



Air Quality Action Plan: Technical Report

Vale of the White Horse District Council

April 2009

Document Control

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Executive Summary

Part IV of the Environment Act, 1995, places a statutory duty on local authorities to periodically Review and Assess the air quality within their area. For each health-based air quality objective, local authorities have to consider whether the objective is likely to be achieved. Where it appears likely that the air quality objectives are not being met, local authorities must declare an Air Quality Management Area (AQMA). Following the declaration of an AQMA, the authority must then carry out a Further Assessment of existing and likely future air quality, and develop an Air Quality Action Plan (AQAP) which sets out the local measures to be implemented in pursuit of the air quality objectives.

An AQMA for nitrogen dioxide was declared in Abingdon in 2006. This report is a technical annex to the AQAP for Abingdon in the District of the Vale of White Horse. It describes the processes that are in place, and sets out the measures that are currently being considered to deliver improvements to air quality within the area. A semi-quantitative evaluation of these measures has been prepared. As far as possible, the document includes an analysis of the measures that could be implemented together with an indication of the improvements that might be expected. Confirmation of timescales and funding for the measures has been included, to the extent possible, although for some measures, this has not proved possible.

The Further Assessment of air quality in Abingdon assessed concentrations of nitrogen dioxide by both monitoring and modelling. The results indicated that the annual mean nitrogen dioxide objective was exceeded in 2007 within the AQMA and also at locations outside of the AQMA along Ock Street. Further monitoring is being undertaken along Ock Street to define further any exceedences at facades of properties, before potentially extending the AQMA. Source apportionment shows that light and heavy duty vehicles each contribute approximately 50% of the emissions from the total locally-generated road traffic component. The Further Assessment also indicates that a reduction in local road traffic emissions of between 25 and 50% would be required to achieve the annual mean air quality objective at all modelled receptor locations in 2007.

The approach to the Air Quality Action Planning process in the Vale of White Horse has been to involve relevant stakeholders from the outset. This has been undertaken with both stakeholders internal to the Vale of White Horse District Council, and with a number of external organisations. There have been a number of mechanisms for engaging with these stakeholders:

- A **Technical Working Group** was established at the outset, consisting of officers from within Vale of White Horse District Council, Oxfordshire County Council and Abingdon Town Council;

- An **Advisory Group** consisting of the Executive Portfolio Holder for Environmental Health, the opposition cabinet spokesperson for Environment and local district councillors who cover the AQMA area;
- Two **Stakeholder Meetings** were held on 30th October, with a further meeting held on 4th February 2009; and
- **Wider public consultation** which has been undertaken following the publication of the draft Action Plan in January and February 2009.

A number of suggested actions have been included within this document under the headings of:-

- Traffic management;
- Lowering emissions;
- Promotion of alternatives;
- Planning; and
- Education and Information.

The suggested measures range from inexpensive, easy to implement actions such as the promotion of existing sources of information which encourage behavioural change in relation to transport choice (such as car sharing websites, cycle maps etc), to major strategic options (such as Lodge Hill junction on the A34); many of these measures have been under discussion within other arenas. A semi-quantitative evaluation of the measures has been included, which incorporates the expected air quality impact of the suggested measures, together with the cost and feasibility of implementation. The timescale for implementation is also included in the analysis. Once the Action Plan is implemented, progress will be determined through the ongoing monitoring strategy in Abingdon.

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1 Introduction and Aims of the Plan

Introduction

- 1.1 Part IV of the Environment Act, 1995, places a statutory duty on local authorities to periodically review and assess the air quality within their area. The concept of Local Air Quality Management (LAQM) and the process of 'review and assessment' was established in the 1997 National Air Quality Strategy (NAQS)¹. In 2000, the Government reviewed the NAQS and published the revised Air Quality Strategy for England, Scotland, Wales and Northern Ireland² (AQS). This established a revised framework for air quality objectives for seven pollutants, which were subsequently prescribed into legislation via the Air Quality Regulations 2000³. These were subsequently amended in 2002⁴. Since then, the UK Air Quality Strategy has been further reviewed⁵, but the objectives relevant for LAQM remain unchanged.
- 1.2 For each air quality objective, local authorities have to consider whether the objective is likely to be achieved. Where it appears likely that the air quality objectives are not being met, local authorities must declare an Air Quality Management Area (AQMA). Following the declaration of an AQMA, the authority must then carry out a Further Assessment of existing and likely future air quality and develop an Air Quality Action Plan (AQAP) which sets out the local measures to be implemented in pursuit of the air quality objectives.
- 1.3 Policy Guidance LAQM.PG(09)⁶, provides guidance on the development of Action Plans. Action Planning is viewed as the most important and significant aspect of the LAQM process, playing a key role in helping the UK Government deliver the air quality objectives and the EU limit values. The AQAP is expected to include the following:
- quantification of the source contributions to the predicted exceedences of the objectives, to allow the Action Plan measures to be effectively targeted;
 - evidence that all available options have been considered on the grounds of cost-effectiveness and feasibility;

¹ DoE (1997) The United Kingdom Nation Air Quality Strategy The Stationery Office

² DETR (2000) The Air Quality Strategy for England, Scotland, Wales and Northern Ireland – Working together for Clean Air, The Stationery Office

³ DETR (2000) The Air Quality Regulations 2000, The Stationery Office

⁴ Defra (2002) The Air Quality Strategy for England, Scotland, Wales and Northern Ireland: Addendum, The Stationery Office

⁵ Defra (2007) Air Quality Strategy for England, Scotland, Wales and Northern Ireland. (Cmd paper No 7169).
<http://www.defra.gov.uk/environment/airquality/strategy/index.htm>

⁶ Defra (2009) Policy Guidance LAQM.PG(09). <http://www.defra.gov.uk/environment/airquality/local/guidance/pdf/laqm-policy-guidance-part4.pdf>

- how the local authority will use its powers and also work in conjunction with other organisations in pursuit of the air quality objectives;
- clear timescales in which the local authority and other organisations and agencies propose to implement measures within the Action Plan;
- quantification of the expected impacts of the proposed measures and, where appropriate, an indication as to whether the measures will be sufficient to meet the air quality objectives; and
- how the local authority intends to monitor and evaluate the effectiveness of the Action Plan.

1.4 In December 2001, the Office of the Deputy Prime Minister (ODPM) set out proposals to reform council services, with the intent to give more freedom and flexibilities to local authorities, and to reduce the burden to produce and submit plans. One outcome is that local authorities are no longer required to produce a separate AQAP where the problem is predominantly related to road transport. In such cases, local authorities are advised to incorporate the AQAP into their Local Transport Plan (LTP). The Vale of White Horse District Council (VWHDC) is responsible for the production of the AQAP. However, the air quality issues are predominantly traffic related, so the Action Plan will be incorporated into the LTP, which is the responsibility of Oxfordshire County Council. Supplementary guidance to help local authorities with the integration of their Action Plans into the LTP was issued by Defra in 2005 (LAQM.PGA(05))⁷. The LTP should contain the following:

- background information of the air quality situation (derived from the review and assessment reports);
- evidence that the local authority has considered all available measures to tackle the problems, and that these measures have been considered on the grounds of cost-effectiveness and feasibility;
- consideration of the wider environmental, social and economic impacts of the measures;
- the target dates for implementation of the measures, and indication of funding mechanisms;
- identification of those responsible for implementing the measures, and
- clarification of how the local authority intends to measure progress with the implementation of the measures and air quality improvement afforded.

⁷ Defra (2005) Policy Guidance: Addendum LAQM.PGA(05)

- 1.5 In preparing the 2006-2011 LTP (the LTP2), local authorities were also required to set out a 2004/05 baseline, a 2010/11 target, and “intermediate outcomes” to measure progress against the target. These may include indicators such as total emissions within the AQMA, traffic flows, etc. The next LTP (LTP3) will run from 2011 over a number of unspecified years as there will be more flexibility in terms of timescales of future LTPs following the implementation of the Local Transport Act 2008⁸. In terms of timing, it is likely that the AQAP will be integrated into LTP3.
- 1.6 Environmental Protection UK (EPUK, formerly NSCA) has also published two guidance documents entitled ‘Air Quality Action Plans (2000)’⁹ and ‘Air Quality: Planning for Action (2001)’¹⁰. These guidance documents have also been taken into account in the development of this draft Action Plan.

Status of this report

- 1.7 This report is a technical annex to the Air Quality Action Plan (AQAP) for Abingdon in the District of the Vale of White Horse. It describes the processes that are in place, and sets out the measures that will be implemented, or further investigated, to deliver improvements to air quality within the area. A semi-quantitative evaluation of these measures has also been prepared. As far as possible, this document includes an analysis of the measures that will be implemented together with an initial indication of the improvements that might be expected and timescales for implementation.

2 Context of Air Quality and Transport in Abingdon

Air Quality in Abingdon

- 2.1 The Further Assessment (April 2008) of air quality in Abingdon assessed concentrations of nitrogen dioxide by both monitoring and modelling. The results indicated that the Government’s annual mean objective for nitrogen dioxide was exceeded in 2007 within the existing AQMA, and also at locations outside of the AQMA along Ock Street and The Vineyard. Further monitoring is being undertaken by the Council along Ock Street to provide a better definition of any exceedences at facades of properties, before potentially extending the AQMA. Source apportionment of the local traffic emissions was also undertaken. This has shown that Light and Heavy Duty vehicles each contribute approximately 50% of the emissions from the locally-

⁸ Guidance for LTP3 can be found at: <http://www.dft.gov.uk/consultations/open/draftguidanceltp/>

⁹ <http://www.environmental-protection.org.uk/assets/library/documents/AQActionPlansInterim.pdf>

¹⁰ <http://www.environmental-protection.org.uk/assets/library/documents/AQActionPlansLAGuide.pdf>

generated road traffic component¹¹. However, it is possible that the contribution from bus emissions to the HDV component may be overstated, as the local bus companies are now using many low-emission buses. Figure 1 shows the relative contribution of each source type to the total modelled annual mean nitrogen dioxide concentration at a number of diffusion tube locations. The Further Assessment also indicates that a reduction in traffic emissions of between 25 and 50% would be required to achieve the annual mean objective at all modelled receptor locations in 2007. Note that the background level of nitrogen dioxide represents the contribution from other emissions sources, when local (road) traffic sources are removed.

