

7. Better air quality and environment

Strategic Aim:

To reduce the environmental impacts of transport

7.1 Introduction

Due to the cross-cutting nature of this strategy area, a Local Transport Plan Environmental Steering Group was established in 2006. The group consists of officers from local transport planning, environmental policy, public transport, maintenance, vehicle fleet management, sustainable travel and data. The group has met regularly to address and progress issues identified in the Local Transport Plan and the Strategic Environmental Assessment. The work of the group was audited in April 2008 as part of the triennial review of the Environmental Management System Certification 14001:2004, and no areas of concern were identified.

7.2 Progress 2006-2008

Objectives and Key Actions

Progress on the key actions identified is as follows:

Objective 1: Pursue initiatives identified in Air Quality Action Plans

Key Action: Air Quality Review and Assessment Process (see Map 7.1)

Existing Air Quality Management Areas at the beginning of the Local Transport Plan period were in Bolsover and Erewash, largely relating to housing alongside the M1 motorway. The exception to this was the declaration relating to a single property at the A619/A616 roundabout, Barlborough. Bolsover District Council has completed further monitoring at this junction and is undertaking further analysis to inform the decision on how to proceed. In the meantime, a new Air Quality Management Area was declared in October 2007 relating to five properties alongside the M1 north of Junction 30.

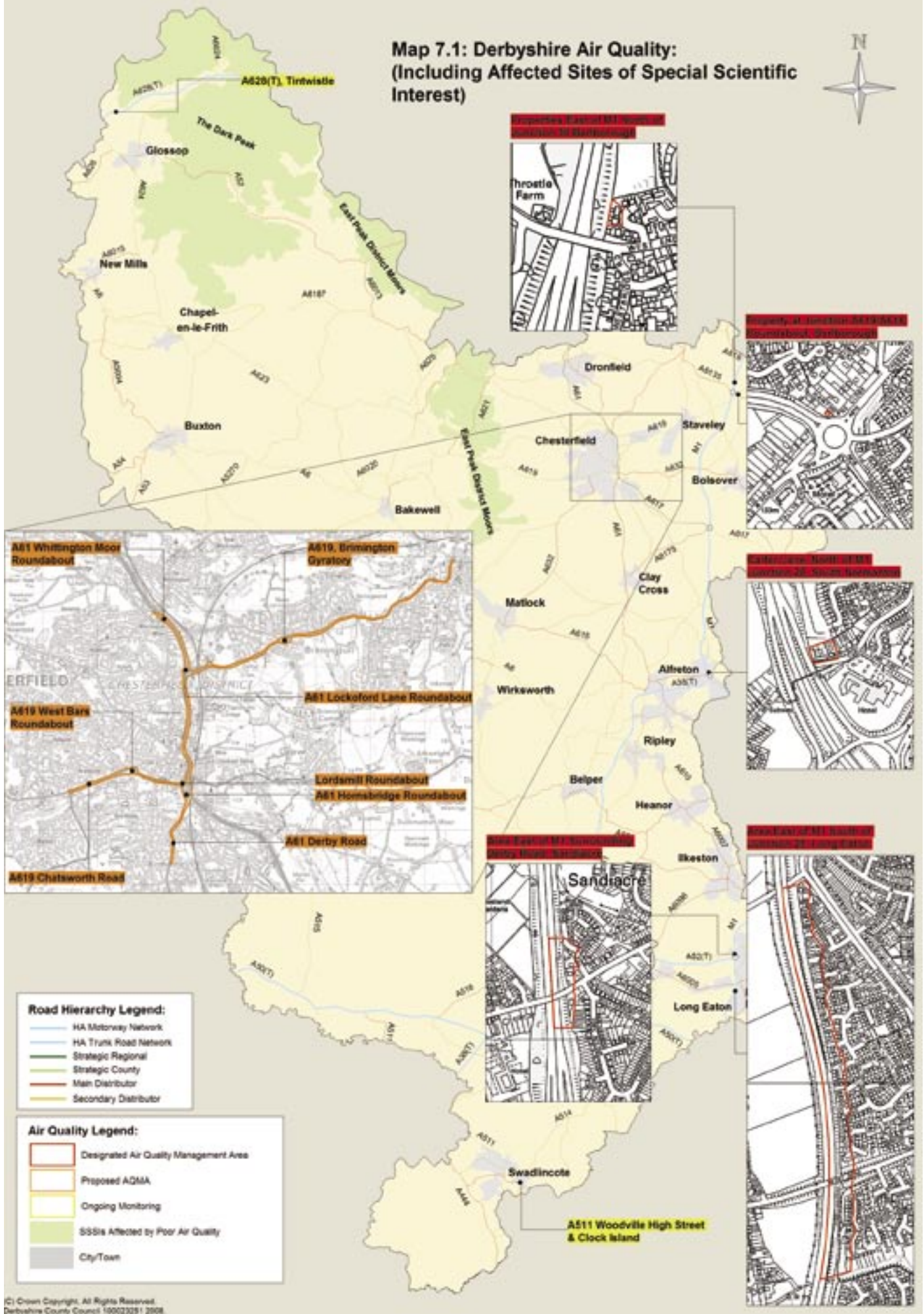
Due to emerging evidence of air quality problems in Chesterfield, it was concluded for the LTP delivery programme that there would be a focus on Chesterfield. There has been regular liaison between Derbyshire County Council and Chesterfield Borough Council, particularly with regard to the establishment of a rigorous monitoring regime. To this end, LTP funding in 2007/08 assisted Chesterfield in purchasing equipment to enable more reliable NO₂ data to inform the development of the Air Quality Management Area. In autumn, 2008, Chesterfield undertook a consultation on the Air Quality Management Area, which took the opportunity of including questions about travel habits and what people believe to be the most effective local measures in reducing air pollution.

