Executive Summary

This Action Plan is the culmination of the second round of the local air quality review and assessment process, which commenced in 2003 and resulted in the declaration of an Air Quality Management Area (AQMA) in January 2005 encompassing Dunstable town centre and the major approach roads (A5, A505 and B489) in respect of the annual objective for nitrogen dioxide (NO_2) (See Appendix 1)

This report has been produced to comply with South Bedfordshire District Council's statutory duties under Part IV of the Environment Act 1995 in relation to local air quality management.

In producing this Action Plan the National Air Quality Strategy (NAQS) 2000 and guidance issued by both the Department for Environment, Food and Rural Affairs (DEFRA formerly DETR) and the National Society for Clean Air (NSCA) has been referred to.

This Air Quality Action Plan (AQAP) sets out the measures that South Bedfordshire District Council intends to take to pursue the required reduction of NO_2 concentrations in Dunstable to achieve the set objective and to improve public health.

The Further Assessment (source apportionment study) indicated that background nitrogen oxides (NO_x) are generally the major contributor to ambient NO_x concentrations at the receptors included in the study. It identified two large sources of NO_x over which South Bedfordshire District Council has some control:

- Cars and Heavy Goods Vehicles (HGVs) travelling along the roads in question are a major source of NO_x. In particular, HGVs are responsible for a large portion of these emissions despite their relatively small flows.
- Buses idling at stops contribute large amounts of NO_x to the immediate surroundings and create small areas of high concentrations.

As the major source of NO_2 within the AQMA emanates from road traffic, measures contained within this Action Plan specifically target reducing pollution from these sources.

The measures included in this report are those, which are currently considered to be the most appropriate and cost effective for Dunstable.

Whilst many specific air quality improvement measures have been included in this Action Plan, the key action areas are:

KEY ACTION AREAS FOR IMPROVING AIR QUALITY IN DUNSTABLE

1. Transport Planning
   - Reducing the need to travel
   - Encourage walking/cycling
   - Encouraging use of public transport
   - Reducing the number of trips within the Air Quality Management Area
   - Improving traffic management and reducing congestion
   - Encouraging the use of alternative fuels and smaller more fuel efficient vehicles
   - Reducing emissions from heavy goods vehicles and buses

2. Land-use Planning
   - Reducing the need to travel
   - Encourage walking/cycling
   - Encouraging use of public transport
   - Reducing the number of trips within the Air Quality Management Area
   - Improving traffic management and reducing congestion

3. Energy Management
   - Encouraging the use of alternative fuels and smaller more fuel efficient vehicles
   - Encourage energy efficiency – turning down heating, insulation, etc
   - Encourage walking/cycling
   - Encouraging use of public transport
   - Reducing the number of trips within the Air Quality Management Area
   - Reducing the need to travel

4. Local Air Quality Management
   - Monitoring
   - Partnership working
   - Review and Assessment process

5. Pollution Control
   - Reducing emissions from non-transport related sources
     - Industrial Emissions – LAPPC, Clean Air Act
     - Nuisance – bonfires, fugitive dust sources, construction dust

6. Environmental Promotion
   - Dissemination of AQ information – website, consultation, press
   - Promotion of alternative fuels and use of smaller more efficient vehicles

Part One – Overview

Policy Context, Existing Strategies and Consultation

National

National Air Quality Strategy and Air Quality Regulations:
In the United Kingdom, Part IV of the Environment Act 1995 provides the structure for local air quality management. The approach was set out in the National Air Quality Strategy (NAQS) published in 1997 and it outlined the standards and objectives for eight air pollutants: nitrogen dioxide (NO_2), particulate matter (PM_{10}), sulphur dioxide (SO_2), carbon monoxide (CO), lead, benzene, ground level ozone (O_3) and 1,3 butadiene.

Due to the health implications and costs associated with poor air quality, all the objectives for protecting human health and relate to non- occupational exposure to outdoor pollution, with the exception of ground level ozone. Ground level ozone (0_3) was not included in regulations due to its trans-boundary nature – thus achievement of this objective remains the responsibility of the Government. The effects of these pollutants on health are shown in Appendix 2.

The Air Quality Regulations placed the objectives onto a statutory footing December 1997 and effectively commenced the timetable in the Strategy, giving local authorities until December 1999 to carry out their three stage review and assessment of local air quality. The government reviewed the NAQS in 1999 and introduced amendments to the pollution levels and timetables for the objectives. Appendix 1 shows the current standards and objectives as set out in the Air Quality Regulations 2000. The air quality objectives must be met by target deadlines ranging from 2003 to 2010, some proposed amended objectives have yet to be included in regulations.

Every local authority in Britain has a duty to review and assess the air quality within their area against these objectives and to declare Air Quality Management Area(s) (AQMAs) where it is considered that the objectives are unlikely to be met.

Once an Air Quality Management Area has been declared the local authority is required to carry out a Further Assessment in order to ascertain the source apportionment of the pollution. It will determine whether the original decision to declare an AQMA was correct and quantify which sources are making the most significant contribution to pollutant concentrations.

The local authority is then obliged to draw up an Air Quality Action Plan (AQAP) which must set out what measures the authority intends to introduce in pursuit of the air quality objectives, the timescales by which these measures will be implemented and balanced against the costs and other impacts incurred in implementing any such schemes.

Local authorities are not obliged to meet the objectives but they must show that they are working towards them.

National (continued)

Integrated Transport White Paper:
A New Deal for Transport was published in 1998. It set out policies including congestion charging, workplace taxation and local transport plans which have an important role in achieving air quality objectives and can be tied in directly with Air Quality Action Plans. The enabling legislation for many of these policies was taken forward in the Transport Act 2000.

National Action Plans:
The Secretary of State is legally responsible for delivering UK compliance with EU Directive air quality limit values. Compliance will involve drawing up National action plans, which will incorporate local action plans, as well as addressing particular National air quality problems that cannot be dealt with at a local level.

Highways Agency:
The Highways Agency has set out its commitment to partnership working with the local authorities in its document 'The role of the Highways Agency in local air quality management', which is available on their website (www.highways.gov.uk).

International

Climate change:
The international community has put in place a framework for action on climate change through the United Nations Framework Convention on Climate Change and the Kyoto Protocol. The UK has developed a Climate Change Programme to adopt measures to achieve reductions in emissions of greenhouse gases in line with set targets.

Negotiations with energy intensive industries have resulted in those industries committing to meeting target reductions in carbon dioxide emissions and improvements in energy efficiency. The incentive for these industries will be through a reduced rate of Climate Change Levy.

Actions taken through energy management to reduce CO_2 emissions will also reduce those of NO_x and fine particles from domestic and business sources.

The United Nations Economic Commission for Europe (UNECE) Convention on Long- Range Transboundary Air Pollution:
UNECE Protocols for sulphur and NO_x have been ratified by the UK. Under this agreement the UK is committed to reducing national annual emissions of sulphur dioxide and NO_x by target amounts. Sulphur dioxide should be reduced by 80% by 2010, compared with 1980 levels, and total emissions of NO_x should be reduced to 1987 levels. A second protocol for NO_x and related substances is proposed to target nitrogen dioxide, volatile organic solvents, sulphur dioxide and ammonia.
In terms of local air quality management the reduction in NO_x will be the most significant.

European

Air Quality Framework and Daughter Directives:
The European Union's Air Quality Framework Directive (1996) and subsequent Directives prescribe limit values for certain pollutants, which all member states must meet by set deadlines.

The onus is for national governments to meet these limit values once adopting the Directives into national legislation and these limit values are a driving force for UK air quality policy.

Integrated Pollution Prevention and Control (IPPC) Directive:
The Pollution Prevention and Control (England and Wales) Regulations 2000 was introduced to implement the IPPC Directive, adopted in 1996. A greater number of industrial processes are controlled under this legislation than the UK's integrated pollution control and local air pollution control systems and a wider range of environmental impacts are included in the site-specific permits.

Auto oil program:
The EU Auto oil program was set up in partnership with the oil and motor industries and has been the most important force in the reduction of emissions from vehicles.

County

Local Transport Plans (LTPs)

The current round of LTPs (submitted in March 2006) had to address four agreed shared priorities, they related to air quality, accessibility, safety and congestion. Thus a significant proportion of the current LTP policies are directed at improving air quality.

Guidance specifies that there must be consultation between the District and County Councils to produce balanced plans. Where air pollution is caused by traffic on trunk roads, the LTP have to describe proposed joint work alongside the Highways Agency.

LTPs have to set targets for key air quality outcome indicators with the 2004/5 baselines of the pollutant concentrations and establish a target for 2010/11. In view of external influences, local authorities should set targets for intermediate outcome indicators. These could include things like total transport emissions in the AQMA, bus patronage, reduced numbers of vehicles on the road, etc.

LTP strategies have a fundamental in reducing local air pollution and therefore need to be coordinated with Air Quality Action Plans.

Local

Local Agenda 21 Strategy (LA21):
LA21 originated from the Earth Summit in Rio de Janeiro in 1992. It incorporates the concept of *sustainable development – meeting current needs without compromising the needs of future generations.* The process enables communities to take an active role in conserving their local environment and improving their quality of life.

A Community Plan has superseded South Bedfordshire District Council's LA21 strategy, which is due to be revised in 2007, at which time there will be more emphasis on air quality as an action zone is in existence.

Through the authority's environmental policy we recognise that the council has a vital role to play in delivering a better quality of life and environment for everyone in South Bedfordshire both now and for future generations. The Environmental Policy is put into practice through the Eco - Management and Audit Scheme – or EMAS for short.

EMAS is a European standard that requires us to manage our activities in a way that limits negative environmental impact, and enhances positive impact.

The AQAP ties directly in with the environmental policy in the following aims:

- Minimise air, noise, land and water pollution and improve health by monitoring and taking action against all forms of pollution within the authorities legislative scope and promote more sustainable forms of transport by encouraging the use of public transport and car sharing as an alternative to using private cars.
- Liase and co-ordinate throughout the authority and with other organisations on environmental issues.

Development Plan:
The Planning and Compulsory Purchase Act 2004 has replaced Structure Plans and Local Plans with a new two tier structure. This includes the Regional Spatial Strategy which set out broad strategies about how the region should develop at the higher level and Local Development Frameworks which should include a set of local development documents outlining the spatial planning strategy for an area.

In South Bedfordshire, the Joint Planning and Transportation Committee will drive this process forward. The Local Development Framework will therefore replace the existing Structure and Local Plans. It is worth bearing in mind that these current plans were devised before the Milton Keynes South Midlands Growth Area was proposed and thus they do not adequately reflect the predicted levels of increased population and traffic growth which will impact on the AQMA.

Planning framework:
The land use planning system is important for improving air quality.

When considering planning applications, local authorities need to be aware of local air quality assessments, Air Quality Management Areas and Action Plans, etc. Consideration as to how the proposed developments might change the air quality. This might be due to the developments operational characteristics (including industrial, commercial, retail and domestic) and the traffic it will generate.

Planning Policy Statement 23 – Planning and Pollution Control provides guidance to local authorities regarding this matter.

Air Quality in South Bedfordshire – an overview

The area of South Bedfordshire is situated approximately 30 miles north of London. Although a predominately rural district the population currently stands at approximately 113,000.

Originally a Roman settlement, Dunstable developed as a market town at the crossroads of two major routes – Watling Street and the Icknield Way and now has a population of some 40,000. The town has a major trunk road (the A5), which has a heavy traffic flow especially during peak times, passing directly through the town centre.

South Bedfordshire District Council has been monitoring the air quality within the district since 1993, via an ever-expanding nitrogen dioxide (NO_2) diffusion tube network and the presence of a real-time analyser in Dunstable town centre since 2000, NO_2, NO and PM_{10} are monitored on site.

Although the real-time analyser is situated adjacent to a busy road (A5) the monitoring site falls into the urban background category, as due to physical constraints it was located in a roof space of offices.

Review and Assessment Process

First Review and Assessment:

South Bedfordshire District Council concluded its first review and assessment in April 2000, whereupon the data gathered at that time indicated that it was unnecessary to declare any Air Quality Management Areas (AQMAs), as it was unlikely that exceedences of the objectives would occur after the dates of required compliance for any of the pollutants.

Second Review and Assessment:

The Updating and Screening Assessment was produced in 2003, using a combination of information collated from the diffusion tube and real-time monitoring data in conjunction with other relevant information such as traffic counts and predicted growth for traffic along certain roads in the area. The Highways Agency's Design Manual for Roads and Bridges (DMRB) screening tool was used to predict future concentrations and concluded that it was possible that both NO_2 and PM_{10} objectives would be breached and that a Detailed Assessment would be required for both these pollutants in Dunstable town centre.

Nitrogen oxides (NO_x) are formed whenever combustion takes place. During combustion process the majority of the oxides of nitrogen (NO_x) released are in the form of nitric oxide (NO). Once in the atmosphere nitric oxide can react with oxygen (O_2) and ozone (O_3) to form nitrogen dioxide (NO_2). As the majority of NO_2 in the atmosphere has been formed from NO, nitrogen dioxide is often referred as a "secondary" pollutant.

