

Local Air Quality Management

Abingdon Air Quality Action Plan



Vale
of White Horse

Vale of White Horse District Council

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April 2009

This Document contains the Air Quality Action Plan (AQAP) for Abingdon, together with a technical report from Air Quality Consultants Ltd. The AQAP explains why the Council is producing such a plan and contains a series of proposed measures. The technical report is attached as an Appendix and discusses all the measures originally considered for inclusion in the Action Plan. It also indicates which measures are being discounted at this stage, and which measures are being taken forward into the Air Quality Action Plan for implementation.

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Appendix- Technical report produced by Air Quality Consultants Ltd. used as the basis of the Air Quality Action Plan	Published as a separate document

1. Summary

Air quality monitoring has identified high levels of nitrogen dioxide in the centre of Abingdon. Because the levels exceed the Government's national target for nitrogen dioxide, the District Council has declared part of the centre of the town an Air Quality Management Area.

This Air Quality Action Plan identifies measures to improve local air quality in the Air Quality Management Area. Measures are set out under the following headings:-

- Traffic management
- Lowering emissions
- Promotion of alternatives
- Planning
- Education and information

Most of the town centre traffic flow management improvements resulting from the Abingdon Integrated Transport Strategy have now been implemented. This means that other measures are required to sufficiently improve air quality.

The Air Quality Action Plan takes into account the results of consultations with residents, businesses and other local and national organisations. It will be reviewed annually and revised as necessary.

2. Introduction

2.1. Local Air Quality Management

The Vale of White Horse District Council is working to improve air quality throughout the district, to make sure residents, businesses and visitors all benefit from a healthy, clean and pleasant environment.

The Council has a duty under the Environment Act 1995 to review the following pollutants against national health based standards set by Government (known as air quality objectives), as set out in the Air Quality Regulations 2000 as amended.

- nitrogen dioxide
- sulphur dioxide
- carbon monoxide
- fine particulates (PM₁₀)
- lead
- benzene
- 1,3-Butadiene.

The Council must identify locations where levels of pollutants exceed the national air quality objectives. Where it finds any exceedences, the Council must declare an 'Air Quality Management Area', and then prepare an Action Plan to show what can be done to improve the air quality in that area. There may be situations where it is not possible to achieve the national standards through local measures alone.

2.2. Air Quality In Abingdon

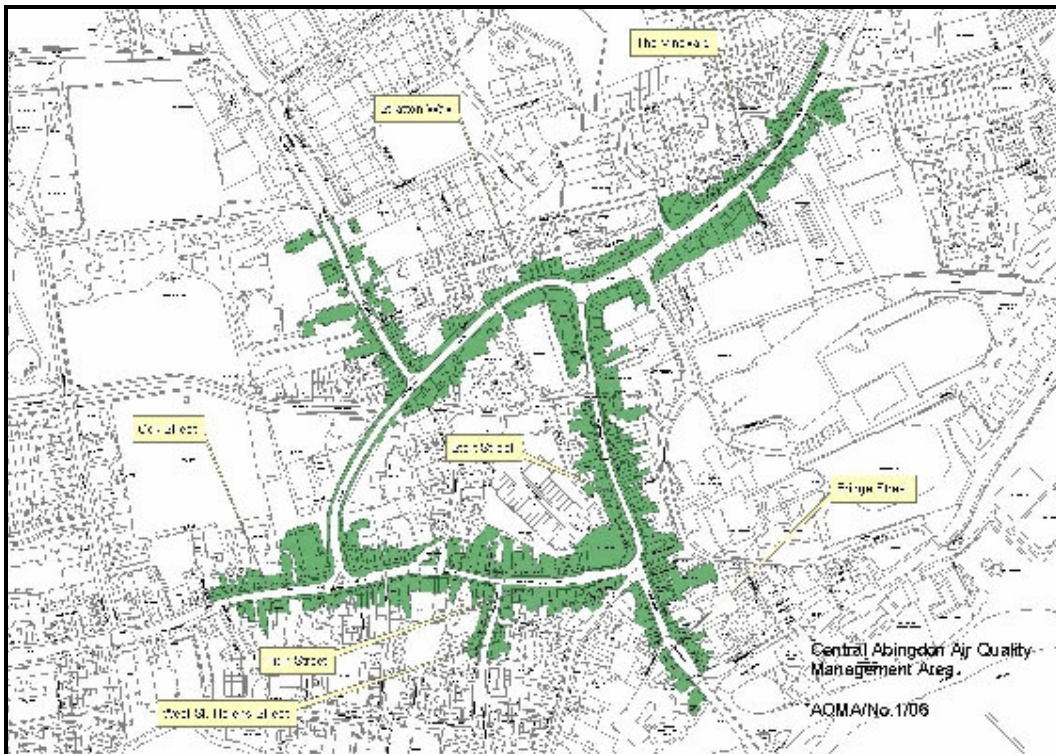
Air quality monitoring has been undertaken in Abingdon since 1995. It has shown that levels of nitrogen dioxide in parts of the town exceed the air quality objectives for people living in the centre of Abingdon. However, the more stringent limit for people working in or walking through an area has not been exceeded.