“On behalf of Chesterfield Borough Council I would like to thank you for the funding received during 2008 through the Local Transport Plan. The funding has enabled us to considerably improve the air quality monitoring and modelling systems available at Chesterfield Borough Council which will provide invaluable information regarding the air quality, in particular with the proposed Air Quality Management Area.”

Principal Environmental Health Officer, Chesterfield Borough Council



**Map 7.1: Derbyshire Air Quality:
(Including Affected Sites of Special Scientific Interest)**



Objective 2: Take full account of air quality in decision making on transport interventions

Key Action: Cleaner vehicle technologies

The Energy Saving Trust carried out an audit of our own and the 'grey' fleet (i.e., the vehicles belonging to employees and used for business purposes). Nearly 8,000 vehicles are driven a total of 13 million miles each year and produce over 4,300 tonnes of carbon dioxide at a cost of £8 million. The grey fleet accounts for 57% of DCC transport carbon emissions and the next largest emitter is the van, 4WD and minibus fleet at 2,090 tonnes. The fleets were described as generally modern, and one of the newest local authority fleets reviewed. It was concluded that *'Derbyshire County Council benefits from a professional fleet operation and by refining data collection, disposing of old vehicles and reducing grey fleet mileage the environmental impact of the fleet could be substantively reduced.'* (see case study)

An Action Plan for a Greener Fleet has been drawn up, including for example:

- Ford Transit 260 will be replaced by Connect 230 as it emits less CO₂ and is more efficient.
- Vehicles over 7.5 tonnes will have speed limiters up to 60mph.
- The trialling of an electric Ford Transit Van, with scope to do 50mph and 50 miles on an overnight charge.
- Biofuel in bunkers up to a level of 5%, and to be included in tenders.
- Telephone conferencing, and the use of public transport to be encouraged.

Key Action: DCC contracted public transport services

In order to prepare for the realistic specification of environmental standards in public transport contracts, a survey of contractors' vehicles was carried out in 2007. This included taxis, buses and coaches. Following this, revised conditions of contract have been drawn up in 2008 relating to the Euro standards of local bus services, school bus services and special educational needs and social care services.

Key Action: Measures to reduce mileage operated by or on behalf of the county council

A short-life Cross-Departmental Efficiency Group on Travel was set up in 2007. This was largely prompted by the need to make cost savings, but will also be of benefit to the environment. It focused on three key elements:

- Cutting back on the need to travel.
- Reducing the cost of travel.
- Increasing the opportunities to work flexibly (in conjunction with the Location Independent Working Project).

