traffic levels.

3.3.3 Local Transport Strategy

North Lanarkshire Council published its Local Transport Strategy (LTS) in 2010. The four key objectives identified in the document are:-

- To stimulate business and the economy and develop North Lanarkshire as an attractive place to invest, work and do business;
- To provide equal opportunities and enhance the choice, accessibility and availability of transport, particularly for those in deprived areas and for those with limited access to the transport network;
- To promote safety in the community and enhance actual and perceived safety when travelling on the transport network; and
- To protect North Lanarkshire’s natural and built environment and improve the health of its population.

The LTS identifies the need to improve access to employment, health and education by public transport, walking and cycling. Actions include enhancement of public transport links to stations serving the new Airdrie-Bathgate rail line, improving links to existing train services and lobbying for improved bus services in the evenings and weekends.

It also identifies the need to tackle the impacts of peak hour congestion and identifies a number of key actions to be taken against various transport-related issues, including road improvements, parking enhancements within town centres, softer measures aimed at reducing the demand for travel, and encouraging travel by means other than by car.

It is recognised that it is a number of years since the LTS was prepared, however, at the time of writing there are no immediate plans to update the document. This is part in relation to an ongoing exercise within the Council to review the overall number of plans and policies that it has and instead include them under the same overarching policy/strategy. Regardless of where the policy sits, as a stand-alone document or under an umbrella of various related policies the work associated with these strategies will still be undertaken by the relevant department within North Lanarkshire.

3.4 Carbon Management Plan 2017-2019

North Lanarkshire Council has prepared a Carbon Management Plan, which focuses on the council's projects and activities for the period 2017 to 2019. This document is the council's strategic commitment to plan to address, adapt and act in view of climate change evidence. The plan details the council's carbon emissions and compares emissions with previous plans. Compared with previous carbon management plans the council has made progress in reducing its greenhouse gas emissions, with the most significant reduction being achieved in waste and water. Also set is a target of a 9% reduction in carbon emissions to be achieved by 2019 using the 201/16 carbon footprint as the new baseline. The report also presents actions that have been introduced to assist in reducing the council's carbon footprint. Actions detailed that have a clear link to air quality improvements include driver training to reduce fuel consumption and the ongoing expansion of the Council's electric vehicle fleet.

3.5 Planned Developments in North Lanarkshire Affecting the AQMAs

3.5.1 City Deal Infrastructure Fund - Motherwell

Through the City Deal Infrastructure Investment Fund, the council is investing in new and improved infrastructure to create an improved transport interchange in Motherwell town centre, to support investment by ScotRail and its partners in upgrading Motherwell Station. The Project Scope is to create an improved multi-modal transport interchange on Muir Street to improve access to Motherwell Station, enhance the interchange between car/bus/bike and train, and expand park and ride provision. The project deliverables will improve the efficiency of the local road network, encourage increased modal shift to public transport and active travel, resulting in highway and local decongestion and improved local air quality within the Motherwell Town Centre AQMA. The project deliverables will also help

to improve the mobility of the area's workforce and provide a more efficient and connected transport system. The direct deliverables of the project will provide:-

- Highway and local road network decongestion benefits;
- Improved journey times and reduced queue lengths;
- Improved public transport journey time reliability;
- Enhanced road, cycle and pedestrian network safety and security;
- Enhance access and connectivity to the regional transport network, job training and education opportunities; and
- A safe and more attractive environment with amenity and air quality benefits.

3.5.2 City Deal Infrastructure Fund Other Projects

Through the City Deal programme, the Council are proposing to develop a park and ride at Eurocentral to support the Strategic Economic Investment Location and encourage modal shift to lessen congestion on M8 to Glasgow/Edinburgh, improve journey times and reduce air pollution across the strategic network.

In addition to this, the Pan Lanarkshire Orbital Transport Corridor proposal includes the planned East Airdrie Link Road (EALR), which will run from the Hamlet of Stand bypassing Chapelhall to Newhouse. It seeks to create more reliable and sustainable movements within North Lanarkshire and beyond. This includes moving through traffic from the local road network, improving journey time, reducing congestion, improving road safety, and improving air quality issues, which is of particular importance in the AQMA of Chapelhall.

3.5.3 Chapelhall

A number of potential options has been considered for improving congestion and therefore air quality through the Chapelhall AQMA. Following consideration of all the options available, as well as discussion with relevant stakeholders including the local community in the village, it is proposed to introduce a number of alterations on Lauchope Street, Chapelhall. The main aim of the alterations will be to discourage traffic, particularly HGVs from using this route, for example, a reduction in the speed limit to 20 miles per hour, traffic calming measures and a restriction on HGVs (except for delivery purposes) on this stretch of road. It is anticipated that these measures will mean the traffic will instead favour the alternative route of the A73 through the village, thus creating greater flow of traffic and

consequently a reduction in traffic-related air pollution at the location and in the AQMA. The Council will continue to monitor the traffic related air pollutants NO₂, PM₁₀ and PM_{2.5} in this location and as such will be able to monitor the effectiveness in terms of air pollutant levels of these alterations to the road network.

3.5.4 Ravenscraig Development

The redevelopment of the former steelworks site at Ravenscraig will result in the formation of a new community, which borders the existing towns of Motherwell and Wishaw. The original vision for the site was to create a new town centre, with associated transport infrastructure including a rail link. This plan has now been altered and the developers have at the time of writing submitted a revised Masterplan for the site and a revised application for planning permission in principle, which is pending consideration. A number of stakeholder meetings have been held prior to submission of the revised masterplan, however, and air quality has been highlighted as an issue to be considered at the masterplanning stage. The redevelopment of Ravenscraig is highly likely to have an impact on the existing AQMA at Motherwell, particularly as there are planned alterations to the road network along the route of the Pan Lanarkshire Orbital Transport Corridor within the Motherwell AQMA to improve access to the Ravenscraig site.

3.5.5 Strathclyde Partnership for Transport (SPT)

SPT is the regional Transport Partnership (RTP) agency for the West of Scotland, as one of seven such partnerships across Scotland in 2006. SPT has the statutory responsibility to improve strategic transport connections across the Strathclyde area, develop the transport network and encourage more sustainable travel choices. SPT's key partners are the twelve local authorities that make up the Partnership, one of which is North Lanarkshire Council. As part of the partnership working, SPT assist North Lanarkshire Council in meeting the commitments of their Single Outcome Agreement (SOA) with the Scottish Government. In working towards this goal, SPT and North Lanarkshire Council identify transport priorities each year that support local outcomes. The transport priorities identified for 2018/2019 for North Lanarkshire include the following, which could impact on air quality in the area:-

- Junction improvement on the A73 Carlisle Road
- M8 Strategic Investment Sites Cycle Access Improvements
- Motherwell Station/Interchange Improvements

- Cumbernauld Bus Layby Improvements
- A71 junction improvements
- Bus infrastructure improvements
- Wishaw station park and ride

In addition to the above projects, which are committed for 2018/2019 there are proposals for a number of other projects, including Coatbridge Bus Hub and Coatbridge Sustainable Transport programme, Airdrie Sustainable Transport programme and an extension to Bellshill Station Park and ride facility. These projects are merely proposals at this stage and are subject to funding approval by North Lanarkshire Council and SPT.

3.6 Source Apportionment

The contribution of differing sources to ambient air quality levels has been assessed to inform the targeting of action plan measures. The contribution of differing sources is indicated in the following sections.

3.6.1 National Atmospheric Emissions Inventory

The National Air Quality Emissions Inventory (NAEI) provides compiled emissions data for the UK on a square km basis. The most recently compiled data available on the NAEI database is for the year of 2015. The Graphs below note the emissions data available for North Lanarkshire broken down into each individual AQMA area by pollutant contribution for different sectors.

Motherwell

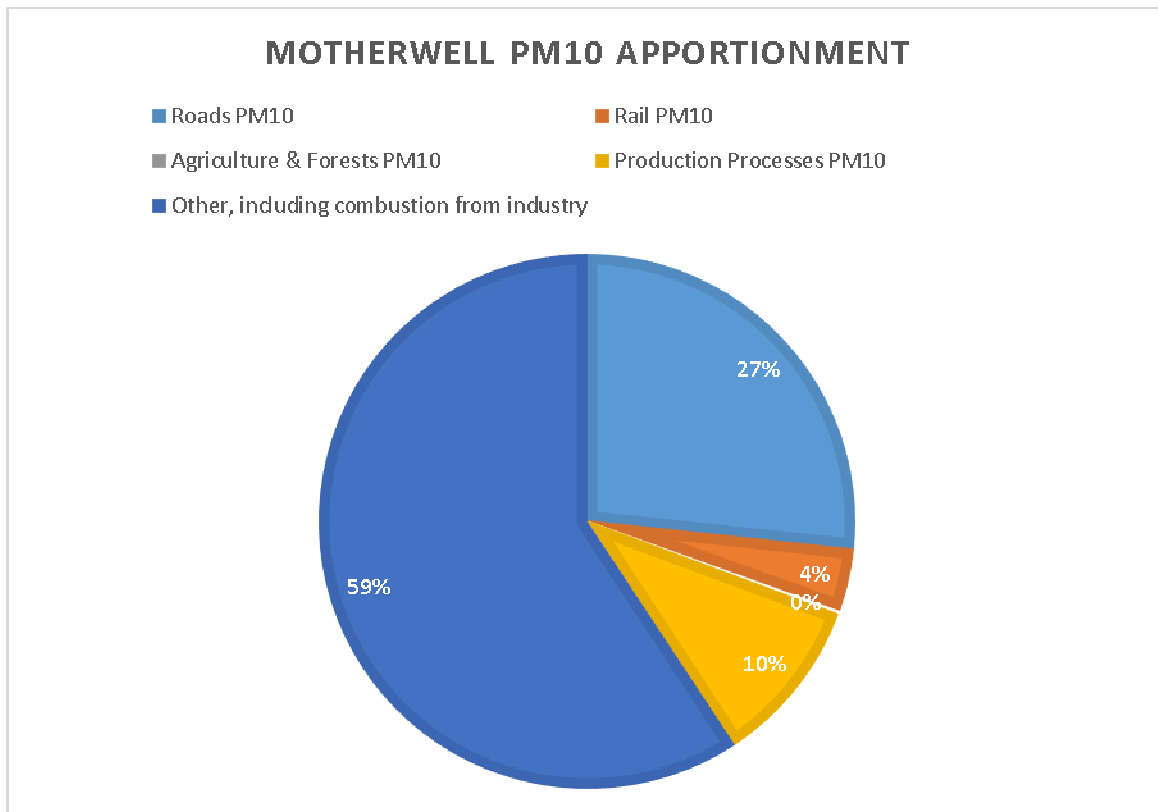


Figure 20 : Apportionment of PM10 Emissions within Motherwell AQMA

The NAEI data is consistent with that determined in previous AQAP, with the principal sources of PM₁₀ emissions identified as industry and road traffic sources. The main source is reported as industrial emissions, accounting for approximately 60% of the emissions recorded. The only major industrial source within the Motherwell AQMA grid square is the Dalziel Works; however, there are a number of areas of light industrial business activity. Road traffic accounts for a further 27% of total emissions across the whole grid square.

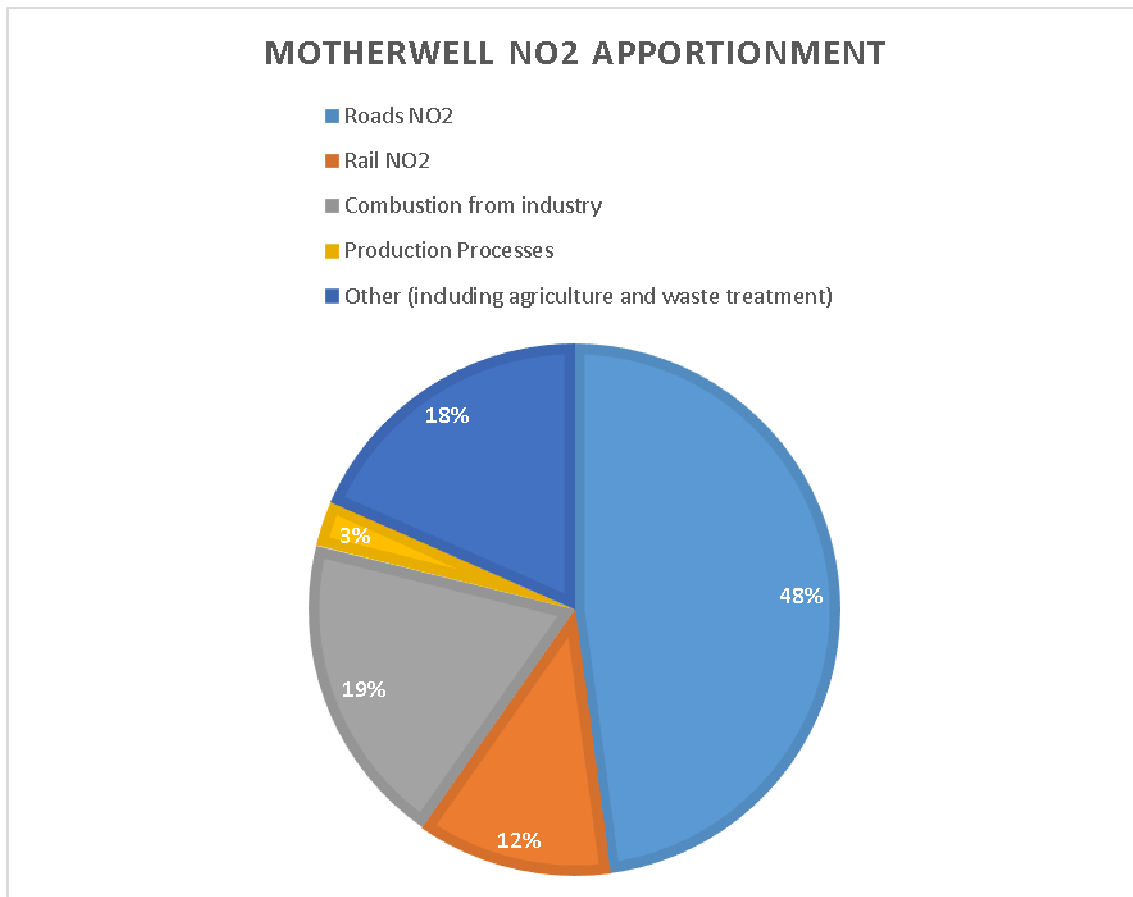


Figure 21 : Apportionment of NO₂ Emissions within Motherwell AQMA

The highest contribution to NO₂ emissions within the Motherwell AQMA grid square is from road traffic emissions, accounting for almost 50% of the NO₂ emissions. Combustion from industry accounts for approximately 20% of the NO₂ emissions with a further 3% of the NO₂ emissions being directly attributed to the Dalziel Plant.