There are many sources, which contribute to the PM_{10} concentration in the UK. APEQ (Airborne Particulates Expert Group) divided these sources into 3 main categories:

- Primary emissions are derived directly from combustion sources, including road traffic, power generation, industrial processes, etc.
- Secondary particle emissions are formed by chemical reactions in the atmosphere and comprise principally of sulphate and nitrates.
- Coarse particles comprise from a wide range of sources including re-suspended dust from road traffic, construction works, mineral extraction processes, wind blown dusts and soils, sea salt and biological particles.

The Detailed Assessment (concluded that **only the annual NO_2 objective was likely to be breached after the 2005 and 2010 deadlines.** As such an AQMA was declared in January 2005 covering Dunstable town centre and along its major approach roads of the A5 and A505. (See Appendix 3 for a map showing the boundary of the declared AQMA) which was approved by DEFRA (Department of the Environment, Food and Rural Affairs). Prior to this a period of statutory and pubic consultation took place, this resulted in extending the area included within the boundary of the AQMA.

Local authorities are required to carry out a Further Assessment of existing and likely future air quality, for any area that has been designated as an AQMA. This is intended to supplement information the authority has already produced in their Detailed Assessment, which will be used to define the relative contribution of different sources within the areas of exceedence, so as to enable a focused Action Plan to be produced.

To this end, a computer model (AAQuIRE v6.1.1) was used to simulate pollution concentrations within the AQMA in 2004 (base year), 2005 and 2010. Eight locations were selected to illustrate the contribution of the five modelled sources of NO_x (cars, HGVs, buses idling at stops, taxis idling in ranks and vehicles in car parks) to ambient NO_x concentrations.

In the 2004 (base year) simulation, roadside concentrations greater than 40µg/m^3 were predicted near the town centre crossroads and along parts of the A505. The highest roadside concentration (approximately 51µg/m^3) is predicted to occur near the High Street North (A5) bus stop near the crossroads of the A5, A505 and B489.

There are some residential dwellings near the junction (mainly flats above shops/offices), thus exceedences of the 2005 NO_2 annual mean objective are likely at these properties.

In the 2005 simulation, the areas where concentrations are predicted to be greater than 40µg/m^3 have slightly reduced in size. Those areas of exceedences are mainly confined to the carriageway. However the highest roadside concentration is still predicted to occur near the High Street North (A5) bus stop near the crossroads of the A5, A505 and B489 (approximately 51µg/m^3).

The model predicts further reductions in the areas with a concentration of NO_2 over 40µg/m^3 for the 2010 simulation. These areas are only predicted to occur at the bus stops closest to the town centre crossroads on High Street North (A5), Church Street (A505) and West Street (B489). The maximum roadside concentration is predicted to be near the bus stop in High Street North (48µg/m^3).

The NO_2 diffusion tube monitoring results continue to show widespread exceedences within the AQMA, however the AAQuIRE model generally under predicted concentrations from these sites.

The Further Assessment (source apportionment study) published in December 2005 concluded that background nitrogen oxides (NO_x) are generally the major contributor to ambient NO_x concentrations at the receptors included in the study. It identified two large sources of NO_x over which South Bedfordshire District Council has some control:

- Cars and HGVs travelling along the roads in question are a major source of NO_x. In particular, HGVs are responsible for a large portion of these emissions despite their relatively small flows.
- Buses idling at stops contribute large amounts of NO_x to the immediate surroundings and create small areas of high concentrations.

At the worst affected location a 22% decrease in NO_2 concentration is required.

Results indicate that targeting HGVs for traffic reduction or retrospective clean up whilst addressing the effects of idling buses at bus stops would have significant impact on reducing emissions and therefore the concentration of pollutants. However cars do make a considerable impact on air quality and as such contributions from this source cannot be ignored.

Third Review and Assessment:

The Updating and Screening Assessment has been produced (April 2006) and forwarded onto Defra and statutory consultees for comment/approval. The Updating Screening and Assessment does not focus on the existing AQMA and thus the outcome of it will not influence the measures outlined within this Action Plan.

Review and Assessment documentation:

Detailed information on previous and current review and assessment reports can be found in the following documents, some of which are available on South Bedfordshire District Council's website:

- First & Second Stage Air Quality Review and Assessments – 2000
- Updating and Screening Assessment – 2003
- Detailed Assessment - 2004
- Source Apportionment Assessment – 2004/5
- Updating and Screening Assessment – 2006

Part 2 – The Air Quality Action Plan

Introduction

When an AQMA has been designated, a written Air Quality Action Plan is required to be drawn up by the local authority. In line with guidance issued by Defra this process should ideally be completed within 12 –18 months of designation.

In developing the Action Plan, options available to secure air quality improvements need to be considered, bearing in mind source apportionment (i.e. where are the emissions coming from) and the costs and potential benefits. The process should be integrated into all relevant sections of the local authority and involve joint working with other relevant bodies and the local community.

Aims

The main aim of this Air Quality Action Plan is, through joint working, to propose and deliver viable measures that will work towards achieving the desired reductions in NO_2 so that Government Objectives are met.

The aim is also to encourage active participation in the achievement of action plan measures by consulting the local community and raising awareness of air quality issues.

The Action Plan measures seek to manage and continuously improve air quality at a local level whilst maintaining a degree of access and growth required to ensure that Dunstable and the surrounding district develops as a vibrant, attractive and prosperous area.

South Bedfordshire District Council's Draft Action Plan was completed in August 2006, in partnership with the Highways Agency, Bedfordshire County Council the Local Transport Plan team at Luton Borough Council as well as colleagues within South Bedfordshire District Council and is will be distributed to all statutory consultants, including all properties within and those in the vicinity (25 metre buffer) of the AQMA, in addition a copy will be placed on the council's website and at Dunstable library. Comments will be taken into account before the Action Plan is finalized and adopted.

This AQAP sets out the measures that South Bedfordshire District Council intends to take to pursue the required reduction of NO_2 concentrations in Dunstable to achieve the set objective and to improve public health. They include a mix of existing and proposed measures to improve air quality through transport planning, land-use planning, energy management, pollution control and environmental promotion. South Bedfordshire working in isolation cannot achieve these options and as such partnership working will play an important role in the success of implementing this AQAP.

The measures included in this report are those, which are currently considered to be the most appropriate and cost effective for Dunstable.

A summary of the measures to be taken forward is provided and an assessment of the costs and benefits of each of these is made. This process allows realistic measures to be prioritised and timetabled to ensure air quality improvements are secured.

Whilst many specific air quality improvement measures have been included in this Action Plan, the key action areas are:

KEY ACTION AREAS FOR IMPROVING AIR QUALITY IN DUNSTABLE

1. Transport Planning
   - Reducing the need to travel
   - Encourage walking/cycling
   - Encouraging use of public transport
   - Reducing the number of trips within the Air Quality Management Area
   - Improving traffic management and reducing congestion
   - Encouraging the use of alternative fuels and smaller more fuel efficient vehicles
   - Reducing emissions from heavy goods vehicles and buses

2. Land-use Planning
   - Reducing the need to travel
   - Encourage walking/cycling
   - Encouraging use of public transport
   - Reducing the number of trips within the Air Quality Management Area
   - Improving traffic management and reducing congestion

3. Energy Management
   - Reducing the need to travel
   - Encourage walking/cycling
   - Encouraging use of public transport
   - Reducing the number of trips within the Air Quality Management Area
   - Encouraging the use of alternative fuels and smaller more fuel efficient vehicles
   - Encourage energy efficiency – turning down heating, insulation, etc

4. Local Air Quality Management
   - Monitoring
   - Partnership working
   - Review and Assessment process

5. Pollution Control
   - Reducing emissions from non-transport related sources
     - Industrial Emissions – LAPPC, Clean Air Act
     - Nuisance – bonfires, fugitive dust sources, construction dust

6. Environmental Promotion
   - Dissemination of AQ information – website, consultation, press
   - Promotion of alternative fuels and use of smaller more efficient vehicles

Through the implementation of the local measures included in this AQAP (in conjunction with those laid out in the Local Transport Plan), national strategies and the continuing improvement in vehicle emissions, it is estimated that by 2010 nitrogen dioxide levels at relevant locations within Dunstable's Air Quality Management Area will have been reduced by up to 9%.

Results of the Design Manual for Roads and Bridges (DMRB) screening method predicts that this level of reduction will be sufficient to meet the annual NO_2 objective of 40µg/m^3 at relevant locations by 2010 (see Appendix 6).

Source apportionment studies showed that motorised road transport accounts for the majority of NO_x emissions in the town. Within this group, heavy goods vehicles make up the greatest contribution, followed closely by cars.

To this end the main focus of this AQAP is on transport related improvement measures.

Nationally there have already been a considerable number of policies introduced for the purpose of reducing pollutant emissions to air. Generally these measures are controlled by national legislation, Appendix 4 gives examples of some of the main measures, which have been introduced, at this level.

Where national legislation already exists to control an emission it is difficult for a local authority to require higher standards at a local level.

Measures to reduce local NO_x emissions must be enforceable by the local authority and provide improvements in addition to those gained by the national measures.

Although the principal aim of the AQAP is to improve local air quality, the measures may impact upon and support a number of wider council policies i.e. Local Transport Plan, Development Plan, etc - in order to contribute to the reduction of greenhouse gas emissions, alleviating congestion, promoting sustainable development/transport and generally assisting the improvement of Dunstable's environment/safety.

Whilst some measures may offer benefits in all these areas they may not be cost-effective or feasible to implement or they may have unacceptable economical or social implications. To ensure that the impact of all the measures outlined in the AQAP options have been considered each has been subject to a cost benefit analysis against the following parameters:

Feasibility	Impact on greenhouse gas emissions	Capital cost
Public perception	Compatibility with local plans	Revenue cost
Impact on congestion	Impact on local economy	Impact on local air quality

Using the 'traffic light' system the impact of the various measures were scored as follows:

- Negative impact / high cost (over £250,000)
- Neutral impact / medium cost (between £50,000 – 250,000)
- Positive impact / low cost (up to £50,000)

Transport Planning

As a major source of NO_2 is road transport, particularly within the AQMA, the reduction of emissions from traffic through transport planning will be an important area in achieving Action Plan aims.

The primary source of pollution contributing to the exceedences of the annual NO_2 objective is the large volume of traffic along the A5 (High Street North and High Street South) in Dunstable and the A505 Church Street/Luton Road (The A5 is a trunk road and therefore the Highways Agency is the relevant highways authority for any action taken on this road, however the A505 is under the remit of Bedfordshire County Council).

There is a mixture of both through traffic and locally generated traffic contributing to the emissions within the AQMA.

In order to deliver a strategy to achieve the desired reduction in NO_2 within the AQMA there will need to be a partnership between South Bedfordshire District Council, Bedfordshire County Council, the Highways Agency and Luton Borough Council.

Over the last few years South Bedfordshire District Council has worked with both Luton Borough Council on the production of the Local Transport Plan (LTP) for the Luton, Dunstable and Houghton Regis conurbation and Bedfordshire County Council for the LTP regarding the rest of Bedfordshire.

The second Local Transport Plan (LTP2) for the Luton, Dunstable and Houghton Regis conurbation covering the period 2006-2011 has been published. The three towns are part of the wider Luton, Dunstable Houghton Regis and Leighton-Linslade Growth Area, one of six growth areas within the Milton Keynes/South Midlands (MK/SM) sub-region. The transportation section of the sub-regional strategy indicates that much of the strategic transport infrastructure on which the growth of Luton and southern Bedfordshire is predicated will not be implemented until 2011. The emphasis of the LTP2 is therefore to continue to deliver existing commitments and consolidate the current position by continuing to implement integrated transport solutions over the life of this Plan (2006 - 2011), whilst actively engaging in and planning for the longer term levels of residential and employment growth set out in the sub-regional strategy.

The LTP2 places priority for spending on sustainable transport. The transport hierarchy remains in the same order as in LTP1, with public transport, walking and cycling as the first three priorities. The plan seeks to ensure that integration takes place: between different transport modes; between transport and the environment; between transport and land-use planning; and between transport planning and wider policy areas.

The conurbation is one of the most densely populated urban areas in the South East of England. However, despite the conurbation's compactness, the majority of journeys are still undertaken by car even though public transport, cycling and walking already offer viable alternatives for most journeys.

The M1 motorway and the railway line sever the conurbation, with limited "bridging points", and the local road network channels high levels of traffic through Luton and Dunstable town centres. The M1 operates above its design capacity for much of the working day and at peak times is regularly heavily congested. Congestion is having an increasing impact in the peak periods on the reliability and journey times for bus services within the town centres and the connecting corridors, in particular the A505 between Luton and Dunstable. The M1 is currently being widened between junctions 6a and 10, widening works will also occur between junctions 10 and 13 to create a duel four lane road, with improvements to junctions.

The MK/SM SRS identifies Luton and Southern Bedfordshire as a Growth Area. About 26,300 new homes are planned by 2021, mainly to the north and east of Luton and Houghton Regis, to the north west of Dunstable and around Leighton-Linslade. The proposals also include a further employment site between Luton and Houghton Regis. The transport priorities of the MK/SM SRS are to reduce the need to travel by private vehicles by integrating land use and transport planning and by improving the attractiveness of sustainable transport modes - ultimately seeking to achieve a change in the attractiveness of public transport within the conurbation. The MK/SM SRS also identifies other key transport schemes relevant to Luton, Dunstable Houghton Regis: Midland Main Line Utilisation Outputs; the Thameslink Programme; M1 Widening (J6a-13); and northern bypasses of Dunstable (A5-M1) and Luton.