A review of mileage payments was made in the use of employees' own vehicles. The cut off point for cost effectiveness in the use of own vehicles was 110 miles for a journey within a day, with work still being carried out to determine if those drivers travelling over 8000 miles per annum should have a company car. There has been an evaluation programme for pool cars, considering location and cost benefits compared with the carbon footprint. The on-line claim system will include data about when the vehicle was first registered and cubic capacity, and whether petrol or diesel. The carbon footprint for the vehicle will be issued annually. The move to fleet vehicles and pool cars will result in improved Euro standards for the vehicle fleet as a whole, with associated environmental benefits.

Key Action: Influencing decision-making

The potential influence of decision-making across the wider local policy and planning agenda could in some respects be far greater (for better or worse) than anything we do with LTP programmes. Of particular relevance are issues relating to air quality, accessibility, tackling congestion and achieving more sustainable travel habits. A review of the standard format of committee reports was carried out in 2007 to determine the implications of the use of 'transport considerations' as a standard heading. It was felt that this would be of benefit in raising awareness of the Local Transport Plan's strategies, and this would be of increasing relevance with the strengthening role of partnership working, the re-arrangement of services, and the development of shared service centres. Following discussion at Chief Officers Group in 2008, transport considerations has been approved to be part of the standard format of all reports to elected members. Guidance has been issued for all departments to explain the strategies, objectives and targets of the Local Transport Plan.

Objective 3: Reduce the adverse impacts of road freight**Key Action: Sustainable approach to the movement of goods**

The Derby and Derbyshire Freight Quality Partnership contributed to the Regional Freight Strategy, and worked together to produce a freight route map for the county. The group has not met since September 2006, as it was felt that the Regional Strategy Freight satisfactorily covered the strategic work within the context of the Regional Transport Strategy, and that local issues would be taken up as appropriate.

A range of schemes has resulted in local reviews of the environmental impact of signing in villages (Ednaston, Bradley and Hartington), signing improvements and weight restrictions to reduce heavy goods vehicles travelling through unsuitable residential areas (A619/A61/A632 corridors) and environmental area weight limits to reduce HGVs travelling through villages (Eckington, Dronfield, New Whittington triangle, and the area north of Bolsover).

At Markham Vale (see case study in Congestion and Economy), Network Rail are undertaking a project to convert the current mineral line into two single sidings - one for Markham and Coalite the other for Seymour and Oxcroft. This should be completed in the next eighteen months. The Markham siding area ground has been prepared and is ready to be developed into two sidings. Viridor are planning the first installation for waste in 2012. At the moment there is no interest in the second, but Boots are marketing a 565,000 sq ft warehouse adjacent and there has been some interest at times. Seymour is planned for later, 2010 onward. The Coalite redevelopment is with planning during 2008, but they wish to retain the option of rail.

Key Action: Spatial and land use planning

In order to encourage that the spatial planning actions in the Local Transport Plan are followed through where possible, a summary document was developed to forward to district and borough councils as their Local Development Framework local planning documents are being devised. This summarises the spatial planning action statements within each of the five strategies of the Local Transport Plan, including reference to freight issues. In addition to commenting on draft documents, county council representatives are also involved in preparatory workshops relating to the development of local planning documents.

Objective 4: Address transport issues relating to the natural and built environment

Key Action: Strategic Environmental Assessment action plan

The action plan devised through the LTP Environmental Steering Group followed through actions from the Local Transport Plan and the Strategic Environmental Assessment process, resulting in a set of actions relating to air quality, public transport, environmental management, DCC travel issues, and the environmental data/monitoring process. The monitoring framework has been reviewed and is being updated in line with the new National Performance Framework.

Key Action: Environmental issues in local programmes

A major review of the way in which schemes are assessed was undertaken in 2006 in order to focus on alignment with the LTP framework. This was in place for the 2007/08 programme, incorporating a checklist of 21 air quality/environmental factors. A checklist has been developed for project design and contractors on site, and Highways (Consultancy & Contracting) has a design checklist in the quality system. This, together with the checklists of the Environmental Management System, and internal and external audit procedures, ensures that environmental considerations are built in to programme development and implementation.