Chapelhall and Coatbridge

The NAEI data for the Chapelhall and Coatbridge AQMAs has been analysed together due to the sites being geographically close together and the emissions profile being similar for both areas.

CHAPELHALL & COATBRIDGE PM10 APPORTIONMENT

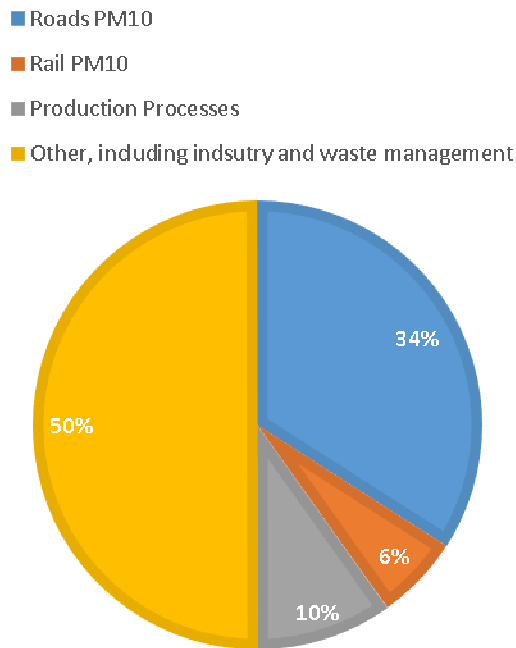


Figure 22 : Apportionment of PM10 Emissions within the Coatbridge and Chapelhall AQMAs

Within Chapelhall & Coatbridge AQMAs industrial and waste management emissions account for 50% of the total PM₁₀ emissions in the area. Road traffic sources account for a further 34% of emissions.

CHAPELHALL & COATBRIDGE NO2 APPORTIONMENT

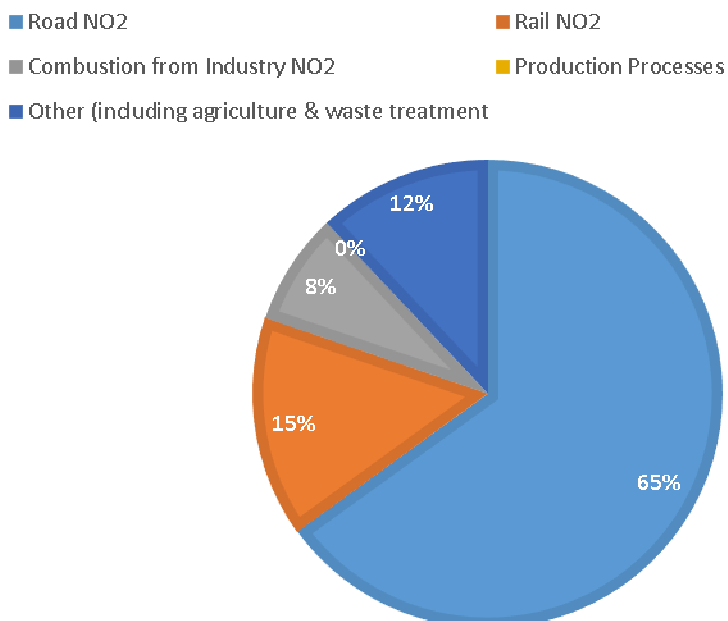


Figure 23 : Apportionment of NO2 Emissions within the Chapelhall and Coatbridge AQMAs

Approximately 65% of the NO₂ emissions contribution comes directly from road traffic within the Chapelhall and Coatbridge areas. As per the 2013, AQAP rail transport continues to also be a large contributor to the NO₂ emissions within the area, accounting for 15%.

3.6.2 Diurnal Variation in Measured Concentrations

The NAEI data provides an indication on the differing source of emissions across the grid square incorporating each of the AQMAs; however, the data does not provide any indication on the contribution to ambient pollutant concentrations. Analysis of the diurnal variation in measured concentrations has therefore been undertaken to determine any trends in measured concentrations.

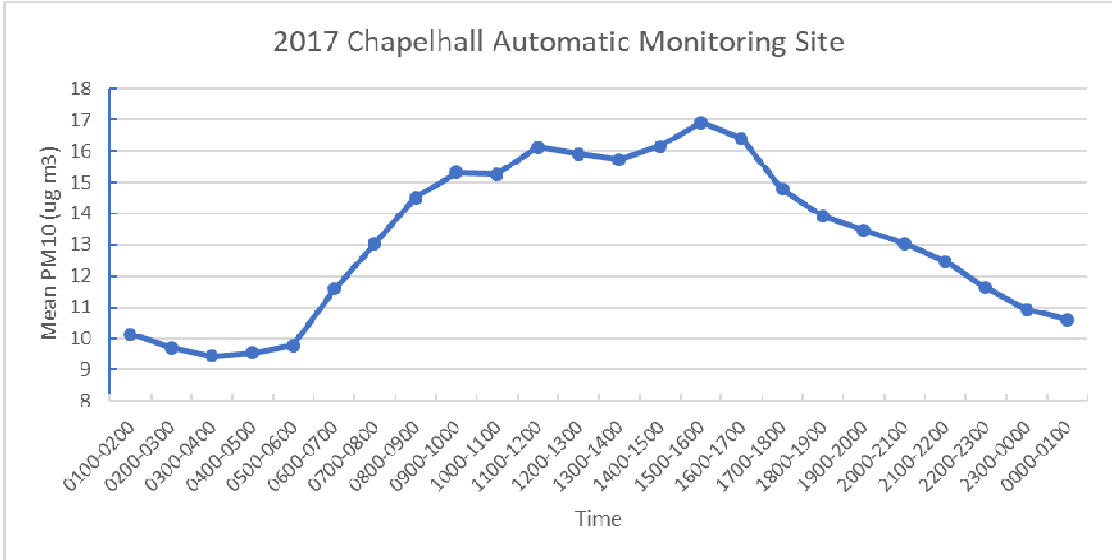


Figure 24 : Diurnal Variation in Measured PM10 (2017 Averages) - Chapelhall

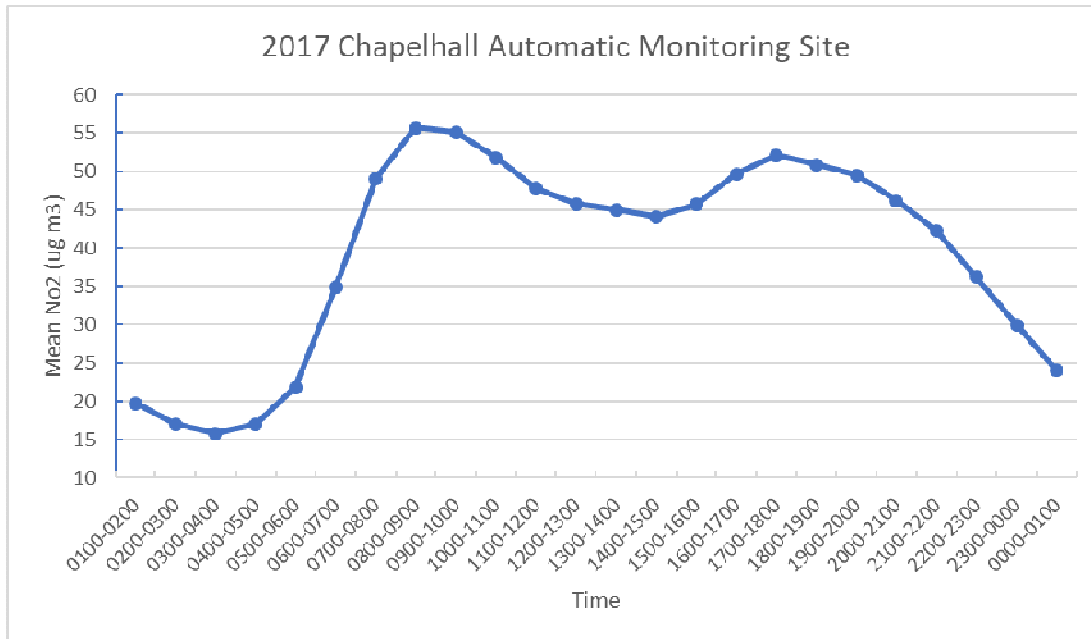


Figure 25 : Diurnal Variation in Measured NO2 (2017 Averages) - Chapelhall

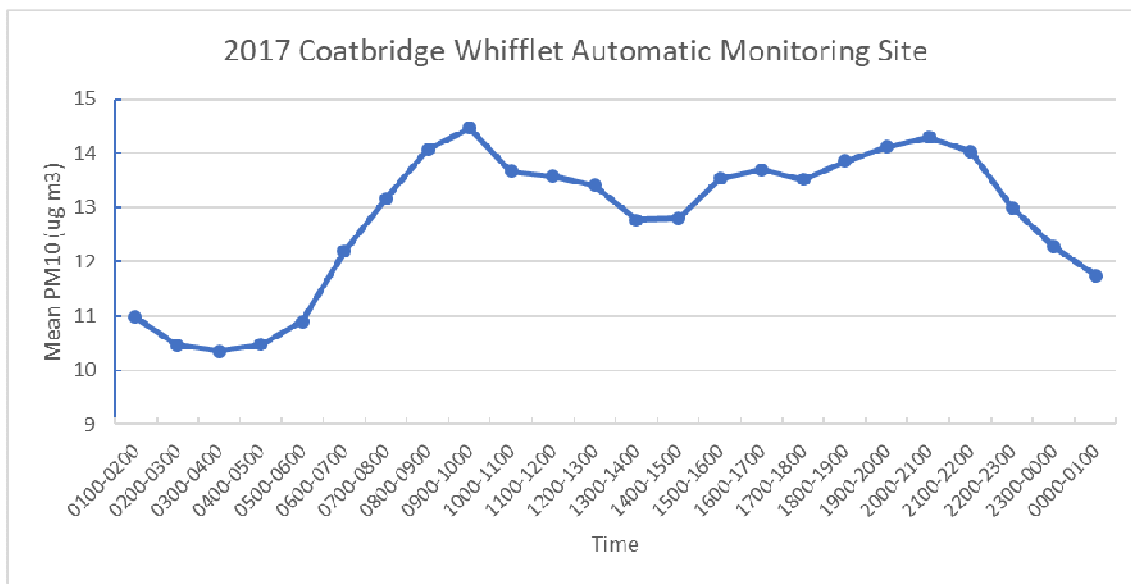


Figure 26 : Diurnal Variation in Measured PM10 (2017 Averages) - Coatbridge (Whifflet)

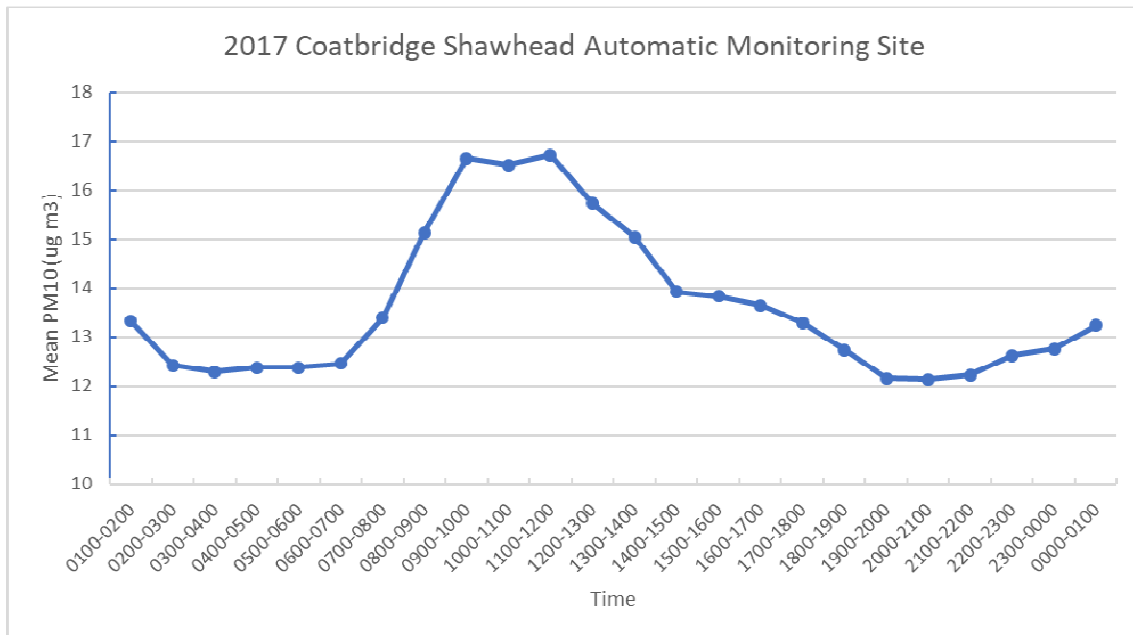


Figure 27 : Diurnal Variation in Measured PM10 (2017 Averages) - Coatbridge (Shawhead)