The Highways Agency carried out public consultation into two bypass options for Dunstable during Autumn 2005. At the first meeting of the Joint Planning and Transportation Committee (JPTC) in late November, the councils agreed to support the northern of the two bypass options. Members of the Committee were concerned about the low level of traffic relief particularly in Dunstable and their preference was to adopt a junction strategy that maximises the traffic relief to the area, including a full movement junction with the M1.

Implementation of the Dunstable Northern bypass is expected to result in the existing A5 through Dunstable ceasing to be managed as part of the national trunk road network and becoming part of the local road network. During the period of this LTP there is a need to reach agreement with the Highways Agency on how best to manage this section of road; to reduce the traffic demands on it and change its character help reduce the severance the road causes, help solve air quality problems and focus on seeing the road as a local asset rather than an imposed problem. The expectation is that specific funding will be needed to accommodate the transfer of responsibility for sections of the A5 from national to local control. Council officers will continue to meet with Highways Agency to address these issues. However this will not be completed by 2010 (within the timeframe of the AQAP).

Appendix 5 provides a summary of the Traffic Forecasting Report regarding the A5-M1 Link Road (Dunstable Northern Bypass), which was produced in September 2005.

1. Reducing the Need to Travel

Key Action Points

- Increase of mixed-use developments
- Revise/enhance sustainable transport options
- Encourage adoption of Travel Plans by schools, businesses and residential developments
- Accessibility planning

The most effective way of reducing vehicle emissions is to remove the need to travel by motorised vehicles this might be achieved by:

Allowing activities such as work, education and shopping to be carried out from home can achieve journey prevention. The Internet makes all these activities possible but there are social, economic and educational issues to be considered. Alternatively this might be accomplished by enabling goods and services to be locally available and by revising/enhancing policies to promote more sustainable movement of people into, within and in the vicinity of the AQMA and the district as a whole.

The concept of the mixed-use development is being implemented within South Bedfordshire with housing being located near to workplaces and schools. Due to a number of factors i.e. high housing prices, people may choose or be forced to work in a different location to that which they live. By limiting the number of car parking spaces available within developments and providing good walking, cycling and public transport links it may be possible to reduce the number of journeys undertaken via motorcars. However the possible effects of extra parking in roads in the vicinity of such developments may be detrimental. Additionally for longer journeys to locations, which cannot be easily accessed by means other than a car – membership of a car club can provide a flexible and cheaper alternative to private car ownership. Policies need to be revised/enhanced to promote schemes and initiatives to minimise traffic generation through planning agreements and conditions.

Car travel can also be reduced by the introduction of Travel Plans by businesses, local authorities and other organisations. A Travel Plan comprises practical measures to reduce reliance of the car for journeys to/from or in the course of work. In addition a Travel Plan might aim to reduce the environmental impact of travel by its visitors, customers and of vehicle fleets.

Travel Plans need to be tailored on an individual basis, measures can include car sharing schemes, offering cheaper public transport fare through subsidies or operator discounts, improving walking, cycling facilities and public transport, offering flexible working such as home working, switching fleets to utilise alternative fuels or fitting emission reducing technology and ensuring vehicles are properly maintained/serviced.

Schools can be encouraged to adopt Travel Plan to reduce the number of car journeys made by parents and staff. By encouraging the greater take up of public transport, walking and cycling school travel plans can help reduce traffic and pollution. However improvements to cycle lanes/footpaths to alleviate concerns

regarding safety and these fears must be addressed to encourage maximum participation.

In addition, residential travel plans are becoming an increasingly influential tool for travel management, particularly on larger development sites. In Dunstable there are many residential sites are adjacent to the Air Quality Management Area. However it will be worth ensuring that all travel plans for different sites have complimentary objectives.

South Bedfordshire District Council has adopted its own Green Travel Plan in order to reduce the impact of its activities and those of its staff. There is also a Green Travel Plan dealing with promoting sustainable travel to the Dunstable Leisure Centre operated on behalf of the Council by Leisure Connection Ltd. This plan will incorporate The Grove Theatre when it opens in 2007. Initiatives include options to improve ease and usage of cycling/walking, public transport and car sharing.

Accessibility planning (an assessment of a site's accessibility focussing on public transport, cycling and walking to key facilities such as employment, education and healthcare) can be useful to assess a site's appropriateness for development, or focus discussion on transport mitigation. Sites that have high levels of accessibility are likely to make best use of public transport, cycling and walking routes, which will reduce the need to use the private car. Ideally this should be carried out as part of the site selection process but in reality is more likely to occur during development.

2. Encouraging Walking/Cycling

Key Action Points

- Improvements and additions to on/off road cycle lanes and facilities
- Achieve a higher proportion of journeys to be made by bicycle/walking, particularly journeys to work/school.
- Create safe, direct and attractive conditions for cyclists/pedestrians
- Promote the positive role of walking/cycling as a healthy activity as well as a practicable alternative to the private car.

Some trips are of short enough duration to make walking or cycling a viable option. However the benefits to the environment and of individuals' health and fitness, of undertaking journeys via these methods need to be promoted to the community.

Some improvements and additions to on and off road cycling lanes/paths have been carried out to encourage cycling, although more work may be required for it to be considered a realistic travel option (i.e. provision of secure cycle parking). However more work may be required to alleviate concerns over safety and these fears must be addressed to encourage maximum participation.

Bedfordshire County Council revised their Cycling Strategy in 2005 the objectives of which are:

- A higher proportion of journeys to be made by bicycle, particularly journeys to work/school.
- Create safe, direct and attractive conditions for cyclists
- Promote the positive role of cycling as a healthy activity as well as a practicable alternative to the private car.

To enable greater pedestrian safety, the Highways Agency is currently modelling an "all red phase" for the town centre junction. Should this scheme continue it would result in the removal of the pedestrian crossings nearest the intersection and permit the free movement of pedestrians across the town centre crossroads. Other effects of the scheme may well facilitate a smother flow of traffic through the town, as vehicles will not be required to halt at pedestrian crossings and thus remove the stop-start element. This may well have a beneficial effect on local air quality by lowering pollutant emissions from motor vehicles. However it remains to be seen if the traffic congestion in the town will be exacerbated due to there being periods whereupon no traffic is flowing through the town centre intersection.

3. Encouraging use of Public Transport

Key Action Points

- Review services and tailor them to meet the needs of the community.
- Continue to develop plans regarding implementation of Translink - a proposed guided busway between Houghton Regis, Dunstable, Luton and Luton Airport.
- Actively enforce proper usage of the bus lane (as currently other vehicles (mainly cars) utilise it).

Where travel by cycling or walking is not a practicable option, either due to the distance, terrain, timescale and/or people being unable to walk/cycle, other options other than single persons usage of a car need to be encouraged.

Car sharing is a way to reduce total emissions for the journey, as it minimises the level of emissions per passenger in the vehicle and cuts down the amount of vehicles using the road network. However use of the car still results in unnecessary emissions should public transport have been available for the journey. Therefore for air quality reasons use of existing public transport services are the next best option to cycling/walking.

A key element of the LTP2 strategy is to promote policies that will advance a modal shift from private vehicle to public transport use. By increasing usage of public transport in preference to car travel, total vehicle emissions can be reduced.

Schemes proposed to work towards increased public transport usage include:

Translink – **(a proposed guided busway between Houghton Regis, Dunstable, Luton and Luton Airport)** . The economic case for Translink remains very robust with a projected Benefit:Cost Ratio (BCR) of 1.75 for the 'Most Likely Scenario' and even 1.23 for the 'Pessimistic Scenario' in the recently accepted Major Scheme

Appraisal. The public enquiry regarding this matter has been completed and reported back to the Secretary of State. Open Space, which is linked to the Translink issue, has also been subject to a public enquiry, which is now finished. The outcomes of these enquiries are pending.

Bus Lanes – there is one bus lane in Dunstable town centre (within the AQMA) which is approximately 400 metres in length on High Street North (A5) heading into the centre of town. However at present there is no active enforcement of the bus lane and as such other vehicles (mainly cars) utilise them. South Bedfordshire DC needs to work alongside the Highways Agency, Bedfordshire County Council and the Police to ensure proper usage.

However for public transport patronage to grow services need to be reviewed and tailored to meet the needs of the community by providing coverage of routes at times to meet demand.

Bedfordshire County Council has produced a Bus Strategy in order to maximise patronage of bus services.

4. Reducing Number of Trips within the AQMA

Key Action Points

- Review car parking charges
- Encourage car sharing
- Improvements to road infrastructure - to encourage alternative routes instead of through Dunstable town centre.

Realistically the use of privately owned vehicles will remain the preferred choice of the majority. Thus efforts must be made to reduce the number of journeys undertaken within the AQMA.

The ways in which South Bedfordshire District Council are likely to achieve this aim include:

- Review town centre car parking charges

This may be used to discourage people from driving in to the town centre reducing congestion and pollution, however this may well have a detrimental effect on local businesses as drivers may take their patronage elsewhere. Thus the conflict between parking charges and economic stability of the town need to be balanced.

Possible ways to achieve this would be to keep short-term parking cost effective to allow business and personal trips which are of too short a duration to make alternative methods of transport into the town to be viable, whilst discouraging long term parking in the town centre.

The LTP2 (Luton, Dunstable and Houghton Regis) highlights a possible parking charge scheme relating the fee payable to the vehicle emission factor. (i.e. the cleanest vehicles will pay less/nothing for parking).

- Encourage car sharing
- Improve road network

Current schemes include

- M1 Junction 10-13 widening

  Background information
  The M1 motorway is a very heavily used strategic route linking London with the Midlands and the North. This section has a heavy traffic flow and is congested during peak times; road works and incidents cause delays and increase traffic using local roads.

  Scheme Description
  To widen approximately 15 miles (25km) of the M1 corridor, adding additional lanes and to create a duel 4-lane road plus associated improvements to junctions and bridges.

- M1 – A5 Link Road – Dunstable Northern Bypass

  Background Information
  The scheme aims to reduce congestion on the A5 trunk road through Dunstable by enabling through traffic to use the M1 as an alternative. Additionally, the new route will aim to reduce traffic wishing to reach junctions 11 and 12 from the local road network in Dunstable and the surrounding area.

  Scheme Description
  The proposed M1-A5 link consists of a new all-purpose dual 2-lane carriageway approximately 3 miles (4.5km) in length, running west from a new junction (11a) on the M1 to join the A5 north of Dunstable. The line of this link will follow the protected corridor included in South Bedfordshire's Local Plan.

In addition there is a proposed scheme (Woodside Connection link road) to connect a major industrial/retail estate to the Dunstable Northern Bypass (A5-M1 link) to facilitate the movement of traffic (especially HGVs) away from the local road network and town centre.

It is envisaged that through traffic will be encouraged to utilise the motorway (M1) as opposed to driving via Dunstable town centre adding to congestion and air quality emissions.

5. Improving Traffic Management and Reduce Traffic Congestion

Key Action Points

- Review the traffic management system to maximise the smooth progress of vehicles through the town centre, which will reduce congestion and decrease emission levels.
- Ensure that air quality impacts are fully considered when either an EIA or TIA (i.e. where increased traffic volumes anticipated are approximately 5%) is required. Additionally air quality impacts should be considered where traffic volumes are anticipated to increase on roads within or near to an AQMA.
- Assess the Transport Asset Management Plan and Network Management Strategy regarding impact on air quality.

Negotiating congested areas will increase emissions from vehicles arising from stop/starts and engine idling.

The normal day-to-day congestion through sheer weight of traffic the flow experienced on the road network within Dunstable town centre (especially during peak hour periods) is exacerbated by other factors such as road closures in the area, special events and vehicles obstructing yellow boxes at junctions, etc.

Currently the management of traffic through the town centre is attained via traffic lights. However this system often results in queuing traffic on all the approach roads, which in turn affects flows within the subsidiary road system.

A review of the traffic management system is required to maximise smooth progress of vehicles through the town centre, which will reduce congestion and decrease emission levels.

The Traffic Management Act 2004 (TMA) confers new requirements and powers on highway authorities, including the duty to "… secure the expeditious movement of traffic …" or, in other words, to 'maintain traffic flows'. A congestion strategy will contribute to enabling the councils to discharge their commitment to achieving this objective. The councils have already designated the role of Traffic Manager and are developing a framework to meet the requirements of the Act. In particular the councils will consider the implementation of initiatives with regard to various aspects of the TMA once the government publishes guidance on these.

The Source Apportionment Assessment identified that cars and HGVs travelling along the roads in question are a major source of NO_x. HGVs in particular are responsible for a large portion of these emissions despite their relatively small flows.

The A5 is under the management of the Highways Agency and the A505 by Bedfordshire County Council.

A proactive approach to traffic management and congestion would be to ensure that air quality impacts are fully considered when either an Environmental Impact Assessment or a Traffic Impact Assessment (i.e. where increased traffic volumes anticipated are approximately 5%) is required. Additionally air quality impacts should be considered where traffic volumes are anticipated to increase on roads within or

near to an AQMA.