In order to encourage environmentally-focussed schemes still further, an environmental mitigation budget was created for the 2007/08 programme (see case study). A range of schemes amounting to £150,000 contributed to the roadside verge reserve project, highway lighting and bus shelter lighting to save energy, a contribution to the greening of a transport corridor in the National Forest, and protection of a historic mill bridge in Belper. In 2008/09, a £198,000 allocation has included river/canal bank management on the rights of way network, low energy highway lighting improvements, solar powered bus shelters, and a further contribution to the road verge reserve project.

Objective 5: Increase the use of recycled materials and methods in designing and delivering transport schemes

Key Action: Current level of use of recycled materials

An Environmental Management System audit of the use of recycled materials is being undertaken during 2008/09.

Additional related work

An overview of the authority's achievements in the theme of Sustainable Communities and Transport was carried out by the Audit Commission in 2007 as part of the corporate assessment of the authority. The assessment highlighted the authority's Carbon Management Programme which aims to reduce energy costs and CO₂ emissions by 15% by 2010. Also, joint working through the Nottinghamshire and Derbyshire Local Authorities Energy Partnership has resulted in the 'everybody's talking' campaign which has been raising awareness of climate change and encouraging actions by individuals, including travel habits. (<http://www.everybodys-talking.org>). The partnership won £379,000 of funding from DEFRA which the partnership matched in order



to improve communication about climate change. The assessment concluded that ‘the council is committed to addressing local and global issues around environmental sustainability.’

The Local Climate Impact Profile is an initiative designed to investigate the impact of significant weather events on the effective delivery of a council’s and its partners’ services. Its development is intended to meet some of the requirements of National Indicator 188 - Planning to adapt to climate change. During 2008, phase one of the project, has researched the impact of significant weather events in Derbyshire from 2000 to 2008, on the delivery of county council services. Phase two will encompass identification of significant weather impacts on key partners of the Derbyshire Partnership Forum.

In 2008, the Derbyshire Partnership Forum consulted on a draft Derbyshire Climate Change Strategy, which includes consideration of adaptation and mitigation on a range of measures including travel and local transport. See also Asset Management and Climate Change on page Annex 1-7, which includes the 3 Counties Alliance project on the Effect of Climate Change on the Highway Network Policies and Standards.

In 2006 the Derbyshire Partnership Forum, with grant aid from the East Midlands Centre of Excellence, commissioned a Location Independent Working pilot project involving remote working, hot desking and home working. This was applied to the countryside service, with staff enjoying the flexibility of working at remote locations close to home, improving their work life balance. Although business mileage has only marginally reduced as a result of the pilot project, carbon savings in commuting mileage by those who chose homeworking are estimated at 5.45 tonnes annually. The Derbyshire Partnership also featured on the Improvement and Development Agency’s (IDeA) website as a case study for front office shared services (May, 2007).

Good Practice

Good Practice Case Study 1: Environmental Mitigation Fund

The Environmental Mitigation Fund supports many schemes and initiatives that actively aim to improve biodiversity and protection of natural vegetation and wildlife throughout Derbyshire. The fund uses some of its resources on protecting Derbyshire’s most diverse and rare species of plant life that grow at the side of the carriageway.

Since 2004, Derbyshire County Council has worked closely with the Peak District National Park Authority, Highways Agency and voluntary groups to survey the road side verges that were identified as protection areas back in the 1980s, along with some new additions. Following discussion, a total of 37 Road Verge Reserves were identified throughout the county with a combined space of 18.93Ha. The biggest protected area is a total of 3.57Ha and stretches along a 1.8 miles of the B6054 between Owlbar and Totley Moss. Each of the road verge reserves are marked on the ground with special markers and posts and have their own tailored management prescription to ensure the biodiversity interest is maintained and enhanced.

The aim of the project is to maintain a diverse habitat to ensure the existence of wildflowers and any specifically protected or rare species that are present in that local area. The project also aims to protect from vehicle damage,

Derbyshire
A Climate Change Strategy
The Derbyshire Partnership Forum
Draft for Consultation
March 2008


derbyshire partnership forum

Where we are guided by a common vision
of the kind of future we want
we will be guided by an uncommitted vision
of the kind of present we already have
The Edge Magazine 1995

Derbyshire County Council



scrub and bramble encroachment, control inappropriate mowing and reduce the effect of the dumping of household waste in small parking areas and lay-bys.