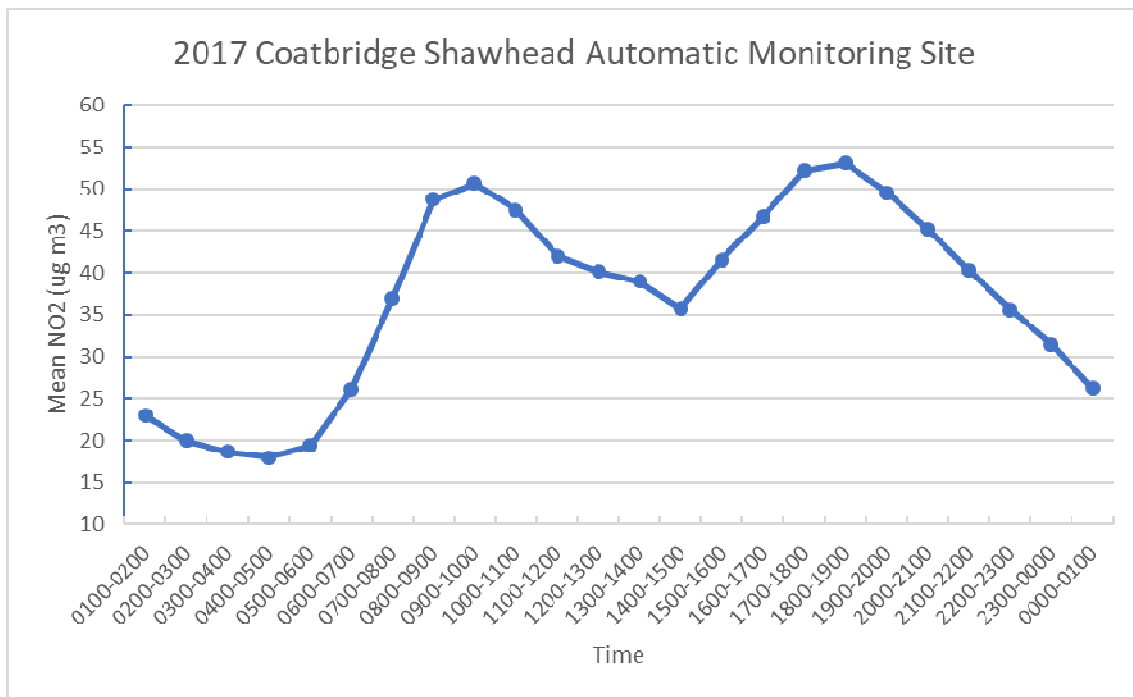


Figure 28 : Diurnal Variation in Measured NO2 (2017 Averages) - Coatbridge

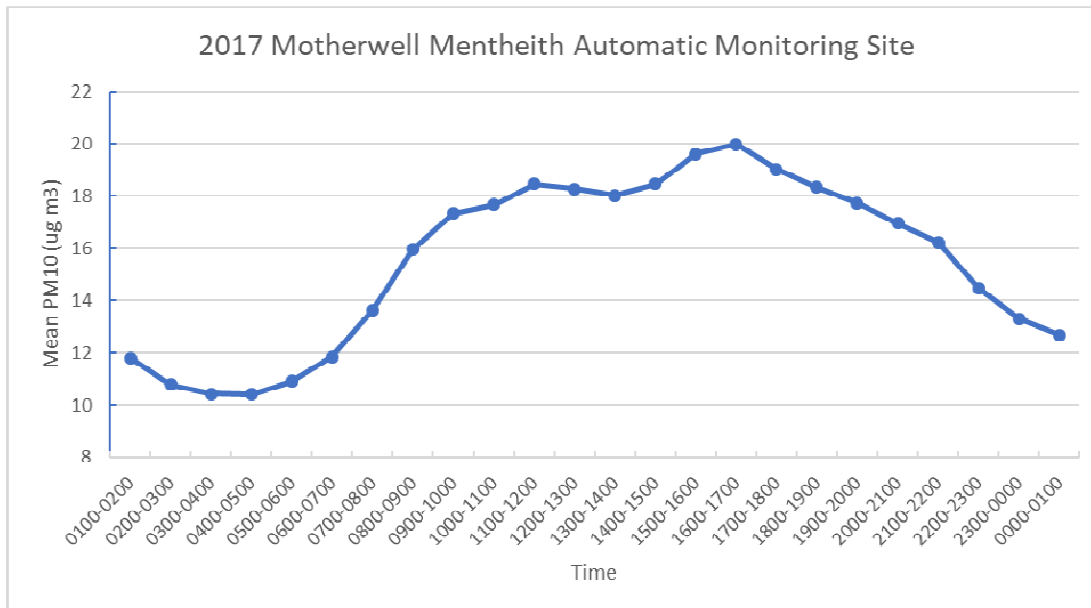


Figure 29 : Diurnal Variation in Measured PM10 (2017 Averages) - Motherwell

The diurnal variation graphs included for each of the AQMAs show clear spikes in both NO₂ and PM₁₀ concentrations during rush-hour peaks of 8am-10am and 4pm-6pm. Highlighting that the key contributors to emissions within each AQMA are road traffic sources. Post 8pm there is a clear drop off in NO₂ concentrations until 6am when the concentrations start to rise slowly until reaching a peak between 8-9am. PM₁₀ concentrations dip between the hours of 1am and 6am in each AQMA.

3.6.3 Relative Contribution to Ambient Concentrations

The contribution of background sources to ambient concentrations is indicated in the following sections.

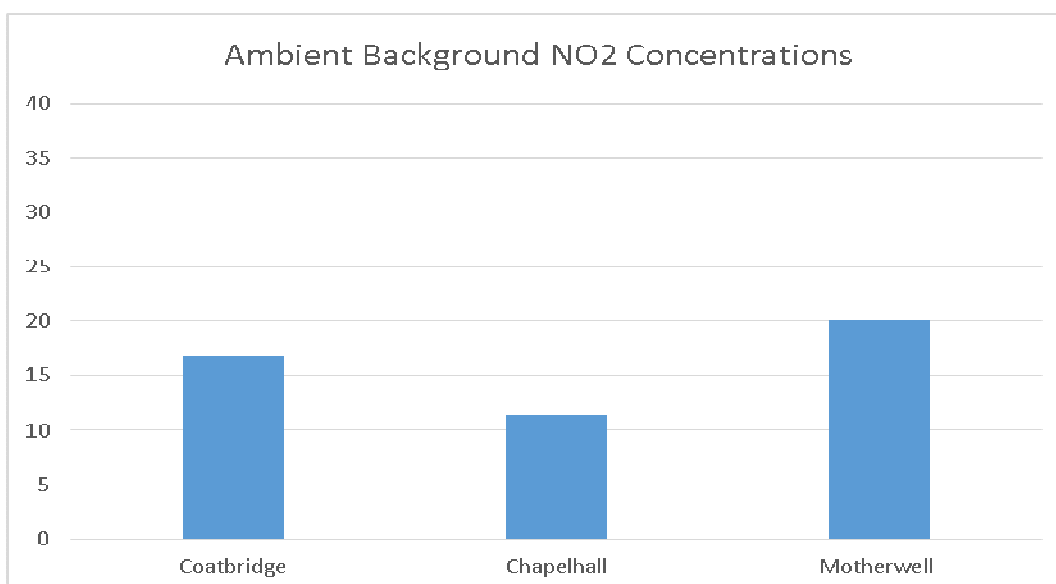


Figure 30 : Breakdown of Contribution of Ambient NO₂ in each AQMA from Background Maps

Ambient background concentrations of NO₂ within each AQMA are well below the national objectives. With the highest concentration noted in Motherwell, however the concentration here remains at only 50% of the objective.

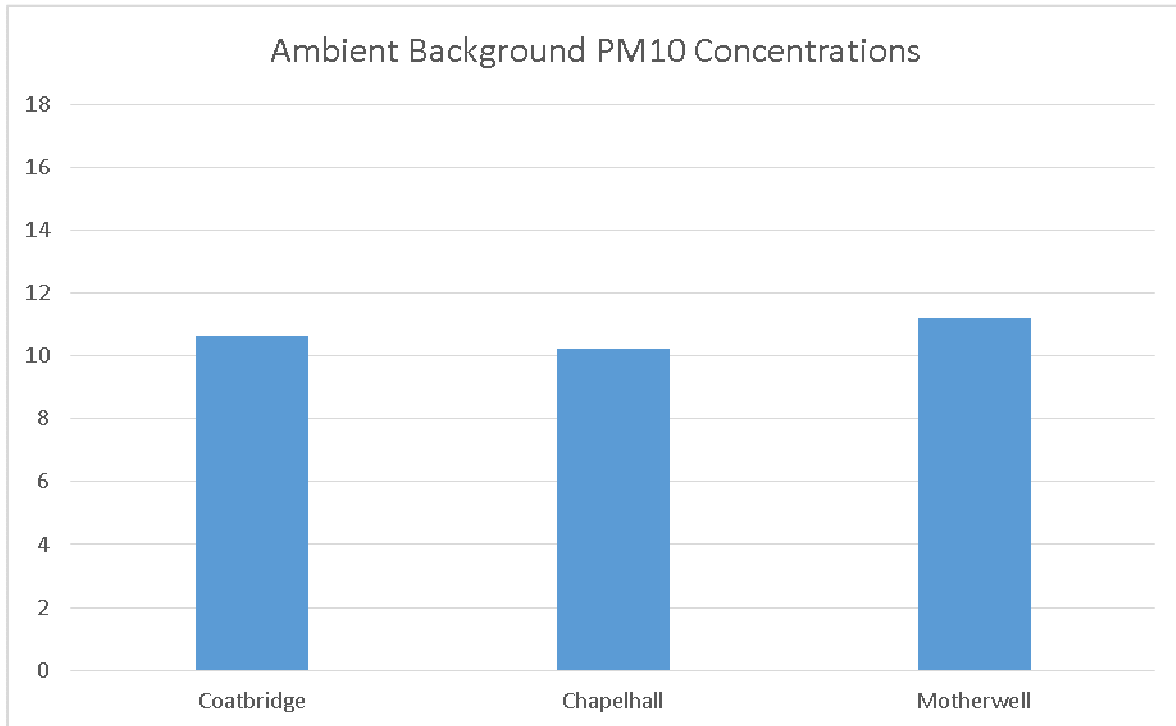


Figure 31 : Breakdown of Contribution of Ambient PM₁₀ in each AQMA from Background Maps

As per NO₂ the ambient background concentrations of PM₁₀ for each AQMA are below the national objective limit. Unlike NO₂ concentrations, there is no clear difference in PM₁₀ concentrations between AQMA areas, with each AQMA recording background concentrations of between 10-12 µg/m³.

3.6.4 Local source contribution

The AQAP measures presented in this report are intended to be targeted towards the predominant sources of emissions within North Lanarkshire's area.

North Lanarkshire carried out a source apportionment exercise in 2018. This identified that within the AQMAs, the percentage source contributions were as follows:

Motherwell

Analysis of NO₂ and PM₁₀ contour plots produced from an ADMS modelling exercise were used to identify the contribution of background, area diffuse and road traffic emissions to ambient concentrations. Analysis was undertaken based on three locations within the AQMA:

- The Civic Centre;
- Merry Street; and
- Point south of Ring Road.

The results are presented in Figures 32-34.