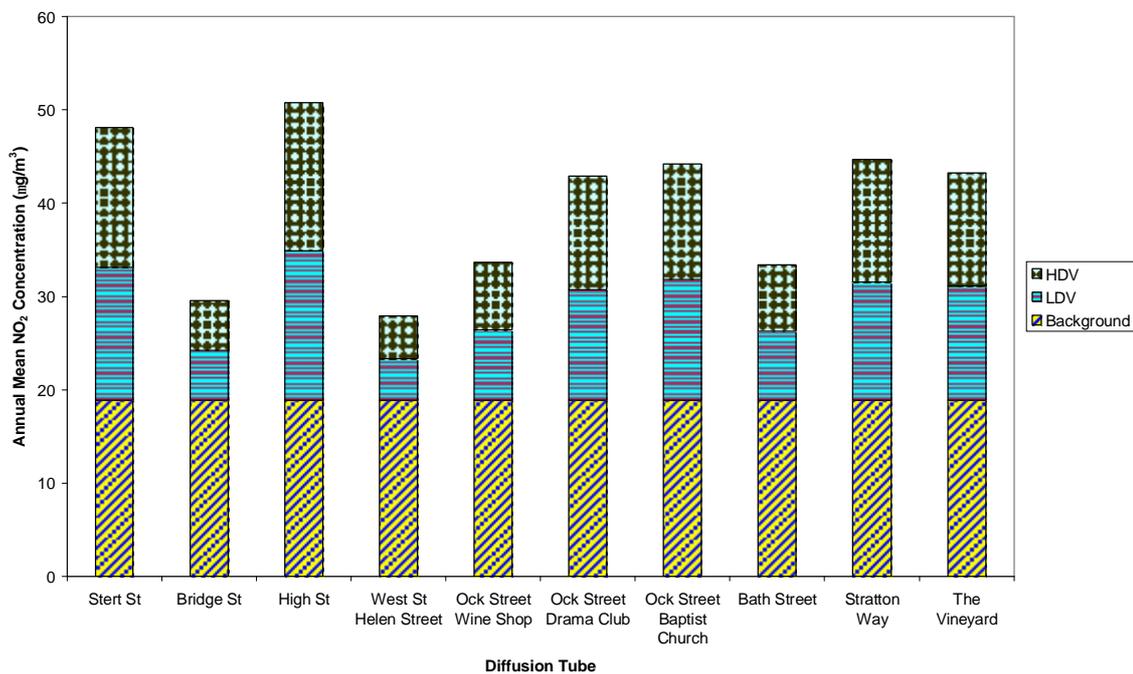


Figure 1: Relative Contribution of Each Source Type to the Total Modelled Annual Mean Nitrogen Dioxide Concentration ($\mu\text{g}/\text{m}^3$) at Diffusion Tube Monitoring Locations Within, and Close to, the AQMA.

Abingdon AQMA

- 2.2 The AQMA encompasses the main arterial route around the centre of Abingdon, as illustrated in Figure 2. The designated area includes the properties alongside the main roads of Ock Street, High Street, Stratton Way and Stert Street, as well as The Vineyard to the north and Bridge Street to the south east. In addition, a number of properties along West Saint Helen Street to the south, Bath Street to the north west and the eastern end of Ock Street are also within the AQMA.

¹¹ It should be noted that the modelling work was based on national average split between different Euro standards of vehicles and national split between HGVs and buses. This was based on the best available information at the time of writing. This may have overestimated the HDV contribution as many buses in Abingdon are potentially cleaner than the national fleet.

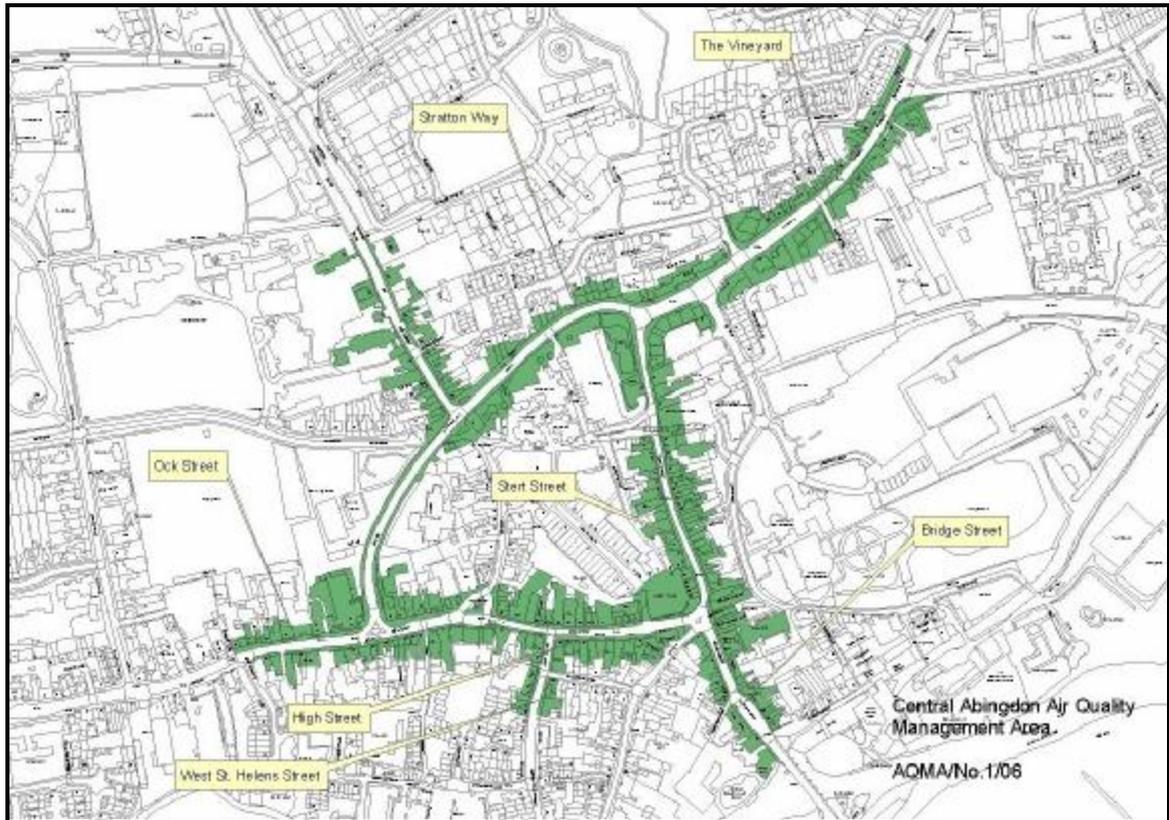


Figure 2: Central Abingdon AQMA (green) © Crown Copyright. Vale of the White Horse District Council. Licence no. 100019525



Figure 3: Two-way flow along Stratton Way, looking east towards the junction with the Vineyard and Stert Street.



Figure 4: One-way flow along the High Street, looking west, and illustrating the main bus stop within the centre of Abingdon.



Figure 5: Two-way flow of traffic along Ock Street, looking west towards the Ock Street roundabouts.



Figure 6: Bus waiting areas on Stratton Way

Air Quality Action Plan process

2.3 The approach to the Air Quality Action Planning process in the Vale of White Horse has been to involve relevant stakeholders from the outset. This has been undertaken with both stakeholders internal to the Vale of the White Horse District Council, and external organisations. There have been a number of mechanisms for engaging with a variety of stakeholders:

- A **Technical Working Group** consisting of officers from within VOWHDC (environmental protection, highways, planning and conservation, community strategy, communications team), the Town Council and Oxfordshire County Council (Transport) has met regularly throughout the process of drawing up the Action Plan and will continue to meet as actions are implemented. Their main role of the Working Group is to focus on the process, timetable, drawing up of options, evaluation of options and overseeing the drafting of the AQAP;
- An **Advisory Group** consisting of the executive portfolio holder for environmental health, opposition cabinet spokesperson for Environment and local district councillors which cover the AQMA area have also met on a regular basis. Their role has been in overseeing the development of the AQAP, ensuring that the consideration of options is fair and balanced and that consultation has been as inclusive as possible;
- Two **Stakeholder Meetings** were held on 30th October 2008, the aim of which was to inform stakeholders on the background to the process, generate options for the Action Plan and begin to evaluate those options. The meetings were held both within the working day and during the evening to ensure maximum engagement with a wide variety of stakeholders. A further stakeholder meeting was held on 4th February 2009, which provided feedback on the previous meetings and sought further views on the draft Air Quality Action Plan; and

- **Wider public consultation** has been undertaken on the draft Action Plan, with the document being made available on Vale website, press releases written, and the document being made available to those who attended the October stakeholder meetings. This was launched with a media briefing session for representatives of local TV, radio and press, with subsequent coverage in all media. Consultation leaflets were distributed by hand to all local residents and businesses in the vicinity of the AQMA and full consultation documents were available on the Vale website and at local libraries.

2.4 The AQAP process has followed guidance published by both Environmental Protection UK¹² and Defra¹³. Specifically, the following steps have been undertaken:

- **Identification of potential options** – this was undertaken both through the technical working group, and the stakeholder meeting on 30 October 2008 with advice from Air Quality Consultants;
- **Evaluation of the options** – with regard to air quality impact, other environmental impacts cost, feasibility and timescales. This was started at the stakeholder meetings and more fully undertaken by the technical working group, with the methodology agreed with the advisory group with advice from Air Quality Consultants; and
- **Prioritisation of the options** – this was undertaken largely through consultation with the Technical Working Group. The wider public consultation exercise also fed into this process.

2.5 Once the Action Plan is implemented, progress will be monitored and reported annually. More details of monitoring the effectiveness of the Action Plan can be found in Chapter 6.

Transport

2.6 The Oxfordshire Local Transport Plan is part of a wider strategic framework through which Oxfordshire County Council, working with its partners, is tackling the challenges the County faces over the next decade. The plan has five objectives, the first four reflecting priority areas agreed by central Government, and the last reflecting local corporate priorities. These are:

- Tackling congestion
- Delivering accessibility
- Safer Roads

¹² <http://www.environmental-protection.org.uk/assets/library/documents/AQActionPlansLAGuide.pdf>

¹³ Defra (2008) Policy Guidance LAQM.PG(09).

<http://www.defra.gov.uk/environment/airquality/local/guidance/pdf/laqm-policy-guidance-part4.pdf>

- Better Air Quality
- Improving the Street Environment

2.7 Over the period to 2026, traffic growth in Oxfordshire is predicted to be over 25% , which is well above the national average of 18%. This is partly as a result of higher than average population growth and goods vehicle forecasts. In order to tackle this growth, the strategic response aims to:

- Improve the reliability and safety of car (and bus) trips by tackling key congestion 'hotspots';
- Support the provision of high quality, welcoming public transport, both where it can provide a real alternative to car travel and ensure access for those without a car; and
- Influence travel behaviour through enhanced information and better travel planning.

2.8 These aims are all consistent with the aims of the Air Quality Action Plan.

Abingdon Integrated Transport Strategy (AbITS)

2.9 AbITS has been undertaken in partnership between Oxfordshire County Council, Abingdon Town Council and the Vale of White Horse District Council. The overall objectives of the strategy include:

- Reducing reliance on motorised traffic in general;
- Removing all but essential traffic from the town centre;
- Promoting public transport, walking and cycling;
- Promoting, and where appropriate, establishing the efficient management and operation of all types of traffic (including reducing congestion) and related activity including parking;
- Reducing airborne pollution and noise levels; and
- Sustaining and enhancing the vitality and viability of the town centre as an attractive place for shopping, business, leisure and tourism.

It is worth highlighting the last point, as it has become even more of a concern amongst the Councils involved with AbITS, local businesses and the wider public.

