North Lanarkshire Council

air quality action plan

service and people first

Contents

Executive Summary

The 1995 Environment Act and subsequent regulations made there under require North Lanarkshire Council to produce an action plan to address air quality in their area. This follows on from the declaration of four Air Quality Management Areas for potential exceedance of national objectives in relation to particulate matter (PM10). These areas are:

- Motherwell Town Centre
- Whifflet, Coatbridge
- Chapelhall, Coatbridge
- Harthill

The Action Plan intends to show how the Council, in partnership with the community and other stakeholders, will improve air quality in the North Lanarkshire. Because of the nature of the challenge facing North Lanarkshire Council many of the actions contained are long term goals rather than attempts at short term fixes.

A draft Action Plan was prepared in 2007 and made available to all stakeholders for comment. This is an updated version of the original Action Plan which takes into account our most recent declaration of an Air Quality Management Area in Harthill which was completed in 2008.

This updated Action Plan has been through extensive internal and external consultation to try and reflect the views and comments of all stakeholders. The actions detailed in the plan reflect the outcome of our consultations. They also aim to integrate, as far as possible, with existing local and national plans and strategies relating to key issues such as transport and development.

The plan sets out 36 actions that have been identified to reduce levels of PM10 within North Lanarkshire. The actions are split between Council wide measures that will directly improve air quality throughout North Lanarkshire and specific measures within each Air Quality which will contribute to the management of particulates within that area. These actions aim to strike an appropriate balance between the direct and indirect costs of taking action and the benefit in terms of improved air quality. The types of actions set out in the plan are:

- reducing emissions from individual vehicles
- improving public transport
- improving the road network
- planning and development measures
- reducing emissions from other sources
- reducing demand for travel and promoting alternative modes of transport
- educate and inform the public re air quality

The plan also provides an evaluation of the actions detailed and the potential they bring to addressing Air Quality in North Lanarkshire. Monitoring and re-evaluating these actions will be the key to the long term success of the Action Plan.

Introduction

North Lanarkshire Council is Scotland's fourth largest local authority and is situated in central Scotland. It includes the medium to large towns of Motherwell, Wishaw, Airdrie, Coatbridge, Cumbernauld and Kilsyth and has a population of approximately 326,000. North Lanarkshire is a strategic transport hub with a number of major roads running through the district, namely the A8/M8 motorway running between Glasgow and Edinburgh, the M73/M74 running north and south, and the A80/M80 running north from Glasgow to Stirling and beyond.

Local authorities in Scotland, like the rest of the UK have a duty to monitor and report on air quality in their area under a regime known as Local Air Quality Management (LAQM). National objectives have been set for seven significant pollutants, along with dates for compliance with the objectives. North Lanarkshire Council has been monitoring air quality in line with its statutory requirements for a number of years and have submitted annual reports to the Scottish Government and Scottish Environment Protection Agency. The Council's location makes it a prime area for commuters to Glasgow, Edinburgh and Stirling and this, combined with the significant amount of private residential housing that has been built in recent years has meant that North Lanarkshire has significant air quality challenges largely due to road traffic emissions.

Further to this, a Detailed Assessment of PM10 levels was carried out in 2004, for four road junctions throughout North Lanarkshire, namely:

- Junction of Airbles Road and Windmillhill Street at the Civic Centre, Motherwell;
- Motherwell Cross junction in Motherwell Town Centre;
- Whifflet Cross junction in Coatbridge; and
- A73 at Chapelhall Main Street and Lauchope Street junction.

The 2004 Detailed Assessment for PM10 concluded that the annual mean PM10 concentration at sensitive receptors close to each of the road junctions is likely to exceed the 2010 annual mean objective level of 18µg/m3. It was also identified that the assumed background concentration, obtained from nationally published sources accounted for more than 90% of the total predicted PM10 concentration.

Following discussions with the then Scottish Executive and Scottish Environment Protection Agency (SEPA) it was agreed to declare Air Quality Management Areas (AQMAs) for PM10 covering each of the areas identified as potentially exceeding the 2010 objective. Where an AQMA is declared a local authority is obliged to develop an Action Plan of measures to improve local air quality. The Council prepared a draft Action Plan in 2007 that was circulated for consultation, however following consultation with local and statutory stakeholders the Action Plan has been updated. This document forms the Council's updated Action Plan.

2.0 The Local Air Quality Management Process in North Lanarkshire

2.1 Background

In 2003 North Lanarkshire Council undertook an Updating and Screening Assessment (US&A) of air quality. The US&A identified that background PM10 concentrations in certain areas of North Lanarkshire were high and consequently that there was potential for annual average PM10 concentrations at certain busy road junctions to exceed the 2010 annual mean NAQS objective for PM10.

A Detailed Assessment of PM10 levels at four road junctions was undertaken in 2004. The four junctions considered were:

- Junction of Airbles Road and Windmillhill Street at the Civic Centre, Motherwell;
- Motherwell Cross junction in Motherwell Town Centre;
- Whifflet Cross junction in Coatbridge; and
- A73 at Chapelhall Main Street/ Lauchope Street junction.

The Detailed Assessment concluded that the annual mean PM10 concentrations at sensitive receptors close to each of the road junctions were likely to be in excess of the annual mean objective level of 18 µg/m3 in 2010. It was also identified that the assumed background concentration, obtained from nationally published sources, accounted for more than 90% of the total predicted PM10 concentration.

Following discussions with the Scottish Executive (as they were then known) and the Scottish Environment Protection Agency (SEPA) it was agreed to declare Air Quality Management Areas (AQMAs) covering each of the areas identified as potentially exceeding the 2010 objective. An AQMA was declared in Motherwell covering both areas of Motherwell Town Centre considered in the Detailed Assessment, whilst further AQMAs were declared at Whifflet Cross and Chapelhall. The areas covered by each AQMA are detailed in Appendix One.

A Progress Report was undertaken in 2005 where monitoring data at Harthill, close to a quarry, indicated a potential exceedance of the 2010 annual mean PM10 objective. Due to the potential to exceed the objective at Harthill, a Detailed Assessment was also completed at this time.

The Detailed Assessment of PM10 levels at Harthill examined the monitoring data and included dispersion modelling of fugitive and point source quarry emissions, as well as emissions from road traffic on the adjacent M8 motorway. The monitoring data was analysed alongside measured wind directions and modelling predictions to ascertain the source of the measured PM10 levels. The analysis indicated that the contribution to measured PM10 levels from road traffic and the quarry was roughly similar. The study concluded that the likelihood of exceedance of the 2010 annual mean objective would depend on the nature of the PM10 material (e.g. coarse material from the quarry or more volatile secondary formed PM10 from road traffic emissions) and hence the adjustment factor applied to the TEOM monitored results. North Lanarkshire proposed to undertake gravimetric monitoring for direct comparison with the EU Directive.

In 2006 the Council undertook another US&A. The US&A concluded there were measured exceedances of the 2010 annual mean PM10 objectives within the existing AQMA at Motherwell Cross and Chapelhall confirming the continued requirement for the AQMA. However, monitoring data at the Civic Centre, Motherwell, within the Motherwell AQMA indicated a reduced PM10 concentration, such that it was unlikely that the annual mean PM10 objective would be exceeded in 2010.

The 2006 U&SA also included an assessment of road traffic emissions, which identified potential for an exceedance of the 2010 PM10 annual mean objective at roadside locations in Coatbridge.

The locations identified included the AQMA at Whifflet. Measured NO2 concentrations within Motherwell and Chapelhall exceeded the NAQS annual mean objective. It was also recommended that further consideration of the AQMAs, including NO2 levels, should be given in the Further Assessment and Action Plan.

A further Assessment of the AQMAs was completed in 2007. The assessment included the compilation of a detailed inventory of all emissions within each of the AQMAs and a dispersion modelling study of those emissions to both predict ambient PM10 concentrations across each of the study areas and to determine the contribution of emissions from each source to ambient concentrations.

A discussion of the original and more recent source apportionment studies is provided in Section 2.3, however the main conclusions of the 2007 study are summarised below.

The study predicted that PM10 concentrations within the Whifflet AQMA will exceed the 2010 annual mean objective and confirmed that the declaration of the AQMA was valid and the boundary of the AQMA should be at the least maintained, although consideration should be given to identifying PM10 concentrations at Kirkshaws and at receptors close to the Shawhead junction. The source apportionment study has indicated that road traffic emissions were the dominant source of anthropogenic PM10 emissions in Coatbridge.

In Chapelhall, modelling predictions of PM10 concentrations confirmed that the declaration of the AQMA was valid and that the existing boundary should be maintained. The source apportionment study has indicated that road traffic emissions were the dominant source of anthropogenic PM10 emissions in Chapelhall.

In Motherwell, modelling predictions of PM10 concentrations confirmed that the declaration of the AQMA was valid and that the existing AQMA boundary should be maintained. Road traffic emissions were determined to be the dominant source of PM10 concentrations at roadside locations while at background locations, volume sources were determined to be a more significant source of PM10 concentrations. This reflected the higher contribution of industrial and combustion generated emissions from the industrial areas in the northern portion of the AQMA.

A further Assessment of air quality in Harthill was carried out in 2008. The study concluded that there was a risk of exceedance of the 2010 PM10 annual mean objective at Harthill and that the decision to declare an AQMA was justified. It also concluded that the boundary of the proposed AQMA was valid and should remain unchanged. Source apportionment concluded that emissions from road traffic and fugitive PM10 were the most significant sources.

Following the declaration of the AQMA's in Whifflet, Chapelhall and Motherwell and further detailed Assessment studies, the Council prepared a draft Action Plan of measures that were to be undertaken to improve air quality within each of the AQMAs. The draft Action Plan was completed in 2007 and included a mixture of measures to be undertaken locally and support for regional and national initiatives that would improve air quality in each of the AQMAs and in North Lanarkshire generally. The draft Plan was submitted to the Scottish Government for comment, and whilst the Government were generally happy with the Plan, it was commented that there had been insufficient consultation on the Plan.

In 2008, the Council's Air Quality Progress Report concluded that there was a risk of exceeding the NAQS objectives for NO2 and PM10 at a number of locations of relevant public exposure. Automatic monitoring also indicated that the 2010 PM10 objective was likely to be exceeded at Chapelhall, Menteith Road, Motherwell (within the existing Motherwell AQMA) and Harthill. The monitoring data supported the continuation of the AQMAs at Calder Court, Chapelhall and Motherwell Cross, and a fourth AQMA which was to be declared at Harthill. The Harthill AQMA was declared in June 2008.

The most recent air quality study undertaken was the 2009 Updating and Screening Assessment (U&SA). The study assessed the most recent monitoring data in each of the AQMAs and reviewed changes to local emissions sources, including variations in road traffic flows.

The most recent monitoring data (2008) showed that measured annual mean PM10 concentrations were in excess of the 2010 objective at Chapelhall, and close to the objective at Mentieth Road, Motherwell. The measured annual mean PM10 concentration at Calder Court, within the Whifflet AQMA was substantially below the annual mean objective. Further detail on measured PM10 concentrations in each of the AQMAs is provided in Section 2.2.3.

The measured concentrations at each of the monitoring stations were consistent with the Further Assessment modelling studies, which predicted exceedences at nearby sensitive receptor locations. Exceedence of the annual mean objective for PM10 in 2010 was, therefore, still predicted. Analysis of the monitoring data indicated that PM10 concentrations have generally decreased at all monitoring locations over the last three years; this may however reflect the changes to methods used to correct the monitoring data (see 2.2.1).

An updated further Assessment study of emission sources and PM10 concentrations within the Chapelhall, Motherwell and Whifflet AQMAs was undertaken alongside this Action Plan. An accompanying Further Assessment report has been prepared which provides further information on the study, whilst details of the source apportionment study are provided in Section 2.3.

2.2 Monitoring Studies

2.2.1 Co-Location Monitoring

The Council monitor PM10 within the AQMAs using real-time TEOM analysers. TEOM analysers are equipped with a heated inlet which has been found to cause volatile PM10 material to vaporise, thus reducing the PM10 concentration measured by the analyser. Historically, research studies and national guidance had indicated that TEOM analysers typically underestimated PM10 concentrations by up to 30% in comparison with gravimetric measurement techniques on which the air quality objectives for PM10 are based. TEOM-measured PM10 concentrations were therefore factored by 1.3 for comparison with the air quality objective.

In 2005, the (then) Scottish Executive issued guidance indicating that locally measured co-location factors could be used where available in preference to the national 1.3 factor. In response to this guidance, North Lanarkshire Council has undertaken local co-location studies in which a TEOM analyser has been co-located with a gravimetric sampler and the measurements compared to determine an appropriate adjustment factor. The initial co-location study was undertaken in 2005 at a background monitoring site in Motherwell. The co-location study (reported in the Updating and Screening Assessment 2006) concluded that a factor of 1.20 was appropriate for use in North Lanarkshire in preference to the 1.3 factor. Subsequent co-location studies in Harthill have determined annual co-location factors ranging from 1.23 in 2006 to 1.04 in 2008.

The use of co-location factors for determining gravimetric equivalent PM10 concentrations has introduced some uncertainty into evaluating measured concentrations, particularly in assessing inter-annual variation in measured concentrations.

In March 2009, new technical guidance issued from the Scottish Government provided revised methods for assessing local air quality. Contained within the guidance was a updated method for factoring TEOM measured PM10 concentrations. The method, known as the volatile correction factor (VCM) was developed to adjust TEOM concentrations to gravimetric equivalence, based on the purge concentrations measured by FDMS analysers. This has replaced the 1.3 adjustment factor for PM10. Measured PM10 concentrations in 2008 have, therefore, been factored in accordance with the VCM correction method. As discussed above, evaluation of the measured concentration in 2008, in comparison to previous years is difficult due to the change in correction methods used.

2.2.2 Background Concentrations in North Lanarkshire

The background concentration is the residual pollutant concentration in an area that occurs without the contribution of local emission sources. The background concentration is akin to what would be experienced in a rural area. The background concentration encompasses two elements,

contribution from transboundary emission sources and natural sources.

In addition to the background concentration, there is a contribution to ambient pollutant concentrations from diffuse sources, such as commercial and domestic combustion or general industrial activities. Whilst emissions from such sources will have a localised impact, the emissions tend to have a low level impact across a wider area. These diffuse, or area, emission sources contribute toward the ambient pollutant concentration, and as such the contribution is often included when referring to the background concentration.

Background pollutant concentrations across North Lanarkshire are strongly influenced by transboundary emission sources, particularly as the area is downwind of the greater Glasgow conurbation for the prevailing wind direction. In particular, the AQMAs at Whifflett and Motherwell are downwind of Glasgow and South Lanarkshire as well as the extensive motorway networks which form part of the administrative boundaries.

The National Atmospheric Emissions Inventory (NAEI) has been compiled on behalf of Defra and the devolved administrations. The NAEI estimates emissions from differing emission sources based on national emissions factors and estimates of activity for each emission source, e.g. quantity and type of fuel combusted, and the emissions are aggregated into square kilometre areas. The NAEI covers all areas of the UK, including North Lanarkshire. Using the emissions estimates within the NAEI high level dispersion modelling studies have been undertaken to estimate background pollutant concentrations on a square kilometre basis. The predicted background concentrations are verified against local monitoring data to provide an estimate of the prevailing background concentration in each kilometre grid square. The estimates of background pollutant concentrations are undertaken periodically, with the most recent estimates of background PM10 concentrations undertaken in 2009.

The original Detailed Assessment, undertaken in 2004, which determined the potential for exceedence of the 2010 annual mean objective for PM10 utilised published background PM10 concentrations. The 2004 estimated background PM10 concentration in 2010 in Chapelhall, Motherwell and Whifflett was 18µg/m^3. Any contribution from local emission sources, e.g. road traffic was therefore sufficient to take the predicted ambient concentration over the objective level.

In 2006, the estimated 2010 background concentrations were refined, with the estimated background PM10 concentration in each of the AQMAs estimated to be in the range 14-16µg/m^3. Monitoring undertaken at a background monitoring site by the Council in 2005-06 demonstrated strong correlation with the estimated background concentrations.

2008 annual mean PM10 concentration (2006 base year)

2010 annual mean PM10 concentration (2004 base year)

2010 annual mean PM10 concentration (2006 base year)

Legend: Green 0 -10 µg/m^3 Yellow 10 -15 µg/m^3 Orange 15 – 18 µg/m^3 Red 18 - 20 µg/m^3

Figure 1 Estimated annual mean background concentration maps of PM10 (µg/m3)

In April 2009, a further refined dataset of estimated background PM10 concentrations was released. The estimates of background concentrations were updated to account for the implementation and through-feed of national policies aimed at improving air quality and to update for the effect of previous estimates based on actual monitoring data. The updated background PM10 concentrations are presented in Table 1 and graphically in Figure 1.

AQMA	Estimated background 2008	PM10 concentration 2010
Chapelhall	13.3	12.9
Motherwell	14.0	13.5
Whifflett	14.8	14.3

Table 1 Estimated annual mean background PM10 concentrations in each of the AQMAs (µg/m³), 2010

As can be observed from the background concentration maps, the spatial distribution of predicted levels indicates that PM10 concentrations are higher to the south and east of the Council area. These areas incorporate the Coatbridge/Airdrie and Bellshill/Motherwell/Wishaw urban areas. This reflects the influence of transboundary sources on background pollutant concentrations. The background PM10 concentrations are estimated to be relatively uniform across the Council area, with concentrations estimated to be lower than that reported in 2006.

The estimated background PM10 concentration in each of the AQMAs is presented in Table 1. The most recent estimates of background PM10 concentrations in 2010 are, therefore, substantially lower than those originally estimated in 2004. For comparative purposes, the measured rural annual average PM10 concentration at the Walkmillglen monitoring station operated by Glasgow City Council in 2008 was 14.2µg/m³.

Based on this measured concentration at a rural site it is considered that the 2009 background concentration estimates may be lower than is experienced in reality. To date in 2009, the average measured concentration is 12 µg/m³.

Location	Measured Annual Mean PM10 Concentration (µg/m³) 2005	2006	2007	2008
Motherwell Civic Centre	17.7	N/A	N/A	N/A
Motherwell Cross	23.5	27.8	23.1	N/A
Motherwell Menteith Road	N/A	N/A	19.5	17.6
Chapelhall	22.0	25.6	24.9	20.8
Whifflet	N/A	18.0	17.9	15.0

Table 2 Measured Annual Mean PM10 Concentrations within each AQMA 2005-08, µg/m³

Notes:
Motherwell Civic Centre monitoring station was relocated in 2006
The monitoring station at Motherwell Cross was relocated to Menteith Road in 2007. Monitoring was undertaken at each site for part of the year. The presented concentrations for each of these sites in 2007 are period mean concentrations and have not been annualised.

2.2.3 Monitoring Within the AQMAs

Since the declaration of the AQMAs in 2005 North Lanarkshire Council has undertaken further monitoring of PM10 concentrations in each of the AQMAs.

The measured annual mean PM10 concentrations at each of the AQMAs in 2005 and 2006 are presented in Table 2 below. Further information on the monitoring is provided in the Further Assessment and the 2009 Updating and Screening Assessment Report.

The measured annual mean PM10 concentrations at each of the monitoring stations have demonstrated a general decrease in concentrations since 2005, although some inter-annual variation has been experienced due to variations in meteorological concentrations.

Measured concentrations within the Motherwell (at Menteith Road) and Whifflet AQMAs have fallen below the 2010 annual mean objective level, although it should be noted that neither station is located at the point of worst case exposure within each AQMA. The measured annual mean PM10 concentration at Chapelhall remains substantially above the NAQS objective level.

2.3 Further Assessment (source apportionment)

A further Assessment of PM10 concentrations in the Chapelhall AQMA, Coatbridge AQMA and Motherwell AQMA was undertaken in 2006-07. The Further Assessment included an inventory of all emission sources within these AQMAs and detailed modelling of emissions in each area. The study has been updated in 2009 using improved estimates of road traffic data and revised emissions estimates. The findings of the Further Assessment are reported separately, with the report detailing the method of assessment, sources of data and predicted concentrations; however the findings are summarised in this section.

The study considered emissions from all sources within each AQMA, including:

- road traffic emissions from local roads;
- non-exhaust emissions attributable to traffic on local roads, including brake and tyre wear and resuspended material;
- emissions from local commercial and domestic combustion;
- emissions from local industrial sources; and
- the contribution from natural and transboundary sources.

