



Air Quality Action Plan

for

WEST LANCASHIRE BOROUGH COUNCIL

Prepared by: Christopher Carpenter
Senior Environmental Health Officer
West Lancashire Borough Council

March 2011

Document Review

Version	By	Date	Comments
01	CC / AH	15/03/2011	First draft for internal review
02	CC/AH	09/06/2011	Final draft after consultation
03	COMMITTEE	20/07/2011	Final draft approved

Contents

Page	Details
4	Executive Summary
4	Public Consultation
5	Introduction
6	Legislative Background
7	Table 1 – Air Quality Objectives Included in the Air Quality Regulations for the Purpose of Local Air Quality Management
8	Review and Assessment
9	Review and Assessment of Air Quality in West Lancashire
11	Figure 1 - Roads modelled, monitoring sites & receptor locations for the DA.
12	Figure 2 - Outlined Air Quality Management Area
13	Further Assessment
13	Table 2 – Predicted NO ₂ Annual Mean Concentrations – Specific Receptors
14	Figure 3 - Contours of NO ₂ concentrations, Moor St/Stanley St Junction
15	Source Apportionment
15	Table 3 - Source Apportionment of NO ₂ Concentrations at Worst-case Specific Receptor
16	Table 4 - Required NO _x and NO ₂ Reduction
16	Existing Policies and Strategies
16	Community Strategy (2007-2017)
17	Replacement Local Plan (2001-2016)
17	Lancashire Local Transport Plan
19	The Consultation Process
20	Potential Impact and Cost
20	Suggested Actions and Options Available
21	Options to be Taken Forward as Part of the Action Plan
	Table 5 - Shortlisted Options Identified to Take Forward
22	Appendix A
23	Appendix B

Executive Summary

Current air quality objectives for Nitrogen Dioxide are being breached in the Air Quality Management Area of Moor Street, Ormskirk, designated by this Council in January 2010. As a result of this, Part IV of The Environment Act 1995 places a legal requirement on the Council to develop an Air Quality Action Plan (AQAP) for this area.

This Action Plan will identify and assess potential actions for improving the local air quality within the designated area. It proposes the implementation of those actions that are relevant to local air quality management and those capable of bringing about improvements within the designated area.

Public consultation

This draft AQAP is now open for consultation until 31st May 2011.

Any comments regarding the content of this draft Action Plan, the chosen options, timescales or additional options identified should be forwarded to:

chris.carpenter@westlancs.gov.uk

Or by post to:

Christopher Carpenter
Robert Hodge Centre
Stanley Way
Skelmersdale
West Lancashire
WN8 8EE

Introduction

The purpose of this Air Quality Action Plan (AQAP) is to provide the means through which West Lancashire Borough Council (WLBC) can deliver viable measures that will improve the air quality within its Borough. More specifically, this Plan will work towards achieving the air quality objectives within the Air Quality Management Area (AQMA) declared in January 2010.

The principle aims of this Action Plan are as follows:

- Raise awareness of air quality issues within the AQMA
- The promotion of constructive dialogue with all relevant stakeholders in relation to air quality
- Prioritisation of measures to improve air quality
- Quantification on impacts of proposed measures
- Assignment of stakeholder responsibility in relation to agreed measures
- Indicate time scales and costs for agreed measures
- Ensure further monitoring and evaluation on the effectiveness of the Action Plan

Guidance on the development of this Action Plan for WLBC has been obtained using Policy Guidance LAQM.PG(09), National Society for Clean Air and Environmental Protection (NSCA) and through the Department of the Environment, Food and Rural Affairs (DEFRA) air quality action plan help desk.

All have assisted in the development of this document.

Legislative Background

The significance of existing and future pollutant levels are assessed in relation to the national air quality standards and objectives, established by Government. The revised Air Quality Strategy (AQS)¹ for the UK (released in July 2007) provides the over-arching strategic framework for air quality policy in the UK and contains national air quality standards and objectives established by the UK Government and devolved administrations to protect human health. The air quality objectives incorporated in the AQS and the UK Legislation are derived from the Limit Values prescribed in the EU Directives transposed into national legislation by member states.

The Clean Air for Europe (CAFE) programme was initiated in the late 1990s to draw together previous directives into a single EU Directive on air quality. The Directive 2008/50/EC² introduces new obligatory standards for PM_{2.5} for Government but places no statutory duty on local Government to work toward the achievement of these new standards.

The Air Quality Standards (England) Regulations 2007³ came into force in February 2007 in order to align and bring together in one statutory instrument the Governments obligations to fulfil the requirements of the CAFE Directive. The objectives for ten pollutants (benzene, 1,3-butadiene, carbon monoxide, lead, nitrogen dioxide (NO₂), sulphur dioxide (SO₂), particulates - PM₁₀ and PM_{2.5}, ozone and Polycyclic Aromatic Hydrocarbons (PAHs)) have been prescribed within the AQS based on The Air Quality Standards (England) Regulations 2007.