2.10 Since 2001 a range of schemes outside the town centre have been implemented as part of the overall AbITS strategy. In September 2005 work started on the first stage of the town centre scheme. The work included:

- Installation of linked traffic signals (SCOOT) on the three main approach roads;
- Changing Stratton Way to a two-way traffic flow, so reducing traffic flows through Stert Street and High Street; and
- Improving bus waiting facilities in Stratton Way and providing real-time bus information.

2.11 The second stage of the town centre scheme started in July 2007. This involved a range of environmental improvements in the town centre including:

- Narrowing the carriageway in Stert Street and creating wider pavements;
- Providing loading areas and disabled parking;
- Providing new pedestrian crossings;
- Narrowing the Broad Street carriageway and creating wider pavements; and
- Providing a revised access to the multi-storey car park.

2.12 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.

2.13 An AbITS Steering Group is responsible for overseeing the implementation of the strategy. This comprises members from Oxfordshire County Council, Vale of White Horse District Council and Abingdon Town Council. The County Council, as the highways authority, are responsible for formally agreeing to any proposals. The Steering Group has carried out widespread public consultation on the measures which have been included in the strategy.

3 Existing Policies and Strategies relevant to Air Quality

Transport Policy

3.1 The Local Transport Plan (LTP) is the principal document setting out Oxfordshire's transport programme. The document sets out a 5-year transport improvement programme. The Oxfordshire LTP2 has been produced over a timescale similar to the Structure Plan, which has allowed the work on each to influence the other. The LTP, in line with Government guidance has set the following objectives for the 5-year programme 2006 – 2011:

- Tackling congestion;
- Delivering Accessibility;
- Safer Roads;
- Better Air Quality; and
- Improving the Street Environment.

3.2 In relation to air quality, the LTP recognises that where air quality problems are occurring, they are predominantly transport related, and as such the County Council (as the transport authority) must play a leading role in delivering improvements. The strategy for improving air quality consists of a number of actions that will be supported by Air Quality Action Plans for areas which are designated as AQMAs (such as Abingdon). The actions within the LTP include:

- Making public transport faster, more reliable and more user-friendly;
- Improving the flow of traffic through polluted areas;
- Making walking and cycling safer and more convenient;
- Enabling people to make better informed travel choices;
- Managing parking to support transport improvements and initiatives;
- Encouraging the use of vehicles with lower exhaust emissions;
- Restricting vehicles from areas of poor air quality;
- Providing alternative routes for traffic to avoid areas of poor air quality; and

- Ensuring that new development is planned in such a way as to minimise negative impacts on local air quality.

Other Regional and Local Policies

- 3.3 The South East Regional Spatial Strategy is known as the South East Plan. It sets out a vision for the future of the South East region to 2026, outlining how the region is to respond to challenges such as housing, the economy, transport and protecting the environment. The Government's proposed changes to the draft plan were consulted on from 17 July to 24 October 2008. The core objectives are to balance continuing economic and housing growth with rising standards of environmental management and reduced levels of social exclusion and natural resource consumption. Sustainable development and climate change are two of the cross cutting issues which underpin the whole plan. More specifically, draft Policy NRM9 covers air quality:

Strategies, plans programmes and planning proposals should contribute to sustaining the current downward trend in air pollution in the region. This will include seeking of improvements in air quality so that there is a significant reduction in the number of days of medium and high air pollution by 2026. Local Development Documents and development control can help to achieve improvements in local air quality through:

1. *ensuring consistency with Air Quality Management Plans*
2. *reducing the environmental impacts of transport and congestion management, and support the use of cleaner transport fuels*
3. *mitigating the impact of development and reduce exposure to poor air quality through design, particularly for residential development in areas which already, or are likely to, exceed national air quality objectives*
4. *encouraging the use of best practise during construction activities to reduce the levels of dust and other pollutants*
5. *considering the potential impacts of new development and increased traffic levels on internationally designated nature conservation areas, and adopt mitigation measures to address these impacts*

- 3.4 Until the South East Plan is adopted, the Oxfordshire Structure Plan provides the strategic policy framework for the development and use of land in Oxfordshire. The current structure plan was adopted in 2005 to cover the period up to 2016. Although there is no policy specifically related to

air quality, there are a number of relevant policies within the transport section including those relating to sustainable travel (T1), car parking (T2) and public transport (T3). In addition, the Oxfordshire Structure Plan proposes 4700 additional dwellings in the Vale of White Horse between 2006 and 2016. It is expected that up to 900 of these will be within Abingdon, a substantial proportion of which have already been built or provided for.

- 3.5 In 2004, the planning system in England and Wales underwent a significant change, with the Planning and Compulsory Purchase Act 2004 (the 'Act') replacing much of the Town and Country Planning Act 1990. The Act abolishes Structure Plans and Local Plans, replacing them with Local Development Frameworks (LDFs), Local Development Schemes (LDS) and Local Development Documents (LDDs), although the statutory status of Structure Plans, Unitary Development Plans, Local Plans or Structure Plans will be retained until LDFs are in place. In the Vale of the White Horse, the Local Plan was adopted in 2006 and will ultimately be replaced by the Local Development Framework, which, together with the South East Regional Plan and the Oxfordshire Minerals and Waste development plan, will form the statutory Development Plan.
- 3.6 The first policy document that the Council is preparing as part of the Local Development Framework is the Core Strategy. This will replace the Local Plan, and will set out the spatial vision, spatial objectives, policies and a monitoring and implementation framework for the Vale. An issues and options document 'Your Vale Your Future' was published for public consultation in autumn 2007. This report set out some of the issues that the Vale will be facing in the future and possible options for tackling them. The Council has now consulted on its Preferred Options for the Local Development Framework Core Strategy with South Abingdon being the preferred option for housing development. This clearly may have implications for the AQMA in Abingdon and further work will be undertaken through the LDF process to ensure that air quality is properly considered.
- 3.7 In the meantime, the Local Plan forms part of the adopted Development Plan and the following policies are relevant to air quality:

3.8 Policy DC5 Proposals for development will only be permitted provided that:

- ii) the road network can accommodate the traffic arising from the development without causing safety, congestion or environmental problems;
- iv) adequate and safe provision will be made for parking vehicles and cycles;
- v) off-site improvements to the highway infrastructure (including Traffic management measures), cycleways, footpaths and the public transport network can be secured where these are not adequate to service the development; and

vi) the scheme is designed to minimise the impact of vehicles and give priority to the needs of pedestrians, cyclists, the users of public transport and those with impaired mobility.

3.9 Policy DC9 Development will not be permitted if it would unacceptably harm the amenities of neighbouring properties and the wider environment in terms of:

iv) smell, dust, heat, gases or other emissions;

v) pollution, contamination or the use of or storage of hazardous substances.

3.10 Policy DC10 Development will not be permitted if it is likely to be adversely affected by existing or potential sources of:

ii) smell, dust, heat, gases or other emissions;

iii) pollution, contamination of the site or its surroundings.

Policies on Climate Change

3.11 The Oxfordshire Partnership's Oxfordshire 2030 Strategy includes action to reduce climate change gas emissions. Key issues are set out as:

- Reducing our carbon footprint and adapting to climate change;
- Ensuring that development is located to avoid urban sprawl and is sustainable; and
- Preserving the character of the city, our market towns and villages.

3.12 Details of actions planned in the medium to long term are included in the delivery plan and include tackling traffic congestion and reducing carbon emissions from public sector organisations. These, and other actions, will contribute to the aims of this air quality Action Plan.

3.13 In December 2007 the Vale of the White Horse adopted its Climate Change Strategy, which sets out the Council's vision for an appropriate and proportionate response. The strategy provides the framework for the Council to set about reducing the carbon footprint of its own activities while at the same time establishing the methodology for the Council to work in partnership with others in the District to reduce the carbon footprint of the local community.

- 3.14 The Climate Change Strategy is acknowledged in the Corporate Strategy, which includes a number of actions to reduce climate change gas emissions such as implementing a carbon management programme to reduce carbon emissions from the Council's operations.
- 3.15 The Vale is committed to reducing its own carbon emissions and to encouraging others to do the same. The Council's Energy Team works to do this by promoting energy efficiency among householders in the District.

Vale Community Strategy

- 3.16 The Vale Community Strategy is concerned with the economic, social and environmental well-being of the Vale. The Community Strategy has been reviewed and was the subject of consultation. The final version was approved in the autumn of 2008 by the Vale Partnership Board.
- 3.17 Although the Strategy does not cover air quality directly, as part of the vision of a 'Low Carbon Vale' the partnership will *'encourage employers to adopt green travel plans which promote initiatives such as car sharing, walking and cycling to help reduce traffic congestion'*.

Carbon Management Plan

- 3.18 Within the Corporate Plan 2008/9 budget a new priority was introduced to tackle climate change. This will ensure that the Council plays its part in reducing greenhouse gases and helping the District to prepare for the possible impact of climate change. The Council is committed as an organisation to the challenge of climate change and has developed a Carbon Management Plan targeted at reducing CO₂ from Council activities.

4 Suggestions from the Stakeholder Meetings and Other Sources for Delivering Air Quality Improvements in Abingdon

- 4.1 Participants at the two stakeholder workshops held on 30th October 2008 identified the initial list of potential measures to be considered for inclusion in the Action Plan. These have been supplemented by written responses (where residents could not make the meeting) and other suggestions from the Technical Working Group. This chapter briefly describes each of these measures, prior to their evaluation in the next chapter.
- 4.2 The measures are split into five 'categories' for ease of presentation. Suggestions from both stakeholder meetings have been amalgamated, and where necessary refined. The categories are:
- Traffic Management
 - Lowering Emissions
 - Promotion of Alternatives
 - Planning
 - Education and Information.
- 4.3 For each proposed measure, this chapter identifies whether it has been discounted at this stage, or whether it will be taken forward for inclusion in the Action Plan. For those measures to be taken forward, some will require extra feasibility work prior to any final decision. This is also highlighted in this chapter.

Traffic management

- 4.4 **Southern relief road and a further bridge.** Currently Abingdon only has one river crossing which causes congestion and extra journeys through Abingdon town centre. A long term aspiration of the Vale of White Horse District Council and Oxfordshire County Council is to have a second river crossing in order to alleviate some of the traffic using the existing one. The possibility of an Abingdon southern relief road in the long term (2016 -21 and beyond) is referred to in the County's Local Transport Plan. The Vale of the White Horse District Council has recognised this in its work on developing a Local Development Framework, and the associated Core Strategy Preferred Options Report. These show the indicative route. This measure is unlikely to be funded through local funding and would therefore require Government funding via the Regional Transport Board.

This proposal will be subject to further investigation as part of the Action Plan.

- 4.5 **Make A34 Lodge Hill Junction a full diamond interchange.** At present, to get to North Abingdon from the northbound A34, and to travel on the southbound A34 from North Abingdon, vehicles must come through the town or use the peripheral road. Opening the A34 Lodge Hill junction as a four way junction provides the opportunity for these vehicles to access the A34 without needing to use the town centre, with consequent benefits to traffic volumes and air quality. It would allow both north and south-bound traffic to enter and exit the A34. In July 2008, the Council unanimously agreed a motion seeking action as soon as possible to build a new four way junction with the A34 to allow cars, lorries and coaches travelling to and from the south along the trunk road to enter and exit north Abingdon without having to drive through the town. The Highways Agency is responsible for the A34, and is not concerned about such traffic using it for longer distance trips. However, it is concerned about the possibility of people using it for short local journeys between Lodge Hill and Marcham interchange instead of the town or peripheral road routes. Currently modelling is being undertaken by Oxfordshire County Council to ascertain the impacts of opening up the junction to inform the debate.