The major source of nitrogen dioxide is road traffic. The raised levels primarily come from traffic on the roads in the centre of Abingdon. These roads are Stert Street, High St, Stratton Way and parts of the roads which feed into this central ring. The dispersal of pollutants is made worse by the 'canyon' effect where narrow roads have tall buildings on either side. This is a particular problem in Stert Street and High Street.

2.3. Abingdon Air Quality Management Area

As a result of the raised levels of nitrogen dioxide, in an area where residential accommodation fronts onto the highway, the Council designated the following roads in central Abingdon as an Air Quality Management Area in 2006:

- Stert Street
- High Street
- Stratton Way
- Vineyard
- Bridge Street
- West St Helen Street (from 17 to High St)
- Ock St (from The Square to Coopers Lane)
- Bath St (from Stratton Way to the footpath to Fitzharry's Road)



Map of Abingdon Air Quality Management Area

A recent Further Assessment Report on air quality in Abingdon has identified the possible need to extend the Abingdon Air Quality Management Area along Ock Street up to Drayton Road. Further monitoring is being undertaken in this area to establish if it is necessary to make this change. It is important that the impacts of measures in the Air Quality Action Plan do not adversely affect this area.

2.4. The Abingdon Air Quality Action Plan

Having declared an Air Quality Management Area, the Council has now produced this Air Quality Action Plan, detailing measures which could improve local air quality. The aim of the Action Plan is to put forward measures aimed at reducing levels of nitrogen dioxide to meet the air quality objective. In practice it may not be possible to do this because of other social, environmental or economic considerations. For instance, a particular measure might be disproportionately costly and therefore never be acceptable. However, the plan is intended to work towards achieving whatever improvements to local air quality are feasible.

The Council commissioned Air Quality Consultants Ltd. (AQC) to produce a technical report (included as an **Appendix**) which has been used as the basis of this Action Plan. The AQC report expands on many of the matters referred to in the main body of this report, and can be consulted for further information.

The AQC report includes further information about the current air quality issues within the Air Quality Management Area and the reduction in nitrogen dioxide levels which would be required to achieve the air quality objective. It also includes a complete list of all the measures initially proposed for inclusion in the Action Plan.

District Council Officers have also been working with colleagues from the Oxfordshire County Council Environment & Planning Team to identify measures which can help to reduce levels of pollution in the town. Further measures were suggested by local stakeholders at two air pollution workshops held by the Council in October 2008. Many of these measures have been incorporated into the Action Plan.

The measures chosen for inclusion in this Action Plan are listed in section 5.2.

2.5. Consultation On The Draft Air Quality Action Plan

The Council has consulted residents, businesses and other local organisations on the Draft Air Quality Action Plan during the period from 8th January 2009 to 19th February 2009. Other consultees include Abingdon Town Council, Oxfordshire County Council and national bodies such as the Department for Food and Rural Affairs (Defra), and the Highways Agency.

Feedback obtained from this consultation exercise has been carefully considered and amendments made in the light of the comments received. A report summarising the consultation responses has been prepared and published separately.

2.6. Future Monitoring and Review Of The Air Quality Action Plan

The Council will continue to monitor pollution levels in Abingdon in order to assess whether or not the proposed measures are bringing about the expected improvements, and to assess the impact of these measures on other areas of the town.

We will also undertake an annual review of the progress made in implementing the Action Plan, and revise the Plan as necessary. Any major changes proposed to the Action Plan will first be the subject of both local and national consultation.

3. Evaluation Of The Proposed Measures

The AQC report attached as an **Appendix** lists all the measures which were initially suggested for inclusion in the Action Plan. The report also discusses these measures, and indicates which ones have been discounted, and which ones are proposed for taking forwards into the Action Plan.