The LTP2 required Bedfordshire County Council to develop a Transport Asset Management Plan and a Network Management Strategy, which have been drafted and will be assessed in term of their impact on air quality management issues.

6. Reducing emissions from buses and HGVs

Key Action Points

- Encourage the updating of fleets or the carrying out of retrospective adaptations to minimise emissions
- Investigate the possibility of limiting deliveries in the AQMA during peak hours
- Bus operators will be asked to instruct drivers not to allow the idling of engines when waiting for prolonged periods at bus stops
- Issue fixed penalty notices upon drivers of any vehicles allowing their engines to idle when stationary, if they refuse to switch engines off – this needs publicity to inform drivers before it commences).

The Source Apportionment Assessment identified that cars and HGVs travelling along the roads in question are a major source of NO_x. HGVs in particular are responsible for a large portion of these emissions despite their relatively small flows.

Additionally buses idling at stops contribute large amounts on NO_x to the immediate surroundings and create small pockets of high concentrations, which may affect nearby buildings.

However HGVs provide an essential role in deliveries to local businesses and the A5 is a trunk road, therefore they cannot be banned from the town centre.

HGV operators will again be encouraged to update their fleet or carry out retrospective adaptations (i.e. the fitting of particulate traps) to minimise emissions from these vehicles.

It may be advantageous to limit deliveries by HGVs within the AQMA to certain hours to avoid peak hour periods – thus minimising the effect of stationary vehicles on the highways. However this may have some major impacts on the local plan, economical impacts to the haulage and local businesses and may increase noise levels to local residents, as deliveries will occur in previously quieter periods of the day. Before any changes are implemented this option is likely to undergo a vigorous consultation exercise.

Bus operators will be asked to instruct drivers not to allow the idling of engines when waiting for prolonged periods at bus stops.

Additionally further reductions in emissions will be to encourage operators to invest in buses that meet the highest Euro emission standards possible taking into account costs, etc, or to retrospectively fit adaptations to minimise emissions.

However costs of these options are likely to be passed onto passengers via higher fares and care must be taken to ensure that this does not impact upon the bus usage by socio-economic factors thereby negating any improvements to emissions.

7. Encouraging the use of alternative fuels and smaller more efficient vehicles

Key Action Points

- Promote the benefits of the use of alternative fuels and smaller more efficient vehicles
- Improve the availability of alternative fuels
- Ensure the development of policies to encourage use of these vehicles (ie Hackney Carriage Licence conditions/charges, review parking charges, etc)

Although this Action Plan has introduced a number of measures to reduce the need to travel and the number of trips made by privately owned vehicles, it is inevitable that some such journeys will still occur. In these cases a different approach is required to improve local air quality would be to encourage the use of alternative fuels and smaller more fuel-efficient vehicles for essential journeys.

When correctly converted, vehicles running on LPG generally give rise to lower NO_x emissions than conventional petrol engines and are cheaper to operate due to the lower cost of LPG. However they must be carefully maintained to ensure the NO_x reductions remain at the most favourable levels. Although LPG is now more widely available across the UK the number of outlets is still limited which might discourage the uptake and usage of such powered vehicles.

The Action Plan identifies the need to improve the availability of alternative fuels, if people are to be persuaded to convert to using such vehicles, they must be confident that refuelling facilities will be widely obtainable.

Although electric vehicles do not result in emissions locally, the electricity generated to charge these vehicles, may result in emissions from the power station. To gain the maximum air quality benefits such vehicles should be charged using “green” electricity. “Green” electric tariffs are available for power derived from renewable energy sources such as wind, solar or water. Generation of electricity from these sources does not result in any form of atmospheric emissions. Whilst “green” tariffs are generally more expensive than conventional electricity tariffs, the cost of running an electric vehicle on a green tariff is less than running petrol or diesel powered vehicles. The main impracticability of such vehicles is their limited ranges and availability of recharge points.

SMART cars use a conventional petrol engine but are more fuel-efficient than larger vehicles, giving rise to fewer emissions per mile travelled. Thus this improved fuel efficiency also means reduced fuel bills. These vehicles have the advantage of be

able to be refuelled at any service station and tend to be easier to park due to their compact size. However they are not suited to all types of journey – particularly where large amounts of equipment need to be carried or if there are more than two people wishing to travel.

In the case of both alternatively fuelled and smaller more efficient vehicles savings can be made on road tax where reduced rates of tax are available for less polluting vehicles.

Fleet operators could potentially make considerable cost savings by investing in these types of vehicles at the same time they would raise the “green” image of their companies in addition to assisting to reduce the air pollution within the district.

South Bedfordshire District Council needs to lead by example and implement changes to their own fleet.

Current refuse collection vehicles were purchased in 2004 and meet the Euro III, Euro Standard. Emissions are tested on an annual basis. However, the refuse collection contract is due for renewal in April 2007, whereupon a condition of the contract would be to operate vehicles of the then current Euro Standard (Euro IV).

The car allowance system operated within South Bedfordshire District Council has abolished the upper mileage remuneration rates previously paid to employees with greater engine sized vehicles, in addition, the car loan scheme is geared to providing a fiscal incentive to purchase more fuel-efficient vehicles. Car parking spaces are reserved near to the offices for car sharers.

In addition spaces are reserved near to the offices for car sharers.

South Bedfordshire District Council and their working partners need to promote the use of alternative fuels and smaller more efficient vehicles. Benefits include:

- The widespread use of such vehicles might result in significant local air quality improvements and reductions in greenhouse gases.
- Operating such vehicles may give considerable cost savings to businesses and individuals – but this must be balanced against the cost of initial investment, capacity constraints of smaller vehicles and the availability of alternative fuels.

Disadvantages include:

- There would be little change in congestion, as the vehicles still require road space.

Purchasing alternately fuelled vehicle or converting an existing vehicle requires an initial investment which is often greater than the cost to continue running a conventionally powered one. Likewise choosing a smaller, more efficient vehicle may result in less space and more basic features. Thus incentives are needed to encourage use of alternatively fuelled or more efficient vehicles. Whilst reduced rates of tax are applicable in some cases, additional local incentives can encourage increased local usage of these types of vehicles. These incentives might well include:

- Reduced fee/free parking incentives for these types of vehicles
- Possible reduced Hackney Carriage licence fees for greener vehicles

Land-Use Planning

Whilst the land-use planning system does not proffer any quick fix solutions to areas of poor air quality it can do much to improve air quality in the longer term. When considering planning applications, local authorities need to be aware of local air quality assessments, Air Quality Management Areas and Action Plans, etc. Consideration as to how the proposed developments might change the air quality. This might be due to the developments operational characteristics (including industrial, commercial, retail and domestic) and the traffic it will generate. Air Quality is a material consideration within the planning process.

The UK government has published White Papers, together with Planning Policy Guidance (PPG) and Planning Policy Statements (PPS) that set out policies for transport and different aspects of land use and environmental planning, many of which are necessary to comply with EU legislation. Specifically PPG13 sets out the relationship between planning and transport, which seeks to reduce the need to travel and promote more sustainable travel choices such as walking, cycling, and public transport for access to local services. PPG13 also sets out a sequential approach to development, consistent with other land use policy guidance that seeks to place high trip-generating developments in locations accessible by public transport. In addition, PPS23 covers the issues surrounding Planning and Pollution Control.

The framework for development planning and transport in Luton and Bedfordshire up to 2011 is set out in the Structure Plan adopted in March 1997. The development of the Local Plans for Luton and South Bedfordshire have been closely integrated with the Local Transport Plan, having regard to guidance set out in PPG13.

1. Reducing the need to travel

Key Action Points

- Increase of mixed-use developments
- Revise/enhance sustainable transport options
- Encourage adoption of Travel Plans by schools, businesses and residential developments
- Utilising accessibility planning techniques

The most effective way of reducing vehicle emissions is to remove the need to travel by motorised vehicles this might be achieved by:

Allowing activities such as work, education and shopping to be carried out from home can achieve journey prevention. The Internet makes all these activities possible but there are social, economic and educational issues to be considered. Alternatively this might be accomplished by enabling goods and services to be locally available and by revising/enhancing policies to promote more sustainable movement of people into, within and in the vicinity of the AQMA and the district as a whole.

The concept of the mixed-use development is being implemented within South Bedfordshire with housing being located near to workplaces and schools. Due to a number of factors i.e. high housing prices, people may choose or be forced to work in a different location to that which they live. By limiting the number of car parking spaces available within developments and providing good walking, cycling and public transport links it may be possible to reduce the number of journeys undertaken via motorcars. However the possible effects of extra parking in roads in the vicinity of such developments may be detrimental. Additionally for longer journeys to locations, which can't be easily accessed by means other than a car – membership of a car club can provide a flexible and cheaper alternative to private car ownership. Policies need to be revised/enhanced to promote schemes and initiatives to minimise traffic generation through planning agreements and conditions.

The Dunstable Town Centre Strategy - South Bedfordshire District Council adopted a town centre strategy for Dunstable in 1997 and the principles of the strategy were reviewed in 2005 to ensure that it remains in accordance with the Local Plan and other policies. The main aim of the strategy is to regenerate, diversify and increase the prosperity of Dunstable town centre and to make it more attractive as a retail, leisure and business hub. In accordance with this aim, a number of proposals have been made which individually and collectively are expected to contribute to the town centre regeneration.

The town centre strategy for Dunstable identifies sites for redevelopment with the aim of assisting the regeneration of the town centre and promoting its vitality and viability.

Development in the town centre will be judged against Policy TCS1 and how they assist in the implementation of the Town Centre Strategy.

Favourable consideration will be given to proposals, which will sustain and enhance the vitality and viability of the town centre and in particular those that support the retail function and contribute to town centre regeneration.

Strategic planning must 'be sensitive to the need to improve local air quality along with the wider local environment' and development control should be a tool 'for promoting more sustainable travel patterns and hence minimizing traffic generation.' Policies should be revised/enhanced to promote the more sustainable movement of people into, within and in the vicinity of Dunstable.

South Bedfordshire District Council's revised Local Plan was adopted in January 2004 and addresses air quality issues by:

Following advice in Planning Policy Guidance 13 (PPG13), local plans need to be based on a long-term strategy for integrating land use and transport planning. In particular, if policies continue to permit dispersal of development and therefore a higher dependence on the car, other policies in the plan aimed at achieving sustainable development will not be effective.

PPG13 sets out the intention that Local Plans need to be concerned with ways in which the precise location of development can be shaped to minimise the need for motorised travel. Local Plans should seek to revitalise traditional urban centres, to improve their attractiveness as places to live, work and shop and maintain their

competitiveness and they should promote healthy rural communities where people can both live and work.

The location of development allocated in the Local Plan Review, in particular the main employment areas and the housing sites, have been defined and located in accordance with this policy advice, but there is a need for all developments within the District to observe certain locational criteria based on the advice in PPG13 to ensure that the need to travel and the impact of traffic is reduced.

An integrated approach to land use and transport planning - the local rationale for this approach is that future development targets and travel demands cannot be met on the basis of current mode shares and that for the future; a proportionately greater number of journeys will need to be made by non-car means. This approach is given effect in the Local Plan Review through a range of policies dealing with mixed-use, higher density, public transport-orientated development and the provision of better public transport.

New development sites are to be based on “public transport orientated development”, urban villages and walkable neighbourhoods. The aim is to maximize the potential for public transport provision, walking and cycling.

Allowing activities such as work, education and shopping to be carried out from home can achieve journey prevention. The Internet makes all these activities possible but there are social, economic and educational issues to be considered.

The MK/SM SRS identifies Luton and Southern Bedfordshire as a Growth Area. About 26,300 new homes are planned by 2021, mainly to the north and east of Luton and Houghton Regis, to the north west of Dunstable and around Leighton-Linslade. The proposals also include a further employment site between Luton and Houghton Regis. The transport priorities of the MK/SM SRS are to reduce the need to travel by private vehicles by integrating land use and transport planning and by improving the attractiveness of sustainable transport modes - ultimately seeking to achieve a change in the attractiveness of public transport within the conurbation. The MK/SM SRS also identifies other key transport schemes relevant to Luton, Dunstable Houghton Regis: Midland Main Line Utilisation Outputs; the Thameslink Programme; M1 Widening (J6a-13); and northern bypasses of Dunstable (A5-M1) and Luton.

The concept of the mixed-use development is being implemented within South Beds with housing being located near to workplaces and schools. Due to a number of factors i.e. high housing prices, people may choose or be forced to work in a different location to that which they live. By limiting the number of car parking spaces available within developments and providing good walking, cycling and public transport links it may be possible to reduce the number of journeys undertaken via motorcars. However the possible effects of parking in roads in the vicinity of such developments may be detrimental. Additionally for longer journeys to locations, which can’t be easily accessed by means other than a car – membership of a car club can provide a flexible and cheaper alternative to private car ownership. Policies need to be revised/enhanced to promote schemes and initiatives to minimise traffic generation through planning agreements and conditions.

2. Encouraging walking and cycling

Key Action Points

- Improvements and additions to on/off road cycle lanes and facilities
- Ensure new developments (including road proposals), are designed in a way that optimises pedestrian/cycle access and establishes safe pedestrian linkage to the transport network.
- Create safe, direct and attractive conditions for cyclists/pedestrians
- Promote the positive role of walking/cycling as a healthy activity as well as a practicable alternative to the private car.