Initially an emissions inventory was compiled estimating emissions from each source. To determine emissions from road traffic on local roads traffic flow data was obtained from studies undertaken on behalf of North Lanarkshire Roads Department. The road traffic flow data, provided by traffic consultants SIAS, was determined from modelling studies undertaken to optimise traffic flows in the Motherwell-Wishaw area and Airdrie-Coatbridge area (including Chapehall). Traffic flow data was provided for baseline years as well as future years which included expected traffic growth levels accounting for committed developments. In particular, the future traffic model for Motherwell attempted to include the effect of the Ravenscraig development on road traffic flows in Motherwell.

The traffic models contain a number of assumptions, however, that are not directly compatible with the requirements of an air quality study. For example, the future traffic models for Motherwell predicted congestion on roads around the town centre, such that the model could not compute the traffic flows, i.e. the roads were determined to experience traffic flows beyond their theoretical design capacity. The model was, therefore scaled back to traffic flows approximately 80% of that expected (although this varied from road to road), with the remaining cars assumed to use alternative routes. The traffic flows used for the modelling study, therefore, were less than those that would be expected in reality. This problem was overcome by use of adjustment factors to vary predicted pollutant concentrations to verify with local monitoring data.

The modelled traffic flow levels for each road were input to an emissions database which was used to calculate emissions on each stretch of road, based on the traffic flow level, speed of traffic, vehicle type and assumptions regarding the relative proportion of differing vehicle and engine types within the average traffic flow for a given year and road type.

Emissions from non-road traffic sources were estimated with reference to the NAEI and other published data sources. Emissions from non-road traffic sources were aggregated into an emission for a square kilometre, assuming emissions were evenly distributed across the grid square.

The various emissions were input to the dispersion model as road or area sources alongside information on local topographic and meteorological conditions. Modelling predictions of ambient PM10 concentrations were then undertaken across each AQMA and at specified receptor points located within each AQMA.

The contribution of each emission source to total PM10 concentrations was extracted from the modelling predictions. The contribution of each source to the total PM10 will vary from location to location, however indicative contributions at the monitoring locations within each AQMA are presented graphically in Figure 2.

The graph demonstrates that the highest proportion of measured PM10 concentrations is attributable to natural sources and contributes approximately 30-40% of measured annual mean PM10 concentrations at each of the monitoring stations. A further 15-20% of measured concentrations are attributable to long range transboundary sources leading to secondary formation of PM10 material in the atmosphere. At each monitoring station, therefore 50-60% of measured concentrations are from sources outside of the control of North Lanarkshire Council.

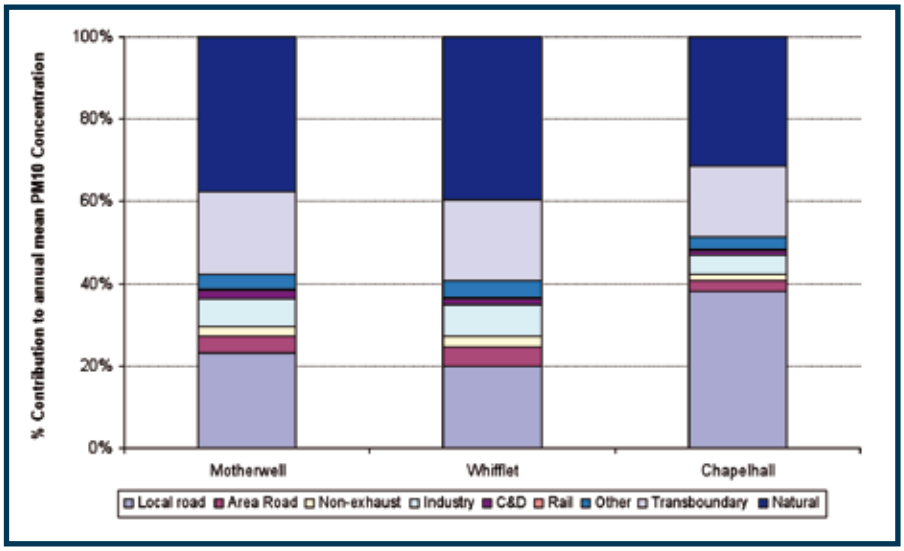


Figure 2 Contribution of differing emission sources to measured annual mean PM10 concentrations within each AQMA 2008

The most significant local contribution to measured concentrations is from local road traffic, which contributes approximately 20% of measured PM10 concentrations at Motherwell and Whifflet, and nearly 40% at Chapelhall. This contribution includes both vehicle exhaust emissions and other non-exhaust sources such as break and tyre wear. The contribution also includes an element of measured PM10 levels due to the resuspension of dust from the road caused by vehicle tyres. Uncertainty exists over the significance of emissions from resuspension, and factors used to estimate this have been withdrawn. Accordingly, the contribution of dust resuspension cannot be individually determined, but is included in the local road contribution.
The balance of measured concentrations are emitted from local area sources, including the contribution from commercial and domestic emissions, traffic emissions from other roads in the area, rail traffic and industry. The total contribution from these sources ranges from approximately 20% at Motherwell and Whifflet, to approximately 15% at Chapelhall. The industrial contribution to measured concentrations in Motherwell and Whifflet is relatively significant at around 10%. The influence of regional scale sources is supported by analysis of measured PM10 concentrations in both Glasgow and Edinburgh. The analysis indicates that there is a strong correlation between measured PM10 concentrations at monitoring stations in Glasgow and Edinburgh. The correlation would suggest a strong regional influence to PM10 concentrations as well as synoptic weather conditions.

Understanding the contribution of different sources to ambient PM10 levels is important in developing an Action Plan as the actions should be targeted at those areas where the most significant improvements can be achieved.

Based on the findings of the source apportionment study it is recognised that a significant proportion of ambient PM10 is attributable to natural and transboundary sources. The most significant local anthropogenic source is road traffic emissions, both as an immediate source on the local road but also in contributing to the background concentration. This is particularly the case at Chapelhall. Emissions from industry provide a significant contribution to the background concentration, therefore support for measures to reduce emissions from industry is also important.

3.0 Policies, Plans and Developments Likely to Impact on the Council's Air Quality Action Plan

Ongoing monitoring and the Further Assessment have confirmed that the ambient PM10 concentration in North Lanarkshire is strongly influenced by transboundary sources and other emissions generated over a wider area. The effect of local road traffic emissions is to push the ambient PM10 concentration from just below the NAQS objective level to above it. It is necessary, therefore, for the Air Quality Action Plan to include some focus on measures to reduce regional PM10 emissions as well as considering each AQMA individually. North Lanarkshire Council has little or no influence over PM10 emissions from sources outside the Council boundary, therefore any measures adopted to reduce PM10 levels will require to be based around influencing national or regional policies or plans.

This Chapter outlines policies, plans and other known factors that have the potential to impact on PM10 concentrations in North Lanarkshire.

3.1 Roads and Transportation Policies and Plans

3.1.1 National Transport Strategy

Scotland's Transport Strategy follows on from the 2005 Transport White Paper, Scotland's Transport Future. The National Transport Strategy aims to address the key challenges facing the Scottish transport system today. These are: an increase in the number of vehicles on the roads, in particular passenger cars, coupled with a decrease in the use of public transport. The Scottish Government has identified a need for a more efficient, integrated and reliable transport network which can encourage economic growth, environmental protection and social inclusion while helping to reduce congestion, reduce journey times , reduce car use and improve public transport.

To help achieve these aims, the National Transport Strategy outlines three main outcomes:

- Improve journey times and connections;
- Reduce emissions; and
- Improve quality, accessibility and affordability.

There are several main activities planned to help achieve the above outcomes. Reducing congestion is one of the key ways to help reduce journey times. In order to reduce congestion some improvements include:

- Improved connections between major centres of economic activity;
- Improved interface between different modes of transport;
- Improved efficiency and reliability of public transport;
- Encourage modal shift from cars to public transport;
- Reallocating road space to the most efficient users; and
- Managing demand on the road network.

In order to reduce emissions, some improvements include:

- Encouraging new vehicle technologies;
- Improved land use planning through the Scottish Planning Policy (SPP) 17;
- Promotion of walking and cycling;
- Improving the efficiency of freight movements and the transfer of freight from roads to rail and water;
- Encouraging eco-driving and purchase of less polluting vehicles; and
- To encourage stricter adherence to speed limits.

3.1.2 Regional Transport Strategy

The Regional Transport Strategy was derived by Strathclyde Partnership for Transport, which is essentially the west of Scotland's regional transport partnership. The strategy has four main strategic aims – improved connectivity, access for all, reduced emissions and attractive, seamless, reliable travel. The key objectives of the Regional Transport Strategy are:

- To provide safety and security;
- Encourage a modal shift from car use to walking, cycling and public transport;
- To improve the reliability of the transport network and improve the integration between services;
- To provide an effective and efficient transport network;
- To provide access for all;
- To improve health and protect the environment by reducing emissions; and
- To integrate transport provision into land use planning strategies.

The Regional Transport Strategy also sets out a series of core activities which aim to address the key objectives. Examples of these activities include providing integrated tickets, improving bus infrastructure and encouraging sustainable transport choices. The Regional Transport Strategy also outlines a series of action plans designed to help work towards achieving the objectives. Although the Regional Transport Strategy does not detail specific measures that will improve air quality in the AQMAs, it does demonstrate 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 in encouraging modal shift, promoting cleaner vehicles and restricting growth in traffic levels.

3.1.4 Central Scotland Transport Corridor Studies (CSTCS)

The Scottish Executive commissioned a study in 2001 to evaluate transportation provision on the three main trunk road corridors in west central Scotland (A8, A80 and M74). The three corridors pass through or form the boundary of the North Lanarkshire Council area, and as such the conclusions and decisions on the study directly impinge on transportation and thus air quality within North Lanarkshire.

A decision document was published by the Scottish Executive in 2003 (and updated in 2006) outlining the Executive's decision on each of the key recommendations of the study. The recommendations that will have an effect on air quality within each of the AQMAs in North Lanarkshire are:

- Airdrie-Bathgate rail line;
- A8 upgrade between Baillieston and Newhouse;
- Glasgow to Whifflet rail service;
- Integrated local and express bus services along A8 corridor;
- Glasgow-Edinburgh via Shotts rail upgrade;
- Improvement of the A725 Bellshill Bypass and Raith Interchange; and
- Upgrade of the A80/M80.

The A8 Upgrade and A725 improvement schemes are linked and commonly known as the M8 Completion Project.
An environmental statement and draft orders for the scheme were published in 2004. A key recommendation of the M8 Completion Project in the CSTCS was the provision of a service station and lorry park facilities on the M73 to ease traffic flows on the A73 corridor. The introduction of such a development would have a positive effect on air quality in Chapelhall.

The Airdrie-Bathgate rail line was identified as a key development in CSTCS. The scheme received consent from Parliament in 2007. This scheme will provide four services per hour between Glasgow and Edinburgh passing through an upgraded Airdrie station, a relocated station at Drumgelloch and a new station at Caldercruix. The scheme will improve access to Livingston, Glasgow and Edinburgh for commuters based in the Airdrie area and should also reduce road traffic accessing the M8 motorway via the A73 and Chapelhall and on the Whifflet corridor. Consequently there should be a positive impact on the air quality within the Chapelhall and Whifflet AQMAs.

The CSTCS recommended the provision of an integrated system of express bus services along the M8/A8 with local bus services. It was suggested that the scheme link residential areas in Airdrie, Whifflet, Coatbridge, Motherwell and Ravenscraig/Wishaw with the Eurocentral and other key employment area. The scheme should reduce road traffic accessing the M8, M74 and other main trunk roads, resulting in improved air quality in each of the AQMAs.

Improvements to the rail network between North Lanarkshire and Glasgow were proposed through improvements to the Glasgow-Whifflet line and the Glasgow to Carfin/Holytown service. An increased Glasgow-Lanark service via Carfin/Holytown service was introduced in 2006. The scheme also provided for a future station at Ravenscraig. An improved Glasgow-Whifflet service was introduced recently, with two services per hour operating on the line. The improvements to both the Glasgow-Lanark and Glasgow-Whifflet service will assist in reducing traffic levels accessing the M8 and M74 and should result in small improvements to air quality in both the Whifflet and Motherwell AQMAs.

The M80 upgrade is ongoing and is due for completion in 2011.

3.1.5 Local Transport Strategy

North Lanarkshire Council have recently consulted (October 2009) on a Local Transport Strategy. The key objectives identified within the consultation include:

- 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
- To protect North Lanarkshire's natural and built environment and improve the health of its population.

The strategy identifies the need to improve access to public transport and cycling and walking networks as a key aim. 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 impact of peak hour congestion and identifies a number of key actions including road improvements, parking enhancements within town centres and softer measures aimed at reducing the demand for travel and encouraging travel by means other than car.

The consultative draft recognises the current air quality position within North Lanarkshire Council and there are many similarities with the key actions identified in the strategy and those within the Air Quality Action plan.

3.1.6 North Lanarkshire Council Walking and Cycling Strategy

In demonstrating North Lanarkshire Council's commitment to developing a safe, sustainable and integrated transport system, the Council has prepared a Walking and Cycling Strategy. Walking and cycling have been identified as a key part of the integrated transport system as they offer health, social inclusion, public access and environmental benefits.

The aim of the Walking and Cycling Strategy is to achieve a 10% increase in the number of journeys made by foot and a 400% increase in bicycle use (from base 1996 levels) by 2012. The targets are integrated with the Local Transport Strategy.

There are no specific objectives within the Walking and Cycling Strategy that will reduce PM10 concentration in any of the AQMAs, however, the overall effect of the strategy will be to reduce road traffic emissions through increased modal shift, thus assisting in reducing the overall background PM10 concentration.

3.2 Planning and Development Policies and Plans

3.2.1 National Planning Framework

A new planning system for Scotland came into force on 3rd August 2009. There are three main parts to the planning system:

- **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 is the process that ensures development is carried out correctly and takes action when development happens without permission or when conditions have not been followed.

Development plans set out what type of development should take place and where, including infrastructure developments such as roads, schools and parks. The Development Plan for North Lanarkshire currently comprises the Glasgow and the Clyde Valley Joint Structure Plan (The Structure Plan) and 5 separate Local Plans collectively covering all of the Council area. When the North Lanarkshire Local Plan has gone through an Examination process in the second half of 2010 the Development Plan for North Lanarkshire will comprise the Structure Plan and the North Lanarkshire Local Plan. Under the new planning system the Structure Plan will be replaced by a Strategic Development Plan (SDP) and a Local Development Plan (LDP). The SDP will set out long term development aspirations for the overall city region and the LDP will set out detailed development sites and policies to guide decisions on planning applications.

3.2.2 Glasgow and Clyde Valley Joint Structure Plan

The Glasgow and Clyde Valley Joint Structure Plan sets out a development strategy for the Glasgow and Clyde Valley area. The four main aims of the strategy are to provide:

- Economic growth;
- Social cohesion;
- Environmental sustainability; and
- Integrated land use and transportation.

The main areas of interest with regard to local air quality include transport planning. The Plan aims to promote green transport linkages including walking, cycling and public transport to the main employment centres. Addressing key problems on the road network is another long term vision, particularly to address external and internal transport links. This involves improving rail access, improving public transport, managing congestion and upgrading strategic road corridors (e.g. A8/M8 and A80/M80 routes).

The aims of the Structure Plan should, therefore, result in improvement to local air quality through improvements in public transport, however the specifics of these improvements should be detailed in the local plan and strategy.

3.2.3 North Lanarkshire Local Plan

The Council currently works from twelve separate plans which cover smaller areas within the Council area. Combining these into a single plan should make the whole planning process simpler and easier. A single North Lanarkshire Local Plan is expected to be in place early 2011.

Local plans set out detailed sites and policies for the development and use of land and guide all day-to-day planning decisions. They assess development needs over the next 5 – 10 years, and set out Policies and Proposals to achieve them.

The local plan comprises a Policy Document, Six Area Action Plans (to tie in with the Council's six Local Area Partnerships) and a Proposals Map. The Policy Document includes

- an introduction section explaining what the local plan is, what it contains, how to use is and the process leading to the plan's adoption
- a development strategy section setting out the overall vision for the physical development of North Lanarkshire. This describes our aims for the local plan, four area priorities where the pace and scale of change will be most significant and four policies that apply to every planning application for planning permission; and
- four topics setting out policies that apply only to particular types of development (such as housing or retail) or to particular locations (such as existing industrial areas of town centres).

3.3 Corporate Policies and Plans

3.3.1 North Lanarkshire Council Community Plan

North Lanarkshire Council's Community Plan sets out the Council's key objectives for the period, and the "housing and the environment" section is a key issue of the plan. The plan identifies the wide range of environmental considerations facing North Lanarkshire Council, one of which is air quality. A key long-term objective of the Plan is that air quality is improved in relation to national standards. The key priorities of the Plan are not directly focused on air quality, however, schemes such as the improvements in energy efficiency and improvements to waste management should have an indirect and positive effect on air quality.

3.3.2 North Lanarkshire Council Single Outcome Agreement

Single Outcome Agreements (SOA) are intended to support the strategic objectives of the Scottish Government to achieve a Scotland that is wealthier and fairer, safer and stronger, smarter and greener. This is to be achieved through greater partnership working both with Councils and with other partner organisations, laying the foundations on which future community planning will be based. North Lanarkshire Council has its first Single Outcome Agreement, and air quality is included therein.

3.3.3 North Lanarkshire Council Corporate Plan

The North Lanarkshire Council Corporate Plan runs from 2008-2012 and is document essentially outlining what the Council expects to achieve for North Lanarkshire and its residents over the coming four years. Five key themes are detailed, which are structured around the services the Council delivers. Each key theme identifies a number of outcomes which will ensure the council reaches its vision for the North Lanarkshire area. As well as providing details of the strategic direction of the Council, the Corporate Plan also demonstrates the Council's contribution to attaining national priorities. It informs the work of each of the Council's services, and the work that the Council undertakes in partnership with others.

The five key themes detailed in the 2008-2012 Corporate Plan are:

- Health and wellbeing
- Environment
- Lifelong learning
- Regeneration
- Developing the organisation

3.4 Sustainable Development/Climate Change Policies and Plans

3.4.1 Climate Change (Scotland) Bill

The Climate Change (Scotland) Act received royal assent on the 4th August 2009. The main aim of the act is to reduce greenhouse gas emissions by 80% by 2050. The Act requires the Scottish Government to draw up plans and policies designed, amongst others, to improve energy efficiency from buildings, both domestic and non domestic, and reduce greenhouse gas emissions. The Act also provides for the development of waste development and management plans.

Although the Act does not specifically address issues relating to air quality, improvements in energy efficiency and reducing greenhouse gas emissions should impact favourably on air quality. The Act also requires the Scottish Ministers to prepare and publish a public engagement strategy by December 31st 2010 which will inform all about the targets generated by the various plans and policies and encourage all of the population of Scotland to contribute to these objectives.

3.4.2 National Sustainable Development Strategy

The UK Government's sustainable development strategy, "Securing the Future" aims to bring the principles of sustainable development into UK priorities. The Strategy has several areas of focus. It aims to encourage people to make more sustainable choices in how they live their lives. Reducing consumption patterns, improved resource efficiency and reduced waste are all objectives designed to obtain "one planet living".

A major area of focus is to help prevent climate change and improve energy efficiency. Within this section, transport is cited as an area where emissions have to decrease. The emissions in question are carbon dioxide. However, reducing vehicle emissions for climate change reasons will also have a beneficial effect on local air pollution as well as protecting natural resources and preventing environmental degradation.

3.4.3 North Lanarkshire Council Carbon Management Plan

North Lanarkshire Council has signed up to the Scottish Climate Change Declaration and this commits the Council to reducing their climate change impact by reducing their greenhouse gas emissions and to work towards counteracting the anticipated effects of climate change.

In order to fulfil this commitment the Council is preparing a Carbon Management Plan which sets out how the Council and its key partners (who deliver services on the Council's behalf) will reduce

their carbon dioxide emissions consistently over the coming years. The Carbon Management Plan was prepared with the help of key staff from across the Council and from partner organisations (Saltire, Amey Roads North Lanarkshire, Morrisons Property Care, Broadwood Stadium Ltd, North Lanarkshire Leisure Ltd and The Time Capsule Monklands Trust Ltd) and also the Carbon Trust.