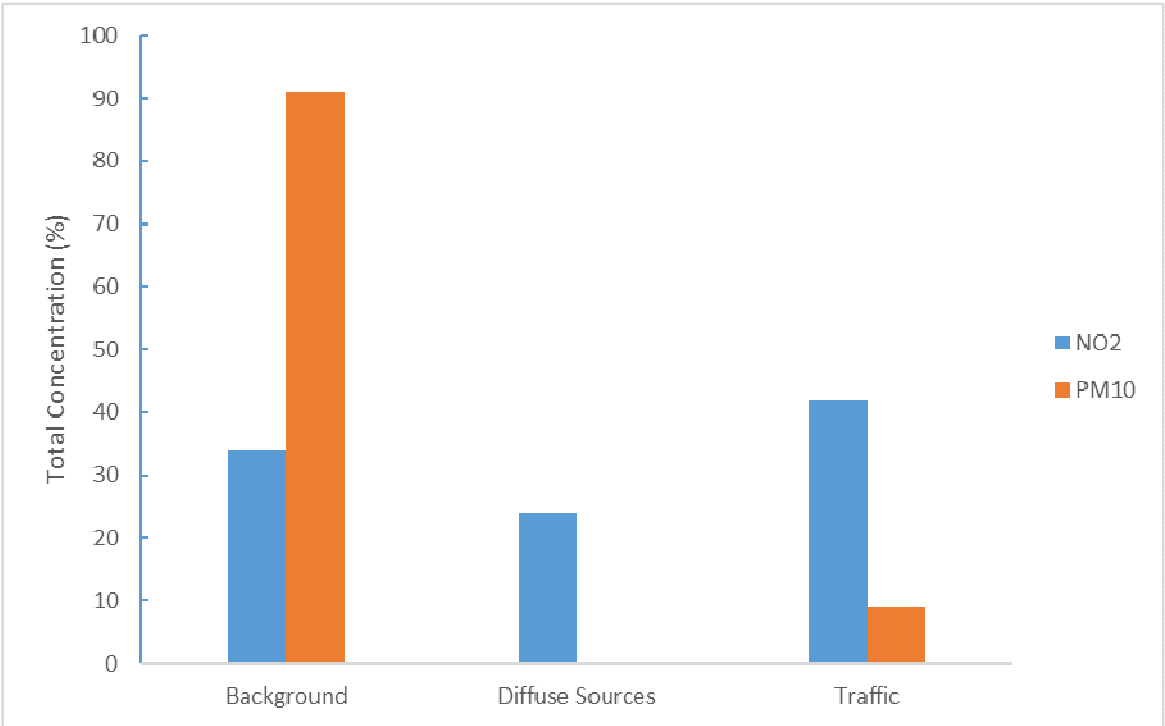


Figure 32 : Merry Street, Breakdown of NO2 and PM10 Concentrations

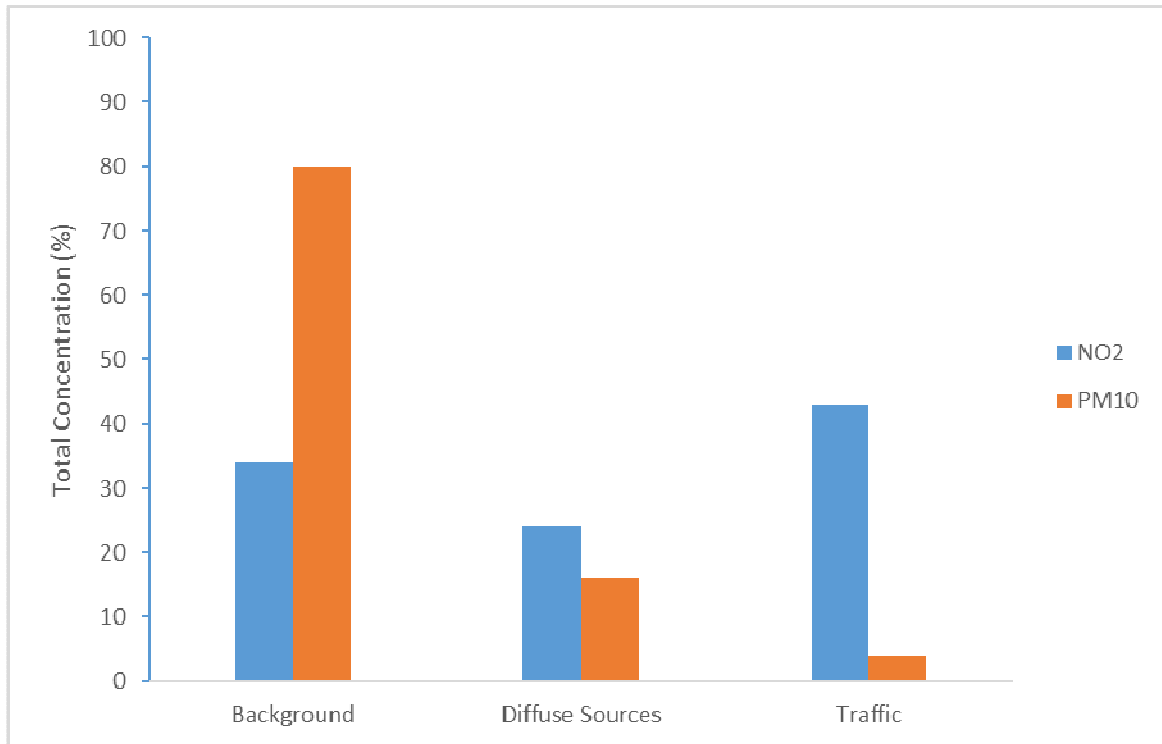


Figure 33 : Civic Centre Breakdown of NO2 and PM10 Concentrations

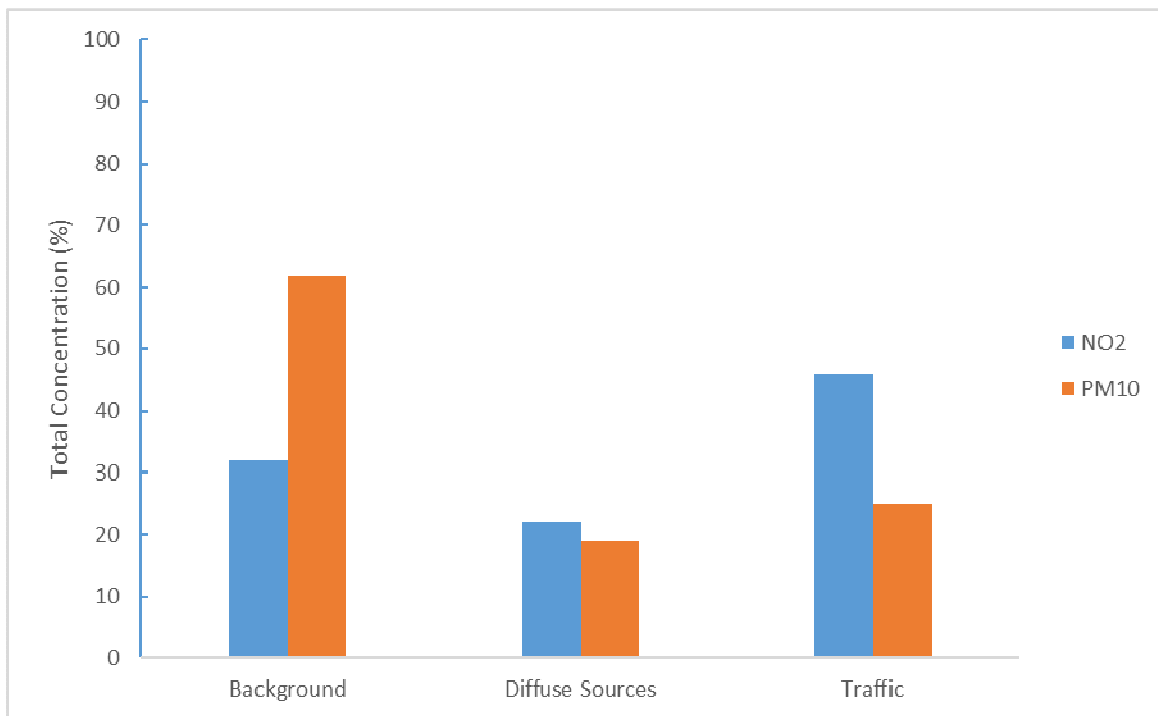


Figure 34 : Area South of Ring Road Breakdown of NO2 and PM10

3.6.5 Concentrations

As shown in the graphs above, the traffic contributions make up high proportions of both NO₂ and PM₁₀ emissions at each location, therefore traffic sources were considered further and broken down into percentage contributions for each relevant road link.

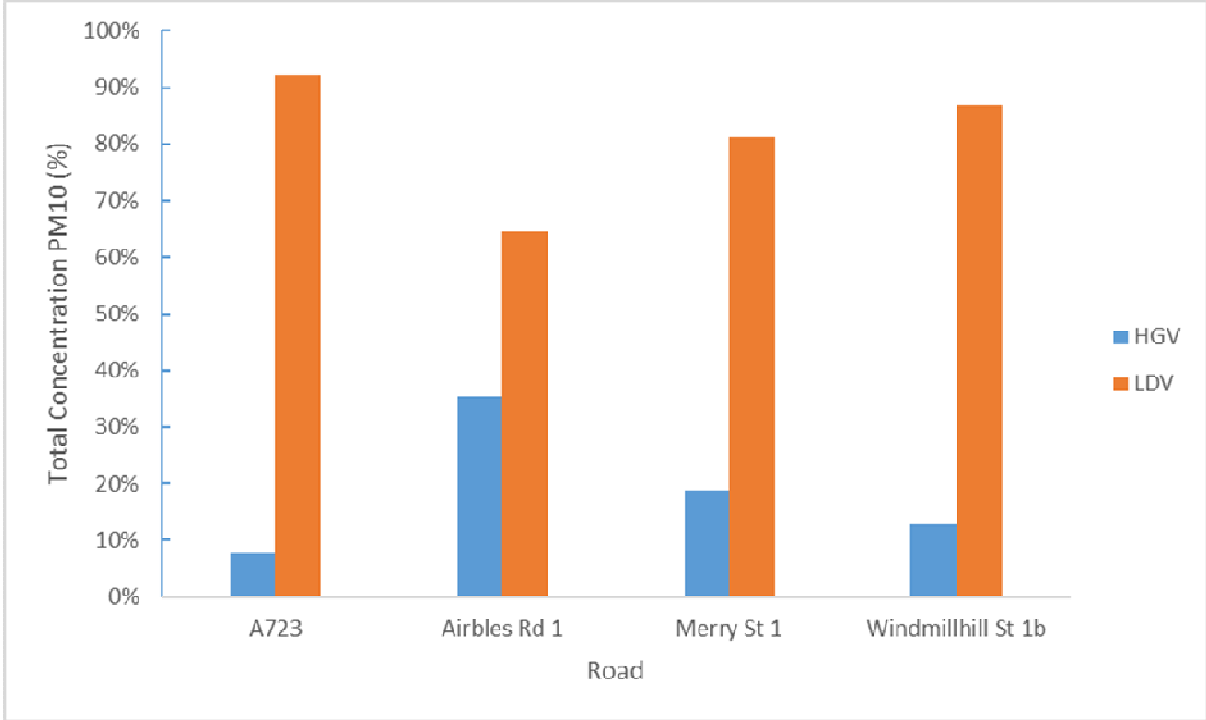


Figure 35 : Traffic PM10 Contributions within Motherwell

Figure 35 above shows that for the majority of road links within the Motherwell AQMA that the contributions of traffic PM₁₀ are primarily from cars and LDV vehicles, with the exception of Airbles Road where approximately 40% of the road traffic PM₁₀ emissions can be attributed to HGVs.

Chapelhall

The contribution differing sources to ambient concentrations in Chapelhall is presented in Figure 36.

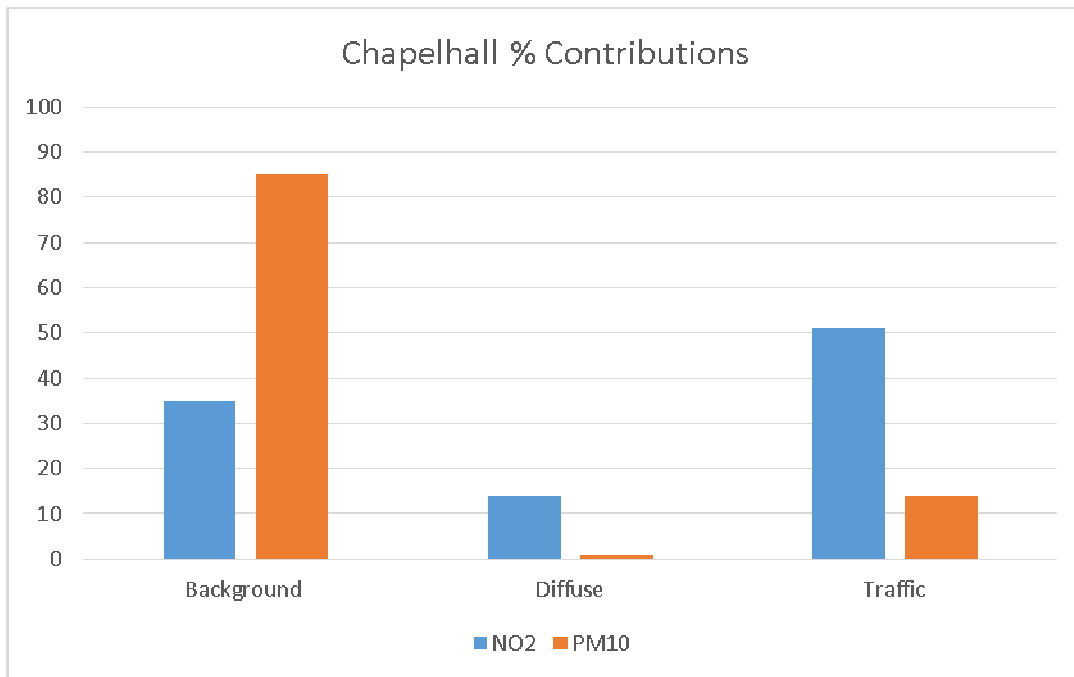


Figure 36 : Breakdown of Contribution to Ambient Concentration, Chapelhall

Within the Chapelhall AQMA the majority of PM₁₀ concentrations can be attributed to the background contribution, which includes the effect of emissions from the M8, with only 12% coming from local road traffic sources, however approximately 50% of the NO₂ concentrations can be attributed to road traffic sources. A further breakdown of traffic emissions is noted below.