The partnership works to provide ways of effectively managing and achieving the aims by setting up a number of measures. These include cutting a swathe back from the road (up to 1m) once a year either before the end of April or after mid August. Uncut vegetation can sometimes cause obstructions to motorists' view, so cutting back the growth helps to prevent accidents. The timing of the cut allows the plants to thrive during the summer months to ensure the plants have a chance to reproduce and continue to survive.

Another measure that is used for the same reasons as above is the cutting of the entire verge (with removal of all cut material) between the end of April and mid August once every 3 years. This is seen to be the necessary period of time as the length of the grasses can obstruct drivers' vision at junctions, and also be enough time for unwanted plant species to flourish.

This partnership working aims to ensure that biodiversity of roadside plant life is maintained for generations, and that the protection of certain rare species continues. The Road Verge Reserve scheme contributes towards the local Biodiversity Action Plan targets and the National Indicator NI197. This indicator looks at positive management of Local Wildlife Sites and the majority of the Road Verge Reserves, outside the Peak District National Park, are Local Wildlife Sites.

Good Practice Case Study 2: Fleet Review

The Energy Saving Trust's Green Fleet Review is a programme targeted at increasing the awareness of environmentally sensitive or sustainable transport. In 2007 Derbyshire County Council submitted its fleet of vehicles and also its grey fleet to the rigours of this review process. The term grey fleet relates to the cars owned by workers of the council that are used for commuting and travelling to and from business locations.

The assessment was completed in December 2007 as a way to monitor and prompt the reduction of the Derbyshire County Council's carbon footprint. The driving force behind this was Derbyshire County Council's own policy to improve efficiency within the council's day to day operations and particularly its fleet. This involved reducing the impact that the vehicles had on the environment and reduce the amount of harmful emissions produced.

It was county transport that pushed the assessment by the Energy Saving Trust as a way to reduce operating costs by making the fleet more efficient. It was identified that the older vehicles had low efficiency levels as they used more fuel and required frequent maintenance, therefore increasing the costs to the authority. As a way to combat this, it was proposed that new vehicles with cleaner more durable and fuel efficient engines that produce low CO2 output would be purchased.

There are a total of 650 vehicles in the fleet at DCC. Of this 650, there are 150 Euro 3 vehicles and 400 Euro 4's. Specifically within the last 2 years the emphasis has been on increasing the Euro 4 vehicle fleet by 250 from 150 to 400. The modernisation and fleet replacement continues as the first batch of Euro 5 has been ordered and is due later this year.



Cllr. Graham Baxter, Cllr. Peter Riggot Derbyshire County Council Support Member for Sustainable Communities and Cllr. Irene Ratcliffe at Owlbar Road Verge Reserve July 2007.

The green fleet review was well received by all parts of the council and was recognised as a major contributor towards DCC achieving their carbon reduction targets. One of the problems that arose was that there was pressure to push the fleet management programme 'quicker than it could move' in order to get quicker results.

Employees are increasingly motivated to change their mode of transport because of the benefits of their personal fuel saving costs. The authority has recently invested in setting up a new employee car sharing scheme that has 282 active members from the 235 in 2006 (an increase of 20% in two years) and to accompany this there is an agreement to double the number of car share spaces.

DCC aim to further the savings in CO2 emissions by bidding to be a trial authority for the Carbon Reduction Programme which will see new fleet vehicles being used which only run on electric or hybrid technologies. DCC also plan to incorporate efficient driving compliances through professional competence within the driver training programme. A working group has recently been set up to deliver the objectives of 'smarter travel' and also to develop the Cross Departmental Efficiency Saving Plan. This refers to schemes such as making pool cars available for staff to use rather than their own car and amending the expenses and mileage process so that it favours members of staff to 'liftshare' to offsite locations.

Targets

The following targets were developed to measure the outcomes from the better air quality and environment strategy. As can be seen, both targets are on track (see Annex 3, Table A3.5 for more detail).