The Environment Act 1995 highlights local authorities' duties and responsibilities that are designed to improve air quality at a local level. Part IV of this places a statutory duty on local authorities to periodically review and assess the current and the future air quality within their area – a process known as Local Air Quality Management (LAQM). The seven pollutants that apply to LAQM are, benzene, 1,3-butadiene, carbon monoxide, lead, NO₂, SO₂, particulates - PM₁₀. The objectives set out in the AQS for these pollutants are presented in Table 1 below.

The UK Government and the Devolved Administrations have also set new national air quality objectives for PM_{2.5}. These objectives have not been incorporated into LAQM Regulations, and authorities have no statutory obligation to review and assess air quality against them.

The locations where the AQS objectives apply are defined in the AQS as locations outside buildings or other natural or man-made structures above or below ground where members of the public are regularly present and might

1 The Air Quality Strategy for England, Scotland, Wales and Northern Ireland (2007)

2 Directive 2008/50/EC of the European Parliament and of the Council of 21 May 2008 on ambient air quality and cleaner air for Europe

3 The Air Quality Standards Regulations 2007, Statutory Instrument No 64, The Stationary Office Limited

reasonably be expected to be exposed to pollutant concentrations over the relevant averaging period of the AQS objective. Typically these include residential properties and schools/care homes for longer period (i.e. annual mean) pollutant objectives, and high streets for short-term (i.e. 1-hour) pollutant objectives.

Table 1 – Air Quality Objectives Included in the Air Quality Regulations for the Purpose of Local Air Quality Management

Pollutant	Objective	Concentration measured as	Date to be achieved by and maintained thereafter
Benzene All authorities	16.25 µg/m ³	running annual mean	31.12.2003
Authorities in England and Wales only	5.00 µg/m ³	annual mean	31.12.2010
1,3 Butadiene All authorities	2.25 µg/m ³	running annual mean	31.12.2003
Carbon monoxide Authorities in England, Wales and Northern Ireland only	10.0 µg/m ³	maximum daily running 8-hour mean	31.12.2003
Lead All authorities	0.5 µg/m ³	annual mean	31.12.2004
	0.25 µg/m ³	annual mean	31.12.2008
Nitrogen dioxide All authorities	200 µg/m ³ , not to be exceeded more than 18 times a year	hourly mean	31.12.2005
	40 µg/m ³	annual mean	31.12.2005
Particles (PM₁₀) (gravimetric) All authorities	50 µg/m ³ , not to be exceeded more than 35 times a year	24 hour mean	31.12.2004
	40 µg/m ³	annual mean	31.12.2004
Sulphur dioxide All authorities	350 µg/m ³ not to be exceeded more than 24 times a year	1 hour mean	31.12.2004
	125 µg/m ³ not to be exceeded more than 3 times a year	24 hour mean	31.12.2004
	266 µg/m ³ not to be exceeded more than 35 times a year	15 minute mean	31.12.2005

As established by the Environment Act 1995 Part IV, all local authorities in the UK are under a statutory duty to undertake an air quality assessment within their area and determine whether they are likely to meet the air quality objectives set down by Government for a number of pollutants.

The process of review and assessment of air quality undertaken by local authorities is set out under the Local Air Quality Management (LAQM) regime and involves a phased three yearly assessment of local air quality. Where the results of the review and assessment process highlight that problems in the attainment of health-based objectives for air quality will arise, the authority is required to declare an Air Quality Management Area (AQMA) – a geographic area defined by high levels of pollution and exceedences of AQS objectives. The LAQM regime was first set down in the 1997 National Air Quality Strategy (NAQS)⁴ and introduced the idea of Local Authority ‘Review and Assessment’.

The Government subsequently published policy and technical guidance related to the review and assessment processes in 1998. This guidance has since been reviewed and the latest documents include Policy Guidance (LAQM.PG (09))⁵ and Technical Guidance (LAQM.TG (09))⁶. The guidance lays down a progressive, but continuous, framework for the local authorities to carry out their statutory duties to monitor, assess and review air quality in their area and produce action plans to meet the air quality objectives.

Defra and the Devolved Administrations released the latest Policy and Technical Guidance in February 2009, in anticipation of the fourth round of review and assessment.

Review and Assessment

Government guidance issued under the Environment Act 1995 recommends a phased approach to air quality Review and Assessment. This involves two phases with each subsequent phase being increasingly focused and detailed in order to more accurately assess local air quality. These phases are known as the Updating and Screening Assessment (USA) and the Detailed Assessment (DA).

Each considers the likelihood of exceedence of the air quality objectives at relevant locations (i.e. where people are likely to be exposed) over the relevant exposure period.

For example, an annual average can be used to assess impact at residential locations, where as one-hour averages would be more significant for urban roadside locations, such as a high street, where people might reasonably be expected to spend an hour.