Cycling and walking are environmentally acceptable transport modes with considerable potential as alternatives to the private car for many short trips and as such the District Council wishes to encourage them.

Pedestrians

A large number of journeys already take place on foot, but there is scope to increase significantly the proportion of trips made on foot.

To achieve this further switch in favour of travel on foot there is a need to improve conditions for pedestrians and make streets safer and more attractive by increasing the priority given to pedestrians. This principle is particularly important in areas of pedestrian concentration such as residential areas and town centres and both the town centre strategies include proposals to improve pedestrian routes to and around the town centres.

In addition to improving the existing environment, there is a need to improve the pedestrian focus in all new developments and they should be designed in a way that maximises pedestrian accessibility. The following Policy will apply:

Policy T5

The district council will seek to improve the safety and attractiveness of the pedestrian environment with particular emphasis on town centres and residential areas and will refuse proposals for new development (including road proposals), which are not designed in a way that optimises pedestrian access and establishes safe pedestrian linkage to the transport network.

Cycling

Although there has been a resurgence of interest in cycling in recent years, particularly leisure cycling, the use of bikes as a regular means of transport remains limited in all but a few areas of the country. The main reason for this in South Bedfordshire is that there are limited dedicated cycle routes and it is becoming increasingly dangerous for cyclists to compete for road space with the heavy levels of traffic now on the road network, particularly on major routes and at peak periods.

PPG13, at paragraph 79 states that:

'in preparing their development plans and in determining planning applications, local authorities should:

In conjunction with work on the local transport plan (LTP), review existing provision for cyclists, in order to identify networks and routes, including those to transport interchanges, along which the needs and safety of cyclists will be given priority, and set out the specific measures which will be taken to support this objective. Generally, these routes will use existing highways, but may also include the use of redundant railway lines or space alongside canals and rivers. Linear parks in urban areas may often provide opportunities for cycling routes;'

The priority is, therefore, on safe, direct routes for cyclists and a number have been identified in South Bedfordshire, particularly in the urban areas and to town centres. They are designed to provide safe routes to schools and other community facilities. The design and construction of the routes, many of which are shared facilities, will be carried out in consultation with pedestrians and cycle groups.

The creation of new safe routes is not, however the only means by which cycling can be encouraged. The design of all new development, including any road schemes should take into account the needs of cyclists.

To encourage the use of cycles, it will be important to ensure that sufficient provision for safe cycle parking/storage is to be provided in new developments. Guidance on the level and standard of provision is given in Bedfordshire County Council's Cycleway Design and Maintenance Guide.

The following Policy will apply:

Policy T6

The District Council in conjunction with the County Council will seek to provide a network of safe, direct and attractive high quality cycle routes, together with improved facilities for cyclists particularly within town centres, in conjunction with schools and other community and recreation facilities and in road schemes.

Planning permission will not be granted for:

a. proposals for educational, shopping, commercial, industrial, community and leisure development which fail to provide adequate secure cycle parking; and for
b. proposals for such uses and for residential development, which would generate or attract significant numbers of travel trips and which fail to provide safe links to the cycle route network where practicable opportunities exist.

3. Encouraging use of public transport

Key Action Points

- Review services/facilities and tailor them to meet the needs of the community.
- Continue to develop plans regarding implementation of Translink - a proposed guided busway between Houghton Regis, Dunstable, Luton and Luton Airport.
- Actively enforce proper usage of the bus lane (as currently other vehicles (mainly cars) utilise it).
- Ensure proper provisions for taxis and PHVs – ie suitably placed ranks, etc

The Bedfordshire and Luton transport strategies in the two LTPs highlight the need for a greater use of public transport as part of an integrated strategy for the area. The District Council appreciates that there are benefits from this approach in terms of the potential to reduce traffic congestion and would like to see a reduction in the dependence on private transport for trips particularly in the urban parts of the District.

In addition it is important that the future provision of public transport is planned in line with the plan's overall development strategy and its intention to concentrate development in the urban areas and control the location of development to ensure good accessibility by means of transport other than the private car.

Bus Services

The District Council has little control or influence over this form of public transport. Increasingly, however, through work on the Town Centre Strategies the District Council has been working in closer partnership with the main local bus operator at the time of plan adoption, 'Arriva: The Shires and Essex', in respect of improving bus services, access, and facilities within the District's town centres. This relationship will assist in ensuring that the service network adequately serves development, both within the town centres and elsewhere.

In addition, the County Council has a wide role in the planning and co-ordination of public transport services as well as providing financial support to uneconomic routes and jointly funding concessionary fares to the elderly and disabled on a shared basis with the District Council.

A major aspect in making bus services more attractive as a transport mode is to improve the frequency of service, its speed, and penetration into the town centres. One of the ways of achieving this is to give priority to buses on the road network using reserved road space and to give them access to areas of the town centre restricted to other traffic.

In Dunstable/Houghton Regis there are proposals to improve bus services and main bus stopping areas, install bus lanes and generally improve the quality of bus shelters, signage and timetable information displays. Table 3 sets out the proposals relating to new bus services, bus priority measures and other facilities designed to

improve the attractiveness of the bus as an alternative mode of transport to the private car.

TABLE 3 PROPOSED IMPROVEMENTS TO BUS ROUTES AND SERVICES

TOWN	LOCATION	SCHEME PROPOSAL
Dunstable	Woodside, Porz Ave and Boscome Road	Provision of new and diverted routes to serve Houghton Regis, Luton and Dunstable Town Centre via the Town Centre Link
	Court Drive	Provision of bus lay-bys, lay-over and turning areas, shelters and signage
	Church Street	Phase 2 Bus priority measures
	Luton Road	Bus priority measures

The following Policy will apply:

Policy T3

The council will work with the county council, highways agency, bus operators and developers to sustain and improve bus access, services and facilities to reduce dependence on the private car and, in particular, to:

i. Ensure provision of bus access into and services for new developments commensurate with their scale, character and likely trip generation;
ii. Provide and improve interchange facilities between buses and other modes of transport;
iii. Provide bus priority measures on main route into Dunstable, Leighton-Linslade and Houghton Regis;
iv. Seek contributions from developers of sites allocated in the local plan towards improvements set out, where these are necessary for the proper development of those sites; and
v. Seek contributions from developers undertaking proposals directly related to improvements set out, such contributions to be commensurate with the scale, character and likely trip generation of those proposals.

Translink

The Luton/Dunstable LTP has, as its central element, the Translink project which is a scheme to use the route of the disused Luton to Dunstable railway line as a guided bus way. Bedfordshire County Council and Luton Borough Council, the lead partners in the project, have appointed consultants to carry out the detailed design work necessary to implement the project and partners are being sought to operate the scheme.

The timescale for implementation of the project is expected to be as follows:
? An application for Transport and Works Act (TWA) Order to secure powers to acquire land and seek planning permission: December 2003;
? Public Inquiry: Mid 2004;
? Secretary of State Approval: Mid 2005;
? Construction Starts: Early 2006;
? Network opens: Summer 2008.

Both Bedfordshire County Council and Luton Borough Council together with the District Council recognise that public transport services on the route could be an attractive alternative to the private car on the heavily congested corridor between Dunstable and Luton town centres and the site of the airport interchange and could significantly reduce urban traffic congestion on the A505.

In addition, because it is the intention to run feeder bus services to and from the dedicated corridor at various points along its length to serve the wider urban area, the scheme will be of major benefit in improving public transport accessibility across the Luton, Dunstable and Houghton Regis conurbation.

Policy T4

The district council supports the translink project to establish bus-based public transport along the former luton/dunstable rail line and will safeguard the route and pedestrian and vehicular access points.

Taxis and Private Hire Vehicles (PHV)
Taxis and PHVs have a part to play in overall transport provision not least for people who do not have access to a car. For example, taxis and PHVs can play an important role in filling gaps in public transport for important journeys, particularly in the evenings and at weekends when there is a reduced bus service, as well as providing transport for social and bulk shopping trips.

The District Council therefore recognises that taxis and PHVs are important in the transport strategy to try and reduce the number of private cars on the roads. It wishes to ensure that in town centres and at public transport nodes such as stations, where many taxi and PHV trips start or finish, sufficient space is provided for taxi ranks.

In implementing town centre traffic and environmental improvements the District Council will make appropriate space available for taxi ranks close to key facilities. As District Planning Authority it will also expect major people attracting developments, particularly retail and leisure developments in the urban areas, to make proper provision for taxis and PHVs.

4. Reducing the number of trips in the AQMA

Key Action Points

- Review car parking charges
- Encourage car sharing
- Improvements to road infrastructure - to encourage alternative routes instead of through Dunstable town centre.

Realistically the use of privately owned vehicles will remain the preferred choice of the majority. Thus efforts must be made to reduce the number of journeys undertaken within the AQMA.

The ways in which South Bedfordshire District Council are likely to achieve this aim include:

- Review town centre car parking charges

This may be used to discourage people from driving in to the town centre reducing congestion and pollution, however this may well have a detrimental effect on local businesses as drivers may take their patronage elsewhere. Thus the conflict between parking charges and economic stability of the town need to be balanced.

Possible ways to achieve this would be to keep short-term parking cost effective to allow business and personal trips which are of too short a duration to make alternative methods of transport into the town to be viable, whilst discouraging long term parking in the town centre.

The LTP2 (Luton, Dunstable and Houghton Regis) highlights a possible parking charge scheme relating the fee payable to the vehicle emission factor. (i.e. the cleanest vehicles will pay less for parking).

- Encourage car sharing
- Improve road network

Current schemes include

- M1 Junction 10-13 widening

  Background information
  The M1 motorway is a very heavily used strategic route linking London with the Midlands and the North. This section has a heavy traffic flow and is congested during peak times; road works and incidents cause delays and increase traffic using local roads.

  Scheme Description
  To widen approximately 15 miles (25km) of the M1 corridor, adding additional lanes and to create a duel 4-lane road plus associated improvements to junctions and bridges.

- M1 – A5 Link Road – Dunstable Northern Bypass

  Background Information
  The scheme aims to reduce congestion on the A5 trunk road through Dunstable by enabling through traffic to use the M1 as an alternative. Additionally, the new route will aim to reduce traffic wishing to reach junctions 11 and 12 from the local road network in Dunstable and the surrounding area.

  Scheme Description
  The proposed M1-A5 link consists of a new all-purpose dual 2-lane carriageway approximately 3 miles (4.5km) in length, running west from a new junction (11a) on the M1 to join the A5 north of Dunstable. The line of this link will follow the protected corridor included in South Bedfordshire's Local Plan.

In addition there is a proposed scheme (Woodside Connection link road) to connect a major industrial/retail estate to the Dunstable Northern Bypass (A5-M1 link) to facilitate the movement of traffic (especially HGVs) away from the local road network and town centre.

It is envisaged that through traffic will be encouraged to utilise the motorway (M1) as opposed to driving via Dunstable town centre adding to congestion and air quality emissions.

5. Improving traffic management and reducing congestion

Key Action Points

- Greater partnership working between HA/BCC/SBDC regarding current and future traffic management schemes
- Have mind to National and Regional Planning guidance with respect to parking provision in new developments
- Introduce a phased approach to the tightening of town centre and new development parking provision as restrictions on parking provision must be accompanied by improvement in alternative transportation options
- Utilise planning agreements/conditions to ensure developers provide/contribute to new and/or to improve/develop existing public transport services/facilities and cycle/pedestrian facilities
- Review the traffic management system to maximise the smooth progress of vehicles through the town centre, which will reduce congestion and decrease emission levels.
- Ensure that air quality impacts are fully considered when either an EIA or TIA (i.e. where increased traffic volumes anticipated are approximately 5%) is required. Additionally air quality impacts should be considered where traffic volumes are anticipated to increase on roads within or near to an AQMA.
- Assess the Transport Asset Management Plan and Network Management Strategy regarding impact on air quality.

Existing road and transport networks are under extreme pressure as a result of traffic growth and this has led to acute traffic congestion on the main routes of the District and in particular on the approaches to and roads within the town centres of Dunstable, Houghton Regis, Leighton Buzzard and Linslade.

Traffic management can assist in accommodating traffic flows without harming residential areas or destroying the attractiveness and accessibility of the town centres and without the environmental costs of new road construction.

However, this in itself is only a small part of the role of good traffic management schemes. They must be more than simply a means to accommodate ever-increasing traffic flows. They must give greater priority to alternative means of transport to the private car. Traffic management and calming must allow public transport to operate more efficiently and make areas safer for pedestrians and cyclists and improve their road environment.

The application of Policy T1 could also result in the application of direct pressure on the most accessible parts of the District and therefore traffic management measures must be designed to take this into account, seeking to redress any negative impacts arising from a strategy of urban concentration.

With this in mind it is considered that there is a need for traffic management on a wider basis than individual roads to give proper relief to traffic problems in particular areas. At present the District Council is giving a high priority to town centre traffic management projects because of the high levels of traffic congestion and associated with this, pollution, visual and physical intrusion and pedestrian/vehicle conflict. However, the needs of new and existing residential areas are also important.