KEY: The target titles are coloured to highlight the position we are currently at in achieving the target compared to the milestones we set ourselves. **Green = achieved/ on track;** **Amber = milestone target narrowly missed;** and **Red = not on track.**

Key outcome indicators:

- **LTP2 Area Wide Traffic Flows [On Track]** - The milestone targets have been revised following changes to published data for the baseline. The same growth restriction factor to the original target has been applied to the new baseline. During the first two years of the second LTP, traffic growth in Derbyshire has remained within the parameter of 2.2% growth over 2005-2007.
- * **LTP8 Air Quality (Air Quality Management Areas) [On Track]** - The declaration (August 2005) related to a single property at A619/A616 roundabout, Barlborough. Subsequent monitoring has shown that levels have remained below the annual mean objective.

Our Local Partners

Due to the diversity of the air quality and environment strategy, there is a wide range of stakeholders with whom we work (see Table 8.1). This ranges from the statutory environmental agencies (English Heritage, Natural England and the Environment Agency) through the districts/borough councils, Peak District National Park Authority and the National Forest to many local organisations and volunteers such as Derbyshire Wildlife Trust, Groundwork Derby and Derbyshire and Bolsover Countryside Partnership. Interestingly, in the consultation analysis which was the basis of the Local Transport Plan, air quality was not an issue

Table 7.1 Air Quality and Environment Stakeholder Audit

	Funding (additional to LTP)	Planning and reviewing	Doing
National	<ul style="list-style-type: none"> •Central Government •Heritage Lottery Fund •Natural England •Canal Trust 	<ul style="list-style-type: none"> •Environment Agency •Natural England •English Heritage 	<ul style="list-style-type: none"> •Rail industry •Highways Agency
Regional/ Sub-Regional	<ul style="list-style-type: none"> •Peak District National Park Authority •Nottinghamshire and Derbyshire Local Authorities Energy Partnership •East Midlands Centre of Excellence 	<ul style="list-style-type: none"> •Government Office East Midlands •South Pennines Integrated Transport Strategy •Peak District National Park Authority •National Forest •Nottinghamshire and Derbyshire Local Authorities Energy Partnership •Derwent Valley Mills Partnership (World Heritage Site) •Biodiversity Partnerships (Lowland Derbyshire, Peak District, National Forest) •Regional Freight Strategy 	<ul style="list-style-type: none"> •National Trust •Severn Trent Water •Forestry Commission •Peak District National Park Authority •National Forest
Local organisations and volunteers	<ul style="list-style-type: none"> •Derbyshire Wildlife Trust •Developers (private) 	<ul style="list-style-type: none"> •Derbyshire Partnership Forum •Districts/Borough Council •Derbyshire Wildlife Trust •Bolsover Countryside Partnership •Developers, inc. MEGZ Ltd. •Interest groups •Scott Wilson Kirkpatrick •Steer Davies Gleave 	<ul style="list-style-type: none"> •Districts/Borough Councils •Derbyshire Wildlife Trust •Groundwork Derby and Derbyshire •Bolsover Woodland Enterprise •Derbyshire Bat Conservation Group •Developers (private)
Local communities	<ul style="list-style-type: none"> •Community Groups 	<ul style="list-style-type: none"> •LTP public consultation •Citizens Panels •MORI •Community Area Profiles •Community Forums •Local enquiries 	
Derbyshire County Council	<ul style="list-style-type: none"> •Change Management 	<ul style="list-style-type: none"> •Environment Policy •Passenger Transport Unit •Planning Services •Conservation and Design •Biodiversity/Ecology •Fleet Management •Sustainable Travel •Countryside •Property Services 	<ul style="list-style-type: none"> •Area Teams •Fleet Management •Biodiversity •Conservation and design •Countryside •Street Lighting •Passenger Transport Unit

which was raised as a concern for Derbyshire. However, with the increasing profile of climate change and the moves towards finding low carbon ways of living, this is perhaps likely to change in the years to come.

Inform, consult, involve

We have worked closely with Chesterfield Borough Council on the lead up to the consultation about the proposed Air Quality Management Area in Chesterfield. This has included a questionnaire survey of potentially affected households and through the Citizen's Panel (around 1500 questionnaires) about air quality information, ideas for further actions, and local travel habits. This information will be used to further inform the development of the Air Quality Action Plan.