⁴ DoE, 1997, ‘The United Kingdom National Air Quality Strategy’, The Stationary Office

⁵ Policy Guidance LAQM.PG(09) (2009), Part IV of the Environment Act 1995, Local Air Quality Management, Published by Defra in partnership with the Scottish Government, Welsh Assembly Government and Department of the Environment Northern Ireland, The Stationary Office

⁶ Technical Guidance LAQM.TG (09) (2009), Part IV of the Environment Act 1995, Local Air Quality Management, Published by Defra in partnership with the Scottish Government, Welsh Assembly Government and Department of the Environment Northern Ireland, The Stationary Office

The (USA) reviews the changes in air quality that have occurred within each Local Authority since the previous round of review and assessment and re-examines locations and sources that were highlighted as issues at that stage. Where this highlights that an air quality objective may be exceeded, the Local Authority must then undertake a DA.

The DA aims to determine with as much certainty as is possible whether or not an air quality objective will be exceeded. If an exceedence is predicted, the Local Authority should designate an AQMA to cover the area of the exceedence.

After the declaration of an AQMA the Local Authority must undertake a Further Assessment, in order to re-assess the area of the AQMA and to determine its suitability. Following the conclusions of the Further Assessment it may be necessary to revoke or amend the declared AQMA.

In addition, local authorities are required to produce annual air quality Progress Reports. These are carried out during the years when no Updating and Screening or Detailed Assessments are due. All monitoring data and information relevant to local air quality are included in the Progress Reports.

Review and Assessment of Air Quality in West Lancashire

The first round of Review and Assessment carried out by the West Lancashire Borough Council in 2000, concluded that all the objectives for the seven pollutants, to be considered for LAQM, were either being met or will be met by their target dates.

The USA undertaken in 2003 at the start of the second round of Review and Assessment also concluded that all the objectives for the LAQM pollutants were either being met or will be met by their target dates within the district. The progress Report produced in 2004 acknowledged that diffusion tube monitoring of NO₂ was needed at a number of new locations in order to assess the air quality objectives more fully.

The USA produced at the third round of Review and Assessment in 2006 concluded that the objectives for all but annual mean NO₂ were being met within the Borough. The USA identified a potential for exceedence of the NO₂ objective in Stanley Street, Ormskirk. The USA recommended that a Detailed Assessment should be carried out for Stanley Street to confirm the findings.

The Council had already commissioned automatic monitoring at a site along Stanley Street in July 2005. A Detailed Assessment report was produced in August 2006 based on the results of the automatic monitoring of NO₂. The report concluded that the monitored levels were below the annual mean objective for NO₂ and hence an AQMA was not required.

The Progress Report produced in 2007 used the latest monitoring data for NO₂ and identified that an exceedance of the annual mean objective was likely to occur in Moor Street. The report recommended a more detailed monitoring campaign of NO₂ at this location to get more data to confirm the findings⁷.

Based on the results of the more detailed monitoring, the Progress Report produced by the Council in 2008 concluded that a Detailed Assessment was required for the Moor Street area of Ormskirk, West Lancashire.

This Detailed Assessment follows from the recommendations of the Progress Report 2008 and used the additional monitoring data collected since the report was produced. Bureau Veritas were commissioned by West Lancashire Borough Council to provide the Detailed Assessment. The aim being to assess the identified area and determine whether the prescribed objectives were being met through the assessment of monitoring data and dispersion modelling predictions. Where exceedances are predicted to occur, the assessment seeks to define the area of exceedance to assist the Council in respect of subsequent Air Quality Management Area declaration. The findings of the Detailed Assessment are as follows:

The dispersion modelling results were consistent with previous monitoring data, and confirmed that an Air Quality Management Area (AQMA) should be declared in Moor Street for the NO₂ annual mean.