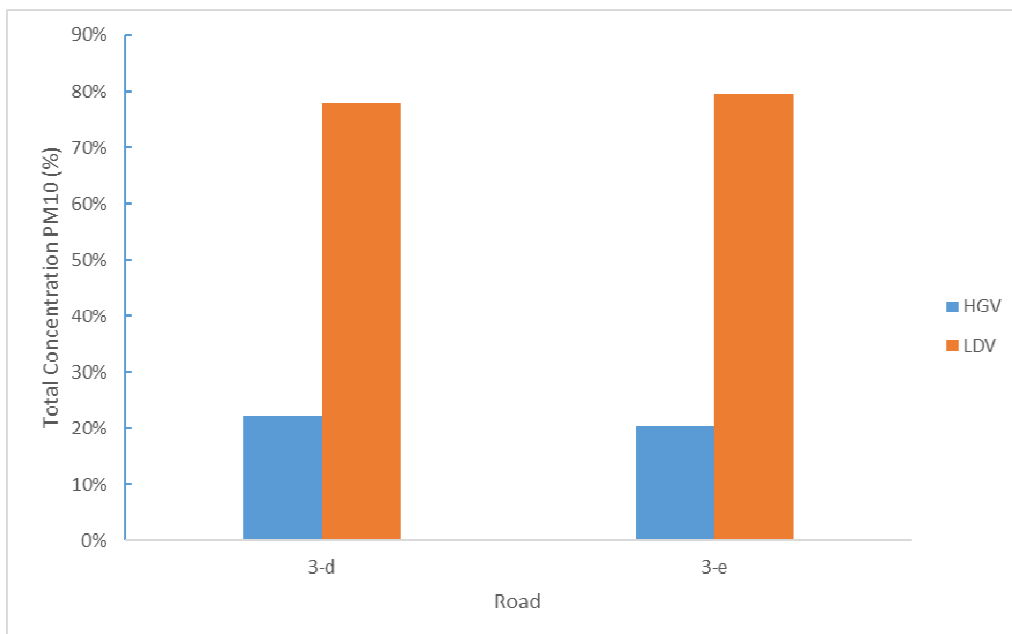


Figure 37 : Breakdown of Road Traffic No2 Chapelhall

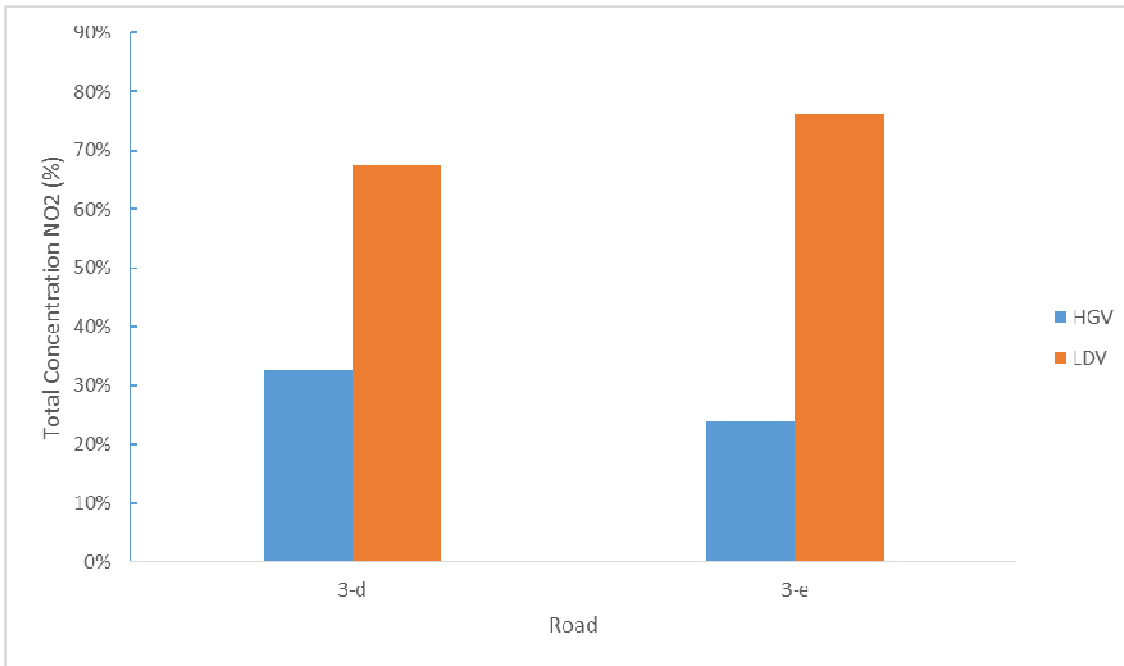


Figure 38 : Breakdown of Road Traffic PM10 Contribution, Chapelhall

The main road considered in further detail for traffic emission contributions within the Chapelhall AQMA is the A73. LDV vehicles predominately produce the majority of the PM10 and NO2 emissions along the A73. HGV vehicles attribute for less than 30% of PM₁₀ traffic emissions and less that 40% of NO₂ emissions.

Coatbridge

The contribution differing sources to ambient concentrations in Coatbridge is presented in Figures 39 and 40.

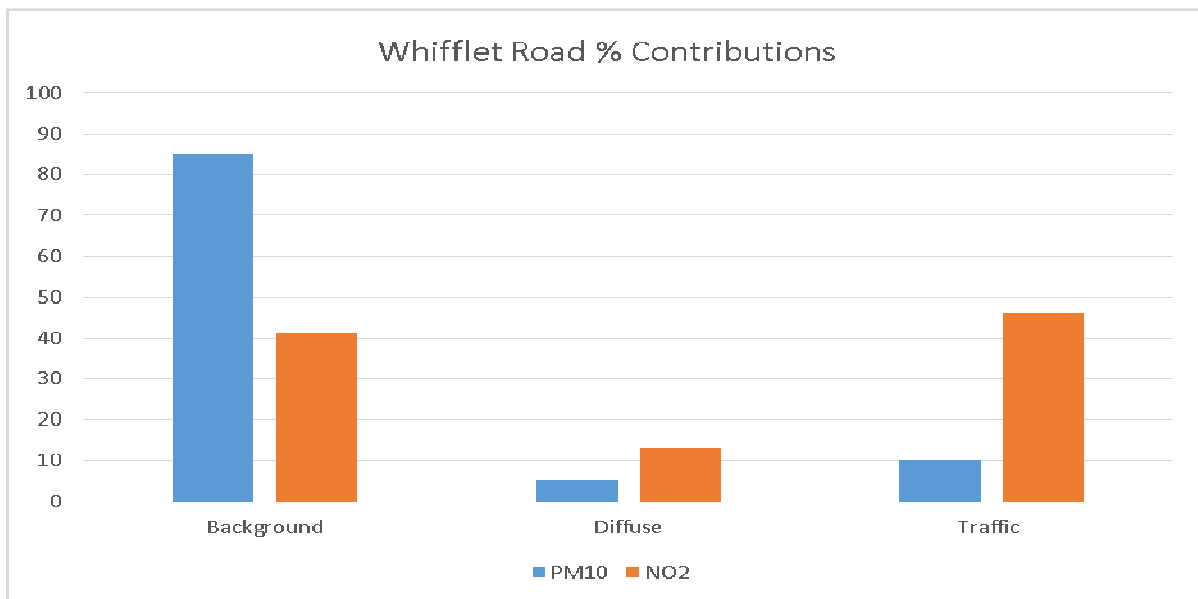


Figure 39 : Breakdown of Emissions Contribution, Whifflet Road, Coatbridge

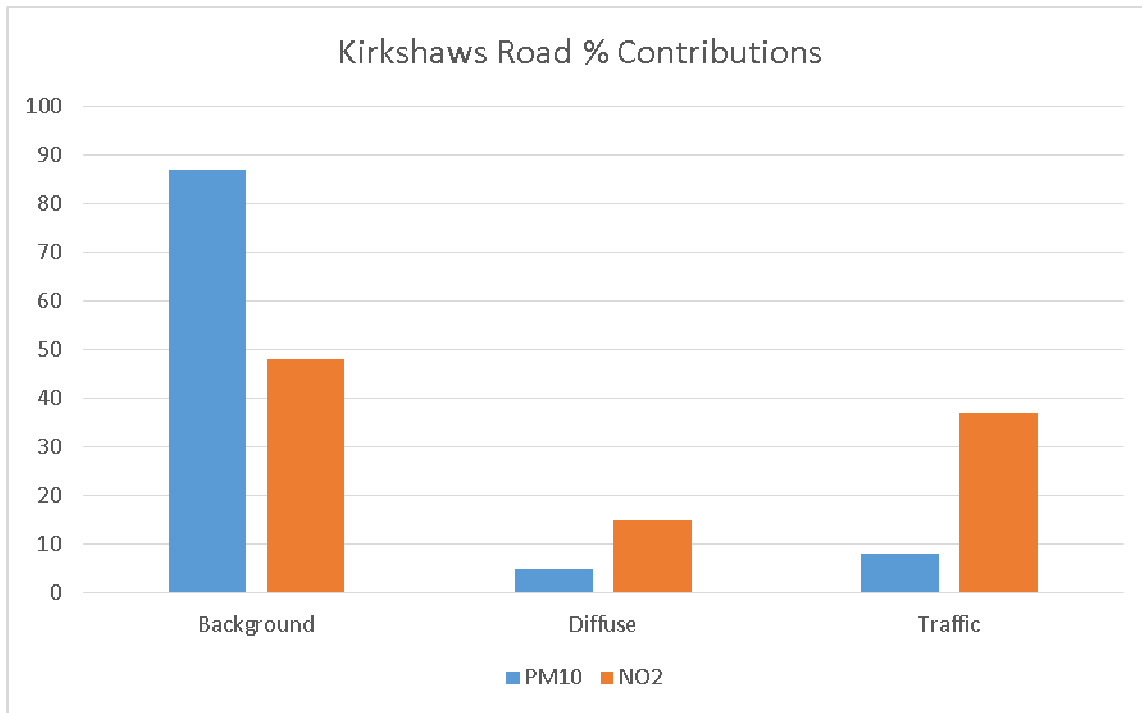


Figure 40 : Breakdown of Emissions Contribution, Kirkshaws Road, Coatbridge

From the total percentage graphs noted above, it is evident that the background concentrations of PM₁₀ contribute to the majority of emissions throughout the Coatbridge AQMA. NO₂ concentrations account for approximately 50% of emissions around Whifflet Road and approximately 45% of emissions on Kirkshaws Road. As seen throughout the other AQMAs road traffic sources account for a relative proportion of the emissions in the area and therefore have been further analysed below.

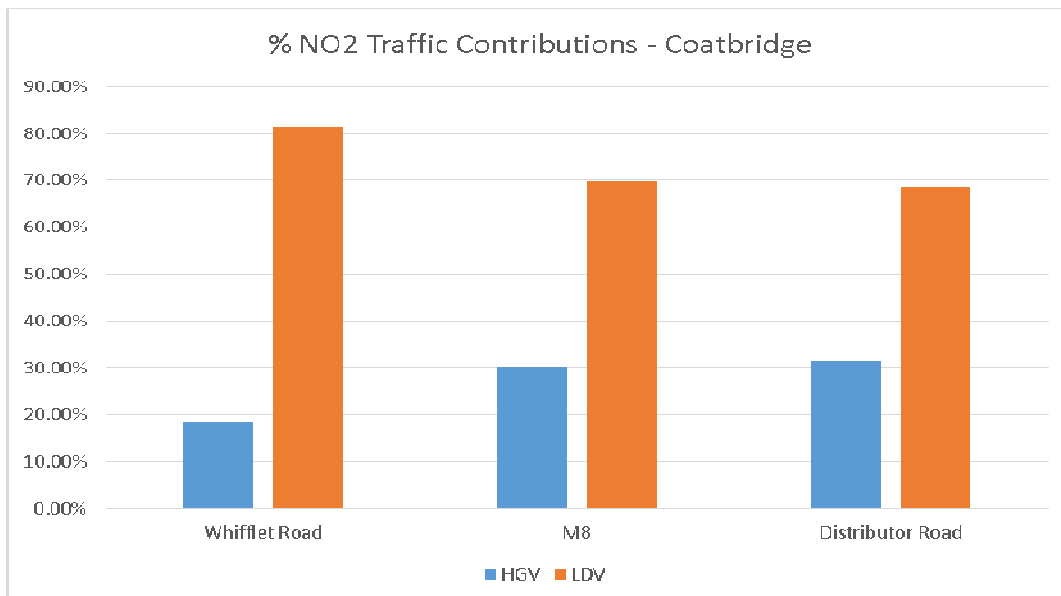


Figure 41 : Breakdown of Road Traffic NO2 Contribution, Coatbridge

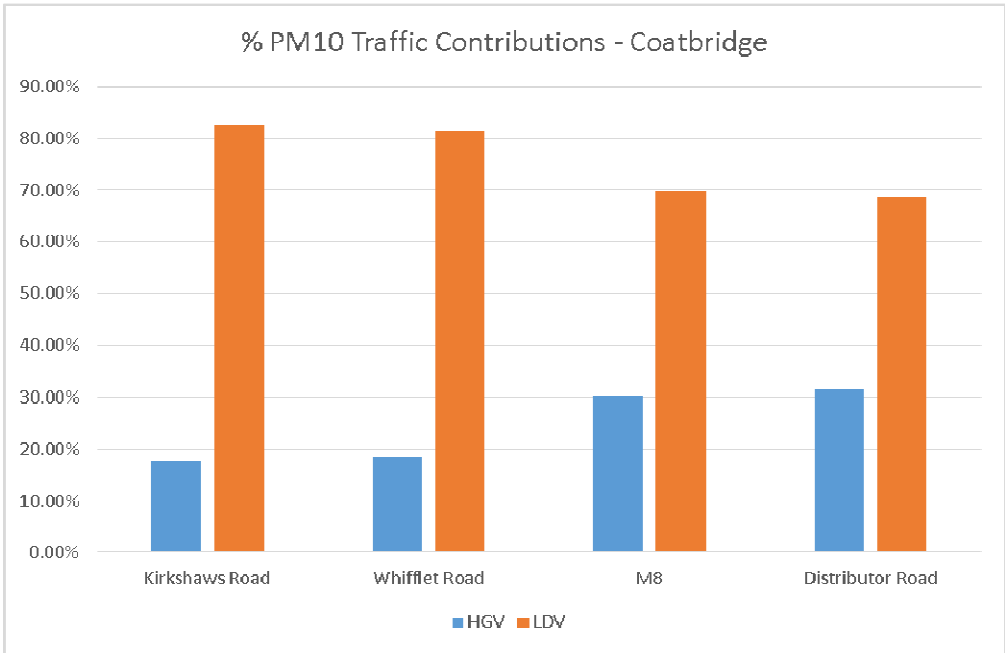


Figure 42 : Breakdown of Road Traffic NO2 Contribution, Coatbridge

Throughout the Coatbridge AQMA, it can be seen that LDV vehicles account for the majority of both the PM10 and NO2 emissions. The higher percentages of HGV emissions are noted on the M8 and new Distributor Road as would be expected.

3.7 Required Reduction in Emissions

The required reduction in emissions is an estimate in the improvement in air quality required to achieve compliance with the NAQS objectives for NO₂ and PM₁₀ within each of the AQMAs. The results contained within Section 2 and Section 3.3 of the report indicate that measured NO₂ and PM₁₀ concentrations within each of the AQMAs are currently in compliance with NAQS objectives.

Concentrations within each of the AQMAs do, however remain elevated and are representative of hot spot locations within North Lanarkshire. It therefore remains appropriate for the Council to target a continued improvement in local air quality, focussed on both the hot spot locations and more widely.

The Action Plan is therefore focussed on achieving overall improvement in air quality concentrations throughout North Lanarkshire.