7.3 Forward look 2008-2011

Policy Update

An analysis of influence from recent policy and programmes at national, regional and local level (see Annex 2) has resulted in the following summary for this strategy area:

Protection of the Historic Environment - Integrate new transport developments with regard to protecting and maintaining the natural history of the environment and protect from traffic related damages.

Air Quality - Reduce the impact of carbon emissions on the local area with reference to sensitive areas and Air Quality Management Areas, with a proposed AQMA in Chesterfield, October 2008.

Climate Change - Aim to change people's travel behaviour towards more sustainable and environmentally friendly modes. Cutting the need of use of the private car can considerably reduce the emissions of harmful gases from the transport sector as well as reduce congestion.

Green Infrastructure - The East Midlands area has an action plan to develop infrastructure with consideration given to sustainability and the environment. In particular it focuses on the regeneration of coalfields within North East Derbyshire with consideration of the natural woodland environment.

Flooding and Water Supply - looks at the increased threat of flooding and increased rainfall as a result of climate change along with the effect this will have on the transport network.

The influence of the rising profile of climate change has been very significant in this policy area. The Stern Review of the economics of climate change, the Eddington Transport Study (2006) and the DfT's Towards a Sustainable Transport System (2007) all indicate that the support of economic growth in future will lie in the context of a low carbon world.

New Performance Framework

A review of the effect of the new National Performance Framework on this strategy is illustrated below (see Annex 3, section A3.3 for more details).

LTP Mandatory and Best Value Performance Indicators	New Performance Framework 2008 onwards
Better air quality and environment	
❖ New	NI 186 LAA Sustainable Communities Per capita CO2 emissions in the LA area
❖ New	NI 188 LAA Sustainable Communities Adapting to climate change
❖ New	NI 185 CO2 reduction from Local Authority operations
❖ New	NI 194 Level of air quality - reduction in NOx and primary PM10 emissions through local authority's estate and operations
❖ New	NI 197 Improved local biodiversity - active management of local sites
x LTP2 Area wide road traffic mileage	
x LTP8 Air Quality (Air Quality Management Areas)	

KEY	✓ Continuation of LTP2 indicators
	❖ Examples of new performance framework indicators of relevance to transport planning. NB there are further potential cross- linkages not indicated on the table
	✗ 'Remaindered' indicators

LAA: Indicators selected by the Local Area Agreements are highlighted in bold

This shows that there are a number of new performance indicators relevant to this strategy which relate to carbon reduction, adapting to climate change and improving biodiversity. Data for existing target LTP2 is provided by the DfT, whilst LTP8, which relates to Air Quality Management Areas linked with local traffic, will be reported to DEFRA annually. Future reporting to DEFRA will therefore relate to Chesterfield.

Risk Register

Risk Register Key Risks (from Annex B6 of LTP2)

- **Combination of emerging air quality problem areas and land-use development**
- **Traffic flows continue to increase.**
- **Recommendations of Strategic Environmental Assessment not followed through to action.**

A review of the risk register from the Local Transport Plan found that these risks either had or were to be addressed through the Chesterfield Air Quality Management Area, external influences such as rising fuel prices and technological improvements, and the work of the Environmental Steering Group in devising and implementing the SEA action plan.

Areas for Improvement - Risk Management Project Plan

An internal review was carried out with reference to the objectives and actions of each strategy. This is seen as the first stage in identifying key issues and taking these up as appropriate internally, with working partners and the Department for Transport.

This included a Strengths, Weaknesses, Opportunities and Threats (SWOT) analysis which was followed through to a draft risk management project plan. Suggestions for improvement include:

- considering how training in environmental best practice can be refreshed on a regular basis, as knowledge in this field is evolving all the time.
- making environmental information available at the right time in order to influence programme development.
- reviewing illuminated infrastructure to reduce energy use.
- give increasing priority to the improvement of air quality through transport initiatives in line with national and local carbon reduction targets.

The risk management project plan for each strategy will be reviewed by senior management and any subsequent actions will be incorporated into the Service Plan for 2009/10 onwards.