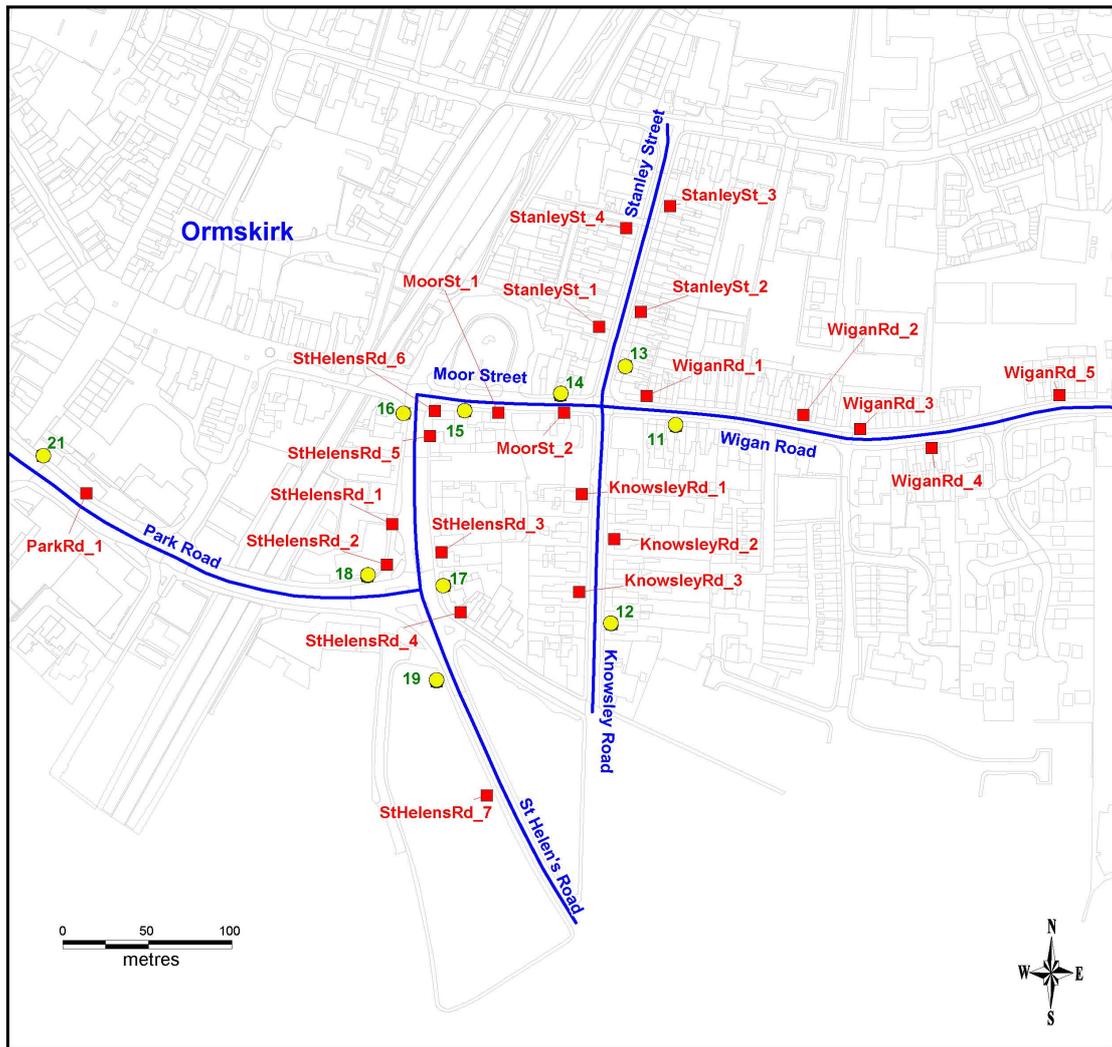
Concentration contours allowed the potential extent of the area of exceedance to be determined, defined by a 40µg/m³ NO₂ concentration contour, this included properties on Moor Street, and a few properties on Stanley Street, close to the junction with Moor Street/Wigan Road. Consequently the DA recommended the AQMA should encompass those properties.

Both monitored and modelled results highlighted that properties along St Helen's Road, Knowlsey Road and Wigan Road were below the NO₂ AQS objective and therefore did not need to be included in the AQMA.

Figure 1 highlights the roads modelled, monitoring sites and receptor locations for the DA.

⁷ Due to technical difficulties related to placement of continuous monitoring sites, it was agreed with Defra to progress monitoring based on diffusion tubes

(FIGURE 1) Roads modelled, monitoring sites & receptor locations for the DA.



Legend

- NO2 Diffusion Tube
- Specific Receptor
- Modelled Road

The conclusions of the DA were submitted to DEFRA, and in September 2009 these were accepted. As a result of this West Lancashire Borough Council, in exercise of the powers conferred upon it by Section 83(1) of The Environment Act 1995, declared an Air Quality Management Area that came into effect on the 20th January 2010. A map highlighting the AQMA boundaries can be seen below (Figure 2).

The Council also submitted a USA to Defra in 2009, at the start of the fourth round of Review and Assessment. The USA also concluded the potential exceedences of annual mean NO₂ objective in the Moor Street area of Ormskirk.

This report undertook an analysis of new monitoring information and changes to pollution sources in West Lancashire since the last Updating and Screening Assessment in 2006. The report concluded that the objectives for all seven pollutants are already met or will be met by their target years, other than for Nitrogen Dioxide. This is on the basis of having considered changes to the emission sources; relevant exposure, new objectives and any other changes that have taken place since the third round of air quality review and assessment

(FIGURE 2) Outlined Air Quality Management Area



The Progress Report produced in April 2010 concluded that the objectives for all seven pollutants are already met or will be met by their target years, other than for Nitrogen Dioxide. It recognised the previously established findings that the Nitrogen Dioxide annual mean is being exceeded in Moor Street, and that a Detailed Assessment and Further Assessment have now been completed.