It quantifies North Lanarkshire Council's greenhouse gas emissions in terms of source and quantity and sets out measures, initiatives, plans and projects with the potential to reduce emissions. These are then assessed and prioritised, resulting in a five year plan which targets a 25% reduction in carbon dioxide emissions (and carbon dioxide equivalent emissions of methane) over the five year period – 1st April 2009 to 31st March 2014.

Part of the way the Council intends to reduce their carbon dioxide emissions is through the use of renewable technologies including biomass burning. Although this may reduce carbon emissions it can lead to increasing particulate emissions. Work is, and will be undertaken to ensure that the Carbon Management and Air Quality Action Plans are harmonised, and work with, rather than against, each other.

3.5 Planned Developments In North Lanarkshire Affecting the AQMAs

3.5.1 M8 Completion

The proposed M8 Completion, as mentioned previously in 3.1.4 will impact upon air quality levels in each of the AQMAs. The works will entail the construction of a new separated three lane equivalent motorway standard road between Baillieston and Newhouse. The aim of the scheme is to separate regional traffic travelling east-west from local traffic travelling north-south, or between urban areas e.g. Coatbridge to Chapelhall.

In addition to the new road, new or upgraded junctions will be provided at Baillieston, Shawhead, Eurocentral, Chapelhall and Newhouse. The scheme also includes the introduction of a new All Purpose Road (APR), also known as a Distributor Road serving the existing westbound carriageway. The purpose of the new road will be to facilitate the movement of local traffic. A planned upgrade of the Raith Interchange (A725/M74) should also reduce traffic queuing on the Bellshill Bypass.

The air quality impact of the proposed M8 Completion was considered as part of the Environmental Assessment of the scheme and also as part of the Further Assessment. The assessment of air quality impacts identified that improvements in air quality would be experienced in some locations, however there would be deterioration in air quality at other locations. A marginal improvement in air quality is predicted within the Chapelhall AQMA as a result of the scheme, with little or no change in PM10 concentrations predicted within either the Motherwell or Whifflet AQMAs. Due to other strategic road improvement commitments it would appear that work on the M8 Completion project will now not begin until 2013.

The scheme was assumed as a committed development in the Further Assessment.

3.5.2 Ravenscraig Development

The redevelopment of the former steelworks site at Ravenscraig is one of the largest development projects Scotland has ever seen. The project will result in the construction of a new community bordering the towns of Motherwell and Wishaw. It is anticipated that the new development will comprise:

- Housing for up to 10,000 new residents;
- A new town centre with retail and leisure facilities;
- An industrial campus;
- Office and business accommodation;
- New regional sports facility; and
- Primary, secondary and college educational facilities.

As part of the new development a new rail/bus interchange is planned to provide an integrated public transport system for both residents and workers based in Ravenscraig. The transport system will provide access to neighbouring towns as well as providing commuter links to Glasgow and Edinburgh.

access, including the provision of new roads connecting the proposed new M8 and M74. Changes to the existing Airbles Road in Motherwell are proposed to allow the road to absorb the additional traffic that be generated by the Ravenscraig development. It is proposed to widen the roundabout at Motherwell Civic Centre to provide access to Ravenscraig and absorb the additional traffic between Ravenscraig and Hamilton/M74. The scheme will involve substantial changes to the road network within the Motherwell AQMA. The proposed new road scheme has been designed to discourage traffic to/from Ravenscraig travelling through Motherwell town centre, by channelling it onto Airbles Road.

A preliminary air quality impact assessment undertaken as part of an outline planning application for Ravenscraig indicated that PM10 concentrations will increase within the AQMA as part of the development. The assessment was, however, carried out a number of years ago and was based on preliminary traffic flow predictions. Furthermore, at the time that the assessment was undertaken the 2004 annual mean objective for PM10 was the only objective in force, and predicted PM10 concentrations were substantially below that objective. The (then) predicted concentrations were, however, above the more onerous 2010 annual mean objective.

The assessment of future scenarios for the Motherwell AQMA included for the impact of increased road traffic associated with the Ravenscraig development. The available traffic data did not, however, allow for the phased increase in road traffic levels associated with the early stages of the development, rather it provided the assumed traffic flows associated with the completed development with an arbitrary 2014 completion date. As discussed in Section 2.3 the traffic model indicated traffic flows exceeding the design capacity of the roads in Motherwell, thus the projected traffic flows were reduced by 20%. The traffic model did not include for changes to the road network associated with the Ravenscraig development.

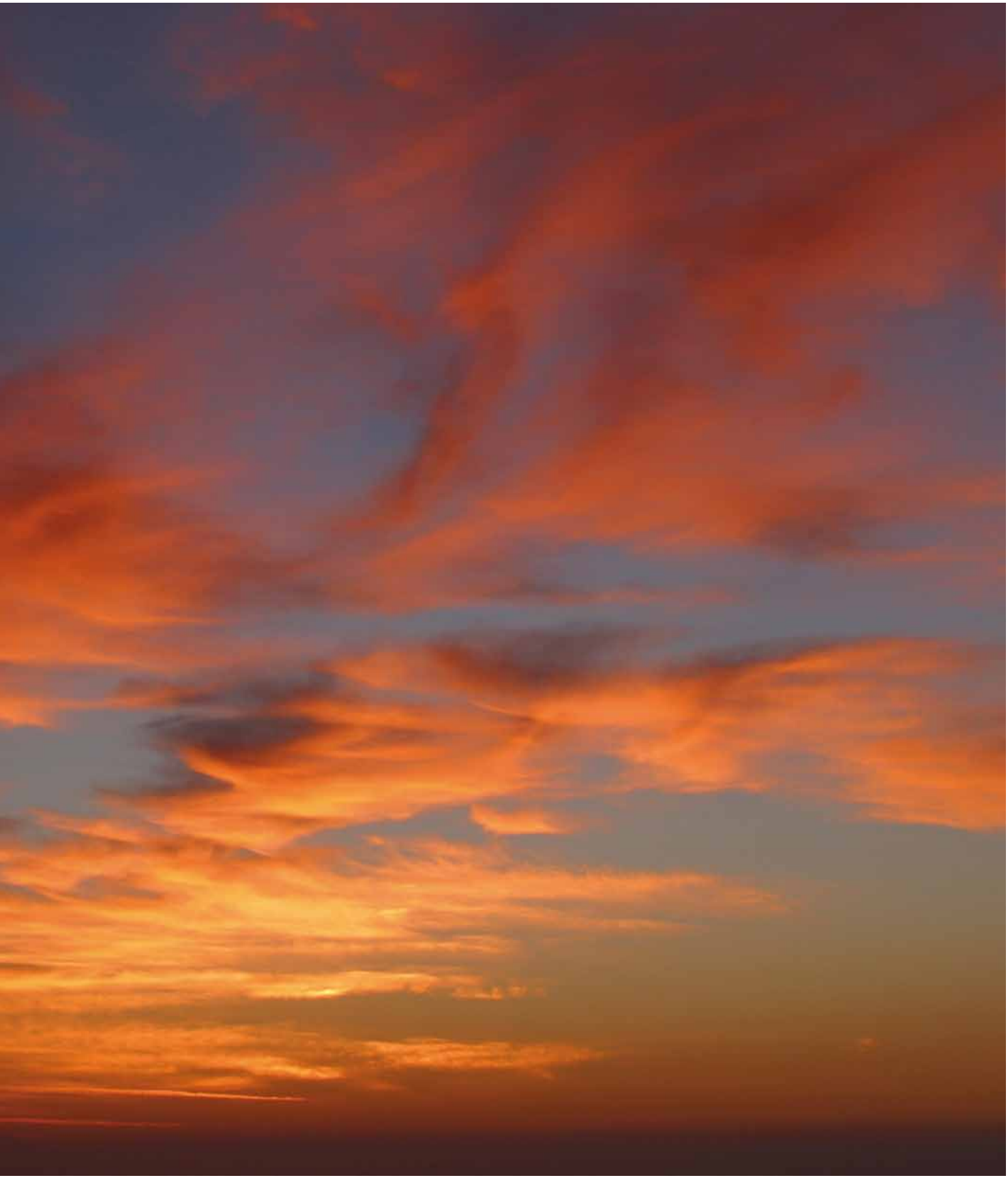
3.5.3 Biomass Feasibility Study

North Lanarkshire Council have recently commissioned a feasibility study into the possibility of growing its own biomass crop for use in and adjacent to the Council area. The project is still in its infancy, however local air quality management, and the potential for additional particulate pollution has already been highlighted to those in charge of the feasibility study as a possible area of concern.

3.5.4 Strathclyde Partnership for Transport (SPT)

SPT is the Regional Transport Partnership (RTP) for the West of Scotland, created as one of seven 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 have identified transport priorities for the coming year that support local outcomes. Eight transport priorities were identified for 2008/09. The ones with relevance to the Air Quality Action Plan are:

- **Eurocentral** – delivery of a business case and feasibility study identifying preferred location to support a bus corridor, and details of its design (committed funding £25,000). This is adjacent to both the Whifflet and hapelhall AQMAs.
- **Harthill** – implementation of enhanced and extension to existing bus park and ride facilities (committed funding £1,050,000). This is adjacent to the Harthill AQMA.



4.0 Consultation

North Lanarkshire Council believes consultation to be an integral part of preparing its Air Quality Action Plan and accordingly, extensive consultation has been undertaken in the preparation of the Draft Air Quality Action Plan.

The first stage in the consultation process was to obtain details of interested parties both within, and external to the Council who may have a vested interest and be of assistance in ensuring a robust and transparent consultation exercise. An external facilitator was engaged to assist in the preparation and execution of part of the consultation exercise. The consultant, Tim Birley, had been used by other local authorities in the local area, for similar exercises so it was felt his recent experience in air quality action planning would be beneficial.

It was decided that the first step in the process would be to hold a meeting of relevant bodies from within the Council to determine who may have an input in developing a wider consultation exercise. This was held in early 2008 and comprised representatives from a number of different Council Departments, including Environmental Services, Roads and Transportation, Planning and the Chief Executives Department. From this, a more detailed list of possible internal interested parties was formed.

4.1 In-house and Stakeholder Consultation Workshops

Following this an in-house consultation workshop for the air quality action plan was held in July 2008. This involved around 20 delegates from within the Council, and looked in greater detail at North Lanarkshire's air quality issues and in particular the AQMAs. Subsequently, an external stakeholder consultation event was held in September 2008 – this was attended by 18 participants from the Council and a further 15 participants from 13 other agencies.

Both workshops included briefing presentations, discussion sessions in small groups and an individual questionnaire. The event was opened by Paul Jukes, the Council's Executive Director of Environmental Services. The aim of the consultation workshops was to raise awareness of air quality, and to inform input to the Council's Action Plan.

Taking the workshops' group discussions, voting and questionnaire, the top priorities for the Action Plan to include were:

- **Planning** – the main concern was that developers should have to ensure that mitigation measures are in place if adverse impact on air quality would otherwise be likely as a result of a development. Inclusion of air quality throughout the planning process, in the Local Plan and in development management is essential.
- **Vehicle efficiency, enforcement, emissions testing, bus regulation** – a full range of enforcement, testing and regulatory tools should be used to tackle the many ways in which the age, lack of maintenance, idling or parking of vehicles can cause or exacerbate air pollution.
- Raising awareness, culture change, education and information. These are all seen as essential to get decision - makers and the public to understand the problems and support remedial action. This includes visual display of PM10 levels so that people can "see" the problem.
- The Council leading by example. It was argued that the Council should practice what it advocates. Greening the Council's vehicle fleet, and adopting flexible working practices headed the list of actions proposed.
- Improving traffic flow and modal shift. New infrastructure and traffic management is needed, particularly for junction improvements. Equally, there should be measures to reduce the flow of vehicles, including better knowledge of why people are making their journeys, and get them out of cars.

In addition to these five priorities, a further four topics were identified by the workshops as significant. These were:

- **Public transport** – especially in the context of Motherwell town centre
- **Tackling the School Run**
- **Addressing pollution from commercial, domestic and industrial combustion**
- Exploring the potential for **road cleaning and dust suppression** to remove or wash away particles and prevent their re-suspension.

4.2 Public Consultation

Following the in-house and external stakeholder workshops it was felt that the next stage should be a public consultation. Again, the aim was to inform the action plan measures, however the public consultation drew on ideas already gained from the workshops, as opposed to starting with a blank canvas. It was felt that the consultation should be as widespread as possible, within the AQMAs. A questionnaire was developed, with the assistance of the Council's Research and Information Officers in the Chief Executives Department. The questionnaire was available in paper format, with four different versions that were specifically tailored to the individual AQMAs. A copy of the questionnaire is included in Appendix 4. The questionnaire contained 5 questions and then finally provided a list of possible ideas to include in the Action Plan and asked respondents to rate how effective they believed each action to be. In order to maximise interest and responses a £200 prize draw was set up with the incentive that all completed responses would be entered into the prize draw. The questionnaires were made available in Council buildings within the AQMAs with a box for posting completed entries, as well as a Freepost facility included on the back of the questionnaire.

In addition to the paper copies of the questionnaires the questions were also uploaded onto the Council's STANDpoint opinion-meter and this was placed in a venue in each of the AQMAs for a period of a week each. This enabled respondents to reply electronically to the questionnaire.

A comprehensive advertising campaign took place in respect of the public consultation, which comprised colour adverts being put in the local press advertising the STANDpoint times and venues, as well as the other locations at which questionnaires could be obtained. In addition to this, the local radio station, L107 ran the consultation as one of their news items, including an interview/further information details carried out by Fiona Maguire of the Council's Protective Services. A press release was also prepared, and the article and accompanying photograph was published by some of the local newspapers. Finally, a poster campaign was undertaken to further increase publicity of the consultation exercise – posters were distributed throughout the AQMAs providing details of the consultation and how people could respond. The consultation itself ran from mid-April to end May 2009. Copies of the advertising material are included in Appendix 4.

4.3 Citizen's Panel and Resident's Survey

North Lanarkshire Council has its own Citizen's Panel set up in order to consult on a variety of issues. They also have a bank of people who have agreed to participate in Resident's Surveys from time to time. Through discussions with colleagues in the Community Engagement and Research and Information Teams of the Chief Executive's Department questions relating to air quality were able to be included in the latest Resident's Survey and Citizen's Panel.

4.4 Results of Consultation Exercises

The main aim of this survey was to gauge public views on air quality in North Lanarkshire. The results of the survey will be used to inform Environmental Services Air Quality Management.

In order to consult with members of the public, a STANDpoint was used and placed within facilities throughout the air quality management areas including: Chapelhall, Motherwell, Whifflet and Harthill during the months of March to April 2009. These machines allow respondents to answer questions quickly and easily and gather data in a reliable way.

Research Objectives

The main objectives of the research were as follows:

- to identify how members of the public rate air quality in North Lanarkshire
- to determine:
  - how air quality in North Lanarkshire compares with the rest of Scotland
  - awareness levels of air quality management areas
- to gain customers perceptions on the following measures:
  - vehicle exhaust emission tests
  - fixed penalties for idling vehicles
  - improved emission standards for buses
  - improving public transport
  - ensure our vehicles use low emission fuel
  - introduction of parking charges
  - stricter enforcement of parking restrictions
  - encouraging people to use cars less
  - provide more information on air quality
  - reduce dust and smoke emissions from construction sites
  - guidance on domestic coal or wood burners in homes
  - further research into potential initiatives e.g. tree planting
  - work with eco-schools and education
  - more detailed air quality monitoring
- extra road cleaning to wash away particulate pollution
- to determine how often members of the public visit the air quality management areas

Methodology

A STANDpoint was placed in facilities throughout North Lanarkshire for a period of 4 weeks throughout the months of March to April 2009. The machine was placed in facilities where customers could easily access them.

Returns

A total of 96 completed surveys were obtained from the STANDpoints. The following table details the numbers of responses received per Air Quality Management area:

	2009
Chapelhall	36
Motherwell	29
Whifflet	16
Harthill	15
TOTAL	96

Table 3: STANDpoint survey returns per AQMA

Findings

1 How do you rate air quality in North Lanarkshire?

As detailed in the chart below, nearly 41% respondents felt that air quality in North Lanarkshire was good with 16 (16.7%) answering *'very good'* and 23 (23.9%) *'good'*. 21 (21.8%) respondents thought air quality was *'average'*, however, 14 (14.6%) thought it was *'poor'* and 6 (6.3%) *'very poor'*.

The remaining 16 (16.7%) respondents stated that they *'don't know'*.

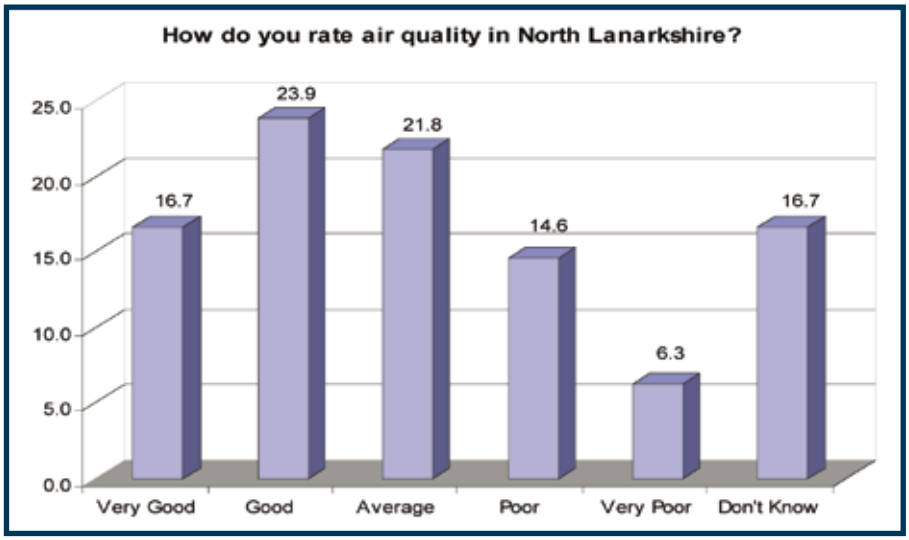


Figure 3: Survey response rating air quality in North Lanarkshire

2 If you answered poor or very poor, which of these sources do you think contribute most to poor air quality in North Lanarkshire?

Respondents who answered *'poor'* or *'very poor'* to the above question were then asked which of the following sources they felt contributed most to poor air quality including:

- Agriculture
- Commercial Activities
- Domestic Activites
- Industry
- Quarries / Landfill / Mining
- Road Traffic
- Other transport (trains)
- Don't Know
- Other

A total of 20 poor or very poor responses were received. NB It should be noted that respondents were able to select more than one source.

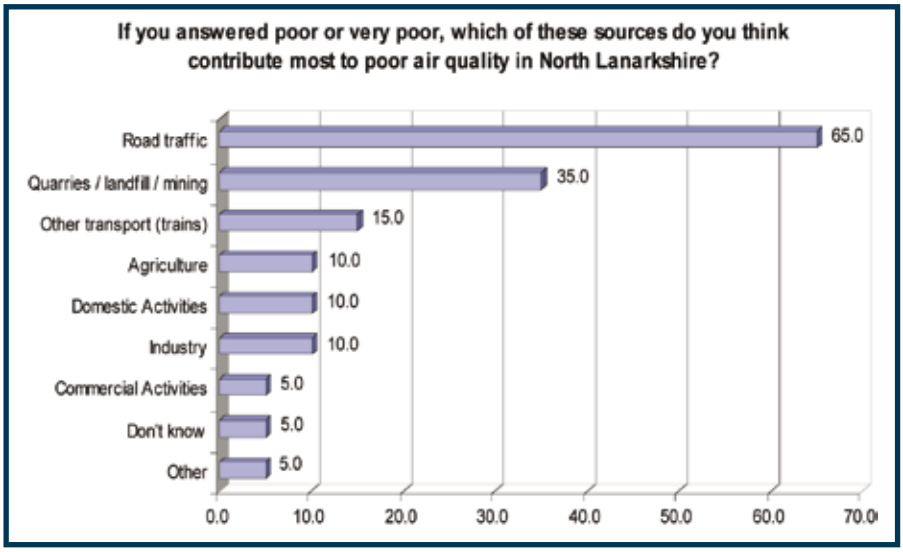


Figure 4: Survey response identifying source contribution to poor Air Quality in North Lanarkshire

As detailed, the highest number of respondents 13 (65%) felt that *'road traffic'* contributed most to poor air quality in North Lanarkshire.

3 If you stated *'other'* to the previous question, what other sources do you think contribute to poor air quality?

1 (5%) respondent stated that they felt *'other'* sources contributed to poor air quality, however, made no further comment.