The town centre strategies for Dunstable and Leighton Buzzard identified a range of traffic management schemes. One of which was the “Greenwave” which was designed to hold traffic at the gateways into the town and release it in 'waves' by co-ordinating and controlling the traffic signals throughout the entire length of High Street North and High Street South (A5). However this scheme proved to be unworkable and resulted in higher levels of congestion on the road network.

The District Council will work in partnership with the Highway Authority and Highways Agency on any future traffic management schemes and the following policy will apply:

Policy T2

The district council, in partnership with the county council and highways agency will prepare, implement and monitor area traffic management schemes where problems of traffic congestion and conflicts between vehicles and other road users are seriously affecting the environment, character and safety of an area.

Parking

For a number of years the response to parking congestion problems has been to seek to increase the supply of parking spaces in public and private car parks. However, increasing parking provision, while helping in the short-term to remove on-street congestion encourages continued and increasing use of private transport. It also takes up large amounts of land and reduces the density of development that can be achieved on urban sites.

In response to this there has been a shift in the policy background nationally to recognise the role that parking provision, both public and private, can play in demand management.

National and Regional Planning Guidance contained in PPG13 (Transport) and RPG9 (Regional Planning Guidance for the South East) advises that the availability of parking influences the number of journeys made, the transport mode people choose to make their journeys and the level and growth of private car commuting. Restricting the provision of parking, especially private spaces, should be used to discourage private car travel, particularly in urban areas. The Guidance acknowledges that a balance needs to be struck and that a certain level of off-street parking provision may be necessary for development to proceed without causing

congestion problems. However, in order to realise strategies Local Planning Authorities should:

? apply reduced parking requirements for development in locations, which have good access to modes of transport other than the car;
? ensure parking requirements in general are kept to the operational minimum;
? not normally require developers to provide more parking than they wish to provide.

Regional Planning Guidance Note 9, (RPG9), for the South East pursues a similar approach and seeks to influence travel to work and particularly peak hour commuting by restricting the supply of parking spaces. However, it acknowledges that this must be done as part of an integrated approach and that success will depend on the progress made in improving public transport services and facilities and other environmentally friendly modes of transport and also on the firm application of locational policies.

County Council transport policies also aim to use parking policy and restrictions on parking provision to achieve a shift from private to public transport use.

The District Council understands the importance of parking policy to assist in the switch from dependence on private transport and proposes to promote significant changes to its parking strategy through the Local Plan. The Council acknowledges the importance of adopting an integrated approach and accepts that the restrictions on parking provision must be accompanied by improvements to public transport facilities and services (e.g Translink) to give people an alternative to the use of private cars for shopping, work and leisure trips. It therefore proposes that there should be a phased approach. This would involve a progressive tightening of restraint concentrating in this Local Plan Review on the supply of town centre parking and parking provision for new development. This tightening will take account of how accessible development sites are to public transport services, the quality of those services, and how well the site in question is related to other transport services and facilities - and particularly town centres. This approach will also require careful control of the location of new development to maximise the potential for public transport access and reductions in commuter car parking provision.

Town Centre Parking

Dunstable town centre depends on good accessibility by a variety of modes of transport to remain commercially viable and to compete effectively with other centres. The ability to access the centre by car remains important and the availability of short term parking for visitors to the town centre is therefore considered to be an important requirement in both towns. However, the District Council is also aware of the costs in terms of traffic congestion, that result from uncontrolled access to the town centre by private car. It therefore wishes to achieve a balance.

Off-Street Parking

In December 1994, following research into the operation of the town centre car parks and their usage, the Council introduced a planned system of parking management and control, including charging on all Council owned town centre car parks. The principal aim of the system is to divert long stay parking away from the prime

shopping sites into designated areas, thereby freeing parking spaces for short stay shoppers and visitors to the town centres. The system has the further advantage that it can be used to generate income to provide for better facilities and improved operation of existing car parks, as well as enabling safety measures to be introduced.

The scheme to date appears to be operating effectively and is achieving more efficient use of the parking facilities in the town centres, although it has had no significant impact on the overall numbers of people using their cars to come into the town.

Government Guidance in paragraph 49 of PPG13 states that, 'Some studies suggest that levels of parking can be more significant than levels of public transport provision in determining means of travel (particularly for the journey to work) even for locations very well served by public transport'. Local authorities are encouraged to limit the amount of parking in town centres, to encourage use of public transport, walking and cycling, but it is also important that those needing to enter the town centre by car have the opportunity to park short term and visit a range of town centre facilities. This is sometimes limited when the car parks are full of long term or commuter parking, and lack of short-term parking could have a negative impact on vitality and viability. The District Council will therefore encourage the co-ordinated management of both public and privately operated car parks to ensure that short-term parking is adequately provided.

Adequate short-term parking can be secured through a reduction in long term parking permits or through the pricing structure. The District Council will seek to ensure that both the Council owned town centre car parks and privately operated car parks, such as ASDA and NCP car parks in Dunstable are managed consistently, and priced in a way that discourages but does not preclude long-term commuter parking.

The Council is committed to monitoring the use made of town centre car parks available to the public and reviewing the parking management system to ensure that it delivers an adequate supply of short stay parking spaces while limiting further long stay commuter parking.

In line with Government policy to begin to restrict available parking, the District Council does not intend to propose new public car parks nor will it permit the expansion of any privately owned car parks. Indeed in certain cases the redevelopment of existing car parks may be appropriate.

The Dunstable Town Centre Strategy for example includes proposals for development on a number of town centre car parks for uses important to the regeneration of the town centre. It is acknowledged, however, that if there is uncontrolled redevelopment of public and private car parks there will be implications for the availability of car parking spaces in the town centre with a consequent effect on its accessibility by car. There is therefore a need to achieve a balance and the following policies will apply:

Policy T7

Within town centres the district council does not propose to add to the supply of public car parking and will not permit expansion of any privately owned car parks.

Policy T8

Development that results in the loss of car parking spaces in town centres will be permitted where:

i. this is specifically allowed for in the local plan with the site identified on the proposals map; or
ii. the district council considers the benefits of the redevelopment for town centre regeneration outweigh the loss of parking spaces in the town centre.

On-Street Parking

For many years there has been a tradition in South Bedfordshire town centres, to allow free short stay on-street parking in certain locations. Given national guidance on transport the District Council considers that there may be a case for either the removal of on-street spaces, or the introduction of charges for their use, where this would not adversely affect the viability and use of the town centre in question. This matter will be examined further and proposals may be drawn up in the Local Transport Plan for the area.

Bedfordshire Police announced in March 2001 that it would be withdrawing the Traffic Warden service during 2001/2. The District Council worked with Bedfordshire County Council and Mid Bedfordshire District Council to implement a decriminalised parking scheme that commenced in February 2004.

Controlling Parking in New Development

The current method of assessing parking provision for new development in South Bedfordshire is the 1994 Parking Standards. These standards are designed to meet full parking demand for each use. However, applying such standards has resulted in over-provision of parking in all areas and in most land uses. This over-provision is wasteful of land, leads to unattractive environments, encourages car use and higher traffic generation, and may have an adverse impact on the viability of public transport. It is, therefore, the intention of the District Council to review the 1994 standards and pending this review, where lower, the maximum standards in paragraph 62 of PPG3, (Housing), and Annex D of PPG13, (Transport), will apply.

The District Council therefore considers that an alternative approach should be taken which is flexible enough to reflect local circumstances and which encourages the increased use of non-car modes of transport and more efficient use of land, but does not suppress development, lead to pressures for decentralisation or result in on-street parking related congestion and environmental problems.

In line with national guidance the District Council considers that the new parking strategy should be based on the principle that the parking requirement in any development should reflect the site's accessibility by means of transport other than the private car and proximity to services, employment and other facilities.

In moving towards an alternative but more restrictive approach to car parking, the Council acknowledges that to do so independently or too quickly may have a detrimental impact on investment in development within the District and possibly

encourage decentralisation of development. The strategy therefore proposes gradual change over the plan period to 2011 and beyond.

The speed with which restrictions on parking provision can be applied will be dependent on both the nature of advice from the Government and careful monitoring and review of parking policy.

The baseline for developing this more restrictive policy will be the 1994 Parking Standards and the District Council considers that it is appropriate to begin the process of reducing the level of parking provision against these standards.

Given the evidence of previous over provision of car parking in new developments the District Council operates a new 'two tier' standard whereby the District is split between 'Central and Other Areas of High Accessibility to Services, Facilities and Employment opportunities by non-car Transport Modes', where new significantly lower parking standards apply, and 'All Other Areas', where the 1994 standards are used but the requirement is reduced by 10%, as set out in Policy T10 below.

Within town centres as defined on the proposals maps, along major radial public transport corridors into the town centres and within easy walking distance of the town centre (i.e. 500 metres) accessibility to services, facilities and employment opportunities by non-car modes of transport is high. Moreover, access to public car parking spaces is usually good.

Within these areas, therefore, it is proposed that parking provision for non-residential developments should be kept, as far as possible, to the operational minimum, i.e. parking to cater for those vehicles that must regularly be on site for servicing and to allow the business to operate. This will not normally include customer, visitor and employee parking.

However, the District Council does not want to stifle inward investment for the regeneration of town centres and accepts that in some circumstances, the rigid application of this approach may be argued to have this effect. In exceptional circumstances therefore, the District Planning Authority may agree to a higher provision of car parking.

Where a level of provision higher than the operational minimum is accepted because of special circumstances, the District Council considers that such parking should be made available to the general public on the same basis as the main public car parks.

Any further reductions in parking will be determined on the basis of a full transport assessment (and where appropriate a green travel plan) which must be submitted with any planning application and be agreed with the District Planning Authority.

Residential development within these highly accessible areas, close to services and facilities, should not normally provide a higher standard of provision than one space per dwelling unit. In some cases, provision might be reduced further.

The following policy will apply:

Policy T10

When considering the provision of parking in new development the district planning authority will assess the requirement based on the site's accessibility to non car modes of transport, services, facilities and employment, and will apply adjustments to the current 1994 parking standards as set out in the following schedule. Exceptions will only be made where there is evidence that restricting parking provision in the manner proposed will lead to unacceptable harm in terms of congestion, highway safety, visual amenity or the character of the area.

Central and other areas of high accessibility to services/facilities/employment opportunities by non-car transport modes.

Use category	*Maximum on-site car parking provision*
Non residential uses	Provision on site will normally be limited to essential operational parking only
Residential	Provision at a rate no higher than 1 space per dwelling unit plus visitor parking at 1 space per 6 dwellings.

Note: Central areas and other areas of high accessibility referred to above will be defined as either:

A. Town centres as proposed on the Proposals Maps or
B. Sites in major radial public transport corridors (i.e. Within 200m walking distance of bus routes into the town centres with at least a 30 minute service frequency)
C. Sites within easy walking distance (500 metres) of a town centre.

All other areas (that is, those outside the areas listed in (a) to (c) above)

Use category	Maximum on-site car parking provision
Non residential	Provision at a level not exceeding 90% of current standards
Residential	Current standards except for reduction in visitor parking to 1 space per 5 dwellings
Affordable housing	Provision at a rate no higher than 1 space per dwelling plus visitor parking at 1 space per 5 dwellings

Reductions below these levels will be required for proposals which would have significant transport implications and where the findings of a transport assessment and/or green travel plan demonstrate that a lower level of parking provision is appropriate because of high existing or potential accessibility. Developer contributions will be sought where the transport assessment shows them to be necessary to improve accessibility of the site by modes of transport other than the car in order to meet the transport needs of the proposed development.

Developments likely to give rise to high levels of visitor trip generation will not be permitted in areas of lower accessibility unless improvements to accessibility are made to comply fully with relevant policies.

Making provision for alternatives to parking

Developer contributions

Restricting on-site car parking will afford greater potential for maximising development on a site to the benefit of the landowner and developer. However, where parking provision is reduced this will lead to additional use and demand for public transport and other facilities and modes. Reductions in parking provision must therefore be matched by increased investment in these alternative transport modes. The District Planning Authority will seek to enter into planning obligations to provide or contribute to the provision of new and/or the improvement and development of existing public transport services and facilities and the provision of pedestrian/cycle facilities and networks where this is needed to serve new developments.

These contributions will be sought in relation to the particular travel needs that are likely to be generated by a proposed development. Contributions will be used for the provision of alternative transport choices relevant to the development in question. In accordance with circular 1/97, contributions will be sought where provision is fairly and reasonably related in scale and kind to the proposed development.

The following policies will apply:

Policy T1

"Before granting planning permission for any development, redevelopment or change of use the District Planning Authority will require that:

1) The proposal is in accordance with the locational principles set out and in particular that the proposal is adequately served by the existing and proposed road network and public transport services.
2) The traffic likely to be generated by the development will not give rise to unacceptable levels of traffic congestion or otherwise damage the environment, character and road safety of the area.
3) Any necessary access improvements and traffic management in connection with the development are to be funded at the developer's expense.
4) Provision is made at the developer's expense for safe pedestrian and cycle links between the site and the surrounding transport network and the development provides for those arriving by foot or cycle.
5) Developments involving significant trip generation make appropriate contributions to the provision and improvement of public transport services and facilities.