Further Assessment

Local Authorities are required to prepare a written Action Plan for an AQMA, setting out the action plan measures they intend to take forward and the potential costs and benefits of these measures. The Further Assessment (FA) provides the technical backup for the measures to be included within the action plan. The action plan should refer to the findings of the FA in terms of source apportionment so that its measures are targeted appropriately.

In February 2010, WLBC completed its FA and this enabled us to verify the extent of the AQMA. This also enabled us to identify the source apportionment to the modelled NO₂ levels. Annual average NO₂ concentrations were predicted for the baseline year (2008) and future year (2010). This was carried out at a number of specific receptors (Figure 1) representing locations relevant for public exposure. Table 2 below highlights the predicted NO₂ results at the chosen receptors.

Table 2 – Predicted NO₂ Annual Mean Concentrations – Specific Receptors

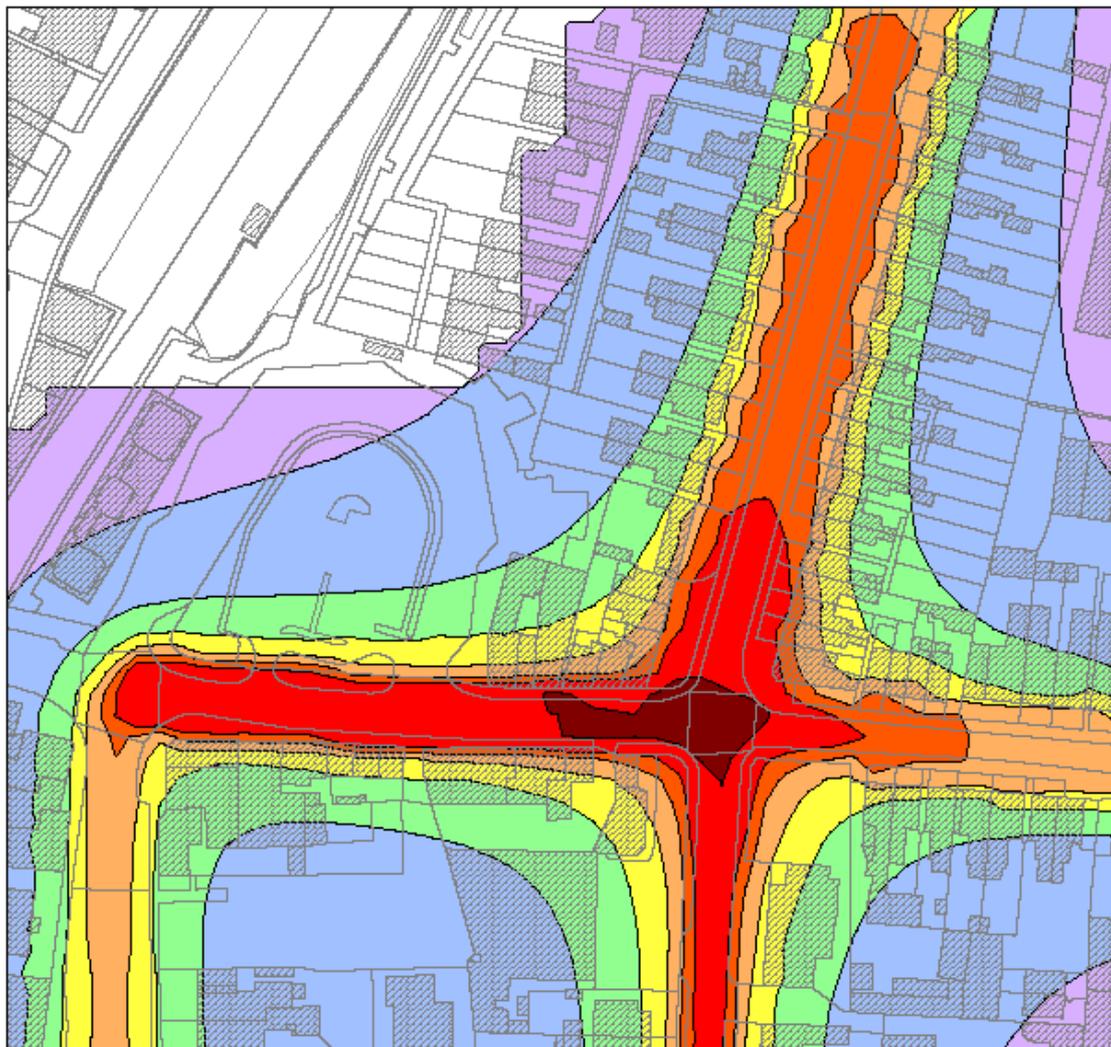
Receptor ID	Grid Reference		Height Z(m)	NO ₂ 2008 (µg/m ³)	NO ₂ 2010 (µg/m ³)
	X(m)	Y(m)			
KnowsleyRd_1	341696	408107	1.5	28.7	25.9
KnowsleyRd_2	341716	408080	1.5	28.5	25.7
KnowsleyRd_3	341695	408048	1.5	28.0	25.2
MoorSt_1	341647	408156	1.5	46.0	42.2
MoorSt_2	341686	408156	4.5 ⁽¹⁾	45.2	41.5
ParkRd_1	341402	408108	1.5	28.8	26.1
StanleySt_1	341706	408207	1.5	29.7	26.7
StanleySt_2	341731	408216	1.5	35.4	32.0
StanleySt_3	341749	408279	1.5	34.4	31.1
StanleySt_4	341722	408266	1.5	27.7	24.9
StHelensRd_1	341584	408089	1.5	24.8	22.4
StHelensRd_2	341581	408065	1.5	27.5	24.8
StHelensRd_3	341613	408072	1.5	25.8	23.3
StHelensRd_4	341624	408036	1.5	25.6	23.0
StHelensRd_5	341606	408142	4.5 ⁽¹⁾	22.6	20.4
StHelensRd_6	341609	408157	4.5 ⁽¹⁾	23.5	21.1
StHelensRd_7	341640	407927	1.5	24.1	21.6
WiganRd_1	341735	408166	1.5	36.9	33.5
WiganRd_2	341828	408154	1.5	27.7	24.9
WiganRd_3	341861	408146	1.5	35.3	32.0
WiganRd_4	341904	408135	1.5	24.9	22.4
WiganRd_5	341979	408166	1.5	24.9	22.5