4 How do you think air quality in North Lanarkshire compares with the rest of Scotland?

The highest percentage of respondents 33 (34.3%) felt that air quality in North Lanarkshire was *'about the same'* in comparison with the rest of Scotland, however, 29 (30.2%) felt that it was *'worse'*. A fairly low percentage 18 (18.8%) felt that air quality was *'better'*.

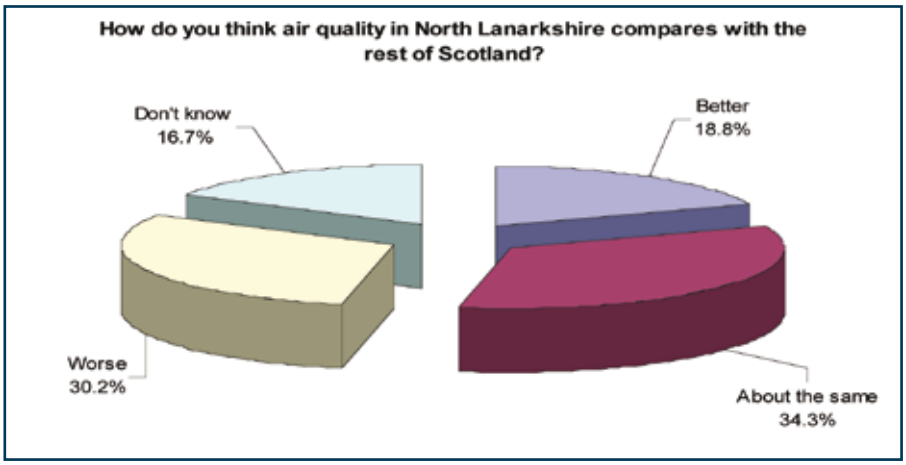


Figure 5: Survey response comparing Air Quality in North Lanarkshire with the rest of Scotland

5 Are you aware that North Lanarkshire Council has declared Air Quality Management areas in parts of Motherwell, Coatbridge, Chapelhall and Harthill?

Of the 96 responses received, 35 (36.5%) respondents were aware that North Lanarkshire Council has declared Air Quality Management areas, however, the majority 61 (63.5%) stated *'no'* they were not aware of this.

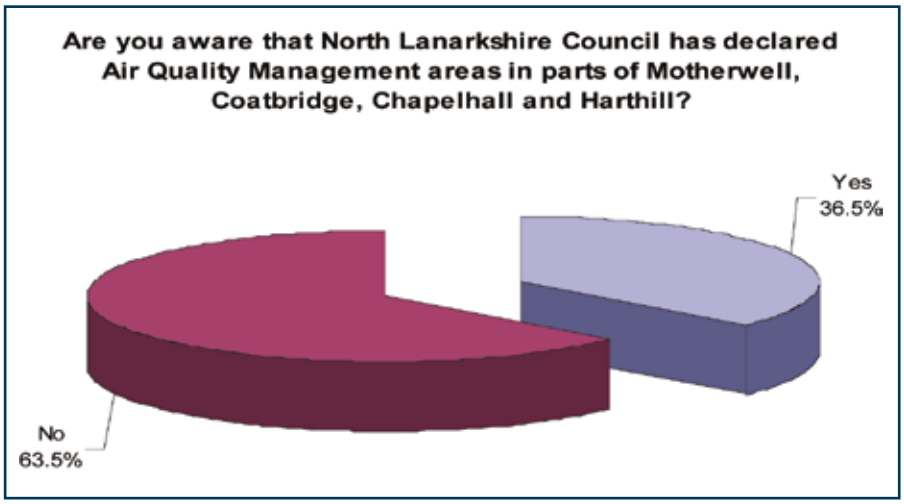


Figure 6: Survey response regarding awareness of Air Quality Management areas in North Lanarkshire

6 Please rate the following measures on a scale of 1 – 5, with 1 being NOT VERY EFFECTIVE to 5 being VERY EFFECTIVE, for their impact on improving air quality in North Lanarkshire.

Respondents were asked to rate the measures on a scale of 1 – 5, with 1 being NOT VERY EFFECTIVE to 5 being VERY EFFECTIVE. The following table details the scale:

1	Not Very Effective
2	25% Effective
3	50% Effective
4	75% Effective
5	Very Effective

The following pages identify how members of the public feel about the effectiveness of identified measures and their impact on improving air quality.

VEHICLE EXHAUST EMISSION TESTS – as shown below, around 32% respondents felt that this measure was not effective with 23 (24%) stating *'not very effective'* and 8 (8.3%) *'25% effective'*. However, 33% respondents felt that it would be effective with 12 (12.5%) stating *'75% effective'* and 20 (20.8%) *'very effective'*.

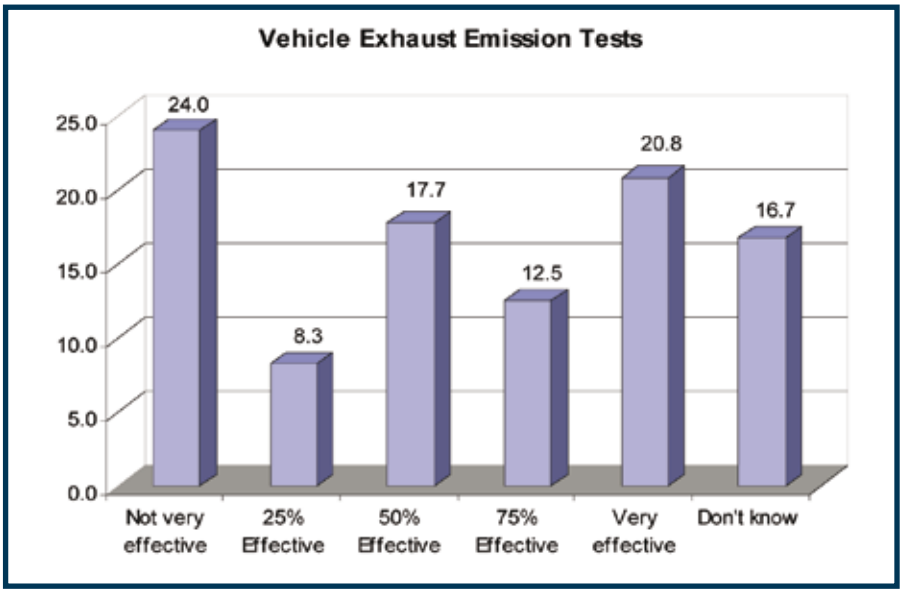


Figure 7: Survey response outlining respondents views on the effectiveness of vehicle exhaust emission testing in AQMA's

FIXED PENALTY FOR IDLING VEHICLES – again, respondents were fairly evenly split over whether this measure would be effective or not with the highest percentages 21 (21.9%) stating *'not very effective'* and 21 (21.9%) *'very effective'*.

percentages 21 (21.9%) stating *'not very effective'* and 21 (21.9%) *'very effective'*.

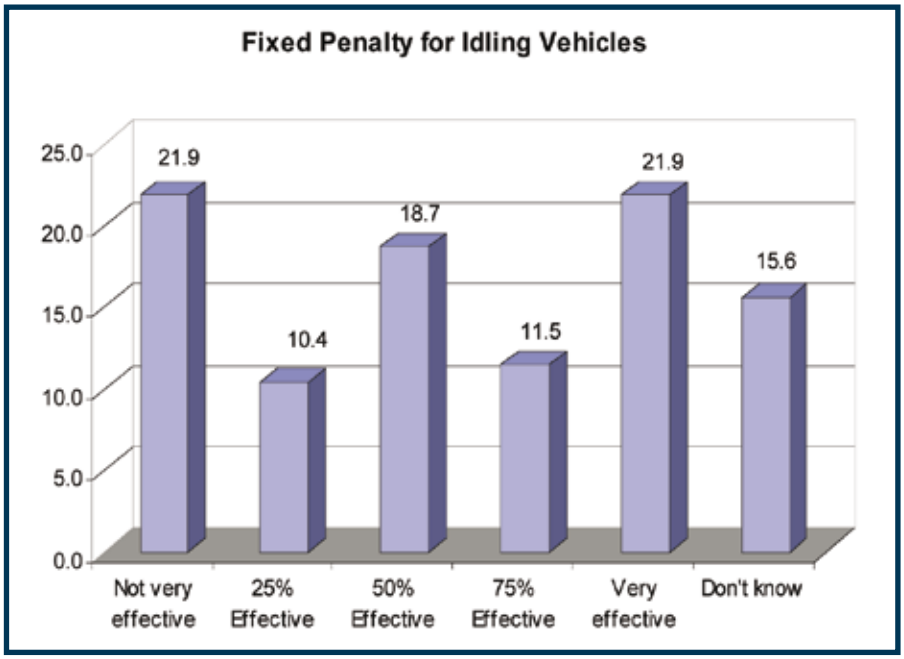


Figure 8: Survey response outlining respondent's views on the effectiveness of vehicle idling enforcement in AQMA's

IMPROVED EMISSION STANDARDS FOR BUSES – encouragingly, nearly 43% of respondents felt that this would be an effective measure with 31 (32.3%) stating *'very effective'* and 10 (10.4%) *'75% effective'*. However, 19 (19.8%) respondents felt that this was *'not very effective'*.

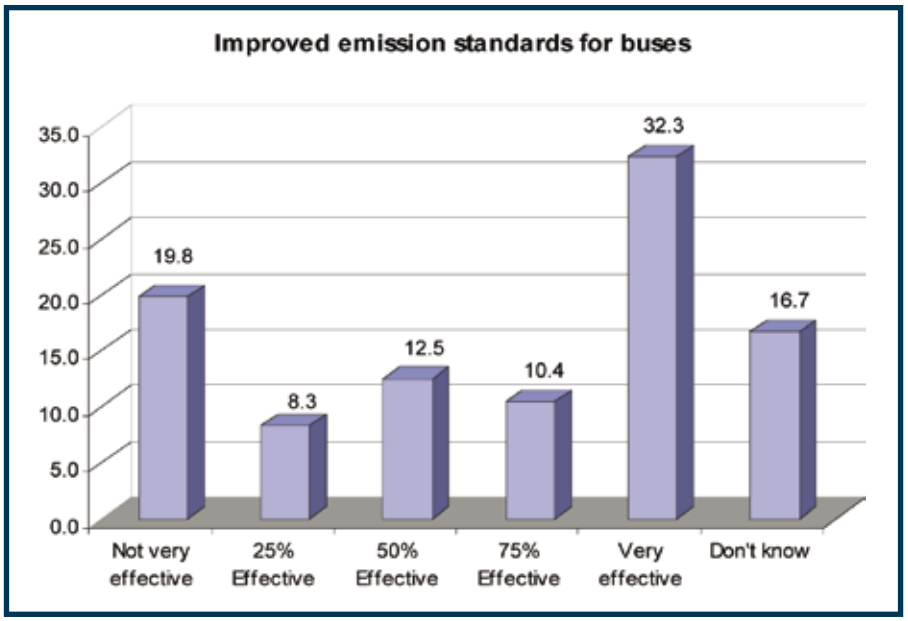


Figure 9: Survey response outlining respondents views on the effectiveness of improving bus emission standards in AQMA's

IMPROVING PUBLIC TRANSPORT – as detailed below, the highest percentage of respondents 28 (29.8%) commented that this measure would *'not be very effective'*, however, 21 (22.3%) felt that it would be *'very effective'*.

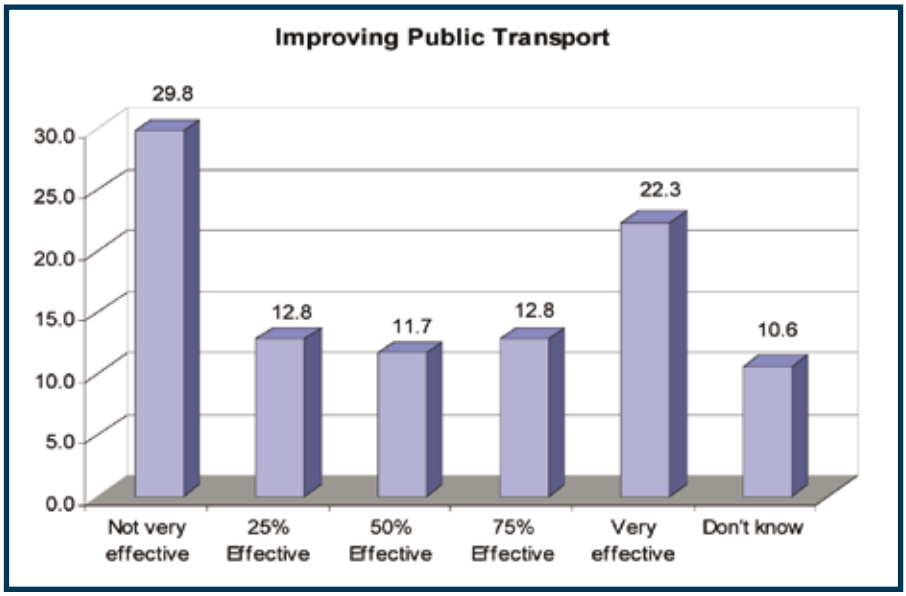


Figure 10: Survey response outlining respondents views on the effectiveness of improving public transport in AQMA's

ENSURE OUR VEHICLES USE LOW EMISSION FUEL – around 38% of respondents felt that this measure would be effective with 16 (17%) stating *'75% effective'* and 20 (21.4%) *'very effective'*. However, a fairly high percentage don't feel this would be effective with 18 (19.1%) stating *'not very effective'* and 10 (10.6%) *'25% effective'*.

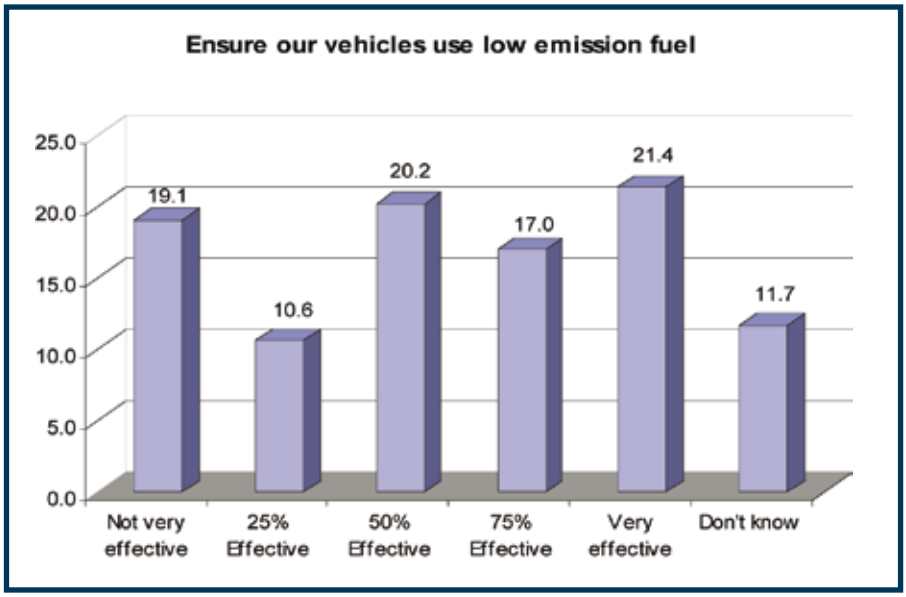


Figure 11: Survey response outlining respondent's views on the effectiveness of ensuring the use of low emission fuels in AQMA's

INTRODUCTION OF PARKING CHARGES – the majority of respondents (60.7%) don't think that the introduction of parking charges would have an effective impact on the environment with the highest percentage 40 (42.5%) stating *'not very effective'* and 17 (18.1%) *'25% effective'*. Only a small percentage of respondents 10 (10.6%) felt that this would be *'very effective'*.

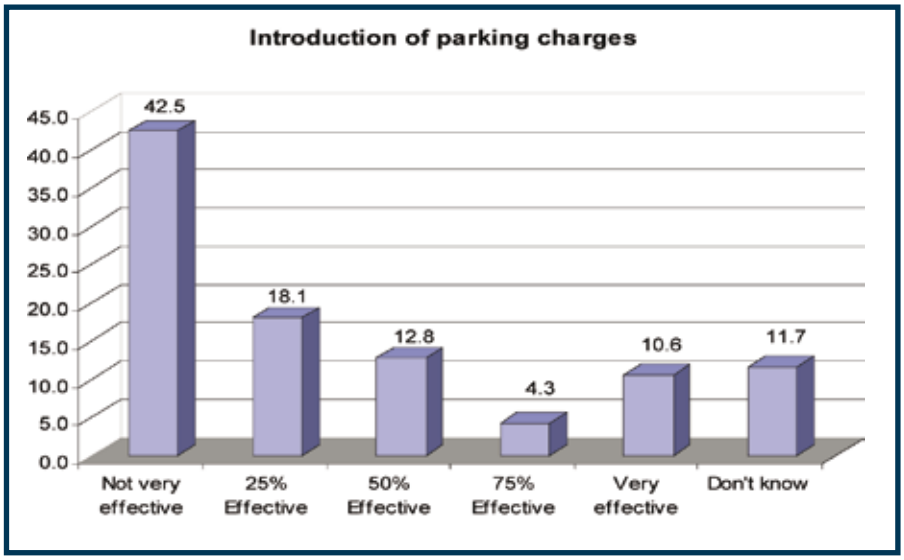


Figure 12: Survey response outlining respondent's views on the effectiveness of introducing parking charges in AQMA's

STRICTER ENFORCEMENT OF PARKING RESTRICTIONS – Slightly over half of respondents (52.2%) don't feel that this measure would have an effective impact with the highest percentage 32 (34.8%) stating *'not very effective'* and 16 (17.4%) *'25% effective'*. Only a small percentage of respondents 12 (13%) felt that this would be *'very effective'*.

Figure 13: Survey response outlining respondents views on the effectiveness of enforcing parking restrictions in AQMA's

ENCOURAGING PEOPLE TO USE CARS LESS – with regards to encouraging people to use cars less, the highest percentage of respondents 21 (22.8%) felt that this would *'not be very effective'*, 18 (19.6%) felt it would be *'50% effective'* and 17 (18.5%) respondents felt it would be *'very effective'*.

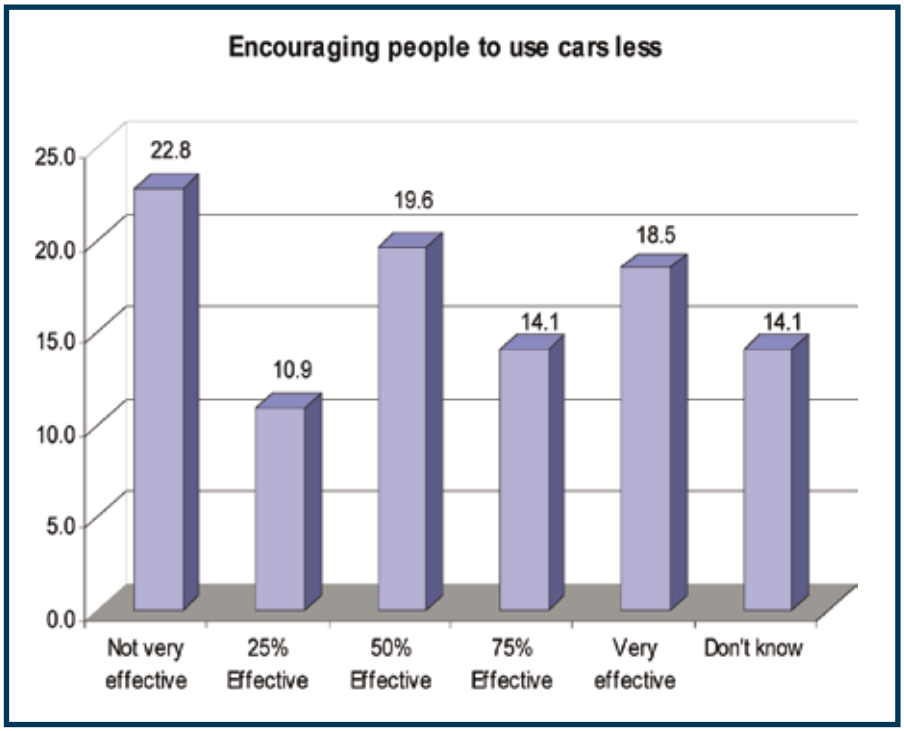


Figure 14: Survey response outlining respondent's views on the effectiveness of encouraging people
to use their cars less in AQMA's

PROVIDE MORE INFORMATION ON AIR QUALITY – as detailed in the chart below, a fairly mixed response has been received with regards to the provision of further information with the highest percentage of respondents 20 (21.7%) stating *'very effective'* and 19 (20.7%) *'not very effective'*.