This proposal will be subject to further investigation as part of the Action Plan.

- 4.6 **Restrict delivery vehicles during certain times.** Delivery vehicles in congested streets can increase traffic congestion if they need to park outside the delivery location for any length of time. This extra congestion could be alleviated if deliveries are only allowed outside of specified hours. This is a particular issue for Bridge Street and High Street.

This proposal will be subject to further investigation as part of the Action Plan.

- 4.7 **Introduce weight limits for HGV traffic.** The heaviest goods vehicles are likely to have the largest emissions and may also cause congestion, increasing emissions from other vehicles. By applying weight limits, this may reduce emissions from both the HGV sector and other sectors of traffic. Weight restrictions are notoriously difficult to enforce as HGVs legitimately stopping in Abingdon cannot be excluded. Currently there is not enough information relating to how much of HGV traffic is through traffic and how much has its destination in Abingdon. This information is being collated by OCC. This will then allow further consideration of the feasibility and impact of such restrictions.

This proposal will be subject to further investigation as part of the Action Plan.

- 4.8 **Restrict HGVs.** Restricting vehicles in some areas will improve air quality in those areas affected. Wherever vehicle restrictions are proposed they are generally seen as negative for local business,

which is a particularly significant issue for Abingdon. It is unclear where HGVs would go and therefore how feasible this proposed measure is, particularly for those HGVs destined for Abingdon (e.g. delivery vehicles).

This proposal has been discounted at this stage.

- 4.9 **Removal of HGV parking from Rye Farm.** Rye Farm HGV park is a facility provided by the Vale of White Horse DC used particularly for overnight parking by HGV drivers. There are currently other designated services on the A34 for HGVs and it is a target of the LTP to consider the locations and facilities of these services. It is thought that it would be unfeasible to move the Rye Farm HGV park, but it could potentially be closed. This could cause negative impacts on local businesses. Currently the information is not available relating to how many extra HGV trips this facility causes in Abingdon and therefore the suggestion is to collect more information and potentially undertake a feasibility study for the closure of Rye Farm.

This proposal will be subject to further investigation as part of the Action Plan.

- 4.10 **Widen the Drayton Road bridge lanes to allow 2 lanes inbound and provide a separate footbridge.** This proposal has previously been investigated by Oxfordshire County Council and in transport terms feasibility work has shown that the costs of implementing widening far outweigh the benefits and has therefore been rejected as not being cost effective. It may, however, provide benefits in terms of air quality particularly as additional pressure builds up on the Drayton Road. For this reason the proposal is carried forward for further investigation.

This proposal will be subject to further investigation as part of the Action Plan.

- 4.11 **Provide link to Nuffield Trading Estate near EBI Foods.** This suggestion would provide a short cut from the Nuffield Trading Estate to near the A34. The route suggested is a private road and therefore is unfeasible at present. It is also suggested it would have minimal or no impact on air quality in the AQMA.

This proposal has been discounted at this stage.

- 4.12 **Open the A34 slip roads at Drayton.** This involves using slip roads which have already been constructed to come off the A34 in the northbound direction at Drayton (rather than having to continue on to the Abingdon exit and then drive through the town centre). This proposal is currently being investigated in a modelling study being undertaken on behalf of OCC and the Highways Agency as part of the Lodge Hill junction study. Outcomes from this study will be awaited before decisions as to the feasibility will be included.

This proposal will be subject to further investigation as part of the Action Plan.

- 4.13 **Close St Helens Wharf (on a time basis or permanently).** St Helens Wharf is one of two roads from South Abingdon to the town centre. This proposal involves closure or partial closure of the Wharf Bridge in order to reduce congestion on West St Helen Street and High Street. It is likely that this would have knock on effects elsewhere, in particular Drayton Road and Ock Street. OCC will be conducting a review looking at the wider impact of a partial or full closure of St Helen's Wharf Bridge. The study will look carefully at the impact on both the Wharf area as well as the wider impacts on Caldecott, Drayton Road and the town centre in terms of traffic, air quality and noise.

This proposal will be subject to further investigation as part of the Action Plan.

- 4.14 **Encourage more traffic on the peripheral road.** Encouraging traffic onto the peripheral road may reduce traffic travelling through central Abingdon and therefore reduce emissions. It is considered that this would be feasible through improved signage around Abingdon and could be implemented in conjunction with HGV weight restrictions.

This proposal has been included in the Action Plan.

- 4.15 **Allow right hand turn into Bath Street.** Currently traffic coming southbound down Stratton Way cannot turn right into Bath Street, meaning that some traffic has to travel right the way round the one way system in order to continue its journey onto Bath Street, hence creating extra mileage through the AQMA. Opening up this right hand turn, would however increase congestion on Stratton Way as vehicles wait to turn right, with consequential negative impacts on air quality.

This proposal has been discounted at this stage.

- 4.16 **Remove all road signs.** This suggestion was in relation to other schemes which have been implemented (such as Kensington High Street) where road signs and barriers have been removed. These schemes have been implemented in relation to pedestrian safety, rather than smoothing traffic, or reducing pollution and it is considered that this would potentially worsen air quality (more stop start traffic), rather than improve it.

This proposal has been discounted at this stage.

- 4.17 **Improvements to Ock Street/ Stratton Way junction.** The stakeholder meetings highlighted concerns whether or not the Ock Street/ Stratton Way junction could be further improved. This junction has been investigated through AbITS work and the phasing of lights has been changed.

Pedestrian refuges in the middle of the junction have also been considered and deemed unfeasible. Although it is acknowledged that the junction could still be improved it is considered unlikely that any further improvements would have a tangible impact on air quality.

This proposal has been discounted at this stage.

- 4.18 **Complete dropped kerb network.** Gradually a dropped kerb network is being implemented throughout Abingdon town centre. This may encourage cycling (and potentially prevent disabled people from having to drive right into the centre of town), but is considered unlikely to improve air quality. There is no finance in place for the work at the moment, but is being funded on an ad-hoc basis through OCC's maintenance budget and development contributions.

This proposal has been discounted at this stage.

- 4.19 **Abingdon bypass East Abingdon to Culham.** This proposal would involve a new bridge near the weir by Abingdon Lock on the River Thames. This would be a very expensive option and studies have shown a southern bypass would be more beneficial than an eastern route. However, the public consultation indicated that the option of keeping the Eastern route as a potential route may have benefits and for this reason, the feasibility of this option is to be put forward for inclusion in LTP3 alongside the study for a new bridge and southern relief road.

This proposal will be subject to further investigation as part of the Action Plan.

Lowering emissions

- 4.20 **Policy to reduce emissions of Council vehicles.** As an organisation with a small vehicle fleet but a greater numbers of vehicles operated via contract, it is important that Vale of White Horse District Council and Oxfordshire County Council, leads by example by favouring low emissions vehicles when purchasing vehicles for their own fleets. Currently the Vale fleet is conventional, but funding has been made available from the Carbon Trust to undertake a carbon management plan which will include investigating use of fleet vehicles. In addition, a new waste management contract (in partnership with South Oxfordshire DC) has raised these issues within the contract. Technological improvements to the refuse fleet should improve emissions and cutting vehicle mileage is another significant factor within the contract. This new contract which will start in the Vale in October 2010 and will utilise new vehicles converted to run on pure plant oils from sustainable sources. It is also proposed to use electric vehicles for mechanically sweeping the town centres. Once Vale of White Horse District Council has developed a policy regarding the use of low emission vehicles, it will be in a stronger position to influence others, for example through the implementation of Travel Plans for employers, or through education campaigns for individuals.

This proposal has been included in the Action Plan.

- 4.21 **Targeting taxis to reduce emissions (through licensing).** Currently, the Vale gives discounts on taxi licensing fees for greener vehicles (road tax bands A and B) and the price of the license goes up as taxis get older (thus encouraging renewal of the fleet to vehicles with lower emissions). The Vale taxi licensing policy will be reviewed in July 2009 and consideration of possible further measures to reduce emissions from taxis will be considered as part of this review.

This proposal has been included in the Action Plan.

- 4.22 **Control of stationary vehicle idling (all vehicles).** The Road Traffic (Vehicle Emissions) (Fixed Penalty) (England) Regulations 2002 (Statutory Instrument 2002 No. 1808) enables authorised individuals to issue a fixed penalty notice to vehicles stationary on a road and can require them to switch off their engine. In some circumstances, for example where buses congregate, this may provide localised improvements in air quality. However, it will require the co-operation of authorised individuals. It may be that through education (for example in conjunction with ecodriving initiative) relevant sectors of drivers can be targeted voluntarily, rather than through penalty notices.

This proposal has been included in the Action Plan.

- 4.23 **Investigate Low Emission Zone (covering HDVs).** Low Emission Zones (LEZs) are defined areas that restrict entry to vehicles meeting certain emissions criteria or standards. The objective of LEZs is to accelerate the introduction of cleaner vehicles into the fleet and reduce the number of polluting vehicles in order to improve local air quality, and not to reduce numbers of vehicles. Such zones have been successfully operated in other European Countries such as Sweden for many years. From February 2008 a Low Emission Zone covering most of Greater London, within which diesel-engined lorries, buses, coaches, large vans and minibuses are required to meet specific emissions standards, or pay a daily charge. It is too early at present to have any detailed evaluation of the impacts of the scheme on air quality, but concentrations of pollutants, as well as other parameters, are under detailed scrutiny¹⁴. LEZs do not have to be implemented over large areas such as Greater London, or cover large numbers of vehicle types. In Oxford there is a LEZ proposed to cover buses in the centre of Oxford. Many of these buses are the same as buses that serve Abingdon. Norwich City Council, in conjunction with Norfolk County Council have implemented a Low Emission Zone in a restricted area by obtaining a Traffic Regulation Condition (TRC) via the area Traffic Commissioner to regulate vehicle emissions from buses. In Norwich this has been undertaken in conjunction with other measures such as eco-driving training for bus drivers and a 'switch-off' campaign.

¹⁴ TfL. London Low Emission Zone. Impacts Monitoring. Baseline Report July 2008.

This proposal will be subject to further investigation as part of the Action Plan.

- 4.24 **Reduce use of Abingdon for HGV testing/ training.** Abingdon is currently used as a location for training and testing HGV drivers which it is thought may increase emissions in the town centre. It is considered feasible to reduce 'training' vehicles, but not 'test' vehicles within Abingdon town centre. It should be noted that HGVs during training and testing are unloaded and will therefore have lower emissions than they would when loaded. The maximum number of daily tests is eight. All test routes currently go through Abingdon. The greater impact is from the training vehicles which practice on these test routes.

This proposal has been included in the Action Plan.