In bold, exceedence of the NO₂ annual mean AQS objective (40µg/m³)

(1) Ground floor commercial premises - 1st floor residential

Overall the results confirmed the need to declare an AQMA in Moor Street for NO₂. It recommended that the area declared encompass all residential properties in Moor Street as well as the properties in Stanley Street close to the junction with Moor Street / Wigan Road. These fall within the 40ug/m³ concentration contour as shown in Figure 3, below.

(Figure 3) Contours of NO₂ concentrations, Moor St/Stanley St Junction



**NO₂ Concentration Contours
2008 - ug/m³**

- < 20
- 20 to 24
- 24 to 28
- 28 to 32
- 32 to 36
- 36 to 40
- 40 to 50
- > 50

Source Apportionment

Source apportionment highlighted road traffic as the main contributor to the overall NO₂ levels in the AQMA. The breakdown of vehicle classification allowed for determining NO₂ source apportionment at a specific (worst case) receptor within the proposed AQMA (Moor St 1). The following vehicle classes were used: Cars, Light Goods Vehicles (LGVs), Buses, and Heavy Goods Vehicles (HGVs). Table 3, below, summarises the results of NO₂ at the worst case receptor.

Table 3 - Source Apportionment of NO₂ Concentrations at Worst-case Specific Receptor

AQMA	Moor Street
Receptor (Maximum modelled concentration)	MoorSt_1
Total NO₂ 2008 µg/m³ (Total Background + Local Road Source Contributions)	46.0
NO₂ Total Background (Local + Regional)	15.1
• NO ₂ Local Background	10.2
• NO ₂ Regional Background	4.9
Local Road Source Contributions (cars+LGVs+buses+HGVs) in µg/m³	30.9
• NO ₂ Cars	10.5
• NO ₂ LGVs	2.9
• NO ₂ Buses	10.4
• NO ₂ HGVs	7.2
% Local background	22.1
% Regional background	10.8
% Road traffic	67.2
• % due to Cars	22.8
• % due to LGVs	6.2
• % due to Buses	22.5
• % due to HGVs	15.6
• % Cars contribution of total road traffic	33.9
• % LGVs contribution of total road traffic	9.3
• % Buses contribution of total road traffic	33.6
• % HGVs contribution of total road traffic	23.2

The requirement of the FA is to determine the amount of NO₂ reduction required at the worst-case receptor within the AQMA. For this assessment, it was first necessary to determine the levels of oxides of nitrogen (NO_x), for the highest concentration predicted at the sensitive receptor relevant to public exposure. No_x is the collective term for all oxides of nitrogen that are present in combustion emissions, and a result of their subsequent chemical reactions. The results are shown in Table 4.

The NO₂ annual mean AQS objective of 40 µg/m³ was calculated to be equivalent to an 88.6 µg/m³ NO_x concentration (based on local background NO_x and the latest NO_x/NO₂ converter).

The maximum predicted NO_x reduction required within the Moor Street AQMA to comply with the NO₂ AQS objective is 24.4 µg/m³ (equivalent to an 21.6% improvement in NO_x). This equates to a 6.0 µg/m³ reduction in NO₂ (equivalent to 13.0% improvement in NO₂).

Consequently, the formulation of the Action Plan should aim to reduce the levels of NO_x/NO₂ within the Moor Street AQMA by this amount (Table 4).