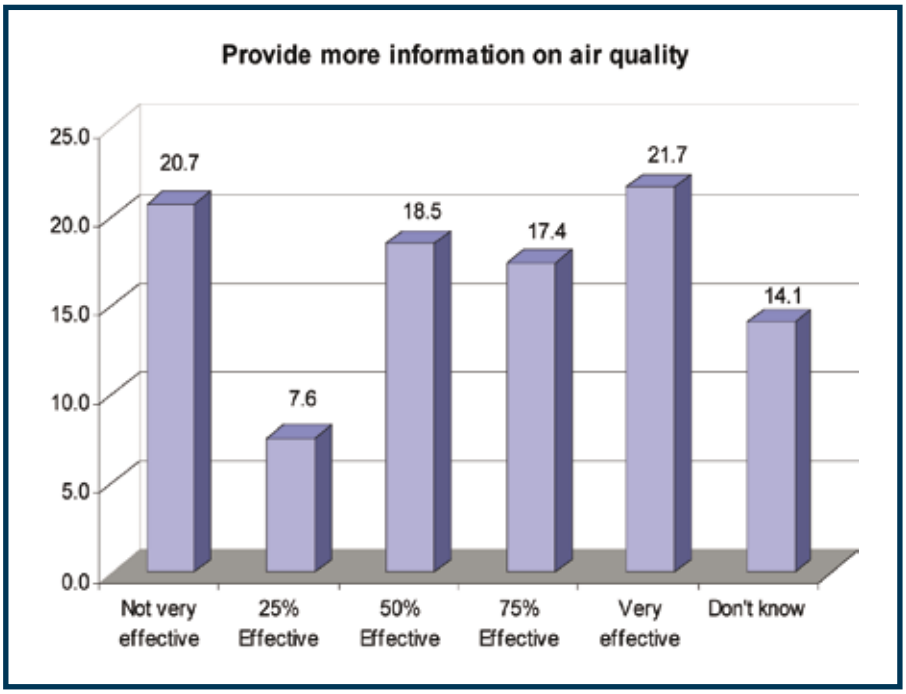


Figure 15: Survey response outlining respondents views on the effectiveness of providing more information on Air Quality in AQMA's

REDUCE DUST AND SMOKE EMISSIONS FROM CONSTRUCTION SITES – as detailed below, the highest percentage of respondents 22 (24.5%) feel that this measure is *'not very effective'*, 19 (21.1%) stated that it would be *'50% effective'* and 16 (17.8%) respondents felt it would be *'very effective'*.

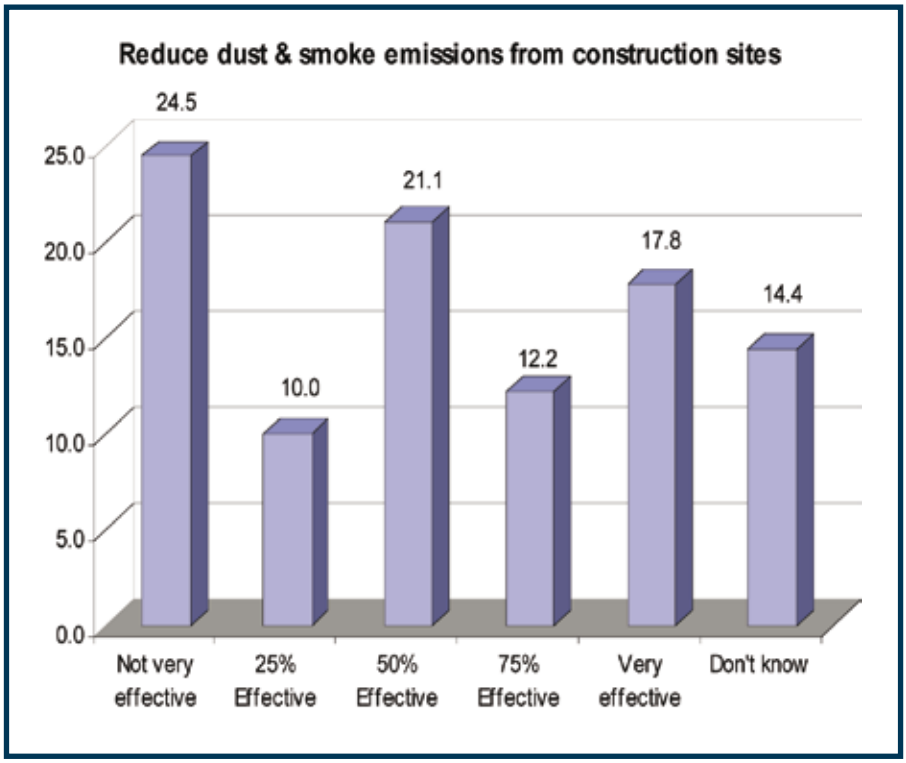


Figure 16: Survey response outlining respondent's views on the effectiveness of tackling smoke and dust emissions from constructions sites in AQMA's

GUIDANCE ON DOMESTIC COAL OR WOOD BURNERS IN HOMES – the highest percentage of respondents 22 (24.5%) commented that receiving further guidance would only be *'50% effective'*, however, 20 (22.2%) felt this would *'not be very effective'*.

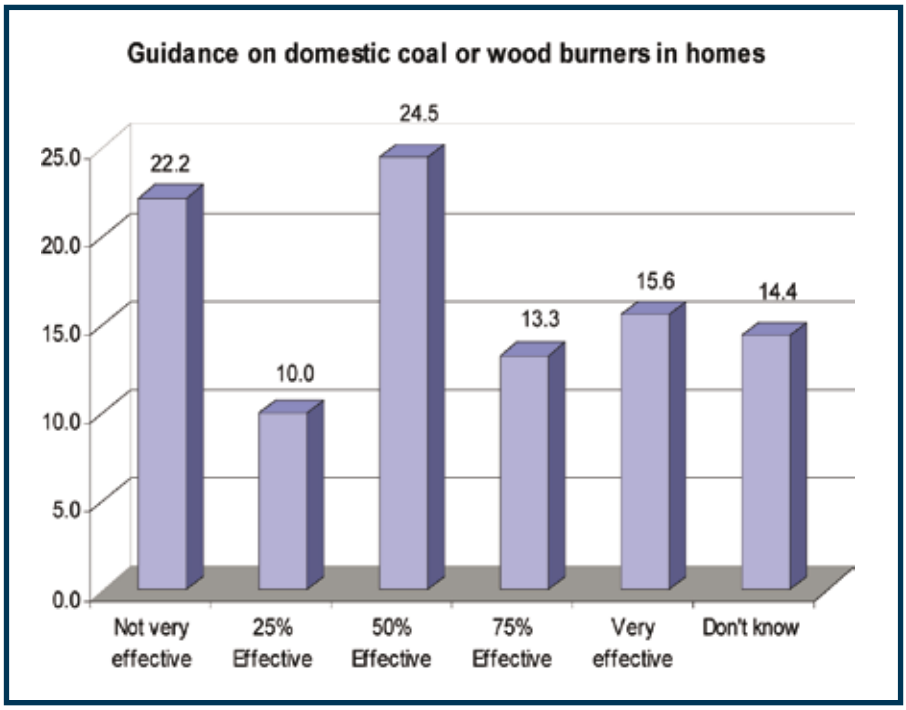


Figure 17: Survey response outlining respondent's views on the effectiveness of providing improved guidance in domestic coal/wood burners in AQMA'S

FURTHER RESEARCH INTO POTENTIAL INITIATIVES e.g. TREE PLANTING – as detailed in the chart below, a fairly mixed response has been received with regards to further research into potential initiatives with the highest percentage of respondents 18 (20.5%) stating *'very effective'* and 16 (18.2%) *'75% effective'*.

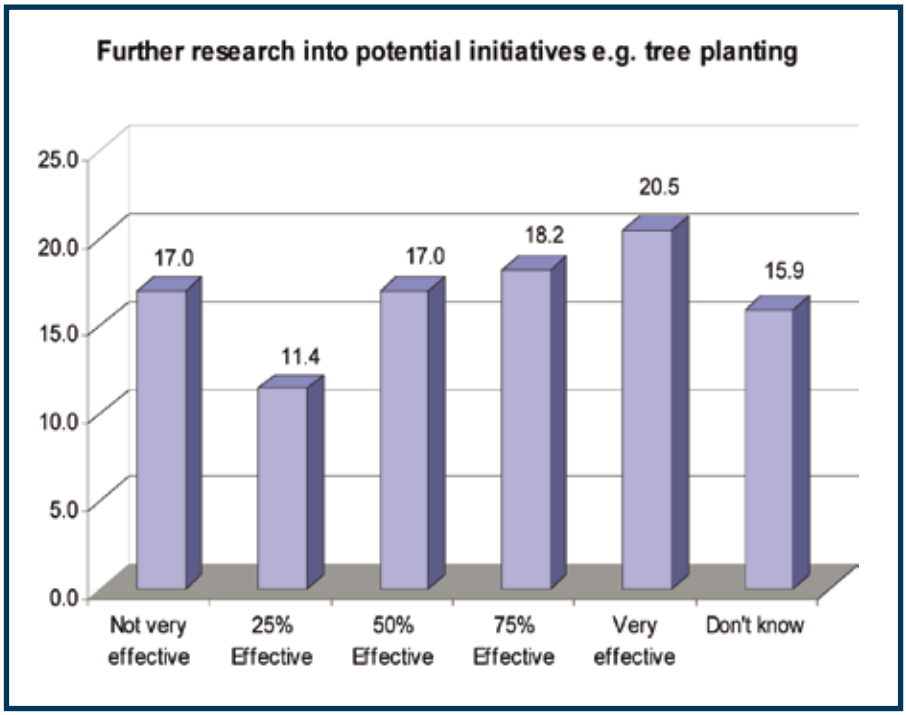


Figure 18: Survey response outlining respondents views on the effectiveness of further research into potential initiatives in AQMA's

WORK WITH ECO-SCHOOLS AND EDUCATION – the highest percentage of respondents 22 (24.5%) commented that receiving further guidance would only be *'50% effective'*, however, 20 (22.2%) felt this would *'not be very effective'*.

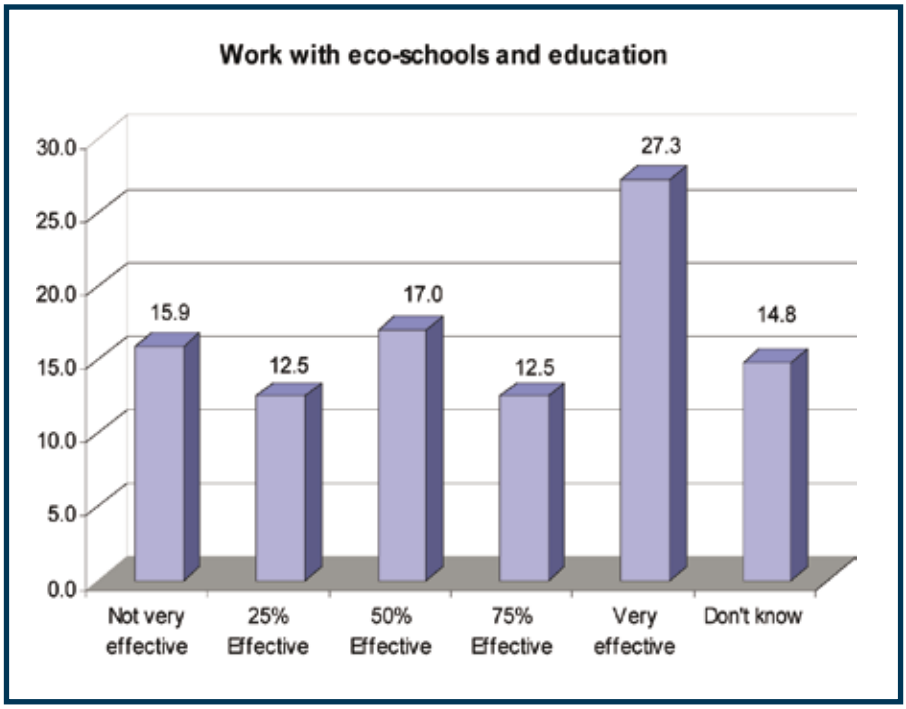


Figure 19:Survey response outlining respondents views on the effectiveness of working with Eco-schools in AQMA's

MORE DETAILED AIR QUALITY MONITORING – with regards to more detailed air quality monitoring, the highest percentage of respondents 20 (23.3%) felt that this would be *'50% effective'*, 17 (19.8%) felt it would be *'very effective'* and 17 (19.8%) respondents answered that they *'don't know'*.

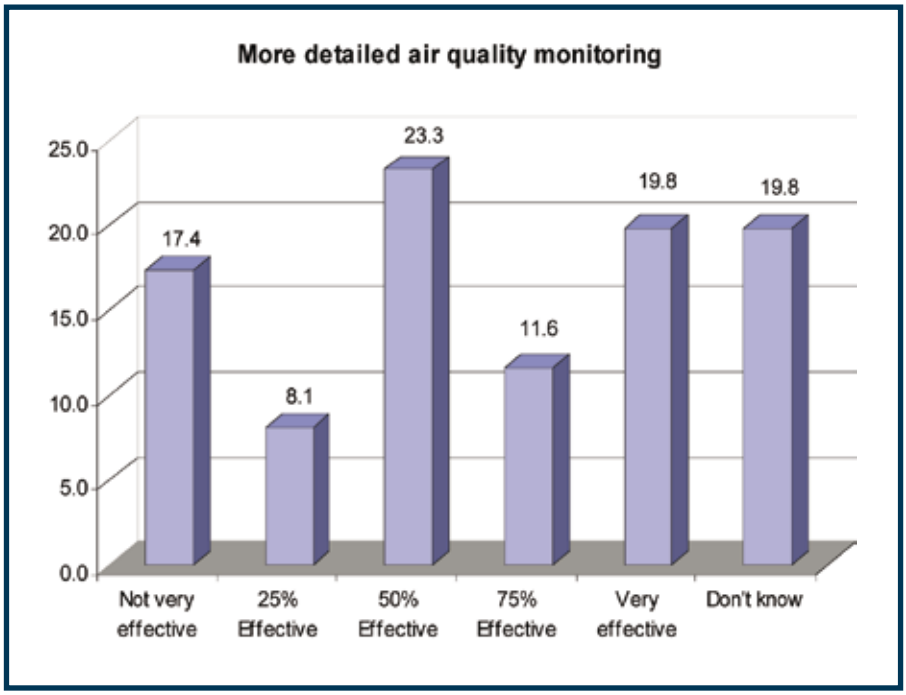


Figure 20: Survey response outlining respondents views on the effectiveness of more detailed air quality monitoring in AQMA's

EXTRA ROAD CLEANING TO WASH AWAY PARTICULATE POLLUTION – the highest percentage of respondents 22 (25.6%) commented that extra road cleaning would be *'very effective'*, however, 18 (20.9%) felt this would *'not be very effective'*.

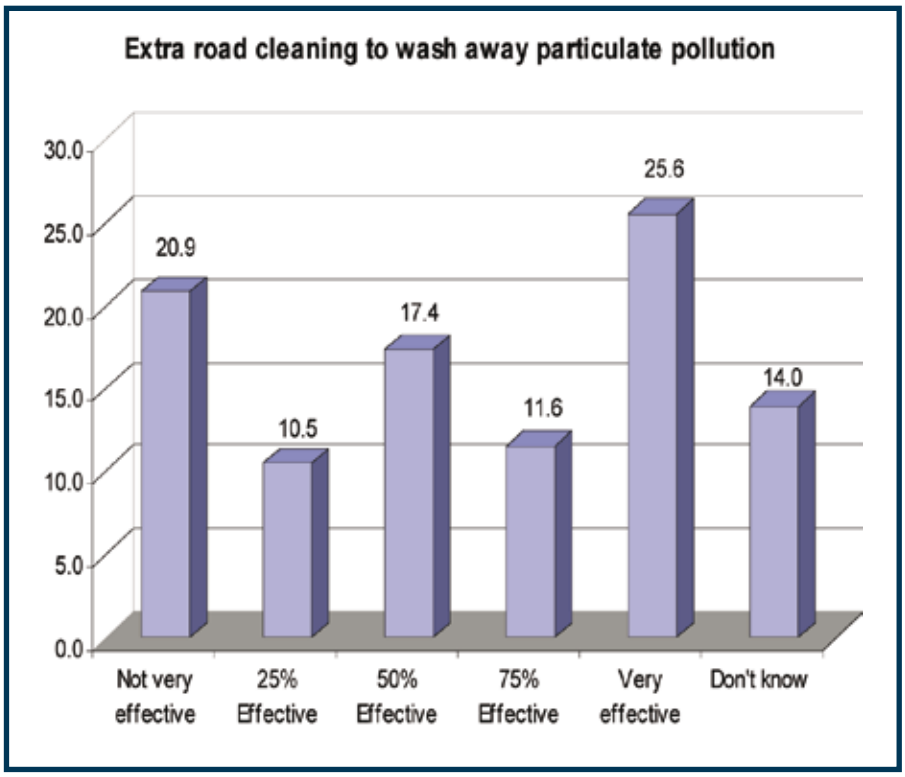


Figure 21: Survey response outlining respondents views on the effectiveness of extra road cleaning in AQMA's

7 How often in the past month have you visited the following Air Quality Management areas?

The graph below identifies the levels of visiting to each of the Air Quality Management areas. Individual graphs per area can be found on the following pages.

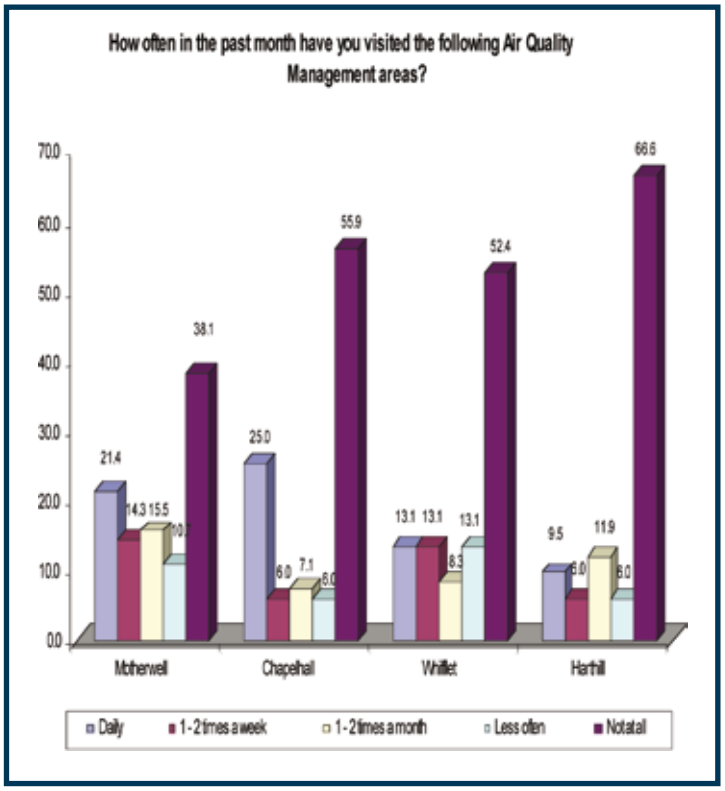


Figure 22: Survey response detailing how often respondents had visited AQMA's.

As detailed below, 18 (21.4%) respondents visit Motherwell on a *'daily'* basis, 12 (14.3%) visit *'1 – 2 times a week'*, 13 (15.5%) *'1 – 2 times a month'*, 9 (10.7%) visit *'less often'* and the remaining 32 (38.1%) respondents do *'not visit at all'*.