3.8 Cost Benefit Analysis

Evaluation is an essential part of the action planning process. As such, each individual measure identified in the AQAP requires to be evaluated in terms of its effectiveness as well as its economic cost, in order to assess the cost-effectiveness of each measure. In addition to this, the practicalities of introducing each measure, as well as the political and public acceptance of each action plan measure will also need to be assessed in evaluating each measure. Finally, any potential for adverse effects on other environmental or social aspects should also be considered.

DEFRA and the Devolved Administrations have issued practical guidance on Economic Principles for the Assessment of Local Measures to Improve Air Quality. The guidance advises a two-stage process, the initial stage of which is to undertake a scoping assessment of each measure against:

- Estimation of benefits (including consideration of the potential economic benefits of emissions and air quality improvements);
- Estimation of cost is then explained; and
- Weighted consideration of other relevant issues such as practicality, including legal, technical and social barriers.

Once the measures have been strategically reviewed or scoped out, the guidance recommends undertaking detailed analysis of the cost-benefits of implementing each measure. The various measures outlined in this Air Quality Action Plan are not, in the main, sufficiently detailed or specific enough to allow a detailed cost-effectiveness analysis.

A scoping assessment, therefore, has been undertaken of each action plan measure. A semi-quantitative assessment, relying on a level of judgement has been adopted. The method used is outlined below:

- The description of the option and the proposed change to be brought about by the option is used alongside the source apportionment analysis to define what proportion of emissions potentially be affected by the action plan measure;
- The proportion of emissions potentially affected by the option and the view on how far they could be changed by the option are combined to express a view on how much emissions may be reduced in the AQMA due to the action plan measure; and

- A view is expressed on how significant this change in emissions would be in terms of making progress towards the air quality standard in the AQMA.

For the purpose of the air quality assessment, the result of the air quality benefit has been assessed within the following bands:-

- Low local air quality benefits are deemed to be improvements that are unlikely to be measureable but will lead to a diffuse improvement within both the AQMA and wider area;
- Medium local air quality benefit is deemed to be a measureable improvement within an AQMA, but change is likely to be $<1 \mu\text{g}/\text{m}^3 \text{ NO}_2$ or $<0.5 \mu\text{g}/\text{m}^3 \text{ PM}_{10}$, however improvements are likely to be detectable over a long term period only and specific improvement may not be discernible from the effect of other action measures;
- Large local air quality benefit is deemed to be a measureable improvement within an AQMA the effect of which is expected to be directly discernible and of an order $>1 \mu\text{g}/\text{m}^3$ and $>0.5 \mu\text{g}/\text{m}^3$.

Air quality benefit is presented using the following key:-

Improvement	Symbol
Low	√
Medium	√√
High	√√√

It should be noted that the precise improvement in air quality attributable to each measure cannot be accurately quantified at this stage. The appraisal of air quality benefit has therefore been determined based on professional judgement and with reference to work undertaken as part of the Further Assessment.

The timescales for implementation have been categorised based on three timescales:

- Short term : 1-2 years;
- Medium term : 3-5 years; and

- Long term : 5 years +.

Further, the costs associated with the implementation of the measures have been estimated based on three approximate values:

- Low cost : <£50k;
- Medium cost : £50-250k; and
- High cost : £250k+

The cost benefit analysis exercise is detailed in Table 2.

Table 2 Cost Benefit Analysis of Action Plan Measures

Measure No.	Measure	Lead Authority	Timescale	Cost to Council	Air Quality Benefit	Comments
1	<p>NLC Vehicle Fleet and Work Journeys</p> <ul style="list-style-type: none"> The Council will strive to reduce car journeys for work purposes e.g. by teleconferencing. For instances where work travel is necessary the Council's pool car fleet will be utilised with electric/hybrid vehicles provided where possible Further consideration will be given to reducing the number of private vehicles used for Council business, introducing bus/sustainable transport where possible. 	NLC All Depts	Short term	Low cost	√	Associated carbon benefits and cost savings to Council
2	<p>Vehicle Fleet Efficiency</p> <ul style="list-style-type: none"> Tracking devices will continue to be fitted to NLC fleet vehicles in order to provide information on managing idling/speeding and unnecessary journeys Driver Certificate of Professional Competence training will be provided for all Council drivers, including modules on safe and efficient driving The Council will introduce scheduling of council vehicles e.g. Coordinating school bus/minibus/community transport vehicles 	NLC Fleet and Transport	Medium term	Low/Medium cost	√	Associated carbon benefits and cost savings to Council

3	Subject to Scottish Government funding the Council will continue to operate the North Lanarkshire Council Eco Stars fleet recognition scheme and use this to engage with certain vehicle sectors on route planning as appropriate to avoid AQMAs	NLC Protective Services and External Consultant delivering Eco Stars	Medium term	Low/Medium cost	√	Associated carbon benefits, noise reductions and cost savings to operators
4	The Council will continue to increase the provision of electric vehicle (EV) charging points, where possible ensuring these are accessible to both council staff and the general public. The council will engage with other public sector agencies (e.g. NHS Lanarkshire) to encourage similar provision to ensure adequate coverage of EV charge points across the NLC area.	NLC/Other public bodies in NLC area	Short/medium term	Low/Medium cost	√	
5	The Council will abode by their statutory duty of sustainable procurement and include vehicle standards in the sustainability section of the sourcing methodology documentation, which will consequently feed through into the specification/award criteria where appropriate.	NLC procurement	Medium term	Low/medium cost	√	Human health benefits, however anticipated procurement cost and operator/supplier resistance
6	<p>Increasing levels of sustainable travel</p> <ul style="list-style-type: none"> The Council will work with agencies such as SPT and Sustrans (among others) to develop and implement measures which will encourage Modal Shift to public transport and active travel. A programme of awareness-raising and promotion initiatives will be progressed around walking and cycling for leisure and commuting in North Lanarkshire. This will incorporate information on routes to key destinations in the NLC area. 	NLC-protective Services, Roads, City Deal	Medium term	Low cost	√	Wider sustainability and health benefits. Carbon emissions reduction.

7	The Council will engage with SOT and other relevant local authorities to develop common engine standards for all tendered school bus contracts	NLC/SPT/Neighbouring local authorities	Short/medium term	Low/medium cost	√	Human health benefits, however anticipated procurement, cost and operator/supplier resistance
8	The Council will continue to progress their Workplace travel Plan especially in view of other relevant NLC policies, such as property rationalisation, home working etc.	NLC All Services	Short/medium term	Low cost	√	Wider sustainability and health benefits. Carbon emissions reduction
9	The Council will continue to run and publicise Vehicle Emission Testing and Vehicle Idling Enforcement campaigns in areas of known and suspected persistent idling	NLC Protective Services	Short/Medium term	Medium Cost	√	
10	The Council will introduce car-parking enforcement in town centres in North Lanarkshire in order to reduce inappropriate parking in town centres and other areas.	NLC All Services	Short/Medium term	Medium Cost	√√	
11	<p>The Council will investigate options for improving bus provision in North Lanarkshire</p> <ul style="list-style-type: none"> • Encourage partnership working with SPT and bus operators to ensure major new and existing developments are fully connected from the outset. • Investigate/implement better bus infrastructure, particularly bus priority measures to encourage greater uptake of bus travel and reduce emissions from buses held up in congestion. • Work with bus operators (via Eco Stars) to improve emission standards for buses operating in North Lanarkshire and 	NLC/SPT	Short/Medium term	Low Cost	√	Specific measure low cost, however costs for implementation may be greater and require input from other parties

	particularly within AQMAs					
12	Fully support and input to where possible the planned Strategic Travel hub for Motherwell, ensuring project objectives include air quality indicators. Part of this will include taking forward the findings of the Motherwell Cycle Hire Feasibility study recently undertaken for the town.	NLC City Deal Team	Short/medium term	Low Cost	√	Specific measure low cost, however costs for implementation may be greater and require input from other parties
13	The Council will investigate all potential options for the improvement of traffic flow, and therefore air quality, through the Chapelhall AQMA	NLC Roads	Medium/Long term	Low Cost	-	No direct effect from evaluation, subsequent implementation of measures will have direct benefits
14	The Council will ensure that air quality issues are duly considered for proposed major infrastructure projects which have the potential to impact on the Council's AQMAs	NLC Planning	Short term/Ongoing	Low Cost	√	No direct effect of measures, adoption of improvement policies as a result of review will provide benefits
15	The Council will ensure that all policies in relation to the Public Sector Climate Change responsibilities will take due cognisance of air quality implications as appropriate, particularly where there is potential for adverse air quality impacts	NLC Planning	Short term/Ongoing	Low Cost	√√	Policy will ensure no conflicts between policies will occur e.g. inappropriate uptake of biomass plants within AQMAs
16	The Council will continue to ensure that air quality is appropriately considered in all relevant planning applications and ensure that planning decisions and policy at both strategic and local level will take due cognisance of the Cleaner Air for Scotland (CAFS) Strategy and the Council's Air Quality Action Plan.	NLC Planning	Short term/Ongoing	Low Cost	√	No direct effect of measures, adoption of improvement policies as a result of review will provide benefits

17	<p>The Council will endeavour to ensure that the highest quality of air monitoring data is produced in order to provide robust evidence for air quality decision-making. Specifically,</p> <ul style="list-style-type: none"> • A review, including a GIS mapping exercise will be undertaken of all NLC operated air quality monitoring sites (automatic and non-automatic) to ensure monitoring is being carried out at the most appropriate locations in terms of receptor exposure and sources of air pollution. • The automatic monitoring unit at Motherwell Civic Centre will be relocated to a more representative location, which will enable to comparison of air quality before and after the planned road infrastructure changes and other major development in the area. • In line with new statutory requirements the Council will set up a monitoring network for PM_{2.5} • An updated dispersion modelling exercise will be undertaken of the A73, Monklands and Motherwell areas in order to obtain an accurate picture of air quality levels in North Lanarkshire 	NLC protective Services	Short term/ Ongoing	Medium Cost	-	No direct effect on air quality, however good quality data will inform the development and implementation of Action Plan measures
18	The Council will ensure that air quality is included within the Council's input to the NHS Lanarkshire Joint Health Protection Plan and carry out joint work with local health boards to improve awareness of air pollution as a public health issue.	NLC/NHS Lanarkshire	Short/ Medium Term	Low Cost	√	No direct effect of measures, adoption of improvement policies as a result of review will provide benefits
19	The Council commits to working with neighbouring authorities where appropriate on air quality projects to ensure consistency of approach as	NLC SLC/Other	Short Term/ Ongoing	Low Cost	-	No direct effects, however consistent implementation will facilitate increased political and

	well as raising awareness of air quality issues among a wider audience.	neighbouring authorities				public acceptance of measures
20	The Council pledges to carry out awareness raising of air quality issues with communities and schools. Part of this will involve taking part in National Clean Air Day and the use of the NLC-developed www.learnaboutair.com education package as well as other relevant air quality initiatives and events.	NLC Protective Services/NLC Roads	Short/ Medium Term	Low Cost	v	Implementation aligned with STEM education promotion in schools and Curriculum for Excellence
21	<p>Planning policy</p> <ul style="list-style-type: none"> The Council pledges to develop planning policy to reflect the increasing demand/requirement for Electric Vehicle charging points in new public and private development Planning guidance for developers will be updated to reflect current best practice, including guidance on domestic wood burning, commercial heating and biomass 	NLC Planning Protective Services	Short/ Medium Term	Low Cost	v	No direct effect from evaluation, subsequent implementation of measures will have direct benefits. Low direct cost, however will have cost implications for third parties/developers
22	The Council will undertake a feasibility study into strategic planting of “green wall” structures in relevant areas of North Lanarkshire	NLC	Short/ medium Term	Low Costy	√√	No direct effect from evaluation, subsequent implantation of measures will have direct benefits. Feasibility will be low cost; however, implementation will have greater costs.

3.9 Key Priorities

The results for air pollutant concentrations presented in Chapter 2 and 3 of this Air Quality Action Plan indicate that measured NO₂ and PM₁₀ concentrations within each of the AQMAs are currently in compliance with NAQS objectives.

Irrespective of this, however, the concentrations within each of the AQMAs do remain elevated and are representative of hot spot locations within North Lanarkshire. It therefore remains appropriate for the Council to target a continued improvement in local air quality, focused on both the hot spot locations and more widely.

Having considered the outcome of both the consultation exercise and also the cost benefit analysis carried out in respect of the action plan measures North Lanarkshire Council's key priorities for achieving reductions in pollutant concentrations are detailed as follows.

- North Lanarkshire Council will lead by example in its efforts to tackle air pollution, though continuing to improve the engine emissions standards in all the vehicles used by our own vehicle fleet and the fleets of our partner organisations and contractors;
- We will work with bus operators and other relevant agencies (including SPT) to improve bus provision in North Lanarkshire, looking at options including bus infrastructure, bus priority mechanisms and options for improving emissions from the buses operating in North Lanarkshire;
- We will ensure that air quality is appropriately considered in all relevant planning application decisions and policy at both strategic and local level to attempt to futureproof against future air quality issues
- We will do all we can as a local authority to encourage modal shift away from private vehicles and on to public transport and walking or cycling for both leisure and commuter journeys. Working within the Council, we will target staff travel to/from and during work through Workplace Travel Planning whilst also raising awareness of options for sustainable travel, and routes to key destinations among the wider population of North Lanarkshire.

4. Development and Implementation of North Lanarkshire Council's AQAP

4.1 Consultation and Stakeholder Engagement

North Lanarkshire Council recognises that effective public and stakeholder engagement is an integral part of the preparation of an Air Quality Action Plan. Consequently, the Council has undertaken extensive consultation as part of the action planning process. In updating this AQAP, we have worked with other local authorities, agencies, businesses and the local community to improve local air quality. Schedule 11 of the Environment Act 1995 requires local authorities to consult the bodies listed in Table .