Section **5.2** summarises the measures which the Council is now proposing to implement, or take forward for further feasibility work, in order to reduce the levels of nitrogen dioxide in the Air Quality Management Area. Some measures have been amended in the light of responses received from the consultation process. The tables give an indication of the following:

- the proposed measure
- the predicted impact of the measure upon air quality
- the likely costs
- the feasibility of the measure being adopted
(includes the impact on issues other than air quality)
- the authority responsible for implementation
- the probable timescales involved
- the ranking of the measure

The proposed measures have been ranked numerically based on a simple scoring system. This gives a higher priority to those measures that could deliver the greatest air quality improvement, and also takes account of cost and feasibility. The scoring system is based on a consensus of the professional judgement and experience of the officers from the Vale of White Horse District Council and their consultants, Oxfordshire County Council and Abingdon Town Council. The scoring system gives a preliminary indication of the impact and feasibility of the measures, but does not represent a full detailed study or appraisal of the measures. Therefore it does not necessarily mean that any particular measure will eventually be implemented.

The scoring system was as follows:-

Air quality impact	1(low impact) to 5 (high impact)
Cost	1(high cost) to 5 (low cost)
Feasibility	1(low feasibility) to 5 (high feasibility)

Further detail on the scoring system is included in Section 5 of the Appendix.

The scores were then combined as follows:-

$(\text{Air quality impact} \times 2) + \text{cost} + \text{feasibility} = \text{ranking score.}$

In many cases a measure will have little impact on air quality but could be easily adopted at little cost. Such measures may be given a higher priority than other measures which may have more impact on air quality but cannot be delivered as quickly, for reasons outside the Council's control.

Some measures may have little impact on air quality in the short term but importantly will raise the profile of air quality issues within the community.

Some of the measures may require a feasibility study to show whether or not the measure under consideration is feasible on grounds of cost-effectiveness, practicability and/or overall benefit to air quality.

Where measures have achieved a score of zero for either 'Air Quality Impact' or 'Feasibility' they have been discounted at this stage. However, depending on progress it is possible some of these might be reconsidered in the longer-term.

Some measures involve actions which are considered likely to have a direct effect in reducing nitrogen dioxide in the town centre e.g. encouraging more traffic onto the peripheral road instead of driving through the town centre. Other measures involve actions which are considered likely to have an indirect effect. For example improved information on buses would be expected to encourage people to take the bus rather than use their car. Also some measures involve investigation into specific topics, in order to find out whether or not there might be actions which would have either a direct or indirect impact on nitrogen dioxide levels. An example is further development of school travel plans.

4. Implementation of the Air Quality Action Plan

It is important to recognise that this Action Plan has been written **after** the most significant improvements and changes resulting from the Abingdon Integrated Transport Strategy (AbITS) have already been implemented. Therefore little more can be done under the current strategy to further manage traffic flows in the town centre to improve air quality.

AbITS is managed by Oxfordshire County Council, who work closely with the Vale of White Horse District Council and Abingdon Town Council, through a Members Working Group. The County Council are the highways and traffic authority and are therefore ultimately responsible for the project. Extensive public consultation was carried out on the AbITS proposals, which were developed to respond to a balanced range of objectives:-

- reduce the reliance on motorised traffic in general
- remove all but essential traffic from the town centre
- promote the use of public transport for journeys both within the town and to other destinations
- promote safer, more pleasant and more convenient conditions for pedestrians and cyclists
- improve accessibility to facilities, particularly for non-car users and those whose mobility is impaired
- promote road safety and reduce the number and severity of road casualties
- promote, and where appropriate, establish the efficient management and operation of all types of traffic and related activity, including parking
- promote community safety and reduce crime and fear of crime
- reduce airborne pollution (taking account of the UK National Air Quality Strategy) and noise levels throughout the town in general, and in areas of high incidence in particular
- preserve and enhance the character and appearance of the town's Conservation Areas, its stock of listed buildings and particularly the historic centre

- improve accessibility between Abingdon and the surrounding countryside for recreational purposes
- sustain and enhance the vitality and viability of the town centre as an attractive place for shopping, business, leisure and tourism
- protect and enhance the town's sound economic and employment base
- take account of public opinion and gain widespread public support for any proposals through effective publicity, information, consultation and education.

The main traffic alterations as part of the town centre scheme are now in place. Further work on re-paving and re-surfacing High Street is due to be completed by March 2010. Part of the scheme was designed to alleviate congestion in the central ring by controlling traffic flow with linked traffic lights. This means traffic can be held up on the approach roads as necessary. It also changed Stratton Way from one-way to two-way, to reduce the amount of traffic through Stert Street and High Street. A bus waiting facility has also been introduced to allow buses to layover in Stratton Way instead of High Street.