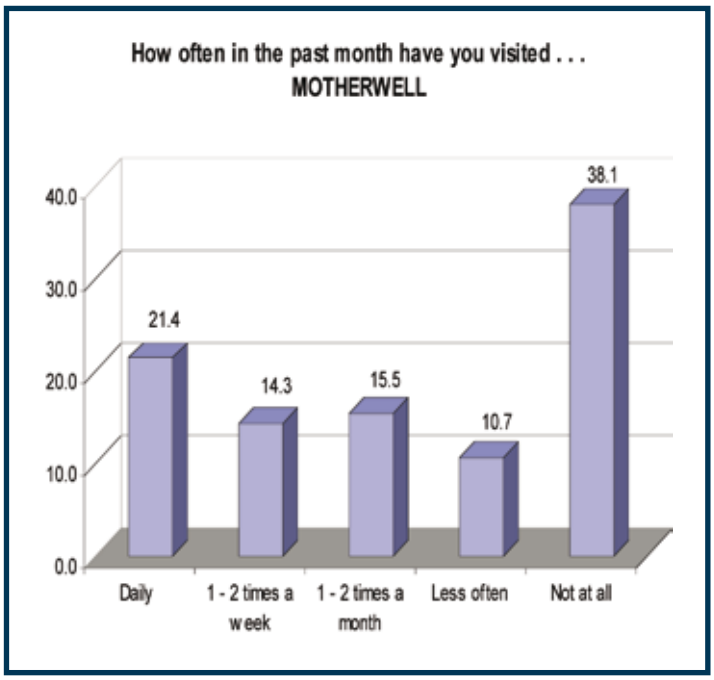


Figure 23: Survey response detailing how often respondents had visited the Motherwell AQMA

As detailed below, 21 (25%) respondents visit Chapelhall on a *'daily'* basis, 5 (6%) visit *'1 – 2 times a week'*, 6 (7.1%) *'1 – 2 times a month'*, 5 (6%) visit *'less often'* and the remaining 47 (55.9%) respondents do *'not visit at all'*.

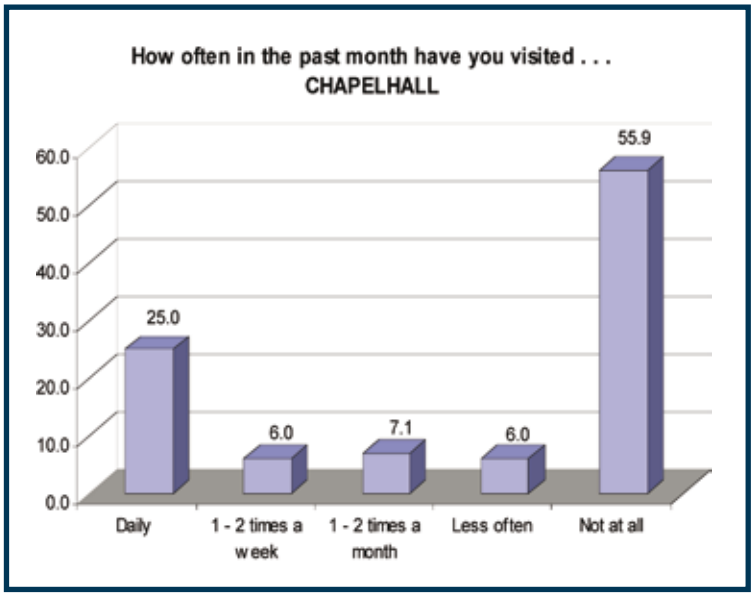


Figure 24: Survey response detailing how often respondents had visited the Chapelhall AQMA

As detailed below, 11 (13.1%) respondents visit Whifflet on a *'daily'* basis, 11 (13.1%) visit *'1 – 2 times a week'*, 7 (8.3%) *'1 – 2 times a month'*, 11 (13.1%) visit *'less often'* and the remaining 44 (52.4%) respondents do *'not visit at all'*.

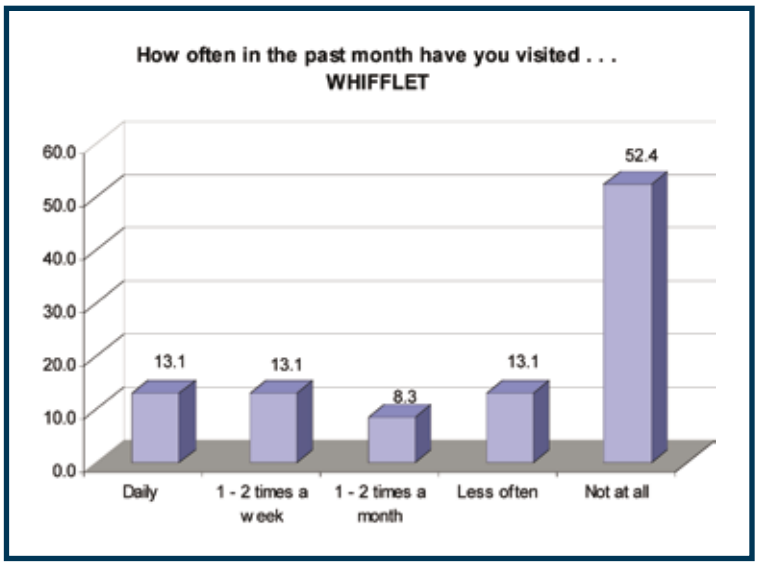


Figure 25: Survey response detailing how often respondents had visited the Whifflet AQMA

As detailed below, 8 (9.5%) respondents visit Harthill on a *'daily'* basis, 5 (6%) visit *'1 – 2 times a week'*, 10 (11.9%) *'1 – 2 times a month'*, 5 (6%) visit *'less often'* and the remaining 56 (66.6%) respondents do *'not visit at all'*.

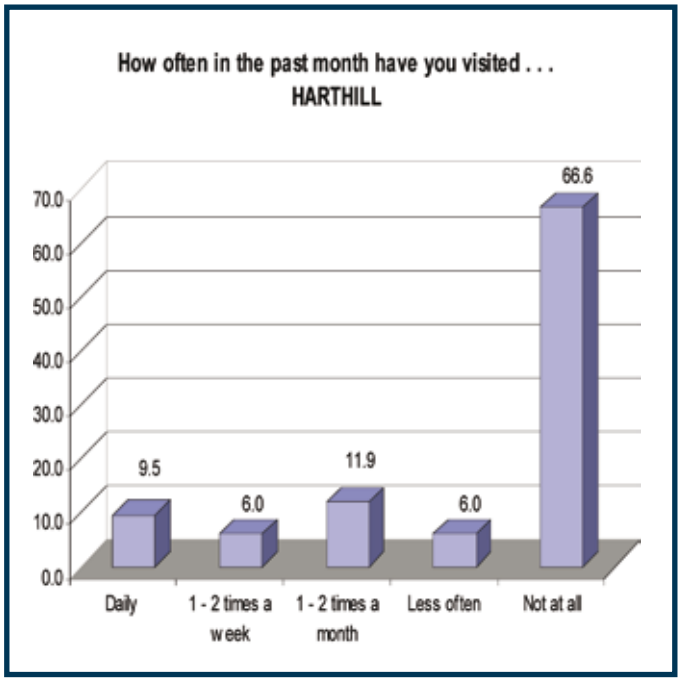


Figure 26: Survey response detailing how often respondents had visited the Harthill AQMA

8 If you have any other comments to make in relation to air quality in North Lanarkshire, please type them here.

When asked for further comments with regards to air quality in North Lanarkshire, a total of 10 comments were received and have been grouped and categorised as follows:

Air Quality Management Areas
- Extend scheme to wider areas such as Airdrie and Coatbridge

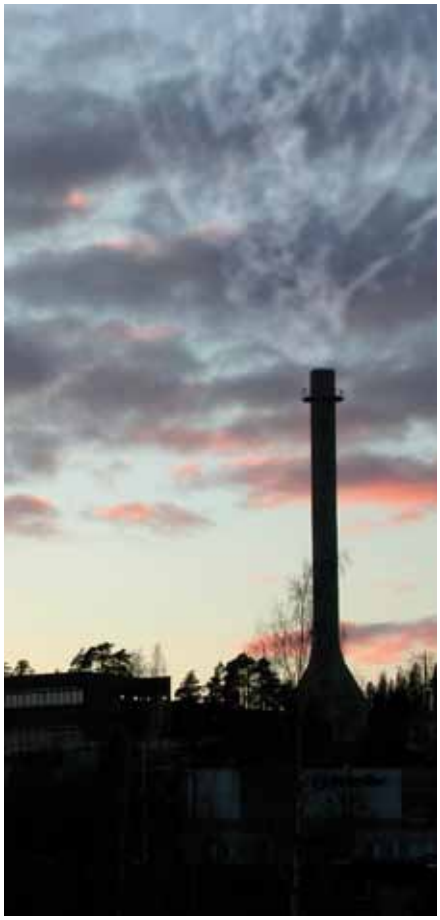
Comparison with other Areas in Scotland
- The Highlands air quality and places such as Skye is much better than here

Fixed Penalties
- Clean up litter and introduce fines for littering and chewing gum

Fuel Emissions
- I think we can lower the high fuel emissions
  Information Provision
- Like to know more information

Traffic Control
- Less traffic on the main road

Miscellaneous
- No
- No more comment
- None
- Something has to be done



5.0 Action Plan Measures

A wide variety of measures aimed at improving air quality within the AQMAs as well as the North Lanarkshire area as a whole have been identified, and are described in detail in this chapter. A number of Council-wide action plan measures have been identified, as well as action plan measures specific to each of the four AQMAs.

5.1 Council-Wide Action Plan Measures

North Lanarkshire Council recognises that there is no quick-fix available for any of our four AQMAs, however there is much to be gained through the introduction of Council-wide measures, which, although difficult to quantify in terms of their immediate benefit to air quality, can have significant positive benefits to North Lanarkshire as a whole, particularly over the longer term. As the Council is the largest employer in the area, with a significantly sized vehicle fleet, any measures integral to the Council can certainly be said to have an impact on air quality. Positive measures detailed in this Action Plan clearly demonstrate that the Council is leading by example in terms of its commitment to improving local air quality, both within the AQMAs and across the Council area as a whole.

5.1.1 Corporate Action Plan Measures

In response to new Departmental structures, the Council's Single Outcome Agreement, the Corporate Plan and the carbon management agenda the Council is working on mainstreaming its commitment to Sustainability by including it in the Service Planning Process and the performance management systems within the Council. This will be done through the implementation of a Sustainable Development Delivery Framework, which is aimed at co-ordinating, rationalising and focusing the work the Council is doing around the outcomes and objectives of the Single Outcome Agreement, Corporate Plan and our Key Performance indicators. This will be achieved by setting up specific programme groups looking at a series of activities. One such group will deal with the Climate Change Action Plan and the topic of air quality will be included within the remit of this group.

Action Plan Measure 1 – Local Air Quality Management will be a key area for inclusion in the new Sustainability working groups to reduce the potential for conflict of interests between measures to combat climate change and local air quality management.

North Lanarkshire Council recognises the Scottish Government's commitment to the widespread use of renewable energy technology and to this end several biomass boilers have thus far been installed in certain Council buildings. Also recognised, however, is the potential conflict between technologies such as biomass boilers and local air quality management, due to their potential to cause problems in terms of particulate pollution.

Action Plan Measure 2 – North Lanarkshire Council recognises the benefits of renewable technologies such as biomass in terms of carbon management, however appreciates that they have the potential to have a detrimental effect on local air quality management, especially in terms of particulate emissions. As such, it will be made North Lanarkshire Council's policy that any Council Service considering installing biomass boilers, be it in new or in existing buildings will be required to approach the Pollution Control team of Environmental Services at the design/planning stage of the process to ensure the installation is such so as to minimise the effect on local air quality.

The Council has purchased a 600cc electric Smart car. This is currently being piloted by a range of different users in the Council and a report into the pilot study will be prepared thereafter.

Action Plan Measure 3 – Following the pilot use of electric vehicles within the Council fleet, the outcomes of this pilot will be assessed and a feasibility study undertaken to determine how electric vehicles could be utilised within North Lanarkshire Council

North Lanarkshire Council's private partnerships are due for renewal in 2011. Currently the vehicles used by the Council's private partnership contractors are all supplied by the Council itself, and thus the condition, engine standards etc. of these vehicles, and consequently their vehicle exhaust emissions can be guaranteed.

Action Plan Measure 4 – Through its procurement process North Lanarkshire Council shall ensure that all light goods vehicles supplied by the Council for use by external contractors shall be at least to Euro 4 standard by 2012.

As the largest employer in the area, North Lanarkshire Council is contributing to high levels of road traffic emissions through staff travel to and from work, as well as travel during the course of the working day. The Council is currently investigating the possibility of offering staff the opportunity to work from home. This would potentially significantly decrease the amount of traffic travelling to work, and also reduce congestion at peak times on North Lanarkshire's roads.

Action Plan Measure 5 – A home flexible-style working for NLC staff will be piloted within certain Departments within the Council, with a view to extending this to the entire workforce if appropriate.

Pool cars/vans can be used by some employees during the course of their working day in order to attend meetings in other buildings, do site visits etc. This saves individuals from using their own cars and it has the added advantage of the Council having control over the age and condition of vehicles used by employees on Council business.

Action Plan Measure 6 – The Council will undertake a feasibility study into the introduction and use of pool cars for all Council Services, with a view to possibly making the provision of pool cars a North Lanarkshire Council policy.

5.1.2 Transport-Related Action Plan Measures

Automatic Vehicle Logging System (AVLS) technology has been fitted to a number of NLC fleet vehicles. One major advantage of this technology is that vehicles can be tracked, which is useful in the event of an emergency, breakdown, theft, or just to check that the driver is going where they are meant to be, and when. As well as this it can be used to monitor vehicle idling, with the capacity for reports of excessive engine idling being reported to managers. Engine idling has a significant impact both on fuel costs and also on vehicle exhaust emissions, so there are both fiscal and environmental benefits from the widespread introduction of AVLS technology.

Action Plan Measure 7 – North Lanarkshire Council will introduce a new policy stating that all Council Services will consider the introduction of Automatic Vehicle Logging System (AVLS) technology to their vehicles by 2012.

Speed limiting has been introduced on a number of NLC fleet vans, with Cleansing taking the lead on this issue. Speed limiting, in line with the manufacturer's recommendations, has positive impacts both on safety issues, but also on vehicle exhaust emissions, and consequently on fuel costs.

Action Plan Measure 8 – North Lanarkshire Council will introduce a policy stating that all Council Services and contractors with relevant vehicles will consider the introduction of speed limiters on their vehicles by 2012.

The North Lanarkshire Council vehicle fleet is renewed on a rolling, ongoing basis, with a number of our vehicles being of a Euro 4 or Euro 5 engine standard.

Action Plan Measure 9 – North Lanarkshire Council will ensure that all fleet vehicles will be of at least Euro 4 engine standard by 2012.

North Lanarkshire Council employs two School Travel Coordinators who work with individual schools to help them prepare a School Travel Plan which aims to determine and document the safest routes for children to travel to and from school in North Lanarkshire. The emphasis is on reducing car use, focusing on how the children would like to travel to school, and why they can't travel this way – e.g. walking or cycling. The outcome is a document known as a School Travel Plan, which details action points that are then followed up by the School Travel Coordinators. Currently this is a voluntary scheme, with the onus being on the Head Teacher of the school to contact the School Travel Coordinators if they are interested in developing a School Travel Plan for their school. There are fourteen schools either located in, or within 500 metres of one of the Council's AQMAs, and to date, five of these schools have School Travel Plans. The ability to deliver any physical measures identified within the School Travel Plans will, to a significant extent, be dependent upon whether or not the Scottish Government continues the Cycling Walking and Safer Streets (CWSS) Grant funding allocation.

Action Plan Measure 10 – School Travel Plans will be prepared for all schools whose catchments lie within one of the Council's AQMAs.

Parking provision and the incidence of unauthorised parking, for example on double yellow lines, zigzag areas, unauthorised car parks etc can encourage car use where other options e.g. public transport may be perfectly suitable. Such parking has been identified within the Council's AQMAs – in Chapelhall, inadequate parking provision surrounding the large joint-campus primary schools creates severe additional congestion, caused by parents dropping their children off/picking them up from school. In Whifflet – cars double-park on Whifflet St to use the local shops. In Motherwell, parking problems are augmented by the fact that Motherwell Station is a popular park and ride location, however there is insufficient station parking. The Council's Local Transport Strategy (LTS) has identified that the Council will prepare a Parking Management Strategy for the whole North Lanarkshire area, including the AQMAs. The purpose of the Parking Management Strategy is to dissuade all-day commuter parking, thereby reducing traffic volumes at peak hours, when air quality is typically most affected, and to help traffic flow generally within town centres. The Parking Management Strategy is currently under preparation and the outcome of the exercise will be available in due course.

Action Plan Measure 11 – The Council will prepare and implement a Parking Management Strategy for the Council area, which will include the AQMAs.

Travel Plans are currently being prepared for employees at one of the main Council Offices, Fleming House, in Cumbernauld. These are being prepared by the Sustainable Transport Team using the Strathclyde Passenger Transport (SPT) computer software package tailored for this purpose. The Travel Plan is essentially a document that helps people consider how they currently travel to work as well as outlining more sustainable travel choices that are available. The Fleming House Travel Plan is due for completion during 2010, and subsequently will be rolled our to other Council buildings.

Action Plan Measure 12 – The Council will prepare and implement Travel Plans for all main Council buildings, and in particular the Civic Centre and Dalziel House, which lie within the Motherwell AQMA and Coatbridge Area Office, Kildonan Street, which lies immediately outside the Whifflet AQMA.

North Lanarkshire Council operates a car-sharing scheme for employees. This has been running since 2003 however the uptake is very low (only 71 employees are registered on the car-sharing scheme and only 1 actually uses it to share a journey!).

Action Plan Measure 13 – An awareness-raising exercise will take place informing employees on, and promoting the use of, the Council's car-sharing scheme.

5.1.3 Planning Action Plan Measures

It has been recognised that both strategic and development management planning policy has the potential to affect local air quality in a positive way. More specifically, while development management has an important role to play, it is really at the strategic planning stage that development can be influenced heavily. As such, we have had regular contact with the Local Plan team within North Lanarkshire Council's Planning and Development Service in order to highlight the air quality issues that affect the Council.

The Council's Local Plan position is currently undergoing revision, moving towards a single land use plan covering all of North Lanarkshire. It is due to undergo a Development Plan Examination beginning December 2009 and be adopted during 2010. The North Lanarkshire Local Plan has been set up in order to be able to make the transition from a Local Plan under the Town and Country Planning (Scotland) Act 1997 to a Local Development Plan under the Planning etc. (Scotland) Act 2006. As such it is more strategic in approach than previously, and includes policies addressing principles/themes as opposed to specific subjects/topics. Rather than new policies specifically for Air Quality, issues affecting AQMA's will be embedded into the policy framework.

The North Lanarkshire Local Plan introduces the new concept of four Development Strategy Policies (DSPs) that all applications for planning permission will be subject to if the Local Plan is adopted as expected in 2010.

- Development Strategy Policy DSP 1 – Amount of Development. This refers to supply and demand, ensuring that North Lanarkshire sees the right amount of development to meet its needs. There is no role for Air Quality in this section.
- Development Strategy Policy DSP 2 – Location of Development. This section concerns where development takes place. A matrix of location factors is used to assess the suitability of new development locations for proposals that are not already identified in Housing or Industrial Land Supply. There is some scope to make reference to AQMAs in the Health and Safety criterion although more dialogue is needed with the Local Plan Team in order to discuss the mechanics of this.
- Development Strategy Policy DSP 3 – Impact of Development. This is about mitigating the negative impacts of development on communities. It may be possible to include AQMA capital investment (such as junction realignment or new signalling) should there be sufficient priority in infrastructure improvements.
- Development Strategy Policy DSP 4 – Quality of Development. This concerns getting the right quality of built development. Aspect 3c of the policy, which addresses energy, resources and waste issues to create a sustainable development with a low ecological footprint seems to be the most appropriate place for Air Quality issues to be addressed.

Action Plan Measure 14 – Work will continue with the Local Planning Team in order to raise the profile of Air Quality and the Council's AQMAs within the revised North Lanarkshire Local Plan. In particular, we will endeavour to ensure that Air Quality and AQMAs are specifically detailed within the Local Plan's Development Strategy Policies (DSPs) where appropriate.

As well as recognising the role of the Local Planning team in securing air quality improvements in North Lanarkshire, the Development Management Planning team also have a significant role to play in ensuring that planning applications that have the potential to adversely affect air quality, either by introducing receptors to an area of existing poor air quality or by virtue of the development itself leading to an air quality problem, are dealt with appropriately. This is of particular relevance in areas of AQMAs where air quality would then become a material consideration.