- 4.25 **Reduce journey times across town.** Where journey times are reduced, with less stop/start driving, emissions are likely to be lower. It is considered that reducing journey times should not be undertaken in isolation, but needs to be balanced, for example, with the needs of pedestrians and cyclists. Also reducing journey times may encourage more journeys. AbITS is currently working to balance reducing journey times with a range of other relevant issues, and as such it is considered that in isolation the suggestion would be detrimental to other Council initiatives.

This proposal has been discounted at this stage.

- 4.26 **Congestion charging.** Charging to enter a specified zone (often within certain time limitations) is one way to encourage people to use alternative modes of transport, or reduce the need to travel entirely (through the financial incentive to change work, shopping or leisure patterns). The London Congestion Charging Scheme began in February 2003, and is currently based on a single charge of £8 for vehicles entering a central London zone between the weekday hours of 07.00 – 18.30. Several vehicle types are exempt from the charge. In terms of emissions, there has been a modest beneficial impact to emissions of key road traffic pollutants, although trends in measured ambient air quality across central and inner London continue to primarily reflect factors external to the scheme (such as the weather and vehicle technology changes)¹⁵. An increase in bus-km was also evident (to meet demand to travel into central London) but any increase in emissions has been offset by the widespread introduction of particle traps to existing and new bus fleets. In Abingdon, it is considered that due to the proportion of through traffic, congestion charging is unlikely to be feasible. Origin destination information for traffic is currently being collated by OCC and this may provide a more definitive indication of the amount of through-traffic in Abingdon. This suggestion is also likely to have a very negative impact on the town centre economy. It is felt such a scheme

¹⁵ TfL. Central London Congestion Charging. Impacts Monitoring. Sixth Annual Report July 2008. <http://www.tfl.gov.uk/assets/downloads/sixth-annual-impacts-monitoring-report-2008-07.pdf>

would be disproportionate for Abingdon e.g. in terms of costs, resources, infrastructure etc. Funding is considered very unlikely

This proposal has been discounted at this stage.

- 4.27 **20mph zone or 20mph speed limit.** Emissions are related to speed. At the lower traffic speeds within the town centre, slower speeds will generally give rise to higher emissions of nitrogen oxides (NO_x). However, where slower speeds reduce 'stop-start' traffic, this may lower emissions. Impacts will be dependent on the local situation but are unlikely to have a significant impact on emissions. Smoothing traffic flow will have some impact on overall emissions. A 20mph zone versus a limit will be consulted on as part of the AbITS scheme including Stert Street, High Street (including Lower Bath Street) and the area to the south of the town centre, including Bridge Street to Abingdon Bridge, and East/West St Helen Streets and St Helen's Wharf down as far as the iron bridge. A 20mph zone can only be introduced if appropriate traffic calming measures are also installed. However a 20 mph speed limit requires only signage. It is considered at this stage that this proposal will not improve air quality and therefore is discounted in terms of this action plan.

This proposal has been discounted at this stage.

- 4.28 **Eco-driving training for buses (and others).** Eco-Driving encompasses methods of driving that lead to a safe, considerate, comfortable, efficient, economic, environmentally friendly approach that in turn leads to reduced air and noise pollution & fuel savings for the individual and corporate organisation. It is widely reported that eco-drivers can use 10 to 15% less fuel than drivers without eco-driver training. The Oxford Bus Company has eco-trained all of its drivers with a consequent 7-10% fuel (and resultant emission) saving, which will have a positive impact in Abingdon. The scheme could be extended to other bus companies and fleets.

This proposal has been included in the Action Plan.

- 4.29 **Bigger buses.** A suggestion for larger buses was brought up at the stakeholder meetings in order that emissions per passenger could potentially be reduced (assuming that the larger buses were full). It is considered that bigger buses are impracticable, partly as many bus companies have already invested heavily in buses, and it would not encourage more people onto the bus. For this reason this suggestion is discounted at this stage.

This proposal has been discounted at this stage.

- 4.30 **Employment policies which favour local jobs for local people.** It was suggested at the stakeholder meetings that employment policies which favour local jobs for local people could

reduce vehicle miles travelled in relation to commuting. It is difficult to see how such a policy could be implemented, and under employment law this measure is unfeasible and will therefore not be taken further.

This proposal has been discounted at this stage.

4.31 **Encourage working from home.** For employees who travel by private vehicle and work from home one day a week, this would save 20% of their work related travel emissions which could be significant in some sectors of the working population. This measure would not be feasible for many jobs, but promotion of flexible working patterns, including working from home could be used for some office based companies, potentially as part of the Travel Planning process. For this reason this proposal is viewed as part of **Encourage Business Travel Plans** described later and not as a separate proposal in its own right.

4.32 **Remove humps in Abbey Close.** Road humps can cause acceleration and deceleration and therefore increase emissions in the local area. As Abbey Close is not within the AQMA, increased localised emissions within this area are not likely to impact on the AQMA but it is considered that any positive impacts on air quality from smoothing traffic flow will be insignificant in terms of the AQMA.

This proposal has been discounted at this stage.

4.33 **Council staff car parking charging and vehicle mileage.** Currently Vale staff have free parking at some car parks in Abingdon. This suggestion is to ensure that Vale staff pay a realistic rate for parking in central Abingdon, which would provide an example to others, and also may discourage some non-essential car users to switch to other modes of transport for travelling to work. A recent change means staff currently have a choice of car parks which reduces driving across the town centre. The level of vehicle mileage paid to both VOWHDC staff and members may currently encourage staff to use their own car for work journeys rather than thinking about other modes. Both of these issues are currently under discussion as part of the review of the **Vale Travel Plan** described later, so this is not considered as a proposal in its own right.

Promotion of Alternatives

- 4.34 **Encourage Business Travel Plans.** Travel Plans can help companies reduce the traffic impacts of their business. Travel Plans look to reduce work related car trips through initiatives such as car sharing, providing pool cars, cycling incentives, cycle parking, showers and changing facilities, video conferencing, flexible working and discounted bus and train tickets. Travel Plans can be extremely cost-effective and have proved very successful in cutting car use.

This proposal has been included in the Action Plan.

- 4.35 **Review the VOWHDC Travel Plan.** By having a Travel Plan, the Council is setting an example to other organisations as to how to change business travel away from cars. As the Council is a major employer on the boundary of the AQMA, this could have a favourable impact on the town centre. The Council intends to review its existing travel plan.

This proposal has been included in the Action Plan.

- 4.36 **Promote cycling measures.** Encouraging cycling is an important way of reducing private car use, particularly for short journeys. Improving cycle access and cycle routing were suggested as the main issues in Abingdon. More specifically, there was a suggestion for more cycle parking in Stert Street. Issues of how cycling can integrate with other forms of transport also need to be considered. Cycling is currently being targeted within the AbITS work as well as the LTP.

This proposal has been included in the Action Plan.

- 4.37 **Decrease bus frequency (off peak).** It was thought that particularly off peak, when buses are not full, the frequency of some services could be reduced in order to reduce emissions from the numbers of buses in central Abingdon. This would have the disadvantage of reducing service and potentially passengers are likely to change mode away from public transport (and conversely not change mode to public transport).

This proposal has been discounted at this stage.

- 4.38 **Promote car sharing scheme.** Car sharing refers to the practice of more than one person driving together rather than driving alone. National websites such as <http://www.nationalcarshare.co.uk/> provide a useful database for finding and offering lifts both on a regular basis, but also for one-off journeys and events. The Vale (maybe as part of their Travel Plan review) could promote car sharing through established websites, or set up their own scheme within the Council.

This proposal has been included in the Action Plan.

- 4.39 **Introduce Road pricing.** Road pricing can be used to deter motor vehicles in areas of towns. Durham implemented a road pricing scheme in 2002 in a small area of the historic part of the city. The Durham Road User Charge Zone aims to reduce traffic congestion, reduce pollution and improve air quality in the heavily pedestrianised historic streets of Durham peninsula. Durham has seen a reduction of 85% in vehicular traffic, from over 2000 to approximately 200 vehicles a day. Any similar scheme is likely to have opposition from both businesses and residents in Abingdon. As for congestion charging, the proportion of through-traffic in Abingdon may also make this unfeasible. It is felt such a scheme would be disproportionate for Abingdon e.g. in terms of costs, resources, infrastructure etc. Funding is considered very unlikely

This proposal has been discounted at this stage.

- 4.40 **Develop Park and Ride.** Park and Ride for Abingdon has been discussed previously as part of the transport planning process in Oxfordshire. It is considered that Abingdon is not large enough to sustain its own Park and Ride, but that potentially one site could double up as a park and ride for Abingdon and Oxford. This would be an expensive option. Following consultation, the Park and Ride did not prove to be a popular measure and for this reason, as well as for reasons of feasibility, this measure is not being taken forward.

This proposal has been discounted at this stage.

- 4.41 **Shuttle bus to Culham, Radley and Didcot stations.** If people can integrate better with the mainline railway network, train travel may be better used and this may in turn mean less traffic in Abingdon Town Centre. However, Radley Station is currently served by four buses an hour from Abingdon and there are buses serving the Culham Science Park close to Culham Station so further enhancement of such bus services would have an insignificant effect on air quality.

This proposal has been discounted at this stage.

- 4.42 **Reinstate rail or tram link to Oxford.** Likewise a rail or tram link to Oxford may encourage more people to use public transport rather than private vehicles, hence reducing traffic in central Abingdon. This is a very costly measure and one that neither the Vale of White Horse District Council nor Oxfordshire County Council could fund, so it is considered unlikely ever to come to fruition.

This proposal has been discounted at this stage.

4.43 **Develop staggered school hours.** Where rush hours are spread out, this may result in less congestion and higher overall average speeds in central Abingdon. This in turn would result in lower emissions. The measure is not likely to be popular where different members of the same family work or attend different schools etc. It is unclear how much impact this would have on air quality without widespread coordination, and also how this could be done in practice as the Vale does not have the power to tell schools when to start. However, through the Travel Planning process, this could be suggested as part of a wider package of measures. This suggestion is considered as part of **Further development of school travel plans** described later, and not a proposal in its own right.

4.44 **Undertake more detailed source apportionment** (in order that HDV impacts can be better defined). For a number of technical reasons, the source apportionment undertaken in the Further Assessment may have overestimated HDV emissions, particularly from buses. Where further modelling work is necessary it will be done using better data on the specific Euro standards for buses in Abingdon and taking account of better traffic data covering splits of Articulated and Rigid HGVs and buses. However this measure will not by itself have a direct impact upon air quality and so will not be included in the AQAP, but it will be borne in mind in any future modelling work.

This proposal has been discounted at this stage.

4.45 **Investigate the impact of school holidays on air quality.** It was suggested at the stakeholder meetings that congestion in Abingdon is much improved during school holidays (when many people also take holidays). This measure is to investigate the potential impacts this reduction in traffic may have on air quality concentrations and whether if this was projected to the whole year, air quality objectives would be achieved. Private schools often have different holidays to state schools and therefore the impacts on traffic of these times could be investigated. This suggestion is considered as part of **Further development of school travel plans** described later, and not as a proposal in its own right.