In order that the impact of the development on the transport network is properly assessed, the District Planning Authority will usually require a travel assessment to form part of any planning application."

Policy T11

Where reduced parking provision is to be made, planning obligations will be sought from the landowner and/or developer to provide, or make a contribution to the provision, development or improvement of some or all of the following measures,

where appropriate and necessary to meet the transport or travel needs of the proposed development:

? public transport services and facilities
? other non-car modes of transport
? traffic management and calming
? public car parks serving the development
? environmental improvements to facilitate the use of non-car modes of transport

Future reviews of the Local Plan will look further at the question of parking compared to progress in achieving a switch from private to public transport and will assess further at that stage whether changes to the above parking policies are required.

New Road Construction

As acknowledged in Government guidance there may, in certain circumstances, be a case for limited road building to relieve the worst effects of traffic congestion on sensitive environmental areas and to assist in economic regeneration.

In South Bedfordshire, as already stated, the District is crossed by strategic roads (M1, A5, A505, A6, A418 and A1081) and this network is subject to major proposals as listed below:

Trunk Routes

The future of the District's Trunk Routes will be determined by the London South Midlands Multi-Modal Study (LSMMS) published in 2003, and will subsequently be included in regional planning guidance. Two trunk route schemes have been approved in South Bedfordshire; the widening of the M1 and the Dunstable Northern Bypass from the A5 to the M1.

The District Council will work constructively with landowners, developers and the Highways Agency to reduce any uncertainty arising from highway safeguarding, and will treat any proposal for development on any adjoining land on its merits.

Strategic Routes

The following routes are being promoted by County and other Transport Authorities concerned, as strategic schemes:
? Luton Northern Bypass from the M1 to the A6 - Beds County Council.
? Luton East Circular Road North - connecting the A6 and A505 – Bedfordshire County Council/Luton Borough Council.
? Linslade Western Bypass - linking the A418, A4146 and B4032 – Buckinghamshire and Bedfordshire County Councils.
? East Luton Corridor - linking the M1 to London Luton Airport - Luton Borough Council.

Local Schemes

There may be a need for local road links, in the future, as a result of the trunk and strategic route schemes listed above, to help avoid chronic congestion for example in town centres.

The Basis for Supporting New Road Construction

The District Council has previously supported the construction of these routes on the basis that the high costs in terms of environmental impact, visual intrusion, severance and land-take could be compensated for by benefits to the environment resulting from reductions in traffic levels and congestion. Such reductions should have directly beneficial effects in Dunstable, Leighton/Linslade, Houghton Regis and the villages, but particularly in the town centres resulting from lessening of noise, pollution, vibration and visual intrusion, and improvements in vehicle accessibility and pedestrian circulation. Further benefits could result through opportunities for traffic calming and environmental enhancement.

The District Council recognises that the achievement of any such reductions in traffic levels and congestion are to a large extent dependent on the junction strategies selected for each road. Junction strategies which serve only to improve conditions for long distance traffic on the major roads through the District without any local benefit and which serve only to increase the capacity on the network are not acceptable to the District Council. The District Council is especially concerned to minimise the environmental impact of the proposed routes and avoid public rights of way.

The following Policy will apply:

Policy T12

The district council will seek to ensure that the detailed design and junction strategy for new road routes maximises local benefits in terms of reduction in traffic flows and congestion on the existing road network in urban and rural areas. The district council will not support the construction of these roads unless it is satisfied that the routes finally chosen and associated works limit the impact on the natural and built environment to acceptable levels, incorporate appropriate landscaping proposals and provide safe crossing facilities for pedestrians, horse riders and cyclists as necessary.

6. Sustainabilty

Key Action Points

- The Local Plan aims to help reconcile development needs and conservation objectives by applying the principles of sustainability. It seeks to protect and manage scarce and valuable environmental resources. It also identifies sites where development of different sorts is to take place and sets out policies for the protection of important, scarce and irreplaceable environmental stock. The plan needs to be reviewed periodically and adhered to.
- There is a need to progress sustainability on as wide a partnership base as possible. Local Authorities, community organisations, business, statutory bodies, developers and residents need to work together to effectively achieve sustainable development within South Bedfordshire.

Sustainability is generally taken to mean operating within environmental capacity in a way that meet present needs and improves quality of life without harming the ability of future generations to meet their own needs. In other words, human activity must not run the risk of exhausting, destroying or degrading what is sometimes described as our 'environmental stock'.

On a global scale the 'environmental stock' would include, for example, the earth's atmosphere and oceans. At the local level it includes, among many other things, ground and surface water, air quality, good quality agricultural land, valuable wildlife habitats and countryside, recreational spaces in towns and villages and historic buildings, all issues essential to quality of human life.

However, the concept of sustainability is not just about protection of the environmental resource at present and for the future. It is also concerned with social and economic needs and demands and seeks to integrate the three aspects.

There is therefore also a need to improve the quality of life in social and economic terms, and to do so in a fair way, whereby all groups in society including the poor and disadvantaged have equal access to quality of life and can live sustainably.

In short, it is necessary for us to work with the environment, keeping it healthy, sharing it fairly and making it last. This is the main aim of sustainability. Within this main aim there are a number of objectives as follows:

? To limit the use of natural, non-renewable resources and substitute use of renewable resources where possible.
? To reduce the production of waste requiring final disposal.
? To recycle waste products.
? To maintain and enhance bio-diversity, i.e. the whole variety of animal, plant and insect life on earth.
? To protect and enhance the natural and physical environment.
? To protect and enhance the built and historic environment.
? To repair environmental damage and minimise pollution.

For some time there has been concern about the environment but a critical concept emerging from the sustainability debate is that there are limits to the capacity of the environment to support human activity, beyond which we should not go.

Elements of sustainability have been central to the planning process for some time. However, Development Plans have in the past not gone far enough. A move towards sustainability has meant that many development patterns and proposals accepted previously as appropriate forms of development have, on closer scrutiny, proved to be no longer acceptable.

It is accepted that the requirements placed on Local Planning Authorities from higher authorities, in particular the need to provide certain levels of development in specific locations means that this plan cannot start from scratch in seeking to achieve sustainability.

The Local Plan Review, hereafter referred to as The Local Plan, aims to help reconcile development needs and conservation objectives by applying the principles of sustainability to the whole Plan to form a strong framework for each subject area.

The Local Plan seeks to protect and manage scarce and valuable environmental resources – especially irreplaceable ones. Local Plans are largely to do with the development and use of land and decisions about which land to use for development and which land to protect and retain in an open state are at the heart of the achievement of more sustainable patterns of development.

This Local Plan not only sets down the framework within which these decisions are taken, it also identifies sites where development of different sorts is to take place and sets out policies for the protection of important, scarce and irreplaceable environmental stock.

It must be emphasised that sustainability does not mean stopping development altogether but managing and accommodating it in ways which do not cause irreversible harm or compromise the ability of future generations to meet their needs.

However achieving more sustainable patterns of development means more than just giving environmental factors more weight in decision-making. It means accepting that there are limits to the capacity of the environment to support human activity and the Local Plan therefore seeks to modify the influence of market demand in some cases such as, for example, the extent to which we can continue to provide for low density housing.

Even where development can be accommodated without harm to the environment this is not in itself sufficient. Growth and development need to be used as opportunities to seek the continuous improvement of the environment over time.

Although the Local Plan can contribute to sustainability, the Plan alone cannot deliver it. Action to achieve sustainability must take place over a wide front because there are many areas in which the Local Plan has little or no influence.

Moreover, the Local Plan will not be an instant solution. The move towards more sustainable patterns of development is a long-term venture and will extend well beyond the Local Plan period.

Finally, there is a need to progress sustainability on as wide a partnership base as possible. Local Authorities, community organisations, business, statutory bodies, developers and residents need to work together to effectively achieve sustainable development within South Bedfordshire.

Establishing a Sustainable Strategy for the Local Plan

Starting Points

The Local Plan Strategy is made up of 2 components - a set of guiding principles intended to ensure development is as sustainable as possible and a physical development strategy setting out the preferred locations of development land.

The Local Plan sits within a wider strategic framework composed of Government Planning and Regional Policy Guidance and the Bedfordshire Structure Plan 2011. These comprise the starting points for the Local Plan Strategy.

Energy Management

1. Encouraging the use of alternative fuels and smaller more efficient vehicles

Key Action Points

- Promote the benefits of the use of alternative fuels and smaller more efficient vehicles
- Improve the availability of alternative fuels
- Ensure the development of policies to encourage use of these vehicles (ie Hackney Carriage Licence conditions/charges, review parking charges, etc)

Although this Action Plan has introduced a number of measures to reduce the need to travel and the number of trips made by privately owned vehicles, it is inevitable that some such journeys will still occur. In these cases a different approach is required to improve local air quality would be to encourage the use of alternative fuels and smaller more fuel-efficient vehicles for essential journeys.

When correctly converted, vehicles running on LPG generally give rise to lower NO_x emissions than conventional petrol engines and are cheaper to operate due to the lower cost of LPG. However they must be carefully maintained to ensure the NO_x reductions remain at the most favourable levels. Although LPG is now more widely available across the UK the number of outlets is still limited which might discourage the uptake and usage of such powered vehicles.

The Action Plan identifies the need to improve the availability of alternative fuels, if people are to be persuaded to convert to using such vehicles, they must be confident that refuelling facilities will be widely obtainable.

Although electric vehicles do not result in emissions locally, the electricity generated to charge these vehicles, may result in emissions from the power station. To gain the maximum air quality benefits such vehicles should be charged using “green” electricity. “Green” electric tariffs are available for power derived from renewable energy sources such as wind, solar or water. Generation of electricity from these sources does not result in any form of atmospheric emissions. Whilst “green” tariffs are generally more expensive than conventional electricity tariffs, the cost of running an electric vehicle on a green tariff is less than running petrol or diesel powered vehicles. The main impracticability of such vehicles is their limited ranges and availability of recharge points.

SMART cars use a conventional petrol engine but are more fuel-efficient than larger vehicles, giving rise to fewer emissions per mile travelled. Thus this improved fuel efficiency also means reduced fuel bills. These vehicles have the advantage of be able to be refuelled at any service station and tend to be easier to park due to their compact size. However they are not suited to all types of journey – particularly where large amounts of equipment need to be carried or if there are more than two people wishing to travel.

In the case of both alternatively fuelled and smaller more efficient vehicles savings can be made on road tax where reduced rates of tax are available for less polluting vehicles.

South Bedfordshire District Council and their working partners need to promote the use of alternative fuels and smaller more efficient vehicles. Benefits include:

- The widespread use of such vehicles might result in significant local air quality improvements and reductions in greenhouse gases.
- Operating such vehicles may give considerable cost savings to businesses and individuals – but this must be balanced against the cost of initial
- investment, capacity constraints of smaller vehicles and the availability of alternative fuels.

Disadvantages include:

- There would be little change in congestion, as the vehicles still require road space.
- Purchasing an alternatively fuelled vehicle or converting an existing vehicle requires an initial investment which is often greater that the cost to continue running a conventionally powered one. Likewise choosing a smaller more efficient vehicle may result in less space and more basic features.

  Thus incentives are needed to encourage use of alternatively fuelled or more efficient vehicles. Whilst reduced rates of tax are applicable in some cases, additional local incentives can encourage increased local usage of these types of vehicles. These incentives might well include:
  - Reduced fee parking incentives for these types of vehicles
  - Possible reduced Hackney Carriage licence fees for greener vehicles

Fleet operators could potentially make considerable cost savings by investing in these types of vehicles at the same time they would raise the “green” image of their companies in addition to assisting to reduce the air pollution within the district.

The council would need to lead by example and implement changes to their own fleet. To this end:

The refuse collection contract is due for renewal in 2007 at which time the conditions of the contract will stipulate that the vehicles must meet the then current Euro Standard (Euro IV).

The car allowance system operated within South Bedfordshire District Council has abolished the upper mileage remuneration rates previously paid to employees with greater engine sized vehicles, in addition the car loan scheme is geared to providing a fiscal incentive to purchase more fuel-efficient vehicles. Parking spaces are reserved near the offices for car sharers.

Hackney carriage and private hire vehicles currently have to undergo six monthly emissions testing to ensure that these vehicles meet relevant standards. There are currently 103 hackney carriage licensed vehicles.

Currently no discount is proffered for "greener vehicles" applying for hackney carriage or private hire vehicle licences.

However the licensing conditions are due for review in 2006, therefore environmental conditions such as discouraging the idling of engines when taxis are stationary in ranks, will be put forward for inclusion into licensing conditions.

2. Encourage energy efficiency

Key Action Points

- Enforce Building Control regulation requirements
- Encourage/promote better insulation and use of more efficient appliances
- Encourage schools and businesses to adopt an energy policy
- Continue to provide Affordable Warmth Grants

Increasing energy efficiency in domestic and commercial dwellings can benefit local and national air quality by reducing emissions. Improving standards of insulation and using more efficient appliances can achieve this; it has the benefit of also offering considerable savings on fuel bills.

Domestic

In an effort to tackle climate change South Bedfordshire District Council is raising awareness of government building regulations that came into effect on the 6th April 2006, two years ahead of schedule.