In carrying out the consultation process, it was considered vital to identify parties (stakeholders), both internal and external to the Council, who may have an interest in the action plan. These are individuals who may have a vested interest and who would be able to provide assistance in ensuring a robust and transparent consultation exercise. Experience gained from carrying out consultation on the previous two-air quality action plans proved useful in determining the best method for consultation for this action planning exercise. The Council had previously utilised an external facilitator for action planning for the first action plan, then subsequently for the second action plan, questionnaires and surveys were developed and used. It was felt, however, that the low response rate from the questionnaires/surveys in the last action planning exercise suggested that the high degree of effort to run such a consultation exercise did not yield sufficient results to make it justifiable. Therefore, for this third action plan a more targeted approach was favoured and utilised. Following the steering group meetings (described in more detail in section 4.2), a list of potential action plan measures was drawn up, and it was this that formed the basis of the public/ stakeholder consultation. It was felt that a concise list of potential action plan measures would give people the opportunity to make comment on actual specific suggested measures that it was intended to include in the document, whilst also asking for comments on any omissions that should be included. In order to publicise the air quality consultation the following platforms were used:-

- News article on North Lanarkshire Council website
- North Lanarkshire Council Facebook page
- North Lanarkshire Council Twitter page
- Press release to local newspapers

- Email to subscribers to NLC website
- Email to GovDelivery subscribers
- All Users' email to NLC Employees
- Email to all NLC Elected Members
- Email directly to relevant stakeholders (including those detailed in Table 2)

The response to our consultation stakeholder engagement is given in Appendix A.

Table 3 – Consultation Undertaken

Yes/No	Consultee
Yes	the Secretary of State
Yes	the Scottish Environment Protection Agency
Yes	the highways authority
No	all neighbouring local authorities
No	other public authorities as appropriate, such as Public Health officials
Yes	bodies representing local business interests and other organisations as appropriate

We received 31 responses to the consultation, with a number of responses being fairly detailed and specific to the proposed measures presented in the consultation document.

The breakdown of responses indicated the following breakdown of respondents

- 3 from NLC Elected Members,
- 6 from Internal Stakeholders specifically emailed for comment
- 5 from External Stakeholders, specifically emailed for comments
- 17 from members of the public (5 of whom are NLC employees)

Some of the responses were specific to their area, in particular Motherwell and Cumbernauld. Of the responses some simply commented that they were happy with what is proposed, while other respondents suggested additional measures that could be included. It was reassuring to note the level of interest and that those who responded had taken time

and effort over their response, suggesting a reasonable level of awareness in air quality in North Lanarkshire.

The response to our consultation stakeholder engagement is given in Appendix A.

4.2 Steering Group

North Lanarkshire Council recognises that the effectiveness of the Air Quality Action Plan is reliant on input and buy-in from a wide variety of different departments and organisations. Having gained the benefit of experience of previous air quality action plans we have continued to raise awareness of air quality issues in North Lanarkshire among colleagues across the Council over the past few years and have worked with other departments on air quality initiatives using air quality funding. Examples of this include working with our colleagues in roads and transportation to install EV charging points in a new park and ride car park facility, funding a programme of school playground painting for Bikeability training and funding work carried out in conjunction with the i-Bikes officer in 2017. This work, and more, has enabled us to identify relevant and engaged colleagues in various Council departments, as well as ensuring air quality is duly considered as appropriate by other departments.

Consequently, when it came to organising a steering group for the update of this air quality action plan it was encouraging to note that strong established links with several other departments within the council could form the basis of the steering group. In addition to this other relevant stakeholders from within the council were also identified and invited to the group, as well as cross-party political representation of the Council's Elected Members. Not everyone who was invited was able to attend, however there was a broad group of people who participated, as detailed below.

- Fiona Maguire, Senior Environmental Health Officer, Protective Services
- Mark Findlay, Asst Business Mgr, Protective Services
- Convener Infrastructure (Cllr Michael McPake)
- Cllr Alan Beveridge
- John Ashcroft, Asst Business Mgr, Roads Operations
- Vicky Abernethy, Business Mgr, Environmental Facilities

- Les Stevenson, Business Manager (Development Control)
- Graham Johnstone, Business Manager (Transport)
- Lyndsay Noble, Enterprise Projects, Enterprise and Housing Resources
- Gordon Laing, Asst Business Mgr (Development Plans)
- Shirley Gregg, Business Intelligence Assistant, Infrastructure
- Alex Miller, Development Co-ordinator, Enterprise and Housing Resources
- Lynda Stevenson, Service Delivery Mgr, Enterprise and Housing Resources
- Michelle Hendry, Repairs and Maintenance Manager
- Christopher Connor, SEPA
- Andrew Taylor, Scottish Government
- Martin Breen, SPT
- Ann Crossar, South Lanarkshire Council
- Ken Reid, Glasgow City Council
- Stuart McGowan, ITP Energised
- Annie Danskin, ITP Energised

The first stakeholder meeting was held on 5th December 2017 and comprised short presentations giving a brief overview of air quality, CAFS and the LAQM process, followed by more focused information on what the action plan is, and the need for cross-department/organisation input, essentially the role of those around the table. There then followed a fruitful and energetic discussion around the table which yielded much enthusiasm and interest in the updating of the action plan. At the end of the meeting those present were asked to go back to their departments and determine what input (if any) their department's work, initiatives etc. could feed into the Council's Air Quality Action Plan.

Following this initial stakeholder meeting a further stakeholder meeting was planned, and took place on 30th January 2018. The purpose of this meeting was to concentrate on what content should be included in the update of the Air Quality Action Plan, and what our focus, as a local authority should be in terms of air quality. Attendance at this second stakeholder

group was lower than the first group, due to weather, people not available etc. however; those who were able to attend are listed herewith.

- Fiona Maguire, Senior Environmental Health Officer, Protective Services
- Mark Findlay, Asst Business Mgr, Protective Services
- Les Stevenson, Business Manager (Development Control)
- Graham Johnstone, Business Manager (Transport)
- Shirley Gregg, Business Intelligence Assistant, Infrastructure
- Lorna Bowden, Place and Planning Mgr, Strategic Planning
- Lorna Ogilvy, Enterprise Projects, Enterprise and Housing Resources
- John Barr, Technical Officer, Roads
- Alan Leslie, Senior Planning Officer, Team Local Plans
- Ann Crossar, South Lanarkshire Council
- Martin Breen (SPT)
- Stuart McGowan, ITP Energised

Following a recap of the action plan requirement and process there was a presentation on the proposed outline measures to be included in the air quality action plan. This was debated among the group, along with more suggestions and an outline of work going on in other departments that could impact (positively) on air quality. The meeting concluded with the agreement that a draft set of proposed measures would be drawn up, based on discussions from the meeting, and that this would form the basis of a wider consultation for the action plan.

Details of the consultation process are outlined in section 4.1 of this action plan. The draft measures outlined in the consultation were emailed directly to the attendees of the steering group for their comment.

5. Air Quality Action Plan Measures

Table 4 shows the North Lanarkshire Council AQAP measures. It contains:

- a list of the actions that form part of the plan
- the responsible individual and departments/organisations who will deliver this action
- the timescale for implementation
- how progress will be monitored

Please see future ASRs for regular annual updates on implementation of these measures

Table 4 – Air Quality Action Plan Measures

Measure No.	Measure	EU Category	EU Classification	Lead Authority	Planning Phase	Implementation Phase	Key Performance Indicator	Target Pollution Reduction in the AQMA	Progress to Date	Estimated Completion Date	Comments
1	<p>NLC Vehicle Fleet and Work Journeys</p> <ul style="list-style-type: none"> The Council will strive to reduce car journeys for work purposes e.g. by teleconferencing. For instances where work travel is necessary the Council's pool car fleet will be utilised with electric/hybrid vehicles provided where possible Further consideration will be given to reducing the number of private vehicles used for Council business, introducing bus/sustainable transport where possible 	Promoting Travel Alternatives	Workplace Travel Planning	NLC All Depts	2018/19	2019-2021	NA	Anticipated reduction in car travel and thus AQ improvements in AQMAs	Ongoing	Ongoing initiative	
		Promoting Travel Alternatives	Workplace Travel Planning	NLC All Depts	2018/19	2019-2021	NA				
2	<p>Vehicle Fleet Efficiency</p> <ul style="list-style-type: none"> Tracking devices will continue to be fitted to NLC fleet vehicles in order to provide information on managing idling/speeding and unnecessary journeys Driver Certificate of Professional Competence training will be provided for all Council drivers, including modules on safe and efficient driving 	Vehicle Fleet Efficiency	Driver Training and ECO driving aids	NLC Fleet and Transport	2018	2018-21	NA	Anticipated reductions in NLC vehicle fleet contributions to overall AQ	Ongoing	Ongoing initiative	
		Vehicle Fleet Efficiency	Driver Training and ECO driving aids	NLC Fleet and Transport							

Measure no.	Measure	EU Category	EU Classification	Lead Authority	Planning Phase	Implementation Phase	Key Performance Indicator	Target Pollution Reduction in the AQMA	Progress to Date	Estimated Completion Date	Comments
	<ul style="list-style-type: none"> The Council will introduce scheduling of council vehicles e.g. coordinating school bus/minibus/community transport vehicles 	Traffic management	Other	NLC Fleet and Transport							
3	Subject to Scottish Government funding the Council will continue to operate the North Lanarkshire Council Eco Stars fleet recognition scheme and use this to engage with certain vehicle sectors on route planning as appropriate to avoid AQMAs	Vehicle Fleet Efficiency	Fleet Efficiency and Recognition Schemes	NLC Protective Services and External Consultant delivering Eco Stars	2018	2018-2021	NA	Targeted reduction of certain vehicle sectors in AQMAs leading to reduced emissions within AQMAs	Ongoing	Ongoing initiative	
4	The Council will continue to increase the provision of electric vehicle (EV) charging points, where possible ensuring these are accessible to both council staff and the general public. The Council will engage with other public sector agencies (e.g. NHS Lanarkshire) to encourage similar provision to ensure adequate coverage of EV charge points across NLC area	Promoting low emission transport	Promotion of EV recharging	NLC/ Other public bodies in area	2018/19	2018-2021	NA		Ongoing	Ongoing initiative	
5	The Council will abide by their statutory duty of sustainable procurement and include vehicle standards in the sustainability section of the sourcing methodology documentation, which will consequently feed through into the specification/award criteria where appropriate	Promoting low emission transport	Public vehicle procurement prioritising uptake of low emission transport	NLC Procurement	2018/19	2018-2021	NA		Ongoing	Ongoing initiative	

Measure no.	Measure	EU Category	EU Classification	Lead Authority	Planning Phase	Implementation Phase	Key Performance Indicator	Target Pollution Reduction in the AQMA	Progress to Date	Estimated Completion Date	Comments
6	<p>Increasing levels of sustainable travel</p> <ul style="list-style-type: none"> The Council will work with agencies such as SPT and Sustrans (Among others) to develop and implement measures which will encourage Modal Shift to public transport and active travel A programme of awareness-raising and promotion initiatives will be progressed around walking and cycling for leisure and commuting in North Lanarkshire. This will incorporate information on routes to key destinations in the NLC area 	Promoting travel alternatives	Intensive active travel campaign and infrastructure	NLC – Protective Services, Roads, City Deal	2018/19	2018-2021	NA	Unknown	NA	Ongoing initiative	
7	The Council will engage with SPT and other relevant local authorities to develop common engine standards for all tendered school bus contracts	Promoting sustainable travel	Public vehicle procurement – promoting uptake of low emission vehicles	NLC SPT Neighbouring local authorities	2018	2018-2021	NA	Anticipated reduction in emissions as result of newer bus fleet operating in AQMAs	NA	2021	
8	The Council will continue to progress their Workplace Travel Plan especially in view of other relevant NLC policies, such as property rationalisation, home working policy etc.	Promoting travel alternatives	Workplace travel planning	NLC All services	2018-2021	2018-2021	NA	Unknown	Workplace Travel Plan prepared a few years ago, requires updating and taking forward	2021	

Measure no.	Measure	EU Category	EU Classification	Lead Authority	Planning Phase	Implementation Phase	Key Performance Indicator	Target Pollution Reduction in the AQMA	Progress to Date	Estimated Completion Date	Comments
9	The Council will continue to run and publicise Vehicle Emission Testing and Vehicle idling Enforcement campaigns in areas of known and suspected persistent idling	Traffic Management	Anti-idling enforcement//testing vehicle emissions	NLC Protective Services	2018/19	2018-2021	NA	Unknown	NA	2021	
10	The Council will introduce car parking on-street enforcement in town centres in North Lanarkshire in order to reduce inappropriate parking in town centres and other areas	Traffic Management	Parking enforcement	NLC	2018	2019-2021	NA	NA	NA	Ongoing	
11	The council will investigate options for improving bus provision in North Lanarkshire <ul style="list-style-type: none"> Encourage partnership with SPT and bus operators to ensure major new and existing developments are fully connected from the outset 	Transport Planning and infrastructure	Bus route improvement	NLC SPT	2018-19	2018-2021	NA	Anticipated reduction in emissions due to lower emissions from buses	NA	Ongoing	
	<ul style="list-style-type: none"> Investigate/implement better bus infrastructure, particularly bus priority measures to encourage greater uptake of bus travel and reduce emissions from buses help up in congestion 	Traffic management	Bus priority								
	<ul style="list-style-type: none"> Work with bus operators (e.g. via Eco Stars) to improve emission standards for buses operating in North Lanarkshire and particularly within AQMAs 	Vehicle fleet efficiency	Promoting to w emission transport								