4.46 **Extend bus routes (e.g. X3 to Tesco Roundabout).** In some locations, if bus routes were extended, the route would be more useful and therefore better used. One specific example suggested was the X3 to be extended to the Tesco Roundabout. This would mean extra buses on Ock Street, but it is likely that businesses would be in favour of the extra access. Bus companies in the past have expressed their concern in extending the route in terms of reliability of the service as a result of congestion on Drayton Road and Ock Street. Two buses an hour do already serve the Marcham Road area of Abingdon. It is therefore felt that any further service development is unlikely.

This proposal has been discounted at this stage.

- 4.47 **Review Parking Policy.** The management of parking is one way of tackling congestion and its effects such as air pollution. However, a balance must be struck between managing car parking for transport purposes, offering attractive and viable alternatives, and maintaining a welcoming environment for those who need or choose to use their car. Well planned locations, availability, price and enforcement of parking can contribute significantly to easing traffic flows, especially in the peak periods, making all journeys more reliable. Pricing policy could also stimulate demand for bus services and thereby increase travel choices.

This proposal has been included in the Action Plan.

- 4.48 **Further development of school travel plans.** There has already been a lot of work done on school travel plans within Oxfordshire. All state schools now have travel plans, and the independent schools will also soon have them. There is general public perception that congestion is made much worse by parents driving on the “school run” and is eased during school holidays. The stakeholder meetings suggested building on this work and in particular providing shuttle services to schools. The idea is that parents drop off the child at a point on the edge of Abingdon with children shuttled into schools. This is likely to be more feasible for private schools which generally have a larger catchment area. Further investigation and feasibility study would be required before a decision could be made. Generally, the development of school plans to further decrease the amount of car commuting to schools could have a significant effect.

This proposal has been included in the Action Plan.

- 4.49 **Introduce decriminalised parking.** Illegally parked vehicles on roads during the rush hour can cause significant congestion, and associated additional pollution. Decriminalised parking enforcement means that most non-endorsable parking offences become enforceable by the local authority rather than the police, with local authorities able to retain the penalties collected. The changes are available under powers available to Local Authorities under the Road Traffic Act 1991. Decriminalised parking is actively under discussion within both VOWHDC and South Oxfordshire DC.

This proposal has been included in the Action Plan.

- 4.50 **Provide free bus passes for under 16s.** Encouraging bus travel for young people may instil habits for the future with positive modal shift. It may also encourage families to use public transport as overall journeys will be made cheaper. However, it is unclear how this measure could be funded and is therefore considered unfeasible.

This proposal has been discounted at this stage.

Planning

- 4.51 **Implement greater planning controls in AQMAs.** Local planning policy and development control policy should recognise the need for more sensitive decision making in locations where AQMAs are designated. Where a proposed development has the potential to pose a significant health risk to members of the public, more stringent planning controls will need to be applied, with strict conditions to control direct or indirect emissions or to mitigate their impact, particularly in relation to limiting or reducing traffic movements. Similarly planning controls need to take account of the introduction of sensitive development which would be susceptible to the existing air quality problems e.g. new housing. Effective mitigation is likely to be the main planning tool for minimising the impacts of new developments on local air quality. A policy document could be written (such as a Supplementary Planning Document (SPD) or Planning Guidelines document) which sets out issues such as what the Vale of the White Horse DC is going to accept by way of impact, and also the sorts of mitigation measures which might be expected from developments which may have an impact on air quality. Such a document could also highlight the expectations of VOWHDC in terms of the circumstances under which the Council would expect applications for new developments to be accompanied by air quality assessments and at what point a development is considered 'significant' either in terms of operational or construction impacts. These issues could be covered in a 'planning guidelines' document, which could be drawn up more quickly than a SPD, as it is not subject to the same rigour through the LDF process. Air quality in the town centre is already recognised as a material planning issue and is taken into account on an individual planning application basis, referring to existing national planning guidance. There was also a suggestion at the stakeholder workshop to restrict development in Abingdon. It is thought that this is not feasible, but that it should be ensured that development is as 'sustainable' as it can be. Therefore whether or not the development of specific, local guidance documents is required will be investigated further.

This proposal has been included in the Action Plan.

- 4.52 **Restrict car parking within developments.** In some situations, restricting car parking within new developments may reduce car use. However, in many cases, restricting car parking will cause issues with parking elsewhere, particularly in the town centre. This policy therefore needs to be carefully balanced for the specific situation. Restricting car parking within developments also conflicts with current Local Plan Policy DC5.

This proposal has been discounted at this stage.

Education and information

- 4.53 **Real time information at bus stops (extend current provision).** Real Time Passenger Information allows passengers to know when the next bus will arrive and if there are any delays. This is just one measure which might persuade people to change mode to bus travel. Three Real Time Information (RTI) displays are due to be installed at three bus stops on the Radley Road before the end of the financial year. A further three RTI displays at northbound stops on the Oxford Road are in the forward plan for installation in the 2009/10 financial year.

This proposal has been included in the Action Plan.

- 4.54 **Specific events e.g. cycle to work week, European Car Free Day.** Travel awareness campaigns, such as 'Travelwise' or 'In town without my car' use a wide range of media aimed at improving general public understanding of problems resulting from transport choices, and what can be done to solve these problems including changing their own behaviour. As well as focusing on local environmental and health impacts, travel awareness campaigns also aim to improve informed knowledge of the facilities available for walking, cycling and public transport use. A review of the impact of these sorts of awareness-raising suggests that some campaigns (notably the road safety TV campaigns which were relatively high budget and high profile) can reach awareness levels of 70% or more. However, it is more common for 20-40% of residents to become aware of travel awareness campaigns and their messages. The effect of this increased knowledge on car use is more difficult to assess, but results suggest that the amount of behaviour change achieved is variable depending on the degree of targeting, intensiveness and the nature of intervention.

This proposal has been included in the Action Plan.

- 4.55 **Big vision (such as Transition Town Abingdon).** One suggestion at the stakeholder meetings was that Abingdon required a bigger vision, such as becoming part of the Transition Town initiative, which is primarily related to climate change and peak oil, but would raise awareness of environmental issues generally. It is not clear that this measure on its own would result in a change in local air quality.

This proposal has been discounted at this stage.

- 4.56 **Promote personal journey planning websites (such as www.travelinesoutheast.org.uk/ or www.transportdirect.info).** These are websites which provide information on journeys door to door for buses, trains, walking, cars etc and make comparisons for the specific journey which is being undertaken. This could be a very cost effective option and as the websites are up and running and could be promoted through (for example) links on how to get to particular council services/ buildings etc.

This proposal has been included in the Action Plan.

- 4.57 **Cycle route information.** The potential exists for air quality improvements to be made through increasing the proportion of trips made by cycle. A balance between the needs of both pedestrians and cyclists must, of course, be struck. Any cycling promotion will build on that already underway within Oxfordshire. There is, for example, a cycle map of Abingdon published in conjunction with OCC. Suggested improvements from the stakeholder meetings include increased signage, information centres, naming the routes and publicising cycle routes at the Vale's Local Service Points.

This proposal has been included in the Action Plan.

- 4.58 **Working with schools sector on education initiatives.** In addition to the work being undertaken on School Travel Plans, the Vale of the White Horse District Council could also work more closely with schools in providing education materials for including air quality into relevant lessons at relevant key stages. Potentially suitable materials could be available from Environmental Protection UK. A greater awareness of air quality issues in young people could lead to longer term changes in behaviour.

This proposal has been included in the Action Plan.

- 4.59 **Variable Message Signs.** Variable message signs on roads can be used to convey information relating to journey times, availability of Park and Ride spaces and parking generally and any unusual conditions that affect travel, levels of congestion, local air quality issues and can inform travellers of the best way to reach their destination. Installation involves a considerable amount of infrastructure and cost.

This proposal has been included in the Action Plan.

- 4.60 **Traffic forecasts (team up with local radio).** Vale CCTV operators currently liaise with local radio stations that provide traffic forecasts for Abingdon. The congestion reports on local radio are often out of date and not consistent with what is actually going on. This suggestion is to ensure better collaboration (more timely reports) from the CCTV operators within the Vale and local radio stations. It is also considered that a more County-wide approach is required as Abingdon is often highlighted as being more congested than it actually is, and potentially other locations in the County are equally, or more, congested.

This proposal has been included in the Action Plan.

- 4.61 **TV adverts.** A high cost option and at present it is unclear how effective this would be. However, Greater Manchester Future Transport aired a TV advert to inform people about potential congestion charging in Manchester prior to the vote held in December 2008. It is considered that in Abingdon, running a TV advert would be prohibitively expensive and not an effective way to target a message. It is for this reason that this suggestion is discounted.

This proposal has been discounted at this stage.

- 4.62 **Celebrity endorsement.** Some high profile air quality campaigns such as South Yorkshire's Care 4 Air (<http://www.care4air.org/>) have in the past used celebrity endorsement to gain public interest. This would be a high cost option for any publicity campaigns in Abingdon.

This proposal has been discounted at this stage.

- 4.63 **Clear health messages (focussing on positive).** Promotion of good health can be related to both educating the public about the links between air pollution and health, and in also in encouraging people to cycle and walk, especially for short journeys. Collaboration with external organisations such as the local Primary Care Trust could be explored as a way of increasing the number of people which the information reaches.

This proposal has been included in the Action Plan.

- 4.64 **Eco-drive software.** Some car manufacturers are now providing free eco-drive software. Drivers using the software are given detailed feedback on the fuel consumption of their driving style, and offered personalised tips on how to make their driving more eco-friendly. Feedback includes fuel consumption graphs, driving style diagrams, and potential savings to be made by eco-conscious driving. As well as giving feedback on driving style, the software suggests different routes that could be more eco-friendly. This measure is likely to be limited in its use, but may increase awareness for a small proportion of drivers. The penetration of such software into cars will be dependent on manufactures and is unlikely to be influenced by local concerns.

This proposal has been discounted at this stage.

- 4.65 **Grants to schools to incentivise parents.** This suggestion was that schools should receive financial incentives to persuade parents not to drive their children to school. It is unclear who would provide the funding for this. Currently all state schools have Travel Plans and private schools will have Travel Plans which would possibly provide the mechanism by which grants could be provided. This suggestion is considered as part of **Further development of school travel plans** described above, and not a proposal in its own right.

- 4.66 **Encourage inter-school liaison.** A certain amount of interschool liaison already occurs between schools in Abingdon. Currently the Travel Planning team at OCC provide advice and support including disseminating best practice on Travel Planning issues. It is thought that there are other forums which could be used to encourage school-school liaison and therefore help disseminate good practice in this area.

This proposal has been included in the Action Plan.

- 4.67 **Investigate continental schemes for ideas.** Continental cities and smaller towns may have implemented novel and innovative traffic schemes or promotion of alternatives, which could provide useful measures for improving air quality in Abingdon. This measure is to investigate whether there are any examples which could usefully be utilised or adapted for Abingdon. A useful starting point might be European projects such as Intergaire (<http://www.integaire.org/>), which has already produced outputs, including a report highlighting European air quality measures near to roads¹⁶. However, direct comparisons may not be useful, particularly as legislation may differ. Good practice and current thinking will in any event be reflected in the work carried out by Oxfordshire County Council and their consultants and contractors. For this reason it is not felt this idea would add any extra value.