These new regulations, combined with those in 2002, deliver a 40% increase in energy efficiency standards in just 4 years, drastically cutting domestic fuel bills. From April, building work must comply with the Part L 2006 regulations (with some exceptions) – changes will include setting the maximum carbon dioxide emissions for buildings, improving ventilation and raising the energy performance of buildings.

The UK Government has had an involvement in the promotion of energy efficiency since the 1970s. Building regulations have become progressively tighter and have made and have made an equal contribution to the supplier led programmes. The focus of effort has been on the largest sources of savings (insulation and heating systems). The household energy reduction measures contributing by 2010 include:

- Energy Efficiency Commitment 2002-05 (EEC2002-05)
- EEC 2005-08 and EEC 2008-11
- Home Energy Efficiency Scheme / Warm Front
- Building Regulations 2002 & 2005

South Bedfordshire District Council offers Affordable Warmth Grants (up to a maximum of £2,500), in conjunction with and complementary to the Government's Warm Front Scheme.
The purposes of which are:

- To remove or mitigate the effects of fuel poverty
- Improving home energy efficiency (reducing CO_2 emissions)

The grants are intended for vulnerable people experiencing fuel poverty and whose home has a SAP or NHER rating of less than 35 or households that need to spend more than 10% of income on energy to provide a warm and healthy environment.

Commercial

Managing energy efficiently requires a range of techniques to identify and implement both energy and cost reduction measures. A structured and formal energy management policy can allow significant savings.

An energy policy will communicate the company's commitment to energy management and in order to be successful will need the backing of senior management. An energy policy should:

- Raise awareness and provide the basis for action in the workplace, setting targets and timescales for achievement;
- Provide information on how these targets are to be achieved (i.e. an action plan);
- Ensure an ongoing review which will highlight whether goals have been achieved.

A policy should include:

- A statement of commitment from senior management and signed by the most senior person in the organization
- A plan of implementation – details of how the objectives will be achieved
- Details of everyone's involvement – to make everyone's responsibility and involvement clear
- Applicability – defines which parts of an organization are covered by the policy

Building Control

Building Control can contribute to the development of policies for air quality improvement through the promotion of emission-reducing technologies in new developments and buildings. South Bedfordshire District Council's Building Control

Service has policies in place to improve energy efficiency in buildings, as described below.

The Building Control Service has a statutory responsibility to ensure that new building works within the District meet minimum technical standards in relation to health, safety, welfare and energy conservation, as prescribed under the Building Regulations 1991. The legislation sets out substantive requirements and technical guidance to achieve minimum standards. This technical guidance is contained in Approved Documents giving general guidance as well as practical guidance about some of the ways of meeting the requirements of the Regulations. Approved Document L – Conservation of fuel and power requires reasonable provision to be made for the conservation of fuel and power in buildings by:

- Limiting the heat loss through the fabric of the building.
- Controlling the operation of the space heating and hot water systems.
- Limiting the heat loss from hot water vessels and hot water service pipe work.
- Limiting the heat loss from hot water pipes and hot air ducts used for space heating.
- Installing in buildings artificial lighting systems, which are designed and constructed, to use no more fuel and power than is reasonable in the circumstances and making reasonable provision for controlling such systems.

Revisions to Approved Document L were introduced in 2002 to reduce CO_2 emissions associated with buildings by increasing energy efficiency above current minimum standards.

In 2002 the government introduced amendments to the 1991 Building regulations – the main obligations on builders with respect to energy efficiency in dwellings (Regulations L1) were:

- 'reasonable provision' to limit the loss of heat through the fabric of the building, hot water pipes, hot air ducts and hot water vessels;
- provision of energy efficient space heating and hot water heating systems;
- provision of lighting systems with appropriate lamps and in the case of externally fitted lighting systems, sufficient controls in order to ensure efficient energy use;
- provision of sufficient information for heating and hot water systems to ensure that occupiers can use those systems in an energy efficient manner.

The 2002 Part L regulations also brought in regulation for replacement windows and boilers. From April 1st 2005 all boilers installed (i.e. all new residential buildings or as replacement boilers) must be condensing boilers with A or B energy efficiency ratings.

BRE (Building Research Establishment) modelled the effects of introducing tighter regulations on the standards to which new houses would be required to comply. These measures were modeled as a series of updates to Building Regulations coming into force in 2005, 2010 and 2015 and took the following forms:

- For 2005 – as defined in the consultation document for Part L of the 2005 Building Regulations;
- For 2010 – a 25% reduction in emissions, translating into the installation of energy efficient lighting and high levels of insulation in all homes and

the addition of solar water heating for oil heated homes and the use of heat pumps in electrically heated homes;

- For 2015 – a further 25% reduction in emissions, meaning the installation of photovoltaic (PV) cells for gas and oil heated homes, additional insulation measures for electronically heated homes and the use of heat pumps.

Local Air Quality Management

Key Action Points

- Continue monitoring air quality in South Bedfordshire
- Continue to work within the legislation and guidelines
- Forge internal/external partnership working
- Raise awareness of air quality issues and carry out public consultation as required

1. Monitoring

The monitoring network has been increased within the AQMA to provide better information on modelled pollutant concentrations and monitor the performance of the action plan measures. The existing network has one continuous air quality monitoring stations (monitoring NO_2 and PM_{10}) and 8 NO_2 diffusion tube sites within the AQMA.

This monitoring will continue and will be used to provide details of long-term trends, real-time air quality information and to evaluate the success of air quality improvement measures implemented.

2. Review and Assessment

South Bedfordshire District Council will continue to work towards meeting the aims of the review and assessment process by monitoring air quality, providing reports, and identifying/implementing actions to improve air quality within the district and in particular within the Air Quality Management Area.

3. Partnership Working and Consultation

Commitment to partnership working has been established through the action plan working group involving SBDC Environmental Health, Local Planning and external bodies of Bedfordshire County Council and the Highways Agency.

For the purposes of the Environment Act 1995, councils must consult on their air quality review and assessments, further air quality assessments, declarations /amendments/revocation of air quality management areas and the formation and revision of air quality action plans.

Consultation is carried out with statutory consultees at regular points throughout the review and assessment process. However the public will be consulted on this draft version of the AQAP and comments will be incorporated into the final version where practical. However, in the case of the Air Quality Action Plan little flexibility exists in terms of significantly different courses of action. This is because the most significant

source of NO_2 is from transportation sources and the LTPs published in 2005 have already set out the comprehensive strategy for transportation policy across the district.

Pollution Control

Key Action Points

- Ensure compliance with Pollution Prevention Control Regulations by regular inspections of permitted installations
- Enforce statutory nuisance legislation regarding bonfires, fugitive dust emissions, etc from commercial, industrial and residential properties
- Respond to consultation regarding planning and development controls/conditions

1. Reducing emissions from non-transport related sources

Industrial emissions:

The Pollution Prevention and Control Act 1999 and The Pollution Prevention and Control Regulations 2000 replaced the Environmental Protection Act 1990 Part I to control emissions to air, land and water from a variety of industries with a significant pollution potential. This legislation brings the UK in line with European regulations and will continue to reduce emissions from these industries.

Under this regime certain industrial installations are subject to inspections on a regular basis by either the Environment Agency or South Bedfordshire District Council. The type and size of the process determines the relevant regulating authority - the Environment Agency retains the responsibility of regulating the industries with the most significant pollution potential and emissions to air, land and water (A1 installations). Local Authorities retains regulatory control over the industries with less pollution potential relating to emissions to the atmosphere (A2 and B installations).

In addition to regular inspections, each installation is required to operate in accordance with a set of conditions that include controls on the level of emissions allowed and the type of abatement equipment to be utilized. Guidance notes are disseminated to regulating authorities to ensure a consistent approach to emission controls throughout the UK.

Currently South Bedfordshire regulates some 44 Part B installations. There are no Part A1 or A2 installations within the district. These premises are inspected on a regular basis.

Domestic and commercial emissions:

Statutory nuisance is enforced under the Environmental Protection Act 1990 Part III and this controls smoke, dust, fumes or gas emissions from commercial and domestic premises, which are causing a nuisance or are prejudicial to health.

Generally issues surrounding the environmental controls required during construction to minimize fugitive dust emissions from this source are made known to developers and standard planning conditions are imposed where such emissions are likely.

Legislation also exists to deal with a large number of polluting sources including dark smoke from chimneys or open fires on industrial sites.

South Bedfordshire has declared no Smoke Control Areas, as there are no areas within the district with significant proportions of domestic solid fuel burning.

In addition to the above measures, promotions to encourage companies and individuals to be more energy efficient might assist to stem emissions from these sources.

Environmental Promotion

Key Action Points

- Increase awareness of AQ issues by providing information (via leaflets, press articles, etc) and campaigns/events.

1. Dissemination of air quality information

In order for the AQAP to be successful it is vital that the public is provided with information regarding the state of air pollution in South Bedfordshire and its likely effects on health and the environment. It is also important that the public is advised of the air quality improvement actions proposed for Dunstable and also the actions they as individuals can undertake to improve air quality.

Data from the monitoring carried out in South Bedfordshire and other local authorities throughout Hertfordshire and Bedfordshire are available on the Herts & Beds air pollution monitoring network website (http://www.hertsbedsair.org.uk) however some information is also available in South Bedfordshire District Council's website (http://www.southbeds.gov.uk).

Increasing awareness regarding air quality may be achieved by initiatives such as circulating information leaflets, press releases, consultation exercises and campaigns to encourage people to use alternative forms of transport to the car or the promotion of alternative fuel use or utilising smaller more efficient vehicles. The intention is to assist people to make informed choices about the impact of their lifestyle and how to minimise the effects on the environment.

2. Environmental campaigns

In order to encourage environmental awareness to a wide an audience as possible, South Bedfordshire District Council's Environmental Policy is promoted to employees of the council, contractors, the community and local businesses. An annual environmental statement is produced to inform of progress against the objectives.

In addition, a variety of training sessions run throughout the year and environmental articles are often included in both the employee newsletter 'Insight' and the residents 'Information' newsletter to encourage environmental awareness.

South Bedfordshire District Council runs a "Green Travel Week" annually to encourage staff to either use alternatives to the car or to car share to travel to work.

Bibliography

LAQM.G1(00) - Framework for Review and Assessment of Air Quality
LAQM.G2(00) - Developing Local Air Quality Action Plans and Strategies
LAQM.G3(00) - Air Quality and Transport
LAQM.G4(00) - Air Quality and Land Use Planning

Also, NSCA guidance:
'Air Quality Action Plans' (Nov 2000)
'Air Quality: Planning for Action' (June 2001)

Previous reports produced by, or on behalf of, South Bedfordshire District Council:

First & Second Stage Air Quality Review and Assessments – 2000
Updating and Screening Assessment – 2003
Detailed Assessment - 2004
Source Apportionment Assessment – 2004/5
Updating and Screening Assessment – 2006

Traffic Forecasting Report (A5-M1 Link Road) – Highways Agency (Sept 2005)

Local Transport Plans – Bedfordshire County Council, Luton Borough Council and South Bedfordshire District Council

Various websites including:

www.uwe.ac.uk (University or the West of England)
www.stanger.co.uk/actionplan (now www.bv-actionplan.co.uk)
www.defra.gov.uk
www.netcen.co.uk
www.airquality.co.uk
www.hertsbedsair.org.uk
www.bedfordshire.gov.uk (Bedfordshire County Council)
www.highways.gov.uk (Highways Agency)

Grateful acknowledgement is given to Dartford Borough Council who kindly gave permission for South Bedfordshire District Council to utilise their report format and ideas for some air quality improvement measures.

Glossary of Terms and Abbreviations

AQAP – Air Quality Action Plan

AQMA– Air Quality Management Area (an area that a local authority has designated for action with regard to predicted exceedances of the air quality objectives.

Air Quality Objective – policy targets generally expressed as a maximum ambient concentration to be achieved, either completely or with a permitted number of exceedances within a specified timeframe.

Air Quality Standard – the concentrations of pollutants in the atmosphere achieving a certain level of environmental quality. The standards are based on assessment of the effects of each pollutant on human health.

Annual Mean – an annual mean is a mean calculated from hourly average concentrations over a year, yielding one annual mean per calendar year. Annual means are based on 365 days (366 in leap years) and a 90% data capture rate is required.

DEFRA– Department for the Environment, Food and Rural Affairs

Diffusion tube bias correction – both national and local studies have revealed considerable differences in the performance of diffusion tubes supplied/analysed by different laboratories and the preparation method used. They showed that there is a large variability in results, to this end a laboratory/tube preparation method bias must be applied.

Euro I – Europe wide vehicle standards that require vehicles manufactured after 1992 to achieve set emission limits. Petrol cars achieved this by the fitting of three way catalytic converters.

Euro II, III, IV & V– Europe wide vehicle standards that are progressively stricter for vehicles manufactured in 1996, 2000, 2006 and 2008 respectively.

Hourly mean – an hourly mean is the mean concentration for the following hour (i.e. the mean for 11:00 will be the mean for the period 11:00 – 11:59). If the hourly mean is calculated from 15 minute means then at least three valid 15 minute means are required to produce a valid hourly mean.

mg/m^3 – milligrams per cubic metre

ppb / ppm – parts per billion / parts per million

TEA – Triethanolamine

µg/m3 – micrograms per cubic metre