Table 4 - Required NO_x and NO₂ Reduction

Year	Receptor location	Modelled NO _x (µg/m ³)	NO _x (equivalent to 40µg/m ³ NO ₂) µg/m ³	Reduction NO _x required (µg/m ³)	% Reduction NO _x	Modelled NO ₂ (µg/m ³)	NO ₂ AQS objective (µg/m ³)	Reduction NO ₂ required (µg/m ³)	% Reduction NO ₂
2008	MoorSt_1	113.0	88.6	24.4	21.6	46.0	40.0	6.0	13.0

Existing Policies and Strategies

Community Strategy (2007-2017)

The West Lancashire Local Strategic Partnership has produced a Sustainable Community Strategy for improving the wellbeing of the local community. This has been achieved by working closely with service providers, voluntary groups, local people and business in order to achieve its shared vision. This strategy includes a number of priorities that can be related to this action plan.

These are as follows:

- Being actively involved in working with other agencies throughout Lancashire and the North West, to ensure it plays its part in driving up the quality of life for the whole region
- To protect and improve West Lancashire's environment
- Promotion of cycling and walking to school, including cycle training
- Recognises the need to improve air and water quality
- Recognises the need to address public transport and traffic congestion
- Improve health outcomes, promote social wellbeing for communities and reduce health inequalities for everyone

Replacement Local Plan (2001-2016)

The existing replacement local plan does not contain a specific policy statement concerning Air Quality. However, the following related objectives are contained within the plan:

- The proportion of journeys made by cycling and walking will be increased, by requiring new developments to incorporate appropriate facilities for cyclists and pedestrians within the development
- Public transport alternatives to car access will be encouraged
- The Council will, in principle, encourage proposals, which seek to reduce global warming and our dependence on finite fossil fuels

WLBC are working towards having an adopted Core Strategy in place by 2012. Its preferred options are to reduce carbon emissions through the shift towards low carbon development and renewable energy, including:

- Reduce dependency on the car and shift towards sustainable transport.
- Reduce transport emissions such as carbon dioxide and other greenhouse gases by encouraging greater usage of public transport.
- Reduce congestion in the Borough's main towns including Ormskirk. Support the shift towards new technologies and fuels by promoting low carbon travel choices and encouraging the development of low carbon travel choices and encouraging the development of low carbon/electric vehicles and associated infrastructure.

Lancashire Local Transport Plan

Lancashire County Council has responsibility for highways management, road and public transport policy within the Borough. Its Local Transport Plan (2011-2021) has been drafted, and though there are no policies, plans or strategies that directly target Ormskirk's AQMA, its following priorities can be considered as relevant to this action plan:

- Improving peoples quality of life and wellbeing
- Providing safe, reliable, convenient and affordable transport alternatives to the car
- Reducing carbon emissions and its effects

One of West Lancashire Borough Council's priorities is to protect and improve its environment. The AQAP will contribute toward the achievement of this, in

combination with all the aims and objectives highlighted in the above, existing policies. This combination will help reduce congestion on Ormskirk's Roads, thus improving the Air Quality within the AQMA.

The Consultation Process

The formulation of this draft action plan follows meetings with invited stakeholders including local councillors, local residents, Lancashire County Council, local bus operators, Primary Care Trust (NHS) and WLBC officers. As a result of this a number of options have been identified for consideration. These options have been prioritised in relation to their likely effectiveness and cost.

In order to ensure all stakeholders have a degree of ownership of this document, comments are sought from any interested party. This will improve the likelihood of the plan succeeding in reducing pollution levels and ensure no reasonable options for improvement have been missed.

This report will be sent to the following bodies for consultation and any further views are sought from any other interested bodies.

- Secretary of State
- Local Councillors
- Lancashire County Council
- Ormskirk Community Partnership
- Members of the Public
- Primary Care Trust
- Internal Departments within West Lancashire Borough Council

This consultation process on the draft plan will commence for a period of no longer than eight weeks and will end on 31st May 2011.

A review of all comments received will then take place and in turn this will lead to any necessary revisions of the action plan.

Any comments regarding the content of this draft action plan, the chosen options, timescales or additional options identified should be forwarded to:

chris.carpenter@westlancs.gov.uk

Or by post to:

Christopher Carpenter
Robert Hodge Centre
Stanley Way
Skelmersdale
West Lancashire
WN8 8EE

Potential impact and cost

Working with its partner agencies, the Council is required to assess both the cost and effectiveness on air quality of any proposed actions that may lead to a reduction in air pollution. As the Further Assessment highlighted, source apportionment showed road traffic to be the main contributor to the overall NO₂ levels in the AQMA. Therefore, for this action plan it was necessary to assess both the cost and effectiveness with Lancashire County Council, Highways Department.