Since the completion of the major traffic management changes, reductions in levels of nitrogen dioxide have been recorded in some parts of the town centre along with increases in levels in other parts of the town centre. These changes in levels are consistent with the traffic management changes. Levels of nitrogen dioxide in the Air Quality Management Area are still being recorded in excess of the national objective level and the Air Quality Action Plan will work towards further reduction in these levels.

The Council is now keen to implement other measures to improve air quality in Abingdon. However, in order to have a significant impact it is evident that these will have to include some or all of:-

- Major strategic highways improvements, such as improving the Lodge Hill interchange on the A34 and a relief road for Abingdon involving a new river crossing.
- A major modal shift in public behaviour, in reducing car use

These measures will be extremely challenging, and cannot be achieved by the Vale of White Horse District Council alone. In many instances, the Council's role will be to try to work with and influence other organisations to bring these measures forward.

A staged approach will be adopted, broadly based on the ranking of measures in the tables in 5.2. Measures will be implemented in such a way as to maximise the improvements in air quality, taking account of the cost effectiveness, feasibility

and ease of implementation. In some cases it will be necessary to carry out a feasibility study, to establish whether or not the measure in question is practicable, and whether the benefits to air quality would justify the expenditure in both social and economic terms. It is possible that not all of the measures listed in the section 5.2 will be implemented.

It will be important to consider the cumulative effects of a number of measures together. Some individual measures may have relatively little impact in isolation, but could be significant when considered as part of the whole. Many of the measures will also raise the profile of air quality issues, and it is hoped that over time the increased awareness will result in changes in the behaviour of the local community, giving improvements in local air quality and also contributing to measures to combat climate change.

This report has been presented to the Council's Licensing & Regulatory Committee in April 2009, giving details of the responses to the consultation and changes made from the draft Air Quality Action Plan. This has included recommendations for a process to review the Plan, and to report progress on the measures included, on an annual basis.

4.1. Timescales

The tables of proposed measures include an indication of the probable timescale for each one, in terms of short, medium or long term. These timescales are further refined in the technical report, pages 47 to 50 to show actual or estimated dates. These timescales will be reconsidered as part of the annual review process.

5. Proposed Measures

5.1. Context

The Vale of White Horse District Council is supporting a package of measures, detailed in this Air Quality Action Plan, which are required to improve air quality in the Abingdon Air Quality Management Area. (The list of proposed measures is included as section 5.2)

The AbITS traffic management changes in the town centre have shown some improvements in air quality in the worst affected areas but levels of nitrogen dioxide continue to exceed the air quality objective. The Council is continuing to monitor air quality across the centre of the town and the main arterial roads, in order to allow the Council to assess the impact of the AbITS scheme, and the measures proposed in this Action Plan.

The results of the monitoring will be made available on the Council's website, and as part of an annual review process. The measures listed in the Action Plan may

not, in isolation, allow the Council to meet national standards. However, it is anticipated the proposed measures will result in significant improvements, and the Government accepts that it is not always practicable to reduce pollution levels locally so that the air quality objective can be met, on grounds of both economic and social cost when compared with the benefits in air quality.

The Council has consulted residents, businesses and other local and national organisations on the draft Air Quality Action Plan, and has amended some measures in light of comments made. The Air Quality Action Plan will be reviewed annually, to assess the progress made in implementing the proposed measures and improvements in air quality, where this is possible. The Action Plan will be amended to take account of the findings of the review. Any major changes proposed to the Action Plan would first be the subject of local and national consultation.