This proposal has been discounted at this stage

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http://www.integaire.org/platform/docs/working_docs/Examples%20of%20Air%20Quality%20Measures%20within%20%20Europe.pdf

5 Evaluation of Measures

5.1 The identified measures have been set out in the following tables, and evaluated against four specific criteria:

- air quality impact (i.e. reduction in emissions or concentrations);
- cost of measure;
- feasibility or practicability of option (including the wider non-air quality impacts); and
- timescale for implementation.

Air Quality Impact

5.2 Air quality impacts have been classified using a score of 1 to 5 to represent 'low' to 'high' impact. The higher the score, the greater the improvement to air quality because of the reduction in nitrogen dioxide concentrations. For each measure, the expected reduction in annual mean nitrogen dioxide concentrations has been determined based on professional judgement, drawing wherever possible on experience gained from other studies. The following classification scheme has been used:

Low (Score 1): *imperceptible* (a step in the right direction). Improvements unlikely to be detected within the uncertainties of monitoring and modelling;

Medium (Score 3): *perceptible* (a demonstrable improvement in air quality). An improvement of up to $2\mu\text{g}/\text{m}^3$ NO_2 , which could be shown by a modelling scenario. Improvement is not likely to be shown by monitoring due to confounding factors of the weather;

High (Score 5): *significant*. Improvement of more than $2\mu\text{g}/\text{m}^3$ NO_2 . Can be clearly demonstrated by modelling or monitoring (a significant improvement is likely to be delivered by a package of options rather than by a single intervention).

Cost

5.3 The implementation of the measures set out in this draft Action Plan are dependent on securing a sufficient and consistent level of funding both to support any additional staff that may be required, and to deliver the programme. In line with current Government guidance, it is not necessary to carry out a detailed cost-benefit analysis. Rather the aim is to provide a broad indication of costs

so that the proposed measures can be ranked according to the cost and the expected improvement to air quality. A score of 1 to 5 represents “very high” to “very low” costs, as follows:

- **‘Very Low’ (Score 5)** cost is taken to be £5K and under,
- **‘Low’ (Score 4)** cost is taken to be £5 - £50K,
- **‘Medium’ (Score 3)** cost is £50 - 150K,
- **‘High’ (Score 2)** cost is £150K - £2 million and
- **‘Very High’ (Score 1)** cost is over £2 million.

Feasibility

5.4 The feasibility of individual measures is not straightforward to quantify. The following factors have been taken into consideration:

- Alignment / synergies with other Vale of White Horse District Council initiatives, strategic initiatives, regional planning strategies or Local Transport Plans;
- Wider non-air quality impacts (social, environmental or economic);
- Stakeholder acceptance / “political” feasibility; and
- Source of funding available or possible.

The Feasibility has been scored as 1 to 5, representing “low” to “high” feasibility:

- **Low feasibility (Score 1)**
- **Medium feasibility (Score 3)**
- **High feasibility (Score 5)**

Ranking of measures

- 5.5 In order to give a ranking to the options, a combined assessment of air quality impact, cost and feasibility is required. As the primary focus of the Action Plan is to improve local air quality conditions, this needs to be given particular emphasis. Therefore, the overall ranking has been calculated by doubling the air quality impact score, and adding this to the scores for cost and feasibility i.e.:

(AQ impact score x 2) + cost score + feasibility score = ranking score

- 5.6 This ranking allows a relative view of the various measures to be undertaken. However, the final selection of measures to be incorporated into the Action Plan **will not solely rely on this ranking**, but will also be influenced by other criteria such as whether it is likely to be included for funding within other Council budgets, whether the wider benefits mean that it is implemented even though the air quality benefits may not be as good as another measure. It should be noted that the evaluation has been undertaken on the actual proposed measure, even though in some cases, further feasibility work will need to be undertaken to clarify the evaluation scores in the table. Where a proposal scores zero for either air quality impact, or feasibility (i.e. is considered to have no impact on air quality concentrations within the AQMA or is unfeasible) the proposal has been necessarily discounted at this stage.

Timescale

- 5.6 The timescale for the implementation of measures has also been considered. The following classifications have been used; **Short-term** relates to those measures that can be implemented within 1-2 years; **Medium-term** relates to those implemented within 3-5 years (i.e. within the lifetime of the third LTP 2011-2016); **Long-term** options are those which are 6+ years (i.e. those potentially subject to feasibility studies at this stage, and be considered for implementation in future rounds of Local Transport Plans).
- 5.7 These timescales are also indicated on the following tables, and their consideration will also influence the measures chosen for the Action Plan.
- 5.8 Timescales for those measures to be taken forward have been refined in section 6 with more specific timescales included where possible.

Traffic Management							
Paragraph In report	Proposed Measure	Impact on air quality Score:	Cost Score:	Feasibility Score:	Responsible authorities VWH-Vale of White Horse DC OCC-Oxfordshire County Council	Timescale	Ranking Score
		1-Low 5-High	1-High 5-Low	1-Low 5-High			
4.14	Encourage more traffic on the peripheral road (improved signage)	2	4	5	OCC	Short	13
4.5	A34 Lodge Hill Junction	4	1	3	Highways Agency	Long	12
4.4	A further river bridge crossing for Abingdon and Southern Relief Road	5	1	1	OCC	Long	12
4.9	Remove Rye Farm HGV park	2	4	4	VWH		12
4.19	Abingdon bypass East Abingdon to Culham	5	1	1	OCC	Long	12
4.6	Restrict delivery vehicles during the day	2	4	3	OCC/VWH	Short	11
4.8	Restrict HGVs in town centre	2	4	0	OCC	Medium	8
4.7	Weight limits for HGV traffic	2	4	1	OCC	Medium	9
4.13	Close The Wharf	1	4	2	OCC	Medium	8
4.12	A34 slip roads at Drayton	2	1	2	Highways Agency	Medium	7
4.18	Complete dropped kerb network	0	3	3	OCC	Medium	6
4.15	Allow right hand turn into Bath St	0	4	2	OCC	Medium	6
4.17	Improve Ock St/ Stratton Way Jct.	0	4	2	OCC	Medium	6
4.16	Remove all road signs	1	4	0	OCC	Medium	6
4.11	Nuffield Trading Estate link road	1	4	0		Medium	6
4.10	Widen Drayton Road Bridge to Allow two Lanes and Provide a Separate Footbridge	1	2	1	OCC	Medium	5

Lowering Emissions							
Paragraph In report	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	Low Emission Zone (covering HDVs)	4	2	2	OCC	Long	12
4.28	Eco-driving training for buses (and others)	1	4	5	OCC/VWH	Short	11
4.21	Targeting taxis to reduce emissions (through licensing)	1	4	5	VWH	Short	11
4.24	Reduce use of Abingdon for HGV testing/training	2	4	2	OCC/Driving Standards Agency	Medium	10
4.33	Council staff car parking charging/staff mileage	1	4	4	VWH	Short	10
4.20	Policy to reduce emissions of council vehicles and promotion of alternative fuels	1	3	4	VWH	Short	9
4.32	Remove humps in Abbey Close	0	4	5	OCC/VWH	Short	9
4.22	Control of stationary idling(all vehicles)	1	4	3	VWH	Short	9
4.27	20mph zone (limit)	0	4	4	OCC/VWH	Short	8
4.31	Encourage working from home	0	4	3	OCC/VWH	Short	7
4.25	Reduce journey times	0	3	3	OCC	Medium	6
4.26	Congestion charging	2	2	0	OCC	Long	6
4.30	Employment policies	1	4	0			6
4.29	Use bigger buses	0	3	2	OCC	Medium	5

Provision of Alternatives							
Paragraph In report	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	Business Travel plans	2	4	4	OCC	Short	12
4.48	Development of School Travel Plans	2	4	4	OCC	Short	12
4.36	Promote cycling measures	1	4	5	OCC/VWH	Short	11
4.38	Promote car sharing	1	5	4	OCC/VWH	Short	11
4.35	Review VWHDC travel plan	1	4	4	VWH	Short	10
4.49	Decriminalize parking	1	4	4	VWH	Short	10
4.47	Parking policy	1	4	3	VWH	Short	9
4.44	Undertake more detailed source apportionment	n/a	4	5	VWH	As Required	9
4.45	Investigate the impact of school holidays on air quality	0	4	4	OCC/VWH	Medium	8
4.37	Decrease bus frequency (off peak)	0	4	3	OCC	Medium	7
4.46	Extend bus routes e.g.X3 to Tesco roundabout	0	4	3	OCC	Medium	7
4.43	Staggered working/school hours	1	4	0	OCC/VWH	Medium	6
4.39	Road pricing	2	2	0	OCC	Long	6
4.40	Park & Ride	2	1	0	OCC	Medium	5
4.41	Shuttle bus to Culham, Radley & Didcot stations	1	3	0	OCC	Short	5
4.50	Free bus passes for under 16s	1	2	0	OCC/VWH	Medium	4
4.42	Reinstate rail or tram link to Oxford	1	1	0	OCC	Long	3

Planning							
Paragraph In report	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	Implement greater planning controls in AQMAs	2	3	3	VWH	Medium	10
4.52	Restrict car parking within new developments	2	5	0	VWH	Short	9

Education & Information							
Paragraph In report	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	Timescale	Ranking Score
4.56	Promote personal travel planning websites	1	5	5	OCC/VWH	Short	12
4.57	Cycle route information	1	5	5	OCC/VWH	Short	12
4.58	Working with schools sector on education initiatives	1	4	5	OCC/VWH	Short	11
4.63	Clear health messages (focusing on the positive)	1	4	5	OCC/VWH	Short	11
4.66	Promote inter-school liaison	1	5	4	OCC/VWH	Medium	11
4.54	Specific events e.g. cycle to work week, European car free day	1	4	4	OCC/VWH	Short	10
4.60	Traffic forecasts (team up with local radio)	1	4	4	OCC/VWH	Short	10
4.53	Real time information at bus stops (extend current provision)	1	3	5	OCC	Short	10
4.67	Investigate continental schemes for ideas	0	5	5	OCC/VWH	Short	10
4.59	Variable messaging signs	1	4	3	OCC	Medium	9
4.55	Big vision (such as transition town Abingdon)	0	3	4	OCC/VWH	Medium	7
4.65	Grants to schools to incentivise parents	1	4	0	OCC	Medium	6
4.61	TV adverts	1	3	0	OCC/VWH	Medium	5
4.62	Celebrity endorsement	1	3	0	OCC/VWH	Short	5
4.64	Eco-drive software	0	3	2	OCC/VWH	Medium	5

6 Implementation and Monitoring

- 6.1 The Vale of the White Horse District Council will work jointly to implement the Action Plan measures with all relevant partners, particularly Oxfordshire County Council, the Highways Agency, planners and transport operators. To secure the necessary air quality improvements there must be involvement by all local stakeholders and Vale of the White Horse District Council will work to ensure this happens. The technical working group will continue to meet as measures are implemented, both to ensure implementation progresses and to amend the action plan in future if necessary.
- 6.2 Ultimately the delivery of this Action Plan is dependent on adequate levels of resourcing, both for capital costs and staffing. At this stage, there are a number of funding sources which could be investigated:
- **Defra Air Quality Grant Programme.** The Scheme has now closed for 2008/9¹⁷, but in recent years has been repeated every April. This year, air quality grants have been directed to support projects which are part of local authorities' Action Plans and other projects proposed by local authorities to improve local air quality. Grants have supported both capital and running costs of measures.
 - **Local Transport Plan Funding.** A further potential source of funding for measures to improve air quality is the Local Transport Plan (LTP). LTPs, for the first two planning cycles have been implemented on a 5 year basis with the next bidding document to be complete in 2011. Work on the LTP is likely to start in 2009. Draft Guidance for the third Round of LTPs has now been issued and there is likely to be much more flexibility in both the timescales and formats of the documents. In the longer term LTPs are likely to be used to fund suitable measures to alleviate potential air quality issues in Abingdon.
 - **Section 106 Agreements.** Particularly where development proposals are likely to give rise to, or contribute to, exceedences of air quality objectives, payments for air quality mitigation measures can be justified. Some authorities are working towards a formula for use in development control decisions within their AQMAs (for example based on number of car-parking spaces, trips generated by the development, or similar). The

¹⁷ <http://www.defra.gov.uk/environment/airquality/local/aqgrant/index.htm>

guidance on using the planning system to reduce transport emissions¹⁸, recently published for consultation, provides further examples of funding strategies.