The potential positive effect on air quality is rated using the following key:

✓✓✓✓✓	Large
✓✓✓✓	Moderate
✓✓✓	Small
✓✓	Very Small
✓	Negligible

Costs have been estimated for each action using the following key:

£££££	£1 Million+
££££	£100K-£1 Million
£££	£10K-£100K
££	£1-10K
£	< £1K

Suggested actions and options available

Guidance on preparing an Air Quality Action Plan (AQAP) does not specify which measures should be included or excluded. The requirement is that measures chosen should be clear, reasonable and achievable.

A steering group was formed consisting of the invited stakeholders. The purpose of this was to identify options available that would lead to possible improvements in the air quality within the designated AQMA. The options suggested have been reproduced in Appendix A.

Following on from this, an assessment of the identified options was carried out through further discussions with Lancashire County Council and officers from WLBC.

Appendix B highlights options identified that would not be practical to take forward. Whilst these could be viewed as reasonable they are not achievable. This is due to recent changes in Local Authority priorities and their large financial implications. Each has been assessed for their likely impact on air quality and estimated cost for implementation.

Options to be taken forward as part of the Action Plan

A shortlist of achievable options has been established and these are highlighted in Table 5. Each of these has also been assessed for their likely impact on air quality, estimated cost, as well as time scales for implementation.

Working alongside its partner agencies, WLBC hope that these options can be taken forward as a mechanism to improve the air quality within the AQMA. To secure the necessary air quality improvements there must be involvement by all stakeholders and WLBC will actively work to encourage participation in this process.

It will be important to gauge the effectiveness of any measures implemented as a result of this AQAP. In order to measure road traffic emissions within the AQMA, WLBC will continue with its passive monitoring campaign. The options highlighted in this plan will be monitored over the time periods set out. This will help to inform decisions and monitor progress, in order to achieve the air quality objective that is currently being exceeded.

Table 5: Shortlisted options identified to take forward

Description of Identified Measures	Estimated Cost of Measures	Impact on Air Quality	Persons / Agency Responsible	Completion Dates / Time Scales	Other Issues / Problems / Comments	Realistic to Implement Measures
Older buses replaced by new cleaner vehicles	££££	✓✓✓	Bus operators	Ongoing	Relies on bus operators/cost implications	Yes
Review possible re-design of road layout and access/One way only Moor Street (Westerly only) Buses only Easterly	££££	✓✓✓	LCC/WLBC	March 2015	Funding issue/Public acceptance	Yes
Review access for Railway Road	£££	✓✓✓	LCC/WLBC	March 2013	Funding issue/Public acceptance	Yes
Review local business travel plans	££	✓✓	WLBC/ LCC /Edge Hill College/ Ormskirk Hospital	May 2012	Work with partners	Yes
Review the traffic signals SCOOT system on Moor Street and all junctions associated with the AQMA	££	✓✓✓✓	LCC	May 2012	None	Yes
Review car park strategy for town centre	£	✓✓✓	WLBC/LCC	May 2012	Look at pricing/ access/ signage	Yes
Review/relaunch WLBC car share scheme/cycle to work scheme	£	✓	WLBC	April 2012	None	Yes

Appendix A:

List of suggested options to be considered

Traffic management (eg. Weight Limits, time restrictions)

Car park Strategy (Review current system and possible improvements for town centre)

Severance of route (Offer alternative route avoiding town centre)

Signing (Highlighting alternative routes, weight limits, time limits etc)

‘SCOOT’ system

(This controls the flow of traffic via the traffic light signals)

Real time information systems (Digital information displays, giving up to date Air Quality reports)

Park and Ride (Review possible options for location)

Freight signage (time limits e.g. peak hours for HGVs)

Tackle and reduce congestion (Review all options available)

Signals (Peak time operation alternatives, possible alternatives)

Bus priority (Review possibility of change to traffic flow)

Rail-park and walk (Re-launch and promotion)

Travel planning (educational)

School travel planning (LCC)

Personal travel planning

Appendix B

Shortlisted options identified but not possible to take forward

Description of Identified Measures	Estimated Cost of Measures	Impact on Air Quality	Persons / Agency Responsible	Completion Dates / Time Scales	Other Issues / Problems / Comments	Realistic to Implement Measures
Review by-pass option for Ormskirk town centre	£££££	✓✓✓✓✓	LCC/WLBC	N/A	Cost/Proposed Route/Public response	No
Review possible relocation of bus station	£££££	✓✓✓✓✓	LCC/WLBC/Bus companies	N/A	Cost/Proposed new site/ Public acceptance	No
Review time limit for HGVs passing through AQMA	£££	✓✓✓✓✓	LCC/WLBC	N/A	Difficult to enforce/Signage	No
Review the introduction of a through route for HGVs	£££	✓✓✓✓✓	LCC/WLBC	N/A	Funding issue/Freight survey necessary including roadside interviews/ Design/New signage/Public response	No
Review possible new promotion campaign for the use of public transport	£	✓	WLBC/Bus companies/Train companies	N/A	Liaise with relevant companies	Not at this time