Action Plan Measure 15 – Developer's Guidance for Air Quality will be produced and distributed to all applicants through the Development Management Process. This Developer's Guidance will subsequently be made into formal Supplementary Planning Guidance.

5.1.4 Public Awareness and Education Action Plan Measures

It is felt that the general public have an extremely important role to play in working towards the improvement of air quality in North Lanarkshire. It is hoped that public awareness of the Council's air quality issues may help lead to modal shift from car use and people's dependence on the car, to greater use of more sustainable modes of transport, such as public transport, walking and cycling.

Action Plan Measure 16 – We will prepare an information DVD on air quality in North Lanarkshire to increase public awareness of air quality issues. This DVD will be played in the plasma screens in school dining halls throughout North Lanarkshire. It will also to be played in First Stop Shops, the receptions of the main Council buildings and anywhere else suitable, as part of public awareness exercise.

As part of the public awareness campaign on air quality we will work with the Council's Educational Advisors to include air quality issues within the school curriculum where appropriate. Work has already begun on the preparation of supplementary educational material on the subject of air quality, and once complete this will be made available to teachers of the appropriate stage of teaching as an additional learning resource.

Action Plan Measure 17 – The Learnskape educational module on air quality will be promoted to schools in North Lanarkshire, with particular emphasis on schools within AQMAs.

North Lanarkshire Council provides transport for 9500 school children throughout the district, including both mainstream and additional support needs pupils. This is done through a combination of school buses and private contractors. School buses are arranged through Strathclyde Partnership Transport (SPT), similar to other local authorities in the area, however North Lanarkshire Council also have the discretion to add their own conditions, particularly to the school bus contracts where they feel it is appropriate. School buses are often old, given that they have the potential to undergo certain levels of vandalism, not to mention heavy wear and tear. As such, older vehicles are likely to have older style engine standards and as a result have the potential to cause significant amounts of harmful exhaust emissions.

Action Plan Measure 18 – North Lanarkshire Council will include a condition in the school bus contract that all buses used to transport children to and from school in North Lanarkshire will be less than ten years old.

5.1.5 Protective Services Action Plan Measures

It has been firmly accepted that the Roads and Transportation and Pollution Control Local Air Quality Management functions are inextricably linked through areas such as traffic congestion, speed limits etc. To this end, Pollution Control made significant comments on the Council's Local Transport Strategy and representatives from Roads and Transportation have had significant input to this Air Quality Action Plan.

Action Plan Measure 19 – Work will continue to ensure that the Local Transport Strategy and other strategic Roads and Transportation documents and initiatives will work hand-in-hand and complement the Council's Air Quality Action Plan. A working group will be formed in order to look at areas of joint-working and joint funding avenues will be further explored.

The Council has been undertaking Vehicle Emission Testing (VET) within the AQMAs (as well as in other parts of the district) since 2006. To date, 5995 vehicles have been stopped and tested, with 64 resulting in Fixed Penalty Notices being served. In addition to this, in 2008 the Council began a scheme of Vehicle Idling Enforcement. This has primarily been focused on outside schools and educational establishments. To date, 44 schools have been targeted with 71 drivers receiving warnings and 0 drivers being served with fixed penalty notices for vehicle idling.

Action Plan Measure 20 – The VET exercise will continue to be run within the AQMAs, as well as the North Lanarkshire Council area as a whole.

In terms of Vehicle idling Enforcement – this will also continue ensuring that all schools within, or within 500 metres of the Council's AQMAs will be the subject of a Vehicle Idling Enforcement campaign.

North Lanarkshire Council has embraced their air quality function and duties with gusto over the years, such that we have an extensive monitoring network in place throughout the district. Not being a council who shies away from taking action, rather, we have proven that we are confident in pursuing our statutory aims and objectives, in the ever-expanding amount of air quality work we are involved in and now feel that we can accurately say which areas of our district are problematic. Never ones to be complacent, however, it is now felt that the time has come to undertake a complete review of our monitoring locations, both for our passive and our automatic monitors in order that we can begin to investigate other potential problem areas throughout North Lanarkshire.

Action Plan Measure 21 – The Council will undertake a complete review of our air quality monitoring locations and make any alterations deemed necessary in pursuit of our statutory air quality duties.

North Lanarkshire Council recognises the importance of joint-agency working, particularly in today's era of Better Regulation and Best Value.

Action Plan Measure 22 – North Lanarkshire Council will work with the Scottish Environment Protection Agency (SEPA) in pursuance of our air quality statutory duties.

Vehicles used by Protective Services to deliver various services to the public – animal welfare, will be used to advertise a number of strong environmental messages to raise public awareness of air quality issues in relation to vehicle idling and emission testing. Environmental Protection and Pest Control – travel throughout North Lanarkshire Council on a daily basis.

Action Plan Measure 23 – Key messages in relation to Air Quality, including vehicle idling and emission testing checks, will be advertised on the back of every van to develop public awareness and encourage public participation.

5.2 Action Plan Measures – Motherwell AQMA

The Motherwell AQMA comprised two monitoring stations, situated at the Civic Centre (Windmillhill Street) and Merry Street. It was felt that one AQMA which includes both monitoring sites would ensure the least confusion. As is the scenario for the other AQMAs there is no clear solution to the elevated PM10 levels in Motherwell Town Centre and continued monitoring subsequent to declaration of the AQMA has justified out decision to declare the AQMA in this location.

Motherwell Town Centre remains a very busy town centre, with a high volume of traffic as well as a major supermarket development and also a busy train station which serves the West Coast Main Line, among other routes.

As well as the existing Motherwell Town Centre, to the north of the town lies the largely vacant Ravenscraig development site. This site is at an early stage in its construction, with many variables and question marks over when and how the site will be developed. While there is obviously a Masterplan for the site, there are only a few areas of the site under

development at the time of writing and it is largely envisaged that the site will develop over the life span of the Air Quality Action Plan. However, the rate of development, particularly in the current downward economic climate cannot easily be predicted.

A significant part of the Ravenscraig redevelopment will involve the access roads for the site, as well as within the site. Due to its very close proximity to the Motherwell AQMA, additional traffic as a result of the Ravenscraig development site will impact on air quality within the area. To this end, work including predictive traffic modelling has already been undertaken by the Council's Roads and Transportation Department to assist in planning and designing the road network within and accessing the Ravenscraig site. The work has indicated increases in traffic on the B754 Airbles Road and A721 Windmillhill Street (east of Airbles Road) areas of the Motherwell AQMA.

Action Plan Measure 24 – The Council will work to achieve a viable solution to possible congestion, and thus increased road traffic emissions associated with the ongoing development of the Ravenscraig site.

A feasibility study has been carried out and preliminary designs drawn up looking at the widening of the A721 Windmillhill Street (within and adjacent to the Motherwell Town Centre AQMA) along its length to the Flemington Roundabout. Traffic modelling work for this location has indicated a likelihood that widening this stretch of road will reduce traffic congestion in this location, thereby reducing road traffic emissions and improving air quality in the area. The project requires further feasibility work as well as the identification of funding options. The transport infrastructure works would be a medium to long-term proposal, as they would be dependent upon the pace of development in the immediate vicinity, as well as the identification of funding. This work, however, has not been progressed further at the time of writing, due to the Council's other financial commitments.

Action Plan Measure 25 – The Council will revisit the option of widening the A721, Windmillhill Street, in deciding future budget spending options in the coming years.

New traffic signals have been installed at Range Road, Motherwell, which, at the time of their installation were linked to existing traffic signals at Shields Road and Jack Street junctions (immediately adjacent to the Motherwell AQMA). This, in conjunction with associated carriageway widening has decreased congestion in the area, thus reducing road traffic emissions and potentially leading to an improvement in local air quality. The traffic micro-simulation model covering the town centre area will be completed to help identify other options for improvement, which would then require the identification of funding options.

Action Plan Measure 26 – North Lanarkshire Council will look at other road junctions in the Motherwell AQMA where similar interventions could be implemented to improve traffic flow and reduce congestions and road traffic emissions.

Strathclyde Passenger Transport (SPT) recently commissioned a STAG Part 2 Appraisal for Motherwell Transport Interchange. This identified a package of improvements to upgrade the Motherwell rail interchange, including a new rail station building, adjacent disabled parking provision, a car drop-off point, taxi rank, bus/taxi shelter, road access improvements in and around the station, with the completion of the Motherwell Town Centre ring road, as well as a multi-storey P&R car park. Unfortunately, however, neither SPT nor North Lanarkshire Council have the financial resources to be able to commit to this plan at this time or in the immediate future.

Action Plan Measure 27 – The Council will support the reconsideration of the Motherwell Transport Interchange Project at the time of the new rail franchise being let (in 2017).

5.3 Action Plan Measures – Whifflet, Coatbridge AQMA

The Whifflet AQMA essentially comprises the A725 and is one of the main distributor roads serving junction 7 of the M8 motorway, as well as the A725 Bellshill Bypass down to the Raith Interchange, junction 5 of the M74 motorway. It is a two-lane road, approximately 1 mile in length (within the AQMA boundary) with a busy intersection around halfway along its length. Surrounding this intersection is a local high street with a number of small businesses, with two-storey buildings on one side of the road and two tower block buildings on the other side of the road. Closer to the M8 motorway junction the road becomes heavily congested with traffic trying to access the motorway and the Bellshill bypass. Residential housing runs the length of this stretch of the road.

Although there is no quick-fix solution to the Whifflet AQMA, the planned upgrade of the M8/A8, which is due to take place over the coming years will have a significant impact on air quality in this area. The motorway upgrade will involve significant alterations to the existing junctions, therefore on/off options for motorists will be altered. This will have a knock-on effect on traffic using the Whifflet area to join/leave the motorway.

Action Plan Measure 28 - North Lanarkshire Council will support the Transport Scotland-led M8/A8 Completion Project.

A developer-led connecting road is planned, running from the existing Greenend roundabout on the B753 Calder Street (which currently runs east from Whifflet Cross towards Coatdyke joining to Carnbroe Road). This initiative is directly linked to residential construction projects and at the time of writing has been half-completed.

Action Plan Measure 29 – The Council will endorse this developer-led project, with a view to encouraging similar projects in the future.

A problem had been identified with cars parking and double-parking outside the shops and businesses on Whifflet Street, in order for the motorists to quickly go into the shop for a few minutes. This had the effect of reducing areas of the road to a single lane, thus creating additional congestion on an already busy stretch of road.

Action Plan Measure 30 – The Council is in the process of completing a new car park to the rear of the shops on Whifflet Street, in order to encourage customers to park behind the shops, thus ensuring both lanes are available for traffic.

In the area of Whifflet Street, close to the M8 motorway junction (Shawhead) there are a significant number of cars parked on the dual carriageway. This has the effect of reducing stretches of the road to a single lane, thus causing traffic congestion back to the roundabout at Shawhead. This is a particular problem adjacent to the Jet Petrol Station and Renault/Nissan garage. To address this issue, parking restrictions are proposed along sections of Whifflet Street. The traffic-signal controlled Whifflet Cross junction frequently experiences significant queue lengths on all approaches, therefore Roads and Transportation will investigate potential further improvements to the traffic signals' operation, as well as examine options to alter the junction layout and/ or the present right-turn manoeuvres.

Action Plan Measure 31 – The Roads and Transportation Department of the Council are currently looking to impose parking restrictions in this area in order to improve traffic flow, and thus improve air quality in this area, as well as re-examine the phasing of the traffic signals at Whifflet Cross.

5.4 Action Plan Measures – Chapelhall AQMA

Chapelhall is a large village on the outskirts of the Airdrie/Coatbridge conurbation. In recent years is has been the site of a substantial private housing development and continues to be an attractive residential location due to its proximity to the M8 motorway, and the fact it is almost equidistant from Glasgow, Edinburgh and Stirling. Chapelhall also has a reasonably-sized industrial estate which is known to generate local HGV traffic. It also has a large joint-

campus primary school. All these contributory factors lead to the fact that Chapelhall has a lot of local traffic, as well as being a connector route for traffic wanting to reach the M8 for Glasgow/Edinburgh, and the A73 to get to the A80 for Stirling. This traffic is funnelled through a very busy road junction, Main Street/Lauchope Street, with residential receptors in immediate proximity and this is where our continuous air quality monitor has been sited for the past few years.

Similarly to the other AQMAs there is no clear solution for improving air quality within the Chapelhall AQMA.

The Council's Roads and Transportation Department has commissioned a STAG Appraisal on the A73 as a whole (which will include the Chapelhall AQMA area). The scope of the STAG is to look at ways of reducing congestion on the A73 and it will look at all available options – including road provision, bypass possibility, public transport, journey details etc. However, there is presently no funding available for any major infrastructure works, therefore delivery would be dependent upon future developer and partner funding contributions. The study will also take account of the Airdrie-Bathgate rail link which is currently under construction.

Action Plan Measure 32 – The Council will duly consider the outcome of the A73 STAG Assessment and subsequently take whatever actions are deemed necessary and feasible, with the aim of reducing congestion and consequently improving air quality within the Chapelhall AQMA.

There is some anecdotal evidence to suggest that some traffic is using the A73 through Chapelhall as a means of avoiding possible congestion on the M8, while trying to reach the A80 and vice versa. This may be because the route is being highlighted on Satellite Navigation equipment. It has been suggested that if the B799 Lauchope Street, Chapelhall is declassified from a B road to a Minor road then it will show up as a less favourable option on this type of equipment, and therefore traffic levels on this road may reduce. A complementary action would also be to upgrade the adjacent Lancaster Avenue to a 40-mile per hour speed limit, thus making it a more attractive option and hence removing traffic from the busy Main Street/Lauchope Street junction.

The works would include preparing a new traffic-routing sign design, plus the preparation of a cost estimate for the signing alterations as well as the identification of funding source.

The Enterprise, Transport and Lifelong Learning section within the Scottish Government have indicated that they have no objections regarding this proposal; however, we will be required to forward the formal necessary papers and plans when we are in a position to request a formal reclassification.

Action Plan Measure 33 – The Council will work to ensure declassification of the B799 Lauchope Street and the upgrade of Lancaster Avenue adjacent to the Chapelhall AQMA.

The main junction that is at the centre of the Chapelhall AQMA is currently controlled by traffic lights, as this has been found to be the option which favours the least congestion in the area. Work is underway, however, to revisit options for this junction, which may include junction widening or altering the traffic light phasing, etc.

Junction widening or similar infrastructure works that may require land out with the road boundary would involve the identification of any land-take requirements and the consequential land-take costs, as well as the identification of funding.

Action Plan Measure 34 – The Council will once again revisit and review potential junction improvements for the junction of Lauchope Street/Main Street within the Chapelhall AQMA.

5.5 Action Plan Measures – Harthill AQMA

The Harthill AQMA lies between Tam's Loup Quarry, on the B7066 Hirst Road, Harthill, and the M8 motorway (between junctions 5 and 6). The monitoring station was, until recently, placed on an area of private land which served as an unofficial lorry park. Around ten residential properties exist adjacent to the monitoring site.

Tam's Loup Quarry comprises an opencast quarry and a roadstone coating plant. The roadstone coating plant supplies ready-to-use road-coating materials direct to the road-building/repair trade. This plant is a Permitted Installation, under the Pollution Prevention and Control (Scotland) Regulations 2000 and is authorised by the Scottish Environment Protection Agency (SEPA). The plant comprises primary, secondary and tertiary crushers, as well as screening equipment. In terms of particulate arrestment, the plant includes reverse jet bag filters fitted to the inclined rotary drum dryer.

The quarrying activities are largely completed onsite and the site is progressing through its restoration phase. At the time of writing, however, the quarry operators were seeking planning approval to remove the roadstone coating plant and quarry the area underneath. It is anticipated that once this work is complete, the quarry will cease to operate.

The quarry cannot definitively be said to be solely responsible for exceedances of the 2010 PM10 annual mean objective at the Harthill AQMA, since another potential source does exist – the M8 motorway. This section of the motorway between Glasgow and Edinburgh carries an annual average daily traffic flow of 56,738 (2007 figures). This traffic will generate PM10, both primary from vehicle exhaust emissions themselves, as well as secondary PM10 from resuspended tyre and brake dust etc.

Action Plan Measure 35 – The Council will commission a Speciation Study in the area of the Harthill AQMA in order to determine further information on the exact type of PM10 arising in the area. Subsequently this will enable accurate source apportionment of PM10 within the AQMA.

Until recently, the Council's continuous air quality monitor at Harthill was sited on private land. Due to a change of use of the land, the land owner requested that the continuous monitor be removed from his land. This was done recently and after some difficulty a new site has been found. The monitor is now in place at the new site.

Action Plan Measure 36 – Due to the forced relocation of the continuous air quality monitor at the Hirst Road, Harthill AQMA, the Council are reviewing the results, looking at them in conjunction with the location of adjacent sources and receptors. Once representative monitoring data has been obtained from the new monitoring location the Council will review the necessity and boundary issues arising from the new information attained regarding the AQMA. Any necessary alterations will be carried out at that time.

6.0 Evaluation of Action Plan Measures

Once potential action plan measures have been identified, it is important to evaluate the effectiveness of each measure and to assess the economic cost of each measure to determine its cost effectiveness. The practicalities of introducing each measure, as well as the political of likely level of public acceptance should also 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 review or scoped the guidance recommends undertaking detailed analysis of the cost-benefits of implementing each measure. The various measures outlined in this 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.

The scoring of each option has been undertaken based on the experience and judgement. The scores are not intended as absolute values, rather are indicative of the relative viability of each option.

The improvement to air quality has been scored on four grades:

A Negative or neutral effect on air quality
B Slight positive effect on air quality (non-measurable reduction in pollutant concentrations)
C Positive effect on air quality (<5% reduction in pollutant concentrations)
D Highly positive effect on air quality (>10% reduction in pollutant concentrations)

The anticipated cost of each measure has also been scored on four grades. The banding costs have been derived as best estimates and do not represent precise budgets. The bandings are as follows:

A Modest cost (<£1k) that could be met out of general department budgets
B Substantial cost that could be met by allocated funding or specific funding bid to Scottish Government (<£50k)
C Expensive project that would require specific budgeted funding (<£500k)
D Major infrastructure project that would require significant capital expenditure from central Government (£500k+)

The engineering/technical feasibility of each project has been estimated. The level of difficulty has been estimated depending on the level of specific technical support required from outside agencies or departments. The four specified grades are:

A No perceived difficulties. Project could be achieved by Environmental Health department.
B Some perceived difficulties. Specialist technical assistance will be required. Cross Council department working.
C Technically specified. Project led by technical specialists. Limited Environmental Health involvement.
D Technically complex programme, large scale design project required.

Further assessment of measures with respect to public acceptability has been made with reference to the responses received in the public consultation. Each measure has also been reviewed to identify any corresponding impacts on other environmental or social issues. The evaluation of each action plan measure is summarised in the Table below.

Overall, most measures can be implemented directly by North Lanarkshire Council and are within achievable budgets. No significant adverse environmental or social impacts are predicted because of the implementation of any of the action plan measures.