Measure no.	Measure	EU Category	EU Classification	Lead Authority	Planning Phase	Implementation Phase	Key Performance Indicator	Target Pollution Reduction in the AQMA	Progress to Date	Estimated Completion Date	Comments
12	Fully support and input to where possible the planned Strategic Travel Hub for Motherwell, ensuring project objectives include air quality indicators. Part of this will include taking forward the findings of the Motherwell Cycle Hire Feasibility study recently undertaken for the town.	Transport planning and infrastructure	Public transport improvement-interchanges, stations and services. Also, public cycle hire schemes	NLC City Deal Team	2018-2021	2018-2021	NA	Anticipated reduction in emissions through greater modal shift and sustainable travel in Motherwell AQMA	NA	Unknown	
13	The Council will investigate all potential options for the improvement of traffic flow, and therefore air quality, through the Chapelhall AQMA	Transport Planning and infrastructure	Other	NLC Roads	??	??	NA	Anticipated reduction in emissions in Chapelhall AQMA as a result of works	Ongoing	Unknown	
14	The Council will ensure that air quality issues are duly considered for proposed major infrastructure projects which have the potential to impact on the Council's AQMAs	Policy guidance and development control	Air Quality planning and policy guidance	NLC Planning	2018	2018-2021	NA	Unknown	Ongoing	Ongoing	
15	The Council will ensure that all policies in relation to the Public Sector Climate Change responsibilities will take due cognisance of air quality implications as appropriate, particularly where there is potential for adverse air quality impacts	Policy guidance and development control	Other policy	NLC Planning	2018	2018-2021	NA	Unknown	Ongoing	Ongoing	
16	The Council will continue to ensure that air quality is appropriately considered in all relevant planning applications and ensure that planning decisions and policy at both strategic and local level will take due cognisance of the Cleaner Air For Scotland (CAFS) Strategy and the Council's Air Quality Action Plan	Policy guidance and development control	Air quality planning and policy guidance	NLC Planning	2018	2018-2021	NA	Unknown	Ongoing	Ongoing	

Measure No.	Measure	EU Category	EU Classification	Lead Authority	Planning Phase	Implementation Phase	Key Performance Indicator	Target Pollution Reduction in the AQMA	Progress to Date	Estimated Completion Date	Comments
17	The Council will endeavour to ensure the highest quality of air monitoring data is produced in order to provide robust evidence for air quality decision-making. Specifically	Public Information	Other								
	<ul style="list-style-type: none"> A review, including a GIS mapping exercise will be undertaken of all NLC operated air quality monitoring sites (automatic and non-automatic) to ensure monitoring is being carried out at the most appropriate locations in terms of receptor exposure and sources of air pollution 										
	<ul style="list-style-type: none"> The automatic air monitoring unit at Motherwell Civic Centre will be relocated to a more representative location which will enable a comparison of air quality before and after the planned road infrastructure changes and other major development in the area 	Public Information	Other	NLC Protective Services	Ongoing	Ongoing	NA	NA	Ongoing	Ongoing	
	<ul style="list-style-type: none"> In line with new statutory requirements the Council will set up a monitoring network for PM2.5 	Public Information	Other								
	<ul style="list-style-type: none"> An updated dispersion modelling exercise will be undertaken of the A73, Monklands and Motherwell areas in order to obtain an accurate picture of air quality levels in North Lanarkshire 	Public Information	Other								

Measure no.	Measure	EU Category	EU Classification	Lead Authority	Planning Phase	Implementation Phase	Key Performance Indicator	Target Pollution Reduction in the AQMA	Progress to Date	Estimated Completion Date	Comments
18	The Council will ensure that air quality is included within the Council's input to the NHS Lanarkshire Joint Health Protection Plan and carry out joint work with local health boards to improve awareness of air pollution as a public health issue	Public information	Other	NLC NHS Lanarkshire	2018-2021	2018-2021	NA	NA	NA	NA	
19	The Council commits to working with neighbouring authorities where appropriate on air quality projects to ensure consistency of approach as well as raising awareness of air quality issues among a wider audience	Public information	Via other mechanisms	NLC SLC Other neighbouring local authorities	2018	2018-2021	NA	NA	Already working on joint mapping project with SLC. Further projects planned	2021	
20	The Council pledges to carry out awareness raising of air quality issues with communities and schools. Part of this will involve taking part in National Clean Air Day as well as other relevant air quality initiatives and events	Public information	Via other mechanisms	NLC Protective Services Roads	2018	2018-2021	NA	NA	Ongoing	Ongoing	
21	<p>Planning policy</p> <ul style="list-style-type: none"> The Council pledges to develop planning policy to reflect the increasing demand/requirement for Electric Vehicle charging points in new public and private development Planning guidance for developers will be updated to reflect current best practice, including guidance on domestic wood burning, commercial heating and biomass 	<p>Policy guidance and development control</p> <p>Policy guidance and development control</p>	<p>Low emissions strategy</p> <p>Air quality planning and policy guidance</p>	NLC Planning Protective Services	2018	2018-2021	NA	NA	Planning guidance already prepared however update now required	2019	
22	The Council will undertake a feasibility study into strategic planting of "green wall" structures in relevant areas of North Lanarkshire	NA	NA	NLC	2018/19	2019-2021	NA	NA	Unknown	2021	

Appendix A: Response to Consultation

Table A.1 – Summary of Responses to Consultation and Stakeholder Engagement on the AQAP

Consultee	Category	Response
Individual	Elected Member, North Lanarkshire Council	Happy with what is proposed. Suggest we raise awareness more of the work being done to improve air quality in NL
Individual	Elected Member, North Lanarkshire Council	Happy with everything that is proposed
Individual	Elected Member, North Lanarkshire Council	Too many idling vehicles and as such the Vehicle idling campaigns should be expanded
Scottish Government	External Stakeholder	<ul style="list-style-type: none"> • Similar action plan measures should be combined • Proposed measure on procurement has potential to make significant local impact and would demonstrate leading by example
SEPA	External Stakeholder	<ul style="list-style-type: none"> • Encourage other NLC depts. To align their policies with the AQAP • More detail required on what NLC intends to do about emission standards of buses serving the area • Suggests use of Automatic Number Plate Recognition (ANPR) camera surveys to obtain data to model traffic emissions • Suggests should consider further actions such as deploying traffic regulation enforcement initiatives • Ensure emission reduction is demonstrated to illustrate effectiveness of objectives and report annually through APR
Falkirk Council	External Stakeholder	Happy with everything that is proposed
NHS Lanarkshire	External Stakeholder	Action plan should include a cost-benefit analysis. Insufficient data presented for detailed cost-benefit analysis Suggests phone app could be used instead of tracking devices for monitoring driving efficiency etc.
SPT	External Stakeholder	Suggests including commitment to sustainable travel for journeys at work. Support for continued use of tracking devices on NLC vehicles. Servicing of vehicles more often than recommended by manufacturer – no evidence

		<p>this is beneficial to AQ, suggests removing this action.</p> <p>Support measure aimed at improving emissions from school buses through SPT-administered contract.</p> <p>Action involving improving buses must include measures aimed at improving bus speeds, reduced delays and ensuring bus priority in AQMAs.</p> <p>Support continuing with eco Stars but suggests action which discourages certain sectors from driving through AQMAs.</p> <p>Carry out more Vehicle Emission Testing campaigns and more Vehicle Idling Enforcement patrols.</p> <p>Promote Journeyshare car sharing amongst NLC staff.</p> <p>Explore additional sources of funding for air quality projects, e.g. SPT capital programme bids, Sustrans, Community Links, European funding.</p>
Environmental Assets	Internal Stakeholder	No comments to add
Enterprise and Housing Resources	Internal Stakeholder	<p>Investigate/implement better bus infrastructure.</p> <p>Work with other agencies to facilitate modal shift to public transport and active travel</p> <p>Implement better cycle and walking infrastructure to key destinations in North Lanarkshire</p>
Planning	Internal Stakeholder	Suggests that air quality be reviewed at certain intervals for major long term developments at different stages as the development progresses
Housing and Property	Internal Stakeholder	<p>Suggests including the fact that NLC currently working on specification for EV charging points to be included in proposed new developments (for social housing in North Lanarkshire)</p> <p>Need to agree NLC standard specification that all depts. should adopt in order to prevent unnecessary costs for installation of EV charging points.</p> <p>Decide on policy re tenants/wider public access to use and pay for EV charging points.</p> <p>Should include air quality within future development briefs to improve residential air quality.</p> <p>Cycling initiatives should include provision for safe cycle storage within residential</p>

		and other areas to promote usage.
City Deal team	Internal Stakeholder	Suggests encouraging partnership between SPT and bus operators to ensure Ravenscraig is fully connected and where possible ensure pedestrian and cycle routes are integrated into developments to create links to Carfin and Motherwell train stations. Planned East Airdrie Link Road (EALR) should help with congestion and air quality in Chapelhall. Suggest possible park and ride for Eurocentral to encourage sustainable travel choices in the area.
Roads	Internal Stakeholder	Motherwell cycle hire feasibility study could be taken forward as part of the Motherwell Strategic Transport Hub project. Roads strategies and policies being reviewed at present time.
Member of the public	Individual	Happy that NLC are addressing air quality, but aggrieved about more vehicles from new housing planned for Carnbroe (near Coatbridge). Also proposed incinerator at Carnbroe, which was refused planning permission by NLC but decision overturned by Scottish Government and permission granted.
Member of the public	Individual	Request for more planting to help with air pollution and noise
Member of the public	Individual	Has seen great improvements in AQ in Motherwell over the 65 years he has lived there, however believes supermarket deliveries in diesel vans are now causing pollution problems and that a tax should be levied against supermarkets offering home deliveries and revenue from this be used to help AQ. This is outwith Council control.
Member of the public	Individual	Concerned about AQ due to road infrastructure struggling to cope with volume of traffic due to more and more housebuilding and pedestrian crossings too close to one another. Lives near Ravenscraig
Member of the public	Individual	Concerned about AQ issues from domestic burning of plastic and other toxic materials in fireplaces. Possibly public awareness/nuisance issue.
Member of the public	Individual (NL employee)	Happy with what is proposed but also added the following suggestions:- -strategic planting project -more regulation on house builders to create new/protect exiting greenspace, or get

		<p>them to plant more trees</p> <ul style="list-style-type: none"> -look at funding for home owners to improve their gardens -trees safely built into town centre buildings /streetscape
Member of the public	Individual (NL employee)	AQ measures should consider pollen and grass cuttings should be removed after cutting instead of leaving them in-situ
Member of the public	Individual (NL employee)	NLC should consider home working (or booking into an office closer to home if appropriate) for employees who travel a long distance to and from work
Member of the public	Individual (NL employee)	NLC should promote cycling to work instead of driving. Suggests incentives such as points scheme leading to e.g. extra annual leave or other such bonus
Member of the public	Individual (NL employee)	<p>More info and communication should be provided on air quality to help inform people's travel choices</p> <p>Commends vehicle emission testing but needs more publicity.</p> <p>Encourage greater use of electric and hybrid pool vehicles for business use.</p> <p>With more staff, now based in fewer buildings NLC should encourage staff to walk, cycle, use public transport etc. through use of incentive scheme.</p> <p>Extend employee discount etc. scheme to cars and put emissions criteria in place.</p> <p>Extend initiatives on sustainable travel and emissions criteria to NLC partner organisations and ALEOs.</p> <p>NLC should introduce minimum emission standards for NLC partners and contractors e.g. School buses.</p> <p>Should be more public awareness campaigns on issues that would improve air quality e.g. Safe driving, public transport etc.</p> <p>Introduce more EV charging bays at all NLC-run car parks.</p> <p>Plant tree species in polluted areas that are known to remove pollutants from air.</p>
Member of the public	Individual	<p>Suggestions specific to Motherwell</p> <ul style="list-style-type: none"> -Bus stop in Muir Street (beside Motherwell Station) is too small and buses block the road causing queuing traffic down Hamilton Rd. -Put in measures to discourage inappropriate parking by commuters around Motherwell Station (possibly parking charges). -Worried about improvements to Motherwell station and suggest alternative park

		and ride facilities be put in at Airbles Station and Shieldmuir Station instead. -Buses, which travel along Orchard St/Ladywell Rd (quiet narrow, residential streets), should be re-routed along The Loaning/Hamilton Rd which are wider and more suitable.
Member of the public	Individual	Concerned about additional traffic on Redwood Rd/Forest Rd, Cumbernauld, mainly from HGVs from Gist (M&S), Stagecoach and local red bus company.
Member of the public (via Facebook post)	Individual	Looking at buying an electric vehicles but it's not an option due to on street parking and no residential charging points
Member of the public (via Facebook post)	Individual	Lack of public transport to get out of villages before 7am, not suitable for people who work day shift.
Member of the public (via Facebook post)	Individual	NLC aggressive house building policy in Gartcosh, Glenboig, Muirhead and Chryston has put thousands of additional vehicles on roads and this is the reason air quality is deteriorating
Member of the public (via Facebook post)	Individual	Suggests should introduce free public transport like in Estonia
Member of the public (via Facebook post)	Individual	

Appendix B: Reasons for Not Pursuing Action Plan Measures

Table B.1 – Action Plan Measures Not Pursued and the Reasons for that Decision

Action category	Action description	Reason action is not being pursued (including Stakeholder views)
Vehicle fleet efficiency	Consideration will be given to servicing NLC fleet vehicles more often than the minimum frequency recommended by vehicle manufacturers	It is not believed that this measure will have any impact on reducing emissions and that it will result in increased servicing costs to the council for no tangible environmental benefit and will likely add to the environmental dis-benefits by requiring disposal of more oil, filters and other vehicle parts.

Glossary of Terms

Abbreviation	Description
AQAP	Air Quality Action Plan - A detailed description of measures, outcomes, achievement dates and implementation methods, showing how the local authority 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
AQS	Air Quality Strategy
ASR	Air quality Annual Status Report
Defra	Department for Environment, Food and Rural Affairs
EU	European Union
LAQM	Local Air Quality Management
NO ₂	Nitrogen Dioxide
NO _x	Nitrogen Oxides
PM ₁₀	Airborne particulate matter with an aerodynamic diameter of 10µm (micrometres or microns) or less
PM _{2.5}	Airborne particulate matter with an aerodynamic diameter of 2.5µm or less
...	...

References

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Air quality and social deprivation in the UK: an environmental inequalities analysis, 2006

Abatement cost guidance for valuing changes in air quality, May 2013, Defra

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Local Air Quality Management Policy Guidance PG (16)