5.2. Tables Of Proposed Measures

Traffic Management							
Paragraph In Appendix	Proposed Measure	Impact on air quality Score: 1-Low 5-High	Cost Score: 1-High 5-Low	Feasibility Score: 1-Low 5-High	Responsible authorities 'VWH' Vale of White Horse DC 'OCC' Oxfordshire County Council	Timescale	Ranking Score
4.14	To encourage more traffic onto the peripheral road (improved signage)	2	4	5	OCC	Short	13
4.5	To investigate making the A34 Lodge Hill Junction into a four way interchange	4	1	3	Highways Agency	Long	12
4.4	To investigate building a further river crossing for Abingdon and Southern Relief Road	5	1	1	OCC	Long	12
4.9	To investigate the removal of Rye Farm HGV park	2	4	4	VWH	Medium	12
4.19	To investigate the building of a new river crossing and bypass from east Abingdon to Culham	5	1	1	OCC	Long	12
4.6	To restrict delivery vehicles during the day	2	4	3	OCC/VWH	Short	11
4.7	To investigate the introduction of weight limits for HGV traffic	2	4	1	OCC	Medium	9
4.13	To investigate the closure of St. Helens Wharf	1	4	2	OCC	Medium	8
4.12	To investigate the re-instatement of the A34 slip road at Drayton	2	1	2	Highways Agency	Medium	7
4.10	To investigate the widening of Drayton Road Bridge to allow two traffic lanes and provide a separate footbridge	1	2	1	OCC	Medium	5

Lowering Emissions

Paragraph In Appendix	Proposed Measure	Impact on air quality Score:	Cost Score:	Feasibility Score:	Responsible authorities	Timescale	Ranking Score
		1-Low 5-High	1-High 5-Low	1-Low 5-High			
4.23	To investigate the feasibility of a low Emission Zone (covering HGVs)	4	2	2	OCC	Long	12
4.28	To promote 'eco-driving' training for buses (and others)	1	4	5	OCC/VWH	Short	11
4.21	To promote reductions in emissions from taxis (through licensing)	1	4	5	VWH	Short	11
4.24	To investigate reducing the use of Abingdon for HGV testing/training	2	4	2	OCC/Driving Standards Agency	Medium	10
4.20	To develop a policy to reduce emissions of council vehicles and promotion of alternative fuels	1	3	4	VWH	Short	9
4.22	To control stationary idling vehicles, by use of fixed penalty notices	1	4	3	VWH	Short	9

Provision of Alternatives							
Paragraph In Appendix	Proposed Measure	Impact on air quality Score:	Cost Score:	Feasibility Score:	Responsible authorities	Timescale	Ranking Score
		1-Low 5-High	1-High 5-Low	1-Low 5-High			
4.34	To encourage the development of Business Travel Plans	2	4	4	OCC	Short	12
4.48	To encourage the development of School Travel Plans	2	4	4	OCC	Short	12

4.36	To promote improved cycling measures	1	4	5	OCC/VWH	Short	11
4.38	To promote car sharing	1	5	4	OCC/VWH	Short	11
4.35	To review the VWHDC travel plan	1	4	4	VWH	Short	10
4.49	To introduce decriminalized parking controls	1	4	4	VWH	Short	10
4.47	To review car parking policy	1	4	3	VWH	Medium	9

Planning							
Paragraph In Appendix	Proposed Measure	Impact on air quality Score:	Cost Score:	Feasibility Score:	Responsible authorities	Timescale	Ranking Score
		1-Low 5-High	1-High 5-Low	1-Low 5-High			
4.51	To implement greater planning controls in AQMAs	2	3	3	VWH	Medium	10

Education & Information							
Paragraph In Appendix	Proposed Measure	Impact on air quality Score:	Cost Score:	Feasibility Score:	Responsible authorities	Timescale	Ranking Score
		1-Low 5-High	1-High 5-Low	1-Low 5-High			
4.56	To promote personal travel planning websites	1	5	5	OCC/VWH	Short	12
4.57	To encourage the provision of improved cycle route information	1	5	5	OCC/VWH	Short	12

4.58	To encourage working with schools on education initiatives aimed at improving air quality	1	4	5	OCC/WH	Short	11
4.63	To promote positive messages about air quality, health and alternative travel modes	1	4	5	OCC/WH	Short	11
4.66	To promote inter-school liaison on issues effecting air quality	1	5	4	OCC/WH	Medium	11
4.54	To promote specific events aimed at promoting alternative travel modes	1	4	4	OCC/WH	Short	10
4.60	To investigate improvements to travel forecasting and reporting	1	4	4	OCC/WH	Short	10
4.53	To provide 'real time' information at bus stops (extend current provision)	1	3	5	OCC	Short	10
4.59	To promote the provision of variable messaging signs, to warn of town centre congestion etc.	1	4	3	OCC	Medium	9

Appendix
(Published as a separate document)

**Technical report produced by Air Quality
Consultants Ltd, used as the basis for the Air
Quality Action Plan.**

Please note that this report discusses all the measures initially proposed from various sources for inclusion in the Action Plan. It also indicates which measures are being discounted at this stage, and which measures are being taken forward into the Action Plan for implementation.