- 6.3 The implementation and effectiveness of the AQAP will be carefully monitored through the monitoring of nitrogen dioxide at relevant locations within Abingdon. In addition, other indicators such as traffic flow, proportions of different categories of vehicles, use of public transport and levels of cycling will be incorporated (through the LTP monitoring process). There will be regular reviews of the Action Planning proposals, which will be reported on an annual basis to Defra and the public. These reviews will include both direct air quality monitoring information, as well as information on proxy measures for monitoring specific proposals (for example, number of school travel plans implemented or increases in bus patronage). The following tables include, where possible, targets for each measure and a more refined timescale for implementation.

¹⁸ Low Emissions Strategies. Using the planning system to reduce transport emissions. Good Practice Guidance. June 2008. prepared by the Beacons Low Emission Strategies Group. http://www.cenex.co.uk/uploaded-documents/LES_Consultation_Draft.pdf

Measures to be included in the Air Quality Action Plan

Traffic Management			
Paragraph In report	Proposed Measure	Target	Timescale
4.14	Encourage more traffic on the peripheral road (improved signage)	OCC to assess current provision and devise an improved scheme if necessary.	Review signage by April 2010
4.5	A34 Lodge Hill Junction	Feasibility study is underway. Report expected 2009	Report expected August 2009
4.4	A further river bridge crossing for Abingdon and Southern Relief Road	Feasibility study underway for southern link road (Drayton Rd to Marcham Rd). A southern relief road and new bridge are included in the preferred options in the LDF review. A feasibility study for this option will be put forward for inclusion in LTP3	Report expected August 2009 2011
4.9	Remove Rye Farm HGV park	VWHDC need to undertake an assessment of current usage, income and air quality impact and check with HA that there is adequate alternative provision.	2009/10
4.19	Abingdon bypass East Abingdon to Culham	Study to be put forward for inclusion in LTP3 alongside the study for a new bridge and southern relief road.	2011
4.6	Restrict delivery vehicles during the day	Feasibility study on a peak hour loading ban for High St to be undertaken. Assess need for further measures following implementation of any proposed ban.	Report Expected April 2009
4.7	Weight limits for HGV traffic	Preparatory work to be undertaken to assess what would be required for a feasibility report.	2009/10
4.13	Close The Wharf	Defer further consideration until study is published.	Report expected April 2009
4.12	A34 slip roads at Drayton	Feasibility study in progress	Report expected August 2009
4.10	Widen Drayton Road Bridge to Allow two Lanes and Provide a Separate Footbridge	OCC will not be conducting a feasibility study on this-previous studies have shown such a scheme would not meet cost/benefit criteria in terms of alleviating congestion. However, if a southern link road does not proceed, the position of this in terms of air quality will be reviewed.	No further action pending a decision in respect of a link road between Drayton Road and Marcham Road.

Lowering Emissions			
Paragraph In report	Proposed Measure	Target	Timescale
4.23	Low Emission Zone (covering HDVs)	Preparatory work to be undertaken to assess what would be required for a feasibility report.	2010/11
4.28	Eco-driving training for buses (and others)	Discuss with bus companies and HGV firms. Report on current position and any need for further training.	2009/10 2010/11
4.21	Targeting taxis to reduce emissions (through licensing)	Consider amendments to taxi licensing policy	July 2009
4.24	Reduce use of Abingdon for HGV testing/training	Initiate discussion with stakeholders Produce a report on considerations and impacts	2009/10 2010/11
4.20	Policy to reduce emissions of council vehicles and promotion of alternative fuels	Implementation of VWHDC Carbon Management Plan 2009	2009/10
4.22	Control of stationary idling(all vehicles)	VWHDC to review legislation and develop an implementation policy.	2009/10

Promotion of Alternatives			
Paragraph In report	Proposed Measure	Target	Timescale
4.34	Business Travel plans	OCC to continue engagement with business on development of business travel plans.	Ongoing
		OCC to investigate the feasibility of increased involvement with businesses.	2010
4.48	Development of School Travel Plans	All Abingdon schools (state & private) to have an active school travel plan	April 2009
4.36	Promote cycling measures	Improvements to cycling facilities being investigated using current allocated budget.	April 2010
4.38	Promote car sharing	VWHDC to promote for staff.	2009
		Research feasibility of promoting with wider business community as part of business travel plans.	2010/11
		Already promoted in school travel plans where appropriate.	Ongoing
4.35	Review VWHDC travel plan	Review scheduled	2009/2010
4.49	Decriminalize parking	Implement following negotiation with OCC	2010
4.47	Parking policy	Research current position and assess how any amendments to this could have a positive impact on air quality.	2011/12

Planning			
Paragraph In report	Proposed Measure	Target	Timescale
4.51	Implement greater planning controls in AQMAs	Research the need for further guidance for developers.	2009/2010

Education and Information			
Paragraph In report	Proposed Measure	Target	Timescale
4.56	Promote personal travel planning websites	Assess what is available and suitable and create links to the Vale website.	2009/2010
4.57	Cycle route information	OCC to revise existing information and publish	April 2010
4.58	Working with schools sector on education initiatives	Research educational materials available and suitability for inclusion in the curriculum	2009/10
4.63	Clear health messages (focusing on the positive)	Discuss with partner organisations what we can do to positively promote the health benefits of alternative travel modes and produce a report.	2010/11
4.66	Promote inter-school liaison	OCC travel planning team are already engaged in this as part of school travel planning work.	Ongoing
4.54	Specific events e.g. cycle to work week, European car free day	Research what events may be suitable for support and promotion and develop a strategy for promoting them. OCC already promotes 'Walk to School Week'	2009/10 May 2009
4.60	Traffic forecasts (team up with local radio)	Research how the current forecasting system works and what can be done to improve forecasts	2009/10
4.53	Real time information at bus stops (extend current provision)	Ongoing programme run by OCC Install at Radley Rd and Oxford Rd	Ongoing 2009/2010
4.59	Variable messaging signs	Assess need and value. Could be included in LTP3	2009/10 2011

6.4 To summarise initial actions will involve;

- A feasibility report on closing The Wharf (April 2009)
- A feasibility study on a peak hour loading ban on High Street (April 2009);
- All Abingdon schools (state and private) to have an active school Travel Plan by April 2009;
- Consideration of amendments to the taxi licensing policy by July 2009,
- Outcomes of a feasibility study for Lodge Hill, Southern Link Road (Drayton Road to Marcham Road) (expected August 2009).

In the financial year 2009/10 VOWHDC have committed to a large number of measures

- Undertaking an assessment of the current usage of Rye Farm HGV Park,
- Preparatory work for assessing what would be required for a feasibility report for implementing weight limits for HGVs,
- Discussions with bus companies and HGV firms regarding eco-driving training and
- Discussions with stakeholders on reducing the use of Abingdon for HGV testing/training.
- The implementation of the VWHDC Carbon Management Plan will start in 2009/10,
- A review of the legislation on the control of stationary idling vehicles will commence
- A review of the VWHDC Travel Plan.
- In relation to planning, research will be undertaken on the need for further guidance for developers.

In relation to 'Education and Information' measures

- Promotion of Walk to School Week;
- An assessment of the need for Variable Message Signs;
- Real time information at bus stops in Radley Road and Oxford Road;
- Research education materials available and their suitability for inclusion in the curriculum and
- Assess personal travel planning websites and create links to the VOWHDC website.

7 Expected Impact of the Air Quality Action Plan

7.1 At this stage, it has not been possible to quantify emissions reductions for specific actions. The document has, however, where possible, included targets for particular measures. Many of the more ambitious measures (with a greater impact) will require more feasibility work (and in most cases, this is already underway) before a decision is made jointly with Oxfordshire County Council,

the Highways Agency and Vale of the White Horse District Council. In most cases this feasibility work will include traffic modelling, which, where relevant, will be used to assess the air quality impacts of the specific measures. Based on professional judgement, and the improvements in air quality required at locations in Abingdon, it is considered, without at least some of these more ambitious measures that the air quality objectives will not be met in the foreseeable future.

8 Conclusions

- 8.1 This Air Quality Action Plan: Technical Report provides a series of suggested measures on which various stakeholders, including the public, have been consulted. These suggestions have then been refined and prioritised and categorised into those which can be implemented and those which need further work or feasibility studies with the aim to implement them in the longer term. The measures chosen will be implemented in partnership with some key stakeholders, namely Oxfordshire County Council, the Highways Agency, planners and transport operators.
- 8.2 The suggestions highlighted in this Technical Report should reduce concentrations of nitrogen dioxide at the relevant sensitive receptors, although it is too early to say exactly what impact the measures will have on improving air quality. The Council is continuing to monitor air quality at several locations within the AQMA. The results of the monitoring will be made available through the annual review and assessment reports along with proxy measures for quantifying improvements.

9 Glossary

Standards	A nationally defined set of concentrations for nine pollutants below which health effects do not occur or are minimal.
Objectives	A nationally defined set of health-based concentrations for nine pollutants, seven of which are incorporated in Regulations, setting out the extent to which the standards should be achieved by a defined date. There are also vegetation-based objectives for sulphur dioxide and nitrogen oxides.
Exceedence	A period of time when the concentration of a pollutant is greater than the appropriate air quality objective. This applies to specified locations.
AQMA	Air Quality Management Area
NO₂	Nitrogen dioxide.
NO	Nitric oxide.
NO_x	Nitrogen oxides (taken to be NO ₂ + NO).
mg/m³	Microgrammes per cubic metre.
HDV	Heavy Duty Vehicles (> 3.5 tonnes)
LTP	Local Transport Plan
OCC	Oxfordshire County Council
VWH/VWHDC	Vale of White Horse District Council