Table 4: Evaluation of the Air Quality Action Plan measures

Action Plan Measure	Implementation Date	Air Quality Improvement	Anticipated Cost	Public Acceptable	Feasibility	Environmental/ social impacts
Council-wide measures						
1. Introduction of LAQM to Council Sustainability Working Groups	Jan 2010	A	A	Yes	A	None
2. Development of Council policy on air quality and bioenergy implementation	April 2010	A	A	Yes	B	Potential –ve climate change
3. Pilot study on use of electric vehicles in council fleet	2010	A/B	B	Yes	B	+ve climate change +ve noise
4. Council shall ensure that all light goods vehicles supplied by the Council for use by external contractors shall be at least to Euro 4 standard by 2012	2012	B	B	Yes	B	+ve climate change
5. Introduction of pilot studies on flexible working system for Council staff	April 2010	A	A	Yes	A	None
6. Feasibility study into the introduction and use of pool cars	Oct 2010	B	C	Yes	B	+ve climate change
7. Council Services to consider the introduction of Automatic Vehicle Logging System (AVLS) technology to their vehicles by 2012	2012	B	B	Yes	B	+ve climate change
8. Introduction of policy stating that all Council Services and contractors with relevant vehicles will consider and work towards the introduction of speed limiters on their vehicles by 2012	2012	A	B	Yes	B	Slight +ve climate change +ve road safety

Action Plan Measure	Implementation Date	Air Quality Improvement	Anticipated Cost	Public Acceptable	Feasibility	Environmental/ social impacts
9. Ensure that all Council fleet vehicles will be of at least Euro 4 engine standard by 2012	2012	B	C	Yes	B	+ve climate change
10. Preparation of School Travel Plans for all schools whose catchments lie within one of the Council's AQMAs , through joint working with Learning & Leisure Services, subject to continuation of Scottish Government Cycling, Walking and Safer Streets Grant funding	Ongoing	B	B/C	Yes	B	+ve climate change +ve health benefits
11. Preparation and implementation of a Parking Management Strategy for the Council area, which will include the AQMAs	2011-2014	B	D	Mixed	B	None
12. Preparation and implementation of travel plans for all main Council buildings	2010-2015	B	B	Yes	B	+ve climate change +ve health benefits
13. Awareness-raising exercise informing employees on, and promoting the use of, the Council's car-sharing scheme	Apr 2010	B	B	Yes	B	+ve climate change
14. Work with the Local Planning Team to raise the profile of air quality and endeavour to ensure that air quality is specifically detailed within the Local Plan's Development Strategy Policies (DSPs) where appropriate	Apr 2010	B	A	Yes	A	None
15. Produce and distribute Developer's Guidance for Air Quality, leading to formal status as Supplementary Planning Guidance	Jan 2010	A/B	A	Yes	A	None

Action Plan Measure	Implementation Date	Air Quality Improvement	Anticipated Cost	Public Acceptable	Feasibility	Environmental/ social impacts
16. Prepare an information DVD on air quality in North Lanarkshire to increase public awareness of air quality issues	Oct 2010	A	B	Yes	B	None
17. Promote Learnskape educational module on air quality to schools in North Lanarkshire, with particular emphasis on schools within AQMA	Aug 2010	A	A	Yes	B	None
18. Include a condition in the school bus contract that all buses used to transport children to and from school in North Lanarkshire will be less than ten years old	As renewals occur	B	B/C	Yes	B	+ve climate change +ve road safetyF
19. Formation of working group to ensure that the Local Transport Strategy and other strategic Roads and Transportation documents and initiatives will work hand-in-hand and complement the Council's Air Quality Action Plan	Oct 2010	A	A	Yes	B	None
20. Continuation of Council's vehicle emissions testing campaign and implementation of vehicle idling enforcement at all schools within 500m of an AQMA, plus work with SPT to enforce emissions testing on buses routed through AQMAs	Jan 2010	B	B	Yes (mixed)	A	+ve climate change
21. Undertake a complete review of our air quality monitoring locations and make any alterations deemed necessary in pursuit of our statutory air quality duties	Jan 2010	A	A	Yes	A	None

Action Plan Measure	Implementation Date	Air Quality Improvement	Anticipated Cost	Public Acceptable	Feasibility	Environmental/ social impacts
22. Work with the Scottish Environment Protection Agency (SEPA) in pursuance of our air quality statutory duties	Ongoing	A/B	A	Yes	A	None
23. Advertisement of key air quality messages on back of Council vehicles	Apr 2010	A	B	Yes	B	None
Motherwell AQMA specific measures						
24. Work to achieve a viable solution to possible congestion, and thus increased road traffic emissions associated with the ongoing development of the Ravenscraig site	Apr 2017	A (prevent deterioration)	B / C / D	Yes	C	-
25. Revisit the option of widening the A721, Windmillhill Street, in deciding future budget spending options in the coming years. The project requires further feasibility work as well as the identification of funding options. The transport infrastructure works are a medium to long-term proposal, dependent upon the pace of development timescales.	As required	-	D	Yes	B / C	Potential minor loss of habitat
26. Complete the traffic micro-simulation model in the town centre area to evaluate road junctions in the Motherwell AQMA where new and linked traffic signals could be implemented to improve traffic flow and reduce congestions and road traffic emissions, which would be dependent upon identifying suitable funding options	Oct 2011	B	D	Yes	B	None

Action Plan Measure	Implementation Date	Air Quality Improvement	Anticipated Cost	Public Acceptable	Feasibility	Environmental/ social impacts
27. Support reconsideration of The Motherwell Transport Interchange Project at the time of the new rail franchise being let (in 2014). Presently, no funding is available for these works.	Not programmed	B / C	C / D	Yes	D	No direct impacts of support
Whifflet AQMA specific measures						
28. Support the Transport Scotland-led M8/A8 Completion Project	Ongoing	A / C	D	Yes	D	No direct impacts of support
29. Endorse developer-led project to introduce new connector road between existing Greenend roundabout on the B753 Calder Street and Carnbroe Road	Ongoing	A / C	D	Unknown	C	No direct impacts of support
30. Create car park to the rear of the shops on Whifflet Street	Oct 2010	B	C	Yes	C	Minor habitat loss Potential adverse economic effect on shops
31. Impose parking restrictions in Shawhead in order to improve traffic flow, and thus improve air quality, plus investigate potential alterations to the traffic signals' phasing at Whifflet Cross and examine options to alter right-turn manoeuvres.	Oct 2011	B	C	Unknown	B	None

Action Plan Measure	Implementation Date	Air Quality Improvement	Anticipated Cost	Public Acceptable	Feasibility	Environmental/ social impacts
Chapelhall AQMA specific measures						
32. Duly consider outcome of A73 STAG Assessment and subsequently take whatever actions may be feasible, dependent upon securing developer and partner funding, with the aim of reducing congestion and consequently improving air quality within the Chapelhall AQMA.	Not programmed	A (scheme could have significant effects)	D	Unknown	C / D	No direct impacts from study
33. Work to ensure declassification of the B799 Lauchope Street and the upgrade of Lancaster Avenue adjacent to the Chapelhall AQMA, subject to developing sign design and identifying funding.	Oct 2011	B	C	Unknown	B	None
34. Revisit and review potential junction improvements for the junction of Lauchope Street/Main Street, examining any possible land take requirements and identifying funding options.	Not programmed	B	C	Mixed	B / C	May require land take
Harthill AQMA specific measures						
35. Commission a Speciation Study in the area of the Harthill AQMA in order to determine further information on the exact type of PM10 arising in the area.	Apr 2010	A	B	-	A	None
36. Review monitoring data from relocated monitoring site and evaluate potential changes to the layout accordingly	Apr 2010	A	A	-	A	None

7.0 Monitoring and evaluation of action plan

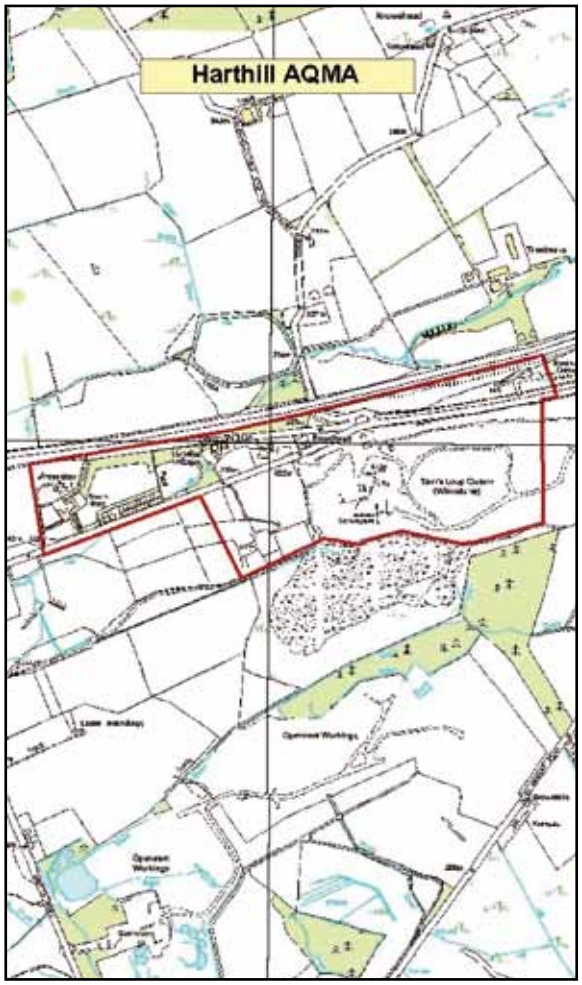
The Council will continue to monitor air quality within each of the AQMAs to determine the improvements achieved by the Action Plan measures. The improvements will be monitored on an ongoing basis, however the overall improvement to air quality will only be accurately determined over an extended period as weather and other factors can lead to inter-annual variation in pollutant concentrations.

The individual measures contained within the Action Plan will be monitored on an annual basis and the progress evaluated and reported in the relevant annual LAQM reports. A number of the action measures refer to undertaking pilot or feasibility studies. Following the completion of each of these studies the feasibility of introducing the measures on a wider scale should be assessed and reported.

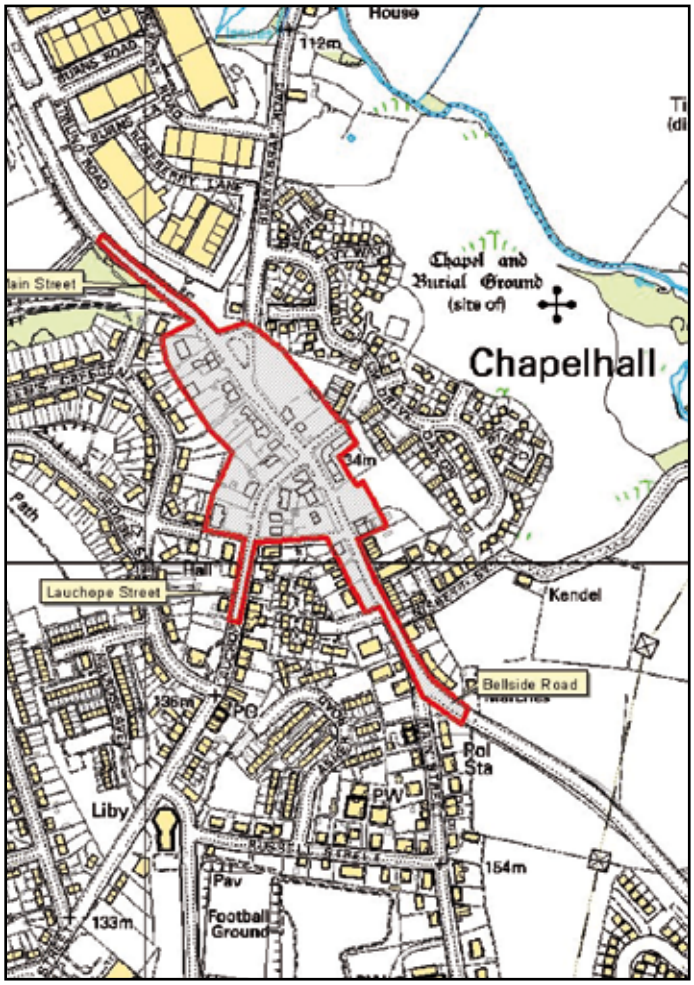
It is intended that the Action Plan will be an evolutionary process which will develop as other Council policies and plans and development proposals change or are introduced. The Action Plan will be reviewed on an annual basis and new measures introduced where appropriate.

Appendix 1: Maps of Air Quality Management Areas

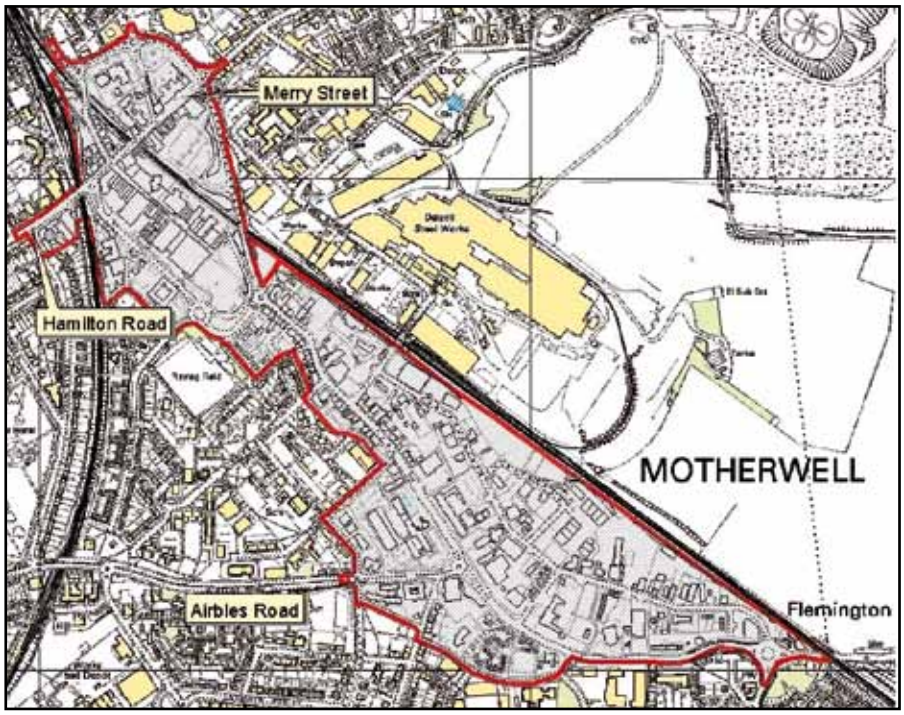
Harthill Air Quality Management Area



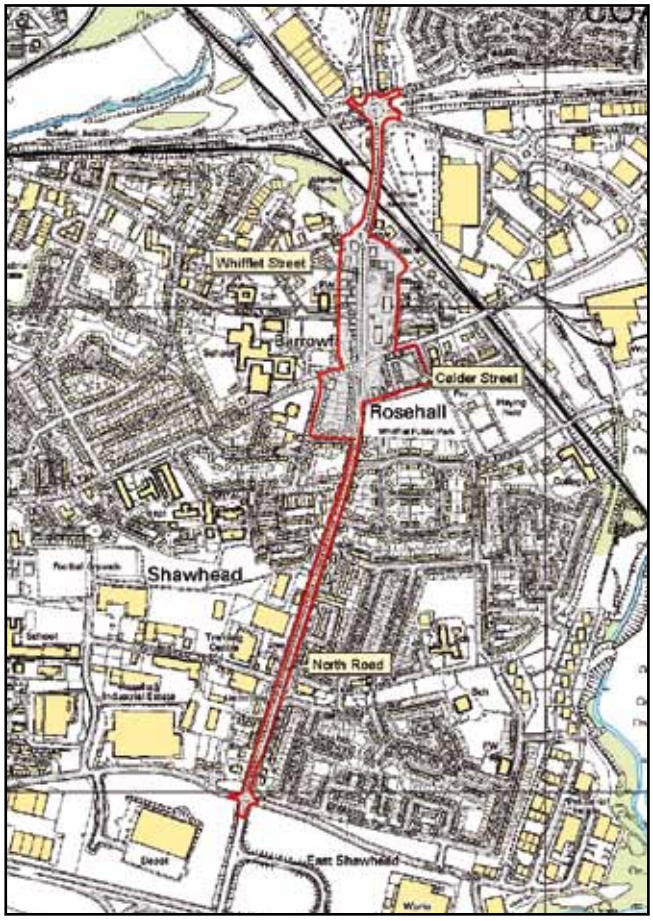
Chapelhall Air Quality Management Area



Motherwell Air Quality Management Area



Whifflet Air Quality Management Area



Appendix 2: List of tables

Appendix 3: List of figures

Appendix 4:

Street/postcode:

Name: Tel:

Age: under 16 ☐ 17-60 ☐ 61+ ☐

Air Quality Management - Public Consultation

Please be assured any information you provide will be treated in confidence and results only published in summary form. Anything you don't wish to answer, please just skip to the next question.

1 How do you rate air quality in this area of North Lanarkshire? (tick one only)

Very good ☐ Average ☐ Very poor ☐ Good ☐ Poor ☐ Don't know ☐

If you said poor or very poor please go to Q2, if not continue to Q3

2 Which of these do you think contribute most to poor air quality in this area? (please tick all that apply)

Agriculture ☐ Commercial activities (eg construction sites) ☐

Industry ☐ Domestic activities (eg coal fires) ☐

Quarries/landfill/mining activities ☐ Road traffic (cars, buses, HGVs) ☐

Other transport sources (eg diesel trains) ☐ Don't know ☐

Other (please specify)

3 How do you think air quality in this part of North Lanarkshire compares with the rest of the West of Scotland? (please tick one only)

Better than most areas ☐ About the same as other areas ☐

Worse than most other areas ☐ Don't know/not sure ☐

4 Are you aware that North Lanarkshire Council has declared Air Quality Management Areas in areas of Chapelhall?

Yes ☐ No ☐

5 On a scale of 1 to 5 (with 1 being not very effective, to 5 being very effective) how would you rate the following measures in helping to improve air quality within North Lanarkshire?

Transport

___ Increase vehicle exhaust emission testing
___ Enforce fixed penalty notices for idling vehicles
___ Improve emission standards for buses operating within North Lanarkshire
___ Improve public transport throughout the district
___ Provide more information on air quality to people of North Lanarkshire to help them choose their preferred mode of travel based on this
___ Encourage people to use cars less, especially for short local journeys
___ North Lanarkshire Council to lead by ensuring all Council vehicles use the lowest emission fuels available
___ Introduction of parking charges in areas of poorest air quality
___ Stricter enforcement of parking restrictions, particularly on busy roads with double yellow lines etc.

Residential and industrial

___ Reduce dust and smoke emissions from construction sites
___ More information and guidance for households using domestic coal or wood burners (eg Smoke Control Areas)
___ More detailed air quality monitoring sources of air pollutants in North Lanarkshire

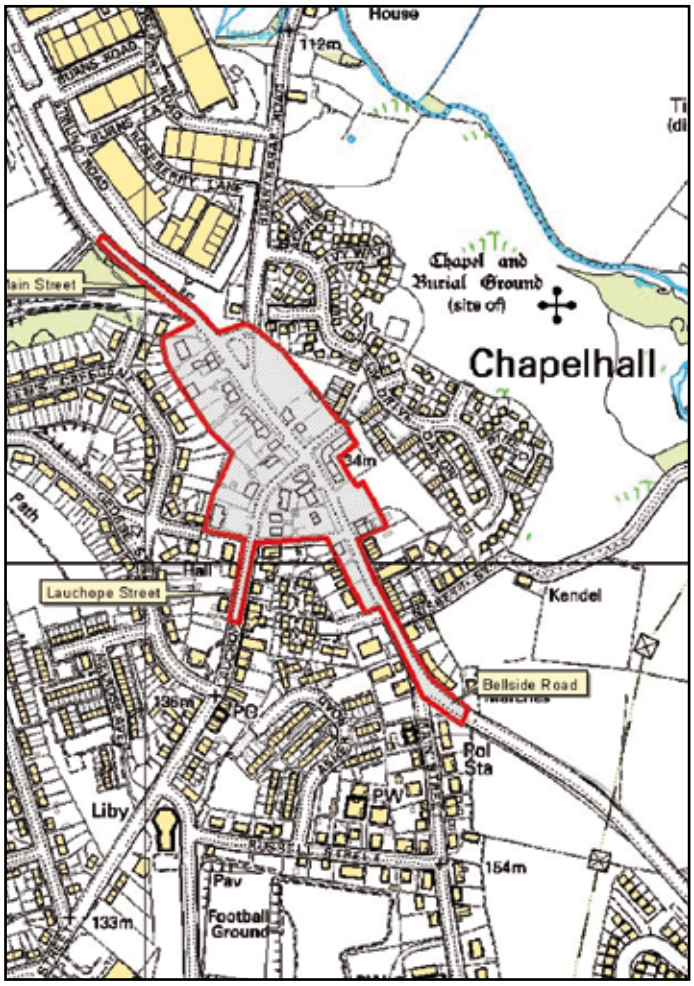
Initiatives

___ Further research into initiatives for reducing air pollution, eg tree planting
___ Work with Eco-schools and Education to promote the clean air message to the children of North Lanarkshire
___ More guidance on air quality provided for project developers.
___ Extra road cleaning to miminise dust on roads and pavements.

6 How often in the past month have you passed through the following Air Quality Management Area? (please tick as appropriate)

Chapelhall (road/area tbs)

Daily ☐ 1-2 times week ☐ 1-2 times month ☐ less often ☐ not at all ☐



Have you any other comments to make about air quality in North Lanarkshire?

Thank you very much for your help. We hope to publish key findings from this in the autumn 09 North Lanarkshire News.

www.northlanarkshire